

2014 Annual Groundwater and Surface Water Monitoring Report

Prepared for
Owens Corning
4837 Highway 81 South
Anderson, South Carolina
January 30, 2015

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List of Abbreviations

| | | | |
|---------------|---|---------------|---|
| 1,1-DCA | 1,1-dichloroethane | TCE | trichloroethene |
| 1,2-DCA | 1,2-dichloroethane | trans-1,2-DCE | trans-1,2-dichloroethene |
| 1,1-DCE | 1,1-dichloroethene | U.S. EPA | United States Environmental Protection Agency |
| 1,1,1-TCA | 1,1,1-trichloroethane | VOC | volatile organic compound |
| AES | Analytical Environmental Services, Inc. | Waterloo | Solinst Waterloo Multilevel Groundwater Monitoring System |
| amsl | above mean sea level | | |
| bgs | below ground surface | | |
| btoc | below top of casing | | |
| cis-1,2-DCE | cis-1,2-dichloroethene | | |
| DO | dissolved oxygen | | |
| DNAPL | dense non-aqueous phase liquid | | |
| EISOP/QAM | Environmental Investigations Standard Operating Procedures and Quality Assurance Manual | | |
| EB | equipment blank | | |
| ft | feet or foot | | |
| gpm | gallons per minute | | |
| µg/L | micrograms per liter | | |
| MCL | maximum contaminant level | | |
| NAVD | North American Vertical Datum of 1988 | | |
| NTU | Nephelometric Turbidity Unit | | |
| ORP | oxidation-reduction potential | | |
| Owens Corning | Owens Corning Anderson | | |
| PCE | tetrachloroethene | | |
| QA/QC | quality assurance/quality control | | |
| RCRA | Resource Recovery and Conservation Act | | |
| RFI | RCRA Facility Investigation | | |
| RL | reporting limit | | |
| SCDHEC | South Carolina Department of Health and Environmental Control | | |
| SESDPROC | Science and Ecosystem Support Division Groundwater Sampling Procedure | | |
| SWMU | Solid Waste Management Unit | | |

Professional Geologist Certification

The 2014 Annual Groundwater and Surface Water Monitoring Report has been prepared under the direction and supervision of a qualified, State of South Carolina licensed, Professional Geologist. Mr. Reinhard Ruhmke, P.G., of Brown and Caldwell was responsible for the overall preparation of the Report.



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January 30, 2015

Date



Section 1

Introduction

This 2014 Annual Groundwater and Surface Water Monitoring Report (Report) was prepared by Brown and Caldwell on behalf of the Owens Corning Anderson (Owens Corning), South Carolina facility for submittal to the United States Environmental Protection Agency (U.S. EPA) in accordance with the October 1989 Consent Order (89-34-R) with the U.S. EPA under Section 3008(h) of the Resource Recovery and Conservation Act (RCRA). The Report summarizes the August 2014 quarterly groundwater monitoring and November 2014 annual surface water and groundwater monitoring events and 2nd semiannual residential well sampling event. The results for the February and May 2014 quarterly groundwater sampling events and the 1st residential well sampling event were reported in the *2014 Semiannual Groundwater Sampling Report* dated July 30, 2014. The Consent Order requires that Owens Corning perform annual groundwater monitoring and in 2005 the U.S. EPA required that quarterly groundwater monitoring be conducted for select bedrock wells located in the Northeast Area.

This Report fulfills the Consent Order requirements for submitting an Annual RCRA Facility Investigation Groundwater Report for 2014. Section 1 of this report presents an introduction. Section 2 summarizes the surface water and groundwater monitoring activities. Section 3 provides and discusses the analytical results and Section 4 provides conclusions. Appendices to this document contain the groundwater sampling forms, laboratory analytical reports, historical groundwater data and Mann-Kendall test results for statistical trend analysis.

The Owens Corning facility is situated on approximately 160 acres of land located at 4837 Highway 81 South in Starr, South Carolina within Anderson County (Site). As shown on Figure 1 the Site is bounded by Highway 81 South to the west, True Temper Road to the north, Keys Street to the east, and Harry Drive to the south. The Site is located approximately 4 miles south of the town of Anderson. Over the years, during the delineation and assessment process on the Site, Owens Corning purchased properties northeast of the Site. These properties are also shown on Figure 1 and include the northwest and southeastern corners of the intersection of Keys Street and True Temper Road, and the former Hall Property north of True Temper Road and along Betsy Creek.

Owens Corning began its composite systems business operations in 1951 and since then has engaged in the production of glass fiber reinforcements and similar materials for composite systems. Historical manufacturing processes involved a variety of chemicals, including acids and solvents, some of which were inadvertently released to the environment and resulted in significant Site investigation work that has been reported to the U.S. EPA and the South Carolina Department of Health and Environmental Control (SCDHEC).

Section 2

Groundwater and Surface Water Assessment

Brown and Caldwell personnel performed the third quarter groundwater monitoring event between August 25 and 29, 2014, and the annual groundwater monitoring event between November 17 and 21, 2014. Section 2 provides an overview of these events and includes detailed information on Site hydrogeology and aquifer characteristics, groundwater, surface water and residential sampling locations, sampling procedures and analytical methods.

2.1 Subsurface Geology

The Owens Corning Site is located within the Inner Piedmont Belt of the Piedmont Geologic Physiographic Province that is characterized by moderate to high-grade metamorphic rocks of Precambrian to early Paleozoic age. The bedrock in the vicinity of the Site is granitic gneiss which is overlain by overburden comprised of clay and silt soil, and saprolite. The saprolite exhibits some structural characteristics of the parent rock material such as foliation and fracturing. The thickness of the soil and saprolite unit beneath the Site ranges from approximately 5 to 100 feet. The primary lineaments and fracture zones beneath the Site trend in a northeast and southwest orientation (LeGrand and Furcron, 1956). A more detailed description of the subsurface geology beneath the Site can be found in the Supplemental RCRA Facility Investigation (RFI) Report (Brown and Caldwell, 2009), which was prepared by Brown and Caldwell on behalf of Owens Corning for submittal to the U.S. EPA.

2.2 Aquifer Characteristics

At the Site, groundwater is present in both the overburden/saprolite unit and the bedrock unit. Water level measurements were collected from 35 wells during the August quarterly monitoring event and from 49 wells during the November annual monitoring event as identified in Tables 1 and 2, respectively. Refer to the Site Map on Figure 1 to identify well locations. This information was used to calculate groundwater elevations and prepare potentiometric maps for the overburden and bedrock aquifers for the August (Figures 2 through 6) and November (Figures 7 through 11) 2014 monitoring events. Ground surface and top of casing elevations, and depth to water and groundwater elevations are provided in Tables 1 and 2. Well construction details are provided in Table 3.

The interim corrective measures bedrock hydraulic containment system started up on November 3, 2011. The system currently pumps groundwater from one of two bedrock extraction wells, EW-1, (located approximately 250 feet north of the intersection between Keys Street and True Temper Road – Figure 1), that has total depth of 450 feet below ground surface (ft bgs). The second extraction well, EW-2, is a backup well that occasionally is used depending on the operations of extraction well EW-1. The pump intake for EW-1 is at 425 ft bgs and currently withdraws groundwater at a rate of approximately 28 gallons per minute (gpm). The hydraulic containment system was active during the August and November 2014 groundwater sampling events. Due to the hydraulic containment system pumping, drawdown is observed in bedrock wells within the broad EW-1 zone of influence. The amount of drawdown is dependent on the interconnectivity between the fracture system in the bedrock zone in which the wells are screened and the fracture system in the open borehole extraction well, EW-1. The distribution of drawdown within the bedrock system was used

to develop the bedrock groundwater potentiometric surfaces presented on the August and November 2014 potentiometric surfaces in all bedrock zones (Figures 3 through 6 and 8 through 11). The overburden aquifer was unaffected by the active pumping of extraction well EW-1 as a surface casing was installed. Additional information regarding the interim corrective measures system will be reported in the Quarterly Performance Monitoring Report (4th Quarter) that will be submitted to the U.S. EPA and SCDHEC in February 2015.

Based on the monitoring well measurements from August 2014, groundwater levels in the overburden aquifer ranged from 4.98 (MW-11) to 24.09 (TW-46) feet below top of casing (btoc) and from 775.24 to 792.49 feet in elevation (North American Vertical Datum of 1988 [NAVD88]). Measurements from the same time period taken from wells in the bedrock aquifer exhibit heads ranging from 0.05 foot above the top of the casing (MW-38 Zone 2) to 49.98 feet btoc (MW-39 Zone 3) and from 771.23 to 756.22 feet in elevation (NAVD88). In November 2014, the groundwater levels in the overburden aquifer ranged from 6.41 (MW-11) to 25.45 (MW-10) feet btoc and from 773.81 to 798.20 feet in elevation (NAVD88). Measurements from wells in the bedrock aquifer exhibit hydraulic heads ranging from 0.20 foot above the top of casing (MW-38 Zone 2) to 50.38 feet btoc (MW-39 Zone 3) and from 771.38 to 755.82 feet in elevation (NAVD88). The variation in head in the bedrock aquifer is highly dependent on both the elevation and fractures present in the wells screened interval.

Based on the August and November 2014 data, groundwater flow in the overburden aquifer was consistent with previous sampling events flowing towards the fracture zones associated with Betsy Creek, giving an east-northeasterly gradient. The overburden aquifer was unaffected by the active pumping of extraction well EW-1 as a surface casing was installed. Groundwater flow in the bedrock aquifer generally follows the same east-northeasterly gradient along the Betsy Creek fracture zones, but due to the pumping associated with the hydraulic containment system, varying amounts of drawdown were observed in bedrock wells in the vicinity of EW-1. The amount of drawdown is dependent on the interconnectivity between the fracture system in the bedrock zone in which wells are screened and the fracture system in the open borehole extraction well, EW-1. Measurements from the offsite bedrock aquifer wells indicate a flow direction in this formation that continues to align with Betsy Creek and its' direction to the north-northeast in the area of MW-35. The distribution of drawdown within the bedrock system was used to aid in developing the bedrock groundwater potentiometric surfaces presented on Figures 3 through 6 (August 2014) and 8 through 11 (November 2014).

To calculate representative horizontal and vertical gradients, wells were selected in areas upgradient and downgradient from the drawdown associated with the pumping at EW-1. The magnitude of the horizontal gradient onsite varies depending on the aquifer and fracture zone. The calculated horizontal gradient for the November 2014 data in the overburden aquifer was 0.015 (calculated between MW-21 and MW-23) and ranged in the bedrock aquifer from 0.010 (calculated between MW-37 Zone 3 and MW-41 Zone 3) to 0.025 (calculated between MW-6 and MW-22). The following vertical gradients were also calculated from the November 2014 data: upward gradients of 0.0028 (calculated between MW-6 and MW-28) in SWMU-9 and at the intersection of Keys Street and True Temper Road at 0.017 (calculated between MW-21 and MW-38 Zone 2) and a downward gradient across the overburden/bedrock aquifer of 0.033 (calculated between MW-12 and MW-19). The calculated horizontal and vertical gradients for August and November 2014 are provided in Appendix A.

The quarterly groundwater monitoring program includes 12 bedrock monitoring wells (MW-15, MW-22, MW-29R, MW-35, MW-36, MW-37, MW-38, MW-39, MW-41, MW-42, MW-43 and MW-44) that are sufficient to monitor changes in plume dynamics (i.e., flow direction and or concentration). As discussed in previous reports, MW-33 was removed from the quarterly and annual groundwater monitoring program because it was converted to one of the groundwater extraction wells (EW-1) for the ICM hydraulic containment system and therefore, is not part of the quarterly and annual groundwater monitoring program. The annual groundwater monitoring program includes 47 overburden, top of rock and bedrock monitoring wells. Refer

to Table 3 for well construction details and monitoring frequency for each well and Figure 1 for the well locations.

Monitoring well TW-45 could not be gauged or sampled in August and November 2014 because the well collapsed. Multiple water-bearing zones were gauged and sampled in bedrock wells MW-29R, MW-36, MW-37, MW-38, MW-39, MW-41, MW-42, MW-43 and MW-44 (Tables 4 and 5). Wells MW-23, P1, and P2 were gauged to provide hydraulic head information but were not sampled as part of the quarterly or annual sampling programs.

2.3 Surface Water Monitoring Locations

The surface water monitoring program consists of collecting surface water samples from eleven pre-determined locations (SW-1, SW-3, SW-3A, SW-3B, SW-6, SW-10, SW-11, SW-12, SW-13, SW-14 and SW-15) in Betsy Creek. The surface water samples were collected on November 19 and 20, 2014 and their locations are presented on Figure 12.

2.4 Groundwater and Surface Water Sampling Procedures

On August 25 and November 17, 2014, depth to groundwater measurements were collected from 35 and 49 monitoring wells locations, respectively. The water level meter was decontaminated between wells with an Alconox® solution followed by thorough rinsing with distilled water.

Sampling procedures were performed in the same manner as the previous quarterly and annual sampling events. Prior to collecting groundwater samples from the wells, the wells were purged using either a low-flow submersible electric pump or a bladder pump. The Solinst Waterloo Multilevel Groundwater Monitoring System (Waterloo) monitoring zones were purged and sampled using their dedicated compressed air driven stainless steel double valve pumps. Groundwater was pumped at an approximate rate of 0.25 gpm through new or dedicated polyethylene tubing equipped with a field-calibrated, in-line YSI® 556 meter to measure field parameters: pH, temperature, specific conductance, oxidation-reduction potential (ORP), and dissolved oxygen (DO). Turbidity was measured using a HF® Scientific DRT-15CE turbidity meter. Purging was considered complete when at least three of the field parameters had stabilized. An attempt was made to obtain turbidity readings of less than 10 Nephelometric Turbidity Units (NTUs); however, this was not achieved for all the wells. Groundwater samples were collected when pH, temperature and specific conductance had stabilized as defined in U.S. EPA's *Science and Ecosystem Support Division Groundwater Sampling Procedure* (SESDPROC-301-R3), March 2013. Groundwater sampling field data sheets documenting the purging activities are included as Appendix B.

Immediately following stabilization and before turning off the low-flow pump, groundwater samples were collected from the wells. The pump was decontaminated between sample locations using an Alconox® solution and rinsed with distilled water. The groundwater samples were labeled, containerized, documented, placed into a cooler containing ice and chilled to approximately 4 degrees Celsius (cooler interior temperatures verified by laboratory and are reported in the Laboratory Analytical Report in Appendix C). Monitoring wells were sampled from least contaminated to most contaminated, based on previous groundwater monitoring data, to minimize the potential for carryover and cross-contamination between wells.

Surface water samples were collected on November 19 and 20, 2014 in accordance with U.S. EPA's *Science and Ecosystem Support Division Surface Water Sampling* (SESDPROC-201-R3), February 2013 by manually filling the sample containers with surface water using a pre-cleaned, disposable, 500-milliliter (ml), polyethylene bottle.

2.5 Residential Well Sampling

During the 2nd semiannual residential well sampling event in November 2014, 10 residential wells were sampled (Figure 13). The wells were sampled in accordance with methods described in U.S. EPA's *Potable Water Supply Sampling* (SESDPROC-305-R3), May 2013. Three residential wells located at 115 and 335 Elrod Road and 119 Cloverhill Drive were not sampled because the well pump was inoperable. Wells that pumped into a holding tank were purged of at least one tank volume (generally 15 to 20 gallons) and water quality parameters such as pH, conductivity, temperature, DO, ORP, and turbidity were measured and recorded on the sampling field data sheets included as Appendix B. After purging, the samples were collected at a low flow rate through from the spigot connected to the holding tank. Wells that did not utilize a holding tank were sampled directly from the well head. The groundwater samples were labeled, containerized, documented, placed into a cooler containing ice and chilled to about 4 degrees Celsius (internal cooler temperatures verified by laboratory and are reported in the Laboratory Analytical Report in Appendix C).

Once the analytical data were validated, a letter documenting the results for each well owner was prepared and submitted to each well owner by Brown and Caldwell.

2.6 Analytical Procedures

Groundwater, surface water, and residential well samples were submitted to Analytical Environmental Services, Inc. (AES) of Atlanta, Georgia for analysis of the focused list of volatile organic compounds (VOCs) using U.S. EPA Method 8260B. The focused list of VOCs included tetrachloroethene (PCE); trichloroethene (TCE); 1,1,1-trichloroethane (1,1,1-TCA); 1,1-dichloroethane (1,1-DCA); 1,2-dichloroethane (1,2-DCA); 1,1-dichloroethene (1,1-DCE); cis-1,2-dichloroethene (cis-1,2-DCE); trans-1,2-dichloroethene (trans-1,2-DCE); vinyl chloride; carbon tetrachloride; chloroform; methylene chloride; benzene; toluene; ethylbenzene and xylenes.

2.7 Quality Assurance/Quality Control

The groundwater sampling was performed in accordance with U.S. EPA's Science and Ecosystem Support Division Groundwater Sampling Procedure (SESDPROC-301-R3), March 2013. To assess the quality of the sampling program, duplicate samples were collected (approximately one sample for every 20 samples) and analyzed for the focused list of VOCs. Two duplicate samples were collected during the August sampling event. Four duplicate groundwater samples were collected during the November sampling event. An evaluation of the analytical results for the duplicate samples showed that the reported constituents and concentrations were similar to the primary samples. Three equipment blanks (EBs) were collected during the August sampling and four EBs were collected during the November sampling to determine the efficacy of non-dedicated equipment decontamination activities. The EB samples were obtained by collecting distilled water passed through or over decontaminated equipment. Trip blanks, provided by AES, were in all coolers and were submitted for analysis with the groundwater samples. The EB and trip blank samples were analyzed for the same constituents as the groundwater samples. No detections were found in any of the EB or trip blank samples. The analytical reports for these samples are provided in Appendix C.

Section 3

Analytical Results

This section contains the laboratory and field data results for the August 2014 quarterly groundwater monitoring event and the November 2014 annual surface water, groundwater, and 2nd semiannual residential well monitoring event. The August event produced samples from seven bedrock wells located on the northeast portion of the Owens Corning property (MW-15, MW-22, MW-29R, MW-35, MW-36, MW-37 and MW-38), and five offsite bedrock wells (MW-39, MW-41, MW-42, MW-43 and MW-44). For the November event, 60 groundwater samples were collected from 47 overburden, top of rock, and bedrock well locations, including multiple samples that were collected from eight bedrock wells that are screened across multiple water bearing zones), 11 surface water locations, and 10 residential wells.

The August and November 2014 groundwater analytical results are summarized in Tables 4 and 5, respectively. The November 2014 residential well analytical results are summarized in Table 6, and the November 2014 surface water analytical results are summarized in Table 7. Historical groundwater analytical data can be found in previous reports submitted to U.S. EPA and summaries of this information can be found in Appendix D. Analytical reports that include method detection limits and quality assurance/quality control (QA/QC) information are provided in Appendix C.

One analytical parameter, 1,1-DCE, was selected for presentation on isoconcentration contour maps for the August and November events as shown on Figures 14 through 22. This analyte was selected because it is the most prevalent and widespread analyte detected at the Site. A concentration map for 1,1,1-TCA in the overburden, top of rock and bedrock wells was also prepared because it was the parent compound originally released at SWMU-9; it is presented as Figure 23 for the November 2014 event.

3.1 Groundwater Analytical Results

3.1.1 Overburden and Top of Rock Aquifer

Consistent with observations made during previous monitoring events, during the November 2014 annual sampling event the highest VOC concentrations were detected in the overburden and top of rock aquifer in the vicinity of SWMU-9 where 1,1,1-TCA and 1,1-DCE are the primary VOC constituents (Tables 4 and 5). The highest 1,1,1-TCA and 1,1-DCE concentrations were measured in well MW-28 at 130,000 micrograms per liter ($\mu\text{g/L}$) and 120,000 $\mu\text{g/L}$, respectively. Similarly, 1,1,1-TCA has been detected in MW-7, where concentrations have fluctuated from 17,000 $\mu\text{g/L}$ (2007) to 53,000 $\mu\text{g/L}$ (2011) and then back down to 14,000 $\mu\text{g/L}$ (2014). With the exception of MW-32, no other samples contained 1,1,1-TCA above the laboratory reporting limit (RL). The disappearance of 1,1,1-TCA in groundwater is consistent with known transformation mechanisms, particularly aqueous phase hydrolysis which is a very fast reaction.

Although there were no reported VOC detections other than 1,1,1-TCA, and 1,1-DCE in MW-7 and MW-28, these two samples required dilution during analysis by the analytical laboratory that resulted in reporting limits greater than U.S. EPA maximum contaminant levels (MCLs) which are 200 and 7 $\mu\text{g/L}$, respectively.

Several other overburden and top of rock well samples contained 1,1-DCE at levels above the MCL. In the area of monitoring wells MW-12 and MW-13, 1,1-DCE was detected at concentrations of 380 $\mu\text{g/L}$ and 340 $\mu\text{g/L}$, respectively. In the Northeast Area of the Site, however, concentrations of 1,1-DCE decrease to below the RL of 5 $\mu\text{g/L}$. The 1,1-DCE concentration trend for top of rock well MW-31, located approximately 850 feet northeast of SWMU-9 and hydraulically upgradient of extraction well EW-1, was determined using the

Mann-Kendall Test (Gilbert, 1987), a non-parametric statistical test that is routinely used to identify trends in groundwater concentration data. Data utilized in the test included annual groundwater monitoring data from 2007 through 2014 for MW-31 resulting in eight data points. According to the test results at a 90 percent confidence level, the 1,1-DCE concentration in well MW-31 showed a decreasing trend over the time periods described above. The Mann-Kendall test results are included in Appendix E.

Other VOCs that exceeded MCLs in the overburden and top of rock wells were 1,2-DCA, carbon tetrachloride, TCE, and vinyl chloride. Carbon tetrachloride was detected above the MCL in eight overburden and top of rock wells with the highest concentration at 160 µg/L in monitoring well MW-30, located northeast of SWMU-9. 1,2-DCA was detected in three wells above the MCL with the highest concentration also in well MW-30 at 32 µg/L. The only detections of vinyl chloride above the MCL were in monitoring wells MW-11 (6.7 µg/L), and MW-12 (12 µg/L) and TCE in well MW-17 at 32 µg/L).

None of the site specific VOCs were detected above RLs in any of the offsite overburden or top of rock wells.

3.1.2 Bedrock Aquifer

To understand the distribution of 1,1-DCE, isoconcentration maps were created for multiple vertical intervals within the fractured bedrock aquifer. The projected distribution of 1,1-DCE over the vertical intervals from 699 ft to 740 ft, 632 ft to 699 ft, 574 ft to 630 ft, and 430 ft to 530 ft (NAVD88) for the August and November events is presented on Figures 14 through 17 and Figures 19 through 22, respectively. Assuming that 1,1-DCE entered the top of bedrock near SWMU-9, the axis of the plume, consistent with the groundwater flow direction and local bedrock fracture patterns as identified in the Bedrock Geologic Map of the Little Mountain Area Anderson South Quadrangle is oriented to the north-northeast. Refer to the *Supplemental RCRA Facility Investigation Report* (Brown and Caldwell, 2009) for a more detailed review of these figures.

Concentrations of 1,1-DCE in well MW-15, MW-29R Zone 4 and MW-37 Zone 3, located between 400 and 900 feet hydraulically upgradient of extraction well EW-1, show a decreasing trend over the past 8 years according to the Mann-Kendall Test (Appendix E). The 1,1-DCE concentration in MW-37 Zone 3 has been below the RL for the past 4 years. The 1,1-DCE concentrations in wells MW-27, MW-29R Zone 3, MW-37 Zone 2, located between 700 and 2,500 feet hydraulically upgradient of EW-1, have remained relatively stable over the past 8 years, showing no trend according to the Mann-Kendall Test. MW-37 Zone 1, located approximately 900 feet upgradient of EW-1, has shown an increasing trend over the past 8 years according to the Mann-Kendall Test. 1,1-DCE has not been detected in groundwater above MCLs in any of the three zones of MW-36, located approximately 500 feet upgradient of EW-1, during the quarterly monitoring events since it was installed in 2008.

The 1,1-DCE concentration in wells MW-35 and the three zones of MW-41, located approximately 1,800 feet downgradient of EW-1, show a decreasing trend over the past 8 years according to the Mann-Kendall Test. This reduction in concentrations in MW-35 and across the entire vertical column of MW-41 makes it apparent that the leading edge of the plume is receding in the manner of a shrinking plume.

Bedrock well MW-39 was installed in 2010 and is located southeast and hydraulically downgradient of EW-1 to delineate 1,1-DCE in this direction. No VOCs, including 1,1-DCE, have been detected above RLs since the installation of this well (Tables 4 and 5).

Bedrock wells MW-42 and MW-43 were installed in 2010 and 2011, each as nested wells, such that three zones could be sampled to delineate 1,1-DCE in the Northeast Area. MW-42 and MW-43 are the farthest site investigation monitoring wells from the SWMU-9 source area. MW-42 is located east of the northeastern portion of the plume and MW-43 is due north of that portion of the plume. No VOCs have been detected in any of the three zones collected from MW-42 and MW-43. Based on this information and the CSM that shows the nature and direction of groundwater flow, the 1,1-DCE plume has been delineated and appears to be shrinking.

The only other contaminant detected above an MCL in the bedrock wells was carbon tetrachloride, which was detected in MW-22, MW-29R Zones 3 and 4, and MW-37 Zone 2 during August and November 2014 and additionally in MW-27 during November 2014. The maximum concentration of carbon tetrachloride in bedrock wells was detected in MW-22 at 22 µg/L in November. The carbon tetrachloride concentrations in well MW-22 and MW-29R Zone 3 and Zone 4 have remained relatively stable over the past 8 years, showing no trend according to the Mann-Kendall Test. No other constituents from the focused list of VOCs were detected above MCLs in the bedrock well samples in August and November 2014. Refer to Appendix E for Mann-Kendall Test results.

Bedrock well MW-44 was installed in 2013 as a deep bedrock compliment to the adjacent and existing well MW-35. The 1,1-DCE concentrations went from 7.8 µg/L in February 2013 to less than the RL in May, August and November 2013, and the well continued to be below the RL during the 2014 sample events. This information supports the conceptual site model (CSM) as detailed in the Supplemental RFI Report (Brown and Caldwell, 2009), which shows the plume rising from the deepest points (near EW-1 and MW-38) upward toward Betsy Creek, and demonstrates vertical delineation. In the *RFI Technical Memorandum and RFI Work Plan* submitted to EPA on June 2, 2014, Owens Corning offered to install an additional well to further establish trends in this downgradient area. Owens Corning is awaiting approval from EPA to install this well.

3.2 Surface Water Analytical Results

Surface water samples were collected from Betsy Creek at 11 pre-determined locations (Figure 12). All VOC concentrations measured in November 2014 were below the applicable U.S. EPA Region IV Ecological Risk Assessment, Surface Water Screening Values and SCDHEC Water Quality Classifications and Standards. No constituents from the focused list of VOCs were detected above the EPA and SCDHEC surface water standards during the November 2014 sampling event. All surface water analytical results are included in Table 7.

3.3 Residential Well Analytical Results

None of the constituents from the focused list of VOCs were detected above RLs in the residential well samples. All residential well analytical results are included in Table 6. Locations of the residential wells are provided on Figure 13, with the corresponding well location map ID's provided in Table 8.

Section 4

Summary and Conclusions

The third quarterly and the annual groundwater monitoring events were conducted at the Owens Corning Site in August and November 2014, respectively. Samples were collected from 12 bedrock wells during the August quarterly event and from 47 wells and 11 surface water locations during the November annual event. In addition, the 2nd semiannual samples were collected from 10 residential wells during the November event. The samples were analyzed for the focused list of VOCs. Multiple water-bearing zones were sampled in bedrock wells MW-29R, MW-36, MW-37, MW-38, MW-39, MW-41, MW-42 and MW-43.

The following conclusions were developed based on the data collected during the quarterly and annual monitoring events summarized in this Report:

- Based on historical and recent Site monitoring data 1,1-DCE and 1,1,1-TCA are the primary constituents in groundwater, though 1,1-DCE is the primary constituent that persists beyond SWMU-9 and the Site boundary and within the bedrock water bearing zones.
- The highest concentrations of 1,1-DCE and 1,1,1-TCA are present in the overburden and top of rock water bearing zones in the vicinity of SWMU-9. Contaminants detected above their MCLs in the overburden and top of rock water bearing zones other than 1,1-DCE and 1,1,1-TCA were 1,2-DCA, carbon tetrachloride, TCE, and vinyl chloride.
- The 1,1-DCE plume that originates in the vicinity of SWMU-9 travels downgradient to the northeast and then veers eastward towards Betsy Creek. The 1,1-DCE groundwater plume appears to be relatively stable and the downgradient boundary of this plume in the top of rock aquifer are defined by wells MW-21 and MW-25, which were both non-detect.
- The main contaminant in the bedrock aquifer is 1,1-DCE. Concentration data obtained from bedrock wells MW-27, MW-29R Zone 3 and MW-37 Zone 2 and results from the Mann-Kendall test at 90 percent confidence level indicate plume stability over the past 8 years. Concentrations of 1,1-DCE have shown a decreasing trend in bedrock wells MW-15, MW-35, MW-29R Zone 4, MW-37 Zone 3, MW-41 Zone 1, MW-41 Zone 2 and MW-41 Zone 3. The 1,1-DCE concentration in well MW-37 Zone 1 has shown an increasing concentration over the past 8 years.
- During the August and November 2014 monitoring events, no VOCs were detected above MCLs in groundwater collected from the offsite bedrock wells, MW-39, MW-42, and MW-43. Monitoring well MW-42 and MW-43 are the most downgradient monitoring wells in the northeast direction from the Site, and monitoring well MW-39 is the farthest in the southeast direction. Based on this information and the CSM that shows the nature and direction of groundwater flow, the 1,1-DCE plume has been delineated and appears to be shrinking.

Section 5

Limitations

This document was prepared solely for Owens Corning in accordance with professional standards at the time the services were performed and in accordance with the contract between Owens Corning and Brown and Caldwell dated January 24, 2014. This document is governed by the specific scope of work authorized by Owens Corning; it is not intended to be relied upon by any other party except for regulatory authorities contemplated by the scope of work. We have relied on information or instructions provided by Owens Corning and other parties and, unless otherwise expressly indicated, have made no independent investigation as to the validity, completeness, or accuracy of such information.

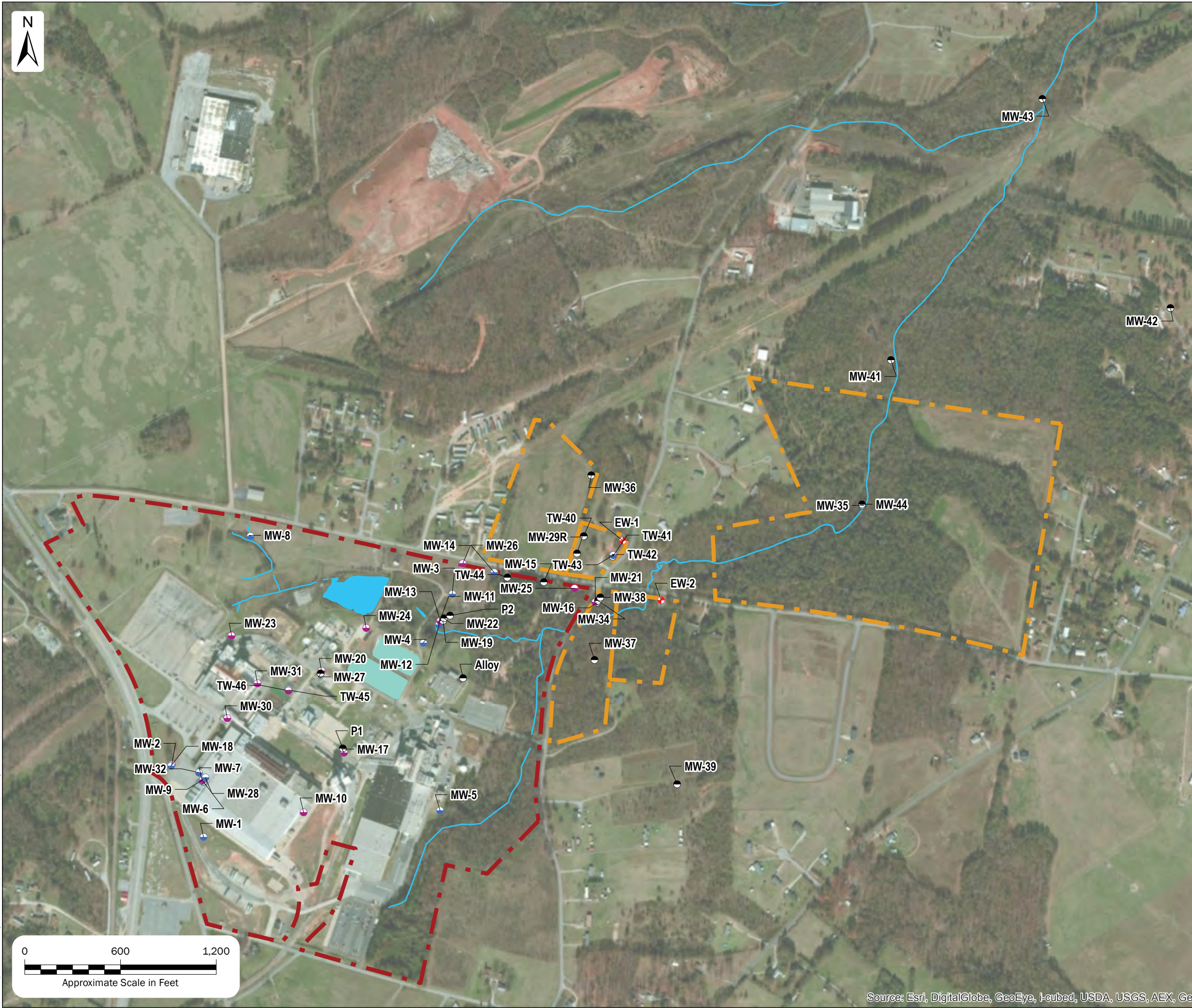
This document sets forth the results of certain services performed by Brown and Caldwell with respect to the property or facilities described therein (the Property). Owens Corning recognizes and acknowledges that these services were designed and performed within various limitations, including budget and time constraints. These services were not designed or intended to determine the existence and nature of all possible environmental risks (which term shall include the presence or suspected or potential presence of any hazardous waste or hazardous substance, as defined under any applicable law or regulation, or any other actual or potential environmental problems or liabilities) affecting the Property. The nature of environmental risks is such that no amount of additional inspection and testing could determine as a matter of certainty that all environmental risks affecting the Property had been identified. Accordingly, THIS DOCUMENT DOES NOT PURPORT TO DESCRIBE ALL ENVIRONMENTAL RISKS AFFECTING THE PROPERTY, NOR WILL ANY ADDITIONAL TESTING OR INSPECTION RECOMMENDED OR OTHERWISE REFERRED TO IN THIS DOCUMENT NECESSARILY IDENTIFY ALL ENVIRONMENTAL RISKS AFFECTING THE PROPERTY.

Further, Brown and Caldwell makes no warranties, express or implied, with respect to this document, except for those, if any, contained in the agreement pursuant to which the document was prepared. All data, drawings, documents, or information contained this report have been prepared exclusively for the person or entity to whom it was addressed and may not be relied upon by any other person or entity without the prior written consent of Brown and Caldwell unless otherwise provided by the Agreement pursuant to which these services were provided.

Section 6

References

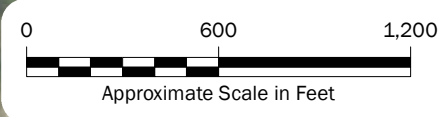
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- United States Environmental Protection Agency. 2013. *Science and Ecosystem Support Division Surface Water Sampling Procedure*.
- United States Environmental Protection Agency. 2013. *Potable Water Supply Sampling*.



LEGEND

- Owens Corning Facility Boundary
- Additional Owens Corning Properties
- Overburden Monitoring Well
- Top of Rock Monitoring Well
- Bedrock Monitoring Well
- Extraction Well
- Stream or Creek
- Abandoned Sludge Lagoon
- Backwash Storage Ponds

Figure 1
Site Map

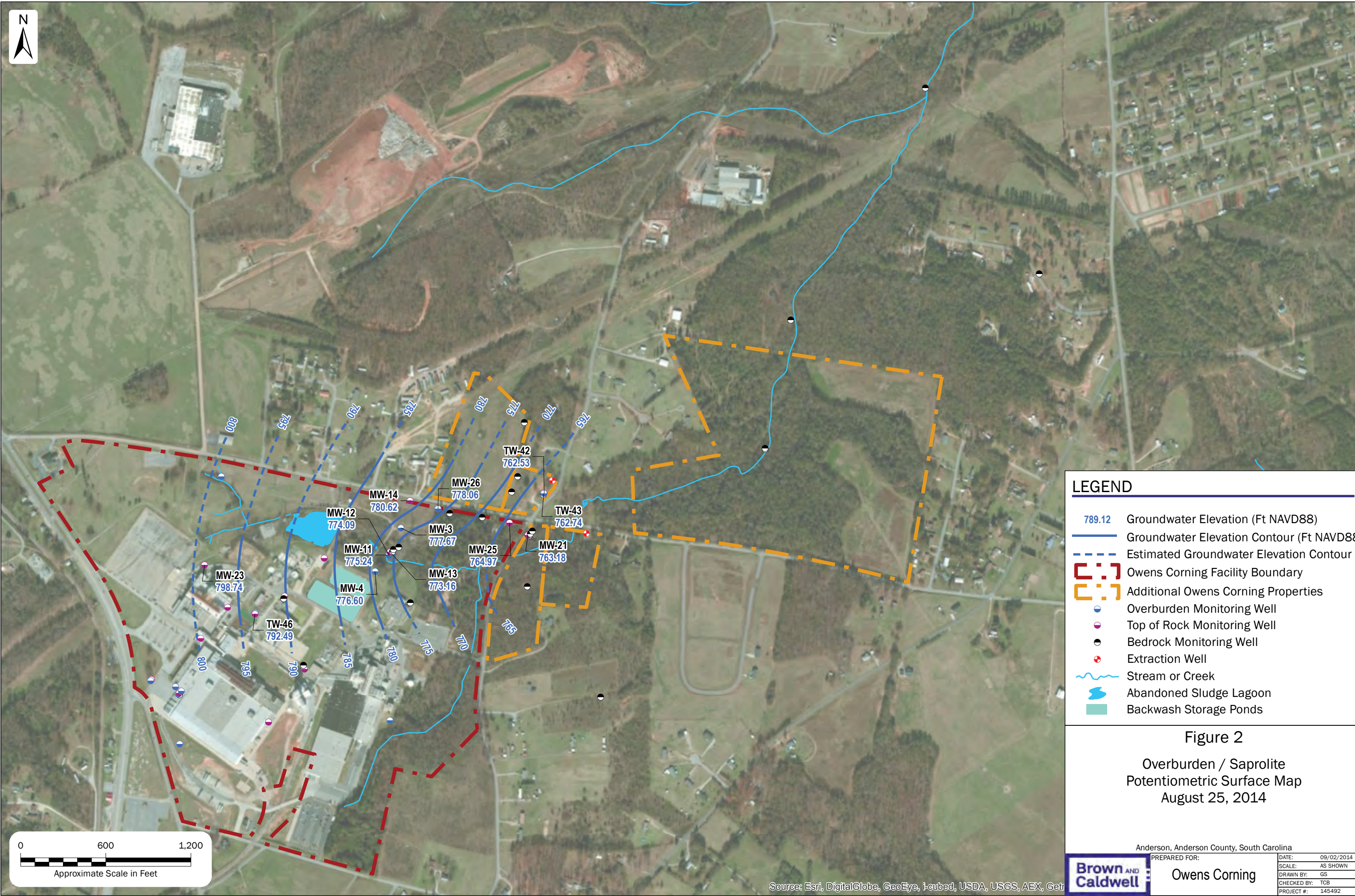


Anderson, Anderson County, South Carolina



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Owens Corning

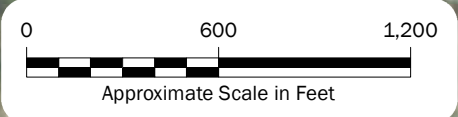
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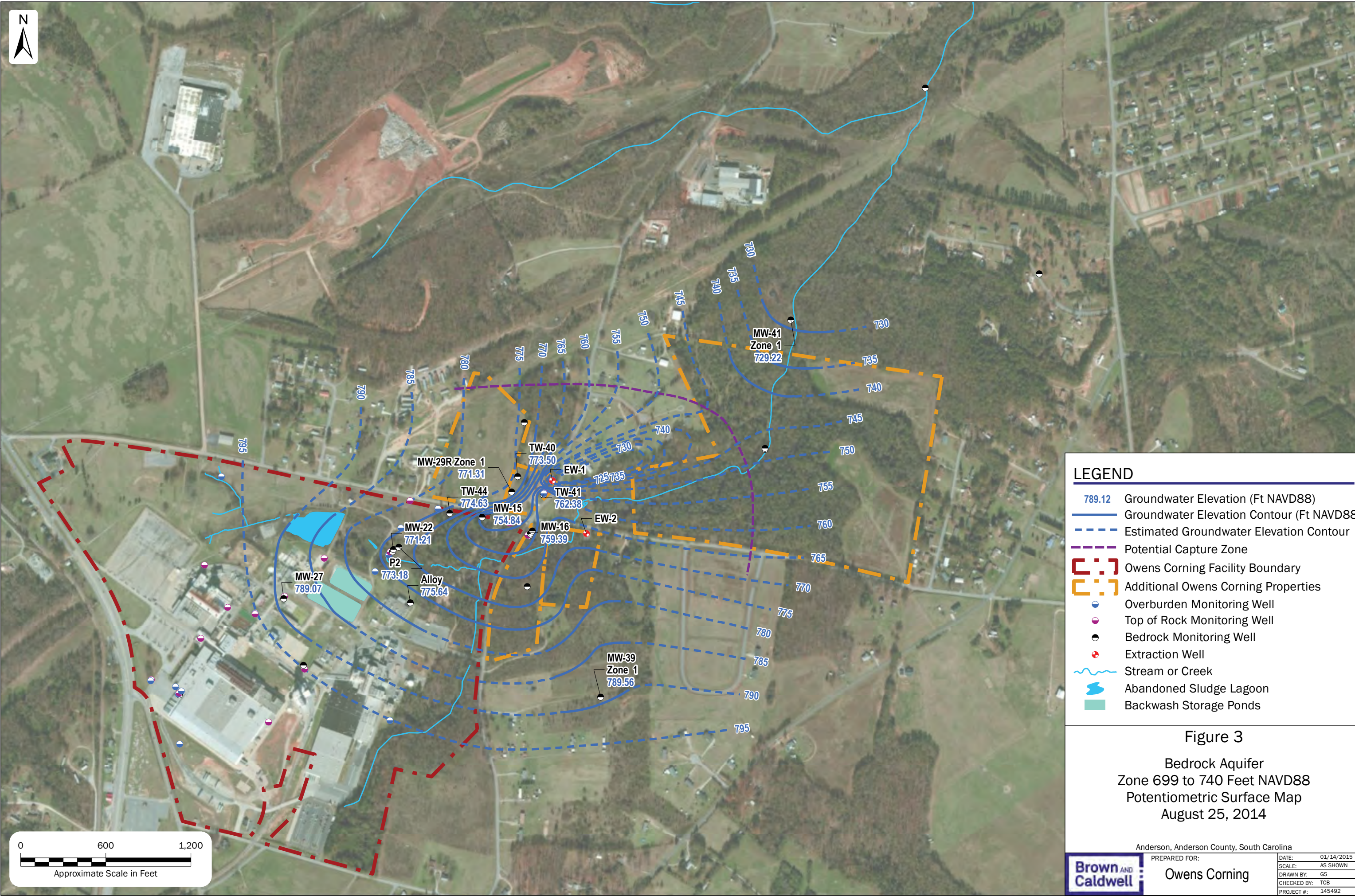
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- Groundwater Elevation Contour (Ft NAVD88)
- Estimated Groundwater Elevation Contour
- Owens Corning Facility Boundary
- Additional Owens Corning Properties
- Overburden Monitoring Well
- Top of Rock Monitoring Well
- Bedrock Monitoring Well
- Extraction Well
- Stream or Creek
- Abandoned Sludge Lagoon
- Backwash Storage Ponds

Figure 2
Overburden / Saprolite
Potentiometric Surface Map
August 25, 2014



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| PREPARED FOR: | Owens Corning |
| DATE: | 09/02/2014 |
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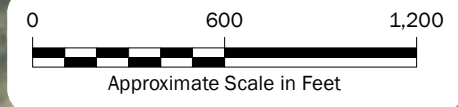
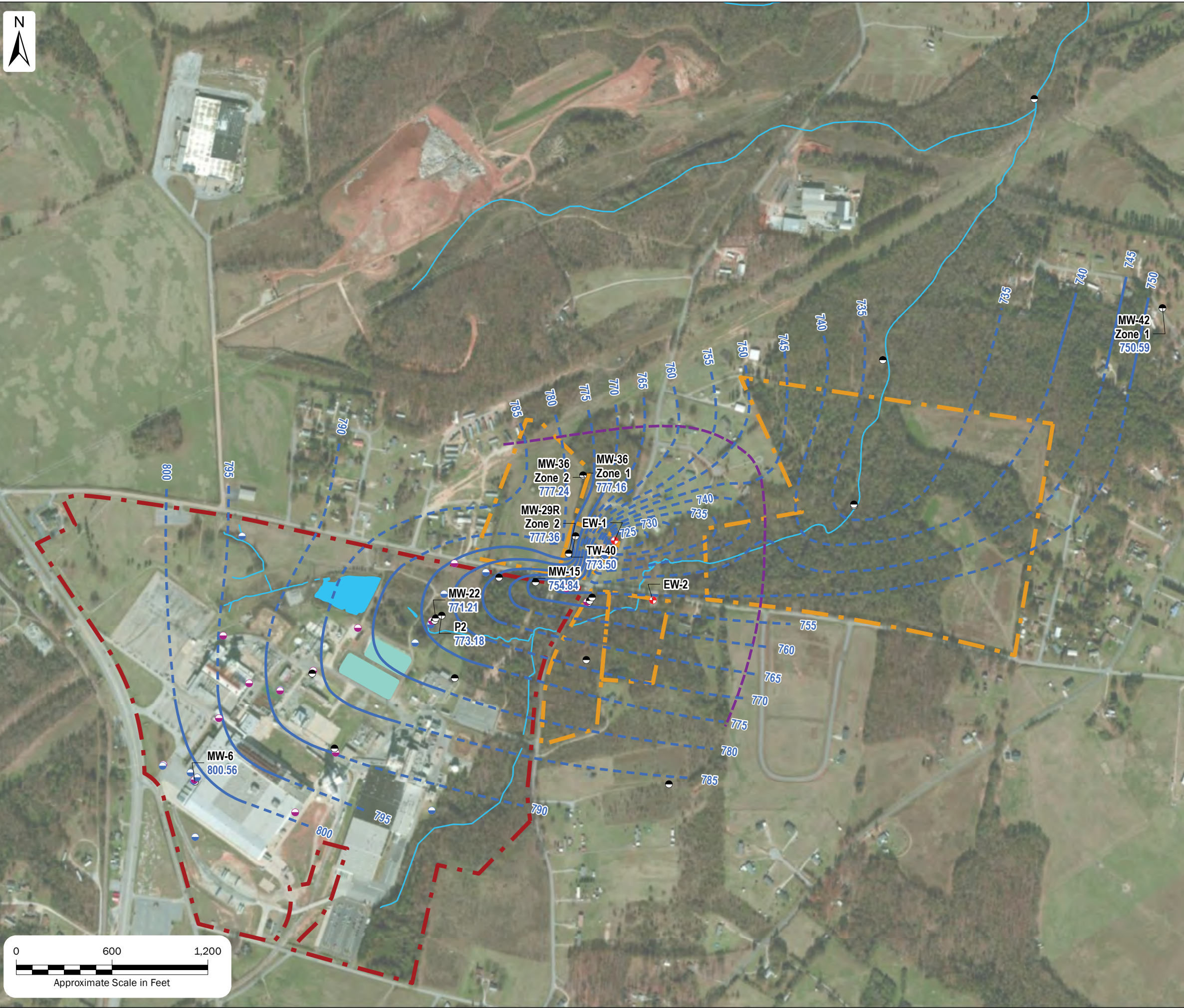
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- - - Estimated Groundwater Elevation Contour
- - - Potential Capture Zone
- - - Owens Corning Facility Boundary
- - - Additional Owens Corning Properties
- Overburden Monitoring Well
- Top of Rock Monitoring Well
- Bedrock Monitoring Well
- + Extraction Well
- ~ Stream or Creek
- Abandoned Sludge Lagoon
- Backwash Storage Ponds

Figure 3
 Bedrock Aquifer
 Zone 699 to 740 Feet NAVD88
 Potentiometric Surface Map
 August 25, 2014

Anderson, Anderson County, South Carolina

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| | PREPARED FOR: | Owens Corning |
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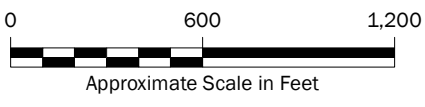
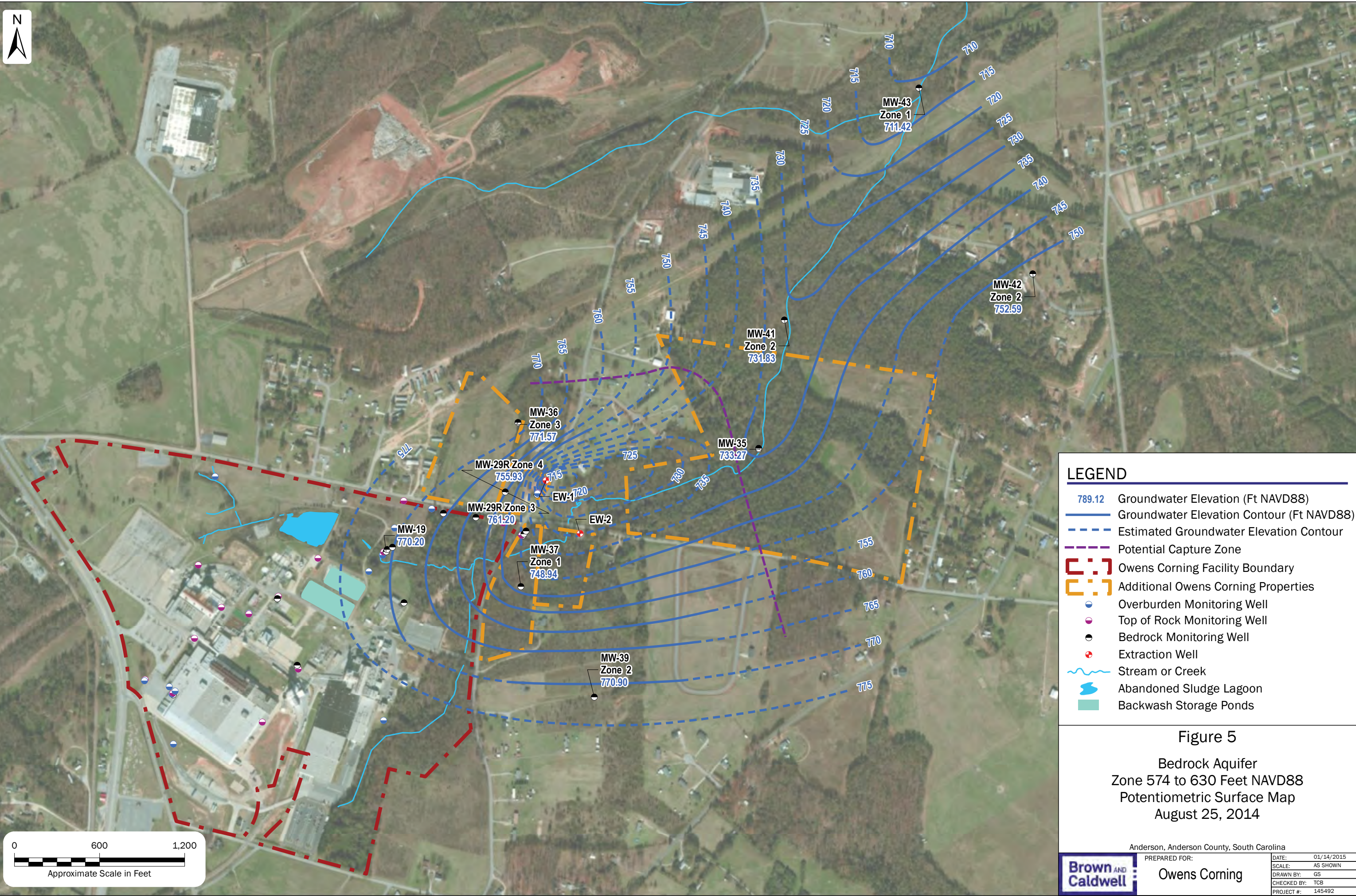


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- 789.12 Groundwater Elevation (Ft NAVD88)
- Groundwater Elevation Contour (Ft NAVD88)
- - - Estimated Groundwater Elevation Contour
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- - - Owens Corning Facility Boundary
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- Overburden Monitoring Well
- Top of Rock Monitoring Well
- Bedrock Monitoring Well
- Extraction Well
- ~ Stream or Creek
- Abandoned Sludge Lagoon
- Backwash Storage Ponds

Figure 4
 Bedrock Aquifer
 Zone 632 to 699 Feet NAVD88
 Potentiometric Surface Map
 August 25, 2014

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| Anderson, Anderson County, South Carolina | |
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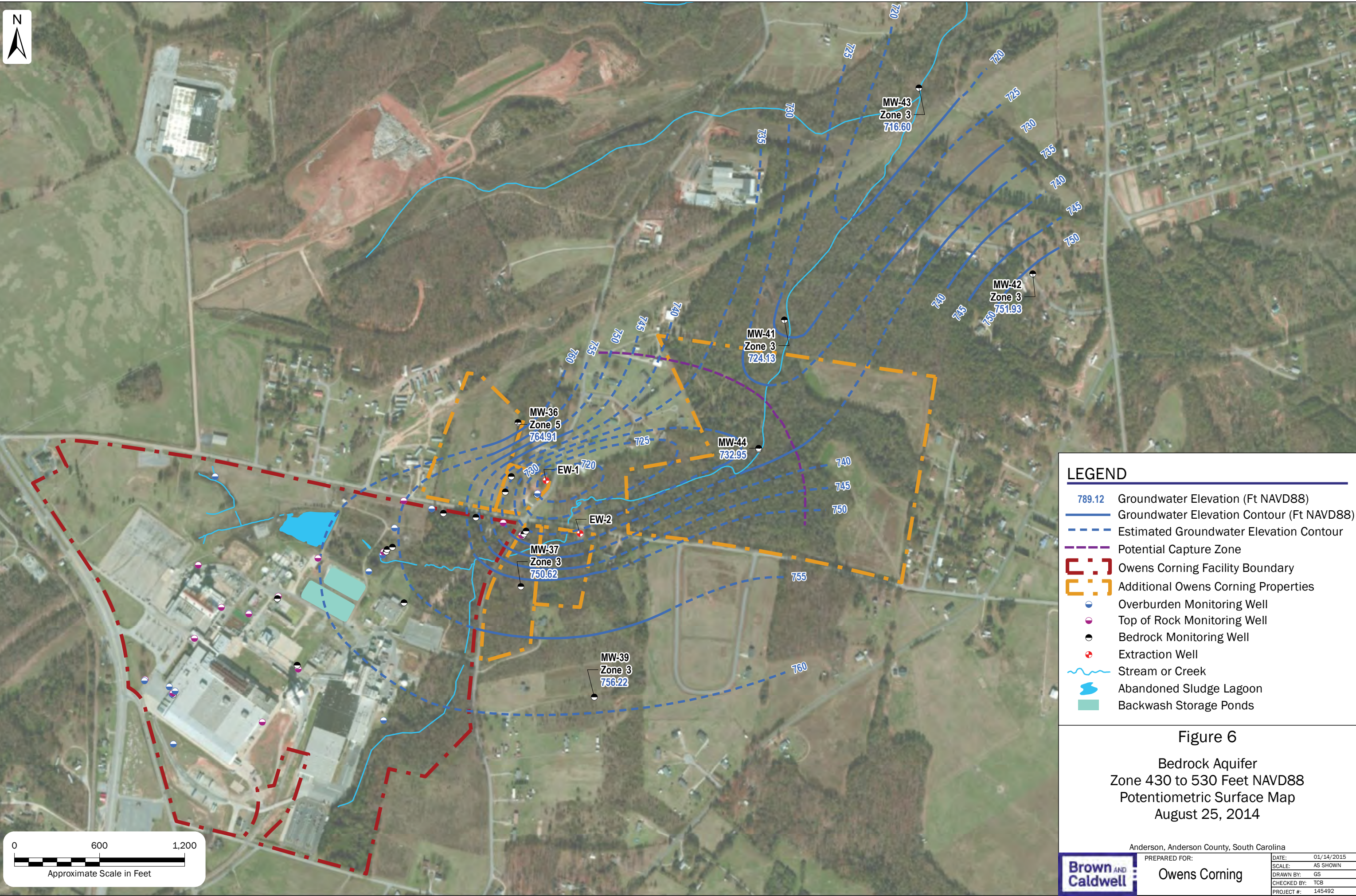
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- - - Estimated Groundwater Elevation Contour
- - - Potential Capture Zone
- [Red dashed line] Owens Corning Facility Boundary
- [Orange dashed line] Additional Owens Corning Properties
- [Blue circle with dot] Overburden Monitoring Well
- [Pink circle with dot] Top of Rock Monitoring Well
- [Black circle with dot] Bedrock Monitoring Well
- [Red circle with cross] Extraction Well
- [Blue wavy line] Stream or Creek
- [Light blue area] Abandoned Sludge Lagoon
- [Light green area] Backwash Storage Ponds

Figure 5
 Bedrock Aquifer
 Zone 574 to 630 Feet NAVD88
 Potentiometric Surface Map
 August 25, 2014

Anderson, Anderson County, South Carolina

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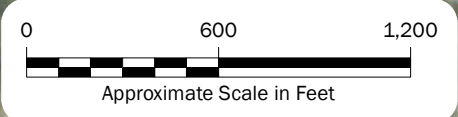
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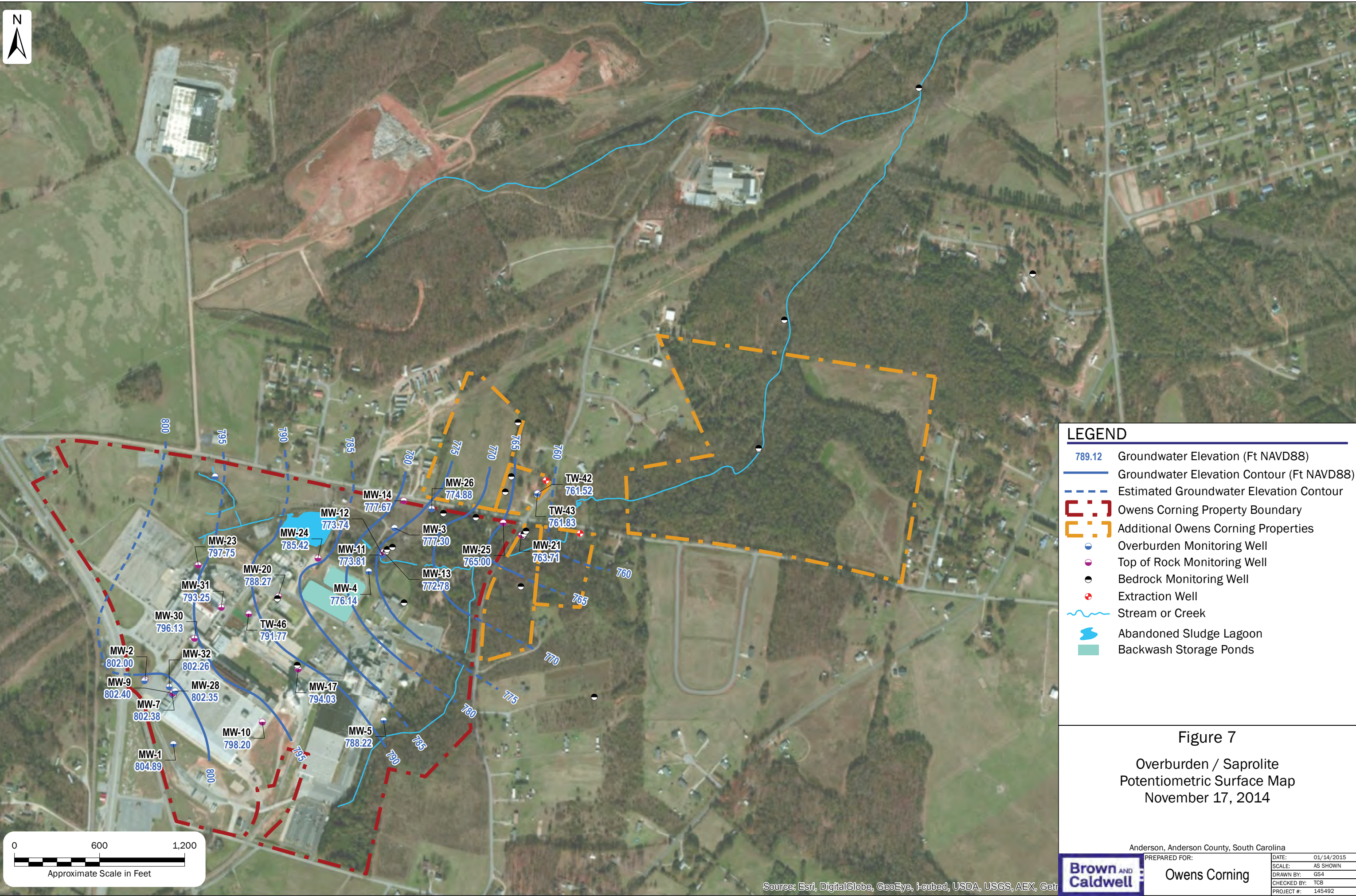
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- - - Potential Capture Zone
- [Red dashed line] Owens Corning Facility Boundary
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- [Black circle with dot] Bedrock Monitoring Well
- [Red circle with cross] Extraction Well
- [Blue wavy line] Stream or Creek
- [Light blue area] Abandoned Sludge Lagoon
- [Green area] Backwash Storage Ponds

Figure 6
 Bedrock Aquifer
 Zone 430 to 530 Feet NAVD88
 Potentiometric Surface Map
 August 25, 2014

Anderson, Anderson County, South Carolina

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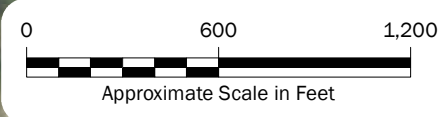




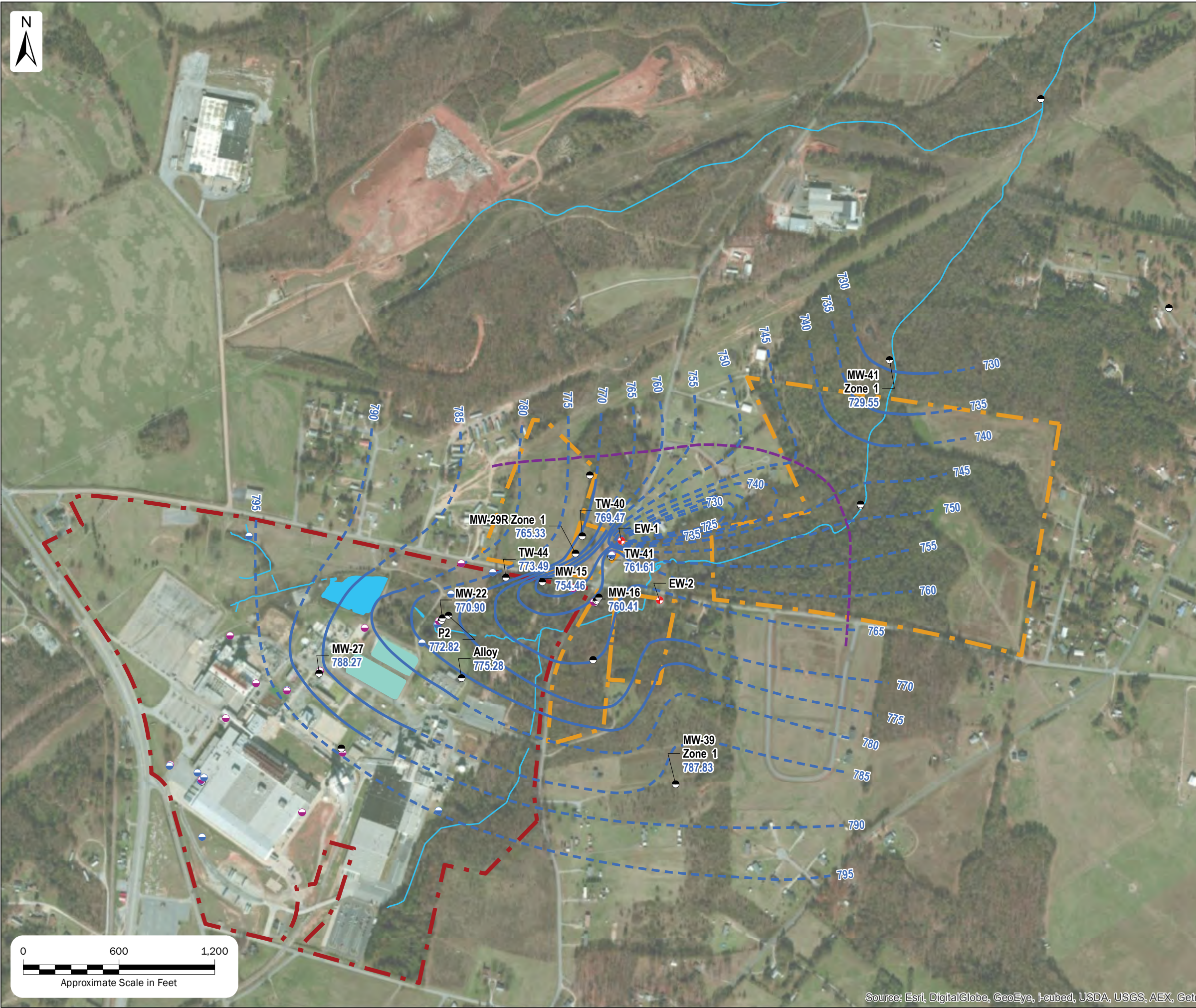
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- Groundwater Elevation Contour (Ft NAVD88)
- Estimated Groundwater Elevation Contour
- Owens Corning Property Boundary
- Additional Owens Corning Properties
- Overburden Monitoring Well
- Top of Rock Monitoring Well
- Bedrock Monitoring Well
- Extraction Well
- Stream or Creek
- Abandoned Sludge Lagoon
- Backwash Storage Ponds

Figure 7
Overburden / Saprolite
Potentiometric Surface Map
November 17, 2014



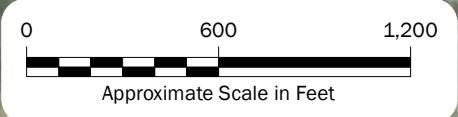
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- Groundwater Elevation Contour (Ft NAVD88)
- - - Estimated Groundwater Elevation Contour
- - - Potential Capture Zone
- - - Owens Corning Property Boundary
- - - Additional Owens Corning Properties
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- Bedrock Monitoring Well
- Extraction Well
- ~ Stream or Creek
- Abandoned Sludge Lagoon
- Backwash Storage Ponds

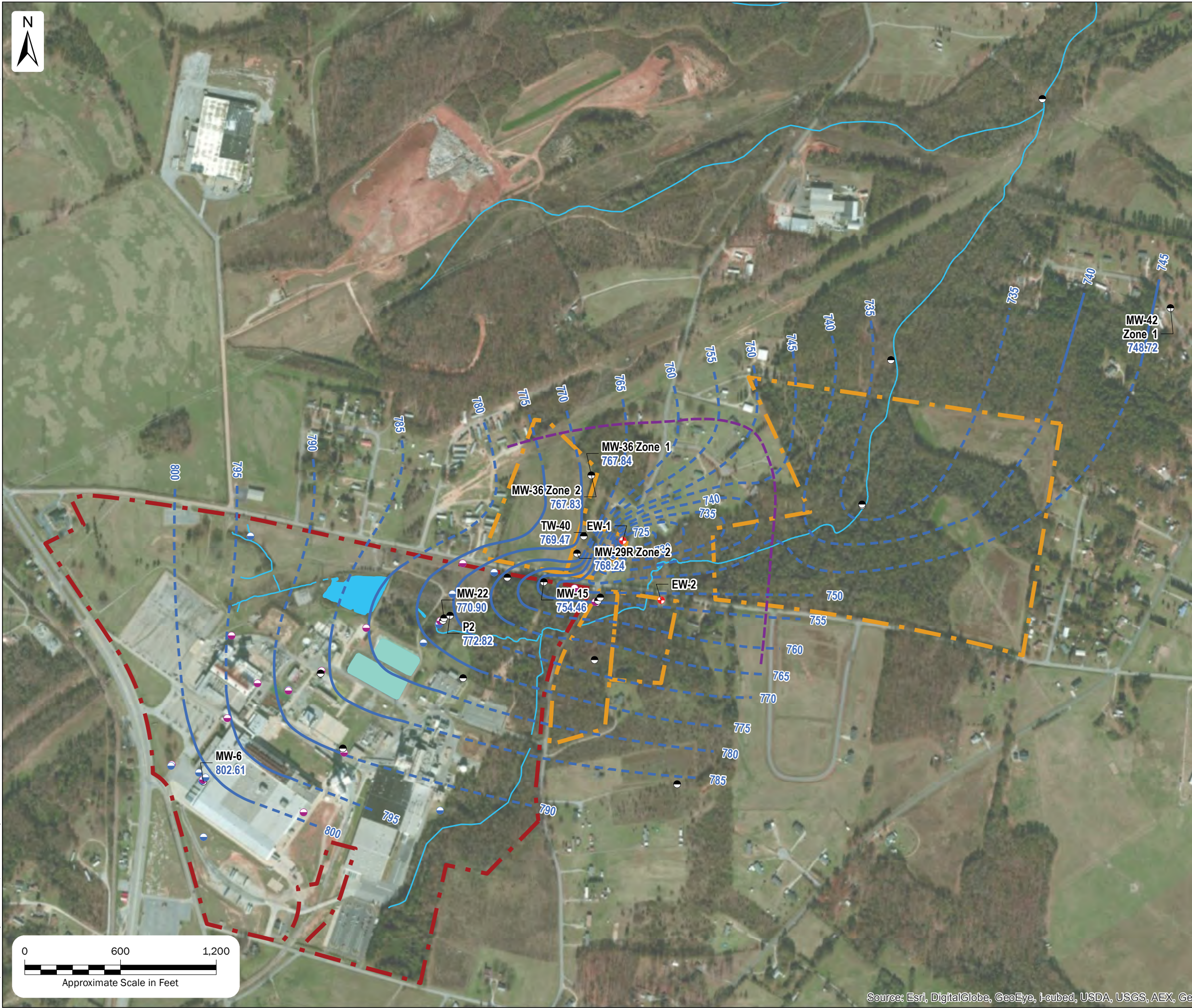
Figure 8
 Bedrock Aquifer
 Zone 699 to 740 Feet NAVD88
 Potentiometric Surface Map
 November 17, 2014



Anderson, Anderson County, South Carolina

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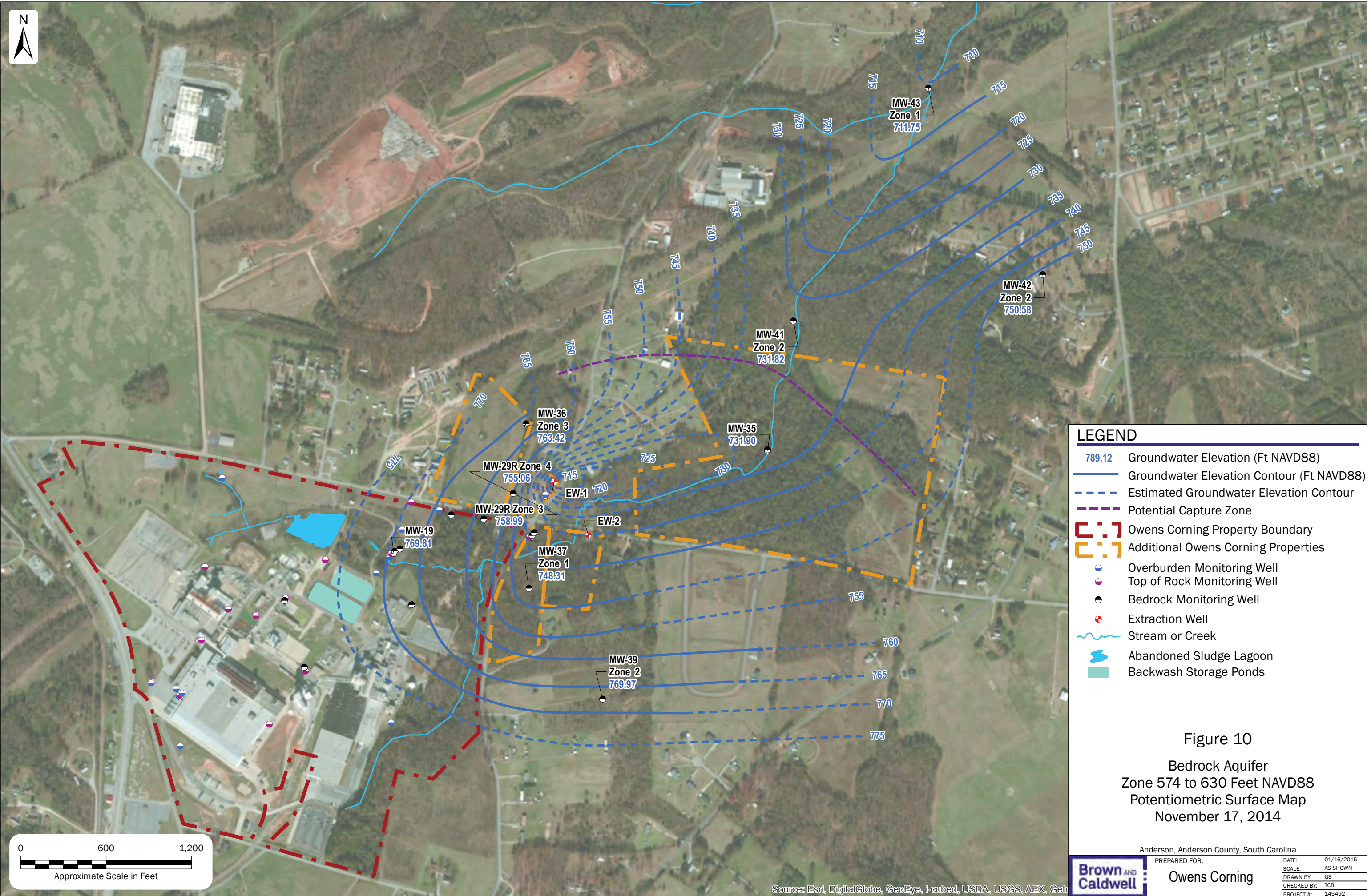
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- - - Owens Corning Property Boundary
- - - Additional Owens Corning Properties
- Overburden Monitoring Well
- Top of Rock Monitoring Well
- Bedrock Monitoring Well
- Extraction Well
- ~ Stream or Creek
- Abandoned Sludge Lagoon
- Backwash Storage Ponds

Figure 9
 Bedrock Aquifer
 Zone 632 to 699 Feet NAVD88
 Potentiometric Surface Map
 November 17, 2014

Anderson, Anderson County, South Carolina

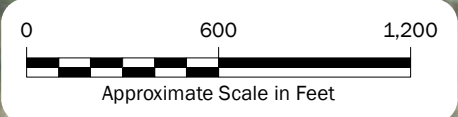
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- 789.12 Groundwater Elevation (Ft NAVD88)
- Groundwater Elevation Contour (Ft NAVD88)
- - - Estimated Groundwater Elevation Contour
- - - Potential Capture Zone
- [Red dashed line] Owens Corning Property Boundary
- [Orange dashed line] Additional Owens Corning Properties
- [Blue circle with dot] Overburden Monitoring Well
- [Pink circle with dot] Top of Rock Monitoring Well
- [Black circle with dot] Bedrock Monitoring Well
- [Red circle with cross] Extraction Well
- [Blue wavy line] Stream or Creek
- [Blue shaded area] Abandoned Sludge Lagoon
- [Green shaded area] Backwash Storage Ponds

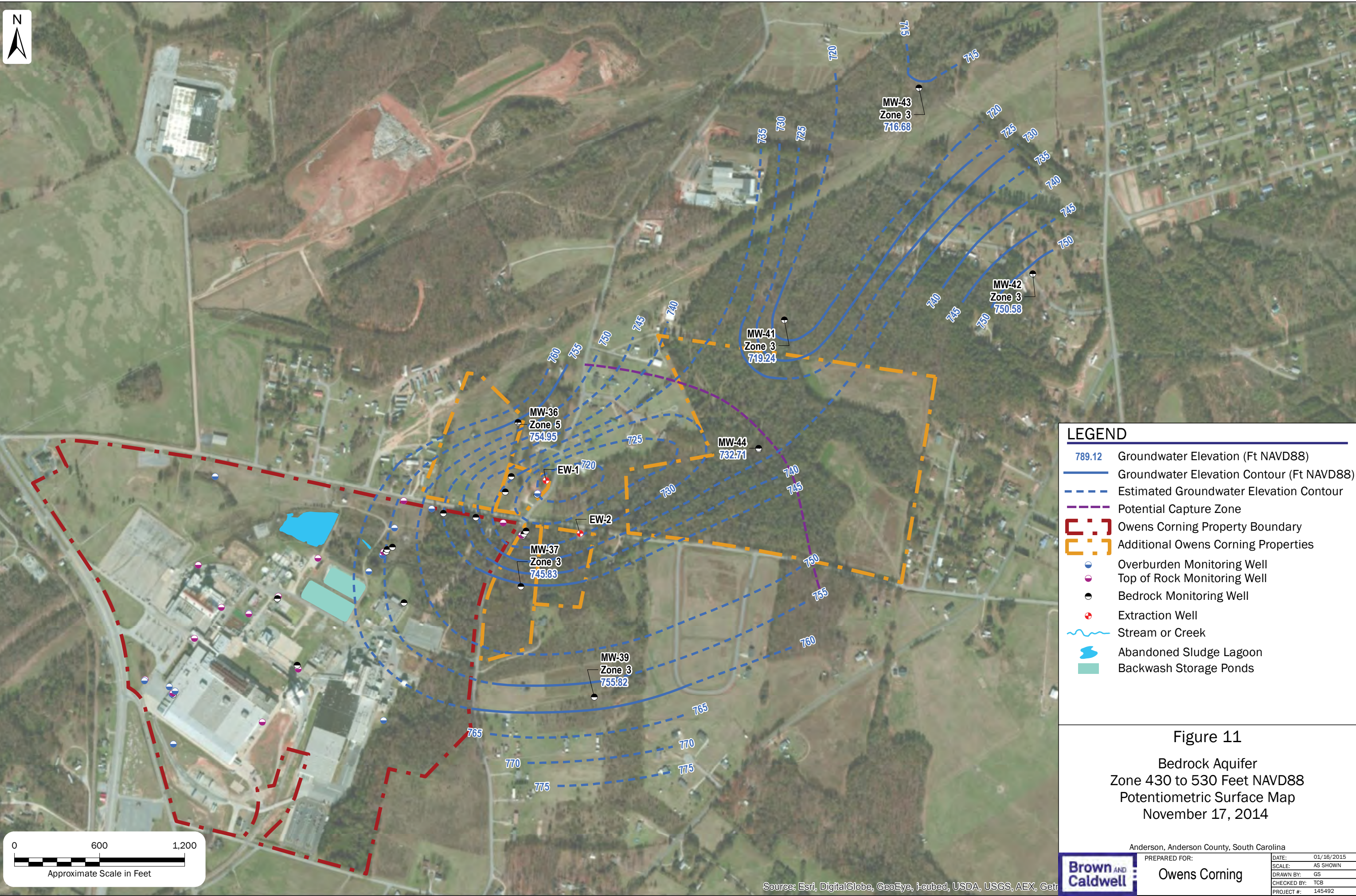
Figure 10
 Bedrock Aquifer
 Zone 574 to 630 Feet NAVD88
 Potentiometric Surface Map
 November 17, 2014



Anderson, Anderson County, South Carolina

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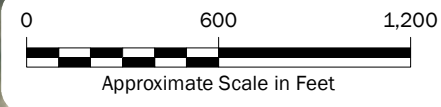




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- Groundwater Elevation Contour (Ft NAVD88)
- - - Estimated Groundwater Elevation Contour
- - - Potential Capture Zone
- - - Owens Corning Property Boundary
- - - Additional Owens Corning Properties
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- Top of Rock Monitoring Well
- Bedrock Monitoring Well
- Extraction Well
- ~ Stream or Creek
- Abandoned Sludge Lagoon
- Backwash Storage Ponds

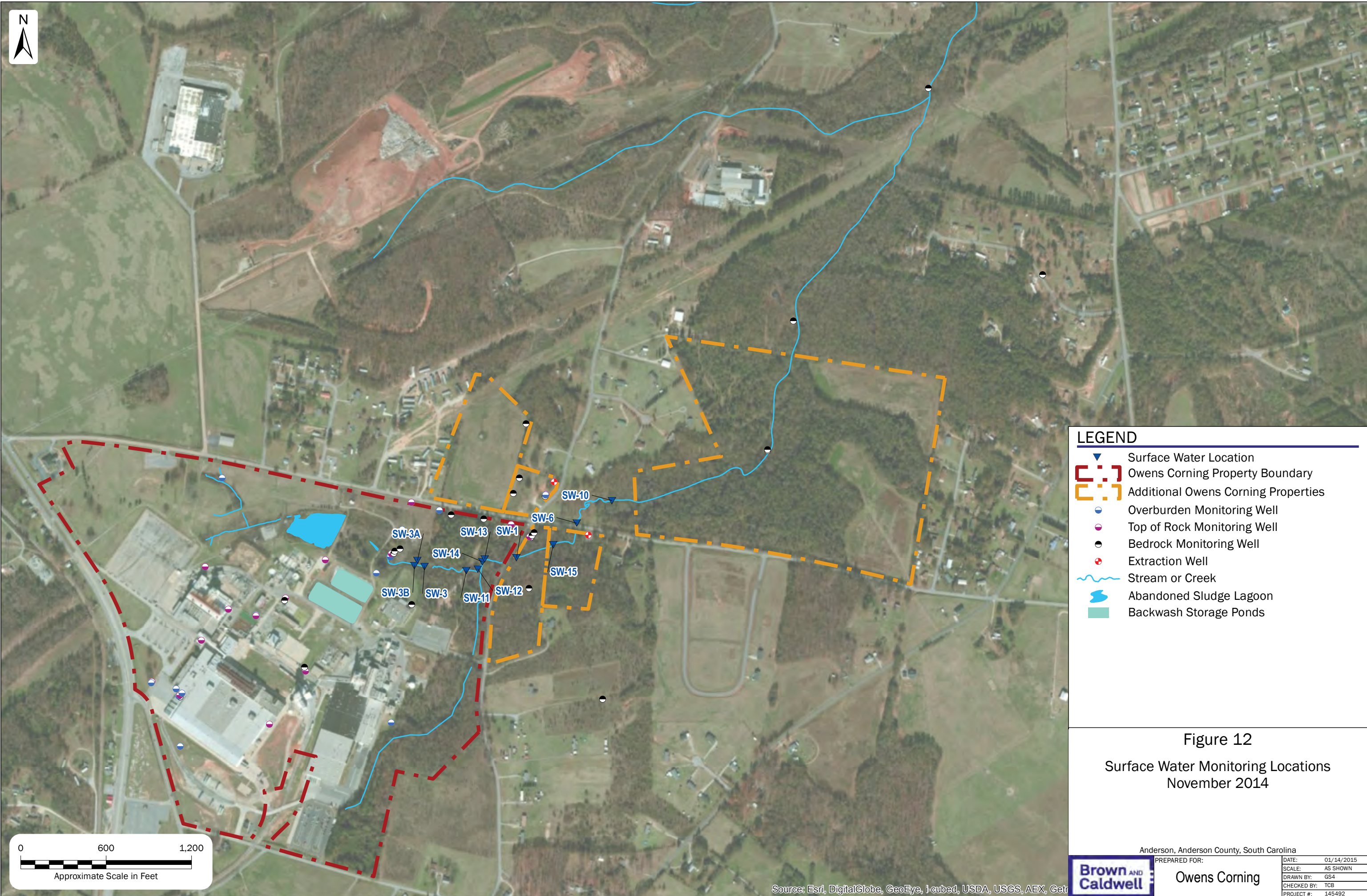
Figure 11
 Bedrock Aquifer
 Zone 430 to 530 Feet NAVD88
 Potentiometric Surface Map
 November 17, 2014



Anderson, Anderson County, South Carolina

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| PREPARED FOR: | Owens Corning | DATE: | 01/16/2015 |
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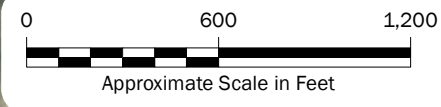
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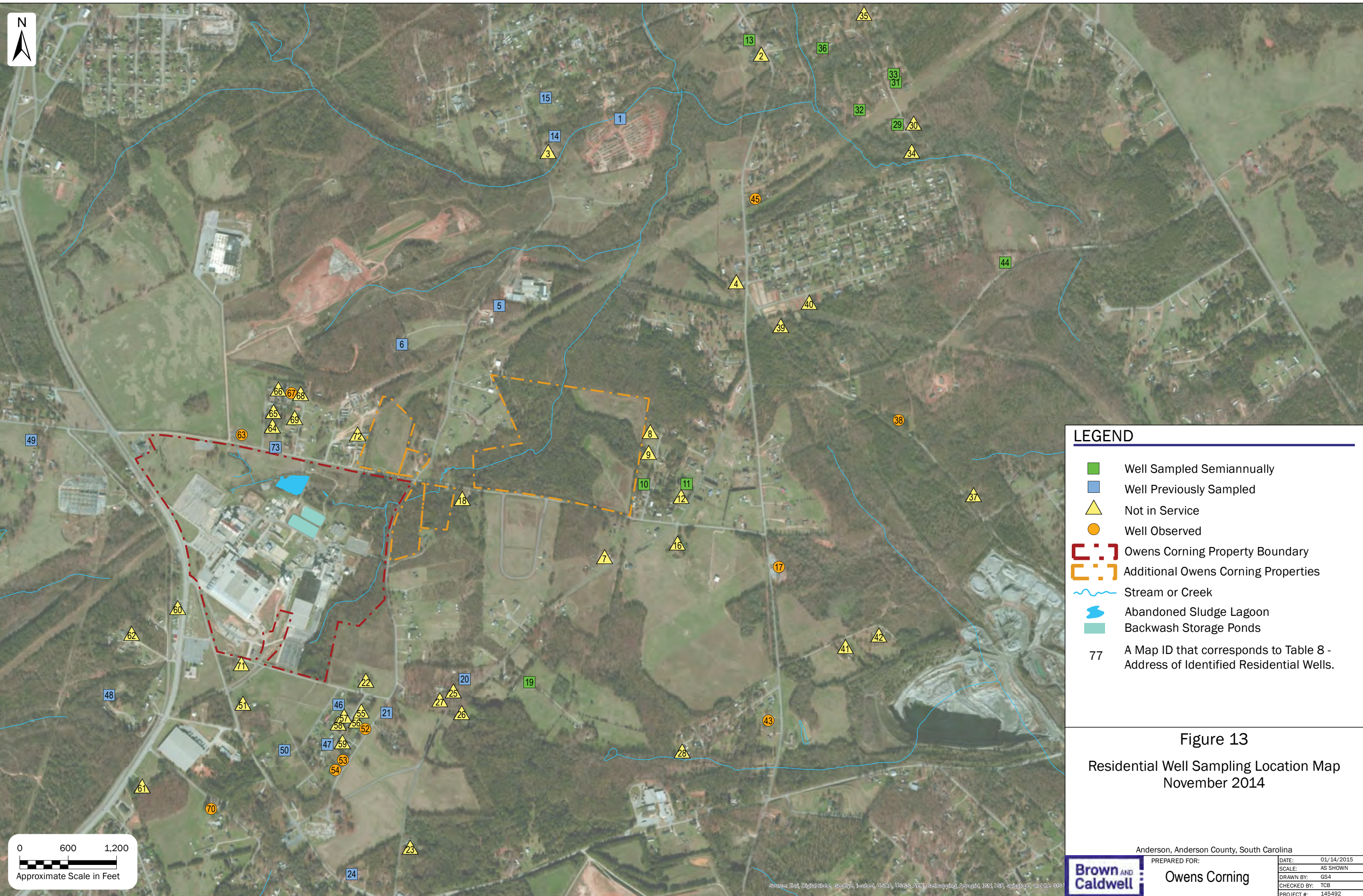
- Surface Water Location
- Owens Corning Property Boundary
- Additional Owens Corning Properties
- Overburden Monitoring Well
- Top of Rock Monitoring Well
- Bedrock Monitoring Well
- Extraction Well
- Stream or Creek
- Abandoned Sludge Lagoon
- Backwash Storage Ponds

Figure 12
Surface Water Monitoring Locations
November 2014

Anderson, Anderson County, South Carolina

| | | |
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| | PREPARED FOR: | Owens Corning |
| | DATE: | 01/14/2015 |
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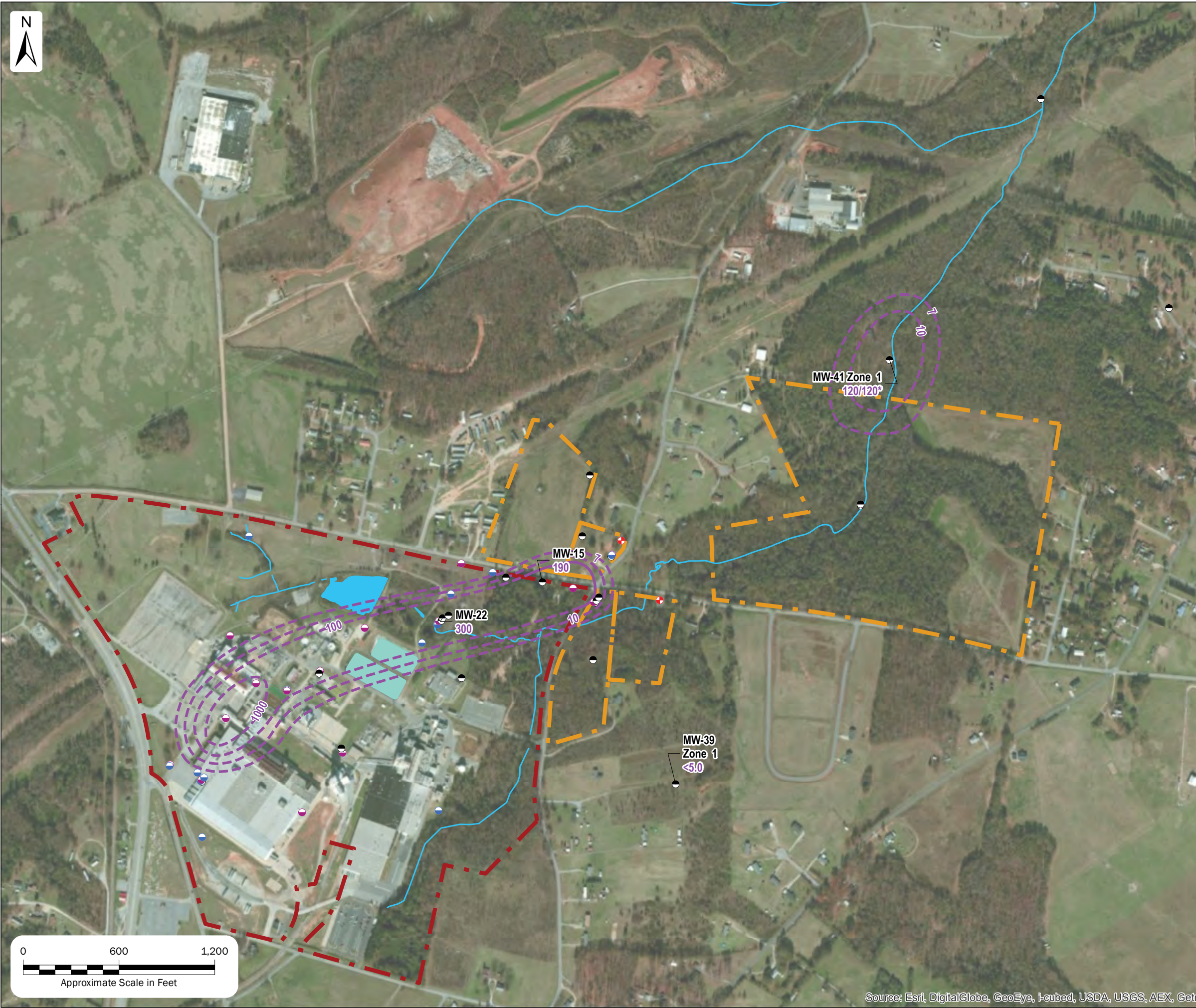
- Well Sampled Semiannually
- Well Previously Sampled
- ▲ Not in Service
- Well Observed
- Owens Corning Property Boundary
- Additional Owens Corning Properties
- Stream or Creek
- Abandoned Sludge Lagoon
- Backwash Storage Ponds
- 77 A Map ID that corresponds to Table 8 - Address of Identified Residential Wells.

Figure 13
Residential Well Sampling Location Map
November 2014

Anderson, Anderson County, South Carolina

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|---------------------------|----------------------|-------------------|
| Brown AND Caldwell | PREPARED FOR: | DATE: 01/14/2015 |
| | Owens Corning | SCALE: AS SHOWN |
| | | DRAWN BY: GS4 |
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Source: Esri, DigitalGlobe, GeoEye, Jeppia, USDA, USGS, Aero, GeoMapping, AeroGRID, IGN, GEBCO, swisstopo, and the GIS User Community



LEGEND

- 21 1,1-Dichloroethene Concentration (µg/L)
- <5.0 Concentration Below Detection Limit
- 1,1-Dichloroethene Iso-Contour (µg/L)
- Estimated 1,1-Dichloroethene Iso-Contour (µg/L)
- Owens Corning Facility Boundary
- Additional Owens Corning Properties
- Overburden Monitoring Well
- Top of Rock Monitoring Well
- Bedrock Monitoring Well
- Extraction Well
- Stream or Creek
- Abandoned Sludge Lagoon
- Backwash Storage Ponds
- * Duplicate sample

The 7 µg/L isocontour is used to represent the maximum contaminant level of 1,1-DCE.

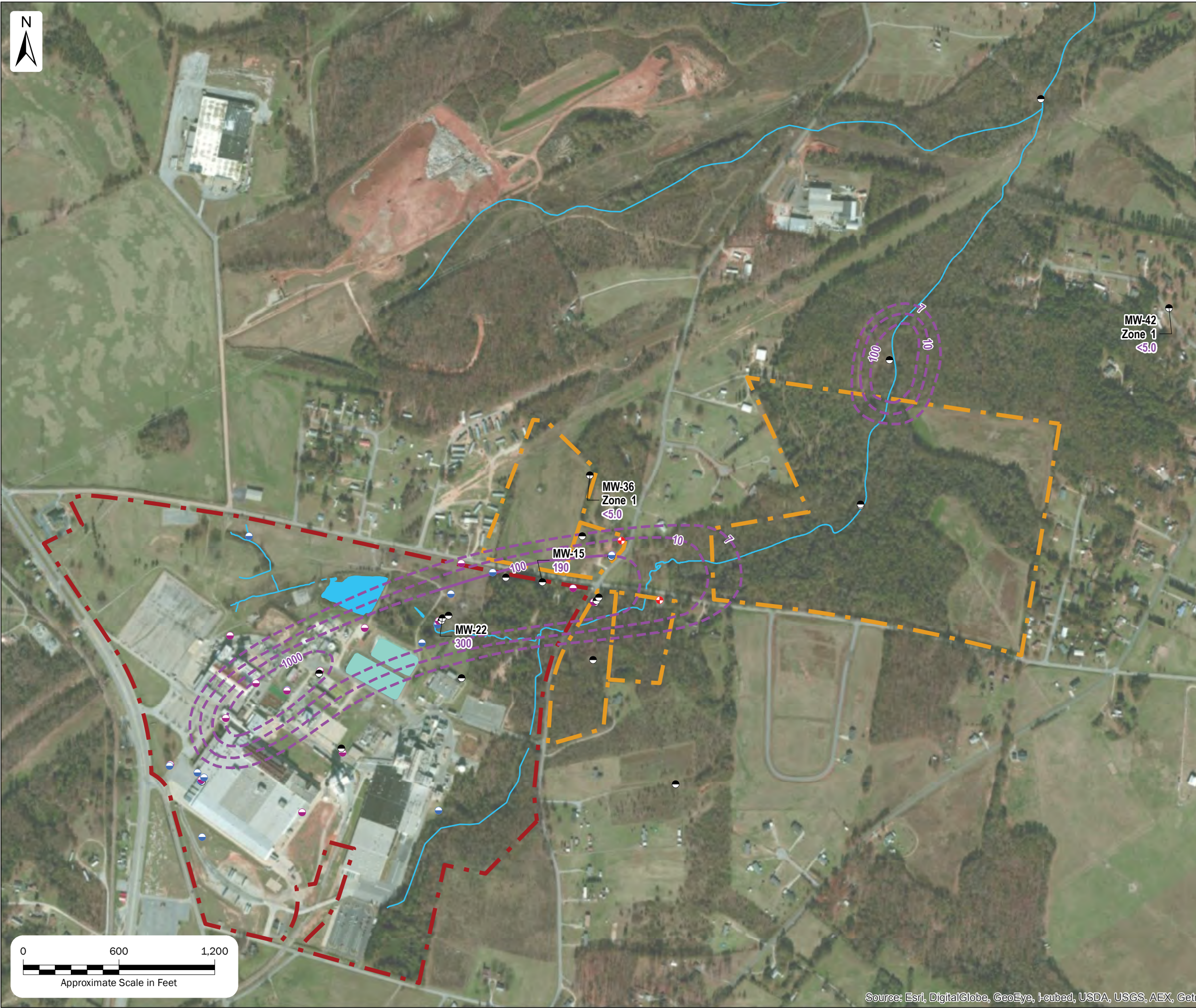
Figure 14
Bedrock Aquifer
Zone 699 to 740 Feet NAVD88
1,1-Dichloroethene Isoconcentration Map
August 2014

Anderson, Anderson County, South Carolina



Owens Corning

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| DATE: | 12/29/2014 |
| SCALE: | AS SHOWN |
| DRAWN BY: | GS4 |
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LEGEND

- 21 1,1-Dichloroethene Concentration (µg/L)
- <5.0 Concentration Below Detection Limit
- 1,1-Dichloroethene Iso-Contour (µg/L)
- - - Estimated 1,1-Dichloroethene Iso-Contour (µg/L)
- [Red dashed line] Owens Corning Facility Boundary
- [Orange dashed line] Additional Owens Corning Properties
- [Blue circle with dot] Overburden Monitoring Well
- [Pink circle with dot] Top of Rock Monitoring Well
- [Black circle with dot] Bedrock Monitoring Well
- [Red circle with cross] Extraction Well
- [Blue wavy line] Stream or Creek
- [Cyan area] Abandoned Sludge Lagoon
- [Light blue area] Backwash Storage Ponds
- [*] Duplicate sample

The 7 µg/L isocontour is used to represent the maximum contaminant level of 1,1-DCE.

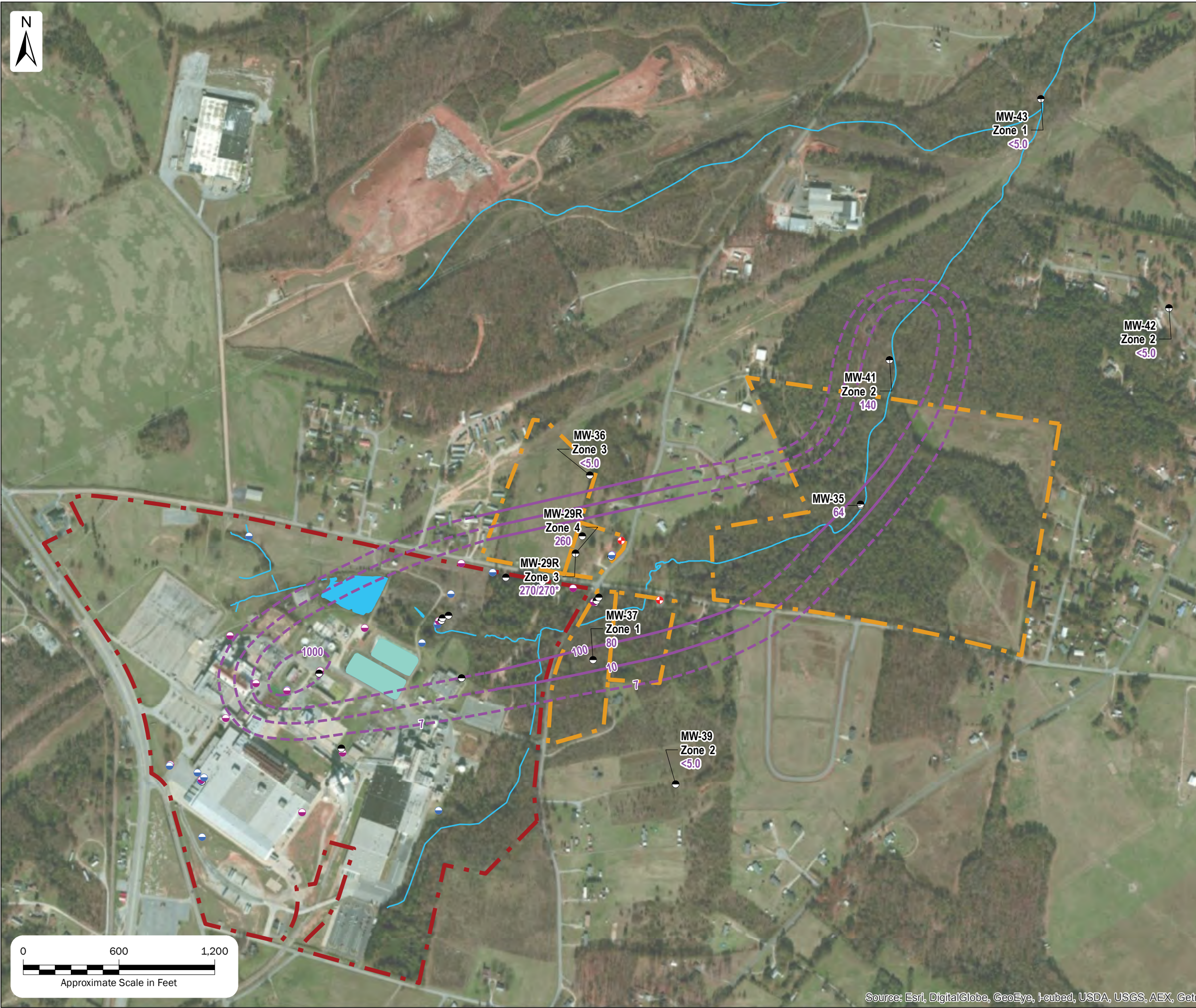
Figure 15
 Bedrock Aquifer
 Zone 632 to 699 Feet NAVD88
 1,1-Dichloroethene Isoconcentration Map
 August 2014

Anderson, Anderson County, South Carolina



PREPARED FOR:
Owens Corning

| | |
|-------------|------------|
| DATE: | 12/29/2014 |
| SCALE: | AS SHOWN |
| DRAWN BY: | GS4 |
| CHECKED BY: | TCB |
| PROJECT #: | 145496 |



LEGEND

- 21 1,1-Dichloroethene Concentration (µg/L)
- ≤ 5.0 Concentration Below Detection Limit
- 1,1-Dichloroethene Iso-Contour (µg/L)
- - - Estimated 1,1-Dichloroethene Iso-Contour (µg/L)
- [Red dashed line] Owens Corning Facility Boundary
- [Orange dashed line] Additional Owens Corning Properties
- [Blue circle with dot] Overburden Monitoring Well
- [Pink circle with dot] Top of Rock Monitoring Well
- [Black circle with dot] Bedrock Monitoring Well
- [Red circle with cross] Extraction Well
- [Blue wavy line] Stream or Creek
- [Light blue area] Abandoned Sludge Lagoon
- [Light green area] Backwash Storage Ponds
- *

The 7 µg/L isocontour is used to represent the maximum contaminant level of 1,1-DCE.

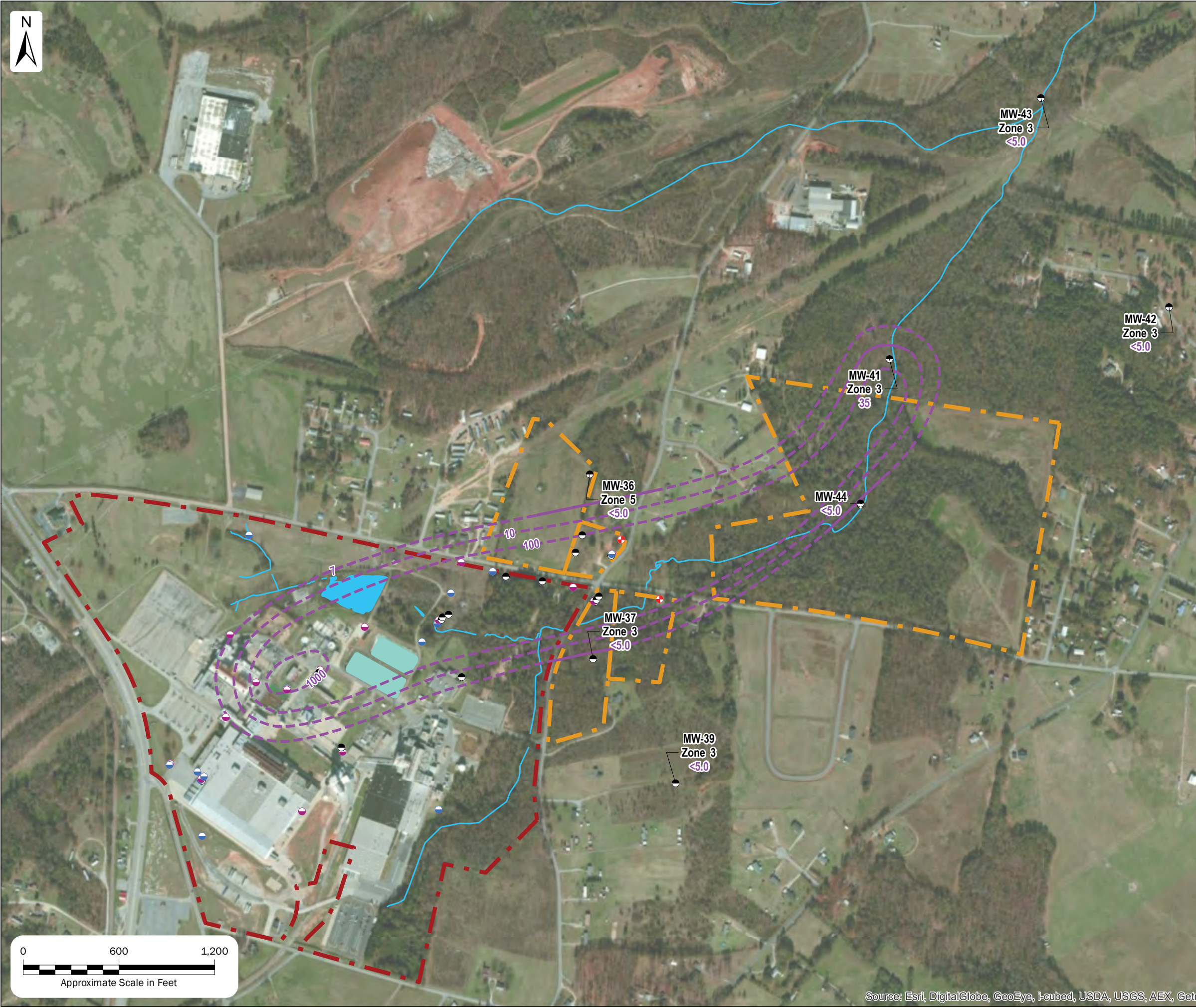
Figure 16
 Bedrock Aquifer
 Zone 574 to 630 Feet NAVD88
 1,1-Dichloroethene Isoconcentration Map
 August 2014

Anderson, Anderson County, South Carolina



PREPARED FOR:
Owens Corning

| | |
|-------------|------------|
| DATE: | 09/22/2014 |
| SCALE: | AS SHOWN |
| DRAWN BY: | GS4 |
| CHECKED BY: | TCB |
| PROJECT #: | 145492 |



LEGEND

- 21 1,1-Dichloroethene Concentration (µg/L)
- <5.0 Concentration Below Detection Limit
- 1,1-Dichloroethene Iso-Contour (µg/L)
- - - Estimated 1,1-Dichloroethene Iso-Contour (µg/L)
- [Red dashed line] Owens Corning Facility Boundary
- [Orange dashed line] Additional Owens Corning Properties
- [Blue circle] Overburden Monitoring Well
- [Pink circle] Top of Rock Monitoring Well
- [Black circle] Bedrock Monitoring Well
- [Red cross] Extraction Well
- [Blue wavy line] Stream or Creek
- [Light blue area] Abandoned Sludge Lagoon
- [Green area] Backwash Storage Ponds
- *

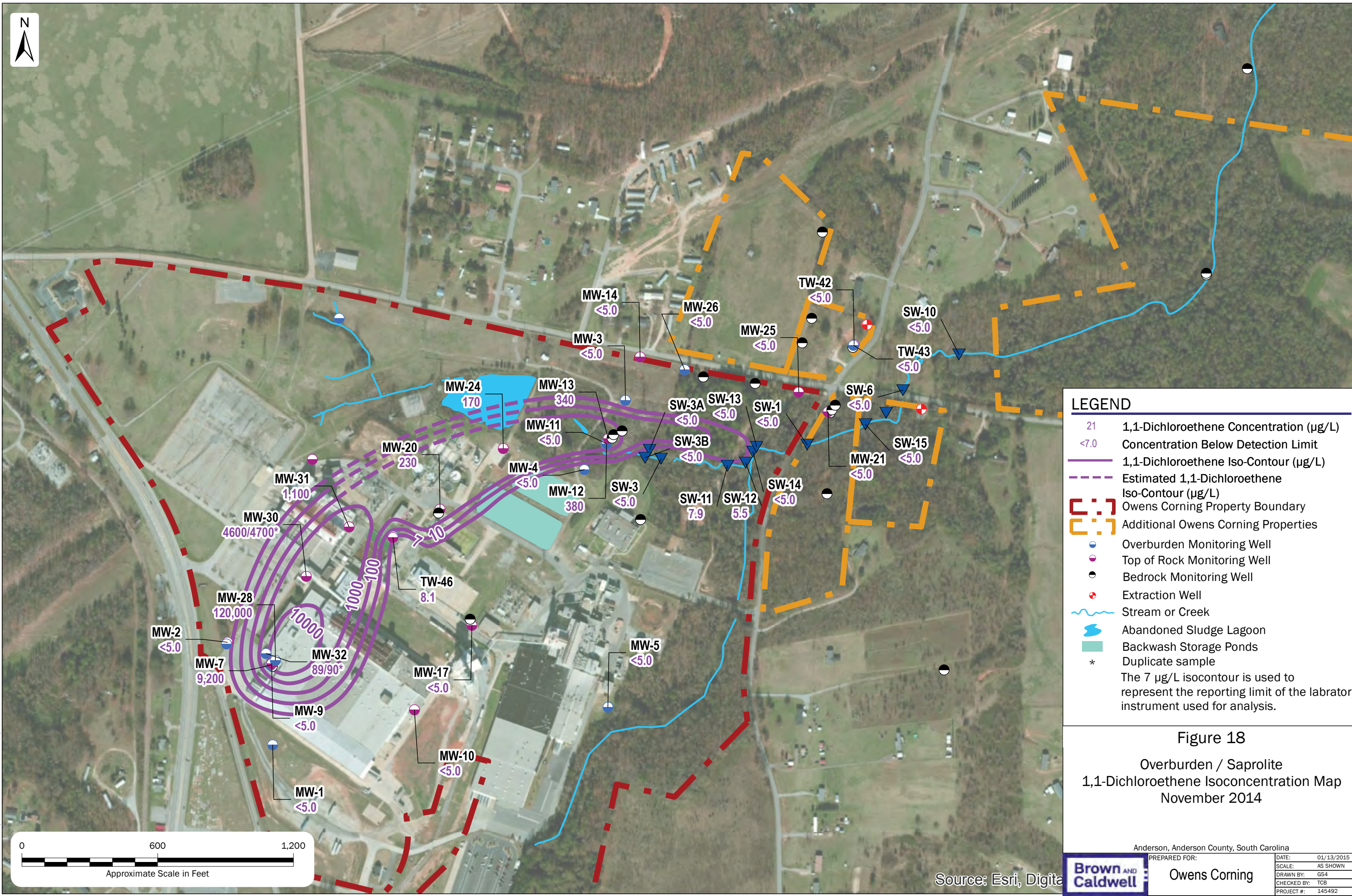
The 7 µg/L isocontour is used to represent the maximum contaminant level of 1,1-DCE.

Figure 17
Bedrock Aquifer
Zone 430 to 530 Feet NAVD88
1,1-Dichloroethene Isoconcentration Map
August 2014

Anderson, Anderson County, South Carolina



| | | | |
|---------------|---------------|------------|------------|
| PREPARED FOR: | Owens Corning | DATE: | 12/30/2014 |
| SCALE: | AS SHOWN | DRAWN BY: | GS4 |
| CHECKED BY: | TCB | PROJECT #: | 145492 |

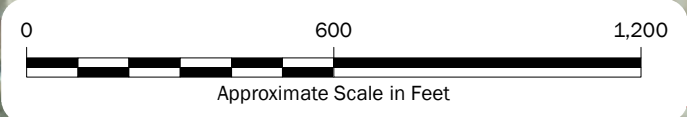


LEGEND

- 21 1,1-Dichloroethene Concentration ($\mu\text{g/L}$)
- <7.0 Concentration Below Detection Limit
- 1,1-Dichloroethene Iso-Contour ($\mu\text{g/L}$)
- - - Estimated 1,1-Dichloroethene Iso-Contour ($\mu\text{g/L}$)
- - - Owens Corning Property Boundary
- - - Additional Owens Corning Properties
- Overburden Monitoring Well
- Top of Rock Monitoring Well
- Bedrock Monitoring Well
- Extraction Well
- ~ Stream or Creek
- Abandoned Sludge Lagoon
- Backwash Storage Ponds
- * Duplicate sample

The 7 $\mu\text{g/L}$ isocontour is used to represent the reporting limit of the laboratory instrument used for analysis.

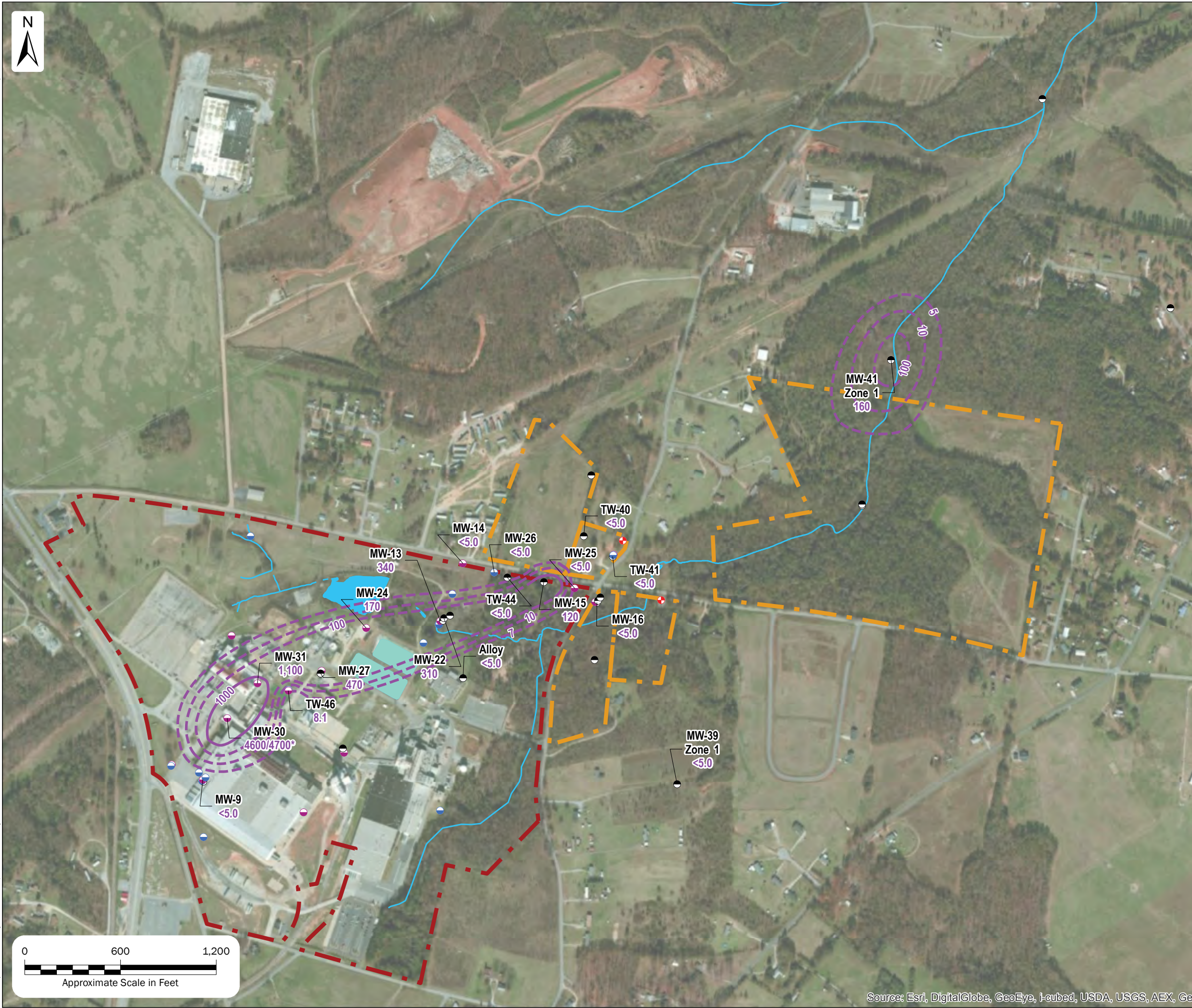
Figure 18
 Overburden / Saprolite
 1,1-Dichloroethene Isoconcentration Map
 November 2014



Source: Esri, Digital

Anderson, Anderson County, South Carolina

| | | | |
|---------------|---------------|-------------|------------|
| PREPARED FOR: | Owens Corning | DATE: | 01/13/2015 |
| | | SCALE: | AS SHOWN |
| | | DRAWN BY: | GS4 |
| | | CHECKED BY: | TCB |
| | | PROJECT #: | 145492 |

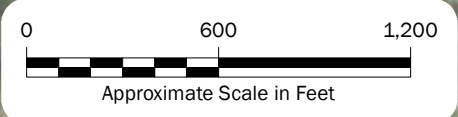


LEGEND

- 21 1,1-Dichloroethene Concentration ($\mu\text{g/L}$)
- <math><7.0</math> Concentration Below Detection Limit
- 1,1-Dichloroethene Iso-Contour ($\mu\text{g/L}$)
- - - Estimated 1,1-Dichloroethene Iso-Contour ($\mu\text{g/L}$)
- [Red Dashed Line] Owens Corning Property Boundary
- [Orange Dashed Line] Additional Owens Corning Properties
- [Blue Circle] Overburden Monitoring Well
- [Purple Circle] Top of Rock Monitoring Well
- [Black Circle] Bedrock Monitoring Well
- [Red Circle with Cross] Extraction Well
- [Blue Wavy Line] Stream or Creek
- [Light Blue Area] Abandoned Sludge Lagoon
- [Light Green Area] Backwash Storage Ponds
- [*] Duplicate sample

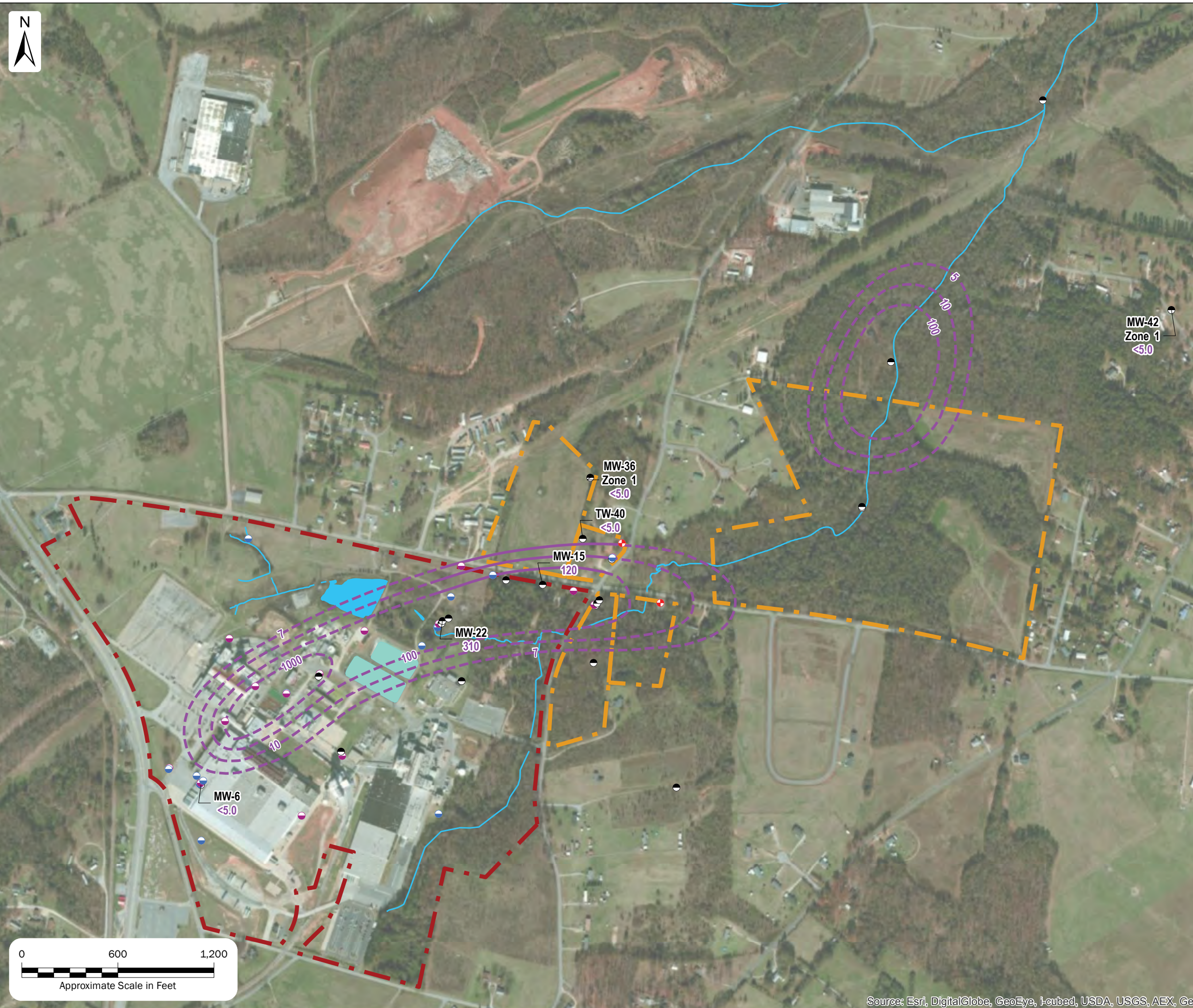
The 7 $\mu\text{g/L}$ isocontour is used to represent the reporting limit of the laboratory instrument used for analysis.

Figure 19
 Bedrock Aquifer
 Zone 699 to 740 Feet NAVD88
 1,1-Dichloroethene Isoconcentration Map
 November 2014



Anderson, Anderson County, South Carolina

| | | | | |
|--|---------------|---------------|------------|------------|
| | PREPARED FOR: | Owens Corning | DATE: | 01/13/2015 |
| | SCALE: | AS SHOWN | DRAWN BY: | GS4 |
| | CHECKED BY: | TCB | PROJECT #: | 145492 |
| | | | | |
| | | | | |

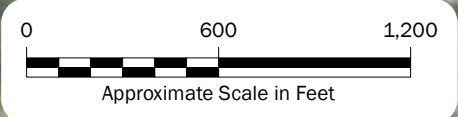


LEGEND

- 21 1,1-Dichloroethene Concentration (µg/L)
- <5.0 Concentration Below Detection Limit
- 1,1-Dichloroethene Iso-Contour (µg/L)
- - - Estimated 1,1-Dichloroethene Iso-Contour (µg/L)
- [Red Dashed Line] Owens Corning Property Boundary
- [Orange Dashed Line] Additional Owens Corning Properties
- [Blue Circle] Overburden Monitoring Well
- [Pink Circle] Top of Rock Monitoring Well
- [Black Circle] Bedrock Monitoring Well
- [Red Circle] Extraction Well
- [Blue Wavy Line] Stream or Creek
- [Blue Shaded Area] Abandoned Sludge Lagoon
- [Green Shaded Area] Backwash Storage Ponds
- [*] Duplicate sample

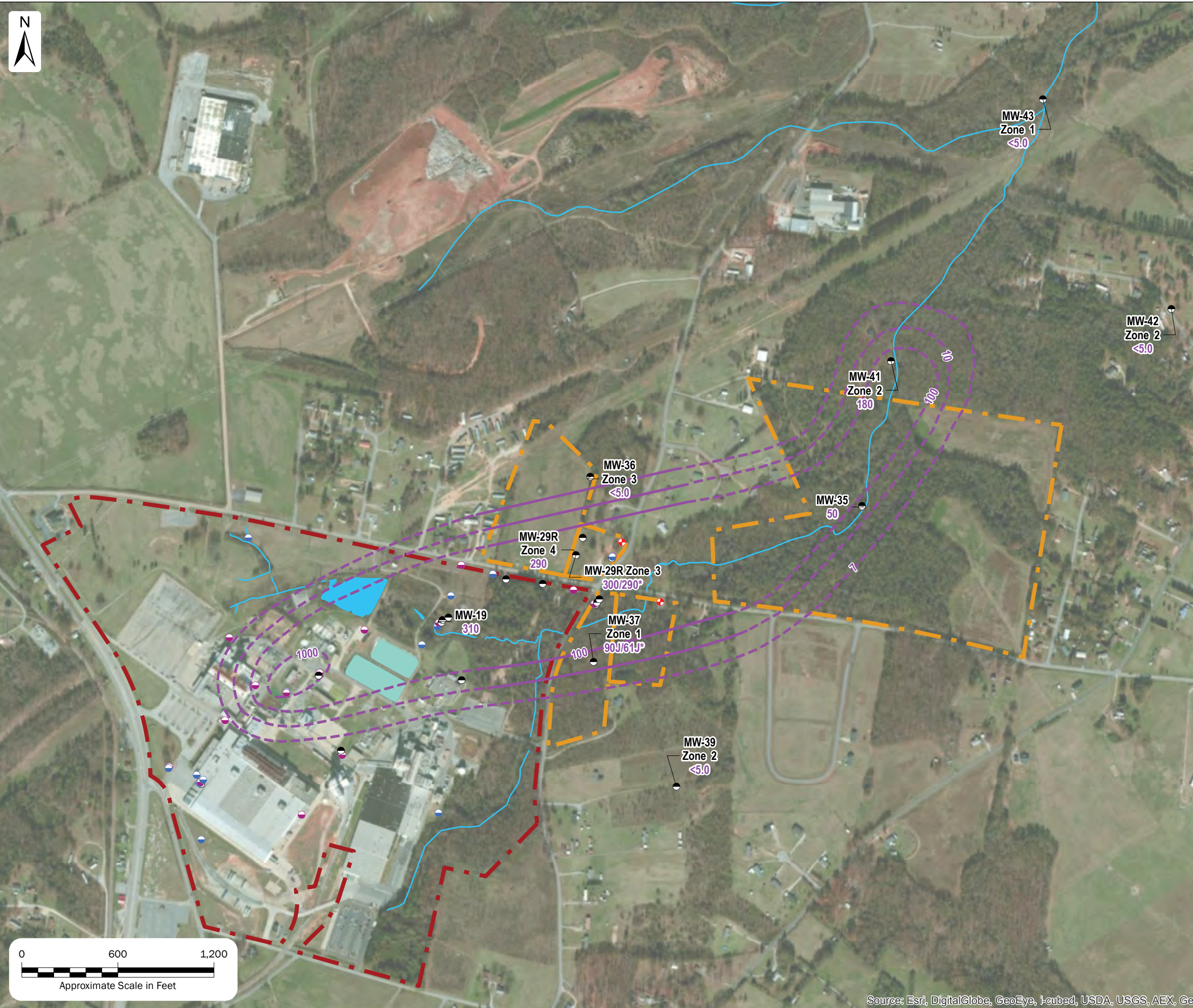
The 7 µg/L isocontour is used to represent the reporting limit of the laboratory instrument used for analysis.

Figure 20
 Bedrock Aquifer
 Zone 632 to 699 Feet NAVD88
 1,1-Dichloroethene Isoconcentration Map
 November 2014



Anderson, Anderson County, South Carolina

| | | | | |
|---------------------------|---------------|---------------|------------|------------|
| Brown AND Caldwell | PREPARED FOR: | Owens Corning | DATE: | 01/15/2015 |
| | SCALE: | AS SHOWN | DRAWN BY: | GS4 |
| | CHECKED BY: | TCB | PROJECT #: | 145492 |
| | | | | |
| | | | | |

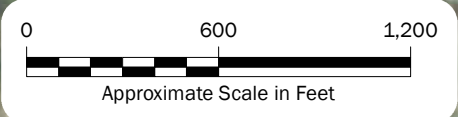


LEGEND

- 21 1,1-Dichloroethene Concentration (µg/L)
- <5.0 Concentration Below Detection Limit
- 1,1-Dichloroethene Iso-Contour (µg/L)
- - - Estimated 1,1-Dichloroethene Iso-Contour (µg/L)
- [Red dashed line] Owens Corning Property Boundary
- [Orange dashed line] Additional Owens Corning Properties
- [Blue circle] Overburden Monitoring Well
- [Pink circle] Top of Rock Monitoring Well
- [Black circle] Bedrock Monitoring Well
- [Red circle with dot] Extraction Well
- [Blue wavy line] Stream or Creek
- [Light blue area] Abandoned Sludge Lagoon
- [Green area] Backwash Storage Ponds
- *
- J

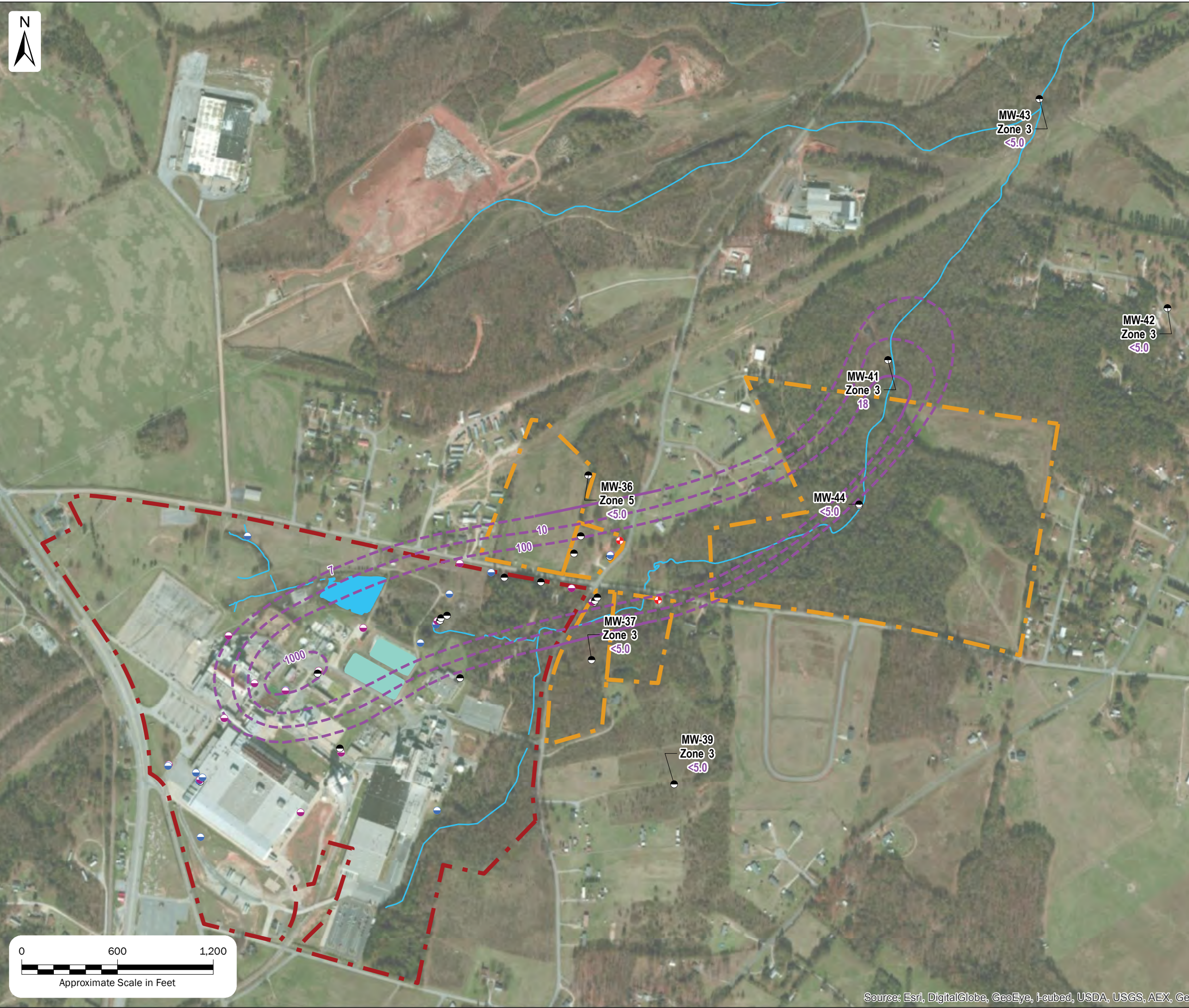
The 7 µg/L isocontour is used to represent the reporting limit of the laboratory instrument used for analysis.

Figure 21
 Bedrock Aquifer
 Zone 574 to 630 Feet NAVD88
 1,1-Dichloroethene Isoconcentration Map
 November 2014



Anderson, Anderson County, South Carolina

| | | | | |
|---------------------------|---------------|---------------|-------------|------------|
| Brown and Caldwell | PREPARED FOR: | Owens Corning | DATE: | 01/13/2015 |
| | | | SCALE: | AS SHOWN |
| | | | DRAWN BY: | GS4 |
| | | | CHECKED BY: | TCB |
| | | | PROJECT #: | 145492 |



LEGEND

- 21 1,1-Dichloroethene Concentration (µg/L)
- <5.0 Concentration Below Detection Limit
- 1,1-Dichloroethene Iso-Contour (µg/L)
- - - Estimated 1,1-Dichloroethene Iso-Contour (µg/L)
- [Red dashed line] Owens Corning Facility Boundary
- [Orange dashed line] Additional Owens Corning Properties
- [Blue circle] Overburden Monitoring Well
- [Pink circle] Top of Rock Monitoring Well
- [Black circle] Bedrock Monitoring Well
- [Red cross] Extraction Well
- [Blue wavy line] Stream or Creek
- [Light blue area] Abandoned Sludge Lagoon
- [Teal area] Backwash Storage Ponds
- [*] Duplicate sample

The 7 µg/L isocontour is used to represent the maximum contaminant level of 1,1-DCE.

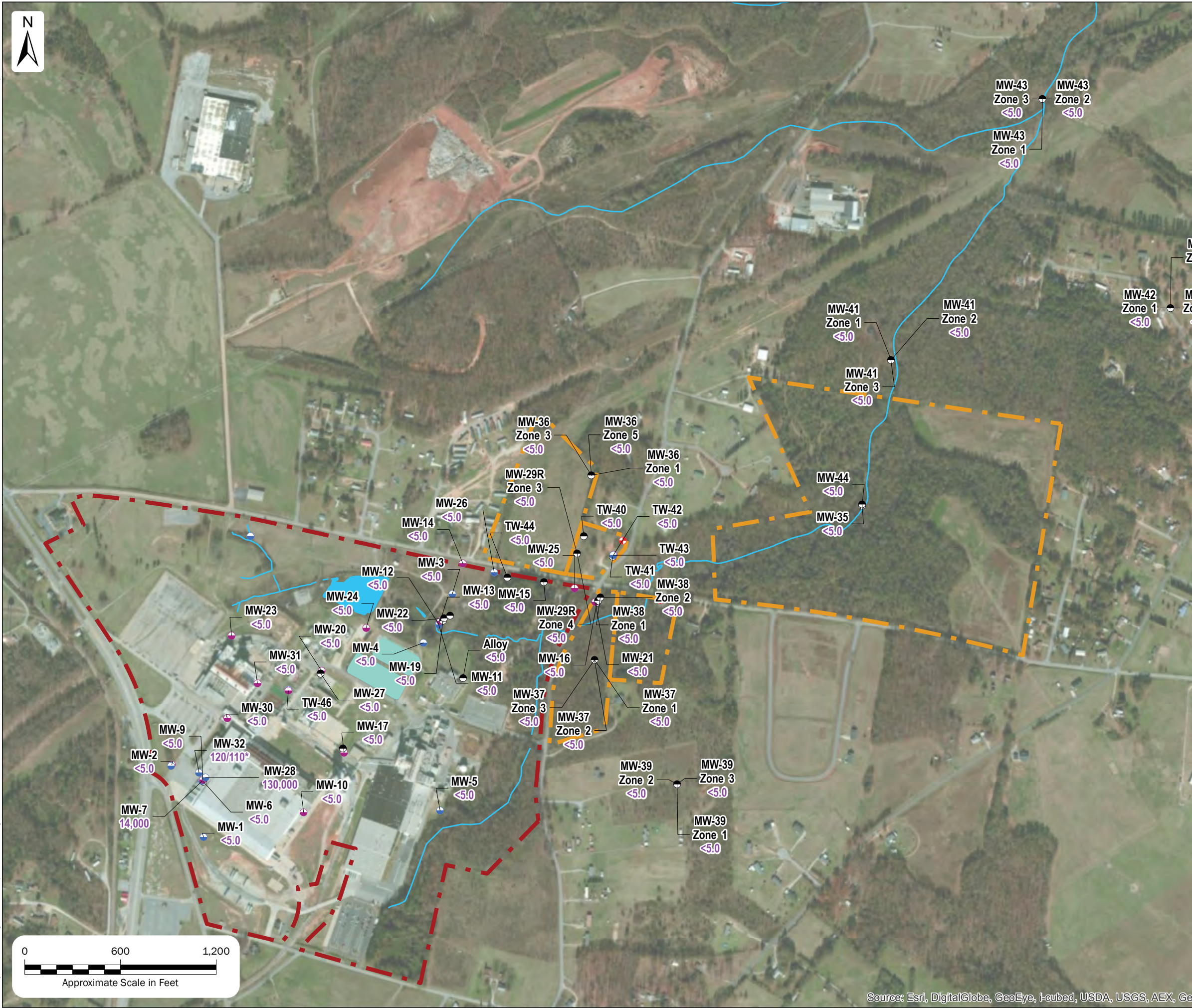
Figure 22
 Bedrock Aquifer
 Zone 430 to 530 Feet NAVD88
 1,1-Dichloroethene Isoconcentration Map
 November 2014

Anderson, Anderson County, South Carolina



PREPARED FOR:
Owens Corning

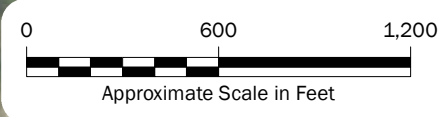
| | |
|-------------|------------|
| DATE: | 01/13/2015 |
| SCALE: | AS SHOWN |
| DRAWN BY: | GS4 |
| CHECKED BY: | TCB |
| PROJECT #: | 145492 |



LEGEND

- 12 1,1,1-Trichloroethane Concentration (µg/L)
- <5.0 Concentration Below Detection Limit
- [Red dashed line] Owens Corning Property Boundary
- [Orange dashed line] Additional Owens Corning Properties
- [Blue circle with dot] Overburden Monitoring Well
- [Purple circle with dot] Top of Rock Monitoring Well
- [Black circle with dot] Bedrock Monitoring Well
- [Red circle with cross] Extraction Well
- [Blue wavy line] Stream or Creek
- [Blue irregular shape] Abandoned Sludge Lagoon
- [Green rectangle] Backwash Storage Ponds
- *

Figure 23
 1,1,1-Trichloroethane Concentration Map
 November 2014



Anderson, Anderson County, South Carolina

| | | |
|--|---------------|---------------|
| | PREPARED FOR: | Owens Corning |
| | DATE: | 12/30/2014 |
| | SCALE: | AS SHOWN |
| | DRAWN BY: | GS4 |
| | CHECKED BY: | TCB |
| | PROJECT #: | 145492 |

**Table 1. Quarterly Sampling Groundwater Elevation Data [August 25, 2014
Owens Corning [Anderson, SC**

| Monitoring Well | Screen Interval (ft bgs) | Screened Interval Location | Surface Elevation (ft NAVD88) | TOC Elevation (ft NAVD88) | Static Depth to Water (ft Below TOC) 8/25/2014 | Static Water Elevation, (ft NAVD88) 8/25/2014 |
|-----------------------------|-----------------------------|----------------------------------|----------------------------------|------------------------------|---|--|
| MW-3 | 13-28 | O | 795.61 | 796.76 | 19.09 | 777.67 |
| MW-4 | 14.7-29.7 | O | 796.72 | 798.38 | 21.78 | 776.60 |
| MW-6 | 123.6-133.6 | BR | 819.82 | 819.69 | 19.13 | 800.56 |
| MW-11 | 6.0-16.0 | O | 778.32 | 780.22 | 4.98 | 775.24 |
| MW-12 | 23-33 | O | 778.42 | 780.95 | 6.86 | 774.09 |
| MW-13 | 67-72 | TOR | 779.20 | 782.22 | 9.06 | 773.16 |
| MW-14 | 69.2-74.2 | TOR | 796.39 | 798.45 | 17.83 | 780.62 |
| MW-15 | 69.5-99.5 | BR | 777.11 | 779.45 | 24.61 | 754.84 |
| MW-16 | 49-59 | BR | 768.14 | 770.37 | 10.98 | 759.39 |
| MW-19 | 154-169 | BR | 779.69 | 781.81 | 11.61 | 770.20 |
| MW-21 | 6.5-16.5 | TOR | 768.63 | 771.15 | 7.97 | 763.18 |
| MW-22 | 78-116 | BR | 780.45 | 782.65 | 11.44 | 771.21 |
| MW-23 | 83-93 | TOR | 808.97 | 811.47 | 12.73 | 798.74 |
| MW-25 | 40-50 | TOR | 774.40 | 776.71 | 11.74 | 764.97 |
| MW-26 | 56.7-66.7 | O | 790.40 | 793.09 | 15.03 | 778.06 |
| MW-27 | 69-99 | BR | 808.93 | 811.13 | 22.06 | 789.07 |
| MW-29R Zone 1 | 56.7-69.8 | BR | 784.90 | 787.03 | 15.72 | 771.31 |
| MW-29R Zone 2 | 127.3-139.5 | BR | 784.90 | 787.03 | 9.67 | 777.36 |
| MW-29R Zone 3 | 154.5-169.6 | BR | 784.90 | 787.03 | 25.83 | 761.20 |
| MW-29R Zone 4 | 177.6-202.2 | BR | 784.90 | 787.03 | 31.10 | 755.93 |
| MW-35 ^a | 152-162 | BR | 740.90 | 743.73 | 10.46 | 733.27 |
| MW-36 Zone 1 | 99.1-116 | BR | 783.00 | 785.63 | 8.47 | 777.16 |
| MW-36 Zone 2 | 139.5-150.7 | BR | 783.00 | 785.63 | 8.39 | 777.24 |
| MW-36 Zone 3 | 180.2-192.7 | BR | 783.00 | 785.63 | 14.06 | 771.57 |
| MW-36 Zone 4 | 225.6-239.2 | BR | 783.00 | 785.63 | 16.22 | 769.41 |
| MW-36 Zone 5 | 269.9-275 | BR | 783.00 | 785.63 | 20.72 | 764.91 |
| MW-37 Zone 1 | 185-195 | BR | 780.20 | 782.92 | 33.98 | 748.94 |
| MW-37 Zone 2 | 222-232 | BR | 780.20 | 782.84 | 29.71 | 753.13 |
| MW-37 Zone 3 | 257-272 | BR | 780.20 | 782.79 | 32.17 | 750.62 |
| MW-38 Zone 1 | 415-430 | BR | 768.10 | 771.23 | 12.40 | 758.83 |
| MW-38 Zone 2 ^{a,b} | 479.6-499.6 | BR | 768.10 | 771.18 | -0.05 | 771.23 |
| MW-39 Zone 1 | 95-105 | BR | 804.10 | 806.20 | 16.64 | 789.56 |
| MW-39 Zone 2 | 195-215 | BR | 804.10 | 806.20 | 35.30 | 770.90 |
| MW-39 Zone 3 | 280-300 | BR | 804.10 | 806.20 | 49.98 | 756.22 |
| MW-41 Zone 1 | 17-32 | BR | 733.40 | 736.56 | 7.34 | 729.22 |
| MW-41 Zone 2 ^a | 109-129 | BR | 733.40 | 736.79 | 4.96 | 731.83 |
| MW-41 Zone 3 | 279-299 | BR | 733.40 | 736.77 | 12.64 | 724.13 |
| MW-42 Zone 1 | 114-129 | BR | 785.50 | 785.44 | 34.85 | 750.59 |
| MW-42 Zone 2 | 202-222 | BR | 785.50 | 785.42 | 32.83 | 752.59 |
| MW-42 Zone 3 | 265-285 | BR | 785.50 | 785.40 | 33.47 | 751.93 |
| MW-43 Zone 1 | 91.8 - 111.8 | BR | 716.15 | 719.19 | 7.77 | 711.42 |
| MW-43 Zone 2 | 149.57 - 179.57 | BR | 716.15 | 719.20 | 5.12 | 714.08 |
| MW-43 Zone 3 | 261.8 - 281.8 | BR | 716.15 | 719.17 | 2.57 | 716.60 |
| MW-44 | 280-300 | BR | 741.00 | 743.95 | 11.00 | 732.95 |
| P1 | 24.5-39.5 | BR | 813.10 | 815.42 | 24.09 | 791.33 |
| P2 | 53-115 | BR | 783.93 | 785.65 | 12.47 | 773.18 |
| Alloy | 56-61 | BR | 789.56 | 791.69 | 16.05 | 775.64 |
| TW-40 | 84-94 | BR | 785.81 | 788.63 | 15.13 | 773.50 |
| TW-41 | 50.3-55.3 | BR | 775.50 | 778.84 | 16.46 | 762.38 |
| TW-42 | 21-26 | TOR | 775.86 | 778.09 | 15.56 | 762.53 |
| TW-43 | 8.6-18.6 | O | 775.82 | 778.15 | 15.41 | 762.74 |
| TW-44 | 64-74 | BR | 782.68 | 785.52 | 10.89 | 774.63 |
| TW-45 ^c | 18.8-28.8 | O | 816.70 | 816.76 | NG | NG |
| TW-46 | 83.3-88.3 | TOR | 816.72 | 816.58 | 24.09 | 792.49 |

bgs - below ground surface

BR - bedrock

NG - not gauged

O - overburden

TOR - top of rock

TOC - top of casing

NAVD88 - North American Vertical Datum of 1988

ft bgs - feet below ground surface

^a MW-35, MW-38 Zone 2, MW-41 Zone 2 TOC elevation has been adjusted by adding couplings and ball valve to surveyed elevation at top of casing.

^b Static depth to water readings at artesian well (MW-38 Zone 2) were measured by using a ruler to measure the height of flow coming from the flow valve.

^c Water level was not measured due to collapse of well.

Table 2. Annual Sampling Groundwater Elevation Data - November 17, 2014
Owens Corning - Anderson, SC

| Monitoring Well | Screen Interval (ft bgs) | Screened Interval Location | Surface Elevation (ft NAVD88) | TOC Elevation (ft NAVD88) | Static Depth to Water (ft Below TOC) 11/17/2014 | Static Water Elevation, (ft NAVD88) 11/17/2014 |
|-----------------------------|-----------------------------|----------------------------------|----------------------------------|------------------------------|--|---|
| MW-1 | 55-65 | O | 824.27 | 826.62 | 21.73 | 804.89 |
| MW-2 | 56.7-66.7 | TOR | 820.26 | 822.68 | 20.68 | 802.00 |
| MW-3 | 13-28 | O | 795.61 | 796.76 | 19.46 | 777.30 |
| MW-4 | 14.7-29.7 | O | 796.72 | 798.38 | 22.24 | 776.14 |
| MW-5 | 12.0-27.0 | O | 804.74 | 806.50 | 18.28 | 788.22 |
| MW-6 | 123.6-133.6 | BR | 819.82 | 819.69 | 17.08 | 802.61 |
| MW-7 | 15.9-30.9 | O | 819.70 | 819.27 | 16.89 | 802.38 |
| MW-8 | 5.5-20.5 | O | 799.29 | 801.56 | NG | NG |
| MW-9 | 94-104 | TOR | 819.75 | 819.41 | 17.01 | 802.40 |
| MW-10 | 61.4-71.4 | TOR | 823.92 | 823.65 | 25.45 | 798.20 |
| MW-11 | 6.0-16.0 | O | 778.32 | 780.22 | 6.41 | 773.81 |
| MW-12 | 23-33 | O | 778.42 | 780.95 | 7.21 | 773.74 |
| MW-13 | 67-72 | TOR | 779.20 | 782.22 | 9.44 | 772.78 |
| MW-14 | 69.2-74.2 | TOR | 796.39 | 798.45 | 20.78 | 777.67 |
| MW-15 | 69.5-99.5 | BR | 777.11 | 779.45 | 24.99 | 754.46 |
| MW-16 | 49-59 | BR | 768.14 | 770.37 | 9.96 | 760.41 |
| MW-17 | 24.1-39.1 | TOR | 813.66 | 816.07 | 22.04 | 794.03 |
| MW-18 | 10.6-25.6 | O | 820.36 | 822.71 | 20.76 | 801.95 |
| MW-19 | 154-169 | BR | 779.69 | 781.81 | 12.00 | 769.81 |
| MW-20 | 57-67 | TOR | 808.70 | 810.95 | 22.68 | 788.27 |
| MW-21 | 6.5-16.5 | TOR | 768.63 | 771.15 | 7.44 | 763.71 |
| MW-22 | 78-116 | BR | 780.45 | 782.65 | 11.75 | 770.90 |
| MW-23 | 83-93 | TOR | 808.97 | 811.47 | 13.72 | 797.75 |
| MW-24 | 61-71 | TOR | 796.50 | 796.26 | 10.84 | 785.42 |
| MW-25 | 40-50 | TOR | 774.40 | 776.71 | 11.71 | 765.00 |
| MW-26 | 56.7-66.7 | O | 790.40 | 793.09 | 18.21 | 774.88 |
| MW-27 | 69-99 | BR | 808.93 | 811.13 | 22.86 | 788.27 |
| MW-28 | 21-31 | O | 819.97 | 819.77 | 17.42 | 802.35 |
| MW-29R Zone 1 | 56.7-69.8 | BR | 784.90 | 787.03 | 20.61 | 765.33 |
| MW-29R Zone 2 | 127.3-139.5 | BR | 784.90 | 787.03 | 15.62 | 768.24 |
| MW-29R Zone 3 | 154.5-169.6 | BR | 784.90 | 787.03 | 28.89 | 758.99 |
| MW-29R Zone 4 | 177.6-202.2 | BR | 784.90 | 787.03 | 31.49 | 755.06 |
| MW-30 | 103-113 | TOR | 819.50 | 819.14 | 23.01 | 796.13 |
| MW-31 | 80-90 | TOR | 818.20 | 817.96 | 24.71 | 793.25 |
| MW-32 | 25-35 | O | 819.68 | 819.40 | 17.14 | 802.26 |
| MW-35 ^a | 152-162 | BR | 740.90 | 743.73 | 11.83 | 731.90 |
| MW-36 Zone 1 | 99.1-116 | BR | 783.00 | 785.63 | 14.97 | 767.84 |
| MW-36 Zone 2 | 139.5-150.7 | BR | 783.00 | 785.63 | 15.32 | 767.83 |
| MW-36 Zone 3 | 180.2-192.7 | BR | 783.00 | 785.63 | 20.61 | 763.42 |
| MW-36 Zone 4 | 225.6-239.2 | BR | 783.00 | 785.63 | 22.02 | 762.13 |
| MW-36 Zone 5 | 269.9-275 | BR | 783.00 | 785.63 | 26.63 | 754.95 |
| MW-37 Zone 1 | 185-195 | BR | 780.20 | 782.92 | 34.61 | 748.31 |
| MW-37 Zone 2 | 222-232 | BR | 780.20 | 782.84 | 30.18 | 752.66 |
| MW-37 Zone 3 | 257-272 | BR | 780.20 | 782.79 | 36.96 | 745.83 |
| MW-38 Zone 1 | 415-430 | BR | 768.10 | 771.23 | 14.75 | 756.48 |
| MW-38 Zone 2 ^{a,b} | 479.6-499.6 | BR | 768.10 | 771.18 | -0.20 | 771.38 |
| MW-39 Zone 1 | 95-105 | BR | 804.10 | 806.20 | 18.37 | 787.83 |
| MW-39 Zone 2 | 195-215 | BR | 804.10 | 806.20 | 36.23 | 769.97 |
| MW-39 Zone 3 | 280-300 | BR | 804.10 | 806.20 | 50.38 | 755.82 |
| MW-41 Zone 1 | 17-32 | BR | 733.40 | 736.56 | 7.01 | 729.55 |
| MW-41 Zone 2 ^a | 109-129 | BR | 733.40 | 736.79 | 4.97 | 731.82 |
| MW-41 Zone 3 | 279-299 | BR | 733.40 | 736.77 | 17.53 | 719.24 |
| MW-42 Zone 1 | 114-129 | BR | 785.50 | 785.44 | 36.72 | 748.72 |
| MW-42 Zone 2 | 202-222 | BR | 785.50 | 785.42 | 34.84 | 750.58 |
| MW-42 Zone 3 | 265-285 | BR | 785.50 | 785.40 | 34.82 | 750.58 |
| MW-43 Zone 1 | 91.8 - 111.8 | BR | 716.15 | 719.19 | 7.44 | 711.75 |
| MW-43 Zone 2 | 149.57 - 179.57 | BR | 716.15 | 719.20 | 4.85 | 714.35 |
| MW-43 Zone 3 | 261.8 - 281.8 | BR | 716.15 | 719.17 | 2.49 | 716.68 |
| MW-44 | 280-300 | BR | 741.00 | 743.95 | 11.24 | 732.71 |
| P1 | 24.5-39.5 | BR | 813.10 | 815.42 | 21.54 | 793.88 |
| P2 | 53-115 | BR | 783.93 | 785.65 | 12.83 | 772.82 |
| Alloy | 56-61 | BR | 789.56 | 791.69 | 16.41 | 775.28 |
| TW-40 | 84-94 | BR | 785.81 | 788.63 | 19.16 | 769.47 |
| TW-41 | 50.3-55.3 | BR | 775.50 | 778.84 | 17.23 | 761.61 |
| TW-42 | 21-26 | TOR | 775.86 | 778.09 | 16.57 | 761.52 |
| TW-43 | 8.6-18.6 | O | 775.82 | 778.15 | 16.32 | 761.83 |
| TW-44 | 64-74 | BR | 782.68 | 785.52 | 12.03 | 773.49 |
| TW-45 ^c | 18.8-28.8 | O | 816.70 | 816.76 | NG | NG |
| TW-46 | 83.3-88.3 | TOR | 816.72 | 816.58 | 24.81 | 791.77 |

BR - bedrock

O - overburden

TOR - top of rock

TOC - top of casing

NAVD88 - North American Vertical Datum of 1988

ft bgs - feet below ground surface

^a MW-35, MW-38 Zone 2, MW-41 Zone 2 TOC elevation has been adjusted by adding couplings and ball valve to surveyed elevation at top of casing.

^b Static depth to water readings at artesian well (MW-38 Zone 2) were measured by using a ruler to measure the height of flow coming from the flow valve.

^c Water level was not measured due to collapse of well.

Table 3. Well Construction Details

| Owens Corning [Anderson, SC] | | | | | | | | | | | | |
|------------------------------|------------------|----------------------|----------------|---------------------------|------------------------------------|---------------------------------------|----------------------------|------------------------|--|--|-------------------------------|---------------------------|
| Monitoring Well | Well Type | Monitoring Frequency | Date Installed | Screen Interval* (ft bgs) | Top of Screen Interval (ft NAVD88) | Bottom of Screen Interval (ft NAVD88) | Screened Interval Location | Depth to Rock (ft bgs) | Northing (ft - South Carolina State Plane NAD83) | Eastings (ft - South Carolina State Plane NAD83) | Surface Elevation (ft NAVD88) | TOC Elevation (ft NAVD88) |
| MW-1 | 2" AG | Annually | 02/22/93 | 55 - 65 | 769.27 | 759.27 | 0 | >65 | 950361.45 | 1499402.43 | 824.27 | 826.62 |
| MW-2 | 2" AG | Annually | 02/24/93 | 56.7 - 66.7 | 763.56 | 753.56 | TOR | 66 | 950815.49 | 1499202.99 | 820.26 | 822.68 |
| MW-3 | 2" AG | Annually | 10/15/90 | 13 - 28 | 782.61 | 767.61 | 0 | >31.5 | 951884.52 | 1500961.49 | 795.61 | 796.76 |
| MW-4 | 2" AG | Annually | 10/16/90 | 14.7 - 29.7 | 782.02 | 767.02 | 0 | >33 | 951578.17 | 1500780.04 | 796.72 | 798.38 |
| MW-5 | 2" AG | Annually | 10/18/90 | 12.0 - 27.0 | 792.74 | 777.74 | 0 | >30 | 950527.98 | 1500884.25 | 804.74 | 806.50 |
| MW-6 | 2" F | Annually | 03/16/93 | 123.6 - 133.6 | 696.22 | 686.22 | BR | 105 | 950709.08 | 1499400.62 | 819.82 | 819.69 |
| MW-7 | 2" F | Annually | 10/19/90 | 15.9 - 30.9 | 803.80 | 788.80 | 0 | >36.5 | 950714.02 | 1499393.19 | 819.70 | 819.27 |
| MW-8 | 2" AG | NM | 10/16/90 | 5.5 - 20.5 | 793.79 | 778.79 | 0 | >36.5 | 952247.16 | 1499696.61 | 799.29 | 801.56 |
| MW-9 | 2" F | Annually | 03/17/93 | 94 - 104 | 725.75 | 715.75 | TOR | 105 | 950720.70 | 1499398.33 | 819.75 | 819.41 |
| MW-10 | 2" F | Annually | 02/18/93 | 61.4 - 71.4 | 762.52 | 752.52 | TOR | 72 | 950516.57 | 1500028.94 | 823.92 | 823.65 |
| MW-11 | 2" AG | Annually | 09/11/85 | 6.0 - 16.0 | 772.32 | 762.32 | 0 | >16 | 951694.26 | 1500875.42 | 778.32 | 780.22 |
| MW-12 | 2" AG | Annually | 09/11/85 | 23 - 33 | 755.42 | 745.42 | 0 | >33 | 951692.46 | 1500878.27 | 778.42 | 780.95 |
| MW-13 | 2" AG | Annually | 03/10/93 | 67 - 72 | 712.20 | 707.20 | TOR | 61 | 951715.51 | 1500885.54 | 779.20 | 782.22 |
| MW-14 | 2" AG | Annually | 02/10/93 | 69.2 - 74.2 | 727.19 | 722.19 | TOR | 73 | 952076.49 | 1501026.29 | 796.39 | 798.45 |
| MW-15 | 2" AG | Quarterly | 08/08/93 | 69.5 - 99.5 | 707.61 | 677.61 | BR | 12 | 951960.13 | 1501534.65 | 777.11 | 779.45 |
| MW-16 | 2" AG | Annually | 08/05/93 | 49 - 59 | 719.14 | 709.14 | BR | 15 | 951830.99 | 1501866.46 | 768.14 | 770.37 |
| MW-17 | 4" AG | Annually | 02/18/93 | 24.1 - 39.1 | 789.56 | 774.56 | TOR | 39 | 950890.06 | 1500282.57 | 813.66 | 816.07 |
| MW-18 | 2" AG | Annually | 02/15/93 | 10.6 - 25.6 | 809.76 | 794.76 | 0 | >30 | 950807.43 | 1499198.46 | 820.36 | 822.71 |
| MW-19 | 2" AG | Annually | 08/05/93 | 154 - 169 | 625.69 | 610.69 | BR | 72 | 951718.14 | 1500902.65 | 779.69 | 781.81 |
| MW-20 | 2" AG | Annually | 04/21/93 | 57 - 67 | 751.70 | 741.70 | TOR | 64 | 951403.36 | 1500142.14 | 808.70 | 810.95 |
| MW-21 | 2" AG | Annually | 04/23/93 | 6.5 - 16.5 | 762.13 | 752.13 | TOR | 16 | 951834.28 | 1501856.83 | 768.63 | 771.15 |
| MW-22 | 8" AG | Quarterly | 08/17/93 | 78 - 116 | 702.45 | 664.45 | BR | 51 | 951733.53 | 1500909.06 | 780.45 | 782.65 |
| MW-23 | 2" AG | NM | 06/04/93 | 83 - 93 | 725.97 | 715.97 | TOR | 93 | 951623.62 | 1499577.68 | 808.97 | 811.47 |
| MW-24 | 2" F | Annually | 06/04/93 | 62 - 72 | 734.50 | 724.50 | TOR | 75 | 951671.65 | 1500421.59 | 796.50 | 796.27 |
| MW-25 | 2" AG | Annually | 06/09/93 | 40 - 50 | 734.40 | 724.40 | TOR | 50 | 951920.70 | 1501727.14 | 774.40 | 776.71 |
| MW-26 | 2" AG | Annually | 06/10/93 | 56.7 - 66.7 | 733.70 | 723.70 | 0 | >67.5 | 952020.02 | 1501223.27 | 790.40 | 793.09 |
| MW-27 | 8" AG | Annually | 08/11/93 | 69 - 99 | 739.93 | 709.93 | BR | 68.5 | 951386.97 | 1500135.48 | 808.93 | 811.13 |
| MW-28 | 2" F | Annually | 04/20/04 | 21 - 31 | 798.97 | 788.97 | 0 | >31 | 950735.05 | 1499414.47 | 819.97 | 819.77 |
| MW-29R Zone 1 | Waterloo - T | Quarterly | 11/06/08 | 56.7 - 69.8 | 728.20 | 715.10 | BR | 53 | 952139.28 | 1501742.31 | 784.90 | 787.03 |
| MW-29R Zone 2 | Waterloo - T | Quarterly | 11/06/08 | 127.3 - 139.5 | 657.60 | 645.40 | BR | 53 | 952139.28 | 1501742.31 | 784.90 | 787.03 |
| MW-29R Zone 3 | Waterloo - P & T | Quarterly | 11/06/08 | 154.5 - 169.6 | 630.40 | 615.30 | BR | 53 | 952139.28 | 1501742.31 | 784.90 | 787.03 |
| MW-29R Zone 4 | Waterloo - P & T | Quarterly | 11/06/08 | 177.6 - 202.2 | 607.30 | 582.70 | BR | 53 | 952139.28 | 1501742.31 | 784.90 | 787.03 |
| MW-30 | 2" F | Annually | 04/13/06 | 103 - 113 | 716.50 | 706.50 | TOR | 113 | 951106.58 | 1499550.99 | 819.50 | 819.14 |
| MW-31 | 2" F | Annually | 04/12/06 | 80 - 90 | 738.20 | 728.20 | TOR | 90 | 951325.04 | 1499740.38 | 818.20 | 811.96 |
| MW-32 | 2" F | Annually | 04/18/06 | 25 - 35 | 794.68 | 784.68 | 0 | >35 | 950765.22 | 1499373.24 | 818.68 | 819.40 |
| MW-34 Zone 1 | Waterloo - P & T | Not Usable | 11/06/08 | 59.9 - 60.4 | 710.16 | 709.66 | BR | 12 | 951843.19 | 1501873.86 | 768.10 | 770.06 |
| MW-34 Zone 2 | Waterloo - T | Not Usable | 11/06/08 | 114.4 - 114.9 | 655.66 | 655.16 | BR | 12 | 951843.19 | 1501873.86 | 768.10 | 770.06 |
| MW-34 Zone 3 | Waterloo - P & T | Not Usable | 11/06/08 | 149.9 - 150.4 | 620.16 | 619.66 | BR | 12 | 951843.19 | 1501873.86 | 768.10 | 770.06 |
| MW-34 Zone 4 | Waterloo - T | Not Usable | 11/06/08 | 174.4 - 174.9 | 595.66 | 595.16 | BR | 12 | 951843.19 | 1501873.86 | 768.10 | 770.06 |
| MW-34 Zone 5 | Waterloo - P & T | Not Usable | 11/06/08 | 239.9 - 240.4 | 530.16 | 529.66 | BR | 12 | 951843.19 | 1501873.86 | 768.10 | 770.06 |
| MW-35 | 2" AG | Quarterly | 10/02/08 | 152 - 162 | 588.90 | 578.90 | BR | 23 | 952440.05 | 1503528.88 | 740.90 | 743.73 |
| MW-36 Zone 1 | Waterloo - P & T | Quarterly | 11/06/08 | 99.1 - 116 | 683.90 | 667.00 | BR | 84 | 952629.06 | 1501831.75 | 783.00 | 785.63 |
| MW-36 Zone 2 | Waterloo - T | Quarterly | 11/06/08 | 139.5 - 150.7 | 643.50 | 632.30 | BR | 84 | 952629.06 | 1501831.75 | 783.00 | 785.63 |
| MW-36 Zone 3 | Waterloo - P & T | Quarterly | 11/06/08 | 180.2 - 192.7 | 602.80 | 590.30 | BR | 84 | 952629.06 | 1501831.75 | 783.00 | 785.63 |
| MW-36 Zone 4 | Waterloo - T | Quarterly | 11/06/08 | 225.6 - 239.2 | 557.40 | 543.80 | BR | 84 | 952629.06 | 1501831.75 | 783.00 | 785.63 |
| MW-36 Zone 5 | Waterloo - P & T | Quarterly | 11/06/08 | 269.9 - 275 | 513.10 | 508.00 | BR | 84 | 952629.06 | 1501831.75 | 783.00 | 785.63 |
| MW-37 Zone 1 | 1" AG | Quarterly | 09/30/08 | 185 - 195 | 595.20 | 585.20 | BR | 87 | 951472.16 | 1501852.30 | 780.20 | 782.92 |
| MW-37 Zone 2 | 1" AG | Quarterly | 09/30/08 | 222 - 232 | 558.20 | 548.20 | BR | 87 | 951472.16 | 1501852.13 | 780.20 | 782.84 |
| MW-37 Zone 3 | 1" AG | Quarterly | 09/30/08 | 257 - 272 | 523.20 | 508.20 | BR | 87 | 951472.27 | 1501852.21 | 780.20 | 782.79 |
| MW-38 Zone 1 | 1" AG | Quarterly | 07/21/10 | 415 - 430 | 353.10 | 338.10 | BR | 8 | 951863.56 | 1501888.44 | 768.10 | 771.23 |
| MW-38 Zone 2 | 1" AG | Quarterly | 07/21/10 | 479.6 - 499.6 | 288.50 | 268.50 | BR | 8 | 951863.46 | 1501888.63 | 768.10 | 771.18 |
| MW-39 Zone 1 | 1" AG | Quarterly | 07/19/10 | 95 - 105 | 709.10 | 699.10 | BR | 80 | 950693.36 | 1502369.57 | 804.10 | 806.02 |
| MW-39 Zone 2 | 1" AG | Quarterly | 07/20/10 | 195 - 215 | 609.10 | 589.10 | BR | 80 | 950693.25 | 1502369.71 | 804.10 | 806.02 |
| MW-39 Zone 3 | 1" AG | Quarterly | 07/20/10 | 280 - 300 | 524.10 | 504.10 | BR | 80 | 950693.48 | 1502369.76 | 804.10 | 806.02 |
| MW-41 Zone 1 | 1" AG | Quarterly | 08/04/10 | 17 - 32 | 716.40 | 701.40 | BR | 8 | 953351.51 | 1503709.74 | 733.40 | 736.56 |
| MW-41 Zone 2 | 1" AG | Quarterly | 08/04/10 | 109 - 129 | 624.40 | 604.40 | BR | 8 | 953351.51 | 1503709.69 | 733.40 | 736.79 |
| MW-41 Zone 3 | 1" AG | Quarterly | 08/05/10 | 279 - 299 | 454.40 | 434.40 | BR | 8 | 953351.59 | 1503709.42 | 733.40 | 736.77 |
| MW-42 Zone 1 | 1" F | Quarterly | 07/23/11 | 114 - 129 | 671.50 | 656.50 | BR | 108 | 953676.64 | 1505460.98 | 785.50 | 785.44 |
| MW-42 Zone 2 | 1" F | Quarterly | 07/22/10 | 202 - 222 | 583.50 | 563.50 | BR | 108 | 953676.59 | 1505460.79 | 785.50 | 785.42 |
| MW-42 Zone 3 | 1" F | Quarterly | 07/22/10 | 265 - 285 | 520.50 | 500.50 | BR | 108 | 953676.51 | 1505460.71 | 785.50 | 785.40 |
| MW-43 Zone 1 | 1" AG | Quarterly | 06/07/11 | 92.5 - 112.5 | 623.65 | 603.65 | BR | 71 | 954986.94 | 1504658.26 | 716.15 | 719.19 |
| MW-43 Zone 2 | 1" AG | Quarterly | 06/07/11 | 150 - 180 | 566.15 | 536.15 | BR | 71 | 954987.00 | 1504658.04 | 716.15 | 719.20 |
| MW-43 Zone 3 | 1" AG | Quarterly | 06/06/11 | 262.5 - 282.5 | 453.65 | 433.65 | BR | 71 | 954987.15 | 1504658.24 | 716.15 | 719.17 |
| MW-44 | 2" AG | Quarterly | 01/04/13 | 280 - 300 | 461.00 | 441.00 | BR | 24 | 952447.10 | 1503528.34 | 741.00 | 743.95 |
| EW-1 | 6" AG | NM | 06/03/11 | Open Hole (52 - 445) | 723.30 | 330.30 | BR | 52 | 952219.34 | 1502029.46 | 775.30 | 778.04 |
| EW-2 | 6" | NM | 06/06/11 | Open Hole (9.5 - 295) | 758.70 | 473.20 | BR | 8 | 951846.22 | 1502269.50 | 768.20 | 769.96 |
| P1 | 2" AG | NM | 02/22/93 | 24.5 - 39.5 | 788.60 | 773.60 | BR | 39 | 950917.56 | 1500275.17 | 813.10 | 815.42 |
| P2 | 6" AG | NM | 06/22/93 | 53 - 115 | 730.93 | 668.93 | BR | 45 | 951750.01 | 1500946.57 | 783.93 | 785.65 |
| Alloy | 2" AG | Annually | 08/09/93 | 56 - 61 | 733.56 | 728.56 | BR | 56 | 951358.03 | 1501028.29 | 785.56 | 791.69 |
| TW-40 | 2" AG | Annually | 08/30/01 | 84 - 94 | 701.81 | 691.81 | BR | 30 | 952247.76 | 1501784.65 | 785.81 | 788.63 |
| TW-41 | 2" AG | Annually | 08/27/01 | 50.3 - 55.3 | 725.20 | 720.20 | BR | 25.5 | 952119.32 | 1501966.54 | 775.50 | 778.84 |
| TW-42 | 1" AG | Annually | 08/20/01 | 21 - 26 | 754.86 | 749.86 | TOR | 26 | 952131.39 | 1501972.00 | 775.86 | 778.09 |
| TW-43 | 1" AG | Annually | 08/21/01 | 8.6 - 18.6 | 767.22 | 757.22 | 0 | >19 | 952127.92 | 1501969.26 | 775.82 | 778.15 |
| TW-44 | 2" AG | Annually | 08/31/01 | 64 - 74 | 718.68 | 708.68 | BR | 46 | 951988.65 | 1501305.71 | 782.68 | 785.52 |
| TW-45 | 1" F | Not Usable | 08/21/01 | 18.8 - 28.8 | 797.90 | 787.90 | 0 | >29 | 951284.02 | 1499935.21 | 816.70 | 816.76 |
| TW-46 | 2" F | Annually | 09/05/01 | 83.3 - 88.3 | 733.42 | 728.42 | TOR | 88 | 951278.63 | 1499934.00 | 816.72 | 816.58 |

BR - bedrock
 0 - overburden
 TOR - top of rock
 ft bgs - feet below ground surface
 TOC - top of casing
 NM - not monitored
 NAD83 - North American Datum of 1983
 NAVD88 - North American Vertical Datum of 1988
 T - transducer
 P & T - pump and transducer
 AG - above ground
 F - flush mount
 MW-35, MW-38 Zone 2, MW-41 Zone 2, TOC elevation has been adjusted by adding couplings and ball valve to surveyed elevation at top of casing.
 *For Waterloo type wells the listed screen interval corresponds to each zone's sand pack.

Table 4. Quarterly Sampling Groundwater Analytical Results - August 2014

Owens Corning - Anderson, SC

| Sample ID | | MW-15 | MW-22 | MW-29R Zone 3 | 14238-Dup ¹ | MW-29R Zone 4 | MW-35 | MW-36 Zone 1 | MW-36 Zone 3 | MW-36 Zone 5 | MW-37 Zone 1 | MW-37 Zone 2 | MW-37 Zone 3 | MW-38 Zone 1 | MW-38 Zone 2 | MW-39 Zone 1 | MW-39 Zone 2 | MW-39 Zone 3 | MW-41 Zone 1 | 14239-Dup ² | MW-41 Zone 2 | MW-41 Zone 3 | MW-42 Zone 1 | MW-42 Zone 2 | MW-42 Zone 3 | MW-43 Zone 1 | MW-43 Zone 2 | MW-43 Zone 3 | MW-44 | |
|-----------------------------------|------------|------------|------------|---------------|------------------------|---------------|-----------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|---------------|---------|-------|
| Sample Date | MCL (ug/L) | 8/25/14 | 8/26/14 | 8/26/14 | 8/26/14 | 8/26/14 | 8/25/14 | 8/26/14 | 8/26/14 | 8/26/14 | 8/28/14 | 8/27/14 | 8/27/14 | 8/27/14 | 8/26/14 | 8/25/14 | 8/25/14 | 8/26/14 | 8/27/14 | 8/27/14 | 8/28/14 | 8/28/14 | 8/26/14 | 8/26/14 | 8/27/14 | 8/27/14 | 8/27/14 | 8/27/14 | 8/25/14 | |
| Screened Interval (ft) | | 69.5-99.5 | 78-116 | 154.5-169.6 | - | 177.6-202.2 | 152-162 | 99.1-116 | 180.2-192.7 | 269.9-275 | 185-195 | 222-232 | 257-272 | 415-430 | 479.6-499.6 | 95-105 | 195-215 | 280-300 | 17-32 | - | 109-129 | 279-299 | 114-129 | 202-222 | 265-285 | 92.5 - 112.5 | 150 - 180 | 262.5 - 282.5 | 280-300 | |
| Volatile Organic Compounds | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1,1,1-Trichloroethane | 200 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| 1,1-Dichloroethane | - | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| 1,1-Dichloroethene | 7 | 190 | 300 | 270 | 270 | 260 | 64 | < 5.0 | < 5.0 | < 5.0 | 80 | 280 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | 120 | 120 | 140 | 35 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| 1,2-Dichloroethane | 5 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Benzene | 5 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Carbon tetrachloride | 5 | < 5.0 | 18 | 12 | 13 | 9.5 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | 8.6 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Chloroform ³ | 80 | < 5.0 | 8.4 | 7.8 | 7.9 | 7.9 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | 7.3 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| cis-1,2-Dichloroethene | 70 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Ethylbenzene | 700 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Methylene chloride | 5 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Tetrachloroethene | 5 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Toluene | 1,000 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| trans-1,2-Dichloroethene | 100 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Trichloroethene | 5 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Vinyl chloride | 2 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Xylenes, total | 10,000 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 | < 5.0 |
| Field Parameters | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| pH (s.u.) | - | 6.70 | 4.98 | 5.60 | NA | 5.56 | 9.25 | 5.93 | 7.15 | 7.49 | 7.62 | 9.93 | 7.60 | 7.41 | 7.88 | 6.91 | 7.61 | 7.43 | 7.51 | NA | 7.86 | 9.04 | 9.97 | 7.75 | 8.16 | 6.80 | 8.03 | 7.75 | 9.13 | |
| Temperature (degrees C) | - | 17.29 | 18.04 | 18.32 | NA | 18.53 | 16.27 | 17.44 | 19.30 | 21.34 | 20.45 | 19.53 | 22.97 | 18.38 | 21.31 | 23.93 | 35.00 | 20.72 | 19.54 | NA | 18.41 | 28.86 | 19.76 | 27.50 | 20.80 | 17.91 | 18.53 | 26.52 | 16.37 | |
| Specific Conductance (uS/cm) | - | 0.206 | 0.138 | 0.171 | NA | 0.150 | 0.226 | 1.070 | 1.463 | 3.058 | 0.736 | 0.494 | 0.418 | 0.587 | 0.178 | 0.100 | 4.464 | 0.235 | 0.202 | NA | 0.214 | 0.383 | 0.168 | 0.573 | 209.300 | 0.116 | 0.208 | 0.341 | 0.222 | |
| En (mV) | - | -37.2 | 189.8 | 89.7 | NA | 132.3 | -62.7 | 38.7 | -63.5 | -106.3 | -154.8 | -58.1 | -113.9 | -136.4 | -224.8 | 40.3 | -60.3 | -120.4 | -9.8 | NA | -101.2 | -60.4 | 40.1 | -115.9 | -166.7 | 22.2 | -122.5 | -162.3 | -142.3 | |
| Dissolved Oxygen (mg/L) | - | 0.58 | 3.30 | 1.87 | NA | 1.31 | 0.57 | 3.75 | 7.22 | 7.51 | 1.62 | 1.05 | 1.06 | 1.38 | 0.14 | 5.59 | 1.20 | 0.46 | 0.78 | NA | 1.07 | 0.83 | 3.47 | 0.53 | 1.87 | 0.81 | 0.60 | 0.15 | | |
| Turbidity (NTU) | - | 1.21 | 0.31 | 0.65 | NA | 0.42 | 3.01 | 0.63 | 2.76 | 21.9 | 1.27 | 0.35 | 1.52 | 0.39 | 0.63 | 2.05 | 3.17 | 6.12 | 0.68 | NA | 2.08 | 55.60 | 2.05 | 4.15 | 1.37 | 2.11 | 0.99 | 0.00 | 0.09 | |

ft - feet
MCL - Maximum Contaminant Level
ug/L - micrograms per liter
mg/L - milligrams per liter
uS/cm - microsiemens per centimeter
mV - millivolts
NTU - nephelometric turbidity units
NA - not applicable
s.u. - standard units
¹ 14238-Dup was collected from MW-29R Zone 3.
² 14239-Dup was collected from MW-41 Zone 1.
³ MCL listed for Chloroform is for Total Trihalomethanes.
Bold VOC results indicate concentration above the MCL.

Table 5. Annual Sampling Groundwater Analytical Results - November 2014
Owens Corning - Anderson, SC

| Sample ID | | ALLOY | MW-1 | MW-2 | MW-3 | MW-4 | MW-5 | MW-6 | MW-7 | MW-9 | MW-10 | MW-11 | MW-12 | MW-13 | MW-14 | MW-15 | MW-16 | MW-17 | MW-18 | MW-19 | MW-20 | MW-21 | MW-22 | MW-24 | | |
|------------------------------------|------------|----------|----------|-----------|----------|-----------|-----------|-------------|------------------|----------|-----------|------------|------------|------------|-----------|------------|----------|-----------|-----------|------------|------------|-----------|------------|------------|------------|-----------|
| Sample Date | MCL (ug/L) | 11/17/14 | 11/17/14 | 11/18/14 | 11/17/14 | 11/17/14 | 11/18/14 | 11/19/14 | 11/21/14 | 11/19/14 | 11/17/14 | 11/19/14 | 11/20/14 | 11/20/14 | 11/17/14 | 11/20/14 | 11/18/14 | 11/19/14 | 11/18/14 | 11/20/14 | 11/20/14 | 11/18/14 | 11/20/14 | 11/19/14 | | |
| Screened Interval (ft) | | 56-61 | 55-65 | 56.7-66.7 | 13-28 | 14.7-29.7 | 12.0-27.0 | 123.6-133.6 | 15.9-30.9 | 94-104 | 61.4-71.4 | 6.0-16.0 | 23-33 | 67-72 | 69.2-74.2 | 69.5-99.5 | 49-59 | 24.1-39.1 | 10.6-25.6 | 154-169 | 57-67 | 6.5-16.5 | 78-116 | 62-72 | | |
| Volatiles Organic Compounds | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1,1,1-Trichloroethane | 200 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | 14,000 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | |
| 1,1-Dichloroethane | - | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <2,500 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | |
| 1,1-Dichloroethene | 7 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | 9,200 | <5.0 | <5.0 | <5.0 | 380 | 340 | <5.0 | 120 | <5.0 | <5.0 | <5.0 | 310 | 230 | <5.0 | 310 | 170 | | |
| 1,2-Dichloroethane | 5 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <2,500 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | 6.7 | 11 | <5.0 | <5.0 | <5.0 | |
| Benzene | 5 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <2,500 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | |
| Carbon tetrachloride | 5 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <2,500 | <5.0 | <5.0 | <5.0 | 12 | 23 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | 98 | <5.0 | 22 | 14 |
| Chloroform ⁵ | 80 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | 11 | 12 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | 24 | <5.0 | 9.7 | 16 |
| cis-1,2-Dichloroethene | 70 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <2,500 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | |
| Ethylbenzene | 700 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <2,500 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | |
| Methylene chloride | 5 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <2,500 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | |
| Tetrachloroethene | 5 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <2,500 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | |
| Toluene | 1,000 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <2,500 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | |
| trans-1,2-Dichloroethene | 100 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <2,500 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | |
| Trichloroethene | 5 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <2,500 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | 32 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | |
| Vinyl chloride | 2 | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 | <1,000 | <2.0 | <2.0 | 6.7 | 12 | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 | |
| Xylenes, total | 10,000 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <2,500 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | |
| Field Parameters | | | | | | | | | | | | | | | | | | | | | | | | | | |
| pH (s.u.) | - | 6.43 | 5.09 | 6.17 | 4.97 | 6.99 | 4.68 | 6.83 | 4.78 | 6.32 | 5.14 | 6.38 | 5.62 | 5.09 | 5.93 | 6.68 | 7.19 | 5.03 | 4.85 | 6.75 | 5.39 | 5.37 | 5.38 | 5.43 | | |
| Temperature (degrees C) | - | 18.56 | 17.84 | 17.96 | 16.90 | 17.29 | 17.89 | 18.29 | 21.09 | 19.00 | 19.58 | 17.91 | 18.00 | 18.57 | 17.47 | 16.70 | 16.13 | 19.13 | 19.28 | 18.20 | 19.10 | 17.85 | 18.23 | 19.93 | | |
| Specific Conductance (uS/cm) | - | 0.078 | 0.112 | 0.054 | 0.040 | 0.774 | 0.135 | 0.165 | 1.691 | 0.156 | 0.114 | 0.487 | 0.273 | 0.204 | 0.057 | 0.149 | 0.294 | 0.192 | 0.118 | 0.283 | 0.104 | 0.051 | 0.216 | 0.183 | | |
| Eh (mV) | - | 94.4 | 165.7 | 125.6 | 201.6 | -1.4 | 181.9 | -2.4 | 110.4 | 65.9 | 123.8 | -55.3 | 100.6 | 129.9 | 181.0 | 96.7 | 48.9 | 128.4 | 166.3 | 39.3 | 152.7 | 112.9 | 74.5 | 19.3 | | |
| Dissolved Oxygen (mg/L) | - | 49.80 | 6.90 | 5.28 | 4.15 | 0.94 | 0.81 | 4.79 | 0.22 | 6.40 | 6.51 | 2.83 | 1.48 | 3.04 | 5.93 | 12.65 | 2.00 | 4.48 | 1.53 | 0.17 | 11.25 | 5.87 | 2.66 | 1.69 | | |
| Turbidity (NTU) | - | 8.30 | 3.30 | 4.13 | 0.70 | 1.78 | 1.49 | 0.26 | 1.56 | 9.90 | 0.00 | 7.10 | 23.50 | 0.28 | 3.14 | 0.01 | 5.97 | 0.59 | 2.55 | 0.45 | 0.25 | 3.84 | 0.05 | 1.41 | | |

ft - feet
MCL - Maximum Contaminant Level
ug/L - micrograms per liter
mg/L - milligrams per liter
uS/cm - microsiemens per centimeter
mV - millivolts
NTU - nephelometric turbidity units
NA - not applicable
s.u. - standard units
J - Estimated Value
¹ 14322-Dup was collected from MW-29R-Zone 3
² 14325-Dup was collected from MW-30
³ 14323-Dup was collected from MW-32
⁴ 14324-Dup was collected from MW-37-Zone 1
⁵ MCL listed for Chloroform is for Total Trihalomethanes.
Bold VOC results indicate concentration above the MCL.

Table 5 - Annual Sampling Groundwater Analytical Results - November 2014

Owens Corning - Anderson, SC

| Sample ID | | MW-25 | MW-26 | MW-27 | MW-28 | MW-29R Zone 3 | 14322-Dup ¹ | MW-29R Zone 4 | MW-30 | 14325-Dup ² | MW-31 | MW-32 | 14323-Dup ³ | MW-35 | MW-36 Zone 1 | MW-36 Zone 3 | MW-36 Zone 5 | MW-37 Zone 1 | 14324-Dup ⁴ | MW-37 Zone 2 | MW-37 Zone 3 | MW-38 Zone 1 | MW-38 Zone 2 | MW-39 Zone 1 |
|-----------------------------------|---------------|----------|-----------|------------|----------------|------------------|------------------------|------------------|--------------|------------------------|--------------|-----------|------------------------|-----------|-----------------|-----------------|-----------------|-----------------|------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Sample Date | MCL (ug/L) | 11/18/14 | 11/18/14 | 11/20/14 | 11/21/14 | 11/18/14 | 11/18/14 | 11/18/14 | 11/21/14 | 11/21/14 | 11/19/14 | 11/19/14 | 11/19/14 | 11/20/14 | 11/18/14 | 11/18/14 | 11/18/14 | 11/20/14 | 11/20/14 | 11/20/14 | 11/20/14 | 11/19/14 | 11/19/14 | 11/19/14 |
| Screened Interval (ft) | | 40-50 | 56.7-66.7 | 69-99 | 21-31 | 154.5-169.6 | - | 177.6-202.2 | 103-113 | - | 80-90 | 25-35 | - | 152-162 | 99.1-116 | 180.2-192.7 | 269.9-275 | 185-195 | - | 222-232 | 257-272 | 415-430 | 479.6-499.6 | 95-105 |
| Volatile Organic Compounds | | | | | | | | | | | | | | | | | | | | | | | | |
| 1,1,1-Trichloroethane | 200 | <5.0 | <5.0 | <5.0 | 130,000 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | 120 | 110 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| 1,1-Dichloroethane | - | <5.0 | <5.0 | <5.0 | <5,000 | <5.0 | <5.0 | <5.0 | 18 | 18 | 19 | 19 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| 1,1-Dichloroethene | 7 | <5.0 | <5.0 | 470 | 120,000 | 300 | 290 | 290 | 4,600 | 4,700 | 1,100 | 99 | 90 | 50 | <5.0 | <5.0 | <5.0 | 90 J | 61 J | 180 | <5.0 | <5.0 | <5.0 | <5.0 |
| 1,2-Dichloroethane | 5 | <5.0 | <5.0 | <5.0 | <5,000 | <5.0 | <5.0 | <5.0 | 23 | 23 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| Benzene | 5 | <5.0 | <5.0 | <5.0 | <5,000 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| Carbon tetrachloride | 5 | <5.0 | <5.0 | 16 | <5,000 | 16 | 16 | 14 | 160 | 160 | 12 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | 12 | <5.0 | <5.0 | <5.0 | <5.0 |
| Chloroform ⁵ | 80 | <5.0 | <5.0 | 24 | <5,000 | 9.5 | 9.4 | 9.4 | 6.2 | 6.1 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | 6.2 | <5.0 | <5.0 | <5.0 | <5.0 |
| cis-1,2-Dichloroethene | 70 | <5.0 | <5.0 | <5.0 | <5,000 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| Ethylbenzene | 700 | <5.0 | <5.0 | <5.0 | <5,000 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| Methylene chloride | 5 | <5.0 | <5.0 | <5.0 | <5,000 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| Tetrachloroethene | 5 | <5.0 | <5.0 | <5.0 | <5,000 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| Toluene | 1,000 | <5.0 | <5.0 | <5.0 | <5,000 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| trans-1,2-Dichloroethene | 100 | <5.0 | <5.0 | <5.0 | <5,000 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| Trichloroethene | 5 | <5.0 | <5.0 | <5.0 | <5,000 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| Vinyl chloride | 2 | <2.0 | <2.0 | <2.0 | <2,000 | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 |
| Xylenes, total | 10,000 | <5.0 | <5.0 | <5.0 | <5,000 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| Field Parameters | | | | | | | | | | | | | | | | | | | | | | | | |
| pH (s.u.) | - | 5.25 | 6.39 | 6.68 | 4.17 | 5.51 | NA | 5.44 | 5.97 | NA | 5.93 | 6.84 | NA | 10.04 | 6.00 | 7.08 | 7.51 | 7.70 | NA | 10.99 | 7.41 | 7.55 | 7.64 | 6.56 |
| Temperature (degrees C) | - | 16.29 | 16.01 | 19.67 | 20.56 | 16.95 | NA | 16.83 | 19.94 | NA | 19.91 | 21.28 | NA | 15.50 | 16.85 | 11.03 | 8.18 | 14.85 | NA | 15.79 | 12.33 | 13.02 | 12.47 | 15.73 |
| Specific Conductance (uS/cm) | - | 0.047 | 0.058 | 0.188 | 2.810 | 0.171 | NA | 0.154 | 0.198 | NA | 0.146 | 0.735 | NA | 0.205 | 0.112 | 1.439 | 3.016 | 0.746 | NA | 0.411 | 0.506 | 0.618 | 0.178 | 0.108 |
| Eh (mV) | - | 163.9 | 152.3 | 90.4 | 253.7 | NA | 42.0 | 51.9 | NA | 79.1 | -135.2 | 57.7 | NA | 89.4 | 63.6 | -68.8 | -107.4 | -117.5 | NA | -125.4 | -95.0 | -129.2 | -171.3 | 45.3 |
| Dissolved Oxygen (mg/L) | - | 7.67 | 5.96 | 0.68 | 14.99 | 2.38 | NA | 2.17 | 3.46 | NA | 2.74 | 0.26 | NA | 3.25 | 3.70 | 8.36 | 8.77 | 1.30 | NA | 0.73 | 1.63 | 3.26 | 3.59 | 3.91 |
| Turbidity (NTU) | - | 2.95 | 87.00 | 1.63 | 0.97 | 0.81 | NA | 0.64 | 9.40 | NA | 8.89 | 4.31 | NA | 1.22 | 0.29 | 2.89 | 17.10 | 1.01 | NA | 1.01 | 1.61 | 0.51 | 0.11 | 1.29 |

ft - feet

MCL - Maximum Contaminant Level

ug/L - micrograms per liter

mg/L - milligrams per liter

uS/cm - microsiemens per centimeter

mV - millivolts

NTU - nephelometric turbidity units

NA - not applicable

s.u. - standard units

J - Estimated Value

¹ 14322-Dup was collected from MW-29R-Zone 3

² 14325-Dup was collected from MW-30

³ 14323-Dup was collected from MW-32

⁴ 14324-Dup was collected from MW-37-Zone 1

⁵ MCL listed for Chloroform is for Total Trihalomethanes.

Bold VOC results indicate concentration above the MCL.

Table 5. Annual Sampling Groundwater Analytical Results - November 2014
Owens Corning - Anderson, SC

| Sample ID | | MW-39 Zone 2 | MW-39 Zone 3 | MW-41 Zone 1 | MW-41 Zone 2 | MW-41 Zone 3 | MW-42 Zone 1 | MW-42 Zone 2 | MW-42 Zone 3 | MW-43 Zone 1 | MW-43 Zone 2 | MW-43 Zone 3 | MW-44 | TW-40 | TW-41 | TW-42 | TW-43 | TW-44 | TW-46 | |
|-----------------------------------|---------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|----------|----------|-----------|----------|----------|----------|-----------|------------|
| Sample Date | MCL (ug/L) | 11/19/14 | 11/19/14 | 11/20/14 | 11/20/14 | 11/20/14 | 11/18/14 | 11/18/14 | 11/18/14 | 11/18/14 | 11/17/14 | 11/17/14 | 11/19/14 | 11/18/14 | 11/18/14 | 11/19/14 | 11/19/14 | 11/19/14 | 11/19/14 | 11/19/14 |
| Screened Interval (ft) | | 195-215 | 280-300 | 17-32 | 109-129 | 279-299 | 114-129 | 202-222 | 265-285 | 92.5 - 112.5 | 150 - 180 | 262.5 - 282.5 | 280-300 | 84-94 | 50.3-55.3 | 21-26 | 8.6-18.6 | 64-74 | 83.3-88.3 | |
| Volatile Organic Compounds | | | | | | | | | | | | | | | | | | | | |
| 1,1,1-Trichloroethane | 200 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| 1,1-Dichloroethane | - | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| 1,1-Dichloroethene | 7 | <5.0 | <5.0 | 160 | 190 | 18 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | 8.1 |
| 1,2-Dichloroethane | 5 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| Benzene | 5 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| Carbon tetrachloride | 5 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| Chloroform ⁵ | 80 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | 11 |
| cis-1,2-Dichloroethene | 70 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| Ethylbenzene | 700 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| Methylene chloride | 5 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| Tetrachloroethene | 5 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| Toluene | 1,000 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| trans-1,2-Dichloroethene | 100 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| Trichloroethene | 5 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| Vinyl chloride | 2 | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 |
| Xylenes, total | 10,000 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| Field Parameters | | | | | | | | | | | | | | | | | | | | |
| pH (s.u.) | - | 7.25 | 6.94 | 7.51 | 7.73 | 7.44 | 10.20 | 8.35 | 8.13 | 7.18 | 8.12 | 7.90 | 9.44 | 12.29 | 7.89 | 4.90 | 4.82 | 6.43 | 6.87 | |
| Temperature (degrees C) | - | 13.87 | 13.71 | 16.22 | 15.91 | 11.82 | 16.77 | 16.25 | 15.93 | 15.46 | 16.10 | 13.14 | 15.55 | 17.67 | 15.98 | 16.81 | 15.86 | 16.33 | 19.73 | |
| Specific Conductance (uS/cm) | - | 0.533 | 0.282 | 0.214 | 0.224 | 0.339 | 0.206 | 0.028 | 0.244 | 0.142 | 0.212 | 0.309 | 0.195 | 3.790 | 0.417 | 0.035 | 0.052 | 0.065 | 0.308 | |
| Eh (mV) | - | -47.9 | -97.8 | -18.4 | -124.0 | -42.0 | -38.5 | 2.0 | -142.7 | -2.5 | -111.4 | -3.8 | -77.4 | -58.9 | 121.5 | 93.1 | 80.3 | 130.8 | 53.0 | |
| Dissolved Oxygen (mg/L) | - | 1.61 | 3.78 | 3.32 | 3.32 | 4.82 | 2.79 | 6.09 | 1.23 | 1.79 | 1.22 | 7.49 | 2.24 | 5.64 | 6.45 | 6.80 | 8.59 | 5.20 | 6.65 | |
| Turbidity (NTU) | - | 1.16 | 3.19 | 3.96 | 0.56 | 8.76 | 3.56 | 9.95 | 2.45 | 0.61 | 0.59 | 3.15 | 0.76 | 2.18 | 5.05 | 66.70 | 6.11 | 35.80 | 9.98 | |

ft - feet

MCL - Maximum Contaminant Level

ug/L - micrograms per liter

mg/L - milligrams per liter

uS/cm - microsiemens per centimeter

mV - millivolts

NTU - nephelometric turbidity units

NA - not applicable

s.u. - standard units

J - Estimated Value

¹ 14322-Dup was collected from MW-29R-Zone 3

² 14325-Dup was collected from MW-30

³ 14323-Dup was collected from MW-32

⁴ 14324-Dup was collected from MW-37-Zone 1

⁵ MCL listed for Chloroform is for Total Trihalomethanes.

Bold VOC results indicate concentration above the MCL.

Table 6. Residential Well Analytical Results - November 2014

Owens Corning - Anderson, SC

| Sample ID | | 628 Airline Road | 412 Kaye Drive | 117 Faye Dr. | 303 Kaye Drive | 200 Kaye Drive | 1303 Clinkscales Rd | 721 Clinkscales Rd. | 200 Friendship Ln | 408 Clinkscales Rd | 311 Kaye Dr |
|-----------------------------------|------------|------------------|----------------|--------------|----------------|----------------|---------------------|---------------------|-------------------|--------------------|-------------|
| Sample Date | MCL (ug/L) | 11/19/14 | 11/18/14 | 11/18/14 | 11/18/14 | 11/18/14 | 11/18/14 | 11/18/14 | 11/18/14 | 11/18/14 | 11/18/14 |
| Volatile Organic Compounds | | | | | | | | | | | |
| 1,1,1-Trichloroethane | 200 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| 1,1-Dichloroethane | - | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| 1,1-Dichloroethene | 7 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| 1,2-Dichloroethane | 5 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| Benzene | 5 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| Carbon tetrachloride | 5 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| Chloroform ² | 80 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| cis-1,2-Dichloroethene | 70 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| Ethylbenzene | 700 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| Methylene chloride | 5 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| Tetrachloroethene | 5 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| Toluene | 1,000 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| trans-1,2-Dichloroethene | 100 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| Trichloroethene | 5 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| Vinyl chloride | 2 | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 |
| Xylenes, total | 10,000 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| Field Parameters | | | | | | | | | | | |
| pH (s.u.) | - | 5.81 | 5.81 | 7.81 | 6.26 | 5.78 | 5.77 | 5.18 | 5.53 | 6.01 | 7.26 |
| Temperature (degrees C) | - | 7.86 | 13.45 | 8.77 | 15.13 | 13.09 | 12.28 | 13.71 | 5.40 | 14.77 | 13.15 |
| Specific Conductance (uS/cm) | - | 0.088 | 0.065 | 0.272 | 0.217 | 0.089 | 0.059 | 0.061 | 0.130 | 0.010 | 0.304 |
| Eh (mV) | - | -1.9 | 157.7 | 136.0 | 162.6 | 180.6 | 180.0 | 131.9 | 127.4 | 95.7 | 162.1 |
| Dissolved Oxygen (mg/L) | - | 7.12 | 6.52 | 6.77 | 6.06 | 6.46 | 7.28 | 7.04 | 5.31 | 6.34 | 5.53 |
| Turbidity (NTU) | - | 5.46 | 2.64 | 1.09 | 0.39 | 0.71 | 0.61 | 2.76 | 1.86 | 0.46 | 0.85 |

MCL - Maximum Contaminant Level

ug/L - micrograms per liter

mg/L - milligrams per liter

uS/cm - microsiemens per centimeter

mV - millivolts

NTU - nephelometric turbidity units

NA - not applicable

s.u. - standard units

¹ MCL listed for Chloroform is for Total Trihalomethanes.

Bold VOC results indicate concentration above the MCL.

Table 7. Annual Surface Water Analytical Results - November 2014
Owens Corning - Anderson, SC

| Sample ID | Surface Water Screening Values ¹ | | SCDHEC Surface Water Standards ² | | SW-1 | SW-3 | SW-3A | SW-3B | SW-6 | SW-10 | SW-11 | SW-12 | SW-13 | SW-14 | SW-15 |
|-----------------------------------|---|----------------|---|----------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| | Acute (ug/L) | Chronic (ug/L) | For Consumption of Water and Organism | For Consumption of Organism Only | 11/20/14 | 11/21/14 | 11/21/14 | 11/21/14 | 11/20/14 | 11/20/14 | 11/19/14 | 11/19/14 | 11/19/14 | 11/19/14 | 11/20/14 |
| Volatile Organic Compounds | | | | | | | | | | | | | | | |
| 1,1,1-Trichloroethane | - | - | - | - | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| 1,1-Dichloroethane | - | - | - | - | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| 1,1-Dichloroethene | 3030 | 303 | 330 | 7,100 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | 7.9 | 5.5 | <5.0 | <5.0 | <5.0 |
| 1,2-Dichloroethane | 11800 | 2000 | 0.38 | 37 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| Benzene | - | - | 2.2 | 51 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| Carbon tetrachloride | 3520 | 352 | 0.23 | 1.6 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| Chloroform | 2890 | 289 | 5.7 | 470 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| cis-1,2-Dichloroethene | - | - | - | - | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| Ethylbenzene | - | - | 530 | 2,100 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| Methylene chloride | - | - | 4.6 | 590 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| Tetrachloroethene | 528 | 84 | 0.69 | 3.3 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| Toluene | - | - | 1,300 | 15,000 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| trans-1,2-Dichloroethene | - | - | - | - | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| Trichloroethene | - | - | 2.5 | 30 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| Vinyl chloride | - | - | 0.025 | 2.4 | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 |
| Xylenes, total | - | - | - | - | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 |
| Field Parameters | | | | | | | | | | | | | | | |
| pH (s.u.) | - | - | - | - | 8.49 | 7.46 | 7.52 | 7.16 | 7.81 | 8.08 | 7.12 | 6.76 | 6.69 | 6.72 | 9.11 |
| Temperature (degrees C) | - | - | - | - | 11.37 | 7.36 | 7.13 | 7.64 | 10.78 | 10.68 | 8.39 | 9.25 | 9.97 | 10.06 | 11.30 |
| Specific Conductance (uS/cm) | - | - | - | - | 0.249 | 0.335 | 0.342 | 0.346 | 0.249 | 0.248 | 0.331 | 0.313 | 0.243 | 0.261 | 0.243 |
| Eh (mV) | - | - | - | - | -21.7 | 90.7 | 101.8 | 98.7 | -18.2 | -13.0 | -29.7 | -20.4 | -15.8 | -18.6 | -42.9 |
| Dissolved Oxygen (mg/L) | - | - | - | - | 6.06 | 14.44 | 13.78 | 12.76 | 6.50 | 6.74 | 6.88 | 6.81 | 6.85 | 6.90 | 6.16 |
| Turbidity (NTU) | - | - | - | - | 3.67 | 6.09 | 6.2 | 6.02 | 3.02 | 3.17 | 6.1 | 5.29 | 3.63 | 4.18 | 3.01 |

ug/L - micrograms per liter

mg/L - milligrams per liter

uS/cm - microsiemens per centimeter

mV - millivolts

NTU - nephelometric turbidity units

SCDHEC - South Carolina Department of Health and Environmental Control

s.u. - standard units

SW - Surface Water

¹ Region IV Ecological Risk Assessment Bulletins - Supplement to RAGS

² SCDHEC Water Quality Classifications and Standards (R.61-68), Human Health, as published in USEPA National Recommended Water Quality Criteria

BOLD - VOC results indicates a concentration above USEPA and/or SCDHEC Surface Water Standard

**Table 8. Residential Well Location Map ID
Owens Corning - Anderson, SC**

| Map ID* | Location | Map ID* | Location |
|---------|-------------------------|---------|-----------------------|
| 1 | 3715 Mabry Street | 38 | 215 Elrod Road |
| 2 | 634 Airline Road | 39 | 115 Elrod Road |
| 3 | 3735 Keys Street | 40 | 119 Cloverhill Drive |
| 4 | 1100 Airline Road | 41 | 122 Kayle Drive |
| 5 | 3721 Keys Street | 42 | 138 Kayle Drive |
| 6 | 4004 Keys Street | 43 | 1802 Airline Road |
| 7 | 605 Clinkscales Road | 44 | 1303 Clinkscales Road |
| 8 | 134 Friendship Lane | 45 | 815 Airline Road |
| 9 | 138 Friendship Lane | 46 | 300 Jones Road |
| 10 | 200 Friendship Lane | 47 | 5104 Johnson Street |
| 11 | 721 Clinkscales Road | 48 | 104 Herbs Lane |
| 12 | 711 Clinkscales Road | 49 | 203 Travis Road |
| 13 | 628 Airline Road | 50 | 107 Jones Road |
| 14 | Tab | 51 | 303 Flat Rock Road |
| 15 | 3713 Keys Street | 52 | 4518 Keys Street |
| 16 | 624 True Temper Road | 53 | 4608 Keys Street |
| 17 | 1501 Airline Road | 54 | 4610 Keys Street |
| 18 | 420 True Temper Road | 55 | 5005 Johnson Street |
| 19 | 408 Clinkscales Road | 56 | 5009 Johnson Street |
| 20 | 401 Clinkscales Road | 57 | 5010 Johnson Street |
| 21 | 4515 Keys Street | 58 | 5014 Johnson Street |
| 22 | 305 Harry Drive | 59 | 5101 Johnson Street |
| 23 | 150 Clinkscales Road | 60 | 4906 Highway 81 South |
| 24 | 943 Flat Rock Road | 61 | 5305 Highway 81 South |
| 25 | 325 Clinkscales Road | 62 | 116 Young Road |
| 26 | 322 Clinkscales Road | 63 | 201 True Temper Road |
| 27 | 321 Clinkscales Road | 64 | 106 Pickens Circle |
| 28 | 137 Knowlandwood Circle | 65 | 110 Pickens Circle |
| 29 | 412 Kaye Drive | 66 | 123 Pickens Circle |
| 30 | 413 Kaye Drive | 67 | 127 Pickens Circle |
| 31 | 311 Kaye Drive | 68 | 131 Pickens Circle |
| 32 | 117 Faye Drive | 69 | 136 Pickens Circle |
| 33 | 303 Kaye Drive | 70 | 206 Wesley Court |
| 34 | End of Kaye Drive | 71 | 104 Harry Drive |
| 35 | 217 Kaye Drive | 72 | 299 True Temper Road |
| 36 | 200 Kaye Drive | 73 | 119 True Temper Road |
| 37 | 335 Elrod Road | | |

* Map ID corresponds to Figure 12 - Residential Well Sampling Location Map - November 2014

Appendix A: Hydraulic Gradient Calculations



| Appendix A: Horizontal Hydraulic Gradient Calculations and Results | | | | | | |
|--|-------------------|------------|---------------------------------------|---|--|---------------------------------------|
| Upgradient Well | Downgradient Well | Date | Upgradient Groundwater Elevation (ft) | Downgradient Groundwater Elevation (ft) | Horizontal Distance between Wells (ft) | Calculated Hydraulic Gradient (ft/ft) |
| MW-23 | MW-21 | 08/26/2014 | 797.75 | 763.71 | 2285.00 | 1.49E-02 |
| MW-27 | MW-41 Zone 1 | 08/26/2014 | 788.27 | 729.55 | 4080.00 | 1.44E-02 |
| MW-22 | MW-15 | 08/26/2014 | 770.90 | 754.46 | 670.00 | 2.45E-02 |
| MW-19 | MW-41 Zone 2 | 08/26/2014 | 769.81 | 731.82 | 3250.00 | 1.17E-02 |
| MW-37 Zone 3 | MW-41 Zone 3 | 08/26/2014 | 745.83 | 719.24 | 2640.00 | 1.01E-02 |
| MW-28 | MW-21 | 11/17/2014 | 802.35 | 763.71 | 2670.00 | 1.45E-02 |
| MW-27 | MW-41 Zone 1 | 11/17/2014 | 788.27 | 729.55 | 4080.00 | 1.44E-02 |
| MW-6 | MW-22 | 11/17/2014 | 802.61 | 770.90 | 1820.00 | 1.74E-02 |
| MW-19 | MW-41 Zone 2 | 11/17/2014 | 769.81 | 731.82 | 3250.00 | 1.17E-02 |
| MW-37 Zone 3 | MW-41 Zone 3 | 11/17/2014 | 745.83 | 719.24 | 2640.00 | 1.01E-02 |

| $\Delta H / \Delta X$ (MW-23 to MW-21 Aug-2014) Calculations | |
|---|--|
| H (MW-23 Aug-2014) = 797.75 | |
| H (MW-21 Aug-2014) = 763.71 | |
| ΔX (MW-23 to MW-21) = 2285.00 | |
| $\Delta H / \Delta X \text{ (MW-23 to MW-21 Aug-2014)} = \frac{H \text{ (MW-23 Aug-2014)} - H \text{ (MW-21 Aug-2014)}}{\Delta X \text{ (MW-23 to MW-21)}}$ | |
| $\Delta H / \Delta X$ (MW-23 to MW-21 Aug-2014) = 1.49E-02 | |

| $\Delta H / \Delta X$ (MW-27 to MW-41 Zone 1 Aug-2014) Calculations | |
|--|--|
| H (MW-27 Aug-2014) = 788.27 | |
| H (MW-41 Zone 1 Aug-2014) = 729.55 | |
| ΔX (MW-27 to MW-41 Zone 1) = 4080.00 | |
| $\Delta H / \Delta X \text{ (MW-27 to MW-41 Zone 1 Aug-2014)} = \frac{H \text{ (MW-27 Aug-2014)} - H \text{ (MW-41 Zone 1 Aug-2014)}}{\Delta X \text{ (MW-27 to MW-41 Zone 1)}}$ | |
| $\Delta H / \Delta X$ (MW-27 to MW-41 Zone 1 Aug-2014) = 1.44E-02 | |

| $\Delta H / \Delta X$ (MW-22 to MW-15 Aug-2014) Calculations | |
|---|--|
| H (MW-22 Aug-2014) = 770.90 | |
| H (MW-15 Aug-2014) = 754.46 | |
| ΔX (MW-22 to MW-15) = 670.00 | |
| $\Delta H / \Delta X \text{ (MW-22 to MW-15 Aug-2014)} = \frac{H \text{ (MW-22 Aug-2014)} - H \text{ (MW-15 Aug-2014)}}{\Delta X \text{ (MW-22 to MW-15)}}$ | |
| $\Delta H / \Delta X$ (MW-22 to MW-15 Aug-2014) = 2.45E-02 | |

| $\Delta H / \Delta X$ (MW-19 to MW-41 Zone 2 Aug-2014) Calculations | |
|--|--|
| H (MW-19 Aug-2014) = 769.81 | |
| H (MW-41 Zone 2 Aug-2014) = 731.82 | |
| ΔX (MW-19 to MW-41 Zone 2) = 3250.00 | |
| $\Delta H / \Delta X \text{ (MW-19 to MW-41 Zone 2 Aug-2014)} = \frac{H \text{ (MW-19 Aug-2014)} - H \text{ (MW-41 Zone 2 Aug-2014)}}{\Delta X \text{ (MW-19 to MW-41 Zone 2)}}$ | |
| $\Delta H / \Delta X$ (MW-19 to MW-41 Zone 2 Aug-2014) = 1.17E-02 | |

| Appendix A: Vertical Hydraulic Gradient Calculations and Results | | | | | | |
|--|-------------------|------------|---------------------------------------|---|--------------------------------------|---------------------------------------|
| Upgradient Well | Downgradient Well | Date | Upgradient Groundwater Elevation (ft) | Downgradient Groundwater Elevation (ft) | Vertical Distance between Wells (ft) | Calculated Hydraulic Gradient (ft/ft) |
| MW-12 | MW-19 | 08/26/2014 | 774.09 | 770.20 | 119.73 | 3.25E-02 |
| MW-21 | MW-38 Zone 2 | 08/26/2014 | 763.18 | 771.23 | 463.63 | 1.74E-02 |
| MW-12 | MW-19 | 11/17/2014 | 773.74 | 769.81 | 119.73 | 3.28E-02 |
| MW-21 | MW-38 Zone 2 | 11/17/2014 | 763.71 | 771.38 | 463.63 | 1.65E-02 |
| MW-28 | MW-6 | 11/17/2014 | 802.35 | 802.61 | 92.75 | 2.80E-03 |

| $\Delta H / \Delta X$ ($\Delta H / \Delta X$ (MW-19 to MW-41 Zone 2 Aug-2014) = to Jan-1900) Calculations | |
|---|--|
| $\Delta H / \Delta X$ (MW-19 to MW-41 Zone 2 Aug-2014) = Jan-1900) = 0.01 | |
| H (Jan-1900) = 0.00 | |
| ΔX ($\Delta H / \Delta X$ (MW-19 to MW-41 Zone 2 Aug-2014) = to) = 0.00 | |
| $\Delta H / \Delta X$ (MW-19 to MW-41 Zone 2 Aug-2014) = to Jan-1900) = $\frac{\Delta X$ (MW-19 to MW-41 Zone 2 Aug-2014) = Jan-1900) - H (Jan-1900)}{\Delta X ($\Delta H / \Delta X$ (MW-19 to MW-41 Zone 2 Aug-2014) = to) | |
| $\Delta H / \Delta X$ (MW-19 to MW-41 Zone 2 Aug-2014) = to Jan-1900) = 0.00E+00 | |

| $\Delta H / \Delta X$ (to Jan-1900) Calculations | |
|--|--|
| H (Jan-1900) = 0.00 | |
| H (Jan-1900) = 0.00 | |
| ΔX (to) = 0.00 | |
| $\Delta H / \Delta X$ (to Jan-1900) = $\frac{H$ (Jan-1900) - H (Jan-1900)}{\Delta X (to) | |
| $\Delta H / \Delta X$ (to Jan-1900) = 0.00E+00 | |

| $\Delta H / \Delta X$ (to Jan-1900) Calculations | |
|--|--|
| H (Jan-1900) = 0.00 | |
| H (Jan-1900) = 0.00 | |
| ΔX (to) = 0.00 | |
| $\Delta H / \Delta X$ (to Jan-1900) = $\frac{H$ (Jan-1900) - H (Jan-1900)}{\Delta X (to) | |
| $\Delta H / \Delta X$ (to Jan-1900) = 0.00E+00 | |

| $\Delta H / \Delta X$ (to Jan-1900) Calculations | |
|--|--|
| H (Jan-1900) = 0.00 | |
| H (Jan-1900) = 0.00 | |
| ΔX (to) = 0.00 | |
| $\Delta H / \Delta X$ (to Jan-1900) = $\frac{H$ (Jan-1900) - H (Jan-1900)}{\Delta X (to) | |
| $\Delta H / \Delta X$ (to Jan-1900) = 0.00E+00 | |

Appendix B: Groundwater Sampling Field Data Sheets



WELL ID: Alloy

1. PROJECT INFORMATION

Project Number: 145492 Task Number: _____ Area of Concern: _____
 Client: OC Personnel: BH
 Project Location: Anderson, SC Weather: Rain

2. WELL DATA

Date Measured: 11-17-14 Time: AM Temporary Well: Yes No

Casing Diameter: 2 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Screen Diameter: 2 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Total Depth of Well: 61 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: 16.41 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Product: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Length of Water Column: 44.59 feet Well Volume: 7.43 gal Screened Interval (from GS): _____
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.460 gal/ft

3. PURGE DATA

Date Purged: 11-17-14 Time: 1030 Equipment Model(s)

Purge Method: Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Volume to Purge (minimum): _____ well volumes or 7.43 gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

1. YSI-556
2. GEO 505
3. Huomin WML
4. RaMotte 2020

| Time | Cum. Gallons Removed (gal) | pH ±0.1 su | Temp ±2°C | Spec. Cond. > of ±3% or ±10 µS/cm | ORP > of ±10% or ±20 mV | DO > of ±10% or ±0.2 mg/L | Turbidity ≤ 10 NTU | Water Level | Comments |
|------|----------------------------|---------------|--------------|---|-------------------------------|---------------------------------|-----------------------|-------------|----------|
| 1055 | 0.0 | 6.12 | 18.99 | 0.079 | 121.5 | 24.2 | 19.7 | 21.29 | |
| 1100 | 3.5 | 6.48 | 18.90 | 0.078 | 94.8 | 51.9 | 12.97 | 20.98 | |
| 1105 | 5 | 6.46 | 18.54 | 0.079 | 95.9 | 50.9 | 3.86 | 20.95 | |
| 1110 | 7.5 | 6.44 | 18.56 | 0.079 | 98.2 | 50.2 | 8.92 | 20.87 | |
| 1115 | 10 | 6.43 | 18.56 | 0.078 | 94.4 | 49.8 | 8.90 | 20.75 | |

Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: 20.75 Field Filtered? Yes No
 Sample ID: 14921-Alloy Sample Date: 11-17-14 Sample Time: 1120 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: _____ # of Containers: _____

Geochemical Analyses
 Ferrous Iron: _____ mg/L
 DO: _____ mg/L
 Nitrate: _____ mg/L
 Sulfate: _____ mg/L
 Alkalinity: _____ mg/L

5. COMMENTS

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet

WELL ID: MW-1

1. PROJECT INFORMATION

Project Number: 14549 Task Number: _____ Area of Concern: _____
 Client: OC Personnel: SP
 Project Location: Anderson, SC Weather: cloudy 48°

2. WELL DATA

Date Measured: 11/17/14 Time: PM Temporary Well: Yes No
 Casing Diameter: 2 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Screen Diameter: 2 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Total Depth of Well: 65 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: 21.73 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Product: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Length of Water Column: 43.3 feet Well Volume: 7.1 gal Screened Interval (from GS): _____
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11/17/14 Time: _____ Equipment Model(s):
 Purge Method: Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____ 1. YSI
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____ 2. Turbidity
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____ 3. Geo sub
 Dedicated Prepared Off-Site Field-Cleaned Disposable 4. _____
 Volume to Purge (minimum): 7.1 well volumes or 7.1 gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

| Time | Cum. Gallons Removed (gal) | pH ±0.1 su | Temp ±2°C | Spec. Cond. > of ±3% or ±10 µS/cm | ORP > of ±10% or ±20 mV | DO > of ±10% or ±0.2 mg/L | Turbidity ≤ 10 NTU | Water Level | Comments |
|------|----------------------------|---------------|--------------|---|-------------------------------|---------------------------------|-----------------------|-------------|----------|
| 1205 | 0 | 4.7 | 17.70 | 0.104 | 143.5 | 5.44 | 66.9 | 24.78 | |
| 1220 | 1.5 | 4.58 | 17.97 | 0.105 | 179.5 | 5.89 | 29.5 | 25.81 | |
| 1225 | 3.0 | 4.85 | 18.04 | 0.109 | 167.0 | 6.68 | 26.8 | 25.08 | |
| 1230 | 4.0 | 5.02 | 17.93 | 0.110 | 165.8 | 6.83 | 33.7 | 25.08 | |
| 1235 | 9.5 | 5.00 | 17.89 | 0.110 | 166.7 | 6.72 | 21.3 | 25.80 | |

Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: 25.80 Field Filtered? Yes No
 Sample ID: 14321-MW-1 Sample Date: 11/17/14 Sample Time: 1245 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: _____ # of Containers: _____

Geochemical Analyses

Ferrous Iron: _____ mg/L
 DO: _____ mg/L
 Nitrate: _____ mg/L
 Sulfate: _____ mg/L
 Alkalinity: _____ mg/L

5. COMMENTS

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

WELL ID: MW-2

1. PROJECT INFORMATION

Project Number: 145492 Task Number: _____ Area of Concern: _____
 Client: OC Personnel: RLH
 Project Location: Anderson, SC Weather: clear

2. WELL DATA

Date Measured: 11-17-14 Time: _____ Temporary Well: Yes No

Casing Diameter: 2 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Screen Diameter: 2 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Total Depth of Well: 66.7 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: 20.68 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Product: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Length of Water Column: 46.04 feet Well Volume: 7.90 gal Screened Interval (from GS): _____

Note: 1-in well = 0.041 gal/ft 2-in well = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11-18-14 Time: 0955

Equipment Model(s)

Purge Method: Bailer, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____

1. Y3T-556

Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable

2. Geosabz"

Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable

3. Heqoin WGM

4. PalMoff 2020

Volume to Purge (minimum): _____ well volumes or _____ gallons

Was well purged dry? Yes No Pumping Rate: _____ gal/min

Calibrated? Yes No

| Time | Cum. Gallons Removed (gal) | pH ±0.1 su | Temp ±2°C | Spec. Cond. > of ±3% or ±10 µS/cm | ORP > of ±10% or ±20 mV | DO > of ±10% or ±0.2 mg/L | Turbidity ≤ 10 NTU | Water Level | Comments |
|------|----------------------------|---------------|--------------|---|-------------------------------|---------------------------------|-----------------------|-------------|----------|
| 0955 | 0.0 | 6.14 | 16.87 | .057 | 122.7 | 5.26 | 191 | 27.10 | |
| 1000 | 2.5 | 6.18 | 17.77 | .054 | 126.3 | 4.99 | 59.6 | 28.25 | |
| 1005 | 5.0 | 6.14 | 17.99 | .055 | 127.0 | 5.20 | 11.5 | 28.50 | |
| 1010 | 7.5 | 6.17 | 17.96 | .054 | 125.6 | 5.28 | 4.13 | 28.73 | |

Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Bailer, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____

Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable

Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable

Depth to Water at Time of Sampling: 28.8 Field Filtered? Yes No

Sample ID: 14322-MW-2 Sample Date: 11-18-14 Sample Time: 1015 # of Containers: 2

Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____

Equipment Blank Collected? Yes No ID: _____ # of Containers: _____

Geochemical Analyses

Ferrous Iron: _____ mg/L

DO: _____ mg/L

Nitrate: _____ mg/L

Sulfate: _____ mg/L

Alkalinity: _____ mg/L

5. COMMENTS

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

WELL ID: MA-3

1. PROJECT INFORMATION

Project Number: 145492 Task Number: _____ Area of Concern: _____
 Client: OC Personnel: PAH
 Project Location: Anderson, SC Weather: Clear/sun

2. WELL DATA

Date Measured: 11-17-14 Time: AM Temporary Well: Yes No

Casing Diameter: 2 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Screen Diameter: 2 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Total Depth of Well: 28 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: 19.46 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Product: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Length of Water Column: 8.54 feet Well Volume: 1.39 gal Screened Interval (from GS): _____
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11-17-14 Time: 1405

Equipment Model(s)

Purge Method: Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Volume to Purge (minimum): _____ well volumes or 1.39 gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

1. YSI-556
2. GEO3-6 2"
3. Hercin WML
4. La Motte 2020

| Time | Cum. Gallons Removed (gal) | pH ±0.1 su | Temp ±2°C | Spec. Cond. > of ±3% or ±10 µS/cm | ORP > of ±10% or ±20 mV | DO > of ±10% or ±0.2 mg/L | Turbidity ≤ 10 NTU | Water Level | Comments |
|------|----------------------------|---------------|--------------|---|-------------------------------|---------------------------------|-----------------------|-------------|----------|
| 1430 | 0 | 5.31 | 15.14 | 0.018 | 119.9 | 5.176 | 1269 | 20.2 | |
| 1435 | .5 | 5.31 | 16.85 | 0.048 | 158.5 | 3.29 | 1197 | 20.2 | |
| 1440 | 1.0 | 5.26 | 17.84 | 0.049 | 203.7 | 3.22 | 1477 | 20.3 | |
| 1445 | 1.5 | 5.31 | 19.11 | 0.047 | 211.9 | 9.08 | -54 | 20.85 | |
| 1450 | 2.5 | 5.22 | 17.42 | 0.039 | 182.4 | 2.16 | 1511 | 20.85 | |

Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: 21.00 Field Filtered? Yes No
 Sample ID: 14321-MA-3 Sample Date: 11-17-14 Sample Time: 1515 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: 14321-EB # of Containers: 2

Geochemical Analyses

Ferrous Iron: _____ mg/L
 DO: _____ mg/L
 Nitrate: _____ mg/L
 Sulfate: _____ mg/L
 Alkalinity: _____ mg/L

5. COMMENTS

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

WELL ID: MW-4

1. PROJECT INFORMATION

Project Number: 145492 Task Number: _____ Area of Concern: _____
 Client: OC Personnel: RH
 Project Location: Anderson, SC Weather: overcast

2. WELL DATA

Date Measured: 11-17-14 Time: AM Temporary Well: Yes No
 Casing Diameter: 2 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Screen Diameter: 2 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Total Depth of Well: 32.5 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: 22.21 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Product: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Length of Water Column: 10.29 feet Well Volume: 1.40 gal Screened Interval (from GS): _____
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11-17-14 Time: 12:20 Equipment Model(s)
 Purge Method: Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Volume to Purge (minimum): _____ well volumes or _____ gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

| Time | Cum. Gallons Removed (gal) | pH ±0.1 su | Temp ±2°C | Spec. Cond. > of ±3% or ±10 µS/cm | ORP > of ±10% or ±20 mV | DO > of ±10% or ±0.2 mg/L | Turbidity ≤ 10 NTU | Water Level | Comments |
|------|----------------------------|---------------|----------------|---|-------------------------------|---------------------------------|-----------------------|-------------|----------|
| 1220 | 0 | 6.94 | 17.10 | 0.793 | 87.2 | 0.56 | 42.4 | 27.00 | |
| 1225 | 3.5 | 6.99 | 17.99 | 0.759 | 824.6 | 0.30 | 0.80 | 25.50 | |
| 1230 | 6 | 7.04 | 17.90 17.25 | 0.767 | 7.6 | 0.18 | 11.58 | 24.65 | |
| 1235 | 9 | 7.09 | 17.75 | 0.755 | 7.03 | 0.28 | 3.09 | 26.22 | |
| 1240 | 11 | 7.02 | 17.80 | 0.780 | 7.02 | 0.47 | 2.96 | 26.73 | |

17.28

Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: 26. Field Filtered? Yes No
 Sample ID: 14921-MW-4 Sample Date: 11-17-14 Sample Time: 12:50 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: _____ # of Containers: _____

Geochemical Analyses

Ferrous Iron: _____ mg/L
 DO: _____ mg/L
 Nitrate: _____ mg/L
 Sulfate: _____ mg/L
 Alkalinity: _____ mg/L

5. COMMENTS

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

WELL ID: MW-5

1. PROJECT INFORMATION

Project Number: _____ Task Number: _____ Area of Concern: _____
 Client: OC Personnel: JH
 Project Location: Anderson Weather: sunny, windy 34°

2. WELL DATA

Date Measured: 11/18/14 Time: PM Temporary Well: Yes No
 Casing Diameter: 2 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Screen Diameter: 2 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Total Depth of Well: 27.0 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: 18.28 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Product: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Length of Water Column: 8.72 feet Well Volume: 1.4 gal Screened Interval (from GS): _____
 Note: 1-in well = 0.047 gal/ft 2-in well = 0.163 gal/ft 4-in well = 0.663 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 10/18/14 Time: 1300 Equipment Model(s): _____
 Purge Method: Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____ 1. Yes
 Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: _____ 2. turbidity
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____ 3. GeoSub
 Dedicated Prepared Off-Site Field-Cleaned Disposable 4. _____
 Volume to Purge (minimum): 1 well volumes or 1.4 gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

| Time | Cum. Gallons Removed (gal) | pH ±0.1 eu | Temp ±2°C | Spec. Cond. > of ±3% or ±10 µS/cm | ORP > of ±10% or ±20 mV | DO > of ±10% or ±0.2 mg/L | Turbidity ≤ 10 NTU | Water Level | Comments |
|------|----------------------------|---------------|--------------|---|-------------------------------|---------------------------------|-----------------------|-------------|----------|
| 1300 | 0 | 4.69 | 17.47 | 0.142 | 192.5 | 1.37 | 135 | 18.29 | |
| 1305 | 1.0 | 4.80 | 17.68 | 0.143 | 158.1 | 1.51 | 308 | 19.29 | |
| 1310 | 2.0 | 4.80 | 17.99 | 0.148 | 134.4 | 1.52 | 8.75 | 20.07 | |
| 1315 | 3.0 | 4.73 | 17.96 | 0.143 | 142.0 | 1.17 | 9.67 | 20.24 | |
| 1320 | 4.0 | 4.69 | 17.96 | 0.139 | 161.1 | 1.02 | 8.48 | 20.45 | |

Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: 20.61 Field Filtered? Yes No
 Sample ID: 14322-MW-5 Sample Date: 11/18/14 Sample Time: 1340 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: — # of Containers: —
 Equipment Blank Collected? Yes No ID: — # of Containers: —

Geochemical Analyses

Ferrous Iron: _____ mg/L

DO: _____ mg/L

Nitrate: _____ mg/L

Sulfate: _____ mg/L

Alkalinity: _____ mg/L

5. COMMENTS

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

1/2

WELL ID: MW-6

1. PROJECT INFORMATION

Project Number: _____ Task Number: _____ Area of Concern: _____
 Client: OC Personnel: JN
 Project Location: Anderso Weather: Sunny 26°

2. WELL DATA

Date Measured: 11/19/14 Time: 11:11 Temporary Well: Yes No

Casing Diameter: 2 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Screen Diameter: 2 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Total Depth of Well: 133.6 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: 17.08 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Product: — feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Length of Water Column: 116.5 feet Well Volume: 19.0 gal Screened Interval (from GS): _____
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11/19/14 Time: 11:23 Equipment Model(s): _____

Purge Method: Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Volume to Purge (minimum): 1 well volumes or 19.0 gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

| Time | Cum. Gallons Removed (gal) | pH ±0.1 su | Temp ±2°C | Spec. Cond. > of ±3% or ±10 µS/cm | ORP > of ±10% or ±20 mV | DO > of ±10% or ±0.2 mg/L | Turbidity ≤ 10 NTU | Water Level | Comments |
|------|----------------------------|---------------|--------------|---|-------------------------------|---------------------------------|-----------------------|-------------|----------|
| 1123 | 0.0 | 7.07 | 18.30 | 0.171 | 31.0 | 3.14 | 0.60 | 16.50 | |
| 1128 | 3.5 | 7.06 | 18.35 | 0.173 | -13.8 | 4.37 | 0.28 | 21.90 | |
| 1133 | 5.0 | 6.99 | 18.36 | 0.171 | -17.0 | 4.59 | 0.59 | 21.03 | |
| 1138 | 7.0 | 6.91 | 18.37 | 0.169 | -15.5 | 4.69 | 0.28 | 21.66 | |
| 1143 | 8.9 | 6.89 | 18.38 | 0.168 | -14.3 | 4.72 | 0.27 | 21.06 | |

Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: 20.48 Field Filtered? Yes No
 Sample ID: 14323-MW-6 Sample Date: 11/18/14 Sample Time: 12:03 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: _____ # of Containers: _____

Geochemical Analyses

Ferrous Iron: _____ mg/L
 DO: _____ mg/L
 Nitrate: _____ mg/L
 Sulfate: _____ mg/L
 Alkalinity: _____ mg/L

5. COMMENTS

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

WELL ID: MW-7

1. PROJECT INFORMATION

Project Number: _____ Task Number: _____ Area of Concern: _____
 Client: OC Personnel: JN
 Project Location: Anderson, SC Weather: Sunny 44

2. WELL DATA

Date Measured: 11/21/14 Time: PH Temporary Well: Yes No

Casing Diameter: 2 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Screen Diameter: 2 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Total Depth of Well: 30.9 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: 16.89 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Product: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Length of Water Column: 14.01 feet Well Volume: 2.3 gal Screened Interval (from GS): _____

Note: 1-in well = 0.041 gal/ft 2-in well = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11/21/14 Time: 1219 Equipment Model(s): _____

Purge Method: Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Volume to Purge (minimum): 1 well volumes or 2.3 gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

1. VSI
2. Turbidity meter
3. Geosub
4. _____

| Time | Cum. Gallons Removed (gal) | pH ±0.1 su | Temp ±2°C | Spec. Cond. > of ±3% or ±10 µS/cm | ORP > of ±10% or ±20 mV | DO > of ±10% or ±0.2 mg/L | Turbidity ≤ 10 NTU | Water Level | Comments |
|------|----------------------------|---------------|--------------|---|-------------------------------|---------------------------------|-----------------------|-------------|-------------|
| 1219 | 0.0 | 4.50 | 20.08 | 1.571 | 87.6 | 0.29 | 198 | 16.74 | |
| 1225 | 1.0 | 4.46 | 20.59 | 1.610 | 88.1 | 0.43 | 31.7 | 17.66 | |
| 1231 | 2.0 | 4.75 | 20.82 | 1.713 | 79.6 | 0.56 | 14.5 | 18.00 | |
| 1237 | 3.0 | 4.86 | 20.98 | 1.793 | 85.1 | 0.39 | 3.42 | 18.25 | Spec. 1.714 |
| 1243 | 4.0 | 4.82 | 21.00 | 1.699 | 96.5 | 0.30 | 2.35 | 18.32 | |

Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: _____ Field Filtered? Yes No
 Sample ID: 1925-MW-7 Sample Date: 11/21/14 Sample Time: 13.07 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: _____ # of Containers: _____

Geochemical Analyses

Ferrous Iron: _____ mg/L
 DO: _____ mg/L
 Nitrate: _____ mg/L
 Sulfate: _____ mg/L
 Alkalinity: _____ mg/L

5. COMMENTS

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

1/2

WELL ID: MW-9

1. PROJECT INFORMATION

Project Number: _____ Task Number: _____ Area of Concern: _____
 Client: OC Personnel: JN
 Project Location: Anderson, SC Weather: Sunny 26°

2. WELL DATA

Date Measured: 11/19/14 Time: AM Temporary Well: Yes No

Casing Diameter: 2 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Screen Diameter: 2 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Total Depth of Well: 104 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: 17.01 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Product: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Length of Water Column: 86.99 feet Well Volume: 14.2 gal Screened Interval (from GS): _____
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11/19/14 Time: 0930 Equipment Model(s): _____

Purge Method: Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Volume to Purge (minimum): 1 well volumes or 14.2 gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

| Time | Cum. Gallons Removed (gal) | pH ±0.1 eu | Temp ±2°C | Spec. Cond. > of ±3% or ±10 µS/cm | ORP > of ±10% or ±20 mV | DO > of ±10% or ±0.2 mg/L | Turbidity ≤ 10 NTU | Water Level | Comments |
|-----------------|----------------------------|---------------|--------------|---|-------------------------------|---------------------------------|-----------------------|-------------|----------|
| 0945 | 0.0 | 6.27 | 18.75 | 0.146 | 106.0 | 7.38 | 2.19 | 16.74 | |
| 0948 | 3.0 | 6.68 | 18.91 | 0.140 | 52.1 | 6.32 | 25.0 | 28.0 | |
| 0953 | 4.5 | 6.40 | 18.94 | 0.141 | 9.4 | 6.38 | 79.7 | 28.0 | |
| 0958 | 6.5 | 6.59 | 18.89 | 0.142 | 45.3 | 6.48 | 51.6 | 28.0 | |
| 1003 | 8.0 | 6.33 | 18.93 | 0.146 | 48.1 | 6.47 | 19.9 | 28.0 | |

Purge data continued on next sheet?


4. SAMPLING DATA

Method(s): Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: _____ Field Filtered? Yes No
 Sample ID: 14273-MW-9 Sample Date: 11/19/14 Sample Time: 1028 # of Containers: 7
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: _____ # of Containers: _____

Geochemical Analyses
 Ferrous Iron: _____ mg/L
 DO: _____ mg/L
 Nitrate: _____ mg/L
 Sulfate: _____ mg/L
 Alkalinity: _____ mg/L

5. COMMENTS

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

Signature 

1/7

WELL ID: MW-10

1. PROJECT INFORMATION

Project Number: _____ Task Number: _____ Area of Concern: _____
 Client: DC Personnel: JP
 Project Location: Anderson Weather: cloudy 48°

2. WELL DATA

Date Measured: 11/17/14 Time: PM Temporary Well: Yes No

Casing Diameter: 2 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Screen Diameter: 2 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Total Depth of Well: 714 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: 245 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Product: 245 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Length of Water Column: 469 feet Well Volume: 7.5 gal Screened Interval (from GS): _____
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11/17/14 Time: 1415 Equipment Model(s)

Purge Method: Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Volume to Purge (minimum): _____ well volumes or _____ gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

1. VSI
2. Turbidity
3. Geosub
4. _____

| Time | Cum. Gallons Removed (gal) | pH ±0.1 su | Temp ±2°C | Spec. Cond. > of ±3% or ±10 µS/cm | ORP > of ±10% or ±20 mV | DO > of ±10% or ±0.2 mg/L | Turbidity ≤ 10 NTU | Water Level | Comments |
|------|----------------------------|---------------|--------------|---|-------------------------------|---------------------------------|-----------------------|-------------|----------|
| 1425 | 0.0 | 4.57 | 19.28 | 0.105 | 175.8 | 6.21 | 44.8 | 26.81 | |
| 1430 | 2.5 | 5.21 | 19.50 | 0.108 | 77.1 | 6.46 | 15.2 | 30.40 | |
| 1435 | 3.5 | 5.20 | 19.52 | 0.110 | 78.7 | 6.49 | 8.40 | 30.40 | |
| 1440 | 5.0 | 5.17 | 19.55 | 0.111 | 83.4 | 6.52 | 0.0 | 30.40 | |
| 1445 | 6.5 | 5.15 | 19.57 | 0.112 | 90.5 | 6.50 | 0.0 | 30.40 | |

Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: 30.40 Field Filtered? Yes No
 Sample ID: 14321-MW-10 Sample Date: 11/17/14 Sample Time: 1500 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: 2
 Equipment Blank Collected? Yes No ID: _____ # of Containers: _____

Geochemical Analyses

Ferrous Iron: _____ mg/L
 DO: _____ mg/L
 Nitrate: _____ mg/L
 Sulfate: _____ mg/L
 Alkalinity: _____ mg/L

5. COMMENTS

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

WELL ID: MW-11

[Handwritten Signature]

1. PROJECT INFORMATION

Project Number: 145492 Task Number: _____ Area of Concern: _____
 Client: OC Personnel: AT
 Project Location: Henderson, SC Weather: clear 26

2. WELL DATA

Date Measured: 11-17-14 Time: day Temporary Well: Yes No

Casing Diameter: 2 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Screen Diameter: 2 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Total Depth of Well: 16 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: 6.91 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Product: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Length of Water Column: 9.09 feet Well Volume: 1.48 gal Screened Interval (from GS): _____
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11-18-14 Time: 1310 Equipment Model(s):

Purge Method: Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Volume to Purge (minimum): _____ well volumes or _____ gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

1. Y51-556
2. Hercules WLM
3. Geo Sab 2"
4. LaMotte 2020

| Time | Cum. Gallons Removed (gal) | pH ±0.1 su | Temp ±2°C | Spec. Cond. > of ±3% or ±10 µS/cm | ORP > of ±10% or ±20 mV | DO > of ±10% or ±0.2 mg/L | Turbidity ≤ 10 NTU | Water Level | Comments |
|------|----------------------------|---------------|--------------|---|-------------------------------|---------------------------------|-----------------------|-------------|----------|
| 1310 | 0.0 | 6.38 | 17.69 | .552 | 4.0 | 4.42 | 90 | 7.20 | |
| 1315 | 1.5 | 6.38 | 17.77 | .917 | 3.88 | 3.48 | 22.1 | 7.35 | |
| 1320 | 4.0 | 6.38 | 17.84 | .488 | 48.2 | 2.64 | 9.69 | 7.38 | |
| 1325 | 5.5 | 6.38 | 17.91 | .487 | 55.3 | 2.89 | 7.10 | 7.40 | |
| 1330 | | | | | | | | | |

Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: 7.40 Field Filtered? Yes No
 Sample ID: 145492-MW-11 Sample Date: 11-19-14 Sample Time: 1330 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: _____ # of Containers: _____

Geochemical Analyses
 Ferrous Iron: _____ mg/L
 DO: _____ mg/L
 Nitrate: _____ mg/L
 Sulfate: _____ mg/L
 Alkalinity: _____ mg/L

5. COMMENTS

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

WELL ID: MW-12

1. PROJECT INFORMATION

Project Number: _____ Task Number: _____ Area of Concern: _____
 Client: OC Personnel: JN
 Project Location: Anderson, SC Weather: Sunny 40°

2. WELL DATA

Date Measured: 11/20/14 Time: 124 Temporary Well: Yes No

Casing Diameter: 2 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Screen Diameter: 2 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Total Depth of Well: 33.0 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: 7.24 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Product: — feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Length of Water Column: _____ feet Well Volume: 4.2 gal Screened Interval (from GS): _____
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.468 gal/ft

3. PURGE DATA

Date Purged: 11/20/14 Time: 1219 Equipment Model(s)

Purge Method: Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Volume to Purge (minimum): 1 well volumes or 4.2 gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

- YSI
- Turbidity meter
- Geosub
- _____

| Time | Cum. Gallons Removed (gal) | pH ±0.1 su | Temp ±2°C | Spec. Cond. > of ±3% or ±10 µS/cm | ORP > of ±10% or ±20 mV | DO > of ±10% or ±0.2 mg/L | Turbidity ≤ 10 NTU | Water Level | Comments |
|------|----------------------------|---------------|--------------|---|-------------------------------|---------------------------------|-----------------------|-------------|----------|
| 1219 | 6.0 | 5.37 | 17.42 | 0.273 | 124.3 | 0.39 | 948 | 6.66 | |
| 1224 | 1.0 | 5.29 | 17.56 | 0.270 | 92.2 | 0.25 | 18.0 | 11.31 | |
| 1229 | 2.0 | 5.38 | 17.62 | 0.263 | 81.0 | 0.38 | 133 | 12.72 | |
| 1234 | 3.0 | 5.48 | 17.81 | 0.268 | 74.4 | 0.45 | 66.6 | 15.61 | |
| 1239 | 4.0 | 5.52 | 17.83 | 0.265 | 74.5 | 0.74 | 29.5 | 17.11 | |

Purge data continued on next sheet? P

4. SAMPLING DATA

Method(s): Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: 18.13 Field Filtered? Yes No
 Sample ID: 14324-MW-12 Sample Date: 11/20/14 Sample Time: 1305 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: _____ # of Containers: _____

Geochemical Analyses
 Ferrous Iron: _____ mg/L
 DO: _____ mg/L
 Nitrate: _____ mg/L
 Sulfate: _____ mg/L
 Alkalinity: _____ mg/L

5. COMMENTS

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

WELL ID: MW-13

1. PROJECT INFORMATION

Project Number: _____ Task Number: _____ Area of Concern: _____
 Client: OC Personnel: JM
 Project Location: Anderson, SC Weather: sunny 40°

2. WELL DATA

Date Measured: 11/20/14 Time: AM Temporary Well: Yes No

Casing Diameter: 2 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Screen Diameter: 2 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Total Depth of Well: 32 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: 9.44 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Product: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Length of Water Column: 62.56 feet Well Volume: 10.2 gal Screened Interval (from GS): _____
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.163 gal/ft 4-in well = 0.653 gal/ft 8-in well = 1.468 gal/ft

3. PURGE DATA

Date Purged: 11/20/14 Time: 1125 Equipment Model(s): _____

Purge Method: Bailer, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Volume to Purge (minimum): 1 well volumes or 10.2 gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

| Time | Cum. Gallons Removed (gal) | pH ±0.1 eu | Temp ±2°C | Spec. Cond. > of ±3% or ±10 µS/cm | ORP > of ±10% or ±20 mV | DO > of ±10% or ±0.2 mg/L | Turbidity ≤ 10 NTU | Water Level | Comments |
|------|----------------------------|---------------|--------------|---|-------------------------------|---------------------------------|-----------------------|-------------|----------|
| 1128 | 0.0 | 5.08 | 18.37 | 0.210 | 93.7 | 3.14 | 0.48 | 9.68 | |
| 1133 | 2.0 | 4.97 | 18.43 | 0.209 | 104.8 | 3.16 | 0.59 | 9.66 | |
| 1138 | 4.0 | 4.96 | 18.47 | 0.208 | 111.0 | 3.11 | 0.90 | 9.66 | |
| 1143 | 6.0 | 5.08 | 18.54 | 0.205 | 115.3 | 3.06 | 0.51 | 9.66 | |
| 1148 | 8.0 | 5.10 | 18.57 | 0.204 | 124.1 | 3.05 | 0.43 | 9.66 | |
| 1153 | 10.0 | 5.09 | 18.57 | 0.204 | 129.9 | 3.04 | 0.28 | 9.66 | |

4. SAMPLING DATA

Method(s): Bailer, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: 9.66 Field Filtered? Yes No
 Sample ID: 14524-MW-13 Sample Date: 11/20/14 Sample Time: 1153 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: _____ # of Containers: _____

Geochemical Analyses

Ferrous Iron: _____ mg/L
 DO: _____ mg/L
 Nitrate: _____ mg/L
 Sulfate: _____ mg/L
 Alkalinity: _____ mg/L

5. COMMENTS

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

WELL ID: MCU-14

1. PROJECT INFORMATION

Project Number: 145492 Task Number: _____ Area of Concern: _____
 Client: OC Personnel: PH
 Project Location: Anderson, SC Weather: Overcast

2. WELL DATA

Date Measured: 11-17-14 Time: 8:17 Temporary Well: Yes No

Casing Diameter: 2 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Screen Diameter: 2 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Total Depth of Well: 74.2 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: 20.78 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Product: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Length of Water Column: 53.42 feet Well Volume: 8.71 gal Screened Interval (from GS): _____
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11-17-14 Time: 1615 Equipment Model(s):

Purge Method: Bailer, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Volume to Purge (minimum): _____ well volumes or _____ gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

1. YSI-55C
2. 2EO 56 2"
3. Henric 407L
4. Hubbette 2020

| Time | Cum. Gallons Removed (gal) | pH ±0.1 su | Temp ±2°C | Spec. Cond. > of ±3% or ±10 µS/cm | ORP > of ±10% or ±20 mV | DO > of ±10% or ±0.2 mg/L | Turbidity ≤ 10 NTU | Water Level | Comments |
|------|----------------------------|-------------------------|--------------|---|-------------------------------|---------------------------------|-----------------------|-------------|----------|
| 1615 | 0.0 | 6.41 | 17.99 | 0.062 | 193.1 | 6.21 | 47.1 | 29.8 | |
| 1620 | 4.0 | 6.0 | 17.40 | 0.059 | 183.3 | 6.64 | 8.37 | 32.4 | |
| 1625 | 6.0 | ^{6.65} 5.95 | 17.47 | 0.058 | 182.3 | 5.94 | 3.87 | 33.4 | |
| 1630 | 9.0 | 5.93 | 17.47 | 0.057 | 181.0 | 5.93 | 3.14 | 33.51 | |

Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Bailer, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: 1630 99.57 Field Filtered? Yes No
 Sample ID: 145492-1117-14 Sample Date: 11-17-14 Sample Time: 1630 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: _____ # of Containers: _____

Geochemical Analyses
 Ferrous Iron: _____ mg/L
 DO: _____ mg/L
 Nitrate: _____ mg/L
 Sulfate: _____ mg/L
 Alkalinity: _____ mg/L

5. COMMENTS

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

WELL ID: MW-15

1. PROJECT INFORMATION

Project Number: 145492 Task Number: _____ Area of Concern: _____
 Client: OC Personnel: RH
 Project Location: Hudson, SC Weather: clear

2. WELL DATA

Date Measured: 11-17-14 Time: _____ Temporary Well: Yes No

Casing Diameter: 2 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Screen Diameter: 2 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Total Depth of Well: 99.5 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: 24.99 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Product: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Length of Water Column: 74.5 feet Well Volume: 12.95 gal Screened Interval (from GS): _____

Note: 1-in well = 0.041 gal/ft 2-in well = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11-20-14 Time: 1225 Equipment Model(s):

Purge Method: Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Volume to Purge (minimum): _____ well volumes or _____ gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

1. Y9I55C
2. Hudson W/CM
3. Geo Sub 2"
4. LaMotta 2020

1665

| Time | Cum. Gallons Removed (gal) | pH ±0.1 su | Temp ±2°C | Spec. Cond. > of ±3% or ±10 µS/cm | ORP > of ±10% or ±20 mV | DO > of ±10% or ±0.2 mg/L | Turbidity ≤ 10 NTU | Water Level | Comments |
|------|----------------------------|---------------|--------------|---|-------------------------------|---------------------------------|-----------------------|-------------|----------|
| 1225 | 0.0 | 6.70 | 16.65 | 176 | 101.8 | 3.43 | 0.60 | 32.6 | |
| 1230 | 5.0 | 6.68 | 16.67 | 159 | 94.3 | 9.95 | 0.05 | 33.65 | |
| 1235 | 8.0 | 6.68 | 16.67 | 153 | 97.3 | 10.01 | 0.07 | 33.90 | |
| 1240 | 10.00 | 6.68 | 16.69 | 161 | 104.1 | 8.67 | 0.43 | 35.85 | |
| 1245 | 13.00 | 6.68 | 16.76 | 149 | 96.7 | 12.65 | 0.01 | 36.87 | |

Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____

Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable

Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable

Depth to Water at Time of Sampling: _____ Field Filtered? Yes No

Sample ID: 14584-MW-15 Sample Date: 11-20-14 Sample Time: 1250 # of Containers: 2

Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____

Equipment Blank Collected? Yes No ID: _____ # of Containers:

Geochemical Analyses

Ferrous Iron: _____ mg/L

DO: _____ mg/L

Nitrate: _____ mg/L

Sulfate: _____ mg/L

Alkalinity: _____ mg/L

5. COMMENTS

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet

WELL ID: MW-16

1. PROJECT INFORMATION

Project Number: 145492 Task Number: _____ Area of Concern: _____
 Client: OC Personnel: RA
 Project Location: Anderson, SC Weather: clear

2. WELL DATA

Date Measured: 11-17-14 Time: day Temporary Well: Yes No

Casing Diameter: 2 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Screen Diameter: 2 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Total Depth of Well: 59 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: 9.96 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Product: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Length of Water Column: 49.04 feet Well Volume: 7.99 gal Screened Interval (from GS): _____

Note: 1-in well = 0.041 gal/ft 2-in well = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.468 gal/ft

3. PURGE DATA

Date Purged: 11-18-14 Time: 1415

Equipment Model(s)

Purge Method: Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Volume to Purge (minimum): _____ well volumes or 7.99 gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

1. X51-556
2. Heavin w/um
3. GeoSob 2"
4. LoMatte 2020

| Time | Cum. Gallons Removed (gal) | pH ±0.1 su | Temp ±2°C | Spec. Cond. > of ±3% or ±10 µS/cm | ORP > of ±10% or ±20 mV | DO > of ±10% or ±0.2 mg/L | Turbidity ≤ 10 NTU | Water Level | Comments |
|------|----------------------------|---------------|--------------|---|-------------------------------|---------------------------------|-----------------------|-------------|----------|
| 1415 | 0.0 | 7.22 | 15.97 | 301 | 44.7 | 2.17 | 39.7 | 19.25 | |
| 1420 | 2.0 | 7.22 | 16.02 | 0.294 | 47.7 | 0.51 | 10.87 | 20.1 | |
| 1425 | 5.0 | 7.20 | 16.03 | 0.298 | 48.7 | 1.62 | 6.81 | 24.94 | |
| 1430 | 8.0 | 7.19 | 16.13 | 0.294 | 48.9 | 2.00 | 5.47 | 27.9 | |

Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: _____ Field Filtered? Yes No
 Sample ID: 1430-MW-16 Sample Date: 11-18-14 Sample Time: 1430 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: _____ # of Containers: _____

Geochemical Analyses

Ferrous Iron: _____ mg/L
 DO: _____ mg/L
 Nitrate: _____ mg/L
 Sulfate: _____ mg/L
 Alkalinity: _____ mg/L

5. COMMENTS

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

WELL ID: MW-17

1. PROJECT INFORMATION

Project Number: _____ Task Number: _____ Area of Concern: _____
 Client: OC Personnel: JN
 Project Location: Anderson, SC Weather: Sunny 26°

2. WELL DATA

Date Measured: 1/19/14 Time: PM Temporary Well: Yes No
 Casing Diameter: 4 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Screen Diameter: 4 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Total Depth of Well: 39.1 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: 22.04 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Product: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Length of Water Column: 22.04 feet Well Volume: 11.1 gal Screened Interval (from GS): _____
17.06 Note: 1-in well = 0.041 gal/ft 2-in well = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 1/19/14 Time: 8:10 Equipment Model(s):
 Purge Method: Bailer, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____ 1. YGS
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____ 2. Turbidity meter
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____ 3. Keasub
 Dedicated Prepared Off-Site Field-Cleaned Disposable 4. _____
 Volume to Purge (minimum): 11.1 well volumes or 1 gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

| Time | Cum. Gallons Removed (gal) | pH ±0.1 su | Temp ±2°C | Spec. Cond. > of ±3% or ±10 µS/cm | ORP > of ±10% or ±20 mV | DO > of ±10% or ±0.2 mg/L | Turbidity ≤ 10 NTU | Water Level | Comments |
|------|----------------------------|---------------|--------------|---|-------------------------------|---------------------------------|-----------------------|-------------|----------|
| 1308 | 0.0 | 5.22 | 18.15 | 0.210 | 64.5 | 4.34 | 185 | 22.54 | |
| 1313 | 1.5 | 5.14 | 18.59 | 0.206 | 41.9 | 4.34 | 67.3 | 22.56 | |
| 1318 | 2.5 | 5.06 | 18.72 | 0.201 | 50.1 | 4.33 | 16.9 | 22.56 | |
| 1323 | 3.8 | 5.01 | 18.73 | 0.199 | 50.5 | 4.33 | 9.94 | 22.56 | |
| 1328 | 4.9 | 5.01 | 18.81 | 0.196 | 72.9 | 4.38 | 3.48 | 22.56 | |

Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Bailer, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: 22.56 Field Filtered? Yes No
 Sample ID: 14323-MW-17 Sample Date: 1/19/14 Sample Time: 14:03 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: _____ # of Containers: _____

Geochemical Analyses

Ferrous Iron: _____ mg/L
 DO: _____ mg/L
 Nitrate: _____ mg/L
 Sulfate: _____ mg/L
 Alkalinity: _____ mg/L

5. COMMENTS

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

WELL ID: MW-18 0

1. PROJECT INFORMATION

Project Number: _____ Task Number: _____ Area of Concern: _____
 Client: OC Personnel: JN
 Project Location: Anderson, SC Weather: Sunny 29°

2. WELL DATA

Date Measured: 11/18/14 Time: AM Temporary Well: Yes No

Casing Diameter: 2 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Screen Diameter: 2 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Total Depth of Well: 25.6 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: 20.36 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Product: — feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Length of Water Column: 4.84 feet Well Volume: 0.8 gal Screened Interval (from GS): _____
Note: 1-in well = 0.041 gal/ft 2-in well = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.489 gal/ft

3. PURGE DATA

Date Purged: 11/18/14 Time: 0840 Equipment Model(s):

Purge Method: Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Volume to Purge (minimum): 7 well volumes or 0.8 gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

1. YSI
2. turbidity meter
3. Geo sub
4. _____

| Time | Cum. Gallons Removed (gal) | pH ±0.1 eu | Temp ±2°C | Spec. Cond. > of ±3% or ±10 µS/cm | ORP > of ±10% or ±20 mV | DO > of ±10% or ±0.2 mg/L | Turbidity ≤ 10 NTU | Water Level | Comments |
|------|----------------------------|---------------|--------------|---|-------------------------------|---------------------------------|-----------------------|-------------|----------|
| 0900 | 0 | 4.41 | 14.82 | 0.118 | 159.7 | 3.76 | 29.71 | 20.83 | |
| 0910 | 1.0 | 5.01 | 18.59 | 0.114 | 77.4 | 3.03 | 10.79 | 21.55 | |
| 0920 | 2.0 | 5.40 | 18.38 | 0.118 | 80.2 | 2.14 | 3.79 | 21.55 | |
| 0930 | 2.5 | 5.05 | 18.08 | 0.118 | 103.6 | 1.95 | 7.21 | 21.55 | |
| 0940 | 3.0 | 4.92 | 18.06 | 0.118 | 118.8 | 1.76 | 3.86 | 21.55 | |

Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: 21.55 Field Filtered? Yes No
 Sample ID: 14322-18 Sample Date: 11/18/14 Sample Time: 1020 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: 2
 Equipment Blank Collected? Yes No ID: 14322-6B # of Containers: 2

Geochemical Analyses

Ferrous Iron: _____ mg/L
 DO: _____ mg/L
 Nitrate: _____ mg/L
 Sulfate: _____ mg/L
 Alkalinity: _____ mg/L

5. COMMENTS

Eg collected at 1045

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

WELL ID: MW-19

1. PROJECT INFORMATION

Project Number: _____ Task Number: _____ Area of Concern: _____
 Client: OC Personnel: JN
 Project Location: Anderson, SC Weather: Sunny 36°

2. WELL DATA

Date Measured: 11/20/14 Time: AH Temporary Well Yes No

Casing Diameter: 2 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Screen Diameter: 2 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Total Depth of Well: 169 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: 12.0 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Product: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Length of Water Column: _____ feet Well Volume: 25.6 gal Screened Interval (from GS): _____
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11/20/14 Time: 0920 Equipment Model(s): _____

Purge Method: Bailer, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Volume to Purge (minimum): 1 well volumes or 25.6 gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

| Time | Cum. Gallons Removed (gal) | pH ±0.1 bu | Temp ±2°C | Spec. Cond. > of ±3% or ±10 µS/cm | ORP > of ±10% or ±20 mV | DO > of ±10% or ±0.2 mg/L | Turbidity ≤ 10 NTU | Water Level | Comments |
|------|----------------------------|---------------|--------------|---|-------------------------------|---------------------------------|-----------------------|-------------|----------|
| 0923 | 0.0 | 6.39 | 18.26 | 0.264 | 85.6 | 1.35 | 0.92 | 12.42 | |
| 0927 | 2.0 | 6.79 | 18.28 | 0.266 | 62.0 | 1.09 | 0.80 | 14.02 | |
| 0931 | 4.0 | 6.84 | 18.29 | 0.271 | 47.6 | 0.39 | 0.88 | 12.83 | |
| 0935 | 6.0 | 6.79 | 18.20 | 0.273 | 42.4 | 0.24 | 0.86 | 13.80 | |
| 0939 | 8.0 | 6.77 | 18.21 | 0.275 | 40.4 | 0.19 | 0.61 | 13.82 | |

Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Bailer, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: 14.10 Field Filtered? Yes No
14324-MW-19 Sample ID: _____ Sample Date: 11/19/14 Sample Time: 0959 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: _____ # of Containers: _____

Geochemical Analyses

Ferrous Iron: _____ mg/L
 DO: _____ mg/L
 Nitrate: _____ mg/L
 Sulfate: _____ mg/L
 Alkalinity: _____ mg/L

5. COMMENTS

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

WELL ID: MW.20

1. PROJECT INFORMATION

Project Number: 145492 Task Number: _____ Area of Concern: _____
 Client: OC Personnel: RK
 Project Location: Anderson, SC Weather: clear

2. WELL DATA

Date Measured: 11-17-14 Time: _____ Temporary Well: Yes No

Casing Diameter: 2 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Screen Diameter: 2 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Total Depth of Well: 53.0 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: 22.65 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Product: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Length of Water Column: 44.35 feet Well Volume: 7.22 gal Screened Interval (from GS): _____
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11-20-14 Time: 1355 Equipment Model(s)

Purge Method: Bailer, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Volume to Purge (minimum): _____ well volumes or _____ gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

1. VSI-556
2. Hensin WLM
3. LaMatte 2020
4. Geo Sob 2"

| Time | Cum. Gallons Removed (gal) | pH ±0.1 su | Temp ±2°C | Spec. Cond. > of ±3% or ±10 µS/cm | ORP > of ±10% or ±20 mV | DO > of ±10% or ±0.2 mg/L | Turbidity ≤ 10 NTU | Water Level | Comments |
|-------------|----------------------------|-------------|--------------|-----------------------------------|-------------------------|---------------------------|--------------------|--------------|----------|
| <u>1355</u> | <u>0.0</u> | <u>5.46</u> | <u>19.22</u> | <u>0.066</u> | <u>114.4</u> | <u>11.38</u> | <u>2.83</u> | <u>23.12</u> | |
| <u>1400</u> | <u>5.0</u> | <u>5.38</u> | <u>19.15</u> | <u>.089</u> | <u>138.7</u> | <u>11.26</u> | <u>0.53</u> | <u>23.00</u> | |
| <u>1409</u> | <u>7.0</u> | <u>5.38</u> | <u>19.10</u> | <u>.099</u> | <u>146.7</u> | <u>11.09</u> | <u>0.05</u> | <u>23.01</u> | |
| <u>1410</u> | <u>10.0</u> | <u>5.39</u> | <u>19.10</u> | <u>.104</u> | <u>152.7</u> | <u>11.25</u> | <u>0.25</u> | <u>23.02</u> | |

Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Bailer, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: 23.02 Field Filtered? Yes No
 Sample ID: 14324-MW-20 Sample Date: 11-20-14 Sample Time: 1415 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: _____ # of Containers: _____

Geochemical Analyses

Ferrous Iron: _____ mg/L
 DO: _____ mg/L
 Nitrate: _____ mg/L
 Sulfate: _____ mg/L
 Alkalinity: _____ mg/L

5. COMMENTS

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

WELL ID: MW-21

1. PROJECT INFORMATION

Project Number: 145492 Task Number: _____ Area of Concern: _____
 Client: OC Personnel: BAH
 Project Location: Karlsson, S Weather: clear

2. WELL DATA

Date Measured: 11-17-14 Time: Day Temporary Well: Yes No
 Casing Diameter: 2 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Screen Diameter: 2 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Total Depth of Well: 16.5 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: 7.94 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Product: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Length of Water Column: 9.06 feet Well Volume: 1.47 gal Screened Interval (from GS): _____
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11-18-14 Time: 1445 Equipment Model(s):
 Purge Method: Bailor, Size: _____ Bladder Pump 2' Sub. Pump 4' Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Volume to Purge (minimum): _____ well volumes or 1.47 gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

1. YS1-55C
2. Hazen WLM
3. Geo Sab 2"
4. Kanatte 2020

| Time | Cum. Gallons Removed (gal) | pH ±0.1 su | Temp ±2°C | Spec. Cond. > of ±3% or ±10 µS/cm | ORP > of ±10% or ±20 mV | DO > of ±10% or ±0.2 mg/L | Turbidity ≤ 10 NTU | Water Level | Comments |
|-------------|----------------------------|---------------|--------------|---|-------------------------------|---------------------------------|-----------------------|-------------|----------|
| <u>1445</u> | <u>0.0</u> | <u>5.43</u> | <u>17.94</u> | <u>0.051</u> | <u>99.6</u> | <u>4.00</u> | <u>977</u> | <u>8.00</u> | |
| <u>1450</u> | <u>2.0</u> | <u>5.41</u> | <u>17.63</u> | <u>.051</u> | <u>67.5</u> | <u>5.86</u> | <u>98</u> | <u>7.84</u> | |
| <u>1455</u> | <u>4.00</u> | <u>5.37</u> | <u>17.79</u> | <u>.051</u> | <u>102.9</u> | <u>5.87</u> | <u>14.7</u> | <u>8.10</u> | |
| <u>1500</u> | <u>6.00</u> | <u>5.37</u> | <u>17.85</u> | <u>.051</u> | <u>112.9</u> | <u>5.87</u> | <u>3.84</u> | <u>8.04</u> | |

Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Bailor, Size: _____ Bladder Pump 2' Sub. Pump 4' Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: _____ Field Filtered? Yes No
 Sample ID: 14592-MW-21 Sample Date: 11-18-14 Sample Time: 1500 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: _____ # of Containers: _____

Geochemical Analyses
 Ferrous Iron: _____ mg/L
 DO: _____ mg/L
 Nitrate: _____ mg/L
 Sulfate: _____ mg/L
 Alkalinity: _____ mg/L

5. COMMENTS

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

WELL ID: MW-22

1. PROJECT INFORMATION

Project Number: _____ Task Number: _____ Area of Concern: _____
 Client: OC Personnel: JN
 Project Location: Anderson, SC Weather: Sunny 30°

2. WELL DATA

Date Measured: 11/20/14 Time: AM Temporary Well: Yes No

Casing Diameter: 8 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Screen Diameter: 8 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Total Depth of Well: 116 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: 11.35 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Product: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Length of Water Column: 104.65 feet Well Volume: _____ gal Screened Interval (from GS): _____

Note: 1-in well = 0.041 gal/ft 2-in well = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11/20/14 Time: 1025 Equipment Model(s):

Purge Method: Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Volume to Purge (minimum): 1 well volumes or _____ gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

1. YCI
2. Turbidity meter
3. Geo sub
4. _____

| Time | Cum. Gallons Removed (gal) | pH ±0.1 su | Temp ±2°C | Spec. Cond. > of ±3% or ±10 µS/cm | ORP > of ±10% or ±20 mV | DO > of ±10% or ±0.2 mg/L | Turbidity ≤ 10 NTU | Water Level | Comments |
|------|----------------------------|---------------|--------------|---|-------------------------------|---------------------------------|-----------------------|-------------|----------|
| 1027 | 0.0 | 5.77 | 18.94 | 0.208 | 62.1 | 2.34 | 0.61 | 11.88 | |
| 1031 | 2.0 | 5.52 | 18.15 | 0.211 | 37.5 | 2.73 | 0.40 | 11.91 | |
| 1035 | 4.0 | 5.46 | 18.14 | 0.212 | 41.0 | 2.71 | 0.34 | 11.91 | |
| 1039 | 6.0 | 5.41 | 18.20 | 0.213 | 49.1 | 2.69 | 0.39 | 11.91 | |
| 1043 | 8.0 | 5.38 | 18.21 | 0.214 | 56.8 | 2.68 | 0.08 | 11.91 | |

Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: 11.91 Field Filtered? Yes No
14324-MW-22
 Sample ID: _____ Sample Date: 11/20/14 Sample Time: 1055 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: _____ # of Containers: _____

Geochemical Analyses

Ferrous Iron: _____ mg/L
 DO: _____ mg/L
 Nitrate: _____ mg/L
 Sulfate: _____ mg/L
 Alkalinity: _____ mg/L

5. COMMENTS

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

WELL ID: MW-24

1. PROJECT INFORMATION

Project Number: _____ Task Number: _____ Area of Concern: _____
 Client: OC Personnel: JN
 Project Location: Anderson Weather: Sunny 76°

2. WELL DATA

Date Measured: 11/19/14 Time: PM Temporary Well: Yes No
 Casing Diameter: 2 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Screen Diameter: 2 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Total Depth of Well: 71 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: 10.84 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Product: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Length of Water Column: 57.16 feet Well Volume: 9.8 gal Screened Interval (from GS): _____
60.16 Note: 1-in well = 0.041 gal/ft 2-in well = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.460 gal/ft

3. PURGE DATA

Date Purged: 11/19/14 Time: 1620 Equipment Model(s):
 Purge Method: Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____ 1. YS3
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____ 2. Turbidity meter
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____ 3. Geosub
 Dedicated Prepared Off-Site Field-Cleaned Disposable 4. _____
 Volume to Purge (minimum): 1 well volumes or 9.8 gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

| Time | Cum. Gallons Removed (gal) | pH ±0.1 su | Temp ±2°C | Spec. Cond. > of ±3% or ±10 µS/cm | ORP > of ±10% or ±20 mV | DO > of ±10% or ±0.2 mg/L | Turbidity ≤ 10 NTU | Water Level | Comments |
|------|----------------------------|---------------|--------------|---|-------------------------------|---------------------------------|-----------------------|-------------|----------|
| 1620 | 0.0 | 6.03 | 19.33 | 0.187 | -51.1 | 1.33 | 34.1 | 12.18 | |
| 1628 | 2.0 | 5.57 | 19.65 | 0.185 | -43.9 | 1.69 | 10.58 | 16.40 | |
| 1636 | 4.0 | 5.47 | 19.89 | 0.184 | -25.2 | 1.78 | 4.46 | 18.97 | |
| 1644 | 6.0 | 5.43 | 19.91 | 0.184 | -2.0 | 1.70 | 3.91 | 21.93 | |
| 1652 | 8.0 | 5.43 | 19.80 | 0.183 | 8.7 | 1.71 | 2.80 | 23.39 | |
| 1700 | 10.0 | 5.43 | 19.93 | 0.183 | 19.3 | 1.69 | 1.41 | 26.01 | |

4. SAMPLING DATA

Method(s): Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: 26.21 Field Filtered? Yes No
 Sample ID: 14923-MW-24 Sample Date: 11/19/14 Sample Time: 1700 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: _____ # of Containers: _____

Geochemical Analyses

Ferrous Iron: _____ mg/L
 DO: _____ mg/L
 Nitrate: _____ mg/L
 Sulfate: _____ mg/L
 Alkalinity: _____ mg/L

5. COMMENTS

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

WELL ID: MW-25

[Handwritten Signature]

1. PROJECT INFORMATION

Project Number: 145492 Task Number: _____ Area of Concern: _____
 Client: OC Personnel: RAH
 Project Location: Anderson, SC Weather: clear

2. WELL DATA

Date Measured: 11-17-14 Time: Day Temporary Well: Yes No

Casing Diameter: 2 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Screen Diameter: 2 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Total Depth of Well: 50 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: 11.71 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Product: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Length of Water Column: 38.29 feet Well Volume: 6.24 gal Screened Interval (from GS): 40-50
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11-18-14 Time: 1315 Equipment Model(s)

Purge Method: Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Volume to Purge (minimum): _____ well volumes or _____ gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

1. Y91-556
2. Handing WLM
3. G-00 Sub 2"
4. RaMatte 2020

| Time | Cum. Gallons Removed (gal) | pH ±0.1 eu | Temp ±2°C | Spec. Cond. > of ±3% or ±10 µS/cm | ORP > of ±10% or ±20 mV | DO > of ±10% or ±0.2 mg/L | Turbidity ≤ 10 NTU | Water Level | Comments |
|------|----------------------------|---------------|--------------|--------------------------------------|----------------------------|------------------------------|-----------------------|-------------|----------|
| 1315 | 0.0 | 5.50 | 16.50 | 0.049 | 98.4 | 7.99 | 83.1 | 11.80 | |
| 1320 | 2.0 | 5.39 | 16.26 | 0.048 | 120.5 | 7.96 | 25.3 | 13.75 | |
| 1325 | 5.0 | 5.91 | 16.13 | 0.046 | 140.5 | 7.00 | 18.0 | 13.55 | |
| 1330 | 7.0 | 5.29 | 16.24 | 0.047 | 154.5 | 7.94 | 5.66 | 13.55 | |
| 1335 | 9.0 | 5.25 | 16.29 | 0.047 | 169.9 | 7.67 | 2.95 | 13.55 | |

Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: 13.55 Field Filtered? Yes No
 Sample ID: 14522-MW-25 Sample Date: 11-18-14 Sample Time: 1335 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: _____ # of Containers: _____

Geochemical Analyses

Ferrous Iron: _____ mg/L
 DO: _____ mg/L
 Nitrate: _____ mg/L
 Sulfate: _____ mg/L
 Alkalinity: _____ mg/L

5. COMMENTS

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

WELL ID: MW-26

1. PROJECT INFORMATION

Project Number: 145492 Task Number: _____ Area of Concern: _____
 Client: OC Personnel: RH
 Project Location: Anderson, SC Weather: Clear

2. WELL DATA

Date Measured: 11-17-14 Time: AM Temporary Well: Yes No

Casing Diameter: 2 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Screen Diameter: 2 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Total Depth of Well: 66.7 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: 18.21 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Product: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Length of Water Column: 48.49 feet Well Volume: 7.90 gal Screened Interval (from GS): _____
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.489 gal/ft

3. PURGE DATA

Date Purged: 11-18-14 Time: 1145 Equipment Model(s)

Purge Method: Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Volume to Purge (minimum): _____ well volumes or _____ gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

1. YSI-956
2. Geosab 2"
3. Henon WLM
4. RaMotte 2020

| Time | Cum. Gallons Removed (gal) | pH | Temp | Spec. Cond. | ORP | DO | Turbidity | Water Level | Comments |
|------|----------------------------|---------|-------|-----------------------|---------------------|------------------------|-----------|-------------|----------|
| | | ±0.1 su | ±2°C | > of ±3% or ±10 µS/cm | > of ±10% or ±20 mV | > of ±10% or ±0.2 mg/L | ≤ 10 NTU | | |
| 1145 | 0.0 | 6.28 | 16.14 | 0.060 | 165.3 | 4.10 | 11.19 | 21.3 | |
| 1150 | 1.5 | 6.38 | 16.63 | 0.058 | 153.3 | 4.68 | 600 gal | 25.0 | |
| 1155 | 3.5 | 6.43 | 16.74 | 0.058 | 150.4 | 5.18 | 111 gal | 34.75 | |
| 1200 | 5 | 6.44 | 16.40 | 0.059 | 150.2 | 5.24 | 127 | 36.55 | |
| 1205 | 8 | 6.39 | 16.01 | 0.058 | 152.3 | 5.96 | 87 | 37.00 | |

Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: 37.00 Field Filtered? Yes No
 Sample ID: 145492-MW-26 Sample Date: 11-18-14 Sample Time: 1210 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: _____ # of Containers: _____

Geochemical Analyses
 Ferrous Iron: _____ mg/L
 DO: _____ mg/L
 Nitrate: _____ mg/L
 Sulfate: _____ mg/L
 Alkalinity: _____ mg/L

5. COMMENTS

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

WELL ID: MW-27

1. PROJECT INFORMATION

Project Number: _____ Task Number: _____ Area of Concern: _____
 Client: OC Personnel: JW
 Project Location: Anderson, SC Weather: Sunny 60°

2. WELL DATA

Date Measured: 11/20/14 Time: PM Temporary Well: Yes No

Casing Diameter: 8 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Screen Diameter: 8 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Total Depth of Well: 99 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: 22.86 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Product: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Length of Water Column: 76.14 feet Well Volume: 127.0 gal Screened Interval (from GS): _____

Note: 1-in well = 0.041 gal/ft 2-in well = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.469 gal/ft 1.676

3. PURGE DATA

Date Purged: 11/20/14 Time: _____ Equipment Model(s): _____

Purge Method: Baller, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Volume to Purge (minimum): 1 well volumes or 127.0 gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

1. YSJ
2. Fertility meter
3. Geo sub
4. _____

| Time | Cum. Gallons Removed (gal) | pH | Temp | Spec. Cond. | ORP | DO | Turbidity | Water Level | Comments |
|-------|----------------------------|---------|-------|-----------------------|---------------------|------------------------|-----------|-------------|----------|
| | | ±0.1 su | ±2°C | > of ±3% or ±10 µS/cm | > of ±10% or ±20 mV | > of ±10% or ±0.2 mg/L | ≤ 10 NTU | | |
| 16:05 | 0.0 | 6.43 | 19.60 | 0.193 | 100.0 | 1.40 | 1.97 | 22.99 | |
| 16:10 | 1.5 | 6.48 | 19.68 | 0.191 | 94.9 | 0.99 | 0.88 | 23.68 | |
| 16:15 | 3.5 | 6.55 | 19.68 | 0.190 | 90.8 | 0.93 | 1.23 | 23.11 | |
| 16:20 | 5.0 | 6.59 | 19.68 | 0.191 | 89.6 | 0.91 | 1.08 | 23.11 | |
| 16:25 | 7.0 | 6.63 | 19.62 | 0.189 | 89.1 | 0.77 | 0.91 | 23.11 | |

Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Baller, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: 23.11 Field Filtered? Yes No
 Sample ID: MW-27 Sample Date: 11/20/14 Sample Time: 16:45 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: _____ # of Containers: _____

Geochemical Analyses

Ferrous Iron: _____ mg/L
 DO: _____ mg/L
 Nitrate: _____ mg/L
 Sulfate: _____ mg/L
 Alkalinity: _____ mg/L

5. COMMENTS

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

WELL ID: MW-28

1. PROJECT INFORMATION

Project Number: 145492 Task Number: _____ Area of Concern: _____
 Client: OC Personnel: PHH
 Project Location: Anderson, SC Weather: clear

2. WELL DATA

Date Measured: 11-17-14 Time: _____ Temporary Well: Yes No

Casing Diameter: 2 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Screen Diameter: 2 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Total Depth of Well: 31 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: 7.99 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Product: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Length of Water Column: 23.01 feet Well Volume: 3.75 gal Screened Interval (from GS): 2-1-31

Note: 1-in well = 0.041 gal/ft 2-in well = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11-21-14 Time: 1139

Equipment Model(s)

Purge Method: Bailer, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable

1. YS1-55C
2. Home in WLM
3. GeoSax 2"
4. ReMatte 2020

Volume to Purge (minimum): _____ well volumes or _____ gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

| Time | Cum. Gallons Removed (gal) | pH | Temp | Spec. Cond. | ORP | DO | Turbidity | Water Level | Comments |
|-------------|----------------------------|-------------|--------------|-----------------------|---------------------|------------------------|---------------|--------------|----------|
| | | ±0.1 eu | ±2°C | > of ±3% or ±10 µS/cm | > of ±10% or ±20 mV | > of ±10% or ±0.2 mg/L | ≤ 10 NTU | | |
| <u>1135</u> | <u>0.0</u> | <u>4.66</u> | <u>20.21</u> | <u>1.362</u> | <u>172.4</u> | <u>3.61</u> | <u>29.6</u> | <u>18.5</u> | |
| <u>1140</u> | <u>3.0</u> | <u>4.69</u> | <u>20.53</u> | <u>1.250</u> | <u>187.4</u> | <u>4.22</u> | <u>9.76</u> | <u>21.6</u> | |
| <u>1145</u> | <u>5.5</u> | <u>4.48</u> | <u>20.37</u> | <u>1.70</u> | <u>109.6</u> | <u>3.54</u> | <u>17.4</u> | <u>25.25</u> | |
| <u>1150</u> | <u>8.0</u> | <u>4.33</u> | <u>20.91</u> | <u>1.995</u> | <u>155.5</u> | <u>4.49</u> | <u>661 au</u> | <u>26.89</u> | |
| <u>1155</u> | <u>9.0</u> | <u>4.31</u> | <u>20.27</u> | <u>1.925</u> | <u>175.0</u> | <u>4.75</u> | <u>40.4</u> | <u>27.10</u> | |

Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Bailer, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: 29.2 Field Filtered? Yes No
 Sample ID: 14925 Sample Date: 11-21-14 Sample Time: 1330 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: _____ # of Containers: _____

Geochemical Analyses

Ferrous Iron: _____ mg/L
 DO: _____ mg/L
 Nitrate: _____ mg/L
 Sulfate: _____ mg/L
 Alkalinity: _____ mg/L

5. COMMENTS

Note: include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-29R Zone 3-Waterloo

1. PROJECT INFORMATION

Project Number: 145492 Task Number: 200-XXX Area of Concern: _____
 Client: Owens Corning Personnel: Stake
 Project Location: Anderson, South Carolina Weather: ~30° Sunny

2. WELL DATA

Date Measured: 11/17/14 Time: AM Temporary Well: Yes No

Casing Diameter: 2 inches
 Screen Diameter: 6 inches
 Sampling Interval: 154.5-169.6 feet
 Depth to Static Water: GS/G Dg
 Depth to Product: _____ feet
 Length of Water Column: _____ feet

Length of water column calculation:
 (9094-Current Dg reading)*0.02775*2.3108 = Length of water column (ft)
 Well Vol. calculation:
 1 well vol. = [vol sand Interval(6") - vol of Waterloo casing (2") + vol of water in tubing (1/4")
 = [22.18 gal - 2.52 gal] + (0.0102 gal/ft x length of water column)

Well Volume: _____ gal Screened Interval (from GS): _____
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11/18/14 Time: 1345 Equipment Model(s): _____

Purge Method: Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____

Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable

Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable

Volume to Purge (minimum): 2 hours well volumes or stability gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

| Time | Cum. Gallons Removed (gal) | pH | Temp | Spec. Cond. | ORP | DO | Turbidity | Water Level | Comments |
|------|----------------------------|---------|-------|-----------------------|---------------------|------------------------|-----------|-------------|----------|
| | | ±0.1 su | ±2°C | > of ±3% or ±10 µS/cm | > of ±10% or ±20 mV | > of ±10% or ±0.2 mg/L | ≤ 10 NTU | | |
| 1350 | .5 | 5.50 | 16.86 | .181 | 76.2 | 2.54 | 0.93 | GS/G | |
| 1355 | .8 | 5.53 | 17.00 | .175 | 66.2 | 2.41 | 0.81 | GS/G | |
| 1400 | 1.2 | 5.53 | 17.01 | .174 | 63.9 | 2.41 | 0.68 | GS/G | |
| 1405 | 1.6 | 5.53 | 17.03 | .172 | 60.7 | 2.38 | 0.76 | GS/G | |
| 1410 | 2.0 | 5.51 | 16.95 | .171 | 57.7 | 2.38 | 0.81 | GS/G | |

Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____

Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable

Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable

Depth to Water at Time of Sampling: _____ Field Filtered? Yes No

Sample ID: 14322-MW-29R-23 Sample Date: 11/18/14 Sample Time: 1410 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: 14322-DUP # of Containers: 2
 Equipment Blank Collected? Yes No ID: _____ # of Containers: _____

Geochemical Analyses
 Ferrous Iron: _____ mg/L
 DO: _____ mg/L
 Nitrate: _____ mg/L
 Sulfate: _____ mg/L
 Alkalinity: _____ mg/L

5. COMMENTS

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-29R Zone 4-Waterloo

1. PROJECT INFORMATION

Project Number: 145492 Task Number: 200-XXX Area of Concern: _____
 Client: Owens Corning Personnel: Skala
 Project Location: Anderson, South Carolina Weather: ~30° Sunny

2. WELL DATA

Date Measured: 11/17/14 Time: Am Temporary Well: Yes No

Casing Diameter: 2 inches Length of water column calculation:
 Screen Diameter: 6 inches (8932.8-Current Dg reading)*0.02724)*2.3108) = Length of water column (ft)
 Sampling Interval: 177.6-202.2 feet Well Vol. calculation:
 Depth to Static Water: 6320 feet 1 well vol. = [vol sand interval(6") - vol of Waterloo casing (2") + vol of water intubing(1/4")
 Depth to Product: _____ feet = [36.14 gal - 4.11 gal] + (0.0102 gal/ft x length of water column)
 Length of Water Column: _____ feet Well Volume: _____ gal Screened Interval (from GS): _____
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11/19/14 Time: 1430 Equipment Model(s) _____

Purge Method: Bailor, Size: _____ Bladder Pump 2' Sub. Pump 4' Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Volume to Purge (minimum): 2 hours well volumes or stability gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

| Time | Cum. Gallons Removed (gal) | pH ±0.1 su | Temp ±2°C | Spec. Cond. > of ±3% or ±10 µS/cm | ORP > of ±10% or ±20 mV | DO > of ±10% or ±0.2 mg/L | Turbidity ≤ 10 NTU | Water Level | Comments |
|------|----------------------------|---------------|--------------|---|-------------------------------|---------------------------------|-----------------------|-------------|----------|
| 1435 | .4 | 5.64 | 16.87 | .152 | 55.1 | 2.46 | .77 | 6328 | |
| 1436 | .8 | 5.48 | 16.96 | .156 | 52.7 | 2.46 | .54 | 6328 | |
| 1435 | 1.2 | 5.46 | 16.90 | .156 | 49.8 | 2.25 | .53 | 6328 | |
| 1440 | 1.6 | 5.45 | 16.76 | .155 | 46.0 | 2.12 | .68 | 6328 | |
| 1445 | 2.0 | 5.45 | 16.82 | .154 | 44.0 | 2.12 | .83 | 6328 | |

Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Bailor, Size: _____ Bladder Pump 2' Sub. Pump 4' Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: _____ Field Filtered? Yes No
 Sample ID: 14322-MW-29R-24 Sample Date: 11/16/14 Sample Time: 1450 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: _____ # of Containers: _____

Geochemical Analyses

Ferrous Iron: _____ mg/L
 DO: _____ mg/L
 Nitrate: _____ mg/L
 Sulfate: _____ mg/L
 Alkalinity: _____ mg/L

5. COMMENTS

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

WELL ID: MW-30

1. PROJECT INFORMATION

Project Number: _____ Task Number: _____ Area of Concern: _____
 Client: OC Personnel: JM
 Project Location: Anderson, SC Weather: Sunny 44

2. WELL DATA

Date Measured: 11/21/14 Time: AM Temporary Well: Yes No

Casing Diameter: 2 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Screen Diameter: 2 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Total Depth of Well: 113 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: 23.01 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Product: — feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Length of Water Column: 90.0 feet Well Volume: 14.2 gal Screened Interval (from GS): _____
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11/21/14 Time: 1022 Equipment Model(s)

Purge Method: Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Volume to Purge (minimum): 1 well volumes or 14.2 gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

| Time | Cum. Gallons Removed (gal) | pH | Temp | Spec. Cond. | ORP | DO | Turbidity | Water Level | Comments |
|------|----------------------------|---------|-------|-----------------------|---------------------|------------------------|-----------|-------------|---------------------------|
| | | ±0.1 su | ±2°C | > of ±3% or ±10 µS/cm | > of ±10% or ±20 mV | > of ±10% or ±0.2 mg/L | ≤ 10 NTU | | |
| 1022 | 0.0 | 6.52 | 19.48 | 0.172 | 40.7 | 3.67 | 11.8 | 21.92 | |
| 1032 | 1.5 | 6.61 | 19.89 | 0.187 | 12.5 | 0.187 | 10.62 | 25.98 | DO = 2.96 |
| 1042 | 3.0 | 6.46 | 20.06 | 0.200 | 15.0 | 0.200 | 3.70 | 27.01 | DO = 2.01 2.12 |
| 1052 | 4.5 | 6.26 | 20.02 | 0.217 | 19.6 | 2.14 | 9.44 | 27.15 | |
| 1102 | 6.0 | 6.01 | 19.92 | 0.206 | 31.5 | 3.39 | 9.48 | 27.34 | |

Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: 27.31 Field Filtered? Yes No
 Sample ID: 14325-MW-30 Sample Date: 11/21/14 Sample Time: 1132 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: 14325-DUP # of Containers: 2
 Equipment Blank Collected? Yes No ID: _____ # of Containers: _____

Geochemical Analyses

Ferrous Iron: _____ mg/L
 DO: _____ mg/L
 Nitrate: _____ mg/L
 Sulfate: _____ mg/L
 Alkalinity: _____ mg/L

5. COMMENTS

14325-DUP @ 1200

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

- 1/2 -

WELL ID: MW-31

1. PROJECT INFORMATION

Project Number: _____ Task Number: _____ Area of Concern: _____
 Client: OC Personnel: JN
 Project Location: Anderson, SC Weather: Sunny V40

2. WELL DATA

Date Measured: 11/21/14 Time: AM Temporary Well: Yes No

Casing Diameter: 2 inches Type: PVC Stainless Galv. Steel Teflon® Other _____
 Screen Diameter: 2 inches Type: PVC Stainless Galv. Steel Teflon® Other _____
 Total Depth of Well: 90.0 feet From: Top of Well Casing (TOC) Top of Protective Casing Other _____
 Depth to Static Water: 24.71 feet From: Top of Well Casing (TOC) Top of Protective Casing Other _____
 Depth to Product: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing Other _____
 Length of Water Column: 65.3 feet Well Volume: 10.6 gal Screened Interval (from GS): _____
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11/21/14 Time: 0857 Equipment Model(s):

Purge Method: Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Volume to Purge (minimum): 1 well volumes or 10.6 gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

| Time | Cum. Gallons Removed (gal) | pH ±0.1 su | Temp ±2°C | Spec. Cond. > of ±3% or ±10 µS/cm | ORP > of ±10% or ±20 mV | DO > of ±10% or ±0.2 mg/L | Turbidity ≤ 10 NTU | Water Level | Comments |
|------|----------------------------|---------------|--------------|---|-------------------------------|---------------------------------|-----------------------|-------------|----------|
| 0857 | 0.0 | 5.01 | 18.65 | 0.147 | 141.8 | 3.81 | 7.04 | 24.43 | |
| 0905 | 2.0 | 6.05 | 19.79 | 0.143 | 72.4 | 2.77 | 40.7 | 27.92 | |
| 0911 | 4.0 | 5.99 | 19.84 | 0.145 | 72.2 | 2.62 | 22.7 | 27.96 | |
| 0917 | 6.0 | 5.96 | 19.87 | 0.146 | 73.5 | 2.64 | 16.4 | 28.06 | |
| 0923 | 8.0 | 5.94 | 19.88 | 0.144 | 74.5 | 2.65 | 11.9 | 28.11 | |

Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: 28.66 Field Filtered? Yes No
 Sample ID: 14325-MW-31 Sample Date: 11/21/14 Sample Time: 0941 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: _____ # of Containers: _____

Geochemical Analyses

Ferrous Iron: _____ mg/L
 DO: _____ mg/L
 Nitrate: _____ mg/L
 Sulfate: _____ mg/L
 Alkalinity: _____ mg/L

5. COMMENTS

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

1/2

WELL ID: MW-32

1. PROJECT INFORMATION

Project Number: _____ Task Number: _____ Area of Concern: _____
 Client: OC Personnel: JN
 Project Location: Anderson, SC Weather: Sunny 26°

2. WELL DATA

Date Measured: 11/19/14 Time: PM Temporary Well Yes No

Casing Diameter: 2 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Screen Diameter: 2 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Total Depth of Well: 35 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: 17.14 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Product: — feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Length of Water Column: 17.84 feet Well Volume: 3.0 gal Screened Interval (from GS): _____
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11/19/14 Time: 1450 Equipment Model(s): _____

Purge Method: Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Volume to Purge (minimum): 1 well volumes or 3 gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

| Time | Cum. Gallons Removed (gal) | pH ±0.1 su | Temp ±2°C | Spec. Cond. > of ±3% or ±10 µS/cm | ORP > of ±10% or ±20 mV | DO > of ±10% or ±0.2 mg/L | Turbidity ≤ 10 NTU | Water Level | Comments |
|------|----------------------------|---------------|--------------|---|-------------------------------|---------------------------------|-----------------------|-------------|----------|
| 1452 | 0.0 | 6.74 | 20.52 | 0.841 | -13.3 | 0.22 | 135 | 1336 | |
| 1458 | 2.0 | 6.87 | 21.03 | 0.774 | -61.8 | 0.20 | 50.2 | 18.00 | |
| 1505 | 3.0 | 6.87 | 21.24 | 0.763 | -85.7 | 0.28 | 53.4 | 17.84 | |
| 1511 | 4.0 | 6.85 | 21.37 | 0.756 | -111.6 | 0.29 | 27.3 | 17.84 | |
| 1517 | 5.0 | 6.85 | 21.27 | 0.742 | -122.5 | 0.27 | 12.9 | 17.84 | |

Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: _____ Field Filtered? Yes No
 Sample ID: 14323-MW-32 Sample Date: 11/19/14 Sample Time: 1535 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: 14323-DUP # of Containers: 2
 Equipment Blank Collected? Yes No ID: _____ # of Containers: _____

Geochemical Analyses

Ferrous Iron: _____ mg/L
 DO: _____ mg/L
 Nitrate: _____ mg/L
 Sulfate: _____ mg/L
 Alkalinity: _____ mg/L

5. COMMENTS

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

WELL ID: MW-35

1. PROJECT INFORMATION

Project Number: 145492 Task Number: _____ Area of Concern: _____
 Client: OC Personnel: RA
 Project Location: Anderson, SC Weather: clear

2. WELL DATA

Date Measured: 11-17-14 Time: _____ Temporary Well: Yes No
 Casing Diameter: 2 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Screen Diameter: 2 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Total Depth of Well: 162 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: 11.89 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Product: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Length of Water Column: 150.17 feet Well Volume: 24.48 gal Screened Interval (from GS): _____
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11-20-14 Time: 0940 Equipment Model(s):
 Purge Method: Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Volume to Purge (minimum): _____ well volumes or _____ gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

1. YSI-956
2. Huronin WLM
3. GeoSub 2"
4. Harbath 2020

| Time | Cum. Gallons Removed (gal) | pH ±0.1 su | Temp ±2°C | Spec. Cond. > of ±3% or ±10 µS/cm | ORP > of ±10% or ±20 mV | DO > of ±10% or ±0.2 mg/L | Turbidity ≤ 10 NTU | Water Level | Comments |
|------|----------------------------|---------------|--------------|---|-------------------------------|---------------------------------|-----------------------|-------------|----------|
| 940 | 0.0 | 9.89 | 15.34 | .206x | 134.7 | 4.15 | 12.0 | 17.8 | |
| 945 | 5.0 | 10.07 | 15.38 | .206x | 103.1 | 3.21 | 3.55 | 24.5 | |
| 950 | 7.0 | 10.07 | 15.41 | .206x | 97.4 | 3.55 | 3.86x | 24.35 | |
| 955 | 9.0 | 10.06 | 15.49 | .205x | 93.8 | 3.69 | 2.52x | 24.15 | |
| 1000 | 12.0 | 10.04 | 15.50 | .205x | 89.7 | 3.25 | 1.22x | 23.9 | |

Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: 23.9 feet Field Filtered? Yes No
 Sample ID: 145492-11-20-14-1000 Sample Date: 11-20-14 Sample Time: 1000 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: _____ # of Containers: _____

Geochemical Analyses
 Ferrous Iron: _____ mg/L
 DO: _____ mg/L
 Nitrate: _____ mg/L
 Sulfate: _____ mg/L
 Alkalinity: _____ mg/L

5. COMMENTS

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-36 Zone 1-Waterloo

1. PROJECT INFORMATION

Project Number: 145492 Task Number: 200-xxx Area of Concern: _____
 Client: Owens Corning Personnel: JKala
 Project Location: Anderson, South Carolina Weather: ~30° overcast

2. WELL DATA

Date Measured: 11-17-14 Time: PM Temporary Well: Yes No

Casing Diameter: 2 inches
 Screen Diameter: 6 inches
 Sampling Interval: 99.1-116 feet
 Depth to Static Water: 637 Dg
 Depth to Product: _____ feet
 Length of Water Column: _____ feet

Length of water column calculation:
 $(9558.7 - \text{Current Dg reading}) * 0.01787 * 2.3108 = \text{Length of water column (ft)}$
 Well Vol. calculation:
 1 well vol. = [vol sand interval(6") - vol of waterloo casing (2") + vol of tubing(1/4")]
 = [24.83 gal - 2.82 gal] + (0.0102 gal/ft x length of water column)

Well Volume: _____ gal Screened Interval (from GS): _____
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.657 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11-18-14 Time: 1205 Equipment Model(s): _____

Purge Method: Bailor, Size: _____ Bladder Pump 2' Sub. Pump 4' Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____

Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable

Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable

Volume to Purge (minimum): 2 hours well volumes or Stability gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

| Time | Cum. Gallons Removed (gal) | pH ±0.1 su | Temp ±2°C | Spec. Cond. > of ±3% or ±10 µS/cm | ORP > of ±10% or ±20 mV | DO > of ±10% or ±0.2 mg/L | Turbidity ≤ 10 NTU | Water Level | Comments |
|------|----------------------------|---------------|--------------|---|-------------------------------|---------------------------------|-----------------------|-------------|----------|
| 1210 | .4 | 6.09 | 17.9 | .112 | -18.9 | 3.69 | 1.44 | 6352 | |
| 1220 | 1.0 | 6.08 | 16.76 | .112 | 31.1 | 3.71 | 3.26 | 6352 | |
| 1230 | 1.4 | 6.06 | 16.69 | .111 | 44.1 | 3.67 | 0.63 | 6357 | |
| 1240 | 2.0 | 6.03 | 16.74 | .111 | 54.2 | 3.65 | 0.78 | 6357 | |
| 1250 | 2.3 | 6.07 | 17.00 | .112 | 60.2 | 3.72 | 0.54 | 6357 | |

Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Bailor, Size: _____ Bladder Pump 2' Sub. Pump 4' Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____

Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable

Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable

Depth to Water at Time of Sampling: _____ Field Filtered? Yes No
 Sample ID: 145492-MW-36-31 Sample Date: 11/18/14 Sample Time: 1300 # of Containers: _____
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: _____ # of Containers: _____

Geochemical Analyses

Ferrous Iron: _____ mg/L
 DO: _____ mg/L
 Nitrate: _____ mg/L
 Sulfate: _____ mg/L
 Alkalinity: _____ mg/L

5. COMMENTS

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-36 Zone 3-Waterloo

1. PROJECT INFORMATION

Project Number: 145492 Task Number: 200-xxx Area of Concern: _____
 Client: Owens Corning Personnel: Skala
 Project Location: Anderson, South Carolina Weather: ~30° overcast

2. WELL DATA

Date Measured: 11-17-14 Time: PM Temporary Well: Yes No

Casing Diameter: 2 inches
 Screen Diameter: 6 inches
 Sampling Interval: 180.2-192.7 feet
 Depth to Static Water: 6596 feet
 Depth to Product: _____ feet
 Length of Water Column: _____ feet
 Well Volume: _____ gal
 Screened Interval (from GS): _____
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

Length of water column calculation:
 $(9093.1 - \text{Current Dg reading}) * 0.02725 * 2.3108 = \text{Length of water column (ft)}$
 Well Vol. calculation:
 1 well vol. = [vol sand interval(6") - vol of waterloo casing (2")] + vol of water in tubing(1/4")
 = [18.36 gal - 2.09 gal] + (0.0102 x length of water column)

3. PURGE DATA

Date Purged: _____ Time: 1135 Equipment Model(s): _____

Purge Method: Bailer, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Volume to Purge (minimum): 2 hours well volumes or stability gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

| Time | Cum. Gallons Removed (gal) | pH ±0.1 BU | Temp ±2°C | Spec. Cond. > of ±3% or ±10 µS/cm | ORP > of ±10% or ±20 mV | DO > of ±10% or ±0.2 mg/L | Turbidity ≤ 10 NTU | Water Level | Comments |
|-------------|----------------------------|-------------|--------------------|-----------------------------------|-------------------------|---------------------------|--------------------|-------------|----------|
| <u>1140</u> | <u>.1</u> | <u>7.15</u> | <u>13.70</u> | <u>1.442</u> | <u>-86.1</u> | <u>2.96</u> | <u>3.51</u> | <u>8137</u> | |
| <u>1150</u> | <u>.2</u> | <u>7.12</u> | <u>13.28</u> | <u>1.435</u> | <u>-73.1</u> | <u>4.93</u> | <u>2.89</u> | <u>8303</u> | |
| <u>1200</u> | <u>.25</u> | <u>7.08</u> | <u>11.03</u> | <u>1.439</u> | <u>-68.8</u> | <u>8.36</u> | <u>-</u> | <u>-</u> | |
| | | | <u>Dry at 1200</u> | | | | | | |

Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Bailer, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: _____ Field Filled? Yes No
 Sample ID: 14322-mw-36-23 Sample Date: 11/17/14 Sample Time: 1315 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: -
 Equipment Blank Collected? Yes No ID: _____ # of Containers: -

Geochemical Analyses

Ferrous Iron: _____ mg/L
 DO: _____ mg/L
 Nitrate: _____ mg/L
 Sulfate: _____ mg/L
 Alkalinity: _____ mg/L

5. COMMENTS

Note: include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-36 Zone 5-Waterloo

1. PROJECT INFORMATION

Project Number: 145492 Task Number: 200-XXX Area of Concern: _____
 Client: Owens Corning Personnel: Skals
 Project Location: Anderson, South Carolina Weather: ~30° Sunny

2. WELL DATA

Date Measured: _____ Time: _____ Temporary Well: Yes No

Casing Diameter: 2 inches Length of water column calculation:
 Screen Diameter: 6 inches (8843.2-Current Dg reading)*0.03897*2.3108 = Length of water column (ft)
 Sampling Interval: 269.9-275 feet Well Vol. calculation:
 Depth to Static Water: 7113 feet 1 well vol. = [vol sand interval(6") - vol of waterloo casing (2") + vol of water in tubing(1/4")
 Depth to Product: _____ feet = [7.49 gal - 0.85 gal] + (0.0102 x length of water column)
 Length of Water Column: _____ feet Well Volume: _____ gal Screened Interval (from GS): _____
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11-18-14 Time: 1105 Equipment Model(s): _____

Purge Method: Bailor, Size: _____ Bladder Pump 2' Sub. Pump 4' Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: _____
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Volume to Purge (minimum): 2 times well volumes or stability gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

| Time | Cum. Gallons Removed (gal) | pH ±0.1 su | Temp ±2°C | Spec. Cond. > of ±3% or ±10 µS/cm | ORP > of ±10% or ±20 mV | DO > of ±10% or ±0.2 mg/L | Turbidity ≤ 10 NTU | Water Level | Comments |
|--|----------------------------|---------------|--------------|---|-------------------------------|---------------------------------|-----------------------|-------------|---------------------------|
| 1110 | .1 | 7.52 | 12.63 | 3.036 | -733 | 6.77 | 12.9 | 7589 | |
| 1120 | .15 | 7.51 | 8.83 | 3.037 | -102.2 | 7.97 | 17.1 | 7768 | water very slowly purging |
| 1130 | .25 | 7.51 | 8.18 | 3.016 | -107.4 | 6.77 | - | 7821 | |
| Unable to get PSI high enough to purge. Well let recharge, then sample | | | | | | | | | |

Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Bailor, Size: _____ Bladder Pump 2' Sub. Pump 4' Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: _____ Field Filtered? Yes No
 Sample ID: 14322 MW-36-35 Sample Date: 11/18/14 Sample Time: 1325 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: _____ # of Containers: _____

Geochemical Analyses

Ferrous Iron: _____ mg/L
 DO: _____ mg/L
 Nitrate: _____ mg/L
 Sulfate: _____ mg/L
 Alkalinity: _____ mg/L

5. COMMENTS

Note: include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-37 Zone 1

1. PROJECT INFORMATION

Project Number: 145492 Task Number: 200-xxx Area of Concern: _____
 Client: Owens Corning Personnel: JA
 Project Location: Anderson, South Carolina Weather: clear, cold 40F

2. WELL DATA

Date Measured: 11-17-14 Time: PM Temporary Well: Yes No

Casing Diameter: 1 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Screen Diameter: 1 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Total Depth of Well: 195 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: 34.61 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Product: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Length of Water Column: _____ feet Well Volume: _____ gal Screened Interval (from GS): _____
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.697 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11-20-14 Time: 1120 Equipment Model(s): _____

Purge Method: Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Volume to Purge (minimum): 2 hrs well volumes or stability gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

| Time | Cum. Gallons Removed (gal) | pH ±0.1 su | Temp ±2°C | Spec. Cond. > of ±3% or ±10 µS/cm | ORP > of ±10% or ±20 mV | DO > of ±10% or ±0.2 mg/L | Turbidity ≤ 10 NTU | Water Level | Comments |
|------|----------------------------|------------|-----------|-----------------------------------|-------------------------|---------------------------|--------------------|-------------|----------|
| 1130 | 0.0 | 7.51 | 14.65 | 0.716 | -59.0 | 3.87 | 1.05 | 34.19 | |
| 1140 | 0.1 | 7.53 | 14.86 | 0.728 | -79.5 | 2.20 | 1.46 | 35.12 | |
| 1150 | 0.2 | 7.55 | 14.93 | 0.728 | -88.6 | 1.57 | 1.34 | 38.89 | |
| 1200 | 0.3 | 7.60 | 15.22 | 0.744 | -119.5 | 0.80 | 1.34 | 40.59 | |
| 1210 | 0.4 | 7.68 | 15.18 | 0.463 | -137.6 | 4.16 | 1.08 | 43.34 | |

Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: 54.18 Field Filtered? Yes No
 Sample ID: 14324-MW-37-21 Sample Date: 11-20-14 Sample Time: 1250 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: 14324-DUP01200 # of Containers: 2
 Equipment Blank Collected? Yes No ID: _____ # of Containers: _____

Geochemical Analysis
 Ferrous Iron: _____ mg/L
 DO: _____ mg/L
 Nitrate: _____ mg/L
 Sulfate: _____ mg/L
 Alkalinity: _____ mg/L

5. COMMENTS

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-37 Zone 2

1. PROJECT INFORMATION

Project Number: 145492 Task Number: 200-xxx Area of Concern: _____
 Client: Owens Corning Personnel: AA
 Project Location: Anderson, South Carolina Weather: clear, cold 92°F

2. WELL DATA

Date Measured: 11-17-14 Time: PM Temporary Well: Yes No

Casing Diameter: 1 Inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Screen Diameter: 1 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Total Depth of Well: 232 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: 30.18 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Product: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Length of Water Column: _____ feet Well Volume: _____ gal Screened Interval (from GS): _____

Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11-20-14 Time: 1310 Equipment Model(s)

Purge Method: Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Volume to Purge (minimum): 2 hrs well volumes or stability gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

1. YSI
2. 408
3. LaMotte
4. _____

| Time | Cum. Gallons Removed (gal) | pH ±0.1 su | Temp ±2°C | Spec. Cond. > of ±3% or ±10 µS/cm | ORP > of ±10% or ±20 mV | DO > of ±10% or ±0.2 mg/L | Turbidity ≤ 10 NTU | Water Level | Comments |
|------|----------------------------|---------------|--------------|---|-------------------------------|---------------------------------|-----------------------|-------------|----------|
| 1320 | 0.0 | 9.01 | 15.8 | 0.184 | -58.9 | 1.62 | 1.30 | 30.15 | |
| 1330 | 0.2 | 9.42 | 15.85 | 0.182 | -46.9 | 1.38 | 1.19 | 30.52 | |
| 1340 | 0.3 | 9.50 | 15.84 | 0.180 | -51.7 | 0.81 | 2.24 | 31.59 | |
| 1350 | 0.4 | 9.58 | 15.83 | 0.180 | -53.7 | 0.84 | 1.00 | 30.65 | |
| 1400 | 0.5 | 9.91 | 15.84 | 0.194 | -67.5 | 0.86 | 1.58 | 30.65 | |

Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: 35-95 Field Filtered? Yes No
1432A-MW-37-22
 Sample ID: _____ Sample Date: 11-20-14 Sample Time: 1520 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: _____ # of Containers: _____

Geochemical Analyses
 Ferrous Iron: _____ mg/L
 DO: _____ mg/L
 Nitrate: _____ mg/L
 Sulfate: _____ mg/L
 Alkalinity: _____ mg/L

5. COMMENTS

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-37 Zone 3

1. PROJECT INFORMATION

Project Number: 145492 Task Number: 200.001 Area of Concern: _____
 Client: Owens Corning Personnel: AT
 Project Location: Anderson, South Carolina Weather: clear, cold 37°F

2. WELL DATA

Date Measured: 11-17-14 Time: PM Temporary Well: Yes No

Casing Diameter: 1 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Screen Diameter: 1 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Total Depth of Well: 272 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: 36.96 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Product: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Length of Water Column: _____ feet Well Volume: _____ gal Screened Interval (from GS): _____
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11-20-14 Time: 0900 Equipment Model(s): _____

Purge Method: Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Volume to Purge (minimum): 2hrs well volumes or stability gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

| Time | Cum. Gallons Removed (gal) | pH ±0.1 su | Temp ±2°C | Spec. Cond. > of ±3% or ±10 µS/cm | ORP > of ±10% or ±20 mV | DO > of ±10% or ±0.2 mg/L | Turbidity ≤ 10 NTU | Water Level | Comments |
|------|----------------------------|---------------|--------------|---|-------------------------------|---------------------------------|-----------------------|-------------|----------|
| 0920 | 0.0 | 5.64 | 12.06 | 0.434 | 75.7 | 5.43 | 1.97 | 32.52 | |
| 0930 | 0.10 | 6.15 | 14.49 | 0.507 | 24.1 | 1.07 | 1.50 | 39.34 | |
| 0940 | 0.20 | 6.35 | 14.87 | 0.505 | -5.6 | 0.72 | 1.79 | 40.81 | |
| 0950 | 0.30 | 6.60 | 15.00 | 0.504 | -30.3 | 0.67 | 1.49 | 42.17 | |
| 1000 | 0.40 | 7.16 | 12.42 | 0.506 | -84.3 | 0.83 | 1.47 | 42.03 | |

Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: 55.95 Field Filtered? Yes No
1932A MW-37-23
 Sample ID: _____ Sample Date: 11-20-14 Sample Time: 1110 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: _____ # of Containers: _____

Geochemical Analyses
 Ferrous Iron: _____ mg/L
 DO: _____ mg/L
 Nitrate: _____ mg/L
 Sulfate: _____ mg/L
 Alkalinity: _____ mg/L

5. COMMENTS

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

Open
 Signature

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-38 Zone 1

1. PROJECT INFORMATION

Project Number: 145492 Task Number: 200-xxx Area of Concern: _____
 Client: Owens Corning Personnel: Stala
 Project Location: Anderson, South Carolina Weather: ~50° SUNNY

2. WELL DATA

Date Measured: 11-19-14 Time: AM Temporary Well: Yes No

Casing Diameter: 1 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Screen Diameter: 1 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Total Depth of Well: 430 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: 14.75 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Product: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Length of Water Column: 415.25 feet Well Volume: 17.03 gal Screened Interval (from GS): _____

Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11-19-14 Time: 1245 Equipment Model(s): _____

Purge Method: Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Volume to Purge (minimum): 2 hours well volumes or stability gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

1. YSI
2. LaMotte
3. MP250
4. _____

| Time | Cum. Gallons Removed (gal) | pH ±0.1 su | Temp ±2°C | Spec. Cond. > of ±3% or ±10 µS/cm | ORP > of ±10% or ±20 mV | DO > of ±10% or ±0.2 mg/L | Turbidity ≤ 10 NTU | Water Level | Comments |
|-------------|----------------------------|---------------|--------------|---|-------------------------------|---------------------------------|-----------------------|--------------|---------------------|
| <u>1250</u> | <u>.1</u> | <u>7.65</u> | <u>16.50</u> | <u>.649</u> | <u>-159.8</u> | <u>3.45</u> | <u>3.20</u> | <u>14.61</u> | |
| <u>1300</u> | <u>.2</u> | <u>7.88</u> | <u>15.97</u> | <u>.646</u> | <u>-205.0</u> | <u>3.09</u> | <u>2.71</u> | <u>31.89</u> | |
| <u>1310</u> | <u>.3</u> | <u>7.86</u> | <u>16.18</u> | <u>.634</u> | <u>-206.3</u> | <u>2.92</u> | <u>4.19</u> | <u>31.18</u> | <u>slowed 1 CPM</u> |
| <u>1320</u> | <u>.7</u> | <u>7.82</u> | <u>15.42</u> | <u>.629</u> | <u>-198.1</u> | <u>2.90</u> | <u>2.91</u> | <u>37.51</u> | |
| <u>1330</u> | <u>1.0</u> | <u>7.75</u> | <u>15.59</u> | <u>.627</u> | <u>-182.7</u> | <u>2.95</u> | <u>0.68</u> | <u>41.14</u> | |

Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: _____ Field Filtered? Yes No
 Sample ID: 14232-MW-38-21 Sample Date: 11/19/14 Sample Time: 1420 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: _____ # of Containers: _____

Geochemical Analyses

Ferrous Iron: _____ mg/L
 DO: _____ mg/L
 Nitrate: _____ mg/L
 Sulfate: _____ mg/L
 Alkalinity: _____ mg/L

5. COMMENTS

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-38 Zone 2

1. PROJECT INFORMATION

Project Number: 145492 Task Number: 200-XXX Area of Concern: _____
 Client: Owens Corning Personnel: Stals
 Project Location: Anderson, South Carolina Weather: ~90° Sunny

2. WELL DATA

Date Measured: 11-17-14 Time: Am Temporary Well: Yes No

Casing Diameter: 1 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Screen Diameter: 1 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Total Depth of Well: 499.6 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: 10.05 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Product: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Length of Water Column: 500.1 feet Well Volume: 20.50 gal Screened Interval (from GS): _____

Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11-19-14 Time: 1435 Equipment Model(s): _____

Purge Method: Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: artesian
 Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: artesian
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Volume to Purge (minimum): 2 hours well volumes or Stab. 1.47 gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

| Time | Cum. Gallons Removed (gal) | pH ±0.1 su | Temp ±2°C | Spec. Cond. > of ±3% or ±10 µS/cm | ORP > of ±10% or ±20 mV | DO > of ±10% or ±0.2 mg/L | Turbidity ≤ 10 NTU | Water Level | Comments |
|------|----------------------------|------------|-----------|-----------------------------------|-------------------------|---------------------------|--------------------|-------------|----------|
| 1440 | .3 | 7.42 | 11.92 | .176 | -88.2 | 5.13 | 1.18 | artesian | |
| 1450 | .6 | 7.46 | 12.75 | .177 | -98.5 | 4.72 | 2.81 | " | |
| 1500 | 1.0 | 7.51 | 12.95 | .178 | -110.2 | 4.91 | 0.62 | " | |
| 1510 | 1.3 | 7.57 | 12.67 | .177 | -133.4 | 4.17 | 0.38 | " | |
| 1520 | 1.6 | 7.61 | 12.93 | .177 | -145.7 | 3.88 | 0.34 | " | |

Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: artesian
 Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: artesian
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: _____ Field Filtered? Yes No
 Sample ID: 14323-MW-38-22 Sample Date: 11/19/14 Sample Time: 20:50 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: _____ # of Containers: _____

Geochemical Analyses

Ferrous Iron: _____ mg/L
 DO: _____ mg/L
 Nitrate: _____ mg/L
 Sulfate: _____ mg/L
 Alkalinity: _____ mg/L

5. COMMENTS

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-39 Zone 1

1. PROJECT INFORMATION

Project Number: 145492 Task Number: 200-xxx Area of Concern: _____
 Client: Owens Corning Personnel: HA
 Project Location: Anderson, South Carolina Weather: clear, cold 25°F

2. WELL DATA

Date Measured: 11-17-14 Time: PM Temporary Well: Yes No

Casing Diameter: 1 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Screen Diameter: 1 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Total Depth of Well: 105 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: 18.37 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Product: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Length of Water Column: _____ feet Well Volume: _____ gal Screened Interval (from GS): _____
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11-19-14 Time: 0900 Equipment Model(s)

Purge Method: Bailer, Size: _____ Bladder Pump 2' Sub. Pump 4' Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Volume to Purge (minimum): 2 hrs well volumes or stability gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

1. YSI
2. 408
3. LaMotte
4. _____

| Time | Cum. Gallons Removed (gal) | pH ±0.1 su | Temp ±2°C | Spec. Cond. > of ±3% or ±10 µS/cm | ORP > of ±10% or ±20 mV | DO > of ±10% or ±0.2 mg/L | Turbidity ≤ 10 NTU | Water Level | Comments |
|------|----------------------------|------------|-----------|-----------------------------------|-------------------------|---------------------------|--------------------|-------------|----------|
| 0930 | 0.0 | 6.31 | 14.54 | 0.110 | 81.6 | 2.30 | 2.72 | 18.46 | |
| 0940 | 0.25 | 6.12 | 15.34 | 0.108 | 68.2 | 2.06 | 2.25 | 18.95 | |
| 0950 | 0.50 | 6.17 | 15.37 | 0.108 | 63.2 | 2.07 | 1.93 | 18.81 | |
| 1000 | 0.75 | 6.51 | 15.63 | 0.106 | 39.7 | 3.25 | 2.34 | 19.24 | |
| 1010 | 1.0 | 6.51 | 15.59 | 0.107 | 39.8 | 3.35 | 1.96 | 19.03 | |

Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Bailer, Size: _____ Bladder Pump 2' Sub. Pump 4' Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: 19.14 Field Filtered? Yes No
14323-MW-39-21
 Sample ID: _____ Sample Date: 11-19-14 Sample Time: 1040 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: _____ # of Containers: _____

Geochemical Analyses
 Ferrous Iron: _____ mg/L
 DO: _____ mg/L
 Nitrate: _____ mg/L
 Sulfate: _____ mg/L
 Alkalinity: _____ mg/L

5. COMMENTS

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-39 Zone 2

1. PROJECT INFORMATION

Project Number: 145492 Task Number: 200-xxx Area of Concern: _____
 Client: Owens Corning Personnel: M
 Project Location: Anderson, South Carolina Weather: clear, cold 25°F

2. WELL DATA

Date Measured: 11-17-14 Time: PM Temporary Well: Yes No

Casing Diameter: 1 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Screen Diameter: 1 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Total Depth of Well: 215 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: 36.23 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Product: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Length of Water Column: _____ feet Well Volume: _____ gal Screened Interval (from GS): _____

Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11-19-14 Time: 1050 Equipment Model(s):

Purge Method: Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rops/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Volume to Purge (minimum): 2hrs /well volumes or stability gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

1. VSI
 2. 408
 3. L2Mate
 4. _____

| Time | Cum. Gallons Removed (gal) | pH ±0.1 su | Temp ±2°C | Spec. Cond. > of ±3% or ±10 µS/cm | ORP > of ±10% or ±20 mV | DO > of ±10% or ±0.2 mg/L | Turbidity ≤ 10 NTU | Water Level | Comments |
|------|----------------------------|------------|-----------|-----------------------------------|-------------------------|---------------------------|--------------------|-------------|----------|
| 1100 | 0.0 | 6.94 | 14.07 | 0.529 | 34.6 | 3.08 | 1.19 | 34.49 | |
| 1110 | 0.25 | 6.95 | 14.28 | 0.525 | 29.1 | 2.82 | 1.47 | 37.11 | |
| 1120 | 0.50 | 7.04 | 15.11 | 0.534 | -16.8 | 1.08 | 1.26 | 38.89 | |
| 1130 | 0.75 | 7.18 | 15.06 | 0.537 | -70.3 | 0.86 | 1.25 | 43.09 | |
| 1140 | 1.0 | 7.19 | 15.00 | 0.529 | -79.9 | 0.90 | 1.31 | 41.91 | |

Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: 59.21 Field Filtered? Yes No
 Sample ID: 19323-MW-39-22 Sample Date: 11-19-14 Sample Time: 1240 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: _____ # of Containers: _____

Geochemical Analyses

Ferrous Iron: _____ mg/L
 DO: _____ mg/L
 Nitrate: _____ mg/L
 Sulfate: _____ mg/L
 Alkalinity: _____ mg/L

5. COMMENTS

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-39 Zone 3

1. PROJECT INFORMATION

Project Number: 145492 Task Number: 200-XXX Area of Concern: _____
 Client: Owens Corning Personnel: AA
 Project Location: Anderson, South Carolina Weather: cold, clear 25°F

2. WELL DATA

Date Measured: 11-17-14 Time: PM Temporary Well: Yes No

Casing Diameter: 1 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Screen Diameter: 1 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Total Depth of Well: 300 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: 50.38 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Product: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Length of Water Column: _____ feet Well Volume: _____ gal Screened Interval (from GS): _____

Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11-19-14 Time: 1300 Equipment Model(s):

Purge Method: Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Volume to Purge (minimum): 2hrs well volumes or stability gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

1. YSI
2. 908
3. Lamotte
4. _____

| Time | Cum. Gallons Removed (gal) | pH ±0.1 su | Temp ±2°C | Spec. Cond. > of ±3% or ±10 µS/cm | ORP > of ±10% or ±20 mV | DO > of ±10% or ±0.2 mg/L | Turbidity ≤ 10 NTU | Water Level | Comments |
|------|----------------------------|---------------|--------------|---|-------------------------------|---------------------------------|-----------------------|-------------|----------|
| 1310 | 0.0 | 7.35 | 14.48 | 0.294 | -101.3 | 3.96 | 1.32 | 49.34 | |
| 1320 | 0.25 | 7.14 | 15.34 | 0.287 | -109.8 | 3.68 | 1.45 | 54.71 | |
| 1330 | 0.50 | 7.05 | 15.27 | 0.286 | -118.1 | 2.98 | 3.09 | 55.64 | |
| 1340 | 0.75 | 7.03 | 15.43 | 0.284 | -118.5 | 3.13 | 2.28 | 57.49 | |
| 1400 | 1.0 | 7.01 | 15.05 | 0.284 | -117.2 | 3.33 | 4.50 | 58.45 | |

Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: _____ Field Filtered? Yes No
 Sample ID: 14323-MW-39-23 Sample Date: 11-19-14 Sample Time: 1440 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: 14323-EB # of Containers: 2
1440

Geochemical Analyses
 Ferrous Iron: _____ mg/L
 DO: _____ mg/L
 Nitrate: _____ mg/L
 Sulfate: _____ mg/L
 Alkalinity: _____ mg/L

5. COMMENTS

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-41 Zone 1

1. PROJECT INFORMATION

Project Number: 145492 Task Number: 200-xxx Area of Concern: _____
 Client: Owens Corning Personnel: SKALG
 Project Location: Anderson, South Carolina Weather: ~50° Sunny

2. WELL DATA

Date Measured: 11-17-14 Time: Am Temporary Well: Yes No

Casing Diameter: 1 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Screen Diameter: 1 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Total Depth of Well: 100.2 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: 7.01 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Product: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Length of Water Column: _____ feet Well Volume: _____ gal Screened Interval (from GS): _____
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.463 gal/ft

3. PURGE DATA

Date Purged: 11-20-14 Time: 1125 Equipment Model(s): _____

Purge Method: Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Volume to Purge (minimum): 2 hours well volumes or stability gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

| Time | Cum. Gallons Removed (gal) | pH ±0.1 su | Temp ±2°C | Spec. Cond. > of ±3% or ±10 µS/cm | ORP > of ±10% or ±20 mV | DO > of ±10% or ±0.2 mg/L | Turbidity ≤ 10 NTU | Water Level | Comments |
|------|----------------------------|------------|-----------|-----------------------------------|-------------------------|---------------------------|--------------------|-------------|----------|
| 1130 | .1 | 7.50 | 16.16 | .210 | -14.9 | 5.05 | 3.69 | 8.23 | |
| 1140 | .2 | 7.48 | 15.58 | .211 | -4.5 | 3.87 | 4.58 | 8.23 | |
| 1150 | .3 | 7.49 | 15.77 | .212 | -6.0 | 3.43 | 1.26 | 8.31 | |
| 1200 | .4 | 7.50 | 16.04 | .213 | -10.4 | 3.33 | 2.08 | 8.31 | |
| 1210 | .5 | 7.52 | 16.04 | .213 | -14.4 | 3.35 | 1.11 | 8.31 | |

Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: _____ Field Filtered? Yes No
 Sample ID: 14324-MW-41-21 Sample Date: 11/20/14 Sample Time: 1220 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: 14324-EB # of Containers: 2

Geochemical Analyses

Ferrous iron: _____ mg/L
 DO: _____ mg/L
 Nitrate: _____ mg/L
 Sulfate: _____ mg/L
 Alkalinity: _____ mg/L

5. COMMENTS

EB at 1235

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-41 Zone 2

1. PROJECT INFORMATION

Project Number: 145492 Task Number: 200-XXX Area of Concern: _____
 Client: Owens Corning Personnel: Skala
 Project Location: Anderson, South Carolina Weather: 250° Sunny

2. WELL DATA

Date Measured: 11-17-14 Time: AM Temporary Well: Yes No

Casing Diameter: 1 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Screen Diameter: 1 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Total Depth of Well: 129 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: 4.97 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Product: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Length of Water Column: _____ feet Well Volume: _____ gal Screened Interval (from GS): _____

Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.409 gal/ft

3. PURGE DATA

Date Purged: 11-20-14 Time: 1745 Equipment Model(s): _____

Purge Method: Baller, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Volume to Purge (minimum): 2 hours well volumes or stability gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

1. VSI
 2. Horiba LaMotte
 3. V09 pump
 4. _____

| Time | Cum. Gallons Removed (gal) | pH ±0.1 su | Temp ±2°C | Spec. Cond. > of ±3% or ±10 µS/cm | ORP > of ±10% or ±20 mV | DO > of ±10% or ±0.2 mg/L | Turbidity ≤ 10 NTU | Water Level | Comments |
|-------------|----------------------------|-------------|--------------|-----------------------------------|-------------------------|---------------------------|--------------------|-------------|----------|
| <u>1750</u> | <u>.1</u> | <u>7.66</u> | <u>16.51</u> | <u>.228</u> | <u>-68.0</u> | <u>3.51</u> | <u>1.21</u> | <u>S.01</u> | |
| <u>1300</u> | <u>.2</u> | <u>7.66</u> | <u>16.30</u> | <u>.228</u> | <u>-113.2</u> | <u>3.21</u> | <u>2.06</u> | <u>S.01</u> | |
| <u>1310</u> | <u>.3</u> | <u>7.69</u> | <u>16.33</u> | <u>.226</u> | <u>-133.2</u> | <u>3.13</u> | <u>0.67</u> | <u>S.01</u> | |
| <u>1320</u> | <u>.4</u> | <u>7.71</u> | <u>16.19</u> | <u>.224</u> | <u>-137.9</u> | <u>3.21</u> | <u>0.64</u> | <u>S.01</u> | |
| <u>1330</u> | <u>.5</u> | <u>7.73</u> | <u>16.20</u> | <u>.223</u> | <u>-133.1</u> | <u>3.24</u> | <u>1.11</u> | <u>S.01</u> | |

Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Baller, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: _____ Field Filtered? Yes No
 Sample ID: 19324-MW-41-82 Sample Date: 11/20/14 Sample Time: 1400 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: 2
 Equipment Blank Collected? Yes No ID: _____ # of Containers: 2

Geochemical Analyses
 Ferrous Iron: _____ mg/L
 DO: _____ mg/L
 Nitrate: _____ mg/L
 Sulfate: _____ mg/L
 Alkalinity: _____ mg/L

5. COMMENTS

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-41 Zone 3

1. PROJECT INFORMATION

Project Number: 145492 Task Number: 200-xxx Area of Concern: _____
 Client: Owens Corning Personnel: Stala
 Project Location: Anderson, South Carolina Weather: ~90° Sunny

2. WELL DATA

Date Measured: 11-19-14 Time: AM Temporary Well: Yes No

Casing Diameter: 1 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Screen Diameter: 1 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Total Depth of Well: 299 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: 17.53 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Product: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Length of Water Column: _____ feet Well Volume: _____ gal Screened Interval (from GS): _____

Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11-20-14 Time: 0905 Equipment Model(s): _____

Purge Method: Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Volume to Purge (minimum): 2 hours well volumes or stability gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

1. YSI
 2. 408 pump
 3. LalMott
 4. _____

| Time | Cum. Gallons Removed (gal) | pH ±0.1 su | Temp ±2°C | Spec. Cond. : > of ±3% or ±10 µS/cm | ORP > of ±10% or ±20 mV | DO > of ±10% or ±0.2 mg/L | Turbidity ≤ 10 NTU | Water Level | Comments |
|-------------|----------------------------|---------------|--------------|---|-------------------------------|---------------------------------|-----------------------|--------------|---------------------|
| <u>0910</u> | <u>.2</u> | <u>8.84</u> | <u>15.09</u> | <u>377</u> | <u>-137.5</u> | <u>4.99</u> | <u>44.6</u> | <u>27.53</u> | <u>slow to 100m</u> |
| <u>0920</u> | <u>.3</u> | <u>8.74</u> | <u>13.66</u> | <u>371</u> | <u>-156.4</u> | <u>4.99</u> | <u>41.3</u> | <u>31.64</u> | |
| <u>0930</u> | <u>.4</u> | <u>8.61</u> | <u>13.55</u> | <u>371</u> | <u>-153.0</u> | <u>4.68</u> | <u>41.0</u> | <u>35.19</u> | |
| <u>0940</u> | <u>.6</u> | <u>8.33</u> | <u>13.30</u> | <u>363</u> | <u>-142.2</u> | <u>3.68</u> | <u>47.6</u> | <u>38.72</u> | |
| <u>0950</u> | <u>.7</u> | <u>8.23</u> | <u>13.35</u> | <u>361</u> | <u>-138.7</u> | <u>3.67</u> | <u>54.9</u> | <u>41.33</u> | |

Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: _____ Field Filtered? Yes No
 Sample ID: 14234-MW-41-33 Sample Date: 11/20/14 Sample Time: 1110 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: 2
 Equipment Blank Collected? Yes No ID: _____ # of Containers: 2

Geochemical Analyses
 Ferrous Iron: _____ mg/L
 DO: _____ mg/L
 Nitrate: _____ mg/L
 Sulfate: _____ mg/L
 Alkalinity: _____ mg/L

5. COMMENTS

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-42 Zone 1

1. PROJECT INFORMATION

Project Number: 145492 Task Number: 200-XXX Area of Concern: _____
 Client: Owens Corning Personnel: MA
 Project Location: Anderson, South Carolina Weather: clear, cold 31°F

2. WELL DATA

Date Measured: 11-17-14 Time: PM Temporary Well: Yes No

Casing Diameter: 1 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Screen Diameter: 1 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Total Depth of Well: 129 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: 36.72 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Product: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Length of Water Column: _____ feet Well Volume: _____ gal Screened Interval (from GS): _____
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11-18-14 Time: 0840 Equipment Model(s):

Purge Method: Baller, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Blailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Volume to Purge (minimum): 2 hrs well volumes or stability gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

| Time | Cum. Gallons Removed (gal) | pH ±0.1 su | Temp ±2°C | Spec. Cond. > of ±3% or ±10 µS/cm | ORP > of ±10% or ±20 mV | DO > of ±10% or ±0.2 mg/L | Turbidity ≤ 10 NTU | Water Level | Comments |
|------|----------------------------|------------|-----------|-----------------------------------|-------------------------|---------------------------|--------------------|-------------|----------|
| 0900 | 0.0 | 9.54 | 16.02 | 0.113 | 57.8 | 6.18 | 3.76 | 37.08 | |
| 0910 | 0.5 | 9.95 | 16.60 | 0.110 | 27.0 | 6.33 | 6.89 | 36.62 | |
| 0920 | 1.0 | 10.15 | 16.92 | 0.112 | 13.8 | 6.27 | 4.55 | 37.14 | |
| 0930 | 1.5 | 10.34 | 16.92 | 0.194 | 6.3 | 6.92 | 4.89 | 36.71 | |
| 0940 | 2.0 | 10.99 | 16.83 | 0.322 | -18.2 | 6.91 | 5.41 | 36.13 | |

Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Baller, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Blailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: 37.42 Field Filtered? Yes No
 Sample ID: 14322-MW-42-22 Sample Date: 11-18-14 Sample Time: 1100 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: _____ # of Containers: _____

Geochemical Analyses

Ferrous Iron: _____ mg/L
 DO: _____ mg/L
 Nitrate: _____ mg/L
 Sulfate: _____ mg/L
 Alkalinity: _____ mg/L

5. COMMENTS

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.


 Signature

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-42 Zone 2

1. PROJECT INFORMATION

Project Number: 145492 Task Number: 200-XXX Area of Concern: _____
 Client: Owens Corning Personnel: A
 Project Location: Anderson, South Carolina Weather: overcast, cold 31°F

2. WELL DATA

Date Measured: 11-17-14 Time: PM Temporary Well: Yes No

Casing Diameter: 1 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Screen Diameter: 1 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Total Depth of Well: 222 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: 34.04 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Product: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Length of Water Column: _____ feet Well Volume: _____ gal Screened Interval (from GS): _____

Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11-18-14 Time: 1110 Equipment Model(s)

Purge Method: Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Volume to Purge (minimum): 2 hrs well volumes or 4 hrs stability gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

1. YSI
2. 403
3. LeMote
4. _____

| Time | Cum. Gallons Removed (gal) | pH ±0.1 su | Temp ±2°C | Spec. Cond. > of ±3% or ±10 µS/cm | ORP > of ±10% or ±20 mV | DO > of ±10% or ±0.2 mg/L | Turbidity ≤ 10 NTU | Water Level | Comments |
|------|----------------------------|---------------|--------------|--------------------------------------|----------------------------|------------------------------|-----------------------|-------------|--------------|
| 1120 | 0.0 | 9.11 | 8.93 | 0.602 | -19.7 | 5.29 | 6.05 | 36.90 | |
| 1130 | 0.25 | 9.01 | 9.30 | 0.600 | -22.9 | 4.35 | 5.91 | 36.59 | |
| 1140 | 0.50 | 8.42 | 16.5 | 0.298 | -37.1 | 6.39 | 8.03 | 41.65 | |
| 1150 | 0.60 | 8.43 | 16.30 | 0.488 | -34.1 | 7.24 | 8.73 | 39.72 | |
| 1200 | 0.75 | 8.48 | 16.16 | 0.448 | -20.07 | 7.99 | 9.12 | 41.39 | stalled pump |

Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: 57.59 Field Filtered? Yes No
 Sample ID: 14322-MW-22 Sample Date: 11-18-14 Sample Time: 1320 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: _____ # of Containers: _____

Geochemical Analyses
 Ferrous Iron: _____ mg/L
 DO: _____ mg/L
 Nitrate: _____ mg/L
 Sulfate: _____ mg/L
 Alkalinity: _____ mg/L

5. COMMENTS

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-42 Zone 3

1. PROJECT INFORMATION

Project Number: 145492 Task Number: 200-XXX Area of Concern: _____
 Client: Owens Corning Personnel: AT
 Project Location: Anderson, South Carolina Weather: clear, cold 34°F

2. WELL DATA

Date Measured: 11-17-14 Time: PM Temporary Well: Yes No

Casing Diameter: 1 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Screen Diameter: 1 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Total Depth of Well: 285 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: 34-82 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Product: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Length of Water Column: _____ feet Well Volume: _____ gal Screened Interval (from GS): _____

Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11-18-14 Time: 1340

Equipment Model(s)

Purge Method: Bailor, Size: _____ Bladder Pump 2' Sub. Pump 4' Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Volume to Purge (minimum): 2 hrs well volumes or stability gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

1. YSI
2. 480 408
3. LaMotte
4. _____

| Time | Cum. Gallons Removed (gal) | pH | Temp | Spec. Cond. | ORP | DO | Turbidity | Water Level | Comments |
|------|----------------------------|---------|-------|-----------------------|---------------------|------------------------|-----------|-------------|----------|
| | | ±0.1 su | ±2°C | > of ±3% or ±10 µS/cm | > of ±10% or ±20 mV | > of ±10% or ±0.2 mg/L | ≤ 10 NTU | | |
| 1350 | 0.10 | 8.19 | 16.82 | 0.242 | -131.6 | 0.69 | 3.27 | 36.91 | |
| 1400 | 0.20 | 8.17 | 17.05 | 0.247 | -142.4 | 0.63 | 2.56 | 39.98 | |
| 1410 | 0.30 | 8.16 | 17.05 | 0.250 | -144.3 | 0.66 | 2.42 | 41.46 | |
| 1420 | 0.40 | 8.17 | 16.98 | 0.247 | -147.3 | 0.69 | 2.30 | 44.13 | |
| 1430 | 0.50 | 8.21 | 16.98 | 0.245 | -145.4 | 0.85 | 2.39 | 48.41 | |

Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Bailor, Size: _____ Bladder Pump 2' Sub. Pump 4' Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: _____ Field Filtered? Yes No
 Sample ID: 14322 - MW-42-23 Sample Date: 11-18-14 Sample Time: 1520 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: _____ # of Containers: _____

Geochemical Analyses

Ferrous Iron: _____ mg/L
 DO: _____ mg/L
 Nitrate: _____ mg/L
 Sulfate: _____ mg/L
 Alkalinity: _____ mg/L

5. COMMENTS

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-43 Zone 1

1. PROJECT INFORMATION

Project Number: 145452 Task Number: 200-xxxx Area of Concern: _____
 Client: Dwens Corning Personnel: Skala
 Project Location: Anderson, South Carolina Weather: Sunny ~35°

2. WELL DATA

Date Measured: 11-17-14 Time: 4:10 PM Temporary Well: Yes No

Casing Diameter: 1 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Screen Diameter: 1 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Total Depth of Well: 112.5 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: 7.44 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Product: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Length of Water Column: 105.06 feet Well Volume: 4.31 gal Screened Interval (from GS): _____
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11-18-14 Time: 0850 Equipment Model(s): _____

Purge Method: Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Volume to Purge (minimum): 2 hours well volumes or stability gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

1. VSI
2. MP-50
3. 408 Pump
4. LaMotte

| Time | Cum. Gallons Removed (gal) | pH ±0.1 su | Temp ±2°C | Spec. Cond. > of ±3% or ±10 µS/cm | ORP > of ±10% or ±20 mV | DO > of ±10% or ±0.2 mg/L | Turbidity ≤ 10 NTU | Water Level | Comments |
|-------------|----------------------------|-------------|--------------|-----------------------------------|-------------------------|---------------------------|--------------------|-------------|----------|
| <u>0855</u> | <u>.2</u> | <u>8.38</u> | <u>14.15</u> | <u>.191</u> | <u>151.1</u> | <u>8.07</u> | <u>2.27</u> | <u>7.95</u> | |
| <u>0905</u> | <u>.4</u> | <u>8.69</u> | <u>14.87</u> | <u>.157</u> | <u>87.6</u> | <u>3.60</u> | <u>1.95</u> | <u>7.95</u> | |
| <u>0915</u> | <u>1.0</u> | <u>8.15</u> | <u>14.97</u> | <u>.152</u> | <u>65.1</u> | <u>2.73</u> | <u>1.01</u> | <u>7.95</u> | |
| <u>0925</u> | <u>1.3</u> | <u>7.52</u> | <u>15.15</u> | <u>.149</u> | <u>53.5</u> | <u>2.23</u> | <u>1.03</u> | <u>7.95</u> | |
| <u>0935</u> | <u>1.6</u> | <u>7.35</u> | <u>15.22</u> | <u>.147</u> | <u>42.2</u> | <u>2.03</u> | <u>1.84</u> | <u>7.95</u> | |

Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: _____ Field Filtered? Yes No
 Sample ID: 11-18-14-MW-43-21 Sample Date: 11-18-14 Sample Time: 1015 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: _____ # of Containers: _____

Geochemical Analyses

Ferrous Iron: _____ mg/L
 DO: _____ mg/L
 Nitrate: _____ mg/L
 Sulfate: _____ mg/L
 Alkalinity: _____ mg/L

5. COMMENTS

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-43 Zone 2

1. PROJECT INFORMATION

Project Number: 145492 Task Number: 200-xxx Area of Concern: _____
 Client: Owens Corning Personnel: Skals
 Project Location: Anderson, South Carolina Weather: Overcast ~55°

2. WELL DATA

Date Measured: 11-17-14 Time: pm Temporary Well: Yes No

Casing Diameter: 1 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Screen Diameter: 1 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Total Depth of Well: 180 feet From: Top of Well Casing (TOC) Top of Protective Casing
 Depth to Static Water: 4.85 feet From: Top of Well Casing (TOC) Top of Protective Casing
 Depth to Product: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing
 Length of Water Column: 75.15 feet Well Volume: 7.18 gal Screened Interval (from GS): _____
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.867 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11-17-14 Time: 1510 Equipment Model(s): _____

Purge Method: Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Volume to Purge (minimum): 2 hours well volumes or stability gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes

| Time | Cum. Gallons Removed (gal) | pH | Temp | Spec. Cond. | ORP | DO | Turbidity | Water Level | Comments |
|------|----------------------------|---------|-------|-----------------------|---------------------|------------------------|-----------|-------------|----------|
| | | ±0.1 su | ±2°C | > of ±3% or ±10 µS/cm | > of ±10% or ±20 mV | > of ±10% or ±0.2 mg/L | ≤ 10 NTU | | |
| 1515 | 0.1 | 7.24 | 16.37 | .239 | 13.8 | 3.12 | 1.13 | 6.46 | |
| 1525 | 0.4 | 7.62 | 16.43 | .217 | -77.5 | 2.22 | 1.29 | 6.71 | |
| 1535 | 1.0 | 7.88 | 16.47 | .214 | -82.8 | 2.10 | 0.42 | 6.71 | |
| 1545 | 1.3 | 7.99 | 16.45 | .214 | -89.2 | 2.08 | 0.39 | 6.71 | |
| 1555 | 1.9 | 8.03 | 16.45 | .214 | -93.7 | 2.07 | 0.68 | 6.71 | |

Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: _____ Field Filtered? Yes No
 Sample ID: 14321-MW-43-23 Sample Date: 11/17/14 Sample Time: 645 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: _____ # of Containers: _____

Geochemical Analyses

Ferrous Iron: _____ mg/L
 DO: _____ mg/L
 Nitrate: _____ mg/L
 Sulfate: _____ mg/L
 Alkalinity: _____ mg/L

5. COMMENTS

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-43 Zone 3

1. PROJECT INFORMATION
 Project Number: 145492 Task Number: 200-xxxx Area of Concern: _____
 Client: Owens Corning Personnel: AA
 Project Location: Anderson, South Carolina Weather: Cool, overcast

2. WELL DATA Date Measured: 11-17-14 Time: PM Temporary Well: Yes No
 Casing Diameter: 1 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Screen Diameter: 1 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Total Depth of Well: 282.5 feet From: Top of Well Casing (TOC) Top of Protective Casing
 Depth to Static Water: 2.49 feet From: Top of Well Casing (TOC) Top of Protective Casing
 Depth to Product: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing
 Length of Water Column: 280.0 feet Well Volume: 11.48 gal Screened Interval (from GS): _____
Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA Date Purged: 11-17-14 Time: 1520 Equipment Model(s):
 Purge Method: Bailer, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____ 1. YS1
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____ 2. 408
 Dedicated Prepared Off-Site Field-Cleaned Disposable 3. Lowalk
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____ 4. _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Volume to Purge (minimum): 2 hrs well volumes or stability gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes

| Time | Cum. Gallons Removed (gal) | pH ±0.1 su | Temp ±2°C | Spec. Cond. > of ±3% or ±10 µS/cm | ORP > of ±10% or ±20 mV | DO > of ±10% or ±0.2 mg/L | Turbidity ≤10 NTU | Water Level | Comments |
|------|----------------------------|------------|-----------|-----------------------------------|-------------------------|---------------------------|-------------------|-------------|-------------|
| 1530 | 0.25 | 7.13 | 15.46 | 0.335 | -85.8 | 0.91 | 1.31 | 9.86 | |
| 1540 | 0.5 | 7.20 | 16.29 | 0.333 | -99.2 | 0.57 | 1.37 | 24.49 | slowed pump |
| 1550 | 0.75 | 7.24 | 16.26 | 0.330 | -100.4 | 1.44 | 1.43 | 26.88 | |
| 1600 | 1.25 | 7.34 | 15.96 | 0.323 | -82.1 | 1.80 | 1.67 | 33.70 | |
| 1610 | 1.5 | 7.41 | 15.77 | 0.320 | -61.2 | 2.02 | 1.43 | 37.96 | |

Purge data continued on next sheet?

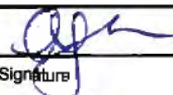
4. SAMPLING DATA
 Method(s): Bailer, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: _____ Field Filtered? Yes No
 Sample ID: 14321-MW-43-23 Sample Date: 11-17-14 Sample Time: 1730 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: _____ # of Containers: _____

Geochemical Analyses

| | |
|---------------|------------|
| Ferrous Iron: | _____ mg/L |
| DO: | _____ mg/L |
| Nitrate: | _____ mg/L |
| Sulfate: | _____ mg/L |
| Alkalinity: | _____ mg/L |

5. COMMENTS pump was down for ~ 5min due to insufficient power

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

Signature: 

WELL ID: MW-44

1. PROJECT INFORMATION

Project Number: 145492 Task Number: _____ Area of Concern: _____
 Client: OC Personnel: RH
 Project Location: Anderson, SC Weather: clear 26°F

2. WELL DATA

Date Measured: 11-17-14 Time: day Temporary Well: Yes No

Casing Diameter: 2 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Screen Diameter: 2 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Total Depth of Well: 300 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: 11.42 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Product: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Length of Water Column: 288.56 feet Well Volume: 47.07 gal Screened Interval (from GS): _____
Note: 1-in well = 0.041 gal/ft 2-in well = 0.163 gal/ft 4-in well = 0.853 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11-19-14 Time: 1025 Equipment Model(s)

Purge Method: Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Volume to Purge (minimum): 2H well volumes or stability gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

1. YSI-556
2. Kanpin WLM
3. GEOSAB 2"
4. Rollette 2020

| Time | Cum. Gallons Removed (gal) | pH ±0.1 su | Temp ±2°C | Spec. Cond. > of ±3% or ±10 µS/cm | ORP > of ±10% or ±20 mV | DO > of ±10% or ±0.2 mg/L | Turbidity ≤ 10 NTU | Water Level | Comments |
|------|----------------------------|------------|-----------|-----------------------------------|-------------------------|---------------------------|--------------------|-------------|----------|
| 1125 | 0.0 | 9.47 | 15.49 | 0.194 | 64.4 | 4.96 | 1.69 | 13.65 | |
| 1130 | 4.0 | 9.45 | 15.43 | 0.194 | 10.4 | 9.29 | 0.95 | 13.35 | |
| 1135 | 6.0 | 9.44 | 15.45 | 0.194 | -42.1 | 0.61 | 0.65 | 13.44 | |
| 1140 | 9.0 | 9.44 | 15.55 | 0.195 | -71.4 | 2.24 | 0.76 | 13.65 | |

Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: _____ Field Filtered? Yes No
 Sample ID: 14529-MW-44 Sample Date: 11-19-14 Sample Time: 1145 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: _____ # of Containers: _____

Geochemical Analyses
 Ferrous Iron: _____ mg/L
 DO: _____ mg/L
 Nitrate: _____ mg/L
 Sulfate: _____ mg/L
 Alkalinity: _____ mg/L

5. COMMENTS

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

WELL ID: TW-40

1. PROJECT INFORMATION

Project Number: _____ Task Number: _____ Area of Concern: _____
 Client: DC Personnel: JN
 Project Location: Anderson Weather: Sunny, windy, 34°

2. WELL DATA

Date Measured: 11/18/14 Time: _____ Temporary Well Yes No

Casing Diameter: 2 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Screen Diameter: 2 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Total Depth of Well: 74.0 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: 19.16 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Product: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Length of Water Column: 54.8 feet Well Volume: 90 gal Screened Interval (from GS): _____

Note: 1-in well = 0.041 gal/ft 2-in well = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11/18/14 Time: 1420 Equipment Model(s) _____

Purge Method: Bailer, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Volume to Purge (minimum): 1 well volumes or 90 gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

1. YSI
2. Turbidity
3. Geosob
4. _____

| Time | Cum. Gallons Removed (gal) | pH ±0.1 su | Temp ±2°C | Spec. Cond. > of ±3% or ±10 µS/cm | ORP > of ±10% or ±20 mV | DO > of ±10% or ±0.2 mg/L | Turbidity ≤ 10 NTU | Water Level | Comments |
|------|----------------------------|---------------|--------------|---|-------------------------------|---------------------------------|-----------------------|-------------|----------|
| 1425 | 0.0 | 11.56 | 16.51 | 3.83 | 55.7 | 5.86 | 1.54 | 21.33 | |
| 1432 | 1.5 | 12.25 | 16.68 | 3.824 | -43.2 | 5.65 | 4.42 | 25.83 | |
| 1440 | 3.0 | 12.24 | 16.54 | 3.84 | -35.8 | 5.61 | 5.30 | 28.30 | |
| 1450 | 5.0 | 12.26 | 17.23 | 3.84 | -49.2 | 5.66 | 4.65 | 29.18 | |
| 1500 | 6.5 | 12.25 | 17.26 | 3.81 | -53.3 | 5.64 | 7.12 | 29.34 | |

Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Bailer, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: 30.11 Field Filtered? Yes No
 Sample ID: 14323 TW-40 Sample Date: 11/18/14 Sample Time: 1520 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: _____ # of Containers: _____

Geochemical Analyses

Ferrous Iron: _____ mg/L
 DO: _____ mg/L
 Nitrate: _____ mg/L
 Sulfate: _____ mg/L
 Alkalinity: _____ mg/L

5. COMMENTS

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

42

Signature: [Signature]

WELL ID: TW-41

[Handwritten signature]

1. PROJECT INFORMATION

Project Number: 145492 Task Number: _____ Area of Concern: _____
 Client: OC Personnel: RH
 Project Location: Anderson, SC Weather: clear

2. WELL DATA

Date Measured: 11-17-14 Time: day Temporary Well: Yes No

Casing Diameter: 2 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Screen Diameter: 2 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Total Depth of Well: 57.3 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: 17.23 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Product: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Length of Water Column: 36.07 feet Well Volume: 5.88 gal Screened Interval (from GS): 50.9-55.9
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.489 gal/ft

3. PURGE DATA

Date Purged: 11-18-14 Time: 1555 Equipment Model(s)

Purge Method: Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Volume to Purge (minimum): _____ well volumes or _____ gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

1. YSI-596
2. Geos-6-2"
3. Hansen WLM
4. LaMotte 2020

| Time | Cum. Gallons Removed (gal) | pH ±0.1 su | Temp ±2°C | Spec. Cond. > of ±3% or ±10 µS/cm | ORP > of ±10% or ±20 mV | DO > of ±10% or ±0.2 mg/L | Turbidity ≤ 10 NTU | Water Level | Comments |
|------|----------------------------|---------------|--------------|---|-------------------------------|---------------------------------|-----------------------|-------------|----------|
| 1555 | 0.0 | 7.80 | 16.32 | 414 | 137.1 | 6.76 | 14.7 | 30.6 | |
| 1600 | 2.5 | 7.85 | 16.00 | 416 | 129.7 | 6.11 | 6.92 | 33.6 | |
| 1605 | 4 | 7.87 | 16.87 | 0.419 | 126.9 | 5.78 | 40 | 38.3 | |
| 1610 | 6 | 7.91 | 16.44 | 0.418 | 121.8 | 6.49 | 8.55 | 45.7 | |
| 1615 | 7 | 7.89 | 15.98 | 0.417 | 121.5 | 6.45 | 5.05 | 49.1 | |

Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: 49.1 Field Filtered? Yes No
 Sample ID: 14982-70-41 Sample Date: 11-18-14 Sample Time: 1615 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: _____ # of Containers: _____

Geochemical Analyses
 Ferrous Iron: _____ mg/L
 DO: _____ mg/L
 Nitrate: _____ mg/L
 Sulfate: _____ mg/L
 Alkalinity: _____ mg/L

5. COMMENTS

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

WELL ID: TW-42
MW-15

1. PROJECT INFORMATION

Project Number: 145492 Task Number: 200-xxxx Area of Concern: _____
 Client: Owens Corning Personnel: SKals
 Project Location: Anderson, South Carolina Weather: ~25° Sunny

2. WELL DATA Date Measured: 11-17-14 Time: AM Temporary Well: Yes No

Casing Diameter: 1 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Screen Diameter: 1 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Total Depth of Well: 20.5 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: 16.57 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Product: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Length of Water Column: 9.43 feet Well Volume: 38 gal Screened Interval (from GS): _____
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA Date Purged: 11-19-14 Time: 0920 Equipment Model(s): _____

Purge Method: Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____

Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable

Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable

Volume to Purge (minimum): 2 hours well volumes or stability gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

| Time | Cum. Gallons Removed (gal) | pH ±0.1 su | Temp ±2°C | Spec. Cond. > of ±3% or ±10 µS/cm | ORP > of ±10% or ±20 mV | DO > of ±10% or ±0.2 mg/L | Turbidity ≤ 10 NTU | Water Level | Comments |
|------|----------------------------|------------|-----------|-----------------------------------|-------------------------|---------------------------|--------------------|-------------|----------|
| 0925 | .1 | 5.06 | 16.52 | .036 | 90.9 | 5.06 | 190 | 16.57 | |
| 0935 | .2 | 4.98 | 16.82 | .032 | 96.7 | 6.79 | 63.6 | 16.57 | |
| 0945 | .7 | 4.90 | 16.75 | .035 | 96.1 | 6.72 | 64.3 | 16.57 | |
| 0955 | 1.3 | 4.90 | 16.81 | .035 | 93.1 | 6.80 | 66.7 | 16.57 | |
| | | | | Sample PH, DO, Spec Cond | | | | | |

Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____

Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable

Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable

Depth to Water at Time of Sampling: _____ Field Filtered? Yes No

Sample ID: 14323-TW-42 Sample Date: 11/19/14 Sample Time: 0955 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: _____ # of Containers: _____

Geochemical Analyses
 Ferrous iron: _____ mg/L
 DO: _____ mg/L
 Nitrate: _____ mg/L
 Sulfate: _____ mg/L
 Alkalinity: _____ mg/L

5. COMMENTS

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

[Handwritten Signature]



GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: TW-43
MW-22

1. PROJECT INFORMATION

Project Number: 145492 Task Number: 200-xxx Area of Concern: _____
 Client: Owens Corning Personnel: Skalc
 Project Location: Anderson, South Carolina Weather: ~35° Sunny

2. WELL DATA Date Measured: 11/17/14 Time: 4M Temporary Well: Yes No

Casing Diameter: 8.1 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Screen Diameter: 8.1 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Total Depth of Well: 116 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: 16.32 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Product: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Length of Water Column: 2.28 feet Well Volume: .09 gal Screened Interval (from GS): _____
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.459 gal/ft

3. PURGE DATA Date Purged: 11/19/14 Time: 1015 Equipment Model(s): _____

Purge Method: Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____

Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable

Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable

Volume to Purge (minimum): 2 hours well volumes or stability gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

| Time | Cum. Gallons Removed (gal) | pH ±0.1 su | Temp ±2°C | Spec. Cond. > of ±3% or ±10 µS/cm | ORP > of ±10% or ±20 mV | DO > of ±10% or ±0.2 mg/L | Turbidity ≤ 10 NTU | Water Level | Comments |
|------|----------------------------|---------------|--------------|--------------------------------------|----------------------------|------------------------------|-----------------------|-------------|----------|
| 1020 | .1 | 5.28 | 16.05 | .048 | 87.4 | 7.24 | 95.6 | 16.41 | |
| 1030 | .2 | 5.03 | 15.92 | .048 | 86.4 | 7.21 | 71.3 | 16.41 | |
| 1040 | .3 | 4.94 | 16.17 | .050 | 86.1 | 7.76 | 32.9 | 16.48 | |
| 1050 | .4 | 4.92 | 15.77 | .051 | 79.8 | 7.74 | 28.6 | 16.48 | |
| 1100 | .5 | 4.87 | 15.28 | .052 | 76.4 | 8.49 | 17.3 | 16.48 | |

Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____

Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable

Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable

Depth to Water at Time of Sampling: _____ Field Filtered? Yes No
 Sample ID: 14323-TW-43 Sample Date: 11/19/14 Sample Time: 1130 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: -
 Equipment Blank Collected? Yes No ID: _____ # of Containers: -

Geochemical Analyses
 Ferrous Iron: _____ mg/L
 DO: _____ mg/L
 Nitrate: _____ mg/L
 Sulfate: _____ mg/L
 Alkalinity: _____ mg/L

5. COMMENTS

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

WELL ID: TW-44 ~~11~~

1. PROJECT INFORMATION

Project Number: 145492 Task Number: _____ Area of Concern: _____
 Client: OC Personnel: RA
 Project Location: Anderson, SC Weather: clear

2. WELL DATA

Date Measured: 11-19-14 Time: day Temporary Well: Yes No
 Casing Diameter: 2 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Screen Diameter: 2 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Total Depth of Well: 74 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: 12.03 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Product: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Length of Water Column: 61.97 feet Well Volume: 10.10 gal Screened Interval (from GS): 64-74
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11-19-14 Time: 1000 Equipment Model(s):
 Purge Method: Bailor, Size: _____ Bladder Pump Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Volume to Purge (minimum): _____ well volumes or _____ gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

1. Y57-556
2. Head in WLM
3. Geo Sub 2"
4. Le Mat 2020

| Time | Cum. Gallons Removed (gal) | pH ±0.1 su | Temp ±2°C | Spec. Cond. > of ±3% or ±10 µS/cm | ORP > of ±10% or ±20 mV | DO > of ±10% or ±0.2 mg/L | Turbidity ≤ 10 NTU | Water Level | Comments |
|------|----------------------------|---------------|--------------|---|-------------------------------|---------------------------------|-----------------------|-------------|----------|
| 1000 | 0.0 | 6.43x | 16.35x | 0.066 | 109.1x | 5.55x | 767au | 14.20 | |
| 1005 | 2.5 | 6.44x | 16.26x | 0.065 | 112.8x | 5.43x | 25.8 | 17.30 | |
| 1010 | 5.0 | 6.44x | 16.23x | 0.065 | 119.1x | 5.32x | 19.7 | 18.24 | |
| 1015 | 7.0 | 6.44x | 16.26x | 0.065 | 122.7x | 5.32x | 21.3 | 19.15 | |
| 1020 | 9.0 | 6.44x | 16.54x | 0.064 | 127.4x | 5.22x | 31.5 | 19.52 | |

Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: 20.50 Field Filtered? Yes No
 Sample ID: 14323-TW-44 Sample Date: 11-19-14 Sample Time: 1030 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: _____ # of Containers: _____

Geochemical Analyses
 Ferrous Iron: _____ mg/L
 DO: _____ mg/L
 Nitrate: _____ mg/L
 Sulfate: _____ mg/L
 Alkalinity: _____ mg/L

5. COMMENTS

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

WELL ID: TW-46 *JK*

1. PROJECT INFORMATION

Project Number: 149492 Task Number: _____ Area of Concern: _____
 Client: OC Personnel: JK
 Project Location: Anderson, SC Weather: Clear

2. WELL DATA

Date Measured: 11-17-14 Time: _____ Temporary Well: Yes No

Casing Diameter: 2 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Screen Diameter: 2 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Total Depth of Well: 88.3 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: 24.81 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Product: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Length of Water Column: 63.49 feet Well Volume: 10.95 gal Screened Interval (from GS): _____
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.460 gal/ft

3. PURGE DATA

Date Purged: 11-19-14 Time: 1500

Equipment Model(s)

Purge Method: Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Volume to Purge (minimum): _____ well volumes or _____ gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

1. YSI-556
2. Hazen WLM
3. Geo Sub 2"
4. Rallotte 1020

| Time | Cum. Gallons Removed (gal) | pH ±0.1 su | Temp ±2°C | Spec. Cond. > of ±3% or ±10 µS/cm | ORP > of ±10% or ±20 mV | DO > of ±10% or ±0.2 mg/L | Turbidity ≤ 10 NTU | Water Level | Comments |
|-------------|----------------------------|---------------|--------------|---|-------------------------------|---------------------------------|-----------------------|--------------|----------|
| <u>1500</u> | <u>0.0</u> | <u>10.36</u> | <u>19.59</u> | <u>.380</u> | <u>-35.7</u> | <u>3.46</u> | | <u>33.0</u> | |
| <u>1510</u> | <u>0.0</u> | <u>10.43</u> | <u>19.86</u> | <u>.325</u> | <u>-49.9</u> | <u>2.09</u> | <u>40.7</u> | <u>39.95</u> | |
| <u>1515</u> | <u>3.5</u> | <u>10.51</u> | <u>19.54</u> | <u>.361</u> | <u>-61.9</u> | <u>1.73</u> | <u>41.8</u> | <u>50.75</u> | |
| <u>1520</u> | <u>4.0</u> | <u>10.47</u> | <u>19.63</u> | <u>.340</u> | <u>-64.2</u> | <u>1.73</u> | <u>20.1</u> | <u>56.4</u> | |
| <u>1525</u> | <u>6.0</u> | <u>10.28</u> | <u>19.94</u> | <u>.324</u> | <u>61.1</u> | <u>1.73</u> | <u>49.8</u> | <u>58.94</u> | |

Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Bailor, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____

Materials: Pump/Bailor Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable

Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable

Depth to Water at Time of Sampling: 89.2 Field Filtered? Yes No

Sample ID: 14929-TW-46 Sample Date: 11-19-14 Sample Time: 1620 # of Containers: 2

Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____

Equipment Blank Collected? Yes No ID: _____ # of Containers: _____

Geochemical Analyses

Ferrous Iron: _____ mg/L

DO: _____ mg/L

Nitrate: _____ mg/L

Sulfate: _____ mg/L

Alkalinity: _____ mg/L

5. COMMENTS

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: 605 Clinkscales Road

1. PROJECT INFORMATION

Project Number: 142376 Task Number: 200.xxx Area of Concern: _____
 Client: Owens Corning Personnel: JN, SG
 Project Location: Anderson, South Carolina Weather: Sunny 40°

2. WELL DATA

Date Measured: 11/18/14 Time: PM Temporary Well: Yes No

Casing Diameter: _____ inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Screen Diameter: _____ inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Total Depth of Well: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Product: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Length of Water Column: _____ feet Well Volume: _____ gal Screened Interval (from GS): _____
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11/18/14 Time: PM Equipment Model(s) _____

Purge Method: Bailer, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Volume to Purge (minimum): _____ well volumes or _____ gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

| Time | Cum. Gallons Removed (gal) | pH ±0.1 su | Temp ±2°C | Spec. Cond. > of ±3% or ±10 µS/cm | ORP > of ±10% or ±20 mV | DO > of ±10% or ±0.2 mg/L | Turbidity ≤ 10 NTU | Water Level | Comments |
|-----------------------------|----------------------------|---------------|--------------|---|-------------------------------|---------------------------------|-----------------------|-------------|---|
| 1600 <u>5:00</u> | | | | | | | | | |
| | | | | | | | | | <u>well out of order, no water coming out</u> |
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Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Bailer, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: _____ Field Filtered? Yes No
 Sample ID: 14322-605 Clinkscales Rd Sample Date: 11/18/14 Sample Time: 1600 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: _____ # of Containers: _____

Geochemical Analyses

Ferrous Iron: _____ mg/L
 DO: _____ mg/L
 Nitrate: _____ mg/L
 Sulfate: _____ mg/L
 Alkalinity: _____ mg/L

5. COMMENTS

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: 200 Friendship Lane

1. PROJECT INFORMATION

Project Number: 142376 Task Number: 200.xxx Area of Concern: _____
 Client: Owens Corning Personnel: JN, GS
 Project Location: Anderson, South Carolina Weather: Sunny 40°

2. WELL DATA

Date Measured: _____ Time: _____ Temporary Well: Yes No

Casing Diameter: _____ inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Screen Diameter: _____ inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Total Depth of Well: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Product: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Length of Water Column: _____ feet Well Volume: _____ gal Screened Interval (from GS): _____

Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11/18/14 Time: PM Equipment Model(s) _____

Purge Method: Bailer, Size: _____ Bladder Pump 2' Sub. Pump 4' Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____ 1. YSJ
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____ 2. turbidity meter
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____ 3. _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable 4. _____
 Volume to Purge (minimum): _____ well volumes or _____ gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

| Time | Cum. Gallons Removed (gal) | pH ±0.1 su | Temp ±2°C | Spec. Cond. > of ±3% or ±10 µS/cm | ORP > of ±10% or ±20 mV | DO > of ±10% or ±0.2 mg/L | Turbidity ≤ 10 NTU | Water Level | Comments |
|-------------|----------------------------|---------------|--------------|---|-------------------------------|---------------------------------|-----------------------|-------------|----------|
| <u>1608</u> | <u>5.00</u> | <u>5.53</u> | <u>5.40</u> | <u>0.130</u> | <u>127.4</u> | <u>5.31</u> | <u>1.86</u> | <u>—</u> | |
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Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Bailer, Size: _____ Bladder Pump 2' Sub. Pump 4' Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: _____ Field Filtered? Yes No
 Sample ID: 14322-200 Friendship Lane Sample Date: 11/18/14 Sample Time: 1608 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: _____ # of Containers: _____

Geochemical Analyses

Ferrous Iron: _____ mg/L
 DO: _____ mg/L
 Nitrate: _____ mg/L
 Sulfate: _____ mg/L
 Alkalinity: _____ mg/L

5. COMMENTS

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: 721 Clinkscales Road

1. PROJECT INFORMATION

Project Number: 142376 Task Number: 200.xxx Area of Concern: _____
 Client: Owens Corning Personnel: JN GS
 Project Location: Anderson, South Carolina Weather: Sunny 40°

2. WELL DATA Date Measured: _____ Time: _____ Temporary Well: Yes No

Casing Diameter: _____ inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Screen Diameter: _____ inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Total Depth of Well: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Product: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Length of Water Column: _____ feet Well Volume: _____ gal Screened Interval (from GS): _____
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA Date Purged: 11/18/14 Time: PM Equipment Model(s)

Purge Method: Bailer, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____ 1. YS
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____ 2. Turbidity meter
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____ 3. _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable 4. _____
 Volume to Purge (minimum): _____ well volumes or _____ gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

| Time | Cum. Gallons Removed (gal) | pH ±0.1 su | Temp ±2°C | Spec. Cond. > of ±3% or ±10 µS/cm | ORP > of ±10% or ±20 mV | DO > of ±10% or ±0.2 mg/L | Turbidity ≤ 10 NTU | Water Level | Comments |
|------|----------------------------|---------------|--------------|---|-------------------------------|---------------------------------|-----------------------|-------------|----------|
| 1615 | 5.00 | 5.18 | 13.7 | 0.061 | 131.9 | 7.04 | 2.26 | — | |
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Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Bailer, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: _____ Field Filtered? Yes No
 Sample ID: 14322-721 Clinkscales Rd Sample Date: 11/18/14 Sample Time: 1615 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: _____ # of Containers: _____

Geochemical Analyses

Ferrous Iron: _____ mg/L
 DO: _____ mg/L
 Nitrate: _____ mg/L
 Sulfate: _____ mg/L
 Alkalinity: _____ mg/L

5. COMMENTS

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

Signature JN

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: 628 Airline Road

1. PROJECT INFORMATION

Project Number: 142376 Task Number: 200.XXX Area of Concern: _____
 Client: Owens Corning Personnel: JN GS
 Project Location: Anderson, South Carolina Weather: Sunny 40°

2. WELL DATA

Date Measured: _____ Time: _____ Temporary Well: Yes No

Casing Diameter: _____ inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Screen Diameter: _____ inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Total Depth of Well: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Product: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Length of Water Column: _____ feet Well Volume: _____ gal Screened Interval (from GS): _____

Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11/19/14 Time: _____ Equipment Model(s)

Purge Method: Bailer, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Volume to Purge (minimum): _____ well volumes or _____ gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

1. Ysi
 2. Horiba
 3. _____
 4. _____

| Time | Cum. Gallons Removed (gal) | pH ±0.1 su | Temp ±2°C | Spec. Cond. > of ±3% or ±10 µS/cm | ORP > of ±10% or ±20 mV | DO > of ±10% or ±0.2 mg/L | Turbidity ≤ 10 NTU | Water Level | Comments |
|-------------|----------------------------|---------------|--------------|---|-------------------------------|---------------------------------|-----------------------|-------------|----------|
| <u>1630</u> | <u>5</u> | <u>5.81</u> | <u>7.86</u> | <u>.088</u> | <u>-1.9</u> | <u>7.12</u> | <u>5.46</u> | <u>—</u> | |
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Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Bailer, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: _____ Field Filtered? Yes No
 Sample ID: M323-628-Airline rd Sample Date: 11/19/14 Sample Time: 1630 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: — # of Containers: —
 Equipment Blank Collected? Yes No ID: — # of Containers: —

Geochemical Analyses
 Ferrrous Iron: _____ mg/L
 DO: _____ mg/L
 Nitrate: _____ mg/L
 Sulfate: _____ mg/L
 Alkalinity: _____ mg/L

5. COMMENTS

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: 408 Clinkscales Road

1. PROJECT INFORMATION

Project Number: 142376 Task Number: 200.XXX Area of Concern: _____
 Client: Owens Corning Personnel: JN GS
 Project Location: Anderson, South Carolina Weather: Sunny 40°

2. WELL DATA

Date Measured: _____ Time: _____ Temporary Well: Yes No

Casing Diameter: _____ inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Screen Diameter: _____ inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Total Depth of Well: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Product: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Length of Water Column: _____ feet Well Volume: _____ gal Screened Interval (from GS): _____
 Note: 4-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11/18/14 Time: PM Equipment Model(s)

Purge Method: Bailer, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Volume to Purge (minimum): _____ well volumes or _____ gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

1. YST
 2. EE Turbidity meter
 3. _____
 4. _____

| Time | Cum. Gallons Removed (gal) | pH ±0.1 su | Temp ±2°C | Spec. Cond. > of ±3% or ±10 µS/cm | ORP > of ±10% or ±20 mV | DO > of ±10% or ±0.2 mg/L | Turbidity ≤ 10 NTU | Water Level | Comments |
|-------------|----------------------------|---------------|--------------|---|-------------------------------|---------------------------------|-----------------------|-------------|----------|
| <u>1545</u> | <u>5.0</u> | <u>6.01</u> | <u>11.77</u> | <u>0.007</u> | <u>95.7</u> | <u>6.34</u> | <u>0.46</u> | <u>—</u> | |
| | | | | <u>0.010</u> | | | | | |
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Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Bailer, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: _____ Field Filtered? Yes No
 Sample ID: 14222-408ClinkscalesRD Sample Date: 11/18/14 Sample Time: 1545 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: _____ # of Containers: _____

Geochemical Analyses
 Ferrous Iron: _____ mg/L
 DO: _____ mg/L
 Nitrate: _____ mg/L
 Sulfate: _____ mg/L
 Alkalinity: _____ mg/L

5. COMMENTS

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

Signature: [Signature]

1/1

WELL ID: 412 Kaye Drive

1. PROJECT INFORMATION

Project Number: 142376 Task Number: 200.xxx Area of Concern: _____
 Client: Owens Corning Personnel: JN GS
 Project Location: Anderson, South Carolina Weather: Sunny

2. WELL DATA

Date Measured: _____ Time: _____ Temporary Well: Yes No

Casing Diameter: _____ inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Screen Diameter: _____ inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Total Depth of Well: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Product: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Length of Water Column: _____ feet Well Volume: _____ gal Screened Interval (from GS): _____

Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11/18/14 Time: PM Equipment Model(s)

Purge Method: Bailer, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Volume to Purge (minimum): _____ well volumes or _____ gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

1. YSI
2. Turbidity meter
3. _____
4. _____

| Time | Cum. Gallons Removed (gal) | pH ±0.1 su | Temp ±2°C | Spec. Cond. > of ±3% or ±10 µS/cm | ORP > of ±10% or ±20 mV | DO > of ±10% or ±0.2 mg/L | Turbidity ≤ 10 NTU | Water Level | Comments |
|-------------|----------------------------|---------------|--------------|---|-------------------------------|---------------------------------|-----------------------|-------------|----------|
| <u>1710</u> | <u>5.00</u> | <u>5.81</u> | <u>13.45</u> | <u>0.065</u> | <u>157.7</u> | <u>6.52</u> | <u>2.64</u> | | |
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Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Bailer, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: _____ Field Filtered? Yes No
 Sample ID: 14322-412 Kaye Drive Sample Date: 11/18/14 Sample Time: 1710 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: _____ # of Containers: _____

Geochemical Analyses

Ferrous Iron: _____ mg/L
 DO: _____ mg/L
 Nitrate: _____ mg/L
 Sulfate: _____ mg/L
 Alkalinity: _____ mg/L

5. COMMENTS

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: ~~311 Kaye Drive~~ 303 Kaye Drive

1. PROJECT INFORMATION

Project Number: 142376 Task Number: 200.xxx Area of Concern: _____
 Client: Owens Corning Personnel: JW GS
 Project Location: Anderson, South Carolina Weather: Sunny 29

2. WELL DATA

Date Measured: _____ Time: _____ Temporary Well: Yes No
 Casing Diameter: _____ inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Screen Diameter: _____ inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Total Depth of Well: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Product: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Length of Water Column: _____ feet Well Volume: _____ gal Screened Interval (from GS): _____
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11/18/14 Time: PM Equipment Model(s)
 Purge Method: Bailer, Size: _____ Bladder Pump 2' Sub. Pump 4' Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____ 1. YSJ
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable 2. Turbidity meter
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable 3. _____
 Volume to Purge (minimum): _____ well volumes or _____ gallons 4. _____
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

| Time | Cum. Gallons Removed (gal) | pH ±0.1 su | Temp ±2°C | Spec. Cond. > of ±3% or ±10 µS/cm | ORP > of ±10% or ±20 mV | DO > of ±10% or ±0.2 mg/L | Turbidity ≤ 10 NTU | Water Level | Comments |
|-------------|----------------------------|---------------|--------------|---|-------------------------------|---------------------------------|-----------------------|-------------|----------|
| <u>1705</u> | <u>5.00</u> | <u>6.26</u> | <u>15.13</u> | <u>0.217</u> | <u>162.6</u> | <u>6.06</u> | <u>0.39</u> | <u>—</u> | |
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Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Bailer, Size: _____ Bladder Pump 2' Sub. Pump 4' Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: _____ Field Filtered? Yes No
14322 - 303 Kaye Drive
 Sample ID: 303 Sample Date: 11/18/14 Sample Time: 1705 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: _____ # of Containers: _____

Geochemical Analyses

Ferrous Iron: _____ mg/L
 DO: _____ mg/L
 Nitrate: _____ mg/L
 Sulfate: _____ mg/L
 Alkalinity: _____ mg/L

5. COMMENTS

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: 117 Faye Drive

1. PROJECT INFORMATION

Project Number: 142376 Task Number: 200.xxx Area of Concern: _____
 Client: Owens Corning Personnel: JN BS
 Project Location: Anderson, South Carolina Weather: Sunny 29°

2. WELL DATA

Date Measured: _____ Time: _____ Temporary Well: Yes No

Casing Diameter: _____ inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Screen Diameter: _____ inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Total Depth of Well: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Product: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Length of Water Column: _____ feet Well Volume: _____ gal Screened Interval (from GS): _____

Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11/8/14 Time: PM Equipment Model(s)

Purge Method: Bailer, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Volume to Purge (minimum): _____ well volumes or _____ gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

1. YSI
2. Turbidity meter
3. _____
4. _____

| Time | Cum. Gallons Removed (gal) | pH ±0.1 su | Temp ±2°C | Spec. Cond. > of ±3% or ±10 µS/cm | ORP > of ±10% or ±20-mV | DO > of ±10% or ±0.2 mg/L | Turbidity ≤ 10 NTU | Water Level | Comments |
|-------------|----------------------------|---------------|--------------|---|-------------------------------|---------------------------------|-----------------------|-------------|----------|
| <u>1730</u> | <u>5.0</u> | <u>7.81</u> | <u>8.77</u> | <u>0.272</u> | <u>136.0</u> | <u>6.77</u> | <u>1.09</u> | — | |
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Purge data continued on next sheet?

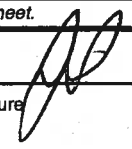
4. SAMPLING DATA

Method(s): Bailer, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: _____ Field Filtered? Yes No
 Sample ID: 14322-117 Faye Drive Sample Date: 11/8/14 Sample Time: 1730 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: _____ # of Containers: _____

Geochemical Analyses
 Ferrous Iron: _____ mg/L
 DO: _____ mg/L
 Nitrate: _____ mg/L
 Sulfate: _____ mg/L
 Alkalinity: _____ mg/L

5. COMMENTS

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

Signature 

1/1

WELL ID: 311 Keye Drive

1. PROJECT INFORMATION

Project Number: _____ Task Number: _____ Area of Concern: _____
 Client: De Personnel: JW CS
 Project Location: Anderson Weather: Sunny 290

2. WELL DATA

Date Measured: _____ Time: _____ Temporary Well: Yes No

Casing Diameter: _____ inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Screen Diameter: _____ inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Total Depth of Well: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Product: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Length of Water Column: _____ feet Well Volume: _____ gal Screened Interval (from GS): _____
 Note: 1-in well = 0.041 gal/ft 2-in well = 0.163 gal/ft 4-in well = 0.653 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11/18/14 Time: PM Equipment Model(s): _____

Purge Method: Bailer, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____ 1. Yes
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____ 2. Turbidity meter
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____ 3. _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable 4. _____
 Volume to Purge (minimum): _____ well volumes or _____ gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

| Time | Cum. Gallons Removed (gal) | pH ±0.1 su | Temp ±2°C | Spec. Cond. > of ±3% or ±10 µS/cm | ORP > of ±10% or ±20 mV | DO > of ±10% or ±0.2 mg/L | Turbidity ≤ 10 NTU | Water Level | Comments |
|-------------|----------------------------|---------------|--------------|---|-------------------------------|---------------------------------|-----------------------|-------------|----------|
| <u>1725</u> | <u>500</u> | <u>7.26</u> | <u>13.15</u> | <u>0.304</u> | <u>162.1</u> | <u>6.53</u> | <u>0.85</u> | <u>↖</u> | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Bailer, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: _____ Field Filtered? Yes No
 Sample ID: M322-311 Keye Drive Sample Date: 11/18/14 Sample Time: 1725 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: _____ # of Containers: _____

Geochemical Analyses

Ferrous Iron: _____ mg/L
 DO: _____ mg/L
 Nitrate: _____ mg/L
 Sulfate: _____ mg/L
 Alkalinity: _____ mg/L

5. COMMENTS

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

Signature [Signature]

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: 200 Kaye Drive

1. PROJECT INFORMATION

Project Number: 142376 Task Number: 200.xxx Area of Concern: _____
 Client: Owens Corning Personnel: FM CS
 Project Location: Anderson, South Carolina Weather: Sunny 29°

2. WELL DATA

Date Measured: _____ Time: _____ Temporary Well: Yes No

Casing Diameter: _____ inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Screen Diameter: _____ inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Total Depth of Well: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Product: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Length of Water Column: _____ feet Well Volume: _____ gal Screened Interval (from GS): _____

Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11/18/14 Time: PM Equipment Model(s)

Purge Method: Bailer, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Volume to Purge (minimum): _____ well volumes or _____ gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

1. YSI
2. turbidity meter
3. _____
4. _____

| Time | Cum. Gallons Removed (gal) | pH ±0.1 su | Temp ±2°C | Spec. Cond. > of ±3% or ±10 µS/cm | ORP > of ±10% or ±20 mV | DO > of ±10% or ±0.2 mg/L | Turbidity ≤ 10 NTU | Water Level | Comments |
|-------------|----------------------------|---------------|--------------|---|-------------------------------|---------------------------------|-----------------------|-------------|----------|
| <u>1655</u> | <u>5.0</u> | <u>5.78</u> | <u>13.09</u> | <u>0.089</u> | <u>180.6</u> | <u>6.46</u> | <u>0.71</u> | — | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Bailer, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: _____ Field Filtered? Yes No
 Sample ID: 14322-200 Kaye Drive Sample Date: 11/18/14 Sample Time: 1655 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: _____ # of Containers: _____

Geochemical Analyses
 Ferrous Iron: _____ mg/L
 DO: _____ mg/L
 Nitrate: _____ mg/L
 Sulfate: _____ mg/L
 Alkalinity: _____ mg/L

5. COMMENTS

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

WELL ID: 335 Elrod Road

1. PROJECT INFORMATION

Project Number: 142376 Task Number: 200.xxx Area of Concern: _____
 Client: Owens Corning Personnel: JM GS
 Project Location: Anderson, South Carolina Weather: Sunny 85°

2. WELL DATA

Date Measured: _____ Time: _____ Temporary Well: Yes No

Casing Diameter: _____ inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Screen Diameter: _____ inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Total Depth of Well: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Product: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Length of Water Column: _____ feet Well Volume: _____ gal Screened Interval (from GS): _____

Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11/18/14 Time: PM Equipment Model(s): _____

Purge Method: Bailer, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____ 1. YSI
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____ 2. turbidity meter
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____ 3. _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable 4. _____
 Volume to Purge (minimum): _____ well volumes or _____ gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

| Time | Cum. Gallons Removed (gal) | pH ±0.1 su | Temp ±2°C | Spec. Cond. > of ±3% or ±10 µS/cm | ORP > of ±10% or ±20 mV | DO > of ±10% or ±0.2 mg/L | Turbidity ≤ 10 NTU | Water Level | Comments |
|------|----------------------------|---------------|--------------|---|-------------------------------|---------------------------------|-----------------------|-------------|---------------------|
| | <u>B.O</u> | | | | | | | | |
| | | | | | | | | | <u>Out of order</u> |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Bailer, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: _____ Field Filtered? Yes No
 Sample ID: 14322-335 Elrod Rd Sample Date: 11/18/14 Sample Time: _____ # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: _____ # of Containers: _____

Geochemical Analyses

Ferrous Iron: _____ mg/L
 DO: _____ mg/L
 Nitrate: _____ mg/L
 Sulfate: _____ mg/L
 Alkalinity: _____ mg/L

5. COMMENTS

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: 115 Elrod Road

1. PROJECT INFORMATION

Project Number: 142376 Task Number: 200.xxx Area of Concern: _____
 Client: Owens Corning Personnel: JW GS
 Project Location: Anderson, South Carolina Weather: Sunny 38°

2. WELL DATA

Date Measured: _____ Time: _____ Temporary Well: Yes No

Casing Diameter: _____ inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Screen Diameter: _____ inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Total Depth of Well: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Product: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Length of Water Column: _____ feet Well Volume: _____ gal Screened Interval (from GS): _____

Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11/18/14 Time: PM Equipment Model(s)

Purge Method: Bailer, Size: _____ Bladder Pump 2' Sub. Pump 4' Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Volume to Purge (minimum): _____ well volumes or _____ gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

1. GSI
2. Turbidity meter
3. _____
4. _____

| Time | Cum. Gallons Removed (gal) | pH ±0.1 su | Temp ±2°C | Spec. Cond. > of ±3% or ±10 µS/cm | ORP > of ±10% or ±20 mV | DO > of ±10% or ±0.2 mg/L | Turbidity ≤ 10 NTU | Water Level | Comments |
|------|----------------------------|---------------------|--------------|---|-------------------------------|---------------------------------|-----------------------|-------------|----------|
| | <u>5.00</u> | | | | | | | <u>—</u> | |
| | | <u>Out of order</u> | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Bailer, Size: _____ Bladder Pump 2' Sub. Pump 4' Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: _____ Field Filtered? Yes No
14322-115 Elrod Rd
 Sample ID: _____ Sample Date: 11/18/14 Sample Time: 1630 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: _____ # of Containers: _____

Geochemical Analyses

Ferrous Iron: _____ mg/L
 DO: _____ mg/L
 Nitrate: _____ mg/L
 Sulfate: _____ mg/L
 Alkalinity: _____ mg/L

5. COMMENTS

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: 119 Cloverhill Drive

1. PROJECT INFORMATION

Project Number: 142376 Task Number: 200.xxx Area of Concern: _____
 Client: Owens Corning Personnel: GS JM
 Project Location: Anderson, South Carolina Weather: SUN 29°

2. WELL DATA

Date Measured: _____ Time: _____ Temporary Well: Yes No

Casing Diameter: _____ inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Screen Diameter: _____ inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Total Depth of Well: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Product: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Length of Water Column: _____ feet Well Volume: _____ gal Screened Interval (from GS): _____

Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11/18/14 Time: 8:4 Equipment Model(s) _____

Purge Method: Bailer, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Volume to Purge (minimum): _____ well volumes or _____ gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

| Time | Cum. Gallons Removed (gal) | pH ±0.1 su | Temp ±2°C | Spec. Cond. > of ±3% or ±10 µS/cm | ORP > of ±10% or ±20 mV | DO > of ±10% or ±0.2 mg/L | Turbidity ≤ 10 NTU | Water Level | Comments |
|---|----------------------------|---------------|--------------|---|-------------------------------|---------------------------------|-----------------------|-------------|----------|
| | <u>5.00</u> | | | | | | | | |
| <u>Out of order when turning of flow valve no water comes out</u> | | | | | | | | | |

Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Bailer, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: _____ Field Filtered? Yes No
 Sample ID: 14322-119 Cloverhill Drive Sample Date: 11/18/14 Sample Time: 1635 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: _____ # of Containers: _____

Geochemical Analyses

Ferrous Iron: _____ mg/L
 DO: _____ mg/L
 Nitrate: _____ mg/L
 Sulfate: _____ mg/L
 Alkalinity: _____ mg/L

5. COMMENTS

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

WELL ID: 1303 Clinkscales Road

1. PROJECT INFORMATION

Project Number: 142376 Task Number: 200.xxx Area of Concern: _____
 Client: Owens Corning Personnel: JN GS
 Project Location: Anderson, South Carolina Weather: Sunny 29°

2. WELL DATA

Date Measured: _____ Time: _____ Temporary Well: Yes No

Casing Diameter: _____ inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Screen Diameter: _____ inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Total Depth of Well: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Product: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Length of Water Column: _____ feet Well Volume: _____ gal Screened Interval (from GS): _____

Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 11/18/14 Time: PM Equipment Model(s): _____

Purge Method: Bailer, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Volume to Purge (minimum): _____ well volumes or _____ gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

- Equipment Model(s)
 1. 45J
 2. Turbidity meter
 3. _____
 4. _____

| Time | Cum. Gallons Removed (gal) | pH ±0.1 su | Temp ±2°C | Spec. Cond. > of ±3% or ±10 µS/cm | ORP > of ±10% or ±20 mV | DO > of ±10% or ±0.2 mg/L | Turbidity ≤ 10 NTU | Water Level | Comments |
|-------------|----------------------------|---------------|--------------|---|-------------------------------|---------------------------------|-----------------------|-------------|----------|
| <u>1645</u> | <u>5.00</u> | <u>5.77</u> | <u>12.28</u> | <u>2059</u> | <u>180.0</u> | <u>7.28</u> | <u>0.61</u> | <u>-</u> | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Bailer, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: _____ Field Filtered? Yes No
14322-1303 CLINKSCALES RD
 Sample ID: _____ Sample Date: 11/18/14 Sample Time: 1645 # of Containers: 2
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: _____ # of Containers: _____

Geochemical Analyses

Ferrous Iron: _____ mg/L
 DO: _____ mg/L
 Nitrate: _____ mg/L
 Sulfate: _____ mg/L
 Alkalinity: _____ mg/L

5. COMMENTS

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

GROUNDWATER SAMPLING FIELD DATA SHEET

Surface Water

WELL ID: MW-15

1. PROJECT INFORMATION

Project Number: 145492 Task Number: 200-xxx Area of Concern: _____
 Client: Owens Corning Personnel: _____
 Project Location: Anderson, South Carolina Weather: _____

2. WELL DATA

Date Measured: _____ Time: _____ Temporary Well: Yes No

Casing Diameter: 2 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Screen Diameter: 2 inches Type: PVC Stainless Galv. Steel Teflon® Other: _____
 Total Depth of Well: 99.5 feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Static Water: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Depth to Product: _____ feet From: Top of Well Casing (TOC) Top of Protective Casing Other: _____
 Length of Water Column: _____ feet Well Volume: _____ gal Screened Interval (from GS): _____

Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: _____ Time: _____ Equipment Model(s) _____

Purge Method: Bailer, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____ 1. _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____ 2. _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Rope/Tubing Polyethylene Polypropylene Teflon® Nylon Other: _____ 3. _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable 4. _____
 Volume to Purge (minimum): _____ well volumes or _____ gallons
 Was well purged dry? Yes No Pumping Rate: _____ gal/min Calibrated? Yes No

| Time | Cum. Gallons Removed (gal) | pH ±0.1 su | Temp ±2°C | Spec. Cond. > of ±3% or ±10 µS/cm | ORP > of ±10% or ±20 mV | DO > of ±10% or ±0.2 mg/L | Turbidity ≤ 10 NTU | Water Level | Comments |
|-------|----------------------------|---------------|--------------|---|-------------------------------|---------------------------------|-----------------------|-------------|----------|
| SW-11 | 1607 | 7.12 | 8.39 | 0.331 | -29.7 | 6.88 | 6.10 | | |
| SW-12 | 1620 | 6.76 | 9.25 | 0.313 | -20.4 | 6.81 | 5.29 | | |
| SW-14 | 1626 | 6.72 | 10.06 | 0.261 | -18.6 | 6.90 | 4.18 | | |
| SW-13 | 1635 | 6.69 | 9.97 | 0.243 | -15.8 | 6.85 | 3.63 | | |

Purge data continued on next sheet?

4. SAMPLING DATA

Method(s): Bailer, Size: _____ Bladder Pump 2" Sub. Pump 4" Sub. Pump
 Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other: _____
 Materials: Pump/Bailer Polyethylene Stainless PVC Teflon® Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Materials: Tubing/Rope Polyethylene Polypropylene Teflon® Nylon Other: _____
 Dedicated Prepared Off-Site Field-Cleaned Disposable
 Depth to Water at Time of Sampling: _____ Field Filtered? Yes No
 Sample ID: _____ Sample Date: _____ Sample Time: _____ # of Containers: _____
 Duplicate Sample Collected? Yes No ID: _____ # of Containers: _____
 Equipment Blank Collected? Yes No ID: _____ # of Containers: _____

Geochemical Analyses

Ferrous Iron: _____ mg/L
 DO: _____ mg/L
 Nitrate: _____ mg/L
 Sulfate: _____ mg/L
 Alkalinity: _____ mg/L

5. COMMENTS

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

Appendix C: Laboratory Analytical Reports





ANALYTICAL ENVIRONMENTAL SERVICES, INC.

September 08, 2014

Tamara Berryman
BROWN AND CALDWELL
990 Hammond Drive
Atlanta GA 30328

TEL: (770) 673-3678
FAX: (770) 396-9495

RE: Owens Corning

Dear Tamara Berryman:

Order No: 1408061

Analytical Environmental Services, Inc. received 34 samples on 8/28/2014 4:00:00 PM for the analyses presented in following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative.

AES' certifications are as follows:

- NELAC/Florida Certification number E87582 for analysis of Environmental Water, soil/hazardous waste, and Drinking Water Microbiology, effective 07/01/14-06/30/15.
- AIHA-LAP, LLC Laboratory ID: 100671 for Industrial Hygiene samples (Organics, Inorganics), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) Direct Examination, effective until 09/01/15.

These results relate only to the items tested. This report may only be reproduced in full.

If you have any questions regarding these test results, please feel free to call.

Tara Esbeck
Project Manager



ANALYTICAL ENVIRONMENTAL SERVICES, INC

3080 Presidential Drive, Atlanta GA 30340-3704

TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 1478

Date: 8-28-14 Page 1 of 3

| COMPANY: Brown + Caldwell | | ADDRESS: 990 Hammond Drive, Ste 400 Atlanta, Ga 30328 | | | ANALYSIS REQUESTED | | | | | | Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc. | | No # of Containers | |
|--|--------------------------------------|--|-----------------------|-----------------|--------------------------|--|--------------------------|--|--|--|--|--|--------------------|--|
| PHONE: | | FAX: | | | PRESERVATION (See codes) | | | | | | REMARKS | | | |
| SAMPLED BY: Skala | | SIGNATURE: <i>[Signature]</i> | | | | | | | | | | | | |
| # | SAMPLE ID | SAMPLED | | Grab | Composite | Matrix (See codes) | PRESERVATION (See codes) | | | | | | REMARKS | |
| | | DATE | TIME | | | | HI | | | | | | | |
| 1 | 14237-MW-35 | 8-26-14 | 1345 | X | | GW | X | | | | | | | |
| 2 | 14237-MW-44 | 8-26-14 | 1450 | | | GW | | | | | | | | |
| 3 | 14237-MW-15 | 8-26-14 | 1615 | | | GW | | | | | | | | |
| 4 | 14238-MW-22 | 8-26-14 | 0850 | | | GW | | | | | | | | |
| 5 | 14238-EB | 8-26-14 | 0910 | | | W | | | | | | | | |
| 6 | 14238-MW-36-Z1 | 8-26-14 | 1155 | | | GW | | | | | | | | |
| 7 | 14238-MW-36-Z3 | 8-26-14 | 1210 | | | GW | | | | | | | | |
| 8 | 14238-MW-36-Z5 | 8-26-14 | 1545 | | | GW | | | | | | | | |
| 9 | MW-298-Z3 14238-MW-318-Z3 | 8-26-14 | 1255 | | | GW | | | | | | | | |
| 10 | MW-298-Z4 14238-MW-298-Z4 | 8-26-14 | 1330 | | | GW | | | | | | | | |
| 11 | 14238-DVP | 8-26-14 | 1200 | | | GW | | | | | | | | |
| 12 | 14238-MW-38-Z2 | 8-26-14 | 1505 | | | GW | | | | | | | | |
| 13 | 14238-MW-38-Z1 | 8-27-14 | 1010 | | | GW | | | | | | | | |
| 14 | 14239-MW-43-Z1 | 8-27-14 | 1155 | ✓ | | GW | ✓ | | | | | | | |
| RELINQUISHED BY | | DATE/TIME | RECEIVED BY | | DATE/TIME | PROJECT INFORMATION | | | | | | RECEIPT | | |
| 1: <i>[Signature]</i> | | 8-28-14 1600 | 1: <i>[Signature]</i> | | 8/28/14 4p | PROJECT NAME: Owens-Corning | | | | | | Total # of Containers | | |
| 2: | | | 2: | | | PROJECT #: | | | | | | Turnaround Time Request | | |
| 3: | | | 3: | | | SITE ADDRESS: | | | | | | <input checked="" type="radio"/> Standard 5 Business Days <input type="radio"/> 2 Business Day Rush <input type="radio"/> Next Business Day Rush <input type="radio"/> Same Day Rush (auth req.) <input type="radio"/> Other _____ | | |
| SPECIAL INSTRUCTIONS/COMMENTS: | | SHIPMENT METHOD | | | | SEND REPORT TO: T.Berryman@browncah.com | | | | | | STATE PROGRAM (if any): | | |
| Analyze for Owens-Corning focus list only | | OUT / / VIA: | | IN / / VIA: | | INVOICE TO: (IF DIFFERENT FROM ABOVE) | | | | | | E-mail? <input checked="" type="radio"/> Y / N; Fax? <input checked="" type="radio"/> Y / N | | |
| | | CLIENT FedEx UPS MAIL COURIER | | GREYHOUND OTHER | | QUOTE #: | | | | | | DATA PACKAGE: <input checked="" type="radio"/> I <input type="radio"/> II <input type="radio"/> III <input type="radio"/> IV | | |

SAMPLES RECEIVED AFTER 3PM OR ON SATURDAY ARE CONSIDERED RECEIVED THE NEXT BUSINESS DAY. IF TURNAROUND TIME IS NOT INDICATED, AES WILL PROCEED WITH STANDARD TAT OF SAMPLES. SAMPLES ARE DISPOSED 30 DAYS AFTER REPORT COMPLETION UNLESS OTHER ARRANGEMENTS ARE MADE.

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify) WW = Waste Water
PRESERVATIVE CODES: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None



ANALYTICAL ENVIRONMENTAL SERVICES, INC

3080 Presidential Drive, Atlanta GA 30340-3704

TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 1408061

Date: _____ Page 2 of 3

| COMPANY: Brown + Caldwell | | ADDRESS: 990 Hammond Dr, Ste 400 Atlanta, Ga 30328 | | | ANALYSIS REQUESTED | | | | Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc. | | No # of Containers |
|--|----------------|--|-----------------------|------|--------------------------|--|---|--|--|---|--------------------|
| PHONE: | | FAX: | | | PRESERVATION (See codes) | | | | REMARKS | | |
| SAMPLED BY: Skala | | SIGNATURE: <i>[Signature]</i> | | | | | | | | | |
| # | SAMPLE ID | SAMPLED | | Grab | Composite | Matrix (See codes) | | | | | |
| | | DATE | TIME | | | | | | | | |
| 1 | 14239-mw-43-Z2 | 8-27-14 | 1320 | X | | GW | X | | | | |
| 2 | 14239-mw-43-Z3 | 8-27-14 | 1430 | Y | | W | | | | | |
| 3 | Trip Blanks | - | - | X | | W | | | | | |
| 4 | Trip Blanks | - | - | Y | | W | | | | | |
| 5 | 14239-MW-41-Z1 | 8-27-14 | 1625 | X | | GW | | | | | |
| 6 | 14139-DUP | 8-27-14 | 1200 | X | | GW | | | | | |
| 7 | 14240-MW-37-Z1 | 8-28-14 | 1055 | X | | GW | | | | | |
| 8 | | | | | | | | | | | |
| 9 | | | | | | | | | | | |
| 10 | | | | | | | | | | | |
| 11 | | | | | | | | | | | |
| 12 | | | | | | | | | | | |
| 13 | | | | | | | | | | | |
| 14 | | | | | | | | | | | |
| RELINQUISHED BY | | DATE/TIME | RECEIVED BY | | DATE/TIME | PROJECT INFORMATION | | | | RECEIPT | |
| 1: <i>[Signature]</i> | | 8-28-14 1600 | 1: <i>[Signature]</i> | | 8/28/14 4p- | PROJECT NAME: Owens-Loring | | | | Total # of Containers | |
| 2: | | | 2: | | | PROJECT #: | | | | Turnaround Time Request | |
| 3: | | | 3: | | | SITE ADDRESS: | | | | <input checked="" type="radio"/> Standard 5 Business Days | |
| SPECIAL INSTRUCTIONS/COMMENTS: | | SHIPMENT METHOD | | | | SEND REPORT TO: TBerryman@browncl.com | | | | <input type="radio"/> 2 Business Day Rush | |
| Focus list of VOCs for Owens-Loring only | | OUT | / | / | VIA: | INVOICE TO: | | | | <input type="radio"/> Next Business Day Rush | |
| | | IN | | | VIA: | (IF DIFFERENT FROM ABOVE) | | | | <input type="radio"/> Same Day Rush (auth req.) | |
| | | <input checked="" type="radio"/> CLIENT FedEx UPS MAIL COURIER | | | | QUOTE #: | | | | <input type="radio"/> Other | |
| | | <input type="radio"/> GREYHOUND OTHER | | | | PO#: | | | | STATE PROGRAM (if any): | |
| SAMPLES RECEIVED AFTER 3PM OR/ON SATURDAY ARE CONSIDERED RECEIVED THE NEXT BUSINESS DAY. IF TURNAROUND TIME IS NOT INDICATED, AES WILL PROCEED WITH STANDARD TAT OF SAMPLES. | | | | | | | | | | | |
| SAMPLES ARE DISPOSED 30 DAYS AFTER REPORT COMPLETION UNLESS OTHER ARRANGEMENTS ARE MADE. | | | | | | | | | | | |

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify) WW = Waste Water

PRESERVATIVE CODES: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

| | |
|------------------------------------|--|
| Client: BROWN AND CALDWELL | Client Sample ID: 14237-MW-35 |
| Project Name: Owens Corning | Collection Date: 8/25/2014 1:45:00 PM |
| Lab ID: 1408O61-001 | Matrix: Groundwater |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 195788 | 1 | 09/04/2014 19:38 | GK |
| 1,1-Dichloroethene | 64 | 5.0 | | ug/L | 195788 | 1 | 09/04/2014 19:38 | GK |
| Methylene chloride | BRL | 5.0 | | ug/L | 195788 | 1 | 09/04/2014 19:38 | GK |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/04/2014 19:38 | GK |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 195788 | 1 | 09/04/2014 19:38 | GK |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/04/2014 19:38 | GK |
| Chloroform | BRL | 5.0 | | ug/L | 195788 | 1 | 09/04/2014 19:38 | GK |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 195788 | 1 | 09/04/2014 19:38 | GK |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 195788 | 1 | 09/04/2014 19:38 | GK |
| Benzene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/04/2014 19:38 | GK |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 195788 | 1 | 09/04/2014 19:38 | GK |
| Trichloroethene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/04/2014 19:38 | GK |
| Toluene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/04/2014 19:38 | GK |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/04/2014 19:38 | GK |
| Ethylbenzene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/04/2014 19:38 | GK |
| Xylenes, Total | BRL | 5.0 | | ug/L | 195788 | 1 | 09/04/2014 19:38 | GK |
| Surr: 4-Bromofluorobenzene | 82.6 | 66.2-120 | | %REC | 195788 | 1 | 09/04/2014 19:38 | GK |
| Surr: Dibromofluoromethane | 102 | 79.5-121 | | %REC | 195788 | 1 | 09/04/2014 19:38 | GK |
| Surr: Toluene-d8 | 98.6 | 77-117 | | %REC | 195788 | 1 | 09/04/2014 19:38 | GK |

| | | |
|--------------------|--|--|
| Qualifiers: | * Value exceeds maximum contaminant level | E Estimated (value above quantitation range) |
| | BRL Below reporting limit | S Spike Recovery outside limits due to matrix |
| | H Holding times for preparation or analysis exceeded | Narr See case narrative |
| | N Analyte not NELAC certified | NC Not confirmed |
| | B Analyte detected in the associated method blank | < Less than Result value |
| | > Greater than Result value | J Estimated value detected below Reporting Limit |

| | |
|------------------------------------|--|
| Client: BROWN AND CALDWELL | Client Sample ID: 14237-MW-44 |
| Project Name: Owens Corning | Collection Date: 8/25/2014 2:50:00 PM |
| Lab ID: 1408O61-002 | Matrix: Groundwater |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 195788 | 1 | 09/04/2014 20:52 | GK |
| 1,1-Dichloroethene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/04/2014 20:52 | GK |
| Methylene chloride | BRL | 5.0 | | ug/L | 195788 | 1 | 09/04/2014 20:52 | GK |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/04/2014 20:52 | GK |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 195788 | 1 | 09/04/2014 20:52 | GK |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/04/2014 20:52 | GK |
| Chloroform | BRL | 5.0 | | ug/L | 195788 | 1 | 09/04/2014 20:52 | GK |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 195788 | 1 | 09/04/2014 20:52 | GK |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 195788 | 1 | 09/04/2014 20:52 | GK |
| Benzene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/04/2014 20:52 | GK |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 195788 | 1 | 09/04/2014 20:52 | GK |
| Trichloroethene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/04/2014 20:52 | GK |
| Toluene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/04/2014 20:52 | GK |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/04/2014 20:52 | GK |
| Ethylbenzene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/04/2014 20:52 | GK |
| Xylenes, Total | BRL | 5.0 | | ug/L | 195788 | 1 | 09/04/2014 20:52 | GK |
| Surr: 4-Bromofluorobenzene | 81.6 | 66.2-120 | | %REC | 195788 | 1 | 09/04/2014 20:52 | GK |
| Surr: Dibromofluoromethane | 103 | 79.5-121 | | %REC | 195788 | 1 | 09/04/2014 20:52 | GK |
| Surr: Toluene-d8 | 99.2 | 77-117 | | %REC | 195788 | 1 | 09/04/2014 20:52 | GK |

| | | |
|--------------------|--|--|
| Qualifiers: | * Value exceeds maximum contaminant level | E Estimated (value above quantitation range) |
| | BRL Below reporting limit | S Spike Recovery outside limits due to matrix |
| | H Holding times for preparation or analysis exceeded | Narr See case narrative |
| | N Analyte not NELAC certified | NC Not confirmed |
| | B Analyte detected in the associated method blank | < Less than Result value |
| | > Greater than Result value | J Estimated value detected below Reporting Limit |

| | |
|------------------------------------|--|
| Client: BROWN AND CALDWELL | Client Sample ID: 14237-MW-15 |
| Project Name: Owens Corning | Collection Date: 8/25/2014 4:15:00 PM |
| Lab ID: 1408O61-003 | Matrix: Groundwater |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 195788 | 1 | 09/04/2014 21:16 | GK |
| 1,1-Dichloroethene | 190 | 5.0 | | ug/L | 195788 | 1 | 09/04/2014 21:16 | GK |
| Methylene chloride | BRL | 5.0 | | ug/L | 195788 | 1 | 09/04/2014 21:16 | GK |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/04/2014 21:16 | GK |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 195788 | 1 | 09/04/2014 21:16 | GK |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/04/2014 21:16 | GK |
| Chloroform | BRL | 5.0 | | ug/L | 195788 | 1 | 09/04/2014 21:16 | GK |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 195788 | 1 | 09/04/2014 21:16 | GK |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 195788 | 1 | 09/04/2014 21:16 | GK |
| Benzene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/04/2014 21:16 | GK |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 195788 | 1 | 09/04/2014 21:16 | GK |
| Trichloroethene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/04/2014 21:16 | GK |
| Toluene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/04/2014 21:16 | GK |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/04/2014 21:16 | GK |
| Ethylbenzene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/04/2014 21:16 | GK |
| Xylenes, Total | BRL | 5.0 | | ug/L | 195788 | 1 | 09/04/2014 21:16 | GK |
| Surr: 4-Bromofluorobenzene | 81.4 | 66.2-120 | | %REC | 195788 | 1 | 09/04/2014 21:16 | GK |
| Surr: Dibromofluoromethane | 102 | 79.5-121 | | %REC | 195788 | 1 | 09/04/2014 21:16 | GK |
| Surr: Toluene-d8 | 98.7 | 77-117 | | %REC | 195788 | 1 | 09/04/2014 21:16 | GK |

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| Qualifiers: | * Value exceeds maximum contaminant level | E Estimated (value above quantitation range) |
| | BRL Below reporting limit | S Spike Recovery outside limits due to matrix |
| | H Holding times for preparation or analysis exceeded | Narr See case narrative |
| | N Analyte not NELAC certified | NC Not confirmed |
| | B Analyte detected in the associated method blank | < Less than Result value |
| | > Greater than Result value | J Estimated value detected below Reporting Limit |

| | |
|------------------------------------|--|
| Client: BROWN AND CALDWELL | Client Sample ID: 14238-MW-22 |
| Project Name: Owens Corning | Collection Date: 8/26/2014 8:50:00 AM |
| Lab ID: 1408O61-004 | Matrix: Groundwater |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 195788 | 1 | 09/04/2014 21:40 | GK |
| 1,1-Dichloroethene | 300 | 50 | | ug/L | 195788 | 10 | 09/05/2014 12:26 | GK |
| Methylene chloride | BRL | 5.0 | | ug/L | 195788 | 1 | 09/04/2014 21:40 | GK |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/04/2014 21:40 | GK |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 195788 | 1 | 09/04/2014 21:40 | GK |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/04/2014 21:40 | GK |
| Chloroform | 8.4 | 5.0 | | ug/L | 195788 | 1 | 09/04/2014 21:40 | GK |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 195788 | 1 | 09/04/2014 21:40 | GK |
| Carbon tetrachloride | 18 | 5.0 | | ug/L | 195788 | 1 | 09/04/2014 21:40 | GK |
| Benzene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/04/2014 21:40 | GK |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 195788 | 1 | 09/04/2014 21:40 | GK |
| Trichloroethene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/04/2014 21:40 | GK |
| Toluene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/04/2014 21:40 | GK |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/04/2014 21:40 | GK |
| Ethylbenzene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/04/2014 21:40 | GK |
| Xylenes, Total | BRL | 5.0 | | ug/L | 195788 | 1 | 09/04/2014 21:40 | GK |
| Surr: 4-Bromofluorobenzene | 82.9 | 66.2-120 | | %REC | 195788 | 1 | 09/04/2014 21:40 | GK |
| Surr: 4-Bromofluorobenzene | 82.6 | 66.2-120 | | %REC | 195788 | 10 | 09/05/2014 12:26 | GK |
| Surr: Dibromofluoromethane | 101 | 79.5-121 | | %REC | 195788 | 10 | 09/05/2014 12:26 | GK |
| Surr: Dibromofluoromethane | 103 | 79.5-121 | | %REC | 195788 | 1 | 09/04/2014 21:40 | GK |
| Surr: Toluene-d8 | 97.5 | 77-117 | | %REC | 195788 | 10 | 09/05/2014 12:26 | GK |
| Surr: Toluene-d8 | 99.2 | 77-117 | | %REC | 195788 | 1 | 09/04/2014 21:40 | GK |

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|--------------------|--|--|
| Qualifiers: | * Value exceeds maximum contaminant level | E Estimated (value above quantitation range) |
| | BRL Below reporting limit | S Spike Recovery outside limits due to matrix |
| | H Holding times for preparation or analysis exceeded | Narr See case narrative |
| | N Analyte not NELAC certified | NC Not confirmed |
| | B Analyte detected in the associated method blank | < Less than Result value |
| | > Greater than Result value | J Estimated value detected below Reporting Limit |

| | |
|------------------------------------|--|
| Client: BROWN AND CALDWELL | Client Sample ID: 14238-EB |
| Project Name: Owens Corning | Collection Date: 8/26/2014 9:10:00 AM |
| Lab ID: 1408O61-005 | Matrix: Groundwater |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 195788 | 1 | 09/05/2014 12:25 | GK |
| 1,1-Dichloroethene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 12:25 | GK |
| Methylene chloride | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 12:25 | GK |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 12:25 | GK |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 12:25 | GK |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 12:25 | GK |
| Chloroform | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 12:25 | GK |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 12:25 | GK |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 12:25 | GK |
| Benzene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 12:25 | GK |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 12:25 | GK |
| Trichloroethene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 12:25 | GK |
| Toluene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 12:25 | GK |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 12:25 | GK |
| Ethylbenzene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 12:25 | GK |
| Xylenes, Total | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 12:25 | GK |
| Surr: 4-Bromofluorobenzene | 98.3 | 66.2-120 | | %REC | 195788 | 1 | 09/05/2014 12:25 | GK |
| Surr: Dibromofluoromethane | 102 | 79.5-121 | | %REC | 195788 | 1 | 09/05/2014 12:25 | GK |
| Surr: Toluene-d8 | 99.9 | 77-117 | | %REC | 195788 | 1 | 09/05/2014 12:25 | GK |

| | | |
|--------------------|--|--|
| Qualifiers: | * Value exceeds maximum contaminant level | E Estimated (value above quantitation range) |
| | BRL Below reporting limit | S Spike Recovery outside limits due to matrix |
| | H Holding times for preparation or analysis exceeded | Narr See case narrative |
| | N Analyte not NELAC certified | NC Not confirmed |
| | B Analyte detected in the associated method blank | < Less than Result value |
| | > Greater than Result value | J Estimated value detected below Reporting Limit |

| | |
|------------------------------------|---|
| Client: BROWN AND CALDWELL | Client Sample ID: 14238-MW-36-Z1 |
| Project Name: Owens Corning | Collection Date: 8/26/2014 11:55:00 AM |
| Lab ID: 1408O61-006 | Matrix: Groundwater |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 195788 | 1 | 09/05/2014 12:53 | GK |
| 1,1-Dichloroethene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 12:53 | GK |
| Methylene chloride | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 12:53 | GK |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 12:53 | GK |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 12:53 | GK |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 12:53 | GK |
| Chloroform | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 12:53 | GK |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 12:53 | GK |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 12:53 | GK |
| Benzene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 12:53 | GK |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 12:53 | GK |
| Trichloroethene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 12:53 | GK |
| Toluene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 12:53 | GK |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 12:53 | GK |
| Ethylbenzene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 12:53 | GK |
| Xylenes, Total | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 12:53 | GK |
| Surr: 4-Bromofluorobenzene | 99 | 66.2-120 | | %REC | 195788 | 1 | 09/05/2014 12:53 | GK |
| Surr: Dibromofluoromethane | 103 | 79.5-121 | | %REC | 195788 | 1 | 09/05/2014 12:53 | GK |
| Surr: Toluene-d8 | 101 | 77-117 | | %REC | 195788 | 1 | 09/05/2014 12:53 | GK |

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 8-Sep-14

| | |
|------------------------------------|---|
| Client: BROWN AND CALDWELL | Client Sample ID: 14238-MW-36-Z3 |
| Project Name: Owens Corning | Collection Date: 8/26/2014 12:10:00 PM |
| Lab ID: 1408O61-007 | Matrix: Groundwater |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 195788 | 1 | 09/05/2014 13:21 | GK |
| 1,1-Dichloroethene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 13:21 | GK |
| Methylene chloride | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 13:21 | GK |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 13:21 | GK |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 13:21 | GK |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 13:21 | GK |
| Chloroform | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 13:21 | GK |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 13:21 | GK |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 13:21 | GK |
| Benzene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 13:21 | GK |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 13:21 | GK |
| Trichloroethene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 13:21 | GK |
| Toluene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 13:21 | GK |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 13:21 | GK |
| Ethylbenzene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 13:21 | GK |
| Xylenes, Total | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 13:21 | GK |
| Surr: 4-Bromofluorobenzene | 98.5 | 66.2-120 | | %REC | 195788 | 1 | 09/05/2014 13:21 | GK |
| Surr: Dibromofluoromethane | 103 | 79.5-121 | | %REC | 195788 | 1 | 09/05/2014 13:21 | GK |
| Surr: Toluene-d8 | 102 | 77-117 | | %REC | 195788 | 1 | 09/05/2014 13:21 | GK |

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

| | |
|------------------------------------|--|
| Client: BROWN AND CALDWELL | Client Sample ID: 14238-MW-36-Z5 |
| Project Name: Owens Corning | Collection Date: 8/26/2014 3:45:00 PM |
| Lab ID: 1408O61-008 | Matrix: Groundwater |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 195788 | 1 | 09/05/2014 13:49 | GK |
| 1,1-Dichloroethene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 13:49 | GK |
| Methylene chloride | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 13:49 | GK |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 13:49 | GK |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 13:49 | GK |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 13:49 | GK |
| Chloroform | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 13:49 | GK |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 13:49 | GK |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 13:49 | GK |
| Benzene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 13:49 | GK |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 13:49 | GK |
| Trichloroethene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 13:49 | GK |
| Toluene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 13:49 | GK |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 13:49 | GK |
| Ethylbenzene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 13:49 | GK |
| Xylenes, Total | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 13:49 | GK |
| Surr: 4-Bromofluorobenzene | 99.5 | 66.2-120 | | %REC | 195788 | 1 | 09/05/2014 13:49 | GK |
| Surr: Dibromofluoromethane | 99.7 | 79.5-121 | | %REC | 195788 | 1 | 09/05/2014 13:49 | GK |
| Surr: Toluene-d8 | 99.4 | 77-117 | | %REC | 195788 | 1 | 09/05/2014 13:49 | GK |

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 8-Sep-14

| | |
|------------------------------------|---|
| Client: BROWN AND CALDWELL | Client Sample ID: 14238-MW-29R-Z3 |
| Project Name: Owens Corning | Collection Date: 8/26/2014 12:55:00 PM |
| Lab ID: 1408O61-009 | Matrix: Groundwater |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 195788 | 1 | 09/05/2014 14:17 | GK |
| 1,1-Dichloroethene | 270 | 50 | | ug/L | 195788 | 10 | 09/05/2014 14:52 | GK |
| Methylene chloride | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 14:17 | GK |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 14:17 | GK |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 14:17 | GK |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 14:17 | GK |
| Chloroform | 7.8 | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 14:17 | GK |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 14:17 | GK |
| Carbon tetrachloride | 12 | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 14:17 | GK |
| Benzene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 14:17 | GK |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 14:17 | GK |
| Trichloroethene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 14:17 | GK |
| Toluene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 14:17 | GK |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 14:17 | GK |
| Ethylbenzene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 14:17 | GK |
| Xylenes, Total | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 14:17 | GK |
| Surr: 4-Bromofluorobenzene | 81.2 | 66.2-120 | | %REC | 195788 | 10 | 09/05/2014 14:52 | GK |
| Surr: 4-Bromofluorobenzene | 97.9 | 66.2-120 | | %REC | 195788 | 1 | 09/05/2014 14:17 | GK |
| Surr: Dibromofluoromethane | 99 | 79.5-121 | | %REC | 195788 | 1 | 09/05/2014 14:17 | GK |
| Surr: Dibromofluoromethane | 102 | 79.5-121 | | %REC | 195788 | 10 | 09/05/2014 14:52 | GK |
| Surr: Toluene-d8 | 100 | 77-117 | | %REC | 195788 | 1 | 09/05/2014 14:17 | GK |
| Surr: Toluene-d8 | 98.4 | 77-117 | | %REC | 195788 | 10 | 09/05/2014 14:52 | GK |

| | | |
|--------------------|--|--|
| Qualifiers: | * Value exceeds maximum contaminant level | E Estimated (value above quantitation range) |
| | BRL Below reporting limit | S Spike Recovery outside limits due to matrix |
| | H Holding times for preparation or analysis exceeded | Narr See case narrative |
| | N Analyte not NELAC certified | NC Not confirmed |
| | B Analyte detected in the associated method blank | < Less than Result value |
| | > Greater than Result value | J Estimated value detected below Reporting Limit |

| | |
|------------------------------------|--|
| Client: BROWN AND CALDWELL | Client Sample ID: 14238-MW-29R-Z4 |
| Project Name: Owens Corning | Collection Date: 8/26/2014 1:30:00 PM |
| Lab ID: 1408O61-010 | Matrix: Groundwater |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 195788 | 1 | 09/05/2014 14:46 | GK |
| 1,1-Dichloroethene | 260 | 50 | | ug/L | 195788 | 10 | 09/05/2014 15:17 | GK |
| Methylene chloride | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 14:46 | GK |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 14:46 | GK |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 14:46 | GK |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 14:46 | GK |
| Chloroform | 7.9 | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 14:46 | GK |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 14:46 | GK |
| Carbon tetrachloride | 9.5 | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 14:46 | GK |
| Benzene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 14:46 | GK |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 14:46 | GK |
| Trichloroethene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 14:46 | GK |
| Toluene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 14:46 | GK |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 14:46 | GK |
| Ethylbenzene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 14:46 | GK |
| Xylenes, Total | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 14:46 | GK |
| Surr: 4-Bromofluorobenzene | 81.4 | 66.2-120 | | %REC | 195788 | 10 | 09/05/2014 15:17 | GK |
| Surr: 4-Bromofluorobenzene | 97.9 | 66.2-120 | | %REC | 195788 | 1 | 09/05/2014 14:46 | GK |
| Surr: Dibromofluoromethane | 99.7 | 79.5-121 | | %REC | 195788 | 1 | 09/05/2014 14:46 | GK |
| Surr: Dibromofluoromethane | 101 | 79.5-121 | | %REC | 195788 | 10 | 09/05/2014 15:17 | GK |
| Surr: Toluene-d8 | 98 | 77-117 | | %REC | 195788 | 10 | 09/05/2014 15:17 | GK |
| Surr: Toluene-d8 | 100 | 77-117 | | %REC | 195788 | 1 | 09/05/2014 14:46 | GK |

| | | |
|--------------------|--|--|
| Qualifiers: | * Value exceeds maximum contaminant level | E Estimated (value above quantitation range) |
| | BRL Below reporting limit | S Spike Recovery outside limits due to matrix |
| | H Holding times for preparation or analysis exceeded | Narr See case narrative |
| | N Analyte not NELAC certified | NC Not confirmed |
| | B Analyte detected in the associated method blank | < Less than Result value |
| | > Greater than Result value | J Estimated value detected below Reporting Limit |

| | |
|------------------------------------|---|
| Client: BROWN AND CALDWELL | Client Sample ID: 14238-DUP |
| Project Name: Owens Corning | Collection Date: 8/26/2014 12:00:00 PM |
| Lab ID: 1408O61-011 | Matrix: Groundwater |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 195788 | 1 | 09/05/2014 15:14 | GK |
| 1,1-Dichloroethene | 270 | 50 | | ug/L | 195788 | 10 | 09/05/2014 17:19 | GK |
| Methylene chloride | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 15:14 | GK |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 15:14 | GK |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 15:14 | GK |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 15:14 | GK |
| Chloroform | 7.9 | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 15:14 | GK |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 15:14 | GK |
| Carbon tetrachloride | 13 | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 15:14 | GK |
| Benzene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 15:14 | GK |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 15:14 | GK |
| Trichloroethene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 15:14 | GK |
| Toluene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 15:14 | GK |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 15:14 | GK |
| Ethylbenzene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 15:14 | GK |
| Xylenes, Total | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 15:14 | GK |
| Surr: 4-Bromofluorobenzene | 79.7 | 66.2-120 | | %REC | 195788 | 10 | 09/05/2014 17:19 | GK |
| Surr: 4-Bromofluorobenzene | 99.1 | 66.2-120 | | %REC | 195788 | 1 | 09/05/2014 15:14 | GK |
| Surr: Dibromofluoromethane | 99.9 | 79.5-121 | | %REC | 195788 | 1 | 09/05/2014 15:14 | GK |
| Surr: Dibromofluoromethane | 104 | 79.5-121 | | %REC | 195788 | 10 | 09/05/2014 17:19 | GK |
| Surr: Toluene-d8 | 100 | 77-117 | | %REC | 195788 | 10 | 09/05/2014 17:19 | GK |
| Surr: Toluene-d8 | 100 | 77-117 | | %REC | 195788 | 1 | 09/05/2014 15:14 | GK |

| | | |
|--------------------|--|--|
| Qualifiers: | * Value exceeds maximum contaminant level | E Estimated (value above quantitation range) |
| | BRL Below reporting limit | S Spike Recovery outside limits due to matrix |
| | H Holding times for preparation or analysis exceeded | Narr See case narrative |
| | N Analyte not NELAC certified | NC Not confirmed |
| | B Analyte detected in the associated method blank | < Less than Result value |
| | > Greater than Result value | J Estimated value detected below Reporting Limit |

Analytical Environmental Services, Inc

Date: 8-Sep-14

| | |
|------------------------------------|--|
| Client: BROWN AND CALDWELL | Client Sample ID: 14238-MW-38-Z2 |
| Project Name: Owens Corning | Collection Date: 8/26/2014 3:05:00 PM |
| Lab ID: 1408O61-012 | Matrix: Groundwater |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 195788 | 1 | 09/05/2014 15:43 | GK |
| 1,1-Dichloroethene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 15:43 | GK |
| Methylene chloride | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 15:43 | GK |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 15:43 | GK |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 15:43 | GK |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 15:43 | GK |
| Chloroform | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 15:43 | GK |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 15:43 | GK |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 15:43 | GK |
| Benzene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 15:43 | GK |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 15:43 | GK |
| Trichloroethene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 15:43 | GK |
| Toluene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 15:43 | GK |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 15:43 | GK |
| Ethylbenzene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 15:43 | GK |
| Xylenes, Total | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 15:43 | GK |
| Surr: 4-Bromofluorobenzene | 98.6 | 66.2-120 | | %REC | 195788 | 1 | 09/05/2014 15:43 | GK |
| Surr: Dibromofluoromethane | 101 | 79.5-121 | | %REC | 195788 | 1 | 09/05/2014 15:43 | GK |
| Surr: Toluene-d8 | 101 | 77-117 | | %REC | 195788 | 1 | 09/05/2014 15:43 | GK |

| | | |
|--------------------|--|--|
| Qualifiers: | * Value exceeds maximum contaminant level | E Estimated (value above quantitation range) |
| | BRL Below reporting limit | S Spike Recovery outside limits due to matrix |
| | H Holding times for preparation or analysis exceeded | Narr See case narrative |
| | N Analyte not NELAC certified | NC Not confirmed |
| | B Analyte detected in the associated method blank | < Less than Result value |
| | > Greater than Result value | J Estimated value detected below Reporting Limit |

| | |
|------------------------------------|---|
| Client: BROWN AND CALDWELL | Client Sample ID: 14239-MW-38-Z1 |
| Project Name: Owens Corning | Collection Date: 8/27/2014 10:10:00 AM |
| Lab ID: 1408O61-013 | Matrix: Groundwater |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 195788 | 1 | 09/05/2014 12:50 | GK |
| 1,1-Dichloroethene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 12:50 | GK |
| Methylene chloride | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 12:50 | GK |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 12:50 | GK |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 12:50 | GK |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 12:50 | GK |
| Chloroform | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 12:50 | GK |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 12:50 | GK |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 12:50 | GK |
| Benzene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 12:50 | GK |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 12:50 | GK |
| Trichloroethene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 12:50 | GK |
| Toluene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 12:50 | GK |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 12:50 | GK |
| Ethylbenzene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 12:50 | GK |
| Xylenes, Total | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 12:50 | GK |
| Surr: 4-Bromofluorobenzene | 81.7 | 66.2-120 | | %REC | 195788 | 1 | 09/05/2014 12:50 | GK |
| Surr: Dibromofluoromethane | 102 | 79.5-121 | | %REC | 195788 | 1 | 09/05/2014 12:50 | GK |
| Surr: Toluene-d8 | 99.7 | 77-117 | | %REC | 195788 | 1 | 09/05/2014 12:50 | GK |

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 8-Sep-14

| | |
|------------------------------------|---|
| Client: BROWN AND CALDWELL | Client Sample ID: 14239-MW-43-Z1 |
| Project Name: Owens Corning | Collection Date: 8/27/2014 11:55:00 AM |
| Lab ID: 1408O61-014 | Matrix: Groundwater |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 195788 | 1 | 09/05/2014 16:11 | GK |
| 1,1-Dichloroethene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 16:11 | GK |
| Methylene chloride | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 16:11 | GK |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 16:11 | GK |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 16:11 | GK |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 16:11 | GK |
| Chloroform | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 16:11 | GK |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 16:11 | GK |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 16:11 | GK |
| Benzene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 16:11 | GK |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 16:11 | GK |
| Trichloroethene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 16:11 | GK |
| Toluene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 16:11 | GK |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 16:11 | GK |
| Ethylbenzene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 16:11 | GK |
| Xylenes, Total | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 16:11 | GK |
| Surr: 4-Bromofluorobenzene | 97.6 | 66.2-120 | | %REC | 195788 | 1 | 09/05/2014 16:11 | GK |
| Surr: Dibromofluoromethane | 101 | 79.5-121 | | %REC | 195788 | 1 | 09/05/2014 16:11 | GK |
| Surr: Toluene-d8 | 101 | 77-117 | | %REC | 195788 | 1 | 09/05/2014 16:11 | GK |

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

| | |
|------------------------------------|--|
| Client: BROWN AND CALDWELL | Client Sample ID: 14239-MW-43-Z2 |
| Project Name: Owens Corning | Collection Date: 8/27/2014 1:20:00 PM |
| Lab ID: 1408O61-015 | Matrix: Groundwater |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 195788 | 1 | 09/05/2014 16:39 | GK |
| 1,1-Dichloroethene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 16:39 | GK |
| Methylene chloride | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 16:39 | GK |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 16:39 | GK |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 16:39 | GK |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 16:39 | GK |
| Chloroform | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 16:39 | GK |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 16:39 | GK |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 16:39 | GK |
| Benzene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 16:39 | GK |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 16:39 | GK |
| Trichloroethene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 16:39 | GK |
| Toluene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 16:39 | GK |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 16:39 | GK |
| Ethylbenzene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 16:39 | GK |
| Xylenes, Total | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 16:39 | GK |
| Surr: 4-Bromofluorobenzene | 97.3 | 66.2-120 | | %REC | 195788 | 1 | 09/05/2014 16:39 | GK |
| Surr: Dibromofluoromethane | 98.5 | 79.5-121 | | %REC | 195788 | 1 | 09/05/2014 16:39 | GK |
| Surr: Toluene-d8 | 99.2 | 77-117 | | %REC | 195788 | 1 | 09/05/2014 16:39 | GK |

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

| | |
|------------------------------------|--|
| Client: BROWN AND CALDWELL | Client Sample ID: 14239-MW-43-Z3 |
| Project Name: Owens Corning | Collection Date: 8/27/2014 2:30:00 PM |
| Lab ID: 1408O61-016 | Matrix: Groundwater |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 195788 | 1 | 09/05/2014 17:06 | GK |
| 1,1-Dichloroethene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 17:06 | GK |
| Methylene chloride | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 17:06 | GK |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 17:06 | GK |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 17:06 | GK |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 17:06 | GK |
| Chloroform | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 17:06 | GK |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 17:06 | GK |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 17:06 | GK |
| Benzene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 17:06 | GK |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 17:06 | GK |
| Trichloroethene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 17:06 | GK |
| Toluene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 17:06 | GK |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 17:06 | GK |
| Ethylbenzene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 17:06 | GK |
| Xylenes, Total | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 17:06 | GK |
| Surr: 4-Bromofluorobenzene | 98.4 | 66.2-120 | | %REC | 195788 | 1 | 09/05/2014 17:06 | GK |
| Surr: Dibromofluoromethane | 99.5 | 79.5-121 | | %REC | 195788 | 1 | 09/05/2014 17:06 | GK |
| Surr: Toluene-d8 | 101 | 77-117 | | %REC | 195788 | 1 | 09/05/2014 17:06 | GK |

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 8-Sep-14

| | |
|------------------------------------|--------------------------------------|
| Client: BROWN AND CALDWELL | Client Sample ID: TRIP BLANKS |
| Project Name: Owens Corning | Collection Date: 8/28/2014 |
| Lab ID: 1408O61-017 | Matrix: Aqueous |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 195788 | 1 | 09/05/2014 11:28 | GK |
| 1,1-Dichloroethene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 11:28 | GK |
| Methylene chloride | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 11:28 | GK |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 11:28 | GK |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 11:28 | GK |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 11:28 | GK |
| Chloroform | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 11:28 | GK |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 11:28 | GK |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 11:28 | GK |
| Benzene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 11:28 | GK |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 11:28 | GK |
| Trichloroethene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 11:28 | GK |
| Toluene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 11:28 | GK |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 11:28 | GK |
| Ethylbenzene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 11:28 | GK |
| Xylenes, Total | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 11:28 | GK |
| Surr: 4-Bromofluorobenzene | 98.6 | 66.2-120 | | %REC | 195788 | 1 | 09/05/2014 11:28 | GK |
| Surr: Dibromofluoromethane | 102 | 79.5-121 | | %REC | 195788 | 1 | 09/05/2014 11:28 | GK |
| Surr: Toluene-d8 | 98.7 | 77-117 | | %REC | 195788 | 1 | 09/05/2014 11:28 | GK |

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

| | |
|------------------------------------|--------------------------------------|
| Client: BROWN AND CALDWELL | Client Sample ID: TRIP BLANKS |
| Project Name: Owens Corning | Collection Date: 8/28/2014 |
| Lab ID: 1408O61-018 | Matrix: Aqueous |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 195788 | 1 | 09/05/2014 11:57 | GK |
| 1,1-Dichloroethene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 11:57 | GK |
| Methylene chloride | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 11:57 | GK |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 11:57 | GK |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 11:57 | GK |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 11:57 | GK |
| Chloroform | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 11:57 | GK |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 11:57 | GK |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 11:57 | GK |
| Benzene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 11:57 | GK |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 11:57 | GK |
| Trichloroethene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 11:57 | GK |
| Toluene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 11:57 | GK |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 11:57 | GK |
| Ethylbenzene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 11:57 | GK |
| Xylenes, Total | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 11:57 | GK |
| Surr: 4-Bromofluorobenzene | 98.9 | 66.2-120 | | %REC | 195788 | 1 | 09/05/2014 11:57 | GK |
| Surr: Dibromofluoromethane | 98.3 | 79.5-121 | | %REC | 195788 | 1 | 09/05/2014 11:57 | GK |
| Surr: Toluene-d8 | 99.2 | 77-117 | | %REC | 195788 | 1 | 09/05/2014 11:57 | GK |

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

| | |
|------------------------------------|--|
| Client: BROWN AND CALDWELL | Client Sample ID: 14239-MW-41-Z1 |
| Project Name: Owens Corning | Collection Date: 8/27/2014 4:25:00 PM |
| Lab ID: 1408O61-019 | Matrix: Groundwater |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 195788 | 1 | 09/05/2014 17:34 | GK |
| 1,1-Dichloroethene | 120 | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 17:34 | GK |
| Methylene chloride | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 17:34 | GK |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 17:34 | GK |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 17:34 | GK |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 17:34 | GK |
| Chloroform | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 17:34 | GK |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 17:34 | GK |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 17:34 | GK |
| Benzene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 17:34 | GK |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 17:34 | GK |
| Trichloroethene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 17:34 | GK |
| Toluene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 17:34 | GK |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 17:34 | GK |
| Ethylbenzene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 17:34 | GK |
| Xylenes, Total | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 17:34 | GK |
| Surr: 4-Bromofluorobenzene | 98 | 66.2-120 | | %REC | 195788 | 1 | 09/05/2014 17:34 | GK |
| Surr: Dibromofluoromethane | 99.5 | 79.5-121 | | %REC | 195788 | 1 | 09/05/2014 17:34 | GK |
| Surr: Toluene-d8 | 99 | 77-117 | | %REC | 195788 | 1 | 09/05/2014 17:34 | GK |

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

| | |
|------------------------------------|---|
| Client: BROWN AND CALDWELL | Client Sample ID: 14239-DUP |
| Project Name: Owens Corning | Collection Date: 8/27/2014 12:00:00 PM |
| Lab ID: 1408O61-020 | Matrix: Groundwater |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 195788 | 1 | 09/05/2014 18:02 | GK |
| 1,1-Dichloroethene | 120 | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 18:02 | GK |
| Methylene chloride | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 18:02 | GK |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 18:02 | GK |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 18:02 | GK |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 18:02 | GK |
| Chloroform | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 18:02 | GK |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 18:02 | GK |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 18:02 | GK |
| Benzene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 18:02 | GK |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 18:02 | GK |
| Trichloroethene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 18:02 | GK |
| Toluene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 18:02 | GK |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 18:02 | GK |
| Ethylbenzene | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 18:02 | GK |
| Xylenes, Total | BRL | 5.0 | | ug/L | 195788 | 1 | 09/05/2014 18:02 | GK |
| Surr: 4-Bromofluorobenzene | 100 | 66.2-120 | | %REC | 195788 | 1 | 09/05/2014 18:02 | GK |
| Surr: Dibromofluoromethane | 98 | 79.5-121 | | %REC | 195788 | 1 | 09/05/2014 18:02 | GK |
| Surr: Toluene-d8 | 99.3 | 77-117 | | %REC | 195788 | 1 | 09/05/2014 18:02 | GK |

| | | |
|--------------------|--|--|
| Qualifiers: | * Value exceeds maximum contaminant level | E Estimated (value above quantitation range) |
| | BRL Below reporting limit | S Spike Recovery outside limits due to matrix |
| | H Holding times for preparation or analysis exceeded | Narr See case narrative |
| | N Analyte not NELAC certified | NC Not confirmed |
| | B Analyte detected in the associated method blank | < Less than Result value |
| | > Greater than Result value | J Estimated value detected below Reporting Limit |

| | |
|------------------------------------|---|
| Client: BROWN AND CALDWELL | Client Sample ID: 14240-MW-37-Z1 |
| Project Name: Owens Corning | Collection Date: 8/28/2014 10:55:00 AM |
| Lab ID: 1408O61-021 | Matrix: Groundwater |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 195689 | 1 | 09/03/2014 20:01 | GK |
| 1,1-Dichloroethene | 80 | 5.0 | | ug/L | 195689 | 1 | 09/03/2014 20:01 | GK |
| Methylene chloride | BRL | 5.0 | | ug/L | 195689 | 1 | 09/03/2014 20:01 | GK |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/03/2014 20:01 | GK |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 195689 | 1 | 09/03/2014 20:01 | GK |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/03/2014 20:01 | GK |
| Chloroform | BRL | 5.0 | | ug/L | 195689 | 1 | 09/03/2014 20:01 | GK |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 195689 | 1 | 09/03/2014 20:01 | GK |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 195689 | 1 | 09/03/2014 20:01 | GK |
| Benzene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/03/2014 20:01 | GK |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 195689 | 1 | 09/03/2014 20:01 | GK |
| Trichloroethene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/03/2014 20:01 | GK |
| Toluene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/03/2014 20:01 | GK |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/03/2014 20:01 | GK |
| Ethylbenzene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/03/2014 20:01 | GK |
| Xylenes, Total | BRL | 5.0 | | ug/L | 195689 | 1 | 09/03/2014 20:01 | GK |
| Surr: 4-Bromofluorobenzene | 80 | 66.2-120 | | %REC | 195689 | 1 | 09/03/2014 20:01 | GK |
| Surr: Dibromofluoromethane | 104 | 79.5-121 | | %REC | 195689 | 1 | 09/03/2014 20:01 | GK |
| Surr: Toluene-d8 | 99.2 | 77-117 | | %REC | 195689 | 1 | 09/03/2014 20:01 | GK |

| | | |
|--------------------|--|--|
| Qualifiers: | * Value exceeds maximum contaminant level | E Estimated (value above quantitation range) |
| | BRL Below reporting limit | S Spike Recovery outside limits due to matrix |
| | H Holding times for preparation or analysis exceeded | Narr See case narrative |
| | N Analyte not NELAC certified | NC Not confirmed |
| | B Analyte detected in the associated method blank | < Less than Result value |
| | > Greater than Result value | J Estimated value detected below Reporting Limit |

| | |
|------------------------------------|--|
| Client: BROWN AND CALDWELL | Client Sample ID: 14239-EB |
| Project Name: Owens Corning | Collection Date: 8/27/2014 4:15:00 PM |
| Lab ID: 1408O61-022 | Matrix: Groundwater |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 195689 | 1 | 09/03/2014 19:12 | GK |
| 1,1-Dichloroethene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/03/2014 19:12 | GK |
| Methylene chloride | BRL | 5.0 | | ug/L | 195689 | 1 | 09/03/2014 19:12 | GK |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/03/2014 19:12 | GK |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 195689 | 1 | 09/03/2014 19:12 | GK |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/03/2014 19:12 | GK |
| Chloroform | BRL | 5.0 | | ug/L | 195689 | 1 | 09/03/2014 19:12 | GK |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 195689 | 1 | 09/03/2014 19:12 | GK |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 195689 | 1 | 09/03/2014 19:12 | GK |
| Benzene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/03/2014 19:12 | GK |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 195689 | 1 | 09/03/2014 19:12 | GK |
| Trichloroethene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/03/2014 19:12 | GK |
| Toluene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/03/2014 19:12 | GK |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/03/2014 19:12 | GK |
| Ethylbenzene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/03/2014 19:12 | GK |
| Xylenes, Total | BRL | 5.0 | | ug/L | 195689 | 1 | 09/03/2014 19:12 | GK |
| Surr: 4-Bromofluorobenzene | 78.1 | 66.2-120 | | %REC | 195689 | 1 | 09/03/2014 19:12 | GK |
| Surr: Dibromofluoromethane | 103 | 79.5-121 | | %REC | 195689 | 1 | 09/03/2014 19:12 | GK |
| Surr: Toluene-d8 | 97.6 | 77-117 | | %REC | 195689 | 1 | 09/03/2014 19:12 | GK |

| | | |
|--------------------|--|--|
| Qualifiers: | * Value exceeds maximum contaminant level | E Estimated (value above quantitation range) |
| | BRL Below reporting limit | S Spike Recovery outside limits due to matrix |
| | H Holding times for preparation or analysis exceeded | Narr See case narrative |
| | N Analyte not NELAC certified | NC Not confirmed |
| | B Analyte detected in the associated method blank | < Less than Result value |
| | > Greater than Result value | J Estimated value detected below Reporting Limit |

| | |
|------------------------------------|--|
| Client: BROWN AND CALDWELL | Client Sample ID: 14239-MW-37 ZONE 2 |
| Project Name: Owens Corning | Collection Date: 8/27/2014 4:05:00 PM |
| Lab ID: 1408O61-023 | Matrix: Groundwater |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 195689 | 1 | 09/03/2014 20:26 | GK |
| 1,1-Dichloroethene | 280 | 50 | | ug/L | 195689 | 10 | 09/04/2014 15:34 | GK |
| Methylene chloride | BRL | 5.0 | | ug/L | 195689 | 1 | 09/03/2014 20:26 | GK |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/03/2014 20:26 | GK |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 195689 | 1 | 09/03/2014 20:26 | GK |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/03/2014 20:26 | GK |
| Chloroform | 7.3 | 5.0 | | ug/L | 195689 | 1 | 09/03/2014 20:26 | GK |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 195689 | 1 | 09/03/2014 20:26 | GK |
| Carbon tetrachloride | 8.6 | 5.0 | | ug/L | 195689 | 1 | 09/03/2014 20:26 | GK |
| Benzene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/03/2014 20:26 | GK |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 195689 | 1 | 09/03/2014 20:26 | GK |
| Trichloroethene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/03/2014 20:26 | GK |
| Toluene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/03/2014 20:26 | GK |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/03/2014 20:26 | GK |
| Ethylbenzene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/03/2014 20:26 | GK |
| Xylenes, Total | BRL | 5.0 | | ug/L | 195689 | 1 | 09/03/2014 20:26 | GK |
| Surr: 4-Bromofluorobenzene | 79.1 | 66.2-120 | | %REC | 195689 | 1 | 09/03/2014 20:26 | GK |
| Surr: 4-Bromofluorobenzene | 80.3 | 66.2-120 | | %REC | 195689 | 10 | 09/04/2014 15:34 | GK |
| Surr: Dibromofluoromethane | 104 | 79.5-121 | | %REC | 195689 | 1 | 09/03/2014 20:26 | GK |
| Surr: Dibromofluoromethane | 105 | 79.5-121 | | %REC | 195689 | 10 | 09/04/2014 15:34 | GK |
| Surr: Toluene-d8 | 97.9 | 77-117 | | %REC | 195689 | 1 | 09/03/2014 20:26 | GK |
| Surr: Toluene-d8 | 101 | 77-117 | | %REC | 195689 | 10 | 09/04/2014 15:34 | GK |

| | | |
|--------------------|--|--|
| Qualifiers: | * Value exceeds maximum contaminant level | E Estimated (value above quantitation range) |
| | BRL Below reporting limit | S Spike Recovery outside limits due to matrix |
| | H Holding times for preparation or analysis exceeded | Narr See case narrative |
| | N Analyte not NELAC certified | NC Not confirmed |
| | B Analyte detected in the associated method blank | < Less than Result value |
| | > Greater than Result value | J Estimated value detected below Reporting Limit |

| | |
|------------------------------------|--|
| Client: BROWN AND CALDWELL | Client Sample ID: 14239-MW-37 ZONE 3 |
| Project Name: Owens Corning | Collection Date: 8/27/2014 1:40:00 PM |
| Lab ID: 1408O61-024 | Matrix: Groundwater |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 195689 | 1 | 09/03/2014 20:50 | GK |
| 1,1-Dichloroethene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/03/2014 20:50 | GK |
| Methylene chloride | BRL | 5.0 | | ug/L | 195689 | 1 | 09/03/2014 20:50 | GK |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/03/2014 20:50 | GK |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 195689 | 1 | 09/03/2014 20:50 | GK |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/03/2014 20:50 | GK |
| Chloroform | BRL | 5.0 | | ug/L | 195689 | 1 | 09/03/2014 20:50 | GK |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 195689 | 1 | 09/03/2014 20:50 | GK |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 195689 | 1 | 09/03/2014 20:50 | GK |
| Benzene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/03/2014 20:50 | GK |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 195689 | 1 | 09/03/2014 20:50 | GK |
| Trichloroethene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/03/2014 20:50 | GK |
| Toluene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/03/2014 20:50 | GK |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/03/2014 20:50 | GK |
| Ethylbenzene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/03/2014 20:50 | GK |
| Xylenes, Total | BRL | 5.0 | | ug/L | 195689 | 1 | 09/03/2014 20:50 | GK |
| Surr: 4-Bromofluorobenzene | 79.4 | 66.2-120 | | %REC | 195689 | 1 | 09/03/2014 20:50 | GK |
| Surr: Dibromofluoromethane | 107 | 79.5-121 | | %REC | 195689 | 1 | 09/03/2014 20:50 | GK |
| Surr: Toluene-d8 | 99.9 | 77-117 | | %REC | 195689 | 1 | 09/03/2014 20:50 | GK |

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

| | |
|------------------------------------|---|
| Client: BROWN AND CALDWELL | Client Sample ID: 14239-MW-42 ZONE 3 |
| Project Name: Owens Corning | Collection Date: 8/27/2014 11:00:00 AM |
| Lab ID: 1408O61-025 | Matrix: Groundwater |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 195689 | 1 | 09/04/2014 11:04 | GK |
| 1,1-Dichloroethene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 11:04 | GK |
| Methylene chloride | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 11:04 | GK |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 11:04 | GK |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 11:04 | GK |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 11:04 | GK |
| Chloroform | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 11:04 | GK |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 11:04 | GK |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 11:04 | GK |
| Benzene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 11:04 | GK |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 11:04 | GK |
| Trichloroethene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 11:04 | GK |
| Toluene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 11:04 | GK |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 11:04 | GK |
| Ethylbenzene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 11:04 | GK |
| Xylenes, Total | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 11:04 | GK |
| Surr: 4-Bromofluorobenzene | 81.5 | 66.2-120 | | %REC | 195689 | 1 | 09/04/2014 11:04 | GK |
| Surr: Dibromofluoromethane | 105 | 79.5-121 | | %REC | 195689 | 1 | 09/04/2014 11:04 | GK |
| Surr: Toluene-d8 | 98.8 | 77-117 | | %REC | 195689 | 1 | 09/04/2014 11:04 | GK |

| | | |
|--------------------|--|--|
| Qualifiers: | * Value exceeds maximum contaminant level | E Estimated (value above quantitation range) |
| | BRL Below reporting limit | S Spike Recovery outside limits due to matrix |
| | H Holding times for preparation or analysis exceeded | Narr See case narrative |
| | N Analyte not NELAC certified | NC Not confirmed |
| | B Analyte detected in the associated method blank | < Less than Result value |
| | > Greater than Result value | J Estimated value detected below Reporting Limit |

| | |
|------------------------------------|--|
| Client: BROWN AND CALDWELL | Client Sample ID: 14238-MW-42 ZONE 2 |
| Project Name: Owens Corning | Collection Date: 8/26/2014 3:30:00 PM |
| Lab ID: 1408O61-026 | Matrix: Groundwater |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 195689 | 1 | 09/04/2014 11:28 | GK |
| 1,1-Dichloroethene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 11:28 | GK |
| Methylene chloride | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 11:28 | GK |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 11:28 | GK |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 11:28 | GK |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 11:28 | GK |
| Chloroform | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 11:28 | GK |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 11:28 | GK |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 11:28 | GK |
| Benzene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 11:28 | GK |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 11:28 | GK |
| Trichloroethene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 11:28 | GK |
| Toluene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 11:28 | GK |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 11:28 | GK |
| Ethylbenzene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 11:28 | GK |
| Xylenes, Total | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 11:28 | GK |
| Surr: 4-Bromofluorobenzene | 81 | 66.2-120 | | %REC | 195689 | 1 | 09/04/2014 11:28 | GK |
| Surr: Dibromofluoromethane | 104 | 79.5-121 | | %REC | 195689 | 1 | 09/04/2014 11:28 | GK |
| Surr: Toluene-d8 | 98.7 | 77-117 | | %REC | 195689 | 1 | 09/04/2014 11:28 | GK |

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

| | |
|------------------------------------|---|
| Client: BROWN AND CALDWELL | Client Sample ID: 14238-MW-42 ZONE 1 |
| Project Name: Owens Corning | Collection Date: 8/26/2014 12:05:00 PM |
| Lab ID: 1408O61-027 | Matrix: Groundwater |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 195689 | 1 | 09/04/2014 11:53 | GK |
| 1,1-Dichloroethene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 11:53 | GK |
| Methylene chloride | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 11:53 | GK |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 11:53 | GK |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 11:53 | GK |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 11:53 | GK |
| Chloroform | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 11:53 | GK |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 11:53 | GK |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 11:53 | GK |
| Benzene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 11:53 | GK |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 11:53 | GK |
| Trichloroethene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 11:53 | GK |
| Toluene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 11:53 | GK |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 11:53 | GK |
| Ethylbenzene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 11:53 | GK |
| Xylenes, Total | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 11:53 | GK |
| Surr: 4-Bromofluorobenzene | 82 | 66.2-120 | | %REC | 195689 | 1 | 09/04/2014 11:53 | GK |
| Surr: Dibromofluoromethane | 106 | 79.5-121 | | %REC | 195689 | 1 | 09/04/2014 11:53 | GK |
| Surr: Toluene-d8 | 99.1 | 77-117 | | %REC | 195689 | 1 | 09/04/2014 11:53 | GK |

| | | |
|--------------------|--|--|
| Qualifiers: | * Value exceeds maximum contaminant level | E Estimated (value above quantitation range) |
| | BRL Below reporting limit | S Spike Recovery outside limits due to matrix |
| | H Holding times for preparation or analysis exceeded | Narr See case narrative |
| | N Analyte not NELAC certified | NC Not confirmed |
| | B Analyte detected in the associated method blank | < Less than Result value |
| | > Greater than Result value | J Estimated value detected below Reporting Limit |

Analytical Environmental Services, Inc

Date: 8-Sep-14

| | |
|------------------------------------|--|
| Client: BROWN AND CALDWELL | Client Sample ID: 14238-MW-39 ZONE 3 |
| Project Name: Owens Corning | Collection Date: 8/26/2014 9:30:00 AM |
| Lab ID: 1408O61-028 | Matrix: Groundwater |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 195689 | 1 | 09/04/2014 12:18 | GK |
| 1,1-Dichloroethene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 12:18 | GK |
| Methylene chloride | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 12:18 | GK |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 12:18 | GK |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 12:18 | GK |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 12:18 | GK |
| Chloroform | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 12:18 | GK |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 12:18 | GK |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 12:18 | GK |
| Benzene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 12:18 | GK |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 12:18 | GK |
| Trichloroethene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 12:18 | GK |
| Toluene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 12:18 | GK |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 12:18 | GK |
| Ethylbenzene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 12:18 | GK |
| Xylenes, Total | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 12:18 | GK |
| Surr: 4-Bromofluorobenzene | 81.3 | 66.2-120 | | %REC | 195689 | 1 | 09/04/2014 12:18 | GK |
| Surr: Dibromofluoromethane | 105 | 79.5-121 | | %REC | 195689 | 1 | 09/04/2014 12:18 | GK |
| Surr: Toluene-d8 | 99.6 | 77-117 | | %REC | 195689 | 1 | 09/04/2014 12:18 | GK |

| | | |
|--------------------|--|--|
| Qualifiers: | * Value exceeds maximum contaminant level | E Estimated (value above quantitation range) |
| | BRL Below reporting limit | S Spike Recovery outside limits due to matrix |
| | H Holding times for preparation or analysis exceeded | Narr See case narrative |
| | N Analyte not NELAC certified | NC Not confirmed |
| | B Analyte detected in the associated method blank | < Less than Result value |
| | > Greater than Result value | J Estimated value detected below Reporting Limit |

| | |
|------------------------------------|--|
| Client: BROWN AND CALDWELL | Client Sample ID: 14237-MW-39 ZONE 2 |
| Project Name: Owens Corning | Collection Date: 8/25/2014 3:40:00 PM |
| Lab ID: 1408O61-029 | Matrix: Groundwater |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 195689 | 1 | 09/04/2014 12:43 | GK |
| 1,1-Dichloroethene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 12:43 | GK |
| Methylene chloride | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 12:43 | GK |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 12:43 | GK |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 12:43 | GK |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 12:43 | GK |
| Chloroform | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 12:43 | GK |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 12:43 | GK |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 12:43 | GK |
| Benzene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 12:43 | GK |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 12:43 | GK |
| Trichloroethene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 12:43 | GK |
| Toluene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 12:43 | GK |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 12:43 | GK |
| Ethylbenzene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 12:43 | GK |
| Xylenes, Total | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 12:43 | GK |
| Surr: 4-Bromofluorobenzene | 80.1 | 66.2-120 | | %REC | 195689 | 1 | 09/04/2014 12:43 | GK |
| Surr: Dibromofluoromethane | 105 | 79.5-121 | | %REC | 195689 | 1 | 09/04/2014 12:43 | GK |
| Surr: Toluene-d8 | 99.2 | 77-117 | | %REC | 195689 | 1 | 09/04/2014 12:43 | GK |

| | | |
|--------------------|--|--|
| Qualifiers: | * Value exceeds maximum contaminant level | E Estimated (value above quantitation range) |
| | BRL Below reporting limit | S Spike Recovery outside limits due to matrix |
| | H Holding times for preparation or analysis exceeded | Narr See case narrative |
| | N Analyte not NELAC certified | NC Not confirmed |
| | B Analyte detected in the associated method blank | < Less than Result value |
| | > Greater than Result value | J Estimated value detected below Reporting Limit |

| | |
|------------------------------------|--|
| Client: BROWN AND CALDWELL | Client Sample ID: 14237-EB |
| Project Name: Owens Corning | Collection Date: 8/25/2014 4:00:00 PM |
| Lab ID: 1408O61-030 | Matrix: Groundwater |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 195689 | 1 | 09/03/2014 19:36 | GK |
| 1,1-Dichloroethene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/03/2014 19:36 | GK |
| Methylene chloride | BRL | 5.0 | | ug/L | 195689 | 1 | 09/03/2014 19:36 | GK |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/03/2014 19:36 | GK |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 195689 | 1 | 09/03/2014 19:36 | GK |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/03/2014 19:36 | GK |
| Chloroform | BRL | 5.0 | | ug/L | 195689 | 1 | 09/03/2014 19:36 | GK |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 195689 | 1 | 09/03/2014 19:36 | GK |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 195689 | 1 | 09/03/2014 19:36 | GK |
| Benzene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/03/2014 19:36 | GK |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 195689 | 1 | 09/03/2014 19:36 | GK |
| Trichloroethene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/03/2014 19:36 | GK |
| Toluene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/03/2014 19:36 | GK |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/03/2014 19:36 | GK |
| Ethylbenzene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/03/2014 19:36 | GK |
| Xylenes, Total | BRL | 5.0 | | ug/L | 195689 | 1 | 09/03/2014 19:36 | GK |
| Surr: 4-Bromofluorobenzene | 79.1 | 66.2-120 | | %REC | 195689 | 1 | 09/03/2014 19:36 | GK |
| Surr: Dibromofluoromethane | 104 | 79.5-121 | | %REC | 195689 | 1 | 09/03/2014 19:36 | GK |
| Surr: Toluene-d8 | 99.3 | 77-117 | | %REC | 195689 | 1 | 09/03/2014 19:36 | GK |

| | | |
|--------------------|--|--|
| Qualifiers: | * Value exceeds maximum contaminant level | E Estimated (value above quantitation range) |
| | BRL Below reporting limit | S Spike Recovery outside limits due to matrix |
| | H Holding times for preparation or analysis exceeded | Narr See case narrative |
| | N Analyte not NELAC certified | NC Not confirmed |
| | B Analyte detected in the associated method blank | < Less than Result value |
| | > Greater than Result value | J Estimated value detected below Reporting Limit |

| | |
|------------------------------------|---|
| Client: BROWN AND CALDWELL | Client Sample ID: 14237-MW-39 ZONE 1 |
| Project Name: Owens Corning | Collection Date: 8/25/2014 12:45:00 PM |
| Lab ID: 1408O61-031 | Matrix: Groundwater |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 195689 | 1 | 09/04/2014 13:07 | GK |
| 1,1-Dichloroethene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 13:07 | GK |
| Methylene chloride | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 13:07 | GK |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 13:07 | GK |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 13:07 | GK |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 13:07 | GK |
| Chloroform | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 13:07 | GK |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 13:07 | GK |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 13:07 | GK |
| Benzene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 13:07 | GK |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 13:07 | GK |
| Trichloroethene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 13:07 | GK |
| Toluene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 13:07 | GK |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 13:07 | GK |
| Ethylbenzene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 13:07 | GK |
| Xylenes, Total | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 13:07 | GK |
| Surr: 4-Bromofluorobenzene | 79 | 66.2-120 | | %REC | 195689 | 1 | 09/04/2014 13:07 | GK |
| Surr: Dibromofluoromethane | 104 | 79.5-121 | | %REC | 195689 | 1 | 09/04/2014 13:07 | GK |
| Surr: Toluene-d8 | 98.5 | 77-117 | | %REC | 195689 | 1 | 09/04/2014 13:07 | GK |

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 8-Sep-14

| | |
|------------------------------------|---|
| Client: BROWN AND CALDWELL | Client Sample ID: 14240-MW-41 ZONE 2 |
| Project Name: Owens Corning | Collection Date: 8/28/2014 10:40:00 AM |
| Lab ID: 1408O61-032 | Matrix: Groundwater |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 195689 | 1 | 09/04/2014 13:32 | GK |
| 1,1-Dichloroethene | 140 | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 13:32 | GK |
| Methylene chloride | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 13:32 | GK |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 13:32 | GK |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 13:32 | GK |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 13:32 | GK |
| Chloroform | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 13:32 | GK |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 13:32 | GK |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 13:32 | GK |
| Benzene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 13:32 | GK |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 13:32 | GK |
| Trichloroethene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 13:32 | GK |
| Toluene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 13:32 | GK |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 13:32 | GK |
| Ethylbenzene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 13:32 | GK |
| Xylenes, Total | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 13:32 | GK |
| Surr: 4-Bromofluorobenzene | 81.1 | 66.2-120 | | %REC | 195689 | 1 | 09/04/2014 13:32 | GK |
| Surr: Dibromofluoromethane | 105 | 79.5-121 | | %REC | 195689 | 1 | 09/04/2014 13:32 | GK |
| Surr: Toluene-d8 | 99.7 | 77-117 | | %REC | 195689 | 1 | 09/04/2014 13:32 | GK |

| | | |
|--------------------|--|--|
| Qualifiers: | * Value exceeds maximum contaminant level | E Estimated (value above quantitation range) |
| | BRL Below reporting limit | S Spike Recovery outside limits due to matrix |
| | H Holding times for preparation or analysis exceeded | Narr See case narrative |
| | N Analyte not NELAC certified | NC Not confirmed |
| | B Analyte detected in the associated method blank | < Less than Result value |
| | > Greater than Result value | J Estimated value detected below Reporting Limit |

| | |
|------------------------------------|--|
| Client: BROWN AND CALDWELL | Client Sample ID: 14240-MW-41 ZONE 3 |
| Project Name: Owens Corning | Collection Date: 8/28/2014 1:10:00 PM |
| Lab ID: 1408O61-033 | Matrix: Groundwater |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 195689 | 1 | 09/04/2014 14:45 | GK |
| 1,1-Dichloroethene | 35 | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 14:45 | GK |
| Methylene chloride | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 14:45 | GK |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 14:45 | GK |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 14:45 | GK |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 14:45 | GK |
| Chloroform | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 14:45 | GK |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 14:45 | GK |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 14:45 | GK |
| Benzene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 14:45 | GK |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 14:45 | GK |
| Trichloroethene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 14:45 | GK |
| Toluene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 14:45 | GK |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 14:45 | GK |
| Ethylbenzene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 14:45 | GK |
| Xylenes, Total | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 14:45 | GK |
| Surr: 4-Bromofluorobenzene | 80.3 | 66.2-120 | | %REC | 195689 | 1 | 09/04/2014 14:45 | GK |
| Surr: Dibromofluoromethane | 108 | 79.5-121 | | %REC | 195689 | 1 | 09/04/2014 14:45 | GK |
| Surr: Toluene-d8 | 101 | 77-117 | | %REC | 195689 | 1 | 09/04/2014 14:45 | GK |

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

| | |
|------------------------------------|---|
| Client: BROWN AND CALDWELL | Client Sample ID: 14240-EB |
| Project Name: Owens Corning | Collection Date: 8/28/2014 11:10:00 AM |
| Lab ID: 1408O61-034 | Matrix: Groundwater |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 195689 | 1 | 09/04/2014 15:09 | GK |
| 1,1-Dichloroethene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 15:09 | GK |
| Methylene chloride | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 15:09 | GK |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 15:09 | GK |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 15:09 | GK |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 15:09 | GK |
| Chloroform | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 15:09 | GK |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 15:09 | GK |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 15:09 | GK |
| Benzene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 15:09 | GK |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 15:09 | GK |
| Trichloroethene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 15:09 | GK |
| Toluene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 15:09 | GK |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 15:09 | GK |
| Ethylbenzene | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 15:09 | GK |
| Xylenes, Total | BRL | 5.0 | | ug/L | 195689 | 1 | 09/04/2014 15:09 | GK |
| Surr: 4-Bromofluorobenzene | 79.8 | 66.2-120 | | %REC | 195689 | 1 | 09/04/2014 15:09 | GK |
| Surr: Dibromofluoromethane | 107 | 79.5-121 | | %REC | 195689 | 1 | 09/04/2014 15:09 | GK |
| Surr: Toluene-d8 | 101 | 77-117 | | %REC | 195689 | 1 | 09/04/2014 15:09 | GK |

| | | |
|--------------------|--|--|
| Qualifiers: | * Value exceeds maximum contaminant level | E Estimated (value above quantitation range) |
| | BRL Below reporting limit | S Spike Recovery outside limits due to matrix |
| | H Holding times for preparation or analysis exceeded | Narr See case narrative |
| | N Analyte not NELAC certified | NC Not confirmed |
| | B Analyte detected in the associated method blank | < Less than Result value |
| | > Greater than Result value | J Estimated value detected below Reporting Limit |

Analytical Environmental Services, Inc.

Sample/Cooler Receipt Checklist

Client Brown & Caldwell Work Order Number 1408061

Checklist completed by [Signature] Date 8/28/14
Signature Date

Carrier name: FedEx UPS Courier Client US Mail Other

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
Container/Temp Blank temperature in compliance? (0°≤6°C)* Yes No

Cooler #1 310 Cooler #2 _____ Cooler #3 _____ Cooler #4 _____ Cooler#5 _____ Cooler #6 _____

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
Was TAT marked on the COC? Yes No
Proceed with Standard TAT as per project history? Yes No Not Applicable
Water - VOA vials have zero headspace? No VOA vials submitted Yes No
Water - pH acceptable upon receipt? Yes No Not Applicable

Adjusted? _____ Checked by _____

Sample Condition: Good Other(Explain) _____

(For diffusive samples or AIHA lead) Is a known blank included? Yes No

See Case Narrative for resolution of the Non-Conformance.

* Samples do not have to comply with the given range for certain parameters.

Client: BROWN AND CALDWELL
Project Name: Owens Corning
Workorder: 1408061

ANALYTICAL QC SUMMARY REPORT

BatchID: 195689

| Sample ID: MB-195689 | Client ID: | Units: ug/L | Prep Date: 09/02/2014 | Run No: 274830 | | | | | | | |
|-----------------------------|--|------------------------|----------------------------------|------------------------|------|-----------|------------|-------------|------|-----------|------|
| SampleType: MBLK | TestCode: Volatile Organic Compounds by GC/MS SW8260B | BatchID: 195689 | Analysis Date: 09/02/2014 | Seq No: 5800541 | | | | | | | |
| Analyte | Result | RPT Limit | SPK value | SPK Ref Val | %REC | Low Limit | High Limit | RPD Ref Val | %RPD | RPD Limit | Qual |

| | | | | | | | | | | | |
|----------------------------|-------|-----|-------|--|------|------|-----|--|--|--|--|
| 1,1,1-Trichloroethane | BRL | 5.0 | | | | | | | | | |
| 1,1-Dichloroethane | BRL | 5.0 | | | | | | | | | |
| 1,1-Dichloroethene | BRL | 5.0 | | | | | | | | | |
| 1,2-Dichloroethane | BRL | 5.0 | | | | | | | | | |
| Benzene | BRL | 5.0 | | | | | | | | | |
| Carbon tetrachloride | BRL | 5.0 | | | | | | | | | |
| Chloroform | BRL | 5.0 | | | | | | | | | |
| cis-1,2-Dichloroethene | BRL | 5.0 | | | | | | | | | |
| Ethylbenzene | BRL | 5.0 | | | | | | | | | |
| Methylene chloride | BRL | 5.0 | | | | | | | | | |
| Tetrachloroethene | BRL | 5.0 | | | | | | | | | |
| Toluene | BRL | 5.0 | | | | | | | | | |
| trans-1,2-Dichloroethene | BRL | 5.0 | | | | | | | | | |
| Trichloroethene | BRL | 5.0 | | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | | | | | | | | |
| Xylenes, Total | BRL | 5.0 | | | | | | | | | |
| Surr: 4-Bromofluorobenzene | 40.29 | 0 | 50.00 | | 80.6 | 66.2 | 120 | | | | |
| Surr: Dibromofluoromethane | 51.08 | 0 | 50.00 | | 102 | 79.5 | 121 | | | | |
| Surr: Toluene-d8 | 49.42 | 0 | 50.00 | | 98.8 | 77 | 117 | | | | |

| Sample ID: LCS-195689 | Client ID: | Units: ug/L | Prep Date: 09/02/2014 | Run No: 274830 | | | | | | | |
|------------------------------|--|------------------------|----------------------------------|------------------------|------|-----------|------------|-------------|------|-----------|------|
| SampleType: LCS | TestCode: Volatile Organic Compounds by GC/MS SW8260B | BatchID: 195689 | Analysis Date: 09/02/2014 | Seq No: 5801410 | | | | | | | |
| Analyte | Result | RPT Limit | SPK value | SPK Ref Val | %REC | Low Limit | High Limit | RPD Ref Val | %RPD | RPD Limit | Qual |

| | | | | | | | | | | | |
|--------------------|-------|-----|-------|--|------|------|-----|--|--|--|--|
| 1,1-Dichloroethene | 44.73 | 5.0 | 50.00 | | 89.5 | 63.1 | 140 | | | | |
| Benzene | 46.05 | 5.0 | 50.00 | | 92.1 | 74.2 | 129 | | | | |
| Toluene | 44.70 | 5.0 | 50.00 | | 89.4 | 74.2 | 129 | | | | |

Qualifiers:

| | | | | | |
|---------|--|---|---|---|--|
| > | Greater than Result value | < | Less than Result value | B | Analyte detected in the associated method blank |
| BRL | Below reporting limit | E | Estimated (value above quantitation range) | H | Holding times for preparation or analysis exceeded |
| J | Estimated value detected below Reporting Limit | N | Analyte not NELAC certified | R | RPD outside limits due to matrix |
| Rpt Lim | Reporting Limit | S | Spike Recovery outside limits due to matrix | | |

Client: BROWN AND CALDWELL
 Project Name: Owens Corning
 Workorder: 1408061

ANALYTICAL QC SUMMARY REPORT

BatchID: 195689

| Sample ID: LCS-195689 | Client ID: | Units: ug/L | Prep Date: 09/02/2014 | Run No: 274830 | | | | | | | |
|------------------------------|--|------------------------|----------------------------------|------------------------|------|-----------|------------|-------------|------|-----------|------|
| SampleType: LCS | TestCode: Volatile Organic Compounds by GC/MS SW8260B | BatchID: 195689 | Analysis Date: 09/02/2014 | Seq No: 5801410 | | | | | | | |
| Analyte | Result | RPT Limit | SPK value | SPK Ref Val | %REC | Low Limit | High Limit | RPD Ref Val | %RPD | RPD Limit | Qual |

| | | | | | | | | | | | |
|----------------------------|-------|-----|-------|--|------|------|-----|--|--|--|--|
| Trichloroethene | 43.32 | 5.0 | 50.00 | | 86.6 | 71.2 | 135 | | | | |
| Surr: 4-Bromofluorobenzene | 40.82 | 0 | 50.00 | | 81.6 | 66.2 | 120 | | | | |
| Surr: Dibromofluoromethane | 51.04 | 0 | 50.00 | | 102 | 79.5 | 121 | | | | |
| Surr: Toluene-d8 | 48.64 | 0 | 50.00 | | 97.3 | 77 | 117 | | | | |

| Sample ID: 1408P73-001AMS | Client ID: | Units: ug/L | Prep Date: 09/02/2014 | Run No: 274830 | | | | | | | |
|----------------------------------|--|------------------------|----------------------------------|------------------------|------|-----------|------------|-------------|------|-----------|------|
| SampleType: MS | TestCode: Volatile Organic Compounds by GC/MS SW8260B | BatchID: 195689 | Analysis Date: 09/02/2014 | Seq No: 5802303 | | | | | | | |
| Analyte | Result | RPT Limit | SPK value | SPK Ref Val | %REC | Low Limit | High Limit | RPD Ref Val | %RPD | RPD Limit | Qual |

| | | | | | | | | | | | |
|----------------------------|-------|-----|-------|--|------|------|-----|--|--|--|--|
| 1,1-Dichloroethene | 52.47 | 5.0 | 50.00 | | 105 | 60.2 | 159 | | | | |
| Benzene | 50.61 | 5.0 | 50.00 | | 101 | 70.2 | 138 | | | | |
| Toluene | 48.91 | 5.0 | 50.00 | | 97.8 | 70 | 139 | | | | |
| Trichloroethene | 48.61 | 5.0 | 50.00 | | 97.2 | 70.1 | 144 | | | | |
| Surr: 4-Bromofluorobenzene | 39.79 | 0 | 50.00 | | 79.6 | 66.2 | 120 | | | | |
| Surr: Dibromofluoromethane | 51.61 | 0 | 50.00 | | 103 | 79.5 | 121 | | | | |
| Surr: Toluene-d8 | 50.17 | 0 | 50.00 | | 100 | 77 | 117 | | | | |

| Sample ID: 1408P73-001AMSD | Client ID: | Units: ug/L | Prep Date: 09/02/2014 | Run No: 274830 | | | | | | | |
|-----------------------------------|--|------------------------|----------------------------------|------------------------|------|-----------|------------|-------------|------|-----------|------|
| SampleType: MSD | TestCode: Volatile Organic Compounds by GC/MS SW8260B | BatchID: 195689 | Analysis Date: 09/02/2014 | Seq No: 5802305 | | | | | | | |
| Analyte | Result | RPT Limit | SPK value | SPK Ref Val | %REC | Low Limit | High Limit | RPD Ref Val | %RPD | RPD Limit | Qual |

| | | | | | | | | | | | |
|----------------------------|-------|-----|-------|--|------|------|-----|-------|------|------|--|
| 1,1-Dichloroethene | 50.51 | 5.0 | 50.00 | | 101 | 60.2 | 159 | 52.47 | 3.81 | 19.2 | |
| Benzene | 48.64 | 5.0 | 50.00 | | 97.3 | 70.2 | 138 | 50.61 | 3.97 | 20 | |
| Toluene | 47.57 | 5.0 | 50.00 | | 95.1 | 70 | 139 | 48.91 | 2.78 | 20 | |
| Trichloroethene | 46.84 | 5.0 | 50.00 | | 93.7 | 70.1 | 144 | 48.61 | 3.71 | 20 | |
| Surr: 4-Bromofluorobenzene | 39.83 | 0 | 50.00 | | 79.7 | 66.2 | 120 | 39.79 | 0 | 0 | |
| Surr: Dibromofluoromethane | 50.55 | 0 | 50.00 | | 101 | 79.5 | 121 | 51.61 | 0 | 0 | |
| Surr: Toluene-d8 | 49.79 | 0 | 50.00 | | 99.6 | 77 | 117 | 50.17 | 0 | 0 | |

Qualifiers:

| | | | | | |
|---------|--|---|---|---|--|
| > | Greater than Result value | < | Less than Result value | B | Analyte detected in the associated method blank |
| BRL | Below reporting limit | E | Estimated (value above quantitation range) | H | Holding times for preparation or analysis exceeded |
| J | Estimated value detected below Reporting Limit | N | Analyte not NELAC certified | R | RPD outside limits due to matrix |
| Rpt Lim | Reporting Limit | S | Spike Recovery outside limits due to matrix | | |

Client: BROWN AND CALDWELL
Project Name: Owens Corning
Workorder: 1408061

ANALYTICAL QC SUMMARY REPORT

BatchID: 195788

| Sample ID: MB-195788 | Client ID: | Units: ug/L | Prep Date: 09/04/2014 | Run No: 274985 | | | | | | | |
|-----------------------------|--|------------------------|----------------------------------|------------------------|------|-----------|------------|-------------|------|-----------|------|
| SampleType: MBLK | TestCode: Volatile Organic Compounds by GC/MS SW8260B | BatchID: 195788 | Analysis Date: 09/04/2014 | Seq No: 5806003 | | | | | | | |
| Analyte | Result | RPT Limit | SPK value | SPK Ref Val | %REC | Low Limit | High Limit | RPD Ref Val | %RPD | RPD Limit | Qual |

| | | | | | | | | | | | |
|----------------------------|-------|-----|-------|--|------|------|-----|--|--|--|--|
| 1,1,1-Trichloroethane | BRL | 5.0 | | | | | | | | | |
| 1,1-Dichloroethane | BRL | 5.0 | | | | | | | | | |
| 1,1-Dichloroethene | BRL | 5.0 | | | | | | | | | |
| 1,2-Dichloroethane | BRL | 5.0 | | | | | | | | | |
| Benzene | BRL | 5.0 | | | | | | | | | |
| Carbon tetrachloride | BRL | 5.0 | | | | | | | | | |
| Chloroform | BRL | 5.0 | | | | | | | | | |
| cis-1,2-Dichloroethene | BRL | 5.0 | | | | | | | | | |
| Ethylbenzene | BRL | 5.0 | | | | | | | | | |
| Methylene chloride | BRL | 5.0 | | | | | | | | | |
| Tetrachloroethene | BRL | 5.0 | | | | | | | | | |
| Toluene | BRL | 5.0 | | | | | | | | | |
| trans-1,2-Dichloroethene | BRL | 5.0 | | | | | | | | | |
| Trichloroethene | BRL | 5.0 | | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | | | | | | | | |
| Xylenes, Total | BRL | 5.0 | | | | | | | | | |
| Surr: 4-Bromofluorobenzene | 41.68 | 0 | 50.00 | | 83.4 | 66.2 | 120 | | | | |
| Surr: Dibromofluoromethane | 50.67 | 0 | 50.00 | | 101 | 79.5 | 121 | | | | |
| Surr: Toluene-d8 | 49.01 | 0 | 50.00 | | 98.0 | 77 | 117 | | | | |

| Sample ID: LCS-195788 | Client ID: | Units: ug/L | Prep Date: 09/04/2014 | Run No: 275093 | | | | | | | |
|------------------------------|--|------------------------|----------------------------------|------------------------|------|-----------|------------|-------------|------|-----------|------|
| SampleType: LCS | TestCode: Volatile Organic Compounds by GC/MS SW8260B | BatchID: 195788 | Analysis Date: 09/05/2014 | Seq No: 5806305 | | | | | | | |
| Analyte | Result | RPT Limit | SPK value | SPK Ref Val | %REC | Low Limit | High Limit | RPD Ref Val | %RPD | RPD Limit | Qual |

| | | | | | | | | | | | |
|--------------------|-------|-----|-------|--|------|------|-----|--|--|--|--|
| 1,1-Dichloroethene | 50.69 | 5.0 | 50.00 | | 101 | 63.1 | 140 | | | | |
| Benzene | 49.65 | 5.0 | 50.00 | | 99.3 | 74.2 | 129 | | | | |
| Toluene | 47.83 | 5.0 | 50.00 | | 95.7 | 74.2 | 129 | | | | |
| Trichloroethene | 47.92 | 5.0 | 50.00 | | 95.8 | 71.2 | 135 | | | | |

Qualifiers:

| | | | | | |
|---------|--|---|---|---|--|
| > | Greater than Result value | < | Less than Result value | B | Analyte detected in the associated method blank |
| BRL | Below reporting limit | E | Estimated (value above quantitation range) | H | Holding times for preparation or analysis exceeded |
| J | Estimated value detected below Reporting Limit | N | Analyte not NELAC certified | R | RPD outside limits due to matrix |
| Rpt Lim | Reporting Limit | S | Spike Recovery outside limits due to matrix | | |

Client: BROWN AND CALDWELL
Project Name: Owens Corning
Workorder: 1408061

ANALYTICAL QC SUMMARY REPORT

BatchID: 195788

| Sample ID: LCS-195788 | Client ID: | Units: ug/L | Prep Date: 09/04/2014 | Run No: 275093 | | | | | | | |
|------------------------------|--|------------------------|----------------------------------|------------------------|------|-----------|------------|-------------|------|-----------|------|
| SampleType: LCS | TestCode: Volatile Organic Compounds by GC/MS SW8260B | BatchID: 195788 | Analysis Date: 09/05/2014 | Seq No: 5806305 | | | | | | | |
| Analyte | Result | RPT Limit | SPK value | SPK Ref Val | %REC | Low Limit | High Limit | RPD Ref Val | %RPD | RPD Limit | Qual |

| | | | | | | | | | | | |
|----------------------------|-------|---|-------|--|------|------|-----|--|--|--|--|
| Surr: 4-Bromofluorobenzene | 41.43 | 0 | 50.00 | | 82.9 | 66.2 | 120 | | | | |
| Surr: Dibromofluoromethane | 48.57 | 0 | 50.00 | | 97.1 | 79.5 | 121 | | | | |
| Surr: Toluene-d8 | 48.02 | 0 | 50.00 | | 96.0 | 77 | 117 | | | | |

| Sample ID: 1408061-001AMS | Client ID: 14237-MW-35 | Units: ug/L | Prep Date: 09/04/2014 | Run No: 274985 | | | | | | | |
|----------------------------------|--|------------------------|----------------------------------|------------------------|------|-----------|------------|-------------|------|-----------|------|
| SampleType: MS | TestCode: Volatile Organic Compounds by GC/MS SW8260B | BatchID: 195788 | Analysis Date: 09/04/2014 | Seq No: 5806006 | | | | | | | |
| Analyte | Result | RPT Limit | SPK value | SPK Ref Val | %REC | Low Limit | High Limit | RPD Ref Val | %RPD | RPD Limit | Qual |

| | | | | | | | | | | | |
|----------------------------|-------|-----|-------|-------|------|------|-----|--|--|--|--|
| 1,1-Dichloroethene | 118.7 | 5.0 | 50.00 | 64.46 | 108 | 60.2 | 159 | | | | |
| Benzene | 49.37 | 5.0 | 50.00 | | 98.7 | 70.2 | 138 | | | | |
| Toluene | 47.37 | 5.0 | 50.00 | | 94.7 | 70 | 139 | | | | |
| Trichloroethene | 47.57 | 5.0 | 50.00 | | 95.1 | 70.1 | 144 | | | | |
| Surr: 4-Bromofluorobenzene | 40.95 | 0 | 50.00 | | 81.9 | 66.2 | 120 | | | | |
| Surr: Dibromofluoromethane | 50.24 | 0 | 50.00 | | 100 | 79.5 | 121 | | | | |
| Surr: Toluene-d8 | 48.10 | 0 | 50.00 | | 96.2 | 77 | 117 | | | | |

| Sample ID: 1408061-001AMSD | Client ID: 14237-MW-35 | Units: ug/L | Prep Date: 09/04/2014 | Run No: 274985 | | | | | | | |
|-----------------------------------|--|------------------------|----------------------------------|------------------------|------|-----------|------------|-------------|------|-----------|------|
| SampleType: MSD | TestCode: Volatile Organic Compounds by GC/MS SW8260B | BatchID: 195788 | Analysis Date: 09/04/2014 | Seq No: 5806008 | | | | | | | |
| Analyte | Result | RPT Limit | SPK value | SPK Ref Val | %REC | Low Limit | High Limit | RPD Ref Val | %RPD | RPD Limit | Qual |

| | | | | | | | | | | | |
|----------------------------|-------|-----|-------|-------|------|------|-----|-------|-------|------|--|
| 1,1-Dichloroethene | 117.5 | 5.0 | 50.00 | 64.46 | 106 | 60.2 | 159 | 118.7 | 0.965 | 19.2 | |
| Benzene | 49.00 | 5.0 | 50.00 | | 98.0 | 70.2 | 138 | 49.37 | 0.752 | 20 | |
| Toluene | 46.91 | 5.0 | 50.00 | | 93.8 | 70 | 139 | 47.37 | 0.976 | 20 | |
| Trichloroethene | 46.95 | 5.0 | 50.00 | | 93.9 | 70.1 | 144 | 47.57 | 1.31 | 20 | |
| Surr: 4-Bromofluorobenzene | 41.40 | 0 | 50.00 | | 82.8 | 66.2 | 120 | 40.95 | 0 | 0 | |
| Surr: Dibromofluoromethane | 49.52 | 0 | 50.00 | | 99.0 | 79.5 | 121 | 50.24 | 0 | 0 | |
| Surr: Toluene-d8 | 48.85 | 0 | 50.00 | | 97.7 | 77 | 117 | 48.10 | 0 | 0 | |

Qualifiers: > Greater than Result value < Less than Result value B Analyte detected in the associated method blank
 BRL Below reporting limit E Estimated (value above quantitation range) H Holding times for preparation or analysis exceeded
 J Estimated value detected below Reporting Limit N Analyte not NELAC certified R RPD outside limits due to matrix
 Rpt Lim Reporting Limit S Spike Recovery outside limits due to matrix



December 29, 2014

Tamara Berryman
BROWN AND CALDWELL
990 Hammond Drive
Atlanta GA 30328

TEL: (770) 673-3678
FAX: (770) 396-9495

RE: Owens Corning

Dear Tamara Berryman:

Order No: 1411J75

Analytical Environmental Services, Inc. received 92 samples on 11/21/2014 5:30:00 PM for the analyses presented in following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative.

AES' certifications are as follows:

- NELAC/Florida Certification number E87582 for analysis of Environmental Water, soil/hazardous waste, and Drinking Water Microbiology, effective 07/01/14-06/30/15.
- AIHA-LAP, LLC Laboratory ID: 100671 for Industrial Hygiene samples (Organics, Inorganics), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) Direct Examination, effective until 09/01/15.

These results relate only to the items tested. This report may only be reproduced in full.

If you have any questions regarding these test results, please feel free to call.

Tara Esbeck
Project Manager

Revision 12/29/2014

ATLANTIC ENVIRONMENTAL SERVICES, INC

CHAIN OF CUSTODY

Work Order: 1411775

Residential Drive, Atlanta GA 30340-3704

TEL: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

Date: 11/17/14 Page 1 of 2

| ANY: Brown & Caldwell | | ADDRESS: 990 Hammond Drive, suit 400 Atlanta, GA 30328 | | | | | ANALYSIS REQUESTED | | | | | | | | | | Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc. | | No # of Containers | | | | | | | |
|--|-------------|---|------|---|-----------|--|--------------------------|---|--|--|--|--|--|--|--|--|--|---|--------------------|--|--|--|--|--|--|---|
| PHONE: 770 394-2997 | | FAX: | | | | | VOCs | | | | | | | | | | REMARKS | | | | | | | | | |
| SAMPLED BY: Juan Nunez | | SIGNATURE: <i>[Signature]</i> | | | | | PRESERVATION (See codes) | | | | | | | | | | | | | | | | | | | |
| # | SAMPLE ID | DATE | TIME | Grab | Composite | Matrix (See codes) | H+ | | | | | | | | | | | | | | | | | | | |
| 1 | 14321-MW-1 | 11/17/14 | 1255 | ✓ | | | X | | | | | | | | | | | | | | | | | | | 2 |
| 2 | 14321-MW-10 | 11/17/14 | 1500 | ✓ | | | X | | | | | | | | | | | | | | | | | | | 2 |
| 3 | 14322-MW-18 | 11/18/14 | 1020 | ✓ | | | X | | | | | | | | | | | | | | | | | | | 2 |
| 4 | 14322-EB | 11/18/14 | 1045 | ✓ | | | X | | | | | | | | | | | | | | | | | | | 2 |
| 5 | 14322-MW-5 | 11/18/14 | 1340 | ✓ | | | X | | | | | | | | | | | | | | | | | | | 2 |
| 6 | 14322-TW-40 | 11/18/14 | 1520 | ✓ | | | X | | | | | | | | | | | | | | | | | | | 2 |
| 7 | 14323-MW-9 | 11/19/14 | 1028 | ✓ | | | X | | | | | | | | | | | | | | | | | | | 2 |
| 8 | 14323-MW-6 | 11/19/14 | 1203 | ✓ | | | X | | | | | | | | | | | | | | | | | | | 2 |
| 9 | 14323-MW-17 | 11/19/14 | 1403 | ✓ | | | X | | | | | | | | | | | | | | | | | | | 2 |
| 10 | 14323-MW-32 | 11/19/14 | 1535 | ✓ | | | X | | | | | | | | | | | | | | | | | | | 2 |
| 11 | 14323-DVP | 11/19/14 | 1700 | ✓ | | | X | | | | | | | | | | | | | | | | | | | 2 |
| 12 | 14323-MW-24 | 11/19/14 | 1700 | ✓ | | | X | | | | | | | | | | | | | | | | | | | 2 |
| 13 | 14324-MW-19 | 11/20/14 | 0959 | ✓ | | | X | | | | | | | | | | | | | | | | | | | 2 |
| 14 | 14324-MW-22 | 11/20/14 | 1055 | ✓ | | | X | | | | | | | | | | | | | | | | | | | 2 |
| RELINQUISHED BY: <i>M. Kiah</i> | | DATE/TIME: <i>11/21/14 17:30</i> | | RECEIVED BY: <i>Janna Pacurar</i> | | DATE/TIME: <i>11/21/14 17:30</i> | | PROJECT INFORMATION | | | | | | | | | | RECEIPT | | | | | | | | |
| 1: <i>M. Kiah</i> | | 1: <i>11/21/14 17:30</i> | | 1: <i>Janna Pacurar</i> | | 1: <i>11/21/14 17:30</i> | | PROJECT NAME: <i>OC</i> | | | | | | | | | | Total # of Containers: <i>28</i> | | | | | | | | |
| 2: | | 2: | | 2: | | 2: | | PROJECT #: <i>145492</i> | | | | | | | | | | Turnaround Time Request | | | | | | | | |
| 3: | | 3: | | 3: | | 3: | | SITE ADDRESS: <i>Anderson, SC</i> | | | | | | | | | | <input checked="" type="radio"/> Standard 5 Business Days | | | | | | | | |
| SPECIAL INSTRUCTIONS/COMMENTS: <i>OC forms list of VOCs only</i> | | SHIPMENT METHOD | | INVOICE TO: | | SEND REPORT TO: <i>TBerryman@browncald.com</i> | | STATE PROGRAM (if any): | | | | | | | | | | <input type="radio"/> 2 Business Day Rush | | | | | | | | |
| OUT / / VIA: | | IN <i>CLIENT</i> FedEx UPS MAIL COURIER | | (IF DIFFERENT FROM ABOVE) | | GREYHOUND OTHER: | | E-mail? <input checked="" type="radio"/> N; Fax? <input type="radio"/> Y / N | | | | | | | | | | <input type="radio"/> Next Business Day Rush | | | | | | | | |
| QUOTE #: | | PO#: | | DATA PACKAGE: <i>I</i> <input checked="" type="radio"/> II <input type="radio"/> III <input type="radio"/> IV | | Other: | | DATA PACKAGE: <i>I</i> <input checked="" type="radio"/> II <input type="radio"/> III <input type="radio"/> IV | | | | | | | | | | <input type="radio"/> Same Day Rush (auth req.) | | | | | | | | |
| Other: | | Other: | | Other: | | Other: | | Other: | | | | | | | | | | <input type="radio"/> Other | | | | | | | | |

SAMPLES RECEIVED AFTER 3PM OR ON SATURDAY ARE CONSIDERED RECEIVED THE NEXT BUSINESS DAY. IF TURNAROUND TIME IS NOT INDICATED, AES WILL PROCEED WITH STANDARD TAT OF SAMPLES.
 SAMPLES ARE DISPOSED 30 DAYS AFTER REPORT COMPLETION UNLESS OTHER ARRANGEMENTS ARE MADE.

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify) WW = Waste Water
 PRESERVATIVE CODES: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

Client: BROWN AND CALDWELL

Project: Owens Corning

Lab ID: 1411J75

Case Narrative

Samples 1411J75-026A through 030A were not listed on the Chain of Custody but present. Proceed with analysis per George Skala on 12/3/14 via email.

Volatiles Organic Compounds Analysis by Method 8260B:

Due to sample matrix, samples 1411J75-021A & 022A required dilution during preparation and/or analysis resulting in elevated reporting limits.

| | |
|------------------------------------|--|
| Client: BROWN AND CALDWELL | Client Sample ID: 14321-MW-1 |
| Project Name: Owens Corning | Collection Date: 11/17/2014 12:55:00 PM |
| Lab ID: 1411J75-001 | Matrix: Aqueous |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 199783 | 1 | 11/26/2014 00:45 | NP |
| 1,1-Dichloroethene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 00:45 | NP |
| Methylene chloride | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 00:45 | NP |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 00:45 | NP |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 00:45 | NP |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 00:45 | NP |
| Chloroform | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 00:45 | NP |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 00:45 | NP |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 00:45 | NP |
| Benzene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 00:45 | NP |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 00:45 | NP |
| Trichloroethene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 00:45 | NP |
| Toluene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 00:45 | NP |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 00:45 | NP |
| Ethylbenzene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 00:45 | NP |
| Xylenes, Total | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 00:45 | NP |
| Surr: 4-Bromofluorobenzene | 82.5 | 70.6-123 | | %REC | 199783 | 1 | 11/26/2014 00:45 | NP |
| Surr: Dibromofluoromethane | 104 | 78.7-124 | | %REC | 199783 | 1 | 11/26/2014 00:45 | NP |
| Surr: Toluene-d8 | 92.9 | 81.3-120 | | %REC | 199783 | 1 | 11/26/2014 00:45 | NP |

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

| | |
|------------------------------------|---|
| Client: BROWN AND CALDWELL | Client Sample ID: 14321-MW-10 |
| Project Name: Owens Corning | Collection Date: 11/17/2014 3:00:00 PM |
| Lab ID: 1411J75-002 | Matrix: Aqueous |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 199783 | 1 | 11/26/2014 01:10 | NP |
| 1,1-Dichloroethene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 01:10 | NP |
| Methylene chloride | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 01:10 | NP |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 01:10 | NP |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 01:10 | NP |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 01:10 | NP |
| Chloroform | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 01:10 | NP |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 01:10 | NP |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 01:10 | NP |
| Benzene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 01:10 | NP |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 01:10 | NP |
| Trichloroethene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 01:10 | NP |
| Toluene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 01:10 | NP |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 01:10 | NP |
| Ethylbenzene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 01:10 | NP |
| Xylenes, Total | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 01:10 | NP |
| Surr: 4-Bromofluorobenzene | 82.6 | 70.6-123 | | %REC | 199783 | 1 | 11/26/2014 01:10 | NP |
| Surr: Dibromofluoromethane | 107 | 78.7-124 | | %REC | 199783 | 1 | 11/26/2014 01:10 | NP |
| Surr: Toluene-d8 | 94.8 | 81.3-120 | | %REC | 199783 | 1 | 11/26/2014 01:10 | NP |

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

| | |
|------------------------------------|--|
| Client: BROWN AND CALDWELL | Client Sample ID: 14322-MW-18 |
| Project Name: Owens Corning | Collection Date: 11/18/2014 10:20:00 AM |
| Lab ID: 1411J75-003 | Matrix: Aqueous |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 199783 | 1 | 11/26/2014 01:34 | NP |
| 1,1-Dichloroethene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 01:34 | NP |
| Methylene chloride | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 01:34 | NP |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 01:34 | NP |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 01:34 | NP |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 01:34 | NP |
| Chloroform | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 01:34 | NP |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 01:34 | NP |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 01:34 | NP |
| Benzene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 01:34 | NP |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 01:34 | NP |
| Trichloroethene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 01:34 | NP |
| Toluene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 01:34 | NP |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 01:34 | NP |
| Ethylbenzene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 01:34 | NP |
| Xylenes, Total | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 01:34 | NP |
| Surr: 4-Bromofluorobenzene | 84 | 70.6-123 | | %REC | 199783 | 1 | 11/26/2014 01:34 | NP |
| Surr: Dibromofluoromethane | 104 | 78.7-124 | | %REC | 199783 | 1 | 11/26/2014 01:34 | NP |
| Surr: Toluene-d8 | 94.1 | 81.3-120 | | %REC | 199783 | 1 | 11/26/2014 01:34 | NP |

| | | |
|--------------------|--|--|
| Qualifiers: | * Value exceeds maximum contaminant level | E Estimated (value above quantitation range) |
| | BRL Below reporting limit | S Spike Recovery outside limits due to matrix |
| | H Holding times for preparation or analysis exceeded | Narr See case narrative |
| | N Analyte not NELAC certified | NC Not confirmed |
| | B Analyte detected in the associated method blank | < Less than Result value |
| | > Greater than Result value | J Estimated value detected below Reporting Limit |

Analytical Environmental Services, Inc

Date: 29-Dec-14

| | |
|------------------------------------|--|
| Client: BROWN AND CALDWELL | Client Sample ID: 14322-EB |
| Project Name: Owens Corning | Collection Date: 11/18/2014 10:45:00 AM |
| Lab ID: 1411J75-004 | Matrix: Aqueous |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 199783 | 1 | 11/25/2014 20:38 | NP |
| 1,1-Dichloroethene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/25/2014 20:38 | NP |
| Methylene chloride | BRL | 5.0 | | ug/L | 199783 | 1 | 11/25/2014 20:38 | NP |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/25/2014 20:38 | NP |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 199783 | 1 | 11/25/2014 20:38 | NP |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/25/2014 20:38 | NP |
| Chloroform | BRL | 5.0 | | ug/L | 199783 | 1 | 11/25/2014 20:38 | NP |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 199783 | 1 | 11/25/2014 20:38 | NP |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 199783 | 1 | 11/25/2014 20:38 | NP |
| Benzene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/25/2014 20:38 | NP |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 199783 | 1 | 11/25/2014 20:38 | NP |
| Trichloroethene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/25/2014 20:38 | NP |
| Toluene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/25/2014 20:38 | NP |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/25/2014 20:38 | NP |
| Ethylbenzene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/25/2014 20:38 | NP |
| Xylenes, Total | BRL | 5.0 | | ug/L | 199783 | 1 | 11/25/2014 20:38 | NP |
| Surr: 4-Bromofluorobenzene | 84.6 | 70.6-123 | | %REC | 199783 | 1 | 11/25/2014 20:38 | NP |
| Surr: Dibromofluoromethane | 104 | 78.7-124 | | %REC | 199783 | 1 | 11/25/2014 20:38 | NP |
| Surr: Toluene-d8 | 94.3 | 81.3-120 | | %REC | 199783 | 1 | 11/25/2014 20:38 | NP |

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

| | |
|------------------------------------|---|
| Client: BROWN AND CALDWELL | Client Sample ID: 14322-MW-5 |
| Project Name: Owens Corning | Collection Date: 11/18/2014 1:40:00 PM |
| Lab ID: 1411J75-005 | Matrix: Aqueous |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 199783 | 1 | 11/26/2014 01:59 | NP |
| 1,1-Dichloroethene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 01:59 | NP |
| Methylene chloride | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 01:59 | NP |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 01:59 | NP |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 01:59 | NP |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 01:59 | NP |
| Chloroform | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 01:59 | NP |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 01:59 | NP |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 01:59 | NP |
| Benzene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 01:59 | NP |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 01:59 | NP |
| Trichloroethene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 01:59 | NP |
| Toluene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 01:59 | NP |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 01:59 | NP |
| Ethylbenzene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 01:59 | NP |
| Xylenes, Total | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 01:59 | NP |
| Surr: 4-Bromofluorobenzene | 82.8 | 70.6-123 | | %REC | 199783 | 1 | 11/26/2014 01:59 | NP |
| Surr: Dibromofluoromethane | 107 | 78.7-124 | | %REC | 199783 | 1 | 11/26/2014 01:59 | NP |
| Surr: Toluene-d8 | 95.8 | 81.3-120 | | %REC | 199783 | 1 | 11/26/2014 01:59 | NP |

| | | |
|--------------------|--|--|
| Qualifiers: | * Value exceeds maximum contaminant level | E Estimated (value above quantitation range) |
| | BRL Below reporting limit | S Spike Recovery outside limits due to matrix |
| | H Holding times for preparation or analysis exceeded | Narr See case narrative |
| | N Analyte not NELAC certified | NC Not confirmed |
| | B Analyte detected in the associated method blank | < Less than Result value |
| | > Greater than Result value | J Estimated value detected below Reporting Limit |

| | |
|------------------------------------|---|
| Client: BROWN AND CALDWELL | Client Sample ID: 14322-TW-40 |
| Project Name: Owens Corning | Collection Date: 11/18/2014 3:20:00 PM |
| Lab ID: 1411J75-006 | Matrix: Aqueous |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 199783 | 1 | 11/26/2014 02:24 | NP |
| 1,1-Dichloroethene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 02:24 | NP |
| Methylene chloride | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 02:24 | NP |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 02:24 | NP |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 02:24 | NP |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 02:24 | NP |
| Chloroform | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 02:24 | NP |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 02:24 | NP |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 02:24 | NP |
| Benzene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 02:24 | NP |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 02:24 | NP |
| Trichloroethene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 02:24 | NP |
| Toluene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 02:24 | NP |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 02:24 | NP |
| Ethylbenzene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 02:24 | NP |
| Xylenes, Total | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 02:24 | NP |
| Surr: 4-Bromofluorobenzene | 84.6 | 70.6-123 | | %REC | 199783 | 1 | 11/26/2014 02:24 | NP |
| Surr: Dibromofluoromethane | 105 | 78.7-124 | | %REC | 199783 | 1 | 11/26/2014 02:24 | NP |
| Surr: Toluene-d8 | 94.5 | 81.3-120 | | %REC | 199783 | 1 | 11/26/2014 02:24 | NP |

| | | |
|--------------------|--|--|
| Qualifiers: | * Value exceeds maximum contaminant level | E Estimated (value above quantitation range) |
| | BRL Below reporting limit | S Spike Recovery outside limits due to matrix |
| | H Holding times for preparation or analysis exceeded | Narr See case narrative |
| | N Analyte not NELAC certified | NC Not confirmed |
| | B Analyte detected in the associated method blank | < Less than Result value |
| | > Greater than Result value | J Estimated value detected below Reporting Limit |

| | |
|------------------------------------|--|
| Client: BROWN AND CALDWELL | Client Sample ID: 14323-MW-9 |
| Project Name: Owens Corning | Collection Date: 11/19/2014 10:28:00 AM |
| Lab ID: 1411J75-007 | Matrix: Aqueous |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 199783 | 1 | 11/26/2014 02:48 | NP |
| 1,1-Dichloroethene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 02:48 | NP |
| Methylene chloride | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 02:48 | NP |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 02:48 | NP |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 02:48 | NP |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 02:48 | NP |
| Chloroform | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 02:48 | NP |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 02:48 | NP |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 02:48 | NP |
| Benzene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 02:48 | NP |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 02:48 | NP |
| Trichloroethene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 02:48 | NP |
| Toluene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 02:48 | NP |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 02:48 | NP |
| Ethylbenzene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 02:48 | NP |
| Xylenes, Total | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 02:48 | NP |
| Surr: 4-Bromofluorobenzene | 84.8 | 70.6-123 | | %REC | 199783 | 1 | 11/26/2014 02:48 | NP |
| Surr: Dibromofluoromethane | 108 | 78.7-124 | | %REC | 199783 | 1 | 11/26/2014 02:48 | NP |
| Surr: Toluene-d8 | 96.6 | 81.3-120 | | %REC | 199783 | 1 | 11/26/2014 02:48 | NP |

| | | |
|--------------------|--|--|
| Qualifiers: | * Value exceeds maximum contaminant level | E Estimated (value above quantitation range) |
| | BRL Below reporting limit | S Spike Recovery outside limits due to matrix |
| | H Holding times for preparation or analysis exceeded | Narr See case narrative |
| | N Analyte not NELAC certified | NC Not confirmed |
| | B Analyte detected in the associated method blank | < Less than Result value |
| | > Greater than Result value | J Estimated value detected below Reporting Limit |

| | |
|------------------------------------|--|
| Client: BROWN AND CALDWELL | Client Sample ID: 14323-MW-6 |
| Project Name: Owens Corning | Collection Date: 11/19/2014 12:03:00 PM |
| Lab ID: 1411J75-008 | Matrix: Aqueous |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 199783 | 1 | 11/26/2014 03:13 | NP |
| 1,1-Dichloroethene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 03:13 | NP |
| Methylene chloride | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 03:13 | NP |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 03:13 | NP |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 03:13 | NP |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 03:13 | NP |
| Chloroform | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 03:13 | NP |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 03:13 | NP |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 03:13 | NP |
| Benzene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 03:13 | NP |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 03:13 | NP |
| Trichloroethene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 03:13 | NP |
| Toluene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 03:13 | NP |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 03:13 | NP |
| Ethylbenzene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 03:13 | NP |
| Xylenes, Total | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 03:13 | NP |
| Surr: 4-Bromofluorobenzene | 83.4 | 70.6-123 | | %REC | 199783 | 1 | 11/26/2014 03:13 | NP |
| Surr: Dibromofluoromethane | 104 | 78.7-124 | | %REC | 199783 | 1 | 11/26/2014 03:13 | NP |
| Surr: Toluene-d8 | 94.6 | 81.3-120 | | %REC | 199783 | 1 | 11/26/2014 03:13 | NP |

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 29-Dec-14

| | |
|------------------------------------|---|
| Client: BROWN AND CALDWELL | Client Sample ID: 14323-MW-17 |
| Project Name: Owens Corning | Collection Date: 11/19/2014 2:03:00 PM |
| Lab ID: 1411J75-009 | Matrix: Aqueous |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 199783 | 1 | 11/26/2014 03:38 | NP |
| 1,1-Dichloroethene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 03:38 | NP |
| Methylene chloride | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 03:38 | NP |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 03:38 | NP |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 03:38 | NP |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 03:38 | NP |
| Chloroform | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 03:38 | NP |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 03:38 | NP |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 03:38 | NP |
| Benzene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 03:38 | NP |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 03:38 | NP |
| Trichloroethene | 32 | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 03:38 | NP |
| Toluene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 03:38 | NP |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 03:38 | NP |
| Ethylbenzene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 03:38 | NP |
| Xylenes, Total | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 03:38 | NP |
| Surr: 4-Bromofluorobenzene | 79.9 | 70.6-123 | | %REC | 199783 | 1 | 11/26/2014 03:38 | NP |
| Surr: Dibromofluoromethane | 104 | 78.7-124 | | %REC | 199783 | 1 | 11/26/2014 03:38 | NP |
| Surr: Toluene-d8 | 95.4 | 81.3-120 | | %REC | 199783 | 1 | 11/26/2014 03:38 | NP |

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

| | |
|------------------------------------|---|
| Client: BROWN AND CALDWELL | Client Sample ID: 14323-MW-32 |
| Project Name: Owens Corning | Collection Date: 11/19/2014 3:35:00 PM |
| Lab ID: 1411J75-010 | Matrix: Aqueous |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 199783 | 1 | 11/26/2014 04:02 | NP |
| 1,1-Dichloroethene | 89 | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 04:02 | NP |
| Methylene chloride | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 04:02 | NP |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 04:02 | NP |
| 1,1-Dichloroethane | 19 | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 04:02 | NP |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 04:02 | NP |
| Chloroform | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 04:02 | NP |
| 1,1,1-Trichloroethane | 120 | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 04:02 | NP |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 04:02 | NP |
| Benzene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 04:02 | NP |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 04:02 | NP |
| Trichloroethene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 04:02 | NP |
| Toluene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 04:02 | NP |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 04:02 | NP |
| Ethylbenzene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 04:02 | NP |
| Xylenes, Total | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 04:02 | NP |
| Surr: 4-Bromofluorobenzene | 83.4 | 70.6-123 | | %REC | 199783 | 1 | 11/26/2014 04:02 | NP |
| Surr: Dibromofluoromethane | 108 | 78.7-124 | | %REC | 199783 | 1 | 11/26/2014 04:02 | NP |
| Surr: Toluene-d8 | 93 | 81.3-120 | | %REC | 199783 | 1 | 11/26/2014 04:02 | NP |

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

| | |
|------------------------------------|---|
| Client: BROWN AND CALDWELL | Client Sample ID: 14323-DUP |
| Project Name: Owens Corning | Collection Date: 11/19/2014 5:00:00 PM |
| Lab ID: 1411J75-011 | Matrix: Aqueous |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 199783 | 1 | 11/26/2014 09:37 | NP |
| 1,1-Dichloroethene | 90 | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 09:37 | NP |
| Methylene chloride | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 09:37 | NP |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 09:37 | NP |
| 1,1-Dichloroethane | 19 | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 09:37 | NP |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 09:37 | NP |
| Chloroform | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 09:37 | NP |
| 1,1,1-Trichloroethane | 110 | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 09:37 | NP |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 09:37 | NP |
| Benzene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 09:37 | NP |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 09:37 | NP |
| Trichloroethene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 09:37 | NP |
| Toluene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 09:37 | NP |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 09:37 | NP |
| Ethylbenzene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 09:37 | NP |
| Xylenes, Total | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 09:37 | NP |
| Surr: 4-Bromofluorobenzene | 82.7 | 70.6-123 | | %REC | 199783 | 1 | 11/26/2014 09:37 | NP |
| Surr: Dibromofluoromethane | 107 | 78.7-124 | | %REC | 199783 | 1 | 11/26/2014 09:37 | NP |
| Surr: Toluene-d8 | 91 | 81.3-120 | | %REC | 199783 | 1 | 11/26/2014 09:37 | NP |

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

| | |
|------------------------------------|---|
| Client: BROWN AND CALDWELL | Client Sample ID: 14323-MW-24 |
| Project Name: Owens Corning | Collection Date: 11/19/2014 5:00:00 PM |
| Lab ID: 1411J75-012 | Matrix: Aqueous |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 199783 | 1 | 11/26/2014 04:27 | NP |
| 1,1-Dichloroethene | 170 | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 04:27 | NP |
| Methylene chloride | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 04:27 | NP |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 04:27 | NP |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 04:27 | NP |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 04:27 | NP |
| Chloroform | 16 | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 04:27 | NP |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 04:27 | NP |
| Carbon tetrachloride | 14 | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 04:27 | NP |
| Benzene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 04:27 | NP |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 04:27 | NP |
| Trichloroethene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 04:27 | NP |
| Toluene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 04:27 | NP |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 04:27 | NP |
| Ethylbenzene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 04:27 | NP |
| Xylenes, Total | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 04:27 | NP |
| Surr: 4-Bromofluorobenzene | 82.7 | 70.6-123 | | %REC | 199783 | 1 | 11/26/2014 04:27 | NP |
| Surr: Dibromofluoromethane | 105 | 78.7-124 | | %REC | 199783 | 1 | 11/26/2014 04:27 | NP |
| Surr: Toluene-d8 | 95.4 | 81.3-120 | | %REC | 199783 | 1 | 11/26/2014 04:27 | NP |

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

| | |
|------------------------------------|---|
| Client: BROWN AND CALDWELL | Client Sample ID: 14324-MW-19 |
| Project Name: Owens Corning | Collection Date: 11/20/2014 9:59:00 AM |
| Lab ID: 1411J75-013 | Matrix: Aqueous |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 199783 | 1 | 11/26/2014 04:52 | NP |
| 1,1-Dichloroethene | 310 | 50 | | ug/L | 199783 | 10 | 11/25/2014 22:17 | NP |
| Methylene chloride | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 04:52 | NP |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 04:52 | NP |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 04:52 | NP |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 04:52 | NP |
| Chloroform | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 04:52 | NP |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 04:52 | NP |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 04:52 | NP |
| Benzene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 04:52 | NP |
| 1,2-Dichloroethane | 6.7 | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 04:52 | NP |
| Trichloroethene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 04:52 | NP |
| Toluene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 04:52 | NP |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 04:52 | NP |
| Ethylbenzene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 04:52 | NP |
| Xylenes, Total | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 04:52 | NP |
| Surr: 4-Bromofluorobenzene | 83.5 | 70.6-123 | | %REC | 199783 | 10 | 11/25/2014 22:17 | NP |
| Surr: 4-Bromofluorobenzene | 85.8 | 70.6-123 | | %REC | 199783 | 1 | 11/26/2014 04:52 | NP |
| Surr: Dibromofluoromethane | 105 | 78.7-124 | | %REC | 199783 | 10 | 11/25/2014 22:17 | NP |
| Surr: Dibromofluoromethane | 108 | 78.7-124 | | %REC | 199783 | 1 | 11/26/2014 04:52 | NP |
| Surr: Toluene-d8 | 93.6 | 81.3-120 | | %REC | 199783 | 10 | 11/25/2014 22:17 | NP |
| Surr: Toluene-d8 | 94.1 | 81.3-120 | | %REC | 199783 | 1 | 11/26/2014 04:52 | NP |

| | | |
|--------------------|--|--|
| Qualifiers: | * Value exceeds maximum contaminant level | E Estimated (value above quantitation range) |
| | BRL Below reporting limit | S Spike Recovery outside limits due to matrix |
| | H Holding times for preparation or analysis exceeded | Narr See case narrative |
| | N Analyte not NELAC certified | NC Not confirmed |
| | B Analyte detected in the associated method blank | < Less than Result value |
| | > Greater than Result value | J Estimated value detected below Reporting Limit |

| | |
|------------------------------------|--|
| Client: BROWN AND CALDWELL | Client Sample ID: 14324-MW-22 |
| Project Name: Owens Corning | Collection Date: 11/20/2014 10:55:00 AM |
| Lab ID: 1411J75-014 | Matrix: Aqueous |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 199783 | 1 | 11/26/2014 05:16 | NP |
| 1,1-Dichloroethene | 310 | 50 | | ug/L | 199783 | 10 | 11/25/2014 22:42 | NP |
| Methylene chloride | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 05:16 | NP |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 05:16 | NP |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 05:16 | NP |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 05:16 | NP |
| Chloroform | 9.7 | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 05:16 | NP |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 05:16 | NP |
| Carbon tetrachloride | 22 | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 05:16 | NP |
| Benzene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 05:16 | NP |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 05:16 | NP |
| Trichloroethene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 05:16 | NP |
| Toluene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 05:16 | NP |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 05:16 | NP |
| Ethylbenzene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 05:16 | NP |
| Xylenes, Total | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 05:16 | NP |
| Surr: 4-Bromofluorobenzene | 81.5 | 70.6-123 | | %REC | 199783 | 10 | 11/25/2014 22:42 | NP |
| Surr: 4-Bromofluorobenzene | 83.8 | 70.6-123 | | %REC | 199783 | 1 | 11/26/2014 05:16 | NP |
| Surr: Dibromofluoromethane | 104 | 78.7-124 | | %REC | 199783 | 10 | 11/25/2014 22:42 | NP |
| Surr: Dibromofluoromethane | 107 | 78.7-124 | | %REC | 199783 | 1 | 11/26/2014 05:16 | NP |
| Surr: Toluene-d8 | 95.4 | 81.3-120 | | %REC | 199783 | 1 | 11/26/2014 05:16 | NP |
| Surr: Toluene-d8 | 95.5 | 81.3-120 | | %REC | 199783 | 10 | 11/25/2014 22:42 | NP |

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

| | |
|------------------------------------|--|
| Client: BROWN AND CALDWELL | Client Sample ID: 14324-MW-13 |
| Project Name: Owens Corning | Collection Date: 11/20/2014 11:53:00 AM |
| Lab ID: 1411J75-015 | Matrix: Aqueous |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 199783 | 1 | 11/26/2014 05:41 | NP |
| 1,1-Dichloroethene | 340 | 50 | | ug/L | 199783 | 10 | 11/25/2014 23:06 | NP |
| Methylene chloride | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 05:41 | NP |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 05:41 | NP |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 05:41 | NP |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 05:41 | NP |
| Chloroform | 12 | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 05:41 | NP |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 05:41 | NP |
| Carbon tetrachloride | 23 | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 05:41 | NP |
| Benzene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 05:41 | NP |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 05:41 | NP |
| Trichloroethene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 05:41 | NP |
| Toluene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 05:41 | NP |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 05:41 | NP |
| Ethylbenzene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 05:41 | NP |
| Xylenes, Total | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 05:41 | NP |
| Surr: 4-Bromofluorobenzene | 84.1 | 70.6-123 | | %REC | 199783 | 1 | 11/26/2014 05:41 | NP |
| Surr: 4-Bromofluorobenzene | 85.8 | 70.6-123 | | %REC | 199783 | 10 | 11/25/2014 23:06 | NP |
| Surr: Dibromofluoromethane | 105 | 78.7-124 | | %REC | 199783 | 10 | 11/25/2014 23:06 | NP |
| Surr: Dibromofluoromethane | 107 | 78.7-124 | | %REC | 199783 | 1 | 11/26/2014 05:41 | NP |
| Surr: Toluene-d8 | 94.5 | 81.3-120 | | %REC | 199783 | 1 | 11/26/2014 05:41 | NP |
| Surr: Toluene-d8 | 94.2 | 81.3-120 | | %REC | 199783 | 10 | 11/25/2014 23:06 | NP |

| | | |
|--------------------|--|--|
| Qualifiers: | * Value exceeds maximum contaminant level | E Estimated (value above quantitation range) |
| | BRL Below reporting limit | S Spike Recovery outside limits due to matrix |
| | H Holding times for preparation or analysis exceeded | Narr See case narrative |
| | N Analyte not NELAC certified | NC Not confirmed |
| | B Analyte detected in the associated method blank | < Less than Result value |
| | > Greater than Result value | J Estimated value detected below Reporting Limit |

Analytical Environmental Services, Inc

Date: 29-Dec-14

| | |
|------------------------------------|---|
| Client: BROWN AND CALDWELL | Client Sample ID: 14324-MW-12 |
| Project Name: Owens Corning | Collection Date: 11/20/2014 1:09:00 PM |
| Lab ID: 1411J75-016 | Matrix: Aqueous |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | 12 | 2.0 | | ug/L | 199783 | 1 | 11/26/2014 06:06 | NP |
| 1,1-Dichloroethene | 380 | 50 | | ug/L | 199783 | 10 | 11/25/2014 23:31 | NP |
| Methylene chloride | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 06:06 | NP |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 06:06 | NP |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 06:06 | NP |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 06:06 | NP |
| Chloroform | 11 | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 06:06 | NP |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 06:06 | NP |
| Carbon tetrachloride | 12 | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 06:06 | NP |
| Benzene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 06:06 | NP |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 06:06 | NP |
| Trichloroethene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 06:06 | NP |
| Toluene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 06:06 | NP |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 06:06 | NP |
| Ethylbenzene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 06:06 | NP |
| Xylenes, Total | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 06:06 | NP |
| Surr: 4-Bromofluorobenzene | 82.7 | 70.6-123 | | %REC | 199783 | 1 | 11/26/2014 06:06 | NP |
| Surr: 4-Bromofluorobenzene | 82.6 | 70.6-123 | | %REC | 199783 | 10 | 11/25/2014 23:31 | NP |
| Surr: Dibromofluoromethane | 101 | 78.7-124 | | %REC | 199783 | 10 | 11/25/2014 23:31 | NP |
| Surr: Dibromofluoromethane | 107 | 78.7-124 | | %REC | 199783 | 1 | 11/26/2014 06:06 | NP |
| Surr: Toluene-d8 | 93.6 | 81.3-120 | | %REC | 199783 | 10 | 11/25/2014 23:31 | NP |
| Surr: Toluene-d8 | 95.3 | 81.3-120 | | %REC | 199783 | 1 | 11/26/2014 06:06 | NP |

| | | |
|--------------------|--|--|
| Qualifiers: | * Value exceeds maximum contaminant level | E Estimated (value above quantitation range) |
| | BRL Below reporting limit | S Spike Recovery outside limits due to matrix |
| | H Holding times for preparation or analysis exceeded | Narr See case narrative |
| | N Analyte not NELAC certified | NC Not confirmed |
| | B Analyte detected in the associated method blank | < Less than Result value |
| | > Greater than Result value | J Estimated value detected below Reporting Limit |

Analytical Environmental Services, Inc

Date: 29-Dec-14

| | |
|------------------------------------|---|
| Client: BROWN AND CALDWELL | Client Sample ID: 14324-MW-27 |
| Project Name: Owens Corning | Collection Date: 11/20/2014 4:45:00 PM |
| Lab ID: 1411J75-017 | Matrix: Aqueous |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 199783 | 1 | 11/26/2014 06:31 | NP |
| 1,1-Dichloroethene | 470 | 50 | | ug/L | 199783 | 10 | 11/25/2014 23:56 | NP |
| Methylene chloride | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 06:31 | NP |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 06:31 | NP |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 06:31 | NP |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 06:31 | NP |
| Chloroform | 24 | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 06:31 | NP |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 06:31 | NP |
| Carbon tetrachloride | 16 | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 06:31 | NP |
| Benzene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 06:31 | NP |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 06:31 | NP |
| Trichloroethene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 06:31 | NP |
| Toluene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 06:31 | NP |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 06:31 | NP |
| Ethylbenzene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 06:31 | NP |
| Xylenes, Total | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 06:31 | NP |
| Surr: 4-Bromofluorobenzene | 83.9 | 70.6-123 | | %REC | 199783 | 1 | 11/26/2014 06:31 | NP |
| Surr: 4-Bromofluorobenzene | 85 | 70.6-123 | | %REC | 199783 | 10 | 11/25/2014 23:56 | NP |
| Surr: Dibromofluoromethane | 106 | 78.7-124 | | %REC | 199783 | 1 | 11/26/2014 06:31 | NP |
| Surr: Dibromofluoromethane | 105 | 78.7-124 | | %REC | 199783 | 10 | 11/25/2014 23:56 | NP |
| Surr: Toluene-d8 | 93.9 | 81.3-120 | | %REC | 199783 | 10 | 11/25/2014 23:56 | NP |
| Surr: Toluene-d8 | 94.3 | 81.3-120 | | %REC | 199783 | 1 | 11/26/2014 06:31 | NP |

| | | |
|--------------------|--|--|
| Qualifiers: | * Value exceeds maximum contaminant level | E Estimated (value above quantitation range) |
| | BRL Below reporting limit | S Spike Recovery outside limits due to matrix |
| | H Holding times for preparation or analysis exceeded | Narr See case narrative |
| | N Analyte not NELAC certified | NC Not confirmed |
| | B Analyte detected in the associated method blank | < Less than Result value |
| | > Greater than Result value | J Estimated value detected below Reporting Limit |

| | |
|------------------------------------|---|
| Client: BROWN AND CALDWELL | Client Sample ID: 14325-MW-31 |
| Project Name: Owens Corning | Collection Date: 11/21/2014 9:41:00 AM |
| Lab ID: 1411J75-018 | Matrix: Aqueous |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 199783 | 1 | 11/26/2014 06:56 | NP |
| 1,1-Dichloroethene | 1100 | 50 | | ug/L | 199783 | 10 | 11/26/2014 00:20 | NP |
| Methylene chloride | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 06:56 | NP |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 06:56 | NP |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 06:56 | NP |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 06:56 | NP |
| Chloroform | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 06:56 | NP |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 06:56 | NP |
| Carbon tetrachloride | 12 | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 06:56 | NP |
| Benzene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 06:56 | NP |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 06:56 | NP |
| Trichloroethene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 06:56 | NP |
| Toluene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 06:56 | NP |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 06:56 | NP |
| Ethylbenzene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 06:56 | NP |
| Xylenes, Total | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 06:56 | NP |
| Surr: 4-Bromofluorobenzene | 81.9 | 70.6-123 | | %REC | 199783 | 1 | 11/26/2014 06:56 | NP |
| Surr: 4-Bromofluorobenzene | 81.9 | 70.6-123 | | %REC | 199783 | 10 | 11/26/2014 00:20 | NP |
| Surr: Dibromofluoromethane | 104 | 78.7-124 | | %REC | 199783 | 10 | 11/26/2014 00:20 | NP |
| Surr: Dibromofluoromethane | 108 | 78.7-124 | | %REC | 199783 | 1 | 11/26/2014 06:56 | NP |
| Surr: Toluene-d8 | 94.1 | 81.3-120 | | %REC | 199783 | 10 | 11/26/2014 00:20 | NP |
| Surr: Toluene-d8 | 96.8 | 81.3-120 | | %REC | 199783 | 1 | 11/26/2014 06:56 | NP |

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

| | |
|------------------------------------|--|
| Client: BROWN AND CALDWELL | Client Sample ID: 14325-MW-30 |
| Project Name: Owens Corning | Collection Date: 11/21/2014 11:32:00 AM |
| Lab ID: 1411J75-019 | Matrix: Aqueous |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 199783 | 1 | 11/26/2014 07:20 | NP |
| 1,1-Dichloroethene | 4600 | 250 | | ug/L | 199783 | 50 | 11/25/2014 18:33 | NP |
| Methylene chloride | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 07:20 | NP |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 07:20 | NP |
| 1,1-Dichloroethane | 18 | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 07:20 | NP |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 07:20 | NP |
| Chloroform | 6.2 | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 07:20 | NP |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 07:20 | NP |
| Carbon tetrachloride | 160 | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 07:20 | NP |
| Benzene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 07:20 | NP |
| 1,2-Dichloroethane | 23 | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 07:20 | NP |
| Trichloroethene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 07:20 | NP |
| Toluene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 07:20 | NP |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 07:20 | NP |
| Ethylbenzene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 07:20 | NP |
| Xylenes, Total | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 07:20 | NP |
| Surr: 4-Bromofluorobenzene | 87.6 | 70.6-123 | | %REC | 199783 | 50 | 11/25/2014 18:33 | NP |
| Surr: 4-Bromofluorobenzene | 81.7 | 70.6-123 | | %REC | 199783 | 1 | 11/26/2014 07:20 | NP |
| Surr: Dibromofluoromethane | 105 | 78.7-124 | | %REC | 199783 | 50 | 11/25/2014 18:33 | NP |
| Surr: Dibromofluoromethane | 106 | 78.7-124 | | %REC | 199783 | 1 | 11/26/2014 07:20 | NP |
| Surr: Toluene-d8 | 95.5 | 81.3-120 | | %REC | 199783 | 50 | 11/25/2014 18:33 | NP |
| Surr: Toluene-d8 | 96 | 81.3-120 | | %REC | 199783 | 1 | 11/26/2014 07:20 | NP |

| | | |
|--------------------|--|--|
| Qualifiers: | * Value exceeds maximum contaminant level | E Estimated (value above quantitation range) |
| | BRL Below reporting limit | S Spike Recovery outside limits due to matrix |
| | H Holding times for preparation or analysis exceeded | Narr See case narrative |
| | N Analyte not NELAC certified | NC Not confirmed |
| | B Analyte detected in the associated method blank | < Less than Result value |
| | > Greater than Result value | J Estimated value detected below Reporting Limit |

| | |
|------------------------------------|--|
| Client: BROWN AND CALDWELL | Client Sample ID: 14325-DUP |
| Project Name: Owens Corning | Collection Date: 11/21/2014 12:00:00 PM |
| Lab ID: 1411J75-020 | Matrix: Aqueous |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 199783 | 1 | 11/26/2014 10:02 | NP |
| 1,1-Dichloroethene | 4700 | 250 | | ug/L | 199783 | 50 | 11/25/2014 21:52 | NP |
| Methylene chloride | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 10:02 | NP |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 10:02 | NP |
| 1,1-Dichloroethane | 18 | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 10:02 | NP |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 10:02 | NP |
| Chloroform | 6.1 | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 10:02 | NP |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 10:02 | NP |
| Carbon tetrachloride | 160 | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 10:02 | NP |
| Benzene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 10:02 | NP |
| 1,2-Dichloroethane | 23 | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 10:02 | NP |
| Trichloroethene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 10:02 | NP |
| Toluene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 10:02 | NP |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 10:02 | NP |
| Ethylbenzene | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 10:02 | NP |
| Xylenes, Total | BRL | 5.0 | | ug/L | 199783 | 1 | 11/26/2014 10:02 | NP |
| Surr: 4-Bromofluorobenzene | 83.8 | 70.6-123 | | %REC | 199783 | 50 | 11/25/2014 21:52 | NP |
| Surr: 4-Bromofluorobenzene | 84 | 70.6-123 | | %REC | 199783 | 1 | 11/26/2014 10:02 | NP |
| Surr: Dibromofluoromethane | 105 | 78.7-124 | | %REC | 199783 | 50 | 11/25/2014 21:52 | NP |
| Surr: Dibromofluoromethane | 102 | 78.7-124 | | %REC | 199783 | 1 | 11/26/2014 10:02 | NP |
| Surr: Toluene-d8 | 94 | 81.3-120 | | %REC | 199783 | 50 | 11/25/2014 21:52 | NP |
| Surr: Toluene-d8 | 95.5 | 81.3-120 | | %REC | 199783 | 1 | 11/26/2014 10:02 | NP |

| | | |
|--------------------|--|--|
| Qualifiers: | * Value exceeds maximum contaminant level | E Estimated (value above quantitation range) |
| | BRL Below reporting limit | S Spike Recovery outside limits due to matrix |
| | H Holding times for preparation or analysis exceeded | Narr See case narrative |
| | N Analyte not NELAC certified | NC Not confirmed |
| | B Analyte detected in the associated method blank | < Less than Result value |
| | > Greater than Result value | J Estimated value detected below Reporting Limit |

| | |
|------------------------------------|---|
| Client: BROWN AND CALDWELL | Client Sample ID: 14325-MW-7 |
| Project Name: Owens Corning | Collection Date: 11/21/2014 1:07:00 PM |
| Lab ID: 1411J75-021 | Matrix: Aqueous |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 1000 | | ug/L | 199784 | 500 | 11/26/2014 06:21 | GK |
| 1,1-Dichloroethene | 9200 | 2500 | | ug/L | 199784 | 500 | 11/26/2014 06:21 | GK |
| Methylene chloride | BRL | 2500 | | ug/L | 199784 | 500 | 11/26/2014 06:21 | GK |
| trans-1,2-Dichloroethene | BRL | 2500 | | ug/L | 199784 | 500 | 11/26/2014 06:21 | GK |
| 1,1-Dichloroethane | BRL | 2500 | | ug/L | 199784 | 500 | 11/26/2014 06:21 | GK |
| cis-1,2-Dichloroethene | BRL | 2500 | | ug/L | 199784 | 500 | 11/26/2014 06:21 | GK |
| Chloroform | BRL | 2500 | | ug/L | 199784 | 500 | 11/26/2014 06:21 | GK |
| 1,1,1-Trichloroethane | 14000 | 2500 | | ug/L | 199784 | 500 | 11/26/2014 06:21 | GK |
| Carbon tetrachloride | BRL | 2500 | | ug/L | 199784 | 500 | 11/26/2014 06:21 | GK |
| Benzene | BRL | 2500 | | ug/L | 199784 | 500 | 11/26/2014 06:21 | GK |
| 1,2-Dichloroethane | BRL | 2500 | | ug/L | 199784 | 500 | 11/26/2014 06:21 | GK |
| Trichloroethene | BRL | 2500 | | ug/L | 199784 | 500 | 11/26/2014 06:21 | GK |
| Toluene | BRL | 2500 | | ug/L | 199784 | 500 | 11/26/2014 06:21 | GK |
| Tetrachloroethene | BRL | 2500 | | ug/L | 199784 | 500 | 11/26/2014 06:21 | GK |
| Ethylbenzene | BRL | 2500 | | ug/L | 199784 | 500 | 11/26/2014 06:21 | GK |
| Xylenes, Total | BRL | 2500 | | ug/L | 199784 | 500 | 11/26/2014 06:21 | GK |
| Surr: 4-Bromofluorobenzene | 90.2 | 70.6-123 | | %REC | 199784 | 500 | 11/26/2014 06:21 | GK |
| Surr: Dibromofluoromethane | 97.1 | 78.7-124 | | %REC | 199784 | 500 | 11/26/2014 06:21 | GK |
| Surr: Toluene-d8 | 95.6 | 81.3-120 | | %REC | 199784 | 500 | 11/26/2014 06:21 | GK |

| | | |
|--------------------|--|--|
| Qualifiers: | * Value exceeds maximum contaminant level | E Estimated (value above quantitation range) |
| | BRL Below reporting limit | S Spike Recovery outside limits due to matrix |
| | H Holding times for preparation or analysis exceeded | Narr See case narrative |
| | N Analyte not NELAC certified | NC Not confirmed |
| | B Analyte detected in the associated method blank | < Less than Result value |
| | > Greater than Result value | J Estimated value detected below Reporting Limit |

| | |
|------------------------------------|---|
| Client: BROWN AND CALDWELL | Client Sample ID: 14325-MW-28 |
| Project Name: Owens Corning | Collection Date: 11/21/2014 1:30:00 PM |
| Lab ID: 1411J75-022 | Matrix: Aqueous |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2000 | | ug/L | 199784 | 1000 | 11/26/2014 05:50 | GK |
| 1,1-Dichloroethene | 120000 | 5000 | | ug/L | 199784 | 1000 | 11/26/2014 05:50 | GK |
| Methylene chloride | BRL | 5000 | | ug/L | 199784 | 1000 | 11/26/2014 05:50 | GK |
| trans-1,2-Dichloroethene | BRL | 5000 | | ug/L | 199784 | 1000 | 11/26/2014 05:50 | GK |
| 1,1-Dichloroethane | BRL | 5000 | | ug/L | 199784 | 1000 | 11/26/2014 05:50 | GK |
| cis-1,2-Dichloroethene | BRL | 5000 | | ug/L | 199784 | 1000 | 11/26/2014 05:50 | GK |
| Chloroform | BRL | 5000 | | ug/L | 199784 | 1000 | 11/26/2014 05:50 | GK |
| 1,1,1-Trichloroethane | 130000 | 5000 | | ug/L | 199784 | 1000 | 11/26/2014 05:50 | GK |
| Carbon tetrachloride | BRL | 5000 | | ug/L | 199784 | 1000 | 11/26/2014 05:50 | GK |
| Benzene | BRL | 5000 | | ug/L | 199784 | 1000 | 11/26/2014 05:50 | GK |
| 1,2-Dichloroethane | BRL | 5000 | | ug/L | 199784 | 1000 | 11/26/2014 05:50 | GK |
| Trichloroethene | BRL | 5000 | | ug/L | 199784 | 1000 | 11/26/2014 05:50 | GK |
| Toluene | BRL | 5000 | | ug/L | 199784 | 1000 | 11/26/2014 05:50 | GK |
| Tetrachloroethene | BRL | 5000 | | ug/L | 199784 | 1000 | 11/26/2014 05:50 | GK |
| Ethylbenzene | BRL | 5000 | | ug/L | 199784 | 1000 | 11/26/2014 05:50 | GK |
| Xylenes, Total | BRL | 5000 | | ug/L | 199784 | 1000 | 11/26/2014 05:50 | GK |
| Surr: 4-Bromofluorobenzene | 90.1 | 70.6-123 | | %REC | 199784 | 1000 | 11/26/2014 05:50 | GK |
| Surr: Dibromofluoromethane | 99.1 | 78.7-124 | | %REC | 199784 | 1000 | 11/26/2014 05:50 | GK |
| Surr: Toluene-d8 | 95 | 81.3-120 | | %REC | 199784 | 1000 | 11/26/2014 05:50 | GK |

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

| | |
|------------------------------------|--------------------------------------|
| Client: BROWN AND CALDWELL | Client Sample ID: TRIP BLANKS |
| Project Name: Owens Corning | Collection Date: 11/21/2014 |
| Lab ID: 1411J75-023 | Matrix: Aqueous |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 199784 | 1 | 11/26/2014 06:51 | GK |
| 1,1-Dichloroethene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 06:51 | GK |
| Methylene chloride | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 06:51 | GK |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 06:51 | GK |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 06:51 | GK |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 06:51 | GK |
| Chloroform | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 06:51 | GK |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 06:51 | GK |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 06:51 | GK |
| Benzene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 06:51 | GK |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 06:51 | GK |
| Trichloroethene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 06:51 | GK |
| Toluene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 06:51 | GK |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 06:51 | GK |
| Ethylbenzene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 06:51 | GK |
| Xylenes, Total | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 06:51 | GK |
| Surr: 4-Bromofluorobenzene | 91.5 | 70.6-123 | | %REC | 199784 | 1 | 11/26/2014 06:51 | GK |
| Surr: Dibromofluoromethane | 96.7 | 78.7-124 | | %REC | 199784 | 1 | 11/26/2014 06:51 | GK |
| Surr: Toluene-d8 | 96 | 81.3-120 | | %REC | 199784 | 1 | 11/26/2014 06:51 | GK |

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

| | |
|------------------------------------|--------------------------------------|
| Client: BROWN AND CALDWELL | Client Sample ID: TRIP BLANKS |
| Project Name: Owens Corning | Collection Date: 11/21/2014 |
| Lab ID: 1411J75-024 | Matrix: Aqueous |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 199784 | 1 | 11/26/2014 07:21 | GK |
| 1,1-Dichloroethene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 07:21 | GK |
| Methylene chloride | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 07:21 | GK |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 07:21 | GK |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 07:21 | GK |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 07:21 | GK |
| Chloroform | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 07:21 | GK |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 07:21 | GK |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 07:21 | GK |
| Benzene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 07:21 | GK |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 07:21 | GK |
| Trichloroethene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 07:21 | GK |
| Toluene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 07:21 | GK |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 07:21 | GK |
| Ethylbenzene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 07:21 | GK |
| Xylenes, Total | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 07:21 | GK |
| Surr: 4-Bromofluorobenzene | 89.8 | 70.6-123 | | %REC | 199784 | 1 | 11/26/2014 07:21 | GK |
| Surr: Dibromofluoromethane | 95.4 | 78.7-124 | | %REC | 199784 | 1 | 11/26/2014 07:21 | GK |
| Surr: Toluene-d8 | 94.9 | 81.3-120 | | %REC | 199784 | 1 | 11/26/2014 07:21 | GK |

| | | |
|--------------------|--|--|
| Qualifiers: | * Value exceeds maximum contaminant level | E Estimated (value above quantitation range) |
| | BRL Below reporting limit | S Spike Recovery outside limits due to matrix |
| | H Holding times for preparation or analysis exceeded | Narr See case narrative |
| | N Analyte not NELAC certified | NC Not confirmed |
| | B Analyte detected in the associated method blank | < Less than Result value |
| | > Greater than Result value | J Estimated value detected below Reporting Limit |

| | |
|------------------------------------|--------------------------------------|
| Client: BROWN AND CALDWELL | Client Sample ID: TRIP BLANKS |
| Project Name: Owens Corning | Collection Date: 11/21/2014 |
| Lab ID: 1411J75-025 | Matrix: Aqueous |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 199784 | 1 | 11/26/2014 07:51 | GK |
| 1,1-Dichloroethene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 07:51 | GK |
| Methylene chloride | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 07:51 | GK |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 07:51 | GK |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 07:51 | GK |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 07:51 | GK |
| Chloroform | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 07:51 | GK |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 07:51 | GK |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 07:51 | GK |
| Benzene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 07:51 | GK |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 07:51 | GK |
| Trichloroethene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 07:51 | GK |
| Toluene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 07:51 | GK |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 07:51 | GK |
| Ethylbenzene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 07:51 | GK |
| Xylenes, Total | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 07:51 | GK |
| Surr: 4-Bromofluorobenzene | 89.9 | 70.6-123 | | %REC | 199784 | 1 | 11/26/2014 07:51 | GK |
| Surr: Dibromofluoromethane | 94.5 | 78.7-124 | | %REC | 199784 | 1 | 11/26/2014 07:51 | GK |
| Surr: Toluene-d8 | 95.6 | 81.3-120 | | %REC | 199784 | 1 | 11/26/2014 07:51 | GK |

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

| | |
|------------------------------------|--|
| Client: BROWN AND CALDWELL | Client Sample ID: 14324-MW-35 |
| Project Name: Owens Corning | Collection Date: 11/20/2014 10:00:00 AM |
| Lab ID: 1411J75-026 | Matrix: Aqueous |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 200022 | 1 | 12/03/2014 19:07 | GK |
| 1,1-Dichloroethene | 50 | 5.0 | | ug/L | 200022 | 1 | 12/03/2014 19:07 | GK |
| Methylene chloride | BRL | 5.0 | | ug/L | 200022 | 1 | 12/03/2014 19:07 | GK |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 200022 | 1 | 12/03/2014 19:07 | GK |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 200022 | 1 | 12/03/2014 19:07 | GK |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 200022 | 1 | 12/03/2014 19:07 | GK |
| Chloroform | BRL | 5.0 | | ug/L | 200022 | 1 | 12/03/2014 19:07 | GK |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 200022 | 1 | 12/03/2014 19:07 | GK |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 200022 | 1 | 12/03/2014 19:07 | GK |
| Benzene | BRL | 5.0 | | ug/L | 200022 | 1 | 12/03/2014 19:07 | GK |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 200022 | 1 | 12/03/2014 19:07 | GK |
| Trichloroethene | BRL | 5.0 | | ug/L | 200022 | 1 | 12/03/2014 19:07 | GK |
| Toluene | BRL | 5.0 | | ug/L | 200022 | 1 | 12/03/2014 19:07 | GK |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 200022 | 1 | 12/03/2014 19:07 | GK |
| Ethylbenzene | BRL | 5.0 | | ug/L | 200022 | 1 | 12/03/2014 19:07 | GK |
| Xylenes, Total | BRL | 5.0 | | ug/L | 200022 | 1 | 12/03/2014 19:07 | GK |
| Surr: 4-Bromofluorobenzene | 90.1 | 70.6-123 | | %REC | 200022 | 1 | 12/03/2014 19:07 | GK |
| Surr: Dibromofluoromethane | 95.6 | 78.7-124 | | %REC | 200022 | 1 | 12/03/2014 19:07 | GK |
| Surr: Toluene-d8 | 96.1 | 81.3-120 | | %REC | 200022 | 1 | 12/03/2014 19:07 | GK |

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

| | |
|------------------------------------|--|
| Client: BROWN AND CALDWELL | Client Sample ID: 14324-MW-15 |
| Project Name: Owens Corning | Collection Date: 11/20/2014 12:50:00 PM |
| Lab ID: 1411J75-027 | Matrix: Aqueous |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 200022 | 1 | 12/03/2014 19:37 | GK |
| 1,1-Dichloroethene | 120 | 5.0 | | ug/L | 200022 | 1 | 12/03/2014 19:37 | GK |
| Methylene chloride | BRL | 5.0 | | ug/L | 200022 | 1 | 12/03/2014 19:37 | GK |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 200022 | 1 | 12/03/2014 19:37 | GK |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 200022 | 1 | 12/03/2014 19:37 | GK |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 200022 | 1 | 12/03/2014 19:37 | GK |
| Chloroform | BRL | 5.0 | | ug/L | 200022 | 1 | 12/03/2014 19:37 | GK |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 200022 | 1 | 12/03/2014 19:37 | GK |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 200022 | 1 | 12/03/2014 19:37 | GK |
| Benzene | BRL | 5.0 | | ug/L | 200022 | 1 | 12/03/2014 19:37 | GK |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 200022 | 1 | 12/03/2014 19:37 | GK |
| Trichloroethene | BRL | 5.0 | | ug/L | 200022 | 1 | 12/03/2014 19:37 | GK |
| Toluene | BRL | 5.0 | | ug/L | 200022 | 1 | 12/03/2014 19:37 | GK |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 200022 | 1 | 12/03/2014 19:37 | GK |
| Ethylbenzene | BRL | 5.0 | | ug/L | 200022 | 1 | 12/03/2014 19:37 | GK |
| Xylenes, Total | BRL | 5.0 | | ug/L | 200022 | 1 | 12/03/2014 19:37 | GK |
| Surr: 4-Bromofluorobenzene | 90.9 | 70.6-123 | | %REC | 200022 | 1 | 12/03/2014 19:37 | GK |
| Surr: Dibromofluoromethane | 95.4 | 78.7-124 | | %REC | 200022 | 1 | 12/03/2014 19:37 | GK |
| Surr: Toluene-d8 | 96.1 | 81.3-120 | | %REC | 200022 | 1 | 12/03/2014 19:37 | GK |

| | | |
|--------------------|--|--|
| Qualifiers: | * Value exceeds maximum contaminant level | E Estimated (value above quantitation range) |
| | BRL Below reporting limit | S Spike Recovery outside limits due to matrix |
| | H Holding times for preparation or analysis exceeded | Narr See case narrative |
| | N Analyte not NELAC certified | NC Not confirmed |
| | B Analyte detected in the associated method blank | < Less than Result value |
| | > Greater than Result value | J Estimated value detected below Reporting Limit |

| | |
|------------------------------------|---|
| Client: BROWN AND CALDWELL | Client Sample ID: 14323-MW-11 |
| Project Name: Owens Corning | Collection Date: 11/19/2014 1:30:00 PM |
| Lab ID: 1411J75-028 | Matrix: Aqueous |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | 6.7 | 2.0 | | ug/L | 200022 | 1 | 12/03/2014 20:07 | GK |
| 1,1-Dichloroethene | BRL | 5.0 | | ug/L | 200022 | 1 | 12/03/2014 20:07 | GK |
| Methylene chloride | BRL | 5.0 | | ug/L | 200022 | 1 | 12/03/2014 20:07 | GK |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 200022 | 1 | 12/03/2014 20:07 | GK |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 200022 | 1 | 12/03/2014 20:07 | GK |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 200022 | 1 | 12/03/2014 20:07 | GK |
| Chloroform | BRL | 5.0 | | ug/L | 200022 | 1 | 12/03/2014 20:07 | GK |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 200022 | 1 | 12/03/2014 20:07 | GK |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 200022 | 1 | 12/03/2014 20:07 | GK |
| Benzene | BRL | 5.0 | | ug/L | 200022 | 1 | 12/03/2014 20:07 | GK |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 200022 | 1 | 12/03/2014 20:07 | GK |
| Trichloroethene | BRL | 5.0 | | ug/L | 200022 | 1 | 12/03/2014 20:07 | GK |
| Toluene | BRL | 5.0 | | ug/L | 200022 | 1 | 12/03/2014 20:07 | GK |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 200022 | 1 | 12/03/2014 20:07 | GK |
| Ethylbenzene | BRL | 5.0 | | ug/L | 200022 | 1 | 12/03/2014 20:07 | GK |
| Xylenes, Total | BRL | 5.0 | | ug/L | 200022 | 1 | 12/03/2014 20:07 | GK |
| Surr: 4-Bromofluorobenzene | 90.7 | 70.6-123 | | %REC | 200022 | 1 | 12/03/2014 20:07 | GK |
| Surr: Dibromofluoromethane | 94 | 78.7-124 | | %REC | 200022 | 1 | 12/03/2014 20:07 | GK |
| Surr: Toluene-d8 | 94.7 | 81.3-120 | | %REC | 200022 | 1 | 12/03/2014 20:07 | GK |

| | | |
|--------------------|--|--|
| Qualifiers: | * Value exceeds maximum contaminant level | E Estimated (value above quantitation range) |
| | BRL Below reporting limit | S Spike Recovery outside limits due to matrix |
| | H Holding times for preparation or analysis exceeded | Narr See case narrative |
| | N Analyte not NELAC certified | NC Not confirmed |
| | B Analyte detected in the associated method blank | < Less than Result value |
| | > Greater than Result value | J Estimated value detected below Reporting Limit |

| | |
|------------------------------------|---|
| Client: BROWN AND CALDWELL | Client Sample ID: 14323-TW-46 |
| Project Name: Owens Corning | Collection Date: 11/19/2014 4:20:00 PM |
| Lab ID: 1411J75-029 | Matrix: Aqueous |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 200022 | 1 | 12/03/2014 20:37 | GK |
| 1,1-Dichloroethene | 8.1 | 5.0 | | ug/L | 200022 | 1 | 12/03/2014 20:37 | GK |
| Methylene chloride | BRL | 5.0 | | ug/L | 200022 | 1 | 12/03/2014 20:37 | GK |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 200022 | 1 | 12/03/2014 20:37 | GK |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 200022 | 1 | 12/03/2014 20:37 | GK |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 200022 | 1 | 12/03/2014 20:37 | GK |
| Chloroform | 11 | 5.0 | | ug/L | 200022 | 1 | 12/03/2014 20:37 | GK |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 200022 | 1 | 12/03/2014 20:37 | GK |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 200022 | 1 | 12/03/2014 20:37 | GK |
| Benzene | BRL | 5.0 | | ug/L | 200022 | 1 | 12/03/2014 20:37 | GK |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 200022 | 1 | 12/03/2014 20:37 | GK |
| Trichloroethene | BRL | 5.0 | | ug/L | 200022 | 1 | 12/03/2014 20:37 | GK |
| Toluene | BRL | 5.0 | | ug/L | 200022 | 1 | 12/03/2014 20:37 | GK |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 200022 | 1 | 12/03/2014 20:37 | GK |
| Ethylbenzene | BRL | 5.0 | | ug/L | 200022 | 1 | 12/03/2014 20:37 | GK |
| Xylenes, Total | BRL | 5.0 | | ug/L | 200022 | 1 | 12/03/2014 20:37 | GK |
| Surr: 4-Bromofluorobenzene | 91 | 70.6-123 | | %REC | 200022 | 1 | 12/03/2014 20:37 | GK |
| Surr: Dibromofluoromethane | 95.4 | 78.7-124 | | %REC | 200022 | 1 | 12/03/2014 20:37 | GK |
| Surr: Toluene-d8 | 95.9 | 81.3-120 | | %REC | 200022 | 1 | 12/03/2014 20:37 | GK |

| | | |
|--------------------|--|--|
| Qualifiers: | * Value exceeds maximum contaminant level | E Estimated (value above quantitation range) |
| | BRL Below reporting limit | S Spike Recovery outside limits due to matrix |
| | H Holding times for preparation or analysis exceeded | Narr See case narrative |
| | N Analyte not NELAC certified | NC Not confirmed |
| | B Analyte detected in the associated method blank | < Less than Result value |
| | > Greater than Result value | J Estimated value detected below Reporting Limit |

| | |
|------------------------------------|---|
| Client: BROWN AND CALDWELL | Client Sample ID: 14324-MW-20 |
| Project Name: Owens Corning | Collection Date: 11/20/2014 2:15:00 PM |
| Lab ID: 1411J75-030 | Matrix: Aqueous |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 200022 | 1 | 12/03/2014 21:06 | GK |
| 1,1-Dichloroethene | 230 | 50 | | ug/L | 200022 | 10 | 12/03/2014 21:36 | GK |
| Methylene chloride | BRL | 5.0 | | ug/L | 200022 | 1 | 12/03/2014 21:06 | GK |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 200022 | 1 | 12/03/2014 21:06 | GK |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 200022 | 1 | 12/03/2014 21:06 | GK |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 200022 | 1 | 12/03/2014 21:06 | GK |
| Chloroform | 24 | 5.0 | | ug/L | 200022 | 1 | 12/03/2014 21:06 | GK |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 200022 | 1 | 12/03/2014 21:06 | GK |
| Carbon tetrachloride | 98 | 5.0 | | ug/L | 200022 | 1 | 12/03/2014 21:06 | GK |
| Benzene | BRL | 5.0 | | ug/L | 200022 | 1 | 12/03/2014 21:06 | GK |
| 1,2-Dichloroethane | 11 | 5.0 | | ug/L | 200022 | 1 | 12/03/2014 21:06 | GK |
| Trichloroethene | BRL | 5.0 | | ug/L | 200022 | 1 | 12/03/2014 21:06 | GK |
| Toluene | BRL | 5.0 | | ug/L | 200022 | 1 | 12/03/2014 21:06 | GK |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 200022 | 1 | 12/03/2014 21:06 | GK |
| Ethylbenzene | BRL | 5.0 | | ug/L | 200022 | 1 | 12/03/2014 21:06 | GK |
| Xylenes, Total | BRL | 5.0 | | ug/L | 200022 | 1 | 12/03/2014 21:06 | GK |
| Surr: 4-Bromofluorobenzene | 90.6 | 70.6-123 | | %REC | 200022 | 1 | 12/03/2014 21:06 | GK |
| Surr: 4-Bromofluorobenzene | 90.2 | 70.6-123 | | %REC | 200022 | 10 | 12/03/2014 21:36 | GK |
| Surr: Dibromofluoromethane | 94.7 | 78.7-124 | | %REC | 200022 | 10 | 12/03/2014 21:36 | GK |
| Surr: Dibromofluoromethane | 96 | 78.7-124 | | %REC | 200022 | 1 | 12/03/2014 21:06 | GK |
| Surr: Toluene-d8 | 95.7 | 81.3-120 | | %REC | 200022 | 1 | 12/03/2014 21:06 | GK |
| Surr: Toluene-d8 | 96.4 | 81.3-120 | | %REC | 200022 | 10 | 12/03/2014 21:36 | GK |

| | | |
|--------------------|--|--|
| Qualifiers: | * Value exceeds maximum contaminant level | E Estimated (value above quantitation range) |
| | BRL Below reporting limit | S Spike Recovery outside limits due to matrix |
| | H Holding times for preparation or analysis exceeded | Narr See case narrative |
| | N Analyte not NELAC certified | NC Not confirmed |
| | B Analyte detected in the associated method blank | < Less than Result value |
| | > Greater than Result value | J Estimated value detected below Reporting Limit |

| | |
|------------------------------------|--|
| Client: BROWN AND CALDWELL | Client Sample ID: 14321-ALLOY |
| Project Name: Owens Corning | Collection Date: 11/17/2014 11:20:00 AM |
| Lab ID: 1411J75-031 | Matrix: Groundwater |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 199784 | 1 | 11/26/2014 14:31 | GK |
| 1,1-Dichloroethene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 14:31 | GK |
| Methylene chloride | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 14:31 | GK |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 14:31 | GK |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 14:31 | GK |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 14:31 | GK |
| Chloroform | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 14:31 | GK |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 14:31 | GK |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 14:31 | GK |
| Benzene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 14:31 | GK |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 14:31 | GK |
| Trichloroethene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 14:31 | GK |
| Toluene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 14:31 | GK |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 14:31 | GK |
| Ethylbenzene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 14:31 | GK |
| Xylenes, Total | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 14:31 | GK |
| Surr: 4-Bromofluorobenzene | 91.2 | 70.6-123 | | %REC | 199784 | 1 | 11/26/2014 14:31 | GK |
| Surr: Dibromofluoromethane | 94.3 | 78.7-124 | | %REC | 199784 | 1 | 11/26/2014 14:31 | GK |
| Surr: Toluene-d8 | 95.4 | 81.3-120 | | %REC | 199784 | 1 | 11/26/2014 14:31 | GK |

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

| | |
|------------------------------------|--|
| Client: BROWN AND CALDWELL | Client Sample ID: 14321-MW-4 |
| Project Name: Owens Corning | Collection Date: 11/17/2014 12:30:00 PM |
| Lab ID: 1411J75-032 | Matrix: Groundwater |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 199784 | 1 | 11/26/2014 15:01 | GK |
| 1,1-Dichloroethene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 15:01 | GK |
| Methylene chloride | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 15:01 | GK |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 15:01 | GK |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 15:01 | GK |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 15:01 | GK |
| Chloroform | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 15:01 | GK |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 15:01 | GK |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 15:01 | GK |
| Benzene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 15:01 | GK |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 15:01 | GK |
| Trichloroethene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 15:01 | GK |
| Toluene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 15:01 | GK |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 15:01 | GK |
| Ethylbenzene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 15:01 | GK |
| Xylenes, Total | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 15:01 | GK |
| Surr: 4-Bromofluorobenzene | 90.8 | 70.6-123 | | %REC | 199784 | 1 | 11/26/2014 15:01 | GK |
| Surr: Dibromofluoromethane | 95.5 | 78.7-124 | | %REC | 199784 | 1 | 11/26/2014 15:01 | GK |
| Surr: Toluene-d8 | 96.3 | 81.3-120 | | %REC | 199784 | 1 | 11/26/2014 15:01 | GK |

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

| | |
|------------------------------------|---|
| Client: BROWN AND CALDWELL | Client Sample ID: 14321-MW-3 |
| Project Name: Owens Corning | Collection Date: 11/17/2014 3:15:00 PM |
| Lab ID: 1411J75-033 | Matrix: Groundwater |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 199784 | 1 | 11/26/2014 15:32 | GK |
| 1,1-Dichloroethene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 15:32 | GK |
| Methylene chloride | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 15:32 | GK |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 15:32 | GK |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 15:32 | GK |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 15:32 | GK |
| Chloroform | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 15:32 | GK |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 15:32 | GK |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 15:32 | GK |
| Benzene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 15:32 | GK |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 15:32 | GK |
| Trichloroethene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 15:32 | GK |
| Toluene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 15:32 | GK |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 15:32 | GK |
| Ethylbenzene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 15:32 | GK |
| Xylenes, Total | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 15:32 | GK |
| Surr: 4-Bromofluorobenzene | 90.4 | 70.6-123 | | %REC | 199784 | 1 | 11/26/2014 15:32 | GK |
| Surr: Dibromofluoromethane | 96.3 | 78.7-124 | | %REC | 199784 | 1 | 11/26/2014 15:32 | GK |
| Surr: Toluene-d8 | 96 | 81.3-120 | | %REC | 199784 | 1 | 11/26/2014 15:32 | GK |

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

| | |
|------------------------------------|---|
| Client: BROWN AND CALDWELL | Client Sample ID: 14321-MW-14 |
| Project Name: Owens Corning | Collection Date: 11/17/2014 4:30:00 PM |
| Lab ID: 1411J75-034 | Matrix: Groundwater |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 199784 | 1 | 11/26/2014 16:02 | GK |
| 1,1-Dichloroethene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 16:02 | GK |
| Methylene chloride | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 16:02 | GK |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 16:02 | GK |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 16:02 | GK |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 16:02 | GK |
| Chloroform | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 16:02 | GK |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 16:02 | GK |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 16:02 | GK |
| Benzene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 16:02 | GK |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 16:02 | GK |
| Trichloroethene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 16:02 | GK |
| Toluene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 16:02 | GK |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 16:02 | GK |
| Ethylbenzene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 16:02 | GK |
| Xylenes, Total | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 16:02 | GK |
| Surr: 4-Bromofluorobenzene | 89.8 | 70.6-123 | | %REC | 199784 | 1 | 11/26/2014 16:02 | GK |
| Surr: Dibromofluoromethane | 95.1 | 78.7-124 | | %REC | 199784 | 1 | 11/26/2014 16:02 | GK |
| Surr: Toluene-d8 | 93.7 | 81.3-120 | | %REC | 199784 | 1 | 11/26/2014 16:02 | GK |

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

| | |
|------------------------------------|--|
| Client: BROWN AND CALDWELL | Client Sample ID: 14322-MW-2 |
| Project Name: Owens Corning | Collection Date: 11/18/2014 10:15:00 AM |
| Lab ID: 1411J75-035 | Matrix: Groundwater |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 199784 | 1 | 11/26/2014 16:32 | GK |
| 1,1-Dichloroethene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 16:32 | GK |
| Methylene chloride | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 16:32 | GK |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 16:32 | GK |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 16:32 | GK |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 16:32 | GK |
| Chloroform | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 16:32 | GK |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 16:32 | GK |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 16:32 | GK |
| Benzene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 16:32 | GK |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 16:32 | GK |
| Trichloroethene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 16:32 | GK |
| Toluene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 16:32 | GK |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 16:32 | GK |
| Ethylbenzene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 16:32 | GK |
| Xylenes, Total | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 16:32 | GK |
| Surr: 4-Bromofluorobenzene | 90.7 | 70.6-123 | | %REC | 199784 | 1 | 11/26/2014 16:32 | GK |
| Surr: Dibromofluoromethane | 93.5 | 78.7-124 | | %REC | 199784 | 1 | 11/26/2014 16:32 | GK |
| Surr: Toluene-d8 | 95.3 | 81.3-120 | | %REC | 199784 | 1 | 11/26/2014 16:32 | GK |

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

| | |
|------------------------------------|---|
| Client: BROWN AND CALDWELL | Client Sample ID: 14321-EB |
| Project Name: Owens Corning | Collection Date: 11/17/2014 3:30:00 PM |
| Lab ID: 1411J75-036 | Matrix: Groundwater |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 199784 | 1 | 11/26/2014 08:55 | GK |
| 1,1-Dichloroethene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 08:55 | GK |
| Methylene chloride | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 08:55 | GK |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 08:55 | GK |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 08:55 | GK |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 08:55 | GK |
| Chloroform | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 08:55 | GK |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 08:55 | GK |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 08:55 | GK |
| Benzene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 08:55 | GK |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 08:55 | GK |
| Trichloroethene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 08:55 | GK |
| Toluene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 08:55 | GK |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 08:55 | GK |
| Ethylbenzene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 08:55 | GK |
| Xylenes, Total | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 08:55 | GK |
| Surr: 4-Bromofluorobenzene | 91.2 | 70.6-123 | | %REC | 199784 | 1 | 11/26/2014 08:55 | GK |
| Surr: Dibromofluoromethane | 96 | 78.7-124 | | %REC | 199784 | 1 | 11/26/2014 08:55 | GK |
| Surr: Toluene-d8 | 95.6 | 81.3-120 | | %REC | 199784 | 1 | 11/26/2014 08:55 | GK |

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 29-Dec-14

| | |
|------------------------------------|--|
| Client: BROWN AND CALDWELL | Client Sample ID: 14322-MW-26 |
| Project Name: Owens Corning | Collection Date: 11/18/2014 12:10:00 PM |
| Lab ID: 1411J75-037 | Matrix: Groundwater |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 199784 | 1 | 11/26/2014 17:02 | GK |
| 1,1-Dichloroethene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 17:02 | GK |
| Methylene chloride | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 17:02 | GK |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 17:02 | GK |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 17:02 | GK |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 17:02 | GK |
| Chloroform | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 17:02 | GK |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 17:02 | GK |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 17:02 | GK |
| Benzene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 17:02 | GK |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 17:02 | GK |
| Trichloroethene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 17:02 | GK |
| Toluene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 17:02 | GK |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 17:02 | GK |
| Ethylbenzene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 17:02 | GK |
| Xylenes, Total | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 17:02 | GK |
| Surr: 4-Bromofluorobenzene | 91.1 | 70.6-123 | | %REC | 199784 | 1 | 11/26/2014 17:02 | GK |
| Surr: Dibromofluoromethane | 96.4 | 78.7-124 | | %REC | 199784 | 1 | 11/26/2014 17:02 | GK |
| Surr: Toluene-d8 | 95.4 | 81.3-120 | | %REC | 199784 | 1 | 11/26/2014 17:02 | GK |

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

| | |
|------------------------------------|---|
| Client: BROWN AND CALDWELL | Client Sample ID: 14322-MW-25 |
| Project Name: Owens Corning | Collection Date: 11/18/2014 1:35:00 PM |
| Lab ID: 1411J75-038 | Matrix: Groundwater |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 199784 | 1 | 11/26/2014 17:32 | GK |
| 1,1-Dichloroethene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 17:32 | GK |
| Methylene chloride | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 17:32 | GK |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 17:32 | GK |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 17:32 | GK |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 17:32 | GK |
| Chloroform | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 17:32 | GK |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 17:32 | GK |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 17:32 | GK |
| Benzene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 17:32 | GK |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 17:32 | GK |
| Trichloroethene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 17:32 | GK |
| Toluene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 17:32 | GK |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 17:32 | GK |
| Ethylbenzene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 17:32 | GK |
| Xylenes, Total | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 17:32 | GK |
| Surr: 4-Bromofluorobenzene | 90.8 | 70.6-123 | | %REC | 199784 | 1 | 11/26/2014 17:32 | GK |
| Surr: Dibromofluoromethane | 94.4 | 78.7-124 | | %REC | 199784 | 1 | 11/26/2014 17:32 | GK |
| Surr: Toluene-d8 | 94.8 | 81.3-120 | | %REC | 199784 | 1 | 11/26/2014 17:32 | GK |

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 29-Dec-14

| | |
|------------------------------------|---|
| Client: BROWN AND CALDWELL | Client Sample ID: 14322-MW-16 |
| Project Name: Owens Corning | Collection Date: 11/18/2014 2:30:00 PM |
| Lab ID: 1411J75-039 | Matrix: Groundwater |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 199784 | 1 | 11/26/2014 18:03 | GK |
| 1,1-Dichloroethene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 18:03 | GK |
| Methylene chloride | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 18:03 | GK |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 18:03 | GK |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 18:03 | GK |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 18:03 | GK |
| Chloroform | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 18:03 | GK |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 18:03 | GK |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 18:03 | GK |
| Benzene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 18:03 | GK |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 18:03 | GK |
| Trichloroethene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 18:03 | GK |
| Toluene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 18:03 | GK |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 18:03 | GK |
| Ethylbenzene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 18:03 | GK |
| Xylenes, Total | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 18:03 | GK |
| Surr: 4-Bromofluorobenzene | 90 | 70.6-123 | | %REC | 199784 | 1 | 11/26/2014 18:03 | GK |
| Surr: Dibromofluoromethane | 96.3 | 78.7-124 | | %REC | 199784 | 1 | 11/26/2014 18:03 | GK |
| Surr: Toluene-d8 | 95.7 | 81.3-120 | | %REC | 199784 | 1 | 11/26/2014 18:03 | GK |

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

| | |
|------------------------------------|---|
| Client: BROWN AND CALDWELL | Client Sample ID: 14322-MW-21 |
| Project Name: Owens Corning | Collection Date: 11/18/2014 3:00:00 PM |
| Lab ID: 1411J75-040 | Matrix: Groundwater |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 199784 | 1 | 11/26/2014 18:33 | GK |
| 1,1-Dichloroethene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 18:33 | GK |
| Methylene chloride | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 18:33 | GK |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 18:33 | GK |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 18:33 | GK |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 18:33 | GK |
| Chloroform | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 18:33 | GK |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 18:33 | GK |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 18:33 | GK |
| Benzene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 18:33 | GK |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 18:33 | GK |
| Trichloroethene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 18:33 | GK |
| Toluene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 18:33 | GK |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 18:33 | GK |
| Ethylbenzene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 18:33 | GK |
| Xylenes, Total | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 18:33 | GK |
| Surr: 4-Bromofluorobenzene | 90.4 | 70.6-123 | | %REC | 199784 | 1 | 11/26/2014 18:33 | GK |
| Surr: Dibromofluoromethane | 96.9 | 78.7-124 | | %REC | 199784 | 1 | 11/26/2014 18:33 | GK |
| Surr: Toluene-d8 | 95.1 | 81.3-120 | | %REC | 199784 | 1 | 11/26/2014 18:33 | GK |

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

| | |
|------------------------------------|---|
| Client: BROWN AND CALDWELL | Client Sample ID: 14322-TW-41 |
| Project Name: Owens Corning | Collection Date: 11/18/2014 4:15:00 PM |
| Lab ID: 1411J75-041 | Matrix: Groundwater |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 199860 | 1 | 11/28/2014 11:01 | GK |
| 1,1-Dichloroethene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 11:01 | GK |
| Methylene chloride | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 11:01 | GK |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 11:01 | GK |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 11:01 | GK |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 11:01 | GK |
| Chloroform | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 11:01 | GK |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 11:01 | GK |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 11:01 | GK |
| Benzene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 11:01 | GK |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 11:01 | GK |
| Trichloroethene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 11:01 | GK |
| Toluene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 11:01 | GK |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 11:01 | GK |
| Ethylbenzene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 11:01 | GK |
| Xylenes, Total | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 11:01 | GK |
| Surr: 4-Bromofluorobenzene | 90.8 | 70.6-123 | | %REC | 199860 | 1 | 11/28/2014 11:01 | GK |
| Surr: Dibromofluoromethane | 97.6 | 78.7-124 | | %REC | 199860 | 1 | 11/28/2014 11:01 | GK |
| Surr: Toluene-d8 | 95.8 | 81.3-120 | | %REC | 199860 | 1 | 11/28/2014 11:01 | GK |

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 29-Dec-14

| | |
|------------------------------------|--|
| Client: BROWN AND CALDWELL | Client Sample ID: 14323-MW-44 |
| Project Name: Owens Corning | Collection Date: 11/19/2014 11:40:00 AM |
| Lab ID: 1411J75-042 | Matrix: Groundwater |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 199860 | 1 | 11/28/2014 09:30 | GK |
| 1,1-Dichloroethene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 09:30 | GK |
| Methylene chloride | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 09:30 | GK |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 09:30 | GK |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 09:30 | GK |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 09:30 | GK |
| Chloroform | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 09:30 | GK |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 09:30 | GK |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 09:30 | GK |
| Benzene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 09:30 | GK |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 09:30 | GK |
| Trichloroethene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 09:30 | GK |
| Toluene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 09:30 | GK |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 09:30 | GK |
| Ethylbenzene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 09:30 | GK |
| Xylenes, Total | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 09:30 | GK |
| Surr: 4-Bromofluorobenzene | 90.2 | 70.6-123 | | %REC | 199860 | 1 | 11/28/2014 09:30 | GK |
| Surr: Dibromofluoromethane | 96.4 | 78.7-124 | | %REC | 199860 | 1 | 11/28/2014 09:30 | GK |
| Surr: Toluene-d8 | 95.2 | 81.3-120 | | %REC | 199860 | 1 | 11/28/2014 09:30 | GK |

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

| | |
|------------------------------------|--|
| Client: BROWN AND CALDWELL | Client Sample ID: 14323-TW-44 |
| Project Name: Owens Corning | Collection Date: 11/19/2014 10:30:00 AM |
| Lab ID: 1411J75-043 | Matrix: Groundwater |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 199860 | 1 | 11/28/2014 11:32 | GK |
| 1,1-Dichloroethene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 11:32 | GK |
| Methylene chloride | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 11:32 | GK |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 11:32 | GK |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 11:32 | GK |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 11:32 | GK |
| Chloroform | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 11:32 | GK |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 11:32 | GK |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 11:32 | GK |
| Benzene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 11:32 | GK |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 11:32 | GK |
| Trichloroethene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 11:32 | GK |
| Toluene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 11:32 | GK |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 11:32 | GK |
| Ethylbenzene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 11:32 | GK |
| Xylenes, Total | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 11:32 | GK |
| Surr: 4-Bromofluorobenzene | 90.8 | 70.6-123 | | %REC | 199860 | 1 | 11/28/2014 11:32 | GK |
| Surr: Dibromofluoromethane | 96.3 | 78.7-124 | | %REC | 199860 | 1 | 11/28/2014 11:32 | GK |
| Surr: Toluene-d8 | 95.5 | 81.3-120 | | %REC | 199860 | 1 | 11/28/2014 11:32 | GK |

| | | |
|--------------------|--|--|
| Qualifiers: | * Value exceeds maximum contaminant level | E Estimated (value above quantitation range) |
| | BRL Below reporting limit | S Spike Recovery outside limits due to matrix |
| | H Holding times for preparation or analysis exceeded | Narr See case narrative |
| | N Analyte not NELAC certified | NC Not confirmed |
| | B Analyte detected in the associated method blank | < Less than Result value |
| | > Greater than Result value | J Estimated value detected below Reporting Limit |

| | |
|------------------------------------|---|
| Client: BROWN AND CALDWELL | Client Sample ID: 14325-SW-3B |
| Project Name: Owens Corning | Collection Date: 11/21/2014 9:45:00 AM |
| Lab ID: 1411J75-044 | Matrix: Surface Water |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 199860 | 1 | 11/29/2014 07:05 | NP |
| 1,1-Dichloroethene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/29/2014 07:05 | NP |
| Methylene chloride | BRL | 5.0 | | ug/L | 199860 | 1 | 11/29/2014 07:05 | NP |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/29/2014 07:05 | NP |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 199860 | 1 | 11/29/2014 07:05 | NP |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/29/2014 07:05 | NP |
| Chloroform | BRL | 5.0 | | ug/L | 199860 | 1 | 11/29/2014 07:05 | NP |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 199860 | 1 | 11/29/2014 07:05 | NP |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 199860 | 1 | 11/29/2014 07:05 | NP |
| Benzene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/29/2014 07:05 | NP |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 199860 | 1 | 11/29/2014 07:05 | NP |
| Trichloroethene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/29/2014 07:05 | NP |
| Toluene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/29/2014 07:05 | NP |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/29/2014 07:05 | NP |
| Ethylbenzene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/29/2014 07:05 | NP |
| Xylenes, Total | BRL | 5.0 | | ug/L | 199860 | 1 | 11/29/2014 07:05 | NP |
| Surr: 4-Bromofluorobenzene | 82 | 70.6-123 | | %REC | 199860 | 1 | 11/29/2014 07:05 | NP |
| Surr: Dibromofluoromethane | 107 | 78.7-124 | | %REC | 199860 | 1 | 11/29/2014 07:05 | NP |
| Surr: Toluene-d8 | 95.9 | 81.3-120 | | %REC | 199860 | 1 | 11/29/2014 07:05 | NP |

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

| | |
|------------------------------------|---|
| Client: BROWN AND CALDWELL | Client Sample ID: 14324-MW-37-Z2 |
| Project Name: Owens Corning | Collection Date: 11/20/2014 3:20:00 PM |
| Lab ID: 1411J75-045 | Matrix: Groundwater |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 199860 | 1 | 11/28/2014 12:02 | GK |
| 1,1-Dichloroethene | 180 | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 12:02 | GK |
| Methylene chloride | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 12:02 | GK |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 12:02 | GK |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 12:02 | GK |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 12:02 | GK |
| Chloroform | 6.2 | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 12:02 | GK |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 12:02 | GK |
| Carbon tetrachloride | 12 | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 12:02 | GK |
| Benzene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 12:02 | GK |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 12:02 | GK |
| Trichloroethene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 12:02 | GK |
| Toluene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 12:02 | GK |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 12:02 | GK |
| Ethylbenzene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 12:02 | GK |
| Xylenes, Total | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 12:02 | GK |
| Surr: 4-Bromofluorobenzene | 90.2 | 70.6-123 | | %REC | 199860 | 1 | 11/28/2014 12:02 | GK |
| Surr: Dibromofluoromethane | 96.4 | 78.7-124 | | %REC | 199860 | 1 | 11/28/2014 12:02 | GK |
| Surr: Toluene-d8 | 95.3 | 81.3-120 | | %REC | 199860 | 1 | 11/28/2014 12:02 | GK |

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

| | |
|------------------------------------|---|
| Client: BROWN AND CALDWELL | Client Sample ID: 14324-SW-15 |
| Project Name: Owens Corning | Collection Date: 11/20/2014 3:37:00 PM |
| Lab ID: 1411J75-046 | Matrix: Surface Water |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 199860 | 1 | 11/28/2014 12:33 | GK |
| 1,1-Dichloroethene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 12:33 | GK |
| Methylene chloride | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 12:33 | GK |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 12:33 | GK |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 12:33 | GK |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 12:33 | GK |
| Chloroform | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 12:33 | GK |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 12:33 | GK |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 12:33 | GK |
| Benzene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 12:33 | GK |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 12:33 | GK |
| Trichloroethene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 12:33 | GK |
| Toluene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 12:33 | GK |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 12:33 | GK |
| Ethylbenzene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 12:33 | GK |
| Xylenes, Total | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 12:33 | GK |
| Surr: 4-Bromofluorobenzene | 87.2 | 70.6-123 | | %REC | 199860 | 1 | 11/28/2014 12:33 | GK |
| Surr: Dibromofluoromethane | 95.4 | 78.7-124 | | %REC | 199860 | 1 | 11/28/2014 12:33 | GK |
| Surr: Toluene-d8 | 95.5 | 81.3-120 | | %REC | 199860 | 1 | 11/28/2014 12:33 | GK |

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

| | |
|------------------------------------|---|
| Client: BROWN AND CALDWELL | Client Sample ID: 14324-SW-1 |
| Project Name: Owens Corning | Collection Date: 11/20/2014 3:45:00 PM |
| Lab ID: 1411J75-047 | Matrix: Surface Water |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 199860 | 1 | 11/28/2014 13:03 | GK |
| 1,1-Dichloroethene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 13:03 | GK |
| Methylene chloride | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 13:03 | GK |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 13:03 | GK |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 13:03 | GK |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 13:03 | GK |
| Chloroform | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 13:03 | GK |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 13:03 | GK |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 13:03 | GK |
| Benzene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 13:03 | GK |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 13:03 | GK |
| Trichloroethene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 13:03 | GK |
| Toluene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 13:03 | GK |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 13:03 | GK |
| Ethylbenzene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 13:03 | GK |
| Xylenes, Total | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 13:03 | GK |
| Surr: 4-Bromofluorobenzene | 89.1 | 70.6-123 | | %REC | 199860 | 1 | 11/28/2014 13:03 | GK |
| Surr: Dibromofluoromethane | 98.1 | 78.7-124 | | %REC | 199860 | 1 | 11/28/2014 13:03 | GK |
| Surr: Toluene-d8 | 96.1 | 81.3-120 | | %REC | 199860 | 1 | 11/28/2014 13:03 | GK |

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

| | |
|------------------------------------|---|
| Client: BROWN AND CALDWELL | Client Sample ID: 14324-SW-10 |
| Project Name: Owens Corning | Collection Date: 11/20/2014 4:02:00 PM |
| Lab ID: 1411J75-048 | Matrix: Surface Water |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 199860 | 1 | 11/28/2014 13:38 | GK |
| 1,1-Dichloroethene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 13:38 | GK |
| Methylene chloride | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 13:38 | GK |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 13:38 | GK |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 13:38 | GK |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 13:38 | GK |
| Chloroform | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 13:38 | GK |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 13:38 | GK |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 13:38 | GK |
| Benzene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 13:38 | GK |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 13:38 | GK |
| Trichloroethene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 13:38 | GK |
| Toluene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 13:38 | GK |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 13:38 | GK |
| Ethylbenzene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 13:38 | GK |
| Xylenes, Total | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 13:38 | GK |
| Surr: 4-Bromofluorobenzene | 89.8 | 70.6-123 | | %REC | 199860 | 1 | 11/28/2014 13:38 | GK |
| Surr: Dibromofluoromethane | 96.4 | 78.7-124 | | %REC | 199860 | 1 | 11/28/2014 13:38 | GK |
| Surr: Toluene-d8 | 96.7 | 81.3-120 | | %REC | 199860 | 1 | 11/28/2014 13:38 | GK |

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

| | |
|------------------------------------|---|
| Client: BROWN AND CALDWELL | Client Sample ID: 14324-SW-6 |
| Project Name: Owens Corning | Collection Date: 11/20/2014 4:14:00 PM |
| Lab ID: 1411J75-049 | Matrix: Surface Water |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 199860 | 1 | 11/28/2014 14:09 | GK |
| 1,1-Dichloroethene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 14:09 | GK |
| Methylene chloride | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 14:09 | GK |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 14:09 | GK |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 14:09 | GK |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 14:09 | GK |
| Chloroform | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 14:09 | GK |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 14:09 | GK |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 14:09 | GK |
| Benzene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 14:09 | GK |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 14:09 | GK |
| Trichloroethene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 14:09 | GK |
| Toluene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 14:09 | GK |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 14:09 | GK |
| Ethylbenzene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 14:09 | GK |
| Xylenes, Total | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 14:09 | GK |
| Surr: 4-Bromofluorobenzene | 91 | 70.6-123 | | %REC | 199860 | 1 | 11/28/2014 14:09 | GK |
| Surr: Dibromofluoromethane | 96.5 | 78.7-124 | | %REC | 199860 | 1 | 11/28/2014 14:09 | GK |
| Surr: Toluene-d8 | 95.7 | 81.3-120 | | %REC | 199860 | 1 | 11/28/2014 14:09 | GK |

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

| | |
|------------------------------------|--|
| Client: BROWN AND CALDWELL | Client Sample ID: 14324-DUP |
| Project Name: Owens Corning | Collection Date: 11/20/2014 12:00:00 PM |
| Lab ID: 1411J75-050 | Matrix: Groundwater |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 199860 | 1 | 11/28/2014 19:42 | GK |
| 1,1-Dichloroethene | 61 | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 19:42 | GK |
| Methylene chloride | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 19:42 | GK |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 19:42 | GK |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 19:42 | GK |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 19:42 | GK |
| Chloroform | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 19:42 | GK |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 19:42 | GK |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 19:42 | GK |
| Benzene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 19:42 | GK |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 19:42 | GK |
| Trichloroethene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 19:42 | GK |
| Toluene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 19:42 | GK |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 19:42 | GK |
| Ethylbenzene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 19:42 | GK |
| Xylenes, Total | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 19:42 | GK |
| Surr: 4-Bromofluorobenzene | 89.5 | 70.6-123 | | %REC | 199860 | 1 | 11/28/2014 19:42 | GK |
| Surr: Dibromofluoromethane | 97.8 | 78.7-124 | | %REC | 199860 | 1 | 11/28/2014 19:42 | GK |
| Surr: Toluene-d8 | 96.5 | 81.3-120 | | %REC | 199860 | 1 | 11/28/2014 19:42 | GK |

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

| | |
|------------------------------------|---|
| Client: BROWN AND CALDWELL | Client Sample ID: 14321-MW-43-Z3 |
| Project Name: Owens Corning | Collection Date: 11/17/2014 5:30:00 PM |
| Lab ID: 1411J75-051 | Matrix: Groundwater |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 199860 | 1 | 11/28/2014 14:39 | GK |
| 1,1-Dichloroethene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 14:39 | GK |
| Methylene chloride | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 14:39 | GK |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 14:39 | GK |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 14:39 | GK |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 14:39 | GK |
| Chloroform | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 14:39 | GK |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 14:39 | GK |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 14:39 | GK |
| Benzene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 14:39 | GK |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 14:39 | GK |
| Trichloroethene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 14:39 | GK |
| Toluene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 14:39 | GK |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 14:39 | GK |
| Ethylbenzene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 14:39 | GK |
| Xylenes, Total | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 14:39 | GK |
| Surr: 4-Bromofluorobenzene | 89.1 | 70.6-123 | | %REC | 199860 | 1 | 11/28/2014 14:39 | GK |
| Surr: Dibromofluoromethane | 96.2 | 78.7-124 | | %REC | 199860 | 1 | 11/28/2014 14:39 | GK |
| Surr: Toluene-d8 | 95.4 | 81.3-120 | | %REC | 199860 | 1 | 11/28/2014 14:39 | GK |

| | | |
|--------------------|--|--|
| Qualifiers: | * Value exceeds maximum contaminant level | E Estimated (value above quantitation range) |
| | BRL Below reporting limit | S Spike Recovery outside limits due to matrix |
| | H Holding times for preparation or analysis exceeded | Narr See case narrative |
| | N Analyte not NELAC certified | NC Not confirmed |
| | B Analyte detected in the associated method blank | < Less than Result value |
| | > Greater than Result value | J Estimated value detected below Reporting Limit |

| | |
|------------------------------------|--|
| Client: BROWN AND CALDWELL | Client Sample ID: 14322-MW-42-Z1 |
| Project Name: Owens Corning | Collection Date: 11/18/2014 11:00:00 AM |
| Lab ID: 1411J75-052 | Matrix: Groundwater |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 199860 | 1 | 11/28/2014 15:10 | GK |
| 1,1-Dichloroethene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 15:10 | GK |
| Methylene chloride | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 15:10 | GK |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 15:10 | GK |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 15:10 | GK |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 15:10 | GK |
| Chloroform | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 15:10 | GK |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 15:10 | GK |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 15:10 | GK |
| Benzene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 15:10 | GK |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 15:10 | GK |
| Trichloroethene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 15:10 | GK |
| Toluene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 15:10 | GK |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 15:10 | GK |
| Ethylbenzene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 15:10 | GK |
| Xylenes, Total | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 15:10 | GK |
| Surr: 4-Bromofluorobenzene | 90 | 70.6-123 | | %REC | 199860 | 1 | 11/28/2014 15:10 | GK |
| Surr: Dibromofluoromethane | 96.7 | 78.7-124 | | %REC | 199860 | 1 | 11/28/2014 15:10 | GK |
| Surr: Toluene-d8 | 95.9 | 81.3-120 | | %REC | 199860 | 1 | 11/28/2014 15:10 | GK |

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

| | |
|------------------------------------|---|
| Client: BROWN AND CALDWELL | Client Sample ID: 14322-MW-42-Z2 |
| Project Name: Owens Corning | Collection Date: 11/18/2014 1:20:00 PM |
| Lab ID: 1411J75-053 | Matrix: Groundwater |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 199860 | 1 | 11/28/2014 15:40 | GK |
| 1,1-Dichloroethene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 15:40 | GK |
| Methylene chloride | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 15:40 | GK |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 15:40 | GK |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 15:40 | GK |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 15:40 | GK |
| Chloroform | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 15:40 | GK |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 15:40 | GK |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 15:40 | GK |
| Benzene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 15:40 | GK |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 15:40 | GK |
| Trichloroethene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 15:40 | GK |
| Toluene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 15:40 | GK |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 15:40 | GK |
| Ethylbenzene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 15:40 | GK |
| Xylenes, Total | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 15:40 | GK |
| Surr: 4-Bromofluorobenzene | 90.2 | 70.6-123 | | %REC | 199860 | 1 | 11/28/2014 15:40 | GK |
| Surr: Dibromofluoromethane | 95.9 | 78.7-124 | | %REC | 199860 | 1 | 11/28/2014 15:40 | GK |
| Surr: Toluene-d8 | 93.9 | 81.3-120 | | %REC | 199860 | 1 | 11/28/2014 15:40 | GK |

| | | |
|--------------------|--|--|
| Qualifiers: | * Value exceeds maximum contaminant level | E Estimated (value above quantitation range) |
| | BRL Below reporting limit | S Spike Recovery outside limits due to matrix |
| | H Holding times for preparation or analysis exceeded | Narr See case narrative |
| | N Analyte not NELAC certified | NC Not confirmed |
| | B Analyte detected in the associated method blank | < Less than Result value |
| | > Greater than Result value | J Estimated value detected below Reporting Limit |

Analytical Environmental Services, Inc

Date: 29-Dec-14

| | |
|------------------------------------|---|
| Client: BROWN AND CALDWELL | Client Sample ID: 14322-MW-42-Z3 |
| Project Name: Owens Corning | Collection Date: 11/18/2014 3:20:00 PM |
| Lab ID: 1411J75-054 | Matrix: Groundwater |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 199860 | 1 | 11/28/2014 16:10 | GK |
| 1,1-Dichloroethene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 16:10 | GK |
| Methylene chloride | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 16:10 | GK |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 16:10 | GK |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 16:10 | GK |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 16:10 | GK |
| Chloroform | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 16:10 | GK |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 16:10 | GK |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 16:10 | GK |
| Benzene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 16:10 | GK |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 16:10 | GK |
| Trichloroethene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 16:10 | GK |
| Toluene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 16:10 | GK |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 16:10 | GK |
| Ethylbenzene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 16:10 | GK |
| Xylenes, Total | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 16:10 | GK |
| Surr: 4-Bromofluorobenzene | 90.6 | 70.6-123 | | %REC | 199860 | 1 | 11/28/2014 16:10 | GK |
| Surr: Dibromofluoromethane | 96 | 78.7-124 | | %REC | 199860 | 1 | 11/28/2014 16:10 | GK |
| Surr: Toluene-d8 | 95.7 | 81.3-120 | | %REC | 199860 | 1 | 11/28/2014 16:10 | GK |

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

| | |
|------------------------------------|--|
| Client: BROWN AND CALDWELL | Client Sample ID: 14323-MW-39-Z1 |
| Project Name: Owens Corning | Collection Date: 11/19/2014 10:40:00 AM |
| Lab ID: 1411J75-055 | Matrix: Groundwater |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 199860 | 1 | 11/28/2014 16:41 | GK |
| 1,1-Dichloroethene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 16:41 | GK |
| Methylene chloride | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 16:41 | GK |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 16:41 | GK |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 16:41 | GK |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 16:41 | GK |
| Chloroform | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 16:41 | GK |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 16:41 | GK |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 16:41 | GK |
| Benzene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 16:41 | GK |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 16:41 | GK |
| Trichloroethene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 16:41 | GK |
| Toluene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 16:41 | GK |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 16:41 | GK |
| Ethylbenzene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 16:41 | GK |
| Xylenes, Total | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 16:41 | GK |
| Surr: 4-Bromofluorobenzene | 89.4 | 70.6-123 | | %REC | 199860 | 1 | 11/28/2014 16:41 | GK |
| Surr: Dibromofluoromethane | 95.9 | 78.7-124 | | %REC | 199860 | 1 | 11/28/2014 16:41 | GK |
| Surr: Toluene-d8 | 95.4 | 81.3-120 | | %REC | 199860 | 1 | 11/28/2014 16:41 | GK |

| | | |
|--------------------|--|--|
| Qualifiers: | * Value exceeds maximum contaminant level | E Estimated (value above quantitation range) |
| | BRL Below reporting limit | S Spike Recovery outside limits due to matrix |
| | H Holding times for preparation or analysis exceeded | Narr See case narrative |
| | N Analyte not NELAC certified | NC Not confirmed |
| | B Analyte detected in the associated method blank | < Less than Result value |
| | > Greater than Result value | J Estimated value detected below Reporting Limit |

Analytical Environmental Services, Inc

Date: 29-Dec-14

| | |
|------------------------------------|--|
| Client: BROWN AND CALDWELL | Client Sample ID: 14323-MW-39-Z2 |
| Project Name: Owens Corning | Collection Date: 11/19/2014 12:40:00 PM |
| Lab ID: 1411J75-056 | Matrix: Groundwater |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 199860 | 1 | 11/28/2014 17:11 | GK |
| 1,1-Dichloroethene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 17:11 | GK |
| Methylene chloride | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 17:11 | GK |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 17:11 | GK |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 17:11 | GK |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 17:11 | GK |
| Chloroform | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 17:11 | GK |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 17:11 | GK |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 17:11 | GK |
| Benzene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 17:11 | GK |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 17:11 | GK |
| Trichloroethene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 17:11 | GK |
| Toluene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 17:11 | GK |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 17:11 | GK |
| Ethylbenzene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 17:11 | GK |
| Xylenes, Total | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 17:11 | GK |
| Surr: 4-Bromofluorobenzene | 90.5 | 70.6-123 | | %REC | 199860 | 1 | 11/28/2014 17:11 | GK |
| Surr: Dibromofluoromethane | 95.7 | 78.7-124 | | %REC | 199860 | 1 | 11/28/2014 17:11 | GK |
| Surr: Toluene-d8 | 95.6 | 81.3-120 | | %REC | 199860 | 1 | 11/28/2014 17:11 | GK |

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

| | |
|------------------------------------|---|
| Client: BROWN AND CALDWELL | Client Sample ID: 14323-MW-39-Z3 |
| Project Name: Owens Corning | Collection Date: 11/19/2014 2:40:00 PM |
| Lab ID: 1411J75-057 | Matrix: Groundwater |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 199860 | 1 | 11/28/2014 17:41 | GK |
| 1,1-Dichloroethene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 17:41 | GK |
| Methylene chloride | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 17:41 | GK |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 17:41 | GK |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 17:41 | GK |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 17:41 | GK |
| Chloroform | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 17:41 | GK |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 17:41 | GK |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 17:41 | GK |
| Benzene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 17:41 | GK |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 17:41 | GK |
| Trichloroethene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 17:41 | GK |
| Toluene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 17:41 | GK |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 17:41 | GK |
| Ethylbenzene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 17:41 | GK |
| Xylenes, Total | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 17:41 | GK |
| Surr: 4-Bromofluorobenzene | 91.2 | 70.6-123 | | %REC | 199860 | 1 | 11/28/2014 17:41 | GK |
| Surr: Dibromofluoromethane | 96.9 | 78.7-124 | | %REC | 199860 | 1 | 11/28/2014 17:41 | GK |
| Surr: Toluene-d8 | 96 | 81.3-120 | | %REC | 199860 | 1 | 11/28/2014 17:41 | GK |

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

| | |
|------------------------------------|---|
| Client: BROWN AND CALDWELL | Client Sample ID: 14323-SW-11 |
| Project Name: Owens Corning | Collection Date: 11/19/2014 4:07:00 PM |
| Lab ID: 1411J75-058 | Matrix: Surface Water |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 199860 | 1 | 11/28/2014 18:12 | GK |
| 1,1-Dichloroethene | 7.9 | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 18:12 | GK |
| Methylene chloride | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 18:12 | GK |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 18:12 | GK |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 18:12 | GK |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 18:12 | GK |
| Chloroform | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 18:12 | GK |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 18:12 | GK |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 18:12 | GK |
| Benzene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 18:12 | GK |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 18:12 | GK |
| Trichloroethene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 18:12 | GK |
| Toluene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 18:12 | GK |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 18:12 | GK |
| Ethylbenzene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 18:12 | GK |
| Xylenes, Total | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 18:12 | GK |
| Surr: 4-Bromofluorobenzene | 91.3 | 70.6-123 | | %REC | 199860 | 1 | 11/28/2014 18:12 | GK |
| Surr: Dibromofluoromethane | 97.6 | 78.7-124 | | %REC | 199860 | 1 | 11/28/2014 18:12 | GK |
| Surr: Toluene-d8 | 95.4 | 81.3-120 | | %REC | 199860 | 1 | 11/28/2014 18:12 | GK |

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

| | |
|------------------------------------|---|
| Client: BROWN AND CALDWELL | Client Sample ID: 14323-SW-12 |
| Project Name: Owens Corning | Collection Date: 11/19/2014 4:20:00 PM |
| Lab ID: 1411J75-059 | Matrix: Surface Water |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 199860 | 1 | 11/28/2014 18:42 | GK |
| 1,1-Dichloroethene | 5.5 | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 18:42 | GK |
| Methylene chloride | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 18:42 | GK |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 18:42 | GK |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 18:42 | GK |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 18:42 | GK |
| Chloroform | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 18:42 | GK |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 18:42 | GK |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 18:42 | GK |
| Benzene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 18:42 | GK |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 18:42 | GK |
| Trichloroethene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 18:42 | GK |
| Toluene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 18:42 | GK |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 18:42 | GK |
| Ethylbenzene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 18:42 | GK |
| Xylenes, Total | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 18:42 | GK |
| Surr: 4-Bromofluorobenzene | 90.1 | 70.6-123 | | %REC | 199860 | 1 | 11/28/2014 18:42 | GK |
| Surr: Dibromofluoromethane | 96.1 | 78.7-124 | | %REC | 199860 | 1 | 11/28/2014 18:42 | GK |
| Surr: Toluene-d8 | 95.3 | 81.3-120 | | %REC | 199860 | 1 | 11/28/2014 18:42 | GK |

| | | |
|--------------------|--|--|
| Qualifiers: | * Value exceeds maximum contaminant level | E Estimated (value above quantitation range) |
| | BRL Below reporting limit | S Spike Recovery outside limits due to matrix |
| | H Holding times for preparation or analysis exceeded | Narr See case narrative |
| | N Analyte not NELAC certified | NC Not confirmed |
| | B Analyte detected in the associated method blank | < Less than Result value |
| | > Greater than Result value | J Estimated value detected below Reporting Limit |

| | |
|------------------------------------|---|
| Client: BROWN AND CALDWELL | Client Sample ID: 14323-SW-13 |
| Project Name: Owens Corning | Collection Date: 11/19/2014 4:35:00 PM |
| Lab ID: 1411J75-060 | Matrix: Surface Water |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 199860 | 1 | 11/28/2014 19:12 | GK |
| 1,1-Dichloroethene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 19:12 | GK |
| Methylene chloride | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 19:12 | GK |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 19:12 | GK |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 19:12 | GK |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 19:12 | GK |
| Chloroform | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 19:12 | GK |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 19:12 | GK |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 19:12 | GK |
| Benzene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 19:12 | GK |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 19:12 | GK |
| Trichloroethene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 19:12 | GK |
| Toluene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 19:12 | GK |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 19:12 | GK |
| Ethylbenzene | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 19:12 | GK |
| Xylenes, Total | BRL | 5.0 | | ug/L | 199860 | 1 | 11/28/2014 19:12 | GK |
| Surr: 4-Bromofluorobenzene | 90.7 | 70.6-123 | | %REC | 199860 | 1 | 11/28/2014 19:12 | GK |
| Surr: Dibromofluoromethane | 96.1 | 78.7-124 | | %REC | 199860 | 1 | 11/28/2014 19:12 | GK |
| Surr: Toluene-d8 | 95.1 | 81.3-120 | | %REC | 199860 | 1 | 11/28/2014 19:12 | GK |

| | | |
|--------------------|--|--|
| Qualifiers: | * Value exceeds maximum contaminant level | E Estimated (value above quantitation range) |
| | BRL Below reporting limit | S Spike Recovery outside limits due to matrix |
| | H Holding times for preparation or analysis exceeded | Narr See case narrative |
| | N Analyte not NELAC certified | NC Not confirmed |
| | B Analyte detected in the associated method blank | < Less than Result value |
| | > Greater than Result value | J Estimated value detected below Reporting Limit |

| | |
|------------------------------------|---|
| Client: BROWN AND CALDWELL | Client Sample ID: 14323-SW-14 |
| Project Name: Owens Corning | Collection Date: 11/19/2014 4:26:00 PM |
| Lab ID: 1411J75-061 | Matrix: Surface Water |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 199861 | 1 | 11/26/2014 23:11 | NP |
| 1,1-Dichloroethene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/26/2014 23:11 | NP |
| Methylene chloride | BRL | 5.0 | | ug/L | 199861 | 1 | 11/26/2014 23:11 | NP |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/26/2014 23:11 | NP |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 199861 | 1 | 11/26/2014 23:11 | NP |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/26/2014 23:11 | NP |
| Chloroform | BRL | 5.0 | | ug/L | 199861 | 1 | 11/26/2014 23:11 | NP |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 199861 | 1 | 11/26/2014 23:11 | NP |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 199861 | 1 | 11/26/2014 23:11 | NP |
| Benzene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/26/2014 23:11 | NP |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 199861 | 1 | 11/26/2014 23:11 | NP |
| Trichloroethene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/26/2014 23:11 | NP |
| Toluene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/26/2014 23:11 | NP |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/26/2014 23:11 | NP |
| Ethylbenzene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/26/2014 23:11 | NP |
| Xylenes, Total | BRL | 5.0 | | ug/L | 199861 | 1 | 11/26/2014 23:11 | NP |
| Surr: 4-Bromofluorobenzene | 81.8 | 70.6-123 | | %REC | 199861 | 1 | 11/26/2014 23:11 | NP |
| Surr: Dibromofluoromethane | 104 | 78.7-124 | | %REC | 199861 | 1 | 11/26/2014 23:11 | NP |
| Surr: Toluene-d8 | 94.9 | 81.3-120 | | %REC | 199861 | 1 | 11/26/2014 23:11 | NP |

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

| | |
|------------------------------------|---|
| Client: BROWN AND CALDWELL | Client Sample ID: 14323-EB |
| Project Name: Owens Corning | Collection Date: 11/19/2014 2:40:00 PM |
| Lab ID: 1411J75-062 | Matrix: Groundwater |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 199861 | 1 | 11/26/2014 20:43 | NP |
| 1,1-Dichloroethene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/26/2014 20:43 | NP |
| Methylene chloride | BRL | 5.0 | | ug/L | 199861 | 1 | 11/26/2014 20:43 | NP |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/26/2014 20:43 | NP |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 199861 | 1 | 11/26/2014 20:43 | NP |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/26/2014 20:43 | NP |
| Chloroform | BRL | 5.0 | | ug/L | 199861 | 1 | 11/26/2014 20:43 | NP |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 199861 | 1 | 11/26/2014 20:43 | NP |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 199861 | 1 | 11/26/2014 20:43 | NP |
| Benzene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/26/2014 20:43 | NP |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 199861 | 1 | 11/26/2014 20:43 | NP |
| Trichloroethene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/26/2014 20:43 | NP |
| Toluene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/26/2014 20:43 | NP |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/26/2014 20:43 | NP |
| Ethylbenzene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/26/2014 20:43 | NP |
| Xylenes, Total | BRL | 5.0 | | ug/L | 199861 | 1 | 11/26/2014 20:43 | NP |
| Surr: 4-Bromofluorobenzene | 82.3 | 70.6-123 | | %REC | 199861 | 1 | 11/26/2014 20:43 | NP |
| Surr: Dibromofluoromethane | 105 | 78.7-124 | | %REC | 199861 | 1 | 11/26/2014 20:43 | NP |
| Surr: Toluene-d8 | 94.3 | 81.3-120 | | %REC | 199861 | 1 | 11/26/2014 20:43 | NP |

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

| | |
|------------------------------------|--|
| Client: BROWN AND CALDWELL | Client Sample ID: 14324-MW-37-Z3 |
| Project Name: Owens Corning | Collection Date: 11/20/2014 11:10:00 AM |
| Lab ID: 1411J75-063 | Matrix: Groundwater |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 199861 | 1 | 11/26/2014 23:36 | NP |
| 1,1-Dichloroethene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/26/2014 23:36 | NP |
| Methylene chloride | BRL | 5.0 | | ug/L | 199861 | 1 | 11/26/2014 23:36 | NP |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/26/2014 23:36 | NP |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 199861 | 1 | 11/26/2014 23:36 | NP |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/26/2014 23:36 | NP |
| Chloroform | BRL | 5.0 | | ug/L | 199861 | 1 | 11/26/2014 23:36 | NP |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 199861 | 1 | 11/26/2014 23:36 | NP |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 199861 | 1 | 11/26/2014 23:36 | NP |
| Benzene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/26/2014 23:36 | NP |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 199861 | 1 | 11/26/2014 23:36 | NP |
| Trichloroethene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/26/2014 23:36 | NP |
| Toluene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/26/2014 23:36 | NP |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/26/2014 23:36 | NP |
| Ethylbenzene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/26/2014 23:36 | NP |
| Xylenes, Total | BRL | 5.0 | | ug/L | 199861 | 1 | 11/26/2014 23:36 | NP |
| Surr: 4-Bromofluorobenzene | 83.9 | 70.6-123 | | %REC | 199861 | 1 | 11/26/2014 23:36 | NP |
| Surr: Dibromofluoromethane | 104 | 78.7-124 | | %REC | 199861 | 1 | 11/26/2014 23:36 | NP |
| Surr: Toluene-d8 | 94.9 | 81.3-120 | | %REC | 199861 | 1 | 11/26/2014 23:36 | NP |

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

| | |
|------------------------------------|--|
| Client: BROWN AND CALDWELL | Client Sample ID: 14324-MW-37-Z1 |
| Project Name: Owens Corning | Collection Date: 11/20/2014 12:50:00 PM |
| Lab ID: 1411J75-064 | Matrix: Groundwater |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 199861 | 1 | 11/27/2014 00:01 | NP |
| 1,1-Dichloroethene | 90 | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 00:01 | NP |
| Methylene chloride | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 00:01 | NP |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 00:01 | NP |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 00:01 | NP |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 00:01 | NP |
| Chloroform | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 00:01 | NP |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 00:01 | NP |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 00:01 | NP |
| Benzene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 00:01 | NP |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 00:01 | NP |
| Trichloroethene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 00:01 | NP |
| Toluene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 00:01 | NP |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 00:01 | NP |
| Ethylbenzene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 00:01 | NP |
| Xylenes, Total | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 00:01 | NP |
| Surr: 4-Bromofluorobenzene | 86.6 | 70.6-123 | | %REC | 199861 | 1 | 11/27/2014 00:01 | NP |
| Surr: Dibromofluoromethane | 104 | 78.7-124 | | %REC | 199861 | 1 | 11/27/2014 00:01 | NP |
| Surr: Toluene-d8 | 94.3 | 81.3-120 | | %REC | 199861 | 1 | 11/27/2014 00:01 | NP |

| | | |
|--------------------|--|--|
| Qualifiers: | * Value exceeds maximum contaminant level | E Estimated (value above quantitation range) |
| | BRL Below reporting limit | S Spike Recovery outside limits due to matrix |
| | H Holding times for preparation or analysis exceeded | Narr See case narrative |
| | N Analyte not NELAC certified | NC Not confirmed |
| | B Analyte detected in the associated method blank | < Less than Result value |
| | > Greater than Result value | J Estimated value detected below Reporting Limit |

| | |
|------------------------------------|---|
| Client: BROWN AND CALDWELL | Client Sample ID: 14321-MW-43-Z2 |
| Project Name: Owens Corning | Collection Date: 11/17/2014 4:45:00 PM |
| Lab ID: 1411J75-066 | Matrix: Groundwater |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 199861 | 1 | 11/27/2014 00:25 | NP |
| 1,1-Dichloroethene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 00:25 | NP |
| Methylene chloride | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 00:25 | NP |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 00:25 | NP |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 00:25 | NP |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 00:25 | NP |
| Chloroform | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 00:25 | NP |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 00:25 | NP |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 00:25 | NP |
| Benzene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 00:25 | NP |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 00:25 | NP |
| Trichloroethene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 00:25 | NP |
| Toluene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 00:25 | NP |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 00:25 | NP |
| Ethylbenzene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 00:25 | NP |
| Xylenes, Total | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 00:25 | NP |
| Surr: 4-Bromofluorobenzene | 84.3 | 70.6-123 | | %REC | 199861 | 1 | 11/27/2014 00:25 | NP |
| Surr: Dibromofluoromethane | 107 | 78.7-124 | | %REC | 199861 | 1 | 11/27/2014 00:25 | NP |
| Surr: Toluene-d8 | 97.1 | 81.3-120 | | %REC | 199861 | 1 | 11/27/2014 00:25 | NP |

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

| | |
|------------------------------------|--|
| Client: BROWN AND CALDWELL | Client Sample ID: 14322-MW-43-Z1 |
| Project Name: Owens Corning | Collection Date: 11/18/2014 10:15:00 AM |
| Lab ID: 1411J75-067 | Matrix: Groundwater |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 199861 | 1 | 11/27/2014 00:50 | NP |
| 1,1-Dichloroethene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 00:50 | NP |
| Methylene chloride | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 00:50 | NP |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 00:50 | NP |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 00:50 | NP |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 00:50 | NP |
| Chloroform | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 00:50 | NP |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 00:50 | NP |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 00:50 | NP |
| Benzene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 00:50 | NP |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 00:50 | NP |
| Trichloroethene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 00:50 | NP |
| Toluene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 00:50 | NP |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 00:50 | NP |
| Ethylbenzene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 00:50 | NP |
| Xylenes, Total | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 00:50 | NP |
| Surr: 4-Bromofluorobenzene | 83.5 | 70.6-123 | | %REC | 199861 | 1 | 11/27/2014 00:50 | NP |
| Surr: Dibromofluoromethane | 106 | 78.7-124 | | %REC | 199861 | 1 | 11/27/2014 00:50 | NP |
| Surr: Toluene-d8 | 95.4 | 81.3-120 | | %REC | 199861 | 1 | 11/27/2014 00:50 | NP |

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

| | |
|------------------------------------|---|
| Client: BROWN AND CALDWELL | Client Sample ID: 14322-MW-36-Z1 |
| Project Name: Owens Corning | Collection Date: 11/18/2014 1:00:00 PM |
| Lab ID: 1411J75-068 | Matrix: Groundwater |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 199861 | 1 | 11/27/2014 01:14 | NP |
| 1,1-Dichloroethene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 01:14 | NP |
| Methylene chloride | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 01:14 | NP |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 01:14 | NP |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 01:14 | NP |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 01:14 | NP |
| Chloroform | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 01:14 | NP |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 01:14 | NP |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 01:14 | NP |
| Benzene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 01:14 | NP |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 01:14 | NP |
| Trichloroethene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 01:14 | NP |
| Toluene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 01:14 | NP |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 01:14 | NP |
| Ethylbenzene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 01:14 | NP |
| Xylenes, Total | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 01:14 | NP |
| Surr: 4-Bromofluorobenzene | 82.7 | 70.6-123 | | %REC | 199861 | 1 | 11/27/2014 01:14 | NP |
| Surr: Dibromofluoromethane | 106 | 78.7-124 | | %REC | 199861 | 1 | 11/27/2014 01:14 | NP |
| Surr: Toluene-d8 | 94.2 | 81.3-120 | | %REC | 199861 | 1 | 11/27/2014 01:14 | NP |

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

| | |
|------------------------------------|---|
| Client: BROWN AND CALDWELL | Client Sample ID: 14322-MW-36-Z3 |
| Project Name: Owens Corning | Collection Date: 11/18/2014 1:15:00 PM |
| Lab ID: 1411J75-069 | Matrix: Groundwater |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 199861 | 1 | 11/27/2014 01:39 | NP |
| 1,1-Dichloroethene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 01:39 | NP |
| Methylene chloride | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 01:39 | NP |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 01:39 | NP |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 01:39 | NP |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 01:39 | NP |
| Chloroform | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 01:39 | NP |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 01:39 | NP |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 01:39 | NP |
| Benzene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 01:39 | NP |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 01:39 | NP |
| Trichloroethene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 01:39 | NP |
| Toluene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 01:39 | NP |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 01:39 | NP |
| Ethylbenzene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 01:39 | NP |
| Xylenes, Total | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 01:39 | NP |
| Surr: 4-Bromofluorobenzene | 87.2 | 70.6-123 | | %REC | 199861 | 1 | 11/27/2014 01:39 | NP |
| Surr: Dibromofluoromethane | 109 | 78.7-124 | | %REC | 199861 | 1 | 11/27/2014 01:39 | NP |
| Surr: Toluene-d8 | 96.7 | 81.3-120 | | %REC | 199861 | 1 | 11/27/2014 01:39 | NP |

| | | |
|--------------------|--|--|
| Qualifiers: | * Value exceeds maximum contaminant level | E Estimated (value above quantitation range) |
| | BRL Below reporting limit | S Spike Recovery outside limits due to matrix |
| | H Holding times for preparation or analysis exceeded | Narr See case narrative |
| | N Analyte not NELAC certified | NC Not confirmed |
| | B Analyte detected in the associated method blank | < Less than Result value |
| | > Greater than Result value | J Estimated value detected below Reporting Limit |

Analytical Environmental Services, Inc

Date: 29-Dec-14

| | |
|------------------------------------|---|
| Client: BROWN AND CALDWELL | Client Sample ID: 14322-MW-36-Z5 |
| Project Name: Owens Corning | Collection Date: 11/18/2014 1:25:00 PM |
| Lab ID: 1411J75-070 | Matrix: Groundwater |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 199861 | 1 | 11/27/2014 02:04 | NP |
| 1,1-Dichloroethene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 02:04 | NP |
| Methylene chloride | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 02:04 | NP |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 02:04 | NP |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 02:04 | NP |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 02:04 | NP |
| Chloroform | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 02:04 | NP |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 02:04 | NP |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 02:04 | NP |
| Benzene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 02:04 | NP |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 02:04 | NP |
| Trichloroethene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 02:04 | NP |
| Toluene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 02:04 | NP |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 02:04 | NP |
| Ethylbenzene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 02:04 | NP |
| Xylenes, Total | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 02:04 | NP |
| Surr: 4-Bromofluorobenzene | 85.2 | 70.6-123 | | %REC | 199861 | 1 | 11/27/2014 02:04 | NP |
| Surr: Dibromofluoromethane | 108 | 78.7-124 | | %REC | 199861 | 1 | 11/27/2014 02:04 | NP |
| Surr: Toluene-d8 | 95.1 | 81.3-120 | | %REC | 199861 | 1 | 11/27/2014 02:04 | NP |

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

| | |
|------------------------------------|--|
| Client: BROWN AND CALDWELL | Client Sample ID: 14322-DUP |
| Project Name: Owens Corning | Collection Date: 11/18/2014 12:00:00 PM |
| Lab ID: 1411J75-071 | Matrix: Groundwater |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 199861 | 1 | 11/27/2014 06:11 | NP |
| 1,1-Dichloroethene | 290 | 50 | | ug/L | 199861 | 10 | 11/26/2014 21:08 | NP |
| Methylene chloride | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 06:11 | NP |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 06:11 | NP |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 06:11 | NP |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 06:11 | NP |
| Chloroform | 9.4 | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 06:11 | NP |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 06:11 | NP |
| Carbon tetrachloride | 16 | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 06:11 | NP |
| Benzene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 06:11 | NP |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 06:11 | NP |
| Trichloroethene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 06:11 | NP |
| Toluene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 06:11 | NP |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 06:11 | NP |
| Ethylbenzene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 06:11 | NP |
| Xylenes, Total | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 06:11 | NP |
| Surr: 4-Bromofluorobenzene | 83.2 | 70.6-123 | | %REC | 199861 | 10 | 11/26/2014 21:08 | NP |
| Surr: 4-Bromofluorobenzene | 84.7 | 70.6-123 | | %REC | 199861 | 1 | 11/27/2014 06:11 | NP |
| Surr: Dibromofluoromethane | 104 | 78.7-124 | | %REC | 199861 | 10 | 11/26/2014 21:08 | NP |
| Surr: Dibromofluoromethane | 107 | 78.7-124 | | %REC | 199861 | 1 | 11/27/2014 06:11 | NP |
| Surr: Toluene-d8 | 94.6 | 81.3-120 | | %REC | 199861 | 10 | 11/26/2014 21:08 | NP |
| Surr: Toluene-d8 | 96.2 | 81.3-120 | | %REC | 199861 | 1 | 11/27/2014 06:11 | NP |

| | | |
|--------------------|--|--|
| Qualifiers: | * Value exceeds maximum contaminant level | E Estimated (value above quantitation range) |
| | BRL Below reporting limit | S Spike Recovery outside limits due to matrix |
| | H Holding times for preparation or analysis exceeded | Narr See case narrative |
| | N Analyte not NELAC certified | NC Not confirmed |
| | B Analyte detected in the associated method blank | < Less than Result value |
| | > Greater than Result value | J Estimated value detected below Reporting Limit |

| | |
|------------------------------------|---|
| Client: BROWN AND CALDWELL | Client Sample ID: 14322-MW-29R-Z3 |
| Project Name: Owens Corning | Collection Date: 11/18/2014 2:10:00 PM |
| Lab ID: 1411J75-072 | Matrix: Groundwater |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 199861 | 1 | 11/27/2014 05:21 | NP |
| 1,1-Dichloroethene | 300 | 50 | | ug/L | 199861 | 10 | 11/26/2014 21:33 | NP |
| Methylene chloride | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 05:21 | NP |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 05:21 | NP |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 05:21 | NP |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 05:21 | NP |
| Chloroform | 9.5 | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 05:21 | NP |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 05:21 | NP |
| Carbon tetrachloride | 16 | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 05:21 | NP |
| Benzene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 05:21 | NP |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 05:21 | NP |
| Trichloroethene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 05:21 | NP |
| Toluene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 05:21 | NP |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 05:21 | NP |
| Ethylbenzene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 05:21 | NP |
| Xylenes, Total | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 05:21 | NP |
| Surr: 4-Bromofluorobenzene | 82 | 70.6-123 | | %REC | 199861 | 1 | 11/27/2014 05:21 | NP |
| Surr: 4-Bromofluorobenzene | 84.2 | 70.6-123 | | %REC | 199861 | 10 | 11/26/2014 21:33 | NP |
| Surr: Dibromofluoromethane | 100 | 78.7-124 | | %REC | 199861 | 10 | 11/26/2014 21:33 | NP |
| Surr: Dibromofluoromethane | 107 | 78.7-124 | | %REC | 199861 | 1 | 11/27/2014 05:21 | NP |
| Surr: Toluene-d8 | 93.2 | 81.3-120 | | %REC | 199861 | 10 | 11/26/2014 21:33 | NP |
| Surr: Toluene-d8 | 95.3 | 81.3-120 | | %REC | 199861 | 1 | 11/27/2014 05:21 | NP |

| | | |
|--------------------|--|--|
| Qualifiers: | * Value exceeds maximum contaminant level | E Estimated (value above quantitation range) |
| | BRL Below reporting limit | S Spike Recovery outside limits due to matrix |
| | H Holding times for preparation or analysis exceeded | Narr See case narrative |
| | N Analyte not NELAC certified | NC Not confirmed |
| | B Analyte detected in the associated method blank | < Less than Result value |
| | > Greater than Result value | J Estimated value detected below Reporting Limit |

| | |
|------------------------------------|---|
| Client: BROWN AND CALDWELL | Client Sample ID: 14322-MW-29R-Z4 |
| Project Name: Owens Corning | Collection Date: 11/18/2014 2:50:00 PM |
| Lab ID: 1411J75-073 | Matrix: Groundwater |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 199861 | 1 | 11/27/2014 05:46 | NP |
| 1,1-Dichloroethene | 290 | 50 | | ug/L | 199861 | 10 | 11/26/2014 22:46 | NP |
| Methylene chloride | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 05:46 | NP |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 05:46 | NP |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 05:46 | NP |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 05:46 | NP |
| Chloroform | 9.4 | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 05:46 | NP |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 05:46 | NP |
| Carbon tetrachloride | 14 | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 05:46 | NP |
| Benzene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 05:46 | NP |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 05:46 | NP |
| Trichloroethene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 05:46 | NP |
| Toluene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 05:46 | NP |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 05:46 | NP |
| Ethylbenzene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 05:46 | NP |
| Xylenes, Total | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 05:46 | NP |
| Surr: 4-Bromofluorobenzene | 82.3 | 70.6-123 | | %REC | 199861 | 10 | 11/26/2014 22:46 | NP |
| Surr: 4-Bromofluorobenzene | 84 | 70.6-123 | | %REC | 199861 | 1 | 11/27/2014 05:46 | NP |
| Surr: Dibromofluoromethane | 107 | 78.7-124 | | %REC | 199861 | 10 | 11/26/2014 22:46 | NP |
| Surr: Dibromofluoromethane | 110 | 78.7-124 | | %REC | 199861 | 1 | 11/27/2014 05:46 | NP |
| Surr: Toluene-d8 | 94.1 | 81.3-120 | | %REC | 199861 | 1 | 11/27/2014 05:46 | NP |
| Surr: Toluene-d8 | 95.1 | 81.3-120 | | %REC | 199861 | 10 | 11/26/2014 22:46 | NP |

| | | |
|--------------------|--|--|
| Qualifiers: | * Value exceeds maximum contaminant level | E Estimated (value above quantitation range) |
| | BRL Below reporting limit | S Spike Recovery outside limits due to matrix |
| | H Holding times for preparation or analysis exceeded | Narr See case narrative |
| | N Analyte not NELAC certified | NC Not confirmed |
| | B Analyte detected in the associated method blank | < Less than Result value |
| | > Greater than Result value | J Estimated value detected below Reporting Limit |

| | |
|------------------------------------|---|
| Client: BROWN AND CALDWELL | Client Sample ID: 14323-TW-42 |
| Project Name: Owens Corning | Collection Date: 11/19/2014 9:55:00 AM |
| Lab ID: 1411J75-074 | Matrix: Groundwater |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 199861 | 1 | 11/27/2014 02:29 | NP |
| 1,1-Dichloroethene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 02:29 | NP |
| Methylene chloride | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 02:29 | NP |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 02:29 | NP |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 02:29 | NP |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 02:29 | NP |
| Chloroform | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 02:29 | NP |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 02:29 | NP |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 02:29 | NP |
| Benzene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 02:29 | NP |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 02:29 | NP |
| Trichloroethene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 02:29 | NP |
| Toluene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 02:29 | NP |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 02:29 | NP |
| Ethylbenzene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 02:29 | NP |
| Xylenes, Total | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 02:29 | NP |
| Surr: 4-Bromofluorobenzene | 81.7 | 70.6-123 | | %REC | 199861 | 1 | 11/27/2014 02:29 | NP |
| Surr: Dibromofluoromethane | 110 | 78.7-124 | | %REC | 199861 | 1 | 11/27/2014 02:29 | NP |
| Surr: Toluene-d8 | 95.5 | 81.3-120 | | %REC | 199861 | 1 | 11/27/2014 02:29 | NP |

| | | |
|--------------------|--|--|
| Qualifiers: | * Value exceeds maximum contaminant level | E Estimated (value above quantitation range) |
| | BRL Below reporting limit | S Spike Recovery outside limits due to matrix |
| | H Holding times for preparation or analysis exceeded | Narr See case narrative |
| | N Analyte not NELAC certified | NC Not confirmed |
| | B Analyte detected in the associated method blank | < Less than Result value |
| | > Greater than Result value | J Estimated value detected below Reporting Limit |

| | |
|------------------------------------|--|
| Client: BROWN AND CALDWELL | Client Sample ID: 14323-TW-43 |
| Project Name: Owens Corning | Collection Date: 11/19/2014 11:30:00 AM |
| Lab ID: 1411J75-075 | Matrix: Groundwater |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 199861 | 1 | 11/27/2014 02:53 | NP |
| 1,1-Dichloroethene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 02:53 | NP |
| Methylene chloride | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 02:53 | NP |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 02:53 | NP |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 02:53 | NP |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 02:53 | NP |
| Chloroform | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 02:53 | NP |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 02:53 | NP |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 02:53 | NP |
| Benzene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 02:53 | NP |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 02:53 | NP |
| Trichloroethene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 02:53 | NP |
| Toluene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 02:53 | NP |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 02:53 | NP |
| Ethylbenzene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 02:53 | NP |
| Xylenes, Total | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 02:53 | NP |
| Surr: 4-Bromofluorobenzene | 81.8 | 70.6-123 | | %REC | 199861 | 1 | 11/27/2014 02:53 | NP |
| Surr: Dibromofluoromethane | 108 | 78.7-124 | | %REC | 199861 | 1 | 11/27/2014 02:53 | NP |
| Surr: Toluene-d8 | 94.4 | 81.3-120 | | %REC | 199861 | 1 | 11/27/2014 02:53 | NP |

| | | |
|--------------------|--|--|
| Qualifiers: | * Value exceeds maximum contaminant level | E Estimated (value above quantitation range) |
| | BRL Below reporting limit | S Spike Recovery outside limits due to matrix |
| | H Holding times for preparation or analysis exceeded | Narr See case narrative |
| | N Analyte not NELAC certified | NC Not confirmed |
| | B Analyte detected in the associated method blank | < Less than Result value |
| | > Greater than Result value | J Estimated value detected below Reporting Limit |

| | |
|------------------------------------|---|
| Client: BROWN AND CALDWELL | Client Sample ID: 14323-MW-38-Z1 |
| Project Name: Owens Corning | Collection Date: 11/19/2014 2:20:00 PM |
| Lab ID: 1411J75-076 | Matrix: Groundwater |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 199861 | 1 | 11/27/2014 03:18 | NP |
| 1,1-Dichloroethene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 03:18 | NP |
| Methylene chloride | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 03:18 | NP |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 03:18 | NP |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 03:18 | NP |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 03:18 | NP |
| Chloroform | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 03:18 | NP |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 03:18 | NP |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 03:18 | NP |
| Benzene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 03:18 | NP |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 03:18 | NP |
| Trichloroethene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 03:18 | NP |
| Toluene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 03:18 | NP |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 03:18 | NP |
| Ethylbenzene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 03:18 | NP |
| Xylenes, Total | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 03:18 | NP |
| Surr: 4-Bromofluorobenzene | 82.2 | 70.6-123 | | %REC | 199861 | 1 | 11/27/2014 03:18 | NP |
| Surr: Dibromofluoromethane | 109 | 78.7-124 | | %REC | 199861 | 1 | 11/27/2014 03:18 | NP |
| Surr: Toluene-d8 | 98.4 | 81.3-120 | | %REC | 199861 | 1 | 11/27/2014 03:18 | NP |

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

| | |
|------------------------------------|---|
| Client: BROWN AND CALDWELL | Client Sample ID: 14323-MW-38-Z2 |
| Project Name: Owens Corning | Collection Date: 11/19/2014 4:10:00 PM |
| Lab ID: 1411J75-077 | Matrix: Groundwater |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 199861 | 1 | 11/27/2014 03:42 | NP |
| 1,1-Dichloroethene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 03:42 | NP |
| Methylene chloride | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 03:42 | NP |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 03:42 | NP |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 03:42 | NP |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 03:42 | NP |
| Chloroform | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 03:42 | NP |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 03:42 | NP |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 03:42 | NP |
| Benzene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 03:42 | NP |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 03:42 | NP |
| Trichloroethene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 03:42 | NP |
| Toluene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 03:42 | NP |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 03:42 | NP |
| Ethylbenzene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 03:42 | NP |
| Xylenes, Total | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 03:42 | NP |
| Surr: 4-Bromofluorobenzene | 82.2 | 70.6-123 | | %REC | 199861 | 1 | 11/27/2014 03:42 | NP |
| Surr: Dibromofluoromethane | 110 | 78.7-124 | | %REC | 199861 | 1 | 11/27/2014 03:42 | NP |
| Surr: Toluene-d8 | 97.1 | 81.3-120 | | %REC | 199861 | 1 | 11/27/2014 03:42 | NP |

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

| | |
|------------------------------------|--|
| Client: BROWN AND CALDWELL | Client Sample ID: 14324-MW-41-Z3 |
| Project Name: Owens Corning | Collection Date: 11/20/2014 11:10:00 AM |
| Lab ID: 1411J75-078 | Matrix: Groundwater |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 199861 | 1 | 11/27/2014 04:07 | NP |
| 1,1-Dichloroethene | 18 | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 04:07 | NP |
| Methylene chloride | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 04:07 | NP |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 04:07 | NP |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 04:07 | NP |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 04:07 | NP |
| Chloroform | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 04:07 | NP |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 04:07 | NP |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 04:07 | NP |
| Benzene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 04:07 | NP |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 04:07 | NP |
| Trichloroethene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 04:07 | NP |
| Toluene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 04:07 | NP |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 04:07 | NP |
| Ethylbenzene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 04:07 | NP |
| Xylenes, Total | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 04:07 | NP |
| Surr: 4-Bromofluorobenzene | 86.1 | 70.6-123 | | %REC | 199861 | 1 | 11/27/2014 04:07 | NP |
| Surr: Dibromofluoromethane | 108 | 78.7-124 | | %REC | 199861 | 1 | 11/27/2014 04:07 | NP |
| Surr: Toluene-d8 | 95.5 | 81.3-120 | | %REC | 199861 | 1 | 11/27/2014 04:07 | NP |

| | | |
|--------------------|--|--|
| Qualifiers: | * Value exceeds maximum contaminant level | E Estimated (value above quantitation range) |
| | BRL Below reporting limit | S Spike Recovery outside limits due to matrix |
| | H Holding times for preparation or analysis exceeded | Narr See case narrative |
| | N Analyte not NELAC certified | NC Not confirmed |
| | B Analyte detected in the associated method blank | < Less than Result value |
| | > Greater than Result value | J Estimated value detected below Reporting Limit |

| | |
|------------------------------------|--|
| Client: BROWN AND CALDWELL | Client Sample ID: 14324-MW-41-Z1 |
| Project Name: Owens Corning | Collection Date: 11/20/2014 12:20:00 PM |
| Lab ID: 1411J75-079 | Matrix: Groundwater |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 199861 | 1 | 11/27/2014 04:32 | NP |
| 1,1-Dichloroethene | 160 | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 04:32 | NP |
| Methylene chloride | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 04:32 | NP |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 04:32 | NP |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 04:32 | NP |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 04:32 | NP |
| Chloroform | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 04:32 | NP |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 04:32 | NP |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 04:32 | NP |
| Benzene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 04:32 | NP |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 04:32 | NP |
| Trichloroethene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 04:32 | NP |
| Toluene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 04:32 | NP |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 04:32 | NP |
| Ethylbenzene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 04:32 | NP |
| Xylenes, Total | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 04:32 | NP |
| Surr: 4-Bromofluorobenzene | 84.4 | 70.6-123 | | %REC | 199861 | 1 | 11/27/2014 04:32 | NP |
| Surr: Dibromofluoromethane | 107 | 78.7-124 | | %REC | 199861 | 1 | 11/27/2014 04:32 | NP |
| Surr: Toluene-d8 | 95.7 | 81.3-120 | | %REC | 199861 | 1 | 11/27/2014 04:32 | NP |

| | | |
|--------------------|--|--|
| Qualifiers: | * Value exceeds maximum contaminant level | E Estimated (value above quantitation range) |
| | BRL Below reporting limit | S Spike Recovery outside limits due to matrix |
| | H Holding times for preparation or analysis exceeded | Narr See case narrative |
| | N Analyte not NELAC certified | NC Not confirmed |
| | B Analyte detected in the associated method blank | < Less than Result value |
| | > Greater than Result value | J Estimated value detected below Reporting Limit |

| | |
|------------------------------------|---|
| Client: BROWN AND CALDWELL | Client Sample ID: 14322-117 KAYE DRIVE |
| Project Name: Owens Corning | Collection Date: 11/18/2014 5:30:00 PM |
| Lab ID: 1411J75-080 | Matrix: Groundwater |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 199861 | 1 | 11/27/2014 04:57 | NP |
| 1,1-Dichloroethene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 04:57 | NP |
| Methylene chloride | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 04:57 | NP |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 04:57 | NP |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 04:57 | NP |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 04:57 | NP |
| Chloroform | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 04:57 | NP |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 04:57 | NP |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 04:57 | NP |
| Benzene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 04:57 | NP |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 04:57 | NP |
| Trichloroethene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 04:57 | NP |
| Toluene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 04:57 | NP |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 04:57 | NP |
| Ethylbenzene | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 04:57 | NP |
| Xylenes, Total | BRL | 5.0 | | ug/L | 199861 | 1 | 11/27/2014 04:57 | NP |
| Surr: 4-Bromofluorobenzene | 84.3 | 70.6-123 | | %REC | 199861 | 1 | 11/27/2014 04:57 | NP |
| Surr: Dibromofluoromethane | 109 | 78.7-124 | | %REC | 199861 | 1 | 11/27/2014 04:57 | NP |
| Surr: Toluene-d8 | 96.3 | 81.3-120 | | %REC | 199861 | 1 | 11/27/2014 04:57 | NP |

| | | |
|--------------------|--|--|
| Qualifiers: | * Value exceeds maximum contaminant level | E Estimated (value above quantitation range) |
| | BRL Below reporting limit | S Spike Recovery outside limits due to matrix |
| | H Holding times for preparation or analysis exceeded | Narr See case narrative |
| | N Analyte not NELAC certified | NC Not confirmed |
| | B Analyte detected in the associated method blank | < Less than Result value |
| | > Greater than Result value | J Estimated value detected below Reporting Limit |

| | |
|------------------------------------|---|
| Client: BROWN AND CALDWELL | Client Sample ID: 14322-311 KAYE DRIVE |
| Project Name: Owens Corning | Collection Date: 11/18/2014 5:25:00 PM |
| Lab ID: 1411J75-081 | Matrix: Groundwater |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 199874 | 1 | 11/29/2014 02:31 | NP |
| 1,1-Dichloroethene | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 02:31 | NP |
| Methylene chloride | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 02:31 | NP |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 02:31 | NP |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 02:31 | NP |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 02:31 | NP |
| Chloroform | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 02:31 | NP |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 02:31 | NP |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 02:31 | NP |
| Benzene | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 02:31 | NP |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 02:31 | NP |
| Trichloroethene | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 02:31 | NP |
| Toluene | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 02:31 | NP |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 02:31 | NP |
| Ethylbenzene | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 02:31 | NP |
| Xylenes, Total | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 02:31 | NP |
| Surr: 4-Bromofluorobenzene | 85.1 | 70.6-123 | | %REC | 199874 | 1 | 11/29/2014 02:31 | NP |
| Surr: Dibromofluoromethane | 107 | 78.7-124 | | %REC | 199874 | 1 | 11/29/2014 02:31 | NP |
| Surr: Toluene-d8 | 96.6 | 81.3-120 | | %REC | 199874 | 1 | 11/29/2014 02:31 | NP |

| | | |
|--------------------|--|--|
| Qualifiers: | * Value exceeds maximum contaminant level | E Estimated (value above quantitation range) |
| | BRL Below reporting limit | S Spike Recovery outside limits due to matrix |
| | H Holding times for preparation or analysis exceeded | Narr See case narrative |
| | N Analyte not NELAC certified | NC Not confirmed |
| | B Analyte detected in the associated method blank | < Less than Result value |
| | > Greater than Result value | J Estimated value detected below Reporting Limit |

| | |
|------------------------------------|---|
| Client: BROWN AND CALDWELL | Client Sample ID: 14322-303 KAYE DRIVE |
| Project Name: Owens Corning | Collection Date: 11/18/2014 5:05:00 PM |
| Lab ID: 1411J75-082 | Matrix: Groundwater |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 199874 | 1 | 11/29/2014 02:56 | NP |
| 1,1-Dichloroethene | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 02:56 | NP |
| Methylene chloride | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 02:56 | NP |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 02:56 | NP |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 02:56 | NP |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 02:56 | NP |
| Chloroform | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 02:56 | NP |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 02:56 | NP |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 02:56 | NP |
| Benzene | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 02:56 | NP |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 02:56 | NP |
| Trichloroethene | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 02:56 | NP |
| Toluene | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 02:56 | NP |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 02:56 | NP |
| Ethylbenzene | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 02:56 | NP |
| Xylenes, Total | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 02:56 | NP |
| Surr: 4-Bromofluorobenzene | 83.2 | 70.6-123 | | %REC | 199874 | 1 | 11/29/2014 02:56 | NP |
| Surr: Dibromofluoromethane | 107 | 78.7-124 | | %REC | 199874 | 1 | 11/29/2014 02:56 | NP |
| Surr: Toluene-d8 | 96.9 | 81.3-120 | | %REC | 199874 | 1 | 11/29/2014 02:56 | NP |

| | | |
|--------------------|--|--|
| Qualifiers: | * Value exceeds maximum contaminant level | E Estimated (value above quantitation range) |
| | BRL Below reporting limit | S Spike Recovery outside limits due to matrix |
| | H Holding times for preparation or analysis exceeded | Narr See case narrative |
| | N Analyte not NELAC certified | NC Not confirmed |
| | B Analyte detected in the associated method blank | < Less than Result value |
| | > Greater than Result value | J Estimated value detected below Reporting Limit |

| | |
|------------------------------------|---|
| Client: BROWN AND CALDWELL | Client Sample ID: 14322-200 KAYE DRIVE |
| Project Name: Owens Corning | Collection Date: 11/18/2014 4:55:00 PM |
| Lab ID: 1411J75-083 | Matrix: Groundwater |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 199874 | 1 | 11/29/2014 03:21 | NP |
| 1,1-Dichloroethene | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 03:21 | NP |
| Methylene chloride | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 03:21 | NP |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 03:21 | NP |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 03:21 | NP |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 03:21 | NP |
| Chloroform | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 03:21 | NP |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 03:21 | NP |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 03:21 | NP |
| Benzene | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 03:21 | NP |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 03:21 | NP |
| Trichloroethene | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 03:21 | NP |
| Toluene | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 03:21 | NP |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 03:21 | NP |
| Ethylbenzene | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 03:21 | NP |
| Xylenes, Total | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 03:21 | NP |
| Surr: 4-Bromofluorobenzene | 84.5 | 70.6-123 | | %REC | 199874 | 1 | 11/29/2014 03:21 | NP |
| Surr: Dibromofluoromethane | 108 | 78.7-124 | | %REC | 199874 | 1 | 11/29/2014 03:21 | NP |
| Surr: Toluene-d8 | 95.1 | 81.3-120 | | %REC | 199874 | 1 | 11/29/2014 03:21 | NP |

| | | |
|--------------------|--|--|
| Qualifiers: | * Value exceeds maximum contaminant level | E Estimated (value above quantitation range) |
| | BRL Below reporting limit | S Spike Recovery outside limits due to matrix |
| | H Holding times for preparation or analysis exceeded | Narr See case narrative |
| | N Analyte not NELAC certified | NC Not confirmed |
| | B Analyte detected in the associated method blank | < Less than Result value |
| | > Greater than Result value | J Estimated value detected below Reporting Limit |

Analytical Environmental Services, Inc

Date: 29-Dec-14

| | |
|------------------------------------|---|
| Client: BROWN AND CALDWELL | Client Sample ID: 14322-412 KAYE DRIVE |
| Project Name: Owens Corning | Collection Date: 11/18/2014 5:10:00 PM |
| Lab ID: 1411J75-084 | Matrix: Groundwater |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 199874 | 1 | 11/29/2014 03:46 | NP |
| 1,1-Dichloroethene | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 03:46 | NP |
| Methylene chloride | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 03:46 | NP |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 03:46 | NP |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 03:46 | NP |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 03:46 | NP |
| Chloroform | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 03:46 | NP |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 03:46 | NP |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 03:46 | NP |
| Benzene | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 03:46 | NP |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 03:46 | NP |
| Trichloroethene | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 03:46 | NP |
| Toluene | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 03:46 | NP |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 03:46 | NP |
| Ethylbenzene | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 03:46 | NP |
| Xylenes, Total | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 03:46 | NP |
| Surr: 4-Bromofluorobenzene | 82.7 | 70.6-123 | | %REC | 199874 | 1 | 11/29/2014 03:46 | NP |
| Surr: Dibromofluoromethane | 104 | 78.7-124 | | %REC | 199874 | 1 | 11/29/2014 03:46 | NP |
| Surr: Toluene-d8 | 93.8 | 81.3-120 | | %REC | 199874 | 1 | 11/29/2014 03:46 | NP |

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

| | |
|------------------------------------|--|
| Client: BROWN AND CALDWELL | Client Sample ID: 14322- 1303 CLINKSCALE RT |
| Project Name: Owens Corning | Collection Date: 11/18/2014 4:45:00 PM |
| Lab ID: 1411J75-085 | Matrix: Groundwater |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 199874 | 1 | 11/29/2014 04:11 | NP |
| 1,1-Dichloroethene | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 04:11 | NP |
| Methylene chloride | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 04:11 | NP |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 04:11 | NP |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 04:11 | NP |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 04:11 | NP |
| Chloroform | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 04:11 | NP |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 04:11 | NP |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 04:11 | NP |
| Benzene | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 04:11 | NP |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 04:11 | NP |
| Trichloroethene | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 04:11 | NP |
| Toluene | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 04:11 | NP |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 04:11 | NP |
| Ethylbenzene | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 04:11 | NP |
| Xylenes, Total | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 04:11 | NP |
| Surr: 4-Bromofluorobenzene | 82.3 | 70.6-123 | | %REC | 199874 | 1 | 11/29/2014 04:11 | NP |
| Surr: Dibromofluoromethane | 106 | 78.7-124 | | %REC | 199874 | 1 | 11/29/2014 04:11 | NP |
| Surr: Toluene-d8 | 95.1 | 81.3-120 | | %REC | 199874 | 1 | 11/29/2014 04:11 | NP |

| | | |
|--------------------|--|--|
| Qualifiers: | * Value exceeds maximum contaminant level | E Estimated (value above quantitation range) |
| | BRL Below reporting limit | S Spike Recovery outside limits due to matrix |
| | H Holding times for preparation or analysis exceeded | Narr See case narrative |
| | N Analyte not NELAC certified | NC Not confirmed |
| | B Analyte detected in the associated method blank | < Less than Result value |
| | > Greater than Result value | J Estimated value detected below Reporting Limit |

Analytical Environmental Services, Inc

Date: 29-Dec-14

| | |
|------------------------------------|---|
| Client: BROWN AND CALDWELL | Client Sample ID: 14322- 408 CLINKSCALE RT |
| Project Name: Owens Corning | Collection Date: 11/18/2014 3:45:00 PM |
| Lab ID: 1411J75-086 | Matrix: Groundwater |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 199874 | 1 | 11/29/2014 04:36 | NP |
| 1,1-Dichloroethene | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 04:36 | NP |
| Methylene chloride | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 04:36 | NP |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 04:36 | NP |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 04:36 | NP |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 04:36 | NP |
| Chloroform | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 04:36 | NP |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 04:36 | NP |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 04:36 | NP |
| Benzene | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 04:36 | NP |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 04:36 | NP |
| Trichloroethene | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 04:36 | NP |
| Toluene | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 04:36 | NP |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 04:36 | NP |
| Ethylbenzene | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 04:36 | NP |
| Xylenes, Total | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 04:36 | NP |
| Surr: 4-Bromofluorobenzene | 84 | 70.6-123 | | %REC | 199874 | 1 | 11/29/2014 04:36 | NP |
| Surr: Dibromofluoromethane | 111 | 78.7-124 | | %REC | 199874 | 1 | 11/29/2014 04:36 | NP |
| Surr: Toluene-d8 | 96.2 | 81.3-120 | | %REC | 199874 | 1 | 11/29/2014 04:36 | NP |

| | | |
|--------------------|--|--|
| Qualifiers: | * Value exceeds maximum contaminant level | E Estimated (value above quantitation range) |
| | BRL Below reporting limit | S Spike Recovery outside limits due to matrix |
| | H Holding times for preparation or analysis exceeded | Narr See case narrative |
| | N Analyte not NELAC certified | NC Not confirmed |
| | B Analyte detected in the associated method blank | < Less than Result value |
| | > Greater than Result value | J Estimated value detected below Reporting Limit |

Analytical Environmental Services, Inc

Date: 29-Dec-14

| | |
|------------------------------------|---|
| Client: BROWN AND CALDWELL | Client Sample ID: 14322- 721 CLINKSCALE RT |
| Project Name: Owens Corning | Collection Date: 11/18/2014 4:15:00 PM |
| Lab ID: 1411J75-087 | Matrix: Groundwater |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 199874 | 1 | 11/29/2014 05:00 | NP |
| 1,1-Dichloroethene | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 05:00 | NP |
| Methylene chloride | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 05:00 | NP |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 05:00 | NP |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 05:00 | NP |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 05:00 | NP |
| Chloroform | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 05:00 | NP |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 05:00 | NP |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 05:00 | NP |
| Benzene | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 05:00 | NP |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 05:00 | NP |
| Trichloroethene | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 05:00 | NP |
| Toluene | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 05:00 | NP |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 05:00 | NP |
| Ethylbenzene | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 05:00 | NP |
| Xylenes, Total | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 05:00 | NP |
| Surr: 4-Bromofluorobenzene | 82.8 | 70.6-123 | | %REC | 199874 | 1 | 11/29/2014 05:00 | NP |
| Surr: Dibromofluoromethane | 106 | 78.7-124 | | %REC | 199874 | 1 | 11/29/2014 05:00 | NP |
| Surr: Toluene-d8 | 95.8 | 81.3-120 | | %REC | 199874 | 1 | 11/29/2014 05:00 | NP |

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 29-Dec-14

| | |
|------------------------------------|---|
| Client: BROWN AND CALDWELL | Client Sample ID: 14322- 200 FRIENDSHIP LANE |
| Project Name: Owens Corning | Collection Date: 11/18/2014 4:08:00 PM |
| Lab ID: 1411J75-088 | Matrix: Groundwater |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 199874 | 1 | 11/29/2014 05:25 | NP |
| 1,1-Dichloroethene | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 05:25 | NP |
| Methylene chloride | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 05:25 | NP |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 05:25 | NP |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 05:25 | NP |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 05:25 | NP |
| Chloroform | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 05:25 | NP |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 05:25 | NP |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 05:25 | NP |
| Benzene | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 05:25 | NP |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 05:25 | NP |
| Trichloroethene | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 05:25 | NP |
| Toluene | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 05:25 | NP |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 05:25 | NP |
| Ethylbenzene | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 05:25 | NP |
| Xylenes, Total | BRL | 5.0 | | ug/L | 199874 | 1 | 11/29/2014 05:25 | NP |
| Surr: 4-Bromofluorobenzene | 82.6 | 70.6-123 | | %REC | 199874 | 1 | 11/29/2014 05:25 | NP |
| Surr: Dibromofluoromethane | 108 | 78.7-124 | | %REC | 199874 | 1 | 11/29/2014 05:25 | NP |
| Surr: Toluene-d8 | 95.8 | 81.3-120 | | %REC | 199874 | 1 | 11/29/2014 05:25 | NP |

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 29-Dec-14

| | |
|------------------------------------|---|
| Client: BROWN AND CALDWELL | Client Sample ID: 14323-628-AIRLINE RD |
| Project Name: Owens Corning | Collection Date: 11/19/2014 4:30:00 PM |
| Lab ID: 1411J75-089 | Matrix: Groundwater |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 199784 | 1 | 11/26/2014 19:03 | GK |
| 1,1-Dichloroethene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 19:03 | GK |
| Methylene chloride | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 19:03 | GK |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 19:03 | GK |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 19:03 | GK |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 19:03 | GK |
| Chloroform | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 19:03 | GK |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 19:03 | GK |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 19:03 | GK |
| Benzene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 19:03 | GK |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 19:03 | GK |
| Trichloroethene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 19:03 | GK |
| Toluene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 19:03 | GK |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 19:03 | GK |
| Ethylbenzene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 19:03 | GK |
| Xylenes, Total | BRL | 5.0 | | ug/L | 199784 | 1 | 11/26/2014 19:03 | GK |
| Surr: 4-Bromofluorobenzene | 90.4 | 70.6-123 | | %REC | 199784 | 1 | 11/26/2014 19:03 | GK |
| Surr: Dibromofluoromethane | 95.4 | 78.7-124 | | %REC | 199784 | 1 | 11/26/2014 19:03 | GK |
| Surr: Toluene-d8 | 96.2 | 81.3-120 | | %REC | 199784 | 1 | 11/26/2014 19:03 | GK |

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

| | |
|------------------------------------|--|
| Client: BROWN AND CALDWELL | Client Sample ID: 14324-EB |
| Project Name: Owens Corning | Collection Date: 11/20/2014 12:35:00 PM |
| Lab ID: 1411J75-090 | Matrix: Aqueous |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 199784 | 1 | 11/28/2014 21:35 | NP |
| 1,1-Dichloroethene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/28/2014 21:35 | NP |
| Methylene chloride | BRL | 5.0 | | ug/L | 199784 | 1 | 11/28/2014 21:35 | NP |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/28/2014 21:35 | NP |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 199784 | 1 | 11/28/2014 21:35 | NP |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/28/2014 21:35 | NP |
| Chloroform | BRL | 5.0 | | ug/L | 199784 | 1 | 11/28/2014 21:35 | NP |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 199784 | 1 | 11/28/2014 21:35 | NP |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 199784 | 1 | 11/28/2014 21:35 | NP |
| Benzene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/28/2014 21:35 | NP |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 199784 | 1 | 11/28/2014 21:35 | NP |
| Trichloroethene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/28/2014 21:35 | NP |
| Toluene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/28/2014 21:35 | NP |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/28/2014 21:35 | NP |
| Ethylbenzene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/28/2014 21:35 | NP |
| Xylenes, Total | BRL | 5.0 | | ug/L | 199784 | 1 | 11/28/2014 21:35 | NP |
| Surr: 4-Bromofluorobenzene | 87.8 | 70.6-123 | | %REC | 199784 | 1 | 11/28/2014 21:35 | NP |
| Surr: Dibromofluoromethane | 102 | 78.7-124 | | %REC | 199784 | 1 | 11/28/2014 21:35 | NP |
| Surr: Toluene-d8 | 91.6 | 81.3-120 | | %REC | 199784 | 1 | 11/28/2014 21:35 | NP |

| | | |
|--------------------|--|--|
| Qualifiers: | * Value exceeds maximum contaminant level | E Estimated (value above quantitation range) |
| | BRL Below reporting limit | S Spike Recovery outside limits due to matrix |
| | H Holding times for preparation or analysis exceeded | Narr See case narrative |
| | N Analyte not NELAC certified | NC Not confirmed |
| | B Analyte detected in the associated method blank | < Less than Result value |
| | > Greater than Result value | J Estimated value detected below Reporting Limit |

Analytical Environmental Services, Inc

Date: 29-Dec-14

| | |
|------------------------------------|---|
| Client: BROWN AND CALDWELL | Client Sample ID: 14324-MW-41-Z2 |
| Project Name: Owens Corning | Collection Date: 11/20/2014 2:00:00 PM |
| Lab ID: 1411J75-091 | Matrix: Groundwater |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 199784 | 1 | 11/29/2014 05:50 | NP |
| 1,1-Dichloroethene | 180 | 5.0 | | ug/L | 199784 | 1 | 11/29/2014 05:50 | NP |
| Methylene chloride | BRL | 5.0 | | ug/L | 199784 | 1 | 11/29/2014 05:50 | NP |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/29/2014 05:50 | NP |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 199784 | 1 | 11/29/2014 05:50 | NP |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/29/2014 05:50 | NP |
| Chloroform | BRL | 5.0 | | ug/L | 199784 | 1 | 11/29/2014 05:50 | NP |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 199784 | 1 | 11/29/2014 05:50 | NP |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 199784 | 1 | 11/29/2014 05:50 | NP |
| Benzene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/29/2014 05:50 | NP |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 199784 | 1 | 11/29/2014 05:50 | NP |
| Trichloroethene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/29/2014 05:50 | NP |
| Toluene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/29/2014 05:50 | NP |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/29/2014 05:50 | NP |
| Ethylbenzene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/29/2014 05:50 | NP |
| Xylenes, Total | BRL | 5.0 | | ug/L | 199784 | 1 | 11/29/2014 05:50 | NP |
| Surr: 4-Bromofluorobenzene | 83.9 | 70.6-123 | | %REC | 199784 | 1 | 11/29/2014 05:50 | NP |
| Surr: Dibromofluoromethane | 108 | 78.7-124 | | %REC | 199784 | 1 | 11/29/2014 05:50 | NP |
| Surr: Toluene-d8 | 95.3 | 81.3-120 | | %REC | 199784 | 1 | 11/29/2014 05:50 | NP |

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

| | |
|------------------------------------|---|
| Client: BROWN AND CALDWELL | Client Sample ID: 14325-SW-3 |
| Project Name: Owens Corning | Collection Date: 11/21/2014 9:20:00 AM |
| Lab ID: 1411J75-092 | Matrix: Surface Water |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 199784 | 1 | 11/29/2014 06:15 | NP |
| 1,1-Dichloroethene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/29/2014 06:15 | NP |
| Methylene chloride | BRL | 5.0 | | ug/L | 199784 | 1 | 11/29/2014 06:15 | NP |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/29/2014 06:15 | NP |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 199784 | 1 | 11/29/2014 06:15 | NP |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/29/2014 06:15 | NP |
| Chloroform | BRL | 5.0 | | ug/L | 199784 | 1 | 11/29/2014 06:15 | NP |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 199784 | 1 | 11/29/2014 06:15 | NP |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 199784 | 1 | 11/29/2014 06:15 | NP |
| Benzene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/29/2014 06:15 | NP |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 199784 | 1 | 11/29/2014 06:15 | NP |
| Trichloroethene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/29/2014 06:15 | NP |
| Toluene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/29/2014 06:15 | NP |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/29/2014 06:15 | NP |
| Ethylbenzene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/29/2014 06:15 | NP |
| Xylenes, Total | BRL | 5.0 | | ug/L | 199784 | 1 | 11/29/2014 06:15 | NP |
| Surr: 4-Bromofluorobenzene | 80.9 | 70.6-123 | | %REC | 199784 | 1 | 11/29/2014 06:15 | NP |
| Surr: Dibromofluoromethane | 109 | 78.7-124 | | %REC | 199784 | 1 | 11/29/2014 06:15 | NP |
| Surr: Toluene-d8 | 97.5 | 81.3-120 | | %REC | 199784 | 1 | 11/29/2014 06:15 | NP |

| | | |
|--------------------|--|--|
| Qualifiers: | * Value exceeds maximum contaminant level | E Estimated (value above quantitation range) |
| | BRL Below reporting limit | S Spike Recovery outside limits due to matrix |
| | H Holding times for preparation or analysis exceeded | Narr See case narrative |
| | N Analyte not NELAC certified | NC Not confirmed |
| | B Analyte detected in the associated method blank | < Less than Result value |
| | > Greater than Result value | J Estimated value detected below Reporting Limit |

| | |
|------------------------------------|---|
| Client: BROWN AND CALDWELL | Client Sample ID: 14325-SW-3A |
| Project Name: Owens Corning | Collection Date: 11/21/2014 9:30:00 AM |
| Lab ID: 1411J75-093 | Matrix: Surface Water |

| Analyses | Result | Reporting Limit | Qual | Units | BatchID | Dilution Factor | Date Analyzed | Analyst |
|--|--------|-----------------|------|-------|---------|-----------------|------------------|---------|
| Volatile Organic Compounds by GC/MS SW8260B (SW5030B) | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | ug/L | 199784 | 1 | 11/29/2014 06:40 | NP |
| 1,1-Dichloroethene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/29/2014 06:40 | NP |
| Methylene chloride | BRL | 5.0 | | ug/L | 199784 | 1 | 11/29/2014 06:40 | NP |
| trans-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/29/2014 06:40 | NP |
| 1,1-Dichloroethane | BRL | 5.0 | | ug/L | 199784 | 1 | 11/29/2014 06:40 | NP |
| cis-1,2-Dichloroethene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/29/2014 06:40 | NP |
| Chloroform | BRL | 5.0 | | ug/L | 199784 | 1 | 11/29/2014 06:40 | NP |
| 1,1,1-Trichloroethane | BRL | 5.0 | | ug/L | 199784 | 1 | 11/29/2014 06:40 | NP |
| Carbon tetrachloride | BRL | 5.0 | | ug/L | 199784 | 1 | 11/29/2014 06:40 | NP |
| Benzene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/29/2014 06:40 | NP |
| 1,2-Dichloroethane | BRL | 5.0 | | ug/L | 199784 | 1 | 11/29/2014 06:40 | NP |
| Trichloroethene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/29/2014 06:40 | NP |
| Toluene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/29/2014 06:40 | NP |
| Tetrachloroethene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/29/2014 06:40 | NP |
| Ethylbenzene | BRL | 5.0 | | ug/L | 199784 | 1 | 11/29/2014 06:40 | NP |
| Xylenes, Total | BRL | 5.0 | | ug/L | 199784 | 1 | 11/29/2014 06:40 | NP |
| Surr: 4-Bromofluorobenzene | 82.8 | 70.6-123 | | %REC | 199784 | 1 | 11/29/2014 06:40 | NP |
| Surr: Dibromofluoromethane | 108 | 78.7-124 | | %REC | 199784 | 1 | 11/29/2014 06:40 | NP |
| Surr: Toluene-d8 | 96.4 | 81.3-120 | | %REC | 199784 | 1 | 11/29/2014 06:40 | NP |

| | | |
|--------------------|--|--|
| Qualifiers: | * Value exceeds maximum contaminant level | E Estimated (value above quantitation range) |
| | BRL Below reporting limit | S Spike Recovery outside limits due to matrix |
| | H Holding times for preparation or analysis exceeded | Narr See case narrative |
| | N Analyte not NELAC certified | NC Not confirmed |
| | B Analyte detected in the associated method blank | < Less than Result value |
| | > Greater than Result value | J Estimated value detected below Reporting Limit |

Analytical Environmental Services, Inc.

Sample/Cooler Receipt Checklist

Client Brown + Caldwell

Work Order Number 1411775

Checklist completed by Joana Pacurar 11/22/14
Signature Date

Carrier name: FedEx UPS Courier Client US Mail Other

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

Container/Temp Blank temperature in compliance? (4°C±2)* Yes No

Cooler #1 3.1°C Cooler #2 3.2°C Cooler #3 3.5°C Cooler #4 _____ Cooler#5 _____ Cooler #6 _____

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 ^{11/22}

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

Was TAT marked on the COC? Yes No

Proceed with Standard TAT as per project history? Yes No Not Applicable

Water - VOA vials have zero headspace? No VOA vials submitted Yes No

Water - pH acceptable upon receipt? Yes No Not Applicable

Adjusted? _____ Checked by _____

Sample Condition: Good Other(Explain) _____

(For diffusive samples or AIHA lead) Is a known blank included? Yes No

See Case Narrative for resolution of the Non-Conformance.

* Samples do not have to comply with the given range for certain parameters.

Client: BROWN AND CALDWELL
Project Name: Owens Corning
Workorder: 1411J75

ANALYTICAL QC SUMMARY REPORT

BatchID: 199783

| Sample ID: MB-199783 | Client ID: | Units: ug/L | Prep Date: 11/25/2014 | Run No: 280699 | | | | | | | |
|-----------------------------|--|------------------------|----------------------------------|------------------------|------|-----------|------------|-------------|------|-----------|------|
| SampleType: MBLK | TestCode: Volatile Organic Compounds by GC/MS SW8260B | BatchID: 199783 | Analysis Date: 11/25/2014 | Seq No: 5939770 | | | | | | | |
| Analyte | Result | RPT Limit | SPK value | SPK Ref Val | %REC | Low Limit | High Limit | RPD Ref Val | %RPD | RPD Limit | Qual |

| | | | | | | | | | | | |
|----------------------------|-------|-----|-------|--|------|------|-----|--|--|--|--|
| 1,1,1-Trichloroethane | BRL | 5.0 | | | | | | | | | |
| 1,1-Dichloroethane | BRL | 5.0 | | | | | | | | | |
| 1,1-Dichloroethene | BRL | 5.0 | | | | | | | | | |
| 1,2-Dichloroethane | BRL | 5.0 | | | | | | | | | |
| Benzene | BRL | 5.0 | | | | | | | | | |
| Carbon tetrachloride | BRL | 5.0 | | | | | | | | | |
| Chloroform | BRL | 5.0 | | | | | | | | | |
| cis-1,2-Dichloroethene | BRL | 5.0 | | | | | | | | | |
| Ethylbenzene | BRL | 5.0 | | | | | | | | | |
| Methylene chloride | BRL | 5.0 | | | | | | | | | |
| Tetrachloroethene | BRL | 5.0 | | | | | | | | | |
| Toluene | BRL | 5.0 | | | | | | | | | |
| trans-1,2-Dichloroethene | BRL | 5.0 | | | | | | | | | |
| Trichloroethene | BRL | 5.0 | | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | | | | | | | | |
| Xylenes, Total | BRL | 5.0 | | | | | | | | | |
| Surr: 4-Bromofluorobenzene | 43.75 | 0 | 50.00 | | 87.5 | 70.6 | 123 | | | | |
| Surr: Dibromofluoromethane | 54.48 | 0 | 50.00 | | 109 | 78.7 | 124 | | | | |
| Surr: Toluene-d8 | 47.67 | 0 | 50.00 | | 95.3 | 81.3 | 120 | | | | |

| Sample ID: LCS-199783 | Client ID: | Units: ug/L | Prep Date: 11/25/2014 | Run No: 280699 | | | | | | | |
|------------------------------|--|------------------------|----------------------------------|------------------------|------|-----------|------------|-------------|------|-----------|------|
| SampleType: LCS | TestCode: Volatile Organic Compounds by GC/MS SW8260B | BatchID: 199783 | Analysis Date: 11/25/2014 | Seq No: 5939769 | | | | | | | |
| Analyte | Result | RPT Limit | SPK value | SPK Ref Val | %REC | Low Limit | High Limit | RPD Ref Val | %RPD | RPD Limit | Qual |

| | | | | | | | | | | | |
|--------------------|-------|-----|-------|--|------|------|-----|--|--|--|--|
| 1,1-Dichloroethene | 53.72 | 5.0 | 50.00 | | 107 | 64.2 | 137 | | | | |
| Benzene | 49.24 | 5.0 | 50.00 | | 98.5 | 72.8 | 128 | | | | |
| Toluene | 51.15 | 5.0 | 50.00 | | 102 | 74.9 | 127 | | | | |

Qualifiers:

| | | | | | |
|---------|--|---|---|---|--|
| > | Greater than Result value | < | Less than Result value | B | Analyte detected in the associated method blank |
| BRL | Below reporting limit | E | Estimated (value above quantitation range) | H | Holding times for preparation or analysis exceeded |
| J | Estimated value detected below Reporting Limit | N | Analyte not NELAC certified | R | RPD outside limits due to matrix |
| Rpt Lim | Reporting Limit | S | Spike Recovery outside limits due to matrix | | |

Client: BROWN AND CALDWELL
Project Name: Owens Corning
Workorder: 1411J75

ANALYTICAL QC SUMMARY REPORT

BatchID: 199783

| Sample ID: LCS-199783 | Client ID: | Units: ug/L | Prep Date: 11/25/2014 | Run No: 280699 | | | | | | | |
|------------------------------|--|------------------------|----------------------------------|------------------------|------|-----------|------------|-------------|------|-----------|------|
| SampleType: LCS | TestCode: Volatile Organic Compounds by GC/MS SW8260B | BatchID: 199783 | Analysis Date: 11/25/2014 | Seq No: 5939769 | | | | | | | |
| Analyte | Result | RPT Limit | SPK value | SPK Ref Val | %REC | Low Limit | High Limit | RPD Ref Val | %RPD | RPD Limit | Qual |

| | | | | | | | | | | | |
|----------------------------|-------|-----|-------|--|------|------|-----|--|--|--|--|
| Trichloroethene | 48.18 | 5.0 | 50.00 | | 96.4 | 70.5 | 134 | | | | |
| Surr: 4-Bromofluorobenzene | 42.86 | 0 | 50.00 | | 85.7 | 70.6 | 123 | | | | |
| Surr: Dibromofluoromethane | 50.13 | 0 | 50.00 | | 100 | 78.7 | 124 | | | | |
| Surr: Toluene-d8 | 46.61 | 0 | 50.00 | | 93.2 | 81.3 | 120 | | | | |

| Sample ID: 1411J75-019AMS | Client ID: 14325-MW-30 | Units: ug/L | Prep Date: 11/25/2014 | Run No: 280699 | | | | | | | |
|----------------------------------|--|------------------------|----------------------------------|------------------------|------|-----------|------------|-------------|------|-----------|------|
| SampleType: MS | TestCode: Volatile Organic Compounds by GC/MS SW8260B | BatchID: 199783 | Analysis Date: 11/25/2014 | Seq No: 5939772 | | | | | | | |
| Analyte | Result | RPT Limit | SPK value | SPK Ref Val | %REC | Low Limit | High Limit | RPD Ref Val | %RPD | RPD Limit | Qual |

| | | | | | | | | | | | |
|----------------------------|------|-----|------|------|------|------|-----|--|--|--|--|
| 1,1-Dichloroethene | 7624 | 250 | 2500 | 4622 | 120 | 60.2 | 159 | | | | |
| Benzene | 2377 | 250 | 2500 | | 95.1 | 70.2 | 138 | | | | |
| Toluene | 2502 | 250 | 2500 | | 100 | 70 | 139 | | | | |
| Trichloroethene | 2394 | 250 | 2500 | | 95.7 | 70.1 | 144 | | | | |
| Surr: 4-Bromofluorobenzene | 2172 | 0 | 2500 | | 86.9 | 70.6 | 123 | | | | |
| Surr: Dibromofluoromethane | 2533 | 0 | 2500 | | 101 | 78.7 | 124 | | | | |
| Surr: Toluene-d8 | 2312 | 0 | 2500 | | 92.5 | 81.3 | 120 | | | | |

| Sample ID: 1411J75-019AMSD | Client ID: 14325-MW-30 | Units: ug/L | Prep Date: 11/25/2014 | Run No: 280699 | | | | | | | |
|-----------------------------------|--|------------------------|----------------------------------|------------------------|------|-----------|------------|-------------|------|-----------|------|
| SampleType: MSD | TestCode: Volatile Organic Compounds by GC/MS SW8260B | BatchID: 199783 | Analysis Date: 11/25/2014 | Seq No: 5939774 | | | | | | | |
| Analyte | Result | RPT Limit | SPK value | SPK Ref Val | %REC | Low Limit | High Limit | RPD Ref Val | %RPD | RPD Limit | Qual |

| | | | | | | | | | | | |
|----------------------------|------|-----|------|------|------|------|-----|------|-------|------|--|
| 1,1-Dichloroethene | 7628 | 250 | 2500 | 4622 | 120 | 60.2 | 159 | 7624 | 0.059 | 19.2 | |
| Benzene | 2398 | 250 | 2500 | | 95.9 | 70.2 | 138 | 2377 | 0.859 | 20 | |
| Toluene | 2500 | 250 | 2500 | | 100 | 70 | 139 | 2502 | 0.080 | 20 | |
| Trichloroethene | 2348 | 250 | 2500 | | 93.9 | 70.1 | 144 | 2394 | 1.94 | 20 | |
| Surr: 4-Bromofluorobenzene | 2090 | 0 | 2500 | | 83.6 | 70.6 | 123 | 2172 | 0 | 0 | |
| Surr: Dibromofluoromethane | 2472 | 0 | 2500 | | 98.9 | 78.7 | 124 | 2533 | 0 | 0 | |
| Surr: Toluene-d8 | 2288 | 0 | 2500 | | 91.5 | 81.3 | 120 | 2312 | 0 | 0 | |

Qualifiers:

| | | | | | |
|---------|--|---|---|---|--|
| > | Greater than Result value | < | Less than Result value | B | Analyte detected in the associated method blank |
| BRL | Below reporting limit | E | Estimated (value above quantitation range) | H | Holding times for preparation or analysis exceeded |
| J | Estimated value detected below Reporting Limit | N | Analyte not NELAC certified | R | RPD outside limits due to matrix |
| Rpt Lim | Reporting Limit | S | Spike Recovery outside limits due to matrix | | |

Client: BROWN AND CALDWELL
Project Name: Owens Corning
Workorder: 1411J75

ANALYTICAL QC SUMMARY REPORT

BatchID: 199784

| Sample ID: MB-199784 | Client ID: | Units: ug/L | Prep Date: 11/25/2014 | Run No: 280786 | | | | | | | |
|-----------------------------|--|------------------------|----------------------------------|------------------------|------|-----------|------------|-------------|------|-----------|------|
| SampleType: MBLK | TestCode: Volatile Organic Compounds by GC/MS SW8260B | BatchID: 199784 | Analysis Date: 11/25/2014 | Seq No: 5939827 | | | | | | | |
| Analyte | Result | RPT Limit | SPK value | SPK Ref Val | %REC | Low Limit | High Limit | RPD Ref Val | %RPD | RPD Limit | Qual |

| | | | | | | | | | | | |
|----------------------------|-------|-----|-------|--|------|------|-----|--|--|--|--|
| 1,1,1-Trichloroethane | BRL | 5.0 | | | | | | | | | |
| 1,1-Dichloroethane | BRL | 5.0 | | | | | | | | | |
| 1,1-Dichloroethene | BRL | 5.0 | | | | | | | | | |
| 1,2-Dichloroethane | BRL | 5.0 | | | | | | | | | |
| Benzene | BRL | 5.0 | | | | | | | | | |
| Carbon tetrachloride | BRL | 5.0 | | | | | | | | | |
| Chloroform | BRL | 5.0 | | | | | | | | | |
| cis-1,2-Dichloroethene | BRL | 5.0 | | | | | | | | | |
| Ethylbenzene | BRL | 5.0 | | | | | | | | | |
| Methylene chloride | BRL | 5.0 | | | | | | | | | |
| Tetrachloroethene | BRL | 5.0 | | | | | | | | | |
| Toluene | BRL | 5.0 | | | | | | | | | |
| trans-1,2-Dichloroethene | BRL | 5.0 | | | | | | | | | |
| Trichloroethene | BRL | 5.0 | | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | | | | | | | | |
| Xylenes, Total | BRL | 5.0 | | | | | | | | | |
| Surr: 4-Bromofluorobenzene | 45.03 | 0 | 50.00 | | 90.1 | 70.6 | 123 | | | | |
| Surr: Dibromofluoromethane | 47.67 | 0 | 50.00 | | 95.3 | 78.7 | 124 | | | | |
| Surr: Toluene-d8 | 47.29 | 0 | 50.00 | | 94.6 | 81.3 | 120 | | | | |

| Sample ID: LCS-199784 | Client ID: | Units: ug/L | Prep Date: 11/25/2014 | Run No: 280786 | | | | | | | |
|------------------------------|--|------------------------|----------------------------------|------------------------|------|-----------|------------|-------------|------|-----------|------|
| SampleType: LCS | TestCode: Volatile Organic Compounds by GC/MS SW8260B | BatchID: 199784 | Analysis Date: 11/25/2014 | Seq No: 5939826 | | | | | | | |
| Analyte | Result | RPT Limit | SPK value | SPK Ref Val | %REC | Low Limit | High Limit | RPD Ref Val | %RPD | RPD Limit | Qual |

| | | | | | | | | | | | |
|--------------------|-------|-----|-------|--|------|------|-----|--|--|--|--|
| 1,1-Dichloroethene | 38.31 | 5.0 | 50.00 | | 76.6 | 64.2 | 137 | | | | |
| Benzene | 43.64 | 5.0 | 50.00 | | 87.3 | 72.8 | 128 | | | | |
| Toluene | 44.31 | 5.0 | 50.00 | | 88.6 | 74.9 | 127 | | | | |
| Trichloroethene | 46.87 | 5.0 | 50.00 | | 93.7 | 70.5 | 134 | | | | |

Qualifiers:

| | | | | | |
|---------|--|---|---|---|--|
| > | Greater than Result value | < | Less than Result value | B | Analyte detected in the associated method blank |
| BRL | Below reporting limit | E | Estimated (value above quantitation range) | H | Holding times for preparation or analysis exceeded |
| J | Estimated value detected below Reporting Limit | N | Analyte not NELAC certified | R | RPD outside limits due to matrix |
| Rpt Lim | Reporting Limit | S | Spike Recovery outside limits due to matrix | | |

Client: BROWN AND CALDWELL
Project Name: Owens Corning
Workorder: 1411J75

ANALYTICAL QC SUMMARY REPORT

BatchID: 199784

| Sample ID: LCS-199784 | Client ID: | Units: ug/L | Prep Date: 11/25/2014 | Run No: 280786 | | | | | | | |
|------------------------------|--|------------------------|----------------------------------|------------------------|------|-----------|------------|-------------|------|-----------|------|
| SampleType: LCS | TestCode: Volatile Organic Compounds by GC/MS SW8260B | BatchID: 199784 | Analysis Date: 11/25/2014 | Seq No: 5939826 | | | | | | | |
| Analyte | Result | RPT Limit | SPK value | SPK Ref Val | %REC | Low Limit | High Limit | RPD Ref Val | %RPD | RPD Limit | Qual |

| | | | | | | | | | | | |
|----------------------------|-------|---|-------|--|------|------|-----|--|--|--|--|
| Surr: 4-Bromofluorobenzene | 45.14 | 0 | 50.00 | | 90.3 | 70.6 | 123 | | | | |
| Surr: Dibromofluoromethane | 47.15 | 0 | 50.00 | | 94.3 | 78.7 | 124 | | | | |
| Surr: Toluene-d8 | 47.30 | 0 | 50.00 | | 94.6 | 81.3 | 120 | | | | |

| Sample ID: 1411J75-022AMS | Client ID: 14325-MW-28 | Units: ug/L | Prep Date: 11/25/2014 | Run No: 280786 | | | | | | | |
|----------------------------------|--|------------------------|----------------------------------|------------------------|------|-----------|------------|-------------|------|-----------|------|
| SampleType: MS | TestCode: Volatile Organic Compounds by GC/MS SW8260B | BatchID: 199784 | Analysis Date: 11/26/2014 | Seq No: 5939841 | | | | | | | |
| Analyte | Result | RPT Limit | SPK value | SPK Ref Val | %REC | Low Limit | High Limit | RPD Ref Val | %RPD | RPD Limit | Qual |

| | | | | | | | | | | | |
|----------------------------|--------|------|-------|--------|------|------|-----|--|--|--|--|
| 1,1-Dichloroethene | 160600 | 5000 | 50000 | 121900 | 77.3 | 60.2 | 159 | | | | |
| Benzene | 41500 | 5000 | 50000 | | 83.0 | 70.2 | 138 | | | | |
| Toluene | 42150 | 5000 | 50000 | | 84.3 | 70 | 139 | | | | |
| Trichloroethene | 45140 | 5000 | 50000 | | 90.3 | 70.1 | 144 | | | | |
| Surr: 4-Bromofluorobenzene | 46280 | 0 | 50000 | | 92.6 | 70.6 | 123 | | | | |
| Surr: Dibromofluoromethane | 48920 | 0 | 50000 | | 97.8 | 78.7 | 124 | | | | |
| Surr: Toluene-d8 | 47390 | 0 | 50000 | | 94.8 | 81.3 | 120 | | | | |

| Sample ID: 1411J75-022AMSD | Client ID: 14325-MW-28 | Units: ug/L | Prep Date: 11/25/2014 | Run No: 280786 | | | | | | | |
|-----------------------------------|--|------------------------|----------------------------------|------------------------|------|-----------|------------|-------------|------|-----------|------|
| SampleType: MSD | TestCode: Volatile Organic Compounds by GC/MS SW8260B | BatchID: 199784 | Analysis Date: 11/26/2014 | Seq No: 5939842 | | | | | | | |
| Analyte | Result | RPT Limit | SPK value | SPK Ref Val | %REC | Low Limit | High Limit | RPD Ref Val | %RPD | RPD Limit | Qual |

| | | | | | | | | | | | |
|----------------------------|--------|------|-------|--------|------|------|-----|--------|------|------|--|
| 1,1-Dichloroethene | 158700 | 5000 | 50000 | 121900 | 73.7 | 60.2 | 159 | 160600 | 1.14 | 19.2 | |
| Benzene | 40960 | 5000 | 50000 | | 81.9 | 70.2 | 138 | 41500 | 1.31 | 20 | |
| Toluene | 41550 | 5000 | 50000 | | 83.1 | 70 | 139 | 42150 | 1.43 | 20 | |
| Trichloroethene | 43890 | 5000 | 50000 | | 87.8 | 70.1 | 144 | 45140 | 2.81 | 20 | |
| Surr: 4-Bromofluorobenzene | 45920 | 0 | 50000 | | 91.8 | 70.6 | 123 | 46280 | 0 | 0 | |
| Surr: Dibromofluoromethane | 49040 | 0 | 50000 | | 98.1 | 78.7 | 124 | 48920 | 0 | 0 | |
| Surr: Toluene-d8 | 46920 | 0 | 50000 | | 93.8 | 81.3 | 120 | 47390 | 0 | 0 | |

Qualifiers:

| | | | | | |
|---------|--|---|---|---|--|
| > | Greater than Result value | < | Less than Result value | B | Analyte detected in the associated method blank |
| BRL | Below reporting limit | E | Estimated (value above quantitation range) | H | Holding times for preparation or analysis exceeded |
| J | Estimated value detected below Reporting Limit | N | Analyte not NELAC certified | R | RPD outside limits due to matrix |
| Rpt Lim | Reporting Limit | S | Spike Recovery outside limits due to matrix | | |

Client: BROWN AND CALDWELL
Project Name: Owens Corning
Workorder: 1411J75

ANALYTICAL QC SUMMARY REPORT

BatchID: 199860

| Sample ID: MB-199860 | Client ID: | Units: ug/L | Prep Date: 11/28/2014 | Run No: 280879 | | | | | | | |
|-----------------------------|--|------------------------|----------------------------------|------------------------|------|-----------|------------|-------------|------|-----------|------|
| SampleType: MBLK | TestCode: Volatile Organic Compounds by GC/MS SW8260B | BatchID: 199860 | Analysis Date: 11/28/2014 | Seq No: 5942648 | | | | | | | |
| Analyte | Result | RPT Limit | SPK value | SPK Ref Val | %REC | Low Limit | High Limit | RPD Ref Val | %RPD | RPD Limit | Qual |

| | | | | | | | | | | | |
|----------------------------|-------|-----|-------|--|------|------|-----|--|--|--|--|
| 1,1,1-Trichloroethane | BRL | 5.0 | | | | | | | | | |
| 1,1-Dichloroethane | BRL | 5.0 | | | | | | | | | |
| 1,1-Dichloroethene | BRL | 5.0 | | | | | | | | | |
| 1,2-Dichloroethane | BRL | 5.0 | | | | | | | | | |
| Benzene | BRL | 5.0 | | | | | | | | | |
| Carbon tetrachloride | BRL | 5.0 | | | | | | | | | |
| Chloroform | BRL | 5.0 | | | | | | | | | |
| cis-1,2-Dichloroethene | BRL | 5.0 | | | | | | | | | |
| Ethylbenzene | BRL | 5.0 | | | | | | | | | |
| Methylene chloride | BRL | 5.0 | | | | | | | | | |
| Tetrachloroethene | BRL | 5.0 | | | | | | | | | |
| Toluene | BRL | 5.0 | | | | | | | | | |
| trans-1,2-Dichloroethene | BRL | 5.0 | | | | | | | | | |
| Trichloroethene | BRL | 5.0 | | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | | | | | | | | |
| Xylenes, Total | BRL | 5.0 | | | | | | | | | |
| Surr: 4-Bromofluorobenzene | 44.86 | 0 | 50.00 | | 89.7 | 70.6 | 123 | | | | |
| Surr: Dibromofluoromethane | 48.74 | 0 | 50.00 | | 97.5 | 78.7 | 124 | | | | |
| Surr: Toluene-d8 | 47.55 | 0 | 50.00 | | 95.1 | 81.3 | 120 | | | | |

| Sample ID: LCS-199860 | Client ID: | Units: ug/L | Prep Date: 11/28/2014 | Run No: 280879 | | | | | | | |
|------------------------------|--|------------------------|----------------------------------|------------------------|------|-----------|------------|-------------|------|-----------|------|
| SampleType: LCS | TestCode: Volatile Organic Compounds by GC/MS SW8260B | BatchID: 199860 | Analysis Date: 11/28/2014 | Seq No: 5942596 | | | | | | | |
| Analyte | Result | RPT Limit | SPK value | SPK Ref Val | %REC | Low Limit | High Limit | RPD Ref Val | %RPD | RPD Limit | Qual |

| | | | | | | | | | | | |
|--------------------|-------|-----|-------|--|------|------|-----|--|--|--|--|
| 1,1-Dichloroethene | 41.05 | 5.0 | 50.00 | | 82.1 | 64.2 | 137 | | | | |
| Benzene | 45.63 | 5.0 | 50.00 | | 91.3 | 72.8 | 128 | | | | |
| Toluene | 45.84 | 5.0 | 50.00 | | 91.7 | 74.9 | 127 | | | | |
| Trichloroethene | 48.91 | 5.0 | 50.00 | | 97.8 | 70.5 | 134 | | | | |

Qualifiers:

| | | | | | |
|---------|--|---|---|---|--|
| > | Greater than Result value | < | Less than Result value | B | Analyte detected in the associated method blank |
| BRL | Below reporting limit | E | Estimated (value above quantitation range) | H | Holding times for preparation or analysis exceeded |
| J | Estimated value detected below Reporting Limit | N | Analyte not NELAC certified | R | RPD outside limits due to matrix |
| Rpt Lim | Reporting Limit | S | Spike Recovery outside limits due to matrix | | |

Client: BROWN AND CALDWELL
Project Name: Owens Corning
Workorder: 1411J75

ANALYTICAL QC SUMMARY REPORT

BatchID: 199860

| Sample ID: LCS-199860 | Client ID: | Units: ug/L | Prep Date: 11/28/2014 | Run No: 280879 | | | | | | | |
|------------------------------|--|------------------------|----------------------------------|------------------------|------|-----------|------------|-------------|------|-----------|------|
| SampleType: LCS | TestCode: Volatile Organic Compounds by GC/MS SW8260B | BatchID: 199860 | Analysis Date: 11/28/2014 | Seq No: 5942596 | | | | | | | |
| Analyte | Result | RPT Limit | SPK value | SPK Ref Val | %REC | Low Limit | High Limit | RPD Ref Val | %RPD | RPD Limit | Qual |

| | | | | | | | | | | | |
|----------------------------|-------|---|-------|--|------|------|-----|--|--|--|--|
| Surr: 4-Bromofluorobenzene | 45.58 | 0 | 50.00 | | 91.2 | 70.6 | 123 | | | | |
| Surr: Dibromofluoromethane | 47.68 | 0 | 50.00 | | 95.4 | 78.7 | 124 | | | | |
| Surr: Toluene-d8 | 47.81 | 0 | 50.00 | | 95.6 | 81.3 | 120 | | | | |

| Sample ID: 1411J75-042AMS | Client ID: 14323-MW-44 | Units: ug/L | Prep Date: 11/28/2014 | Run No: 280879 | | | | | | | |
|----------------------------------|--|------------------------|----------------------------------|------------------------|------|-----------|------------|-------------|------|-----------|------|
| SampleType: MS | TestCode: Volatile Organic Compounds by GC/MS SW8260B | BatchID: 199860 | Analysis Date: 11/28/2014 | Seq No: 5942786 | | | | | | | |
| Analyte | Result | RPT Limit | SPK value | SPK Ref Val | %REC | Low Limit | High Limit | RPD Ref Val | %RPD | RPD Limit | Qual |

| | | | | | | | | | | | |
|----------------------------|-------|-----|-------|--|------|------|-----|--|--|--|--|
| 1,1-Dichloroethene | 42.84 | 5.0 | 50.00 | | 85.7 | 60.2 | 159 | | | | |
| Benzene | 45.41 | 5.0 | 50.00 | | 90.8 | 70.2 | 138 | | | | |
| Toluene | 46.41 | 5.0 | 50.00 | | 92.8 | 70 | 139 | | | | |
| Trichloroethene | 49.03 | 5.0 | 50.00 | | 98.1 | 70.1 | 144 | | | | |
| Surr: 4-Bromofluorobenzene | 45.40 | 0 | 50.00 | | 90.8 | 70.6 | 123 | | | | |
| Surr: Dibromofluoromethane | 48.14 | 0 | 50.00 | | 96.3 | 78.7 | 124 | | | | |
| Surr: Toluene-d8 | 47.96 | 0 | 50.00 | | 95.9 | 81.3 | 120 | | | | |

| Sample ID: 1411J75-042AMSD | Client ID: 14323-MW-44 | Units: ug/L | Prep Date: 11/28/2014 | Run No: 280879 | | | | | | | |
|-----------------------------------|--|------------------------|----------------------------------|------------------------|------|-----------|------------|-------------|------|-----------|------|
| SampleType: MSD | TestCode: Volatile Organic Compounds by GC/MS SW8260B | BatchID: 199860 | Analysis Date: 11/28/2014 | Seq No: 5942979 | | | | | | | |
| Analyte | Result | RPT Limit | SPK value | SPK Ref Val | %REC | Low Limit | High Limit | RPD Ref Val | %RPD | RPD Limit | Qual |

| | | | | | | | | | | | |
|----------------------------|-------|-----|-------|--|------|------|-----|-------|-------|------|--|
| 1,1-Dichloroethene | 40.52 | 5.0 | 50.00 | | 81.0 | 60.2 | 159 | 42.84 | 5.57 | 19.2 | |
| Benzene | 45.00 | 5.0 | 50.00 | | 90.0 | 70.2 | 138 | 45.41 | 0.907 | 20 | |
| Toluene | 45.21 | 5.0 | 50.00 | | 90.4 | 70 | 139 | 46.41 | 2.62 | 20 | |
| Trichloroethene | 47.44 | 5.0 | 50.00 | | 94.9 | 70.1 | 144 | 49.03 | 3.30 | 20 | |
| Surr: 4-Bromofluorobenzene | 44.91 | 0 | 50.00 | | 89.8 | 70.6 | 123 | 45.40 | 0 | 0 | |
| Surr: Dibromofluoromethane | 48.21 | 0 | 50.00 | | 96.4 | 78.7 | 124 | 48.14 | 0 | 0 | |
| Surr: Toluene-d8 | 48.26 | 0 | 50.00 | | 96.5 | 81.3 | 120 | 47.96 | 0 | 0 | |

Qualifiers:

| | | | | | |
|---------|--|---|---|---|--|
| > | Greater than Result value | < | Less than Result value | B | Analyte detected in the associated method blank |
| BRL | Below reporting limit | E | Estimated (value above quantitation range) | H | Holding times for preparation or analysis exceeded |
| J | Estimated value detected below Reporting Limit | N | Analyte not NELAC certified | R | RPD outside limits due to matrix |
| Rpt Lim | Reporting Limit | S | Spike Recovery outside limits due to matrix | | |

Client: BROWN AND CALDWELL
Project Name: Owens Corning
Workorder: 1411J75

ANALYTICAL QC SUMMARY REPORT

BatchID: 199861

| Sample ID: MB-199861 | Client ID: | Units: ug/L | Prep Date: 11/26/2014 | Run No: 280881 | | | | | | | |
|-----------------------------|--|------------------------|----------------------------------|------------------------|------|-----------|------------|-------------|------|-----------|------|
| SampleType: MBLK | TestCode: Volatile Organic Compounds by GC/MS SW8260B | BatchID: 199861 | Analysis Date: 11/26/2014 | Seq No: 5942569 | | | | | | | |
| Analyte | Result | RPT Limit | SPK value | SPK Ref Val | %REC | Low Limit | High Limit | RPD Ref Val | %RPD | RPD Limit | Qual |

| | | | | | | | | | | | |
|----------------------------|-------|-----|-------|--|------|------|-----|--|--|--|--|
| 1,1,1-Trichloroethane | BRL | 5.0 | | | | | | | | | |
| 1,1-Dichloroethane | BRL | 5.0 | | | | | | | | | |
| 1,1-Dichloroethene | BRL | 5.0 | | | | | | | | | |
| 1,2-Dichloroethane | BRL | 5.0 | | | | | | | | | |
| Benzene | BRL | 5.0 | | | | | | | | | |
| Carbon tetrachloride | BRL | 5.0 | | | | | | | | | |
| Chloroform | BRL | 5.0 | | | | | | | | | |
| cis-1,2-Dichloroethene | BRL | 5.0 | | | | | | | | | |
| Ethylbenzene | BRL | 5.0 | | | | | | | | | |
| Methylene chloride | BRL | 5.0 | | | | | | | | | |
| Tetrachloroethene | BRL | 5.0 | | | | | | | | | |
| Toluene | BRL | 5.0 | | | | | | | | | |
| trans-1,2-Dichloroethene | BRL | 5.0 | | | | | | | | | |
| Trichloroethene | BRL | 5.0 | | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | | | | | | | | |
| Xylenes, Total | BRL | 5.0 | | | | | | | | | |
| Surr: 4-Bromofluorobenzene | 41.75 | 0 | 50.00 | | 83.5 | 70.6 | 123 | | | | |
| Surr: Dibromofluoromethane | 50.47 | 0 | 50.00 | | 101 | 78.7 | 124 | | | | |
| Surr: Toluene-d8 | 46.76 | 0 | 50.00 | | 93.5 | 81.3 | 120 | | | | |

| Sample ID: LCS-199861 | Client ID: | Units: ug/L | Prep Date: 11/26/2014 | Run No: 280881 | | | | | | | |
|------------------------------|--|------------------------|----------------------------------|------------------------|------|-----------|------------|-------------|------|-----------|------|
| SampleType: LCS | TestCode: Volatile Organic Compounds by GC/MS SW8260B | BatchID: 199861 | Analysis Date: 11/26/2014 | Seq No: 5942568 | | | | | | | |
| Analyte | Result | RPT Limit | SPK value | SPK Ref Val | %REC | Low Limit | High Limit | RPD Ref Val | %RPD | RPD Limit | Qual |

| | | | | | | | | | | | |
|--------------------|-------|-----|-------|--|------|------|-----|--|--|--|--|
| 1,1-Dichloroethene | 54.05 | 5.0 | 50.00 | | 108 | 64.2 | 137 | | | | |
| Benzene | 44.44 | 5.0 | 50.00 | | 88.9 | 72.8 | 128 | | | | |
| Toluene | 45.64 | 5.0 | 50.00 | | 91.3 | 74.9 | 127 | | | | |
| Trichloroethene | 44.00 | 5.0 | 50.00 | | 88.0 | 70.5 | 134 | | | | |

Qualifiers:

| | | | | | |
|---------|--|---|---|---|--|
| > | Greater than Result value | < | Less than Result value | B | Analyte detected in the associated method blank |
| BRL | Below reporting limit | E | Estimated (value above quantitation range) | H | Holding times for preparation or analysis exceeded |
| J | Estimated value detected below Reporting Limit | N | Analyte not NELAC certified | R | RPD outside limits due to matrix |
| Rpt Lim | Reporting Limit | S | Spike Recovery outside limits due to matrix | | |

Client: BROWN AND CALDWELL
Project Name: Owens Corning
Workorder: 1411J75

ANALYTICAL QC SUMMARY REPORT

BatchID: 199861

| Sample ID: LCS-199861 | Client ID: | Units: ug/L | Prep Date: 11/26/2014 | Run No: 280881 | | | | | | | |
|------------------------------|--|------------------------|----------------------------------|------------------------|------|-----------|------------|-------------|------|-----------|------|
| SampleType: LCS | TestCode: Volatile Organic Compounds by GC/MS SW8260B | BatchID: 199861 | Analysis Date: 11/26/2014 | Seq No: 5942568 | | | | | | | |
| Analyte | Result | RPT Limit | SPK value | SPK Ref Val | %REC | Low Limit | High Limit | RPD Ref Val | %RPD | RPD Limit | Qual |

| | | | | | | | | | | | |
|----------------------------|-------|---|-------|--|------|------|-----|--|--|--|--|
| Surr: 4-Bromofluorobenzene | 42.61 | 0 | 50.00 | | 85.2 | 70.6 | 123 | | | | |
| Surr: Dibromofluoromethane | 48.90 | 0 | 50.00 | | 97.8 | 78.7 | 124 | | | | |
| Surr: Toluene-d8 | 45.72 | 0 | 50.00 | | 91.4 | 81.3 | 120 | | | | |

| Sample ID: 1411J75-072AMS | Client ID: 14322-MW-29R-Z3 | Units: ug/L | Prep Date: 11/26/2014 | Run No: 280881 | | | | | | | |
|----------------------------------|--|------------------------|----------------------------------|------------------------|------|-----------|------------|-------------|------|-----------|------|
| SampleType: MS | TestCode: Volatile Organic Compounds by GC/MS SW8260B | BatchID: 199861 | Analysis Date: 11/26/2014 | Seq No: 5942573 | | | | | | | |
| Analyte | Result | RPT Limit | SPK value | SPK Ref Val | %REC | Low Limit | High Limit | RPD Ref Val | %RPD | RPD Limit | Qual |

| | | | | | | | | | | | |
|----------------------------|-------|----|-------|-------|------|------|-----|--|--|--|--|
| 1,1-Dichloroethene | 940.9 | 50 | 500.0 | 296.6 | 129 | 60.2 | 159 | | | | |
| Benzene | 510.3 | 50 | 500.0 | | 102 | 70.2 | 138 | | | | |
| Toluene | 515.9 | 50 | 500.0 | | 103 | 70 | 139 | | | | |
| Trichloroethene | 487.3 | 50 | 500.0 | | 97.5 | 70.1 | 144 | | | | |
| Surr: 4-Bromofluorobenzene | 414.3 | 0 | 500.0 | | 82.9 | 70.6 | 123 | | | | |
| Surr: Dibromofluoromethane | 504.3 | 0 | 500.0 | | 101 | 78.7 | 124 | | | | |
| Surr: Toluene-d8 | 459.4 | 0 | 500.0 | | 91.9 | 81.3 | 120 | | | | |

| Sample ID: 1411J75-072AMSD | Client ID: 14322-MW-29R-Z3 | Units: ug/L | Prep Date: 11/26/2014 | Run No: 280881 | | | | | | | |
|-----------------------------------|--|------------------------|----------------------------------|------------------------|------|-----------|------------|-------------|------|-----------|------|
| SampleType: MSD | TestCode: Volatile Organic Compounds by GC/MS SW8260B | BatchID: 199861 | Analysis Date: 11/26/2014 | Seq No: 5942574 | | | | | | | |
| Analyte | Result | RPT Limit | SPK value | SPK Ref Val | %REC | Low Limit | High Limit | RPD Ref Val | %RPD | RPD Limit | Qual |

| | | | | | | | | | | | |
|----------------------------|-------|----|-------|-------|------|------|-----|-------|------|------|--|
| 1,1-Dichloroethene | 976.1 | 50 | 500.0 | 296.6 | 136 | 60.2 | 159 | 940.9 | 3.67 | 19.2 | |
| Benzene | 515.6 | 50 | 500.0 | | 103 | 70.2 | 138 | 510.3 | 1.03 | 20 | |
| Toluene | 521.6 | 50 | 500.0 | | 104 | 70 | 139 | 515.9 | 1.10 | 20 | |
| Trichloroethene | 517.5 | 50 | 500.0 | | 104 | 70.1 | 144 | 487.3 | 6.01 | 20 | |
| Surr: 4-Bromofluorobenzene | 412.4 | 0 | 500.0 | | 82.5 | 70.6 | 123 | 414.3 | 0 | 0 | |
| Surr: Dibromofluoromethane | 499.7 | 0 | 500.0 | | 99.9 | 78.7 | 124 | 504.3 | 0 | 0 | |
| Surr: Toluene-d8 | 463.8 | 0 | 500.0 | | 92.8 | 81.3 | 120 | 459.4 | 0 | 0 | |

Qualifiers: > Greater than Result value < Less than Result value B Analyte detected in the associated method blank
 BRL Below reporting limit E Estimated (value above quantitation range) H Holding times for preparation or analysis exceeded
 J Estimated value detected below Reporting Limit N Analyte not NELAC certified R RPD outside limits due to matrix
 Rpt Lim Reporting Limit S Spike Recovery outside limits due to matrix

Client: BROWN AND CALDWELL
Project Name: Owens Corning
Workorder: 1411J75

ANALYTICAL QC SUMMARY REPORT

BatchID: 199874

| Sample ID: MB-199874 | Client ID: | Units: ug/L | Prep Date: 11/28/2014 | Run No: 280897 | | | | | | | |
|-----------------------------|--|------------------------|----------------------------------|------------------------|------|-----------|------------|-------------|------|-----------|------|
| SampleType: MBLK | TestCode: Volatile Organic Compounds by GC/MS SW8260B | BatchID: 199874 | Analysis Date: 11/28/2014 | Seq No: 5944706 | | | | | | | |
| Analyte | Result | RPT Limit | SPK value | SPK Ref Val | %REC | Low Limit | High Limit | RPD Ref Val | %RPD | RPD Limit | Qual |

| | | | | | | | | | | | |
|----------------------------|-------|-----|-------|--|------|------|-----|--|--|--|--|
| 1,1,1-Trichloroethane | BRL | 5.0 | | | | | | | | | |
| 1,1-Dichloroethane | BRL | 5.0 | | | | | | | | | |
| 1,1-Dichloroethene | BRL | 5.0 | | | | | | | | | |
| 1,2-Dichloroethane | BRL | 5.0 | | | | | | | | | |
| Benzene | BRL | 5.0 | | | | | | | | | |
| Carbon tetrachloride | BRL | 5.0 | | | | | | | | | |
| Chloroform | BRL | 5.0 | | | | | | | | | |
| cis-1,2-Dichloroethene | BRL | 5.0 | | | | | | | | | |
| Ethylbenzene | BRL | 5.0 | | | | | | | | | |
| Methylene chloride | BRL | 5.0 | | | | | | | | | |
| Tetrachloroethene | BRL | 5.0 | | | | | | | | | |
| Toluene | BRL | 5.0 | | | | | | | | | |
| trans-1,2-Dichloroethene | BRL | 5.0 | | | | | | | | | |
| Trichloroethene | BRL | 5.0 | | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | | | | | | | | |
| Xylenes, Total | BRL | 5.0 | | | | | | | | | |
| Surr: 4-Bromofluorobenzene | 41.10 | 0 | 50.00 | | 82.2 | 70.6 | 123 | | | | |
| Surr: Dibromofluoromethane | 53.43 | 0 | 50.00 | | 107 | 78.7 | 124 | | | | |
| Surr: Toluene-d8 | 47.46 | 0 | 50.00 | | 94.9 | 81.3 | 120 | | | | |

| Sample ID: LCS-199874 | Client ID: | Units: ug/L | Prep Date: 11/28/2014 | Run No: 280897 | | | | | | | |
|------------------------------|--|------------------------|----------------------------------|------------------------|------|-----------|------------|-------------|------|-----------|------|
| SampleType: LCS | TestCode: Volatile Organic Compounds by GC/MS SW8260B | BatchID: 199874 | Analysis Date: 11/28/2014 | Seq No: 5944705 | | | | | | | |
| Analyte | Result | RPT Limit | SPK value | SPK Ref Val | %REC | Low Limit | High Limit | RPD Ref Val | %RPD | RPD Limit | Qual |

| | | | | | | | | | | | |
|--------------------|-------|-----|-------|--|------|------|-----|--|--|--|--|
| 1,1-Dichloroethene | 58.05 | 5.0 | 50.00 | | 116 | 64.2 | 137 | | | | |
| Benzene | 47.75 | 5.0 | 50.00 | | 95.5 | 72.8 | 128 | | | | |
| Toluene | 49.38 | 5.0 | 50.00 | | 98.8 | 74.9 | 127 | | | | |
| Trichloroethene | 47.93 | 5.0 | 50.00 | | 95.9 | 70.5 | 134 | | | | |

Qualifiers:

| | | | | | |
|---------|--|---|---|---|--|
| > | Greater than Result value | < | Less than Result value | B | Analyte detected in the associated method blank |
| BRL | Below reporting limit | E | Estimated (value above quantitation range) | H | Holding times for preparation or analysis exceeded |
| J | Estimated value detected below Reporting Limit | N | Analyte not NELAC certified | R | RPD outside limits due to matrix |
| Rpt Lim | Reporting Limit | S | Spike Recovery outside limits due to matrix | | |

Client: BROWN AND CALDWELL
Project Name: Owens Corning
Workorder: 1411J75

ANALYTICAL QC SUMMARY REPORT

BatchID: 199874

| Sample ID: LCS-199874 | Client ID: | Units: ug/L | Prep Date: 11/28/2014 | Run No: 280897 | | | | | | | |
|------------------------------|--|------------------------|----------------------------------|------------------------|------|-----------|------------|-------------|------|-----------|------|
| SampleType: LCS | TestCode: Volatile Organic Compounds by GC/MS SW8260B | BatchID: 199874 | Analysis Date: 11/28/2014 | Seq No: 5944705 | | | | | | | |
| Analyte | Result | RPT Limit | SPK value | SPK Ref Val | %REC | Low Limit | High Limit | RPD Ref Val | %RPD | RPD Limit | Qual |

| | | | | | | | | | | | |
|----------------------------|-------|---|-------|--|------|------|-----|--|--|--|--|
| Surr: 4-Bromofluorobenzene | 40.99 | 0 | 50.00 | | 82.0 | 70.6 | 123 | | | | |
| Surr: Dibromofluoromethane | 50.02 | 0 | 50.00 | | 100 | 78.7 | 124 | | | | |
| Surr: Toluene-d8 | 45.62 | 0 | 50.00 | | 91.2 | 81.3 | 120 | | | | |

| Sample ID: 1411J20-006AMS | Client ID: | Units: ug/L | Prep Date: 11/28/2014 | Run No: 280897 | | | | | | | |
|----------------------------------|--|------------------------|----------------------------------|------------------------|------|-----------|------------|-------------|------|-----------|------|
| SampleType: MS | TestCode: Volatile Organic Compounds by GC/MS SW8260B | BatchID: 199874 | Analysis Date: 11/28/2014 | Seq No: 5944708 | | | | | | | |
| Analyte | Result | RPT Limit | SPK value | SPK Ref Val | %REC | Low Limit | High Limit | RPD Ref Val | %RPD | RPD Limit | Qual |

| | | | | | | | | | | | |
|----------------------------|-------|-----|-------|--|------|------|-----|--|--|--|--|
| 1,1-Dichloroethene | 61.80 | 5.0 | 50.00 | | 124 | 60.2 | 159 | | | | |
| Benzene | 50.50 | 5.0 | 50.00 | | 101 | 70.2 | 138 | | | | |
| Toluene | 51.10 | 5.0 | 50.00 | | 102 | 70 | 139 | | | | |
| Trichloroethene | 48.96 | 5.0 | 50.00 | | 97.9 | 70.1 | 144 | | | | |
| Surr: 4-Bromofluorobenzene | 42.43 | 0 | 50.00 | | 84.9 | 70.6 | 123 | | | | |
| Surr: Dibromofluoromethane | 50.72 | 0 | 50.00 | | 101 | 78.7 | 124 | | | | |
| Surr: Toluene-d8 | 45.95 | 0 | 50.00 | | 91.9 | 81.3 | 120 | | | | |

| Sample ID: 1411J20-006AMSD | Client ID: | Units: ug/L | Prep Date: 11/28/2014 | Run No: 280897 | | | | | | | |
|-----------------------------------|--|------------------------|----------------------------------|------------------------|------|-----------|------------|-------------|------|-----------|------|
| SampleType: MSD | TestCode: Volatile Organic Compounds by GC/MS SW8260B | BatchID: 199874 | Analysis Date: 11/28/2014 | Seq No: 5944709 | | | | | | | |
| Analyte | Result | RPT Limit | SPK value | SPK Ref Val | %REC | Low Limit | High Limit | RPD Ref Val | %RPD | RPD Limit | Qual |

| | | | | | | | | | | | |
|----------------------------|-------|-----|-------|--|------|------|-----|-------|-------|------|--|
| 1,1-Dichloroethene | 64.51 | 5.0 | 50.00 | | 129 | 60.2 | 159 | 61.80 | 4.29 | 19.2 | |
| Benzene | 50.16 | 5.0 | 50.00 | | 100 | 70.2 | 138 | 50.50 | 0.676 | 20 | |
| Toluene | 50.75 | 5.0 | 50.00 | | 102 | 70 | 139 | 51.10 | 0.687 | 20 | |
| Trichloroethene | 48.68 | 5.0 | 50.00 | | 97.4 | 70.1 | 144 | 48.96 | 0.574 | 20 | |
| Surr: 4-Bromofluorobenzene | 41.98 | 0 | 50.00 | | 84.0 | 70.6 | 123 | 42.43 | 0 | 0 | |
| Surr: Dibromofluoromethane | 51.58 | 0 | 50.00 | | 103 | 78.7 | 124 | 50.72 | 0 | 0 | |
| Surr: Toluene-d8 | 45.68 | 0 | 50.00 | | 91.4 | 81.3 | 120 | 45.95 | 0 | 0 | |

Qualifiers:

| | | | | | |
|---------|--|---|---|---|--|
| > | Greater than Result value | < | Less than Result value | B | Analyte detected in the associated method blank |
| BRL | Below reporting limit | E | Estimated (value above quantitation range) | H | Holding times for preparation or analysis exceeded |
| J | Estimated value detected below Reporting Limit | N | Analyte not NELAC certified | R | RPD outside limits due to matrix |
| Rpt Lim | Reporting Limit | S | Spike Recovery outside limits due to matrix | | |

Client: BROWN AND CALDWELL
Project Name: Owens Corning
Workorder: 1411J75

ANALYTICAL QC SUMMARY REPORT

BatchID: 200022

| Sample ID: MB-200022 | Client ID: | Units: ug/L | Prep Date: 12/03/2014 | Run No: 281146 | | | | | | | |
|-----------------------------|--|------------------------|----------------------------------|------------------------|------|-----------|------------|-------------|------|-----------|------|
| SampleType: MBLK | TestCode: Volatile Organic Compounds by GC/MS SW8260B | BatchID: 200022 | Analysis Date: 12/03/2014 | Seq No: 5951932 | | | | | | | |
| Analyte | Result | RPT Limit | SPK value | SPK Ref Val | %REC | Low Limit | High Limit | RPD Ref Val | %RPD | RPD Limit | Qual |

| | | | | | | | | | | | |
|----------------------------|-------|-----|-------|--|------|------|-----|--|--|--|--|
| 1,1,1-Trichloroethane | BRL | 5.0 | | | | | | | | | |
| 1,1-Dichloroethane | BRL | 5.0 | | | | | | | | | |
| 1,1-Dichloroethene | BRL | 5.0 | | | | | | | | | |
| 1,2-Dichloroethane | BRL | 5.0 | | | | | | | | | |
| Benzene | BRL | 5.0 | | | | | | | | | |
| Carbon tetrachloride | BRL | 5.0 | | | | | | | | | |
| Chloroform | BRL | 5.0 | | | | | | | | | |
| cis-1,2-Dichloroethene | BRL | 5.0 | | | | | | | | | |
| Ethylbenzene | BRL | 5.0 | | | | | | | | | |
| Methylene chloride | BRL | 5.0 | | | | | | | | | |
| Tetrachloroethene | BRL | 5.0 | | | | | | | | | |
| Toluene | BRL | 5.0 | | | | | | | | | |
| trans-1,2-Dichloroethene | BRL | 5.0 | | | | | | | | | |
| Trichloroethene | BRL | 5.0 | | | | | | | | | |
| Vinyl chloride | BRL | 2.0 | | | | | | | | | |
| Xylenes, Total | BRL | 5.0 | | | | | | | | | |
| Surr: 4-Bromofluorobenzene | 45.32 | 0 | 50.00 | | 90.6 | 70.6 | 123 | | | | |
| Surr: Dibromofluoromethane | 47.53 | 0 | 50.00 | | 95.1 | 78.7 | 124 | | | | |
| Surr: Toluene-d8 | 47.72 | 0 | 50.00 | | 95.4 | 81.3 | 120 | | | | |

| Sample ID: LCS-200022 | Client ID: | Units: ug/L | Prep Date: 12/03/2014 | Run No: 281146 | | | | | | | |
|------------------------------|--|------------------------|----------------------------------|------------------------|------|-----------|------------|-------------|------|-----------|------|
| SampleType: LCS | TestCode: Volatile Organic Compounds by GC/MS SW8260B | BatchID: 200022 | Analysis Date: 12/03/2014 | Seq No: 5951933 | | | | | | | |
| Analyte | Result | RPT Limit | SPK value | SPK Ref Val | %REC | Low Limit | High Limit | RPD Ref Val | %RPD | RPD Limit | Qual |

| | | | | | | | | | | | |
|--------------------|-------|-----|-------|--|------|------|-----|--|--|--|--|
| 1,1-Dichloroethene | 39.15 | 5.0 | 50.00 | | 78.3 | 64.2 | 137 | | | | |
| Benzene | 45.36 | 5.0 | 50.00 | | 90.7 | 72.8 | 128 | | | | |
| Toluene | 46.54 | 5.0 | 50.00 | | 93.1 | 74.9 | 127 | | | | |
| Trichloroethene | 48.98 | 5.0 | 50.00 | | 98.0 | 70.5 | 134 | | | | |

| | | | |
|--------------------|--|---|--|
| Qualifiers: | > Greater than Result value | < Less than Result value | B Analyte detected in the associated method blank |
| BRL | Below reporting limit | E Estimated (value above quantitation range) | H Holding times for preparation or analysis exceeded |
| J | Estimated value detected below Reporting Limit | N Analyte not NELAC certified | R RPD outside limits due to matrix |
| Rpt Lim | Reporting Limit | S Spike Recovery outside limits due to matrix | |

Client: BROWN AND CALDWELL
Project Name: Owens Corning
Workorder: 1411J75

ANALYTICAL QC SUMMARY REPORT

BatchID: 200022

| Sample ID: LCS-200022 | Client ID: | Units: ug/L | Prep Date: 12/03/2014 | Run No: 281146 | | | | | | | |
|------------------------------|--|------------------------|----------------------------------|------------------------|------|-----------|------------|-------------|------|-----------|------|
| SampleType: LCS | TestCode: Volatile Organic Compounds by GC/MS SW8260B | BatchID: 200022 | Analysis Date: 12/03/2014 | Seq No: 5951933 | | | | | | | |
| Analyte | Result | RPT Limit | SPK value | SPK Ref Val | %REC | Low Limit | High Limit | RPD Ref Val | %RPD | RPD Limit | Qual |

| | | | | | | | | | | | |
|----------------------------|-------|---|-------|--|------|------|-----|--|--|--|--|
| Surr: 4-Bromofluorobenzene | 45.43 | 0 | 50.00 | | 90.9 | 70.6 | 123 | | | | |
| Surr: Dibromofluoromethane | 46.56 | 0 | 50.00 | | 93.1 | 78.7 | 124 | | | | |
| Surr: Toluene-d8 | 47.37 | 0 | 50.00 | | 94.7 | 81.3 | 120 | | | | |

| Sample ID: 1411N71-001AMS | Client ID: | Units: ug/L | Prep Date: 12/03/2014 | Run No: 281146 | | | | | | | |
|----------------------------------|--|------------------------|----------------------------------|------------------------|------|-----------|------------|-------------|------|-----------|------|
| SampleType: MS | TestCode: Volatile Organic Compounds by GC/MS SW8260B | BatchID: 200022 | Analysis Date: 12/03/2014 | Seq No: 5951934 | | | | | | | |
| Analyte | Result | RPT Limit | SPK value | SPK Ref Val | %REC | Low Limit | High Limit | RPD Ref Val | %RPD | RPD Limit | Qual |

| | | | | | | | | | | | |
|----------------------------|-------|-----|-------|--|------|------|-----|--|--|--|---|
| 1,1-Dichloroethene | 22.79 | 5.0 | 50.00 | | 45.6 | 60.5 | 156 | | | | S |
| Benzene | 45.91 | 5.0 | 50.00 | | 91.8 | 70 | 135 | | | | |
| Toluene | 21.41 | 5.0 | 50.00 | | 42.8 | 70.5 | 137 | | | | S |
| Trichloroethene | 45.58 | 5.0 | 50.00 | | 91.2 | 71.8 | 139 | | | | |
| Surr: 4-Bromofluorobenzene | 44.33 | 0 | 50.00 | | 88.7 | 70.6 | 123 | | | | |
| Surr: Dibromofluoromethane | 47.64 | 0 | 50.00 | | 95.3 | 78.7 | 124 | | | | |
| Surr: Toluene-d8 | 41.30 | 0 | 50.00 | | 82.6 | 81.3 | 120 | | | | |

| Sample ID: 1411N71-001AMSD | Client ID: | Units: ug/L | Prep Date: 12/03/2014 | Run No: 281146 | | | | | | | |
|-----------------------------------|--|------------------------|----------------------------------|------------------------|------|-----------|------------|-------------|------|-----------|------|
| SampleType: MSD | TestCode: Volatile Organic Compounds by GC/MS SW8260B | BatchID: 200022 | Analysis Date: 12/03/2014 | Seq No: 5951935 | | | | | | | |
| Analyte | Result | RPT Limit | SPK value | SPK Ref Val | %REC | Low Limit | High Limit | RPD Ref Val | %RPD | RPD Limit | Qual |

| | | | | | | | | | | | |
|----------------------------|-------|-----|-------|--|------|------|-----|-------|-------|----|---|
| 1,1-Dichloroethene | 20.24 | 5.0 | 50.00 | | 40.5 | 60.5 | 156 | 22.79 | 11.9 | 20 | S |
| Benzene | 45.97 | 5.0 | 50.00 | | 91.9 | 70 | 135 | 45.91 | 0.131 | 20 | |
| Toluene | 19.38 | 5.0 | 50.00 | | 38.8 | 70.5 | 137 | 21.41 | 9.95 | 20 | S |
| Trichloroethene | 44.31 | 5.0 | 50.00 | | 88.6 | 71.8 | 139 | 45.58 | 2.83 | 20 | |
| Surr: 4-Bromofluorobenzene | 44.50 | 0 | 50.00 | | 89.0 | 70.6 | 123 | 44.33 | 0 | 0 | |
| Surr: Dibromofluoromethane | 46.67 | 0 | 50.00 | | 93.3 | 78.7 | 124 | 47.64 | 0 | 0 | |
| Surr: Toluene-d8 | 42.00 | 0 | 50.00 | | 84.0 | 81.3 | 120 | 41.30 | 0 | 0 | |

Qualifiers:

| | | | | | |
|---------|--|---|---|---|--|
| > | Greater than Result value | < | Less than Result value | B | Analyte detected in the associated method blank |
| BRL | Below reporting limit | E | Estimated (value above quantitation range) | H | Holding times for preparation or analysis exceeded |
| J | Estimated value detected below Reporting Limit | N | Analyte not NELAC certified | R | RPD outside limits due to matrix |
| Rpt Lim | Reporting Limit | S | Spike Recovery outside limits due to matrix | | |

Appendix D: Historical Groundwater Data



**Historical Groundwater Analytical Results
Owens Corning - Anderson, SC**

| Sample ID | MW-1 | | | | | | | | | |
|--|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Sample Date | Aug-93 | Dec-95 | Dec-96 | Nov-97 | Dec-98 | Dec-99 | Dec-00 | Nov-01 | Dec-04 | Nov-05 |
| Volatile Organic Compounds (ug/L) | | | | | | | | | | |
| Tetrachloroethene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Trichloroethene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1-Dichloroethene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Vinyl Chloride | ND | NA | ND | ND | ND | ND | ND | ND | ND | ND |
| Carbon tetrachloride | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Chloroform | ND | ND | ND | ND | ND | ND | ND | ND | 21 | ND |
| Methylene chloride | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1,1-Trichloroethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2-Dichloroethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Benzene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Metals (ug/L) | | | | | | | | | | |
| Arsenic | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Barium | 190 | 51.8 | 160 | 60 | 50 | 49 | 39 | 39 | NA | NA |
| Beryllium | 0.46 | ND | ND | ND | ND | ND | ND | ND | NA | NA |
| Chromium | ND | ND | 3.1 | 2 | 2 | ND | ND | ND | NA | NA |
| Lead | ND | ND | 2.1 | ND | ND | ND | ND | ND | NA | NA |
| Nickel | ND | ND | ND | 1 | 7 | ND | ND | ND | NA | NA |
| Fluoride | ND | ND | 46.9 | 500 | ND | ND | 250 | ND | NA | NA |

ug/L - Micrograms per liter

NA - Not analyzed

ND - Non-detect, reporting limits were not given in report.

Analytical results are from Arcadis reports.

**Historical Groundwater Analytical Results
Owens Corning - Anderson, SC**

| Sample ID | MW-2 | | | | | | | | | |
|--|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Sample Date | Aug-93 | Dec-95 | Dec-96 | Nov-97 | Dec-98 | Dec-99 | Dec-00 | Nov-01 | Dec-04 | Nov-05 |
| Volatile Organic Compounds (ug/L) | | | | | | | | | | |
| Tetrachloroethene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Trichloroethene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1-Dichloroethene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Vinyl Chloride | ND | NA | ND | ND | ND | ND | ND | ND | ND | ND |
| Carbon tetrachloride | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Chloroform | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Methylene chloride | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1,1-Trichloroethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2-Dichloroethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Benzene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Metals (ug/L) | | | | | | | | | | |
| Arsenic | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Barium | 330 | 64.8 | 130 | 40 | 40 | 41 | 90 | 52 | NA | NA |
| Beryllium | 1.1 | ND | ND | ND | ND | ND | ND | ND | NA | NA |
| Chromium | 11 | ND | 3.4 | 1 | 1 | ND | 35 | ND | NA | NA |
| Lead | ND | 2.2 | ND | ND | ND | ND | 5.5 | ND | NA | NA |
| Nickel | ND | ND | ND | 1.0 | ND | ND | 27 | ND | NA | NA |
| Fluoride | ND | ND | 78.5 | 600 | ND | ND | 240 | ND | NA | NA |

ug/L - Micrograms per liter

NA - Not analyzed

ND - Non-detect, reporting limits were not given in report.

Analytical data are from Arcadis reports.

**Historical Groundwater Analytical Results
Owens Corning - Anderson, SC**

| Sample ID | MW-3 | | | | | | | | | | | | | |
|--|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Sample Date | Nov-90 | Aug-91 | Aug-93 | Dec-95 | Dec-96 | Nov-97 | Dec-98 | Dec-99 | Dec-00 | Nov-01 | Dec-02 | Dec-03 | Dec-04 | Nov-05 |
| Volatile Organic Compounds (ug/L) | | | | | | | | | | | | | | |
| Tetrachloroethene | NA | ND | NA | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Trichloroethene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1-Dichloroethene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Vinyl Chloride | NA | ND | NA | NA | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Carbon tetrachloride | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Chloroform | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Methylene chloride | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1,1-Trichloroethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2-Dichloroethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | NA | NA | ND | ND |
| Benzene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | NA | NA | ND | ND |
| Metals (ug/L) | | | | | | | | | | | | | | |
| Arsenic | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | ND | NA | NA |
| Barium | ND | 130 | 310 | 172 | 160 | 100 | 160 | 110 | 210 | 69 | NA | NA | NA | NA |
| Beryllium | ND | 2.7 | 1.4 | ND | ND | ND | ND | ND | ND | ND | NA | NA | NA | NA |
| Chromium | ND | 28 | 16 | 3.3 | 5.1 | ND | 5 | ND | ND | ND | NA | NA | NA | NA |
| Lead | ND | 26 | 77 | 10.2 | 5.4 | ND | 9 | 5.2 | 13 | ND | NA | ND | NA | NA |
| Nickel | ND | 13 | ND | 28 | ND | ND | 10 | ND | ND | ND | NA | NA | NA | NA |
| Fluoride | NA | ND | NA | ND | 38.9 | 200 | ND | ND | ND | ND | NA | NA | NA | NA |

ug/L - Micrograms per liter

NA - Not analyzed

ND - Non-detect, reporting limits were not given in report.

Analytical data are from Arcadis reports.

**Historical Groundwater Analytical Results
Owens Corning - Anderson, SC**

| Sample ID | MW-4 | | | | | | | | | | | | | |
|--|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Sample Date | Nov-90 | Aug-91 | Aug-93 | Dec-95 | Dec-96 | Nov-97 | Dec-98 | Dec-99 | Dec-00 | Nov-01 | Dec-02 | Dec-03 | Dec-04 | Nov-05 |
| Volatile Organic Compounds (ug/L) | | | | | | | | | | | | | | |
| Tetrachloroethene | NA | ND | NA | ND | ND | ND | ND | ND | ND | ND | ND | 4 | ND | ND |
| Trichloroethene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 2.4 | ND | ND |
| 1,1-Dichloroethene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 170 | ND | ND |
| Vinyl Chloride | NA | ND | NA | NA | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Carbon tetrachloride | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 1.9 | ND | ND |
| Chloroform | ND | ND | ND | ND | 1 | ND | ND | ND | ND | ND | ND | 14 | ND | ND |
| Methylene chloride | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1,1-Trichloroethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2-Dichloroethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | NA | ND | ND |
| Benzene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | NA | ND | ND |
| Metals (ug/L) | | | | | | | | | | | | | | |
| Arsenic | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | ND | NA | NA |
| Barium | 200 | 570 | 790 | 475 | 300 | 100 | 200 | 260 | 130 | 140 | NA | NA | NA | NA |
| Beryllium | ND | 3.9 | 4.4 | 2.5 | 1.7 | ND | 1 | ND | ND | ND | NA | NA | NA | NA |
| Chromium | ND | 22 | 40 | 14.8 | 8.3 | 1 | 7 | ND | ND | ND | NA | NA | NA | NA |
| Lead | ND | ND | 38 | 12.1 | 3.3 | ND | 4 | ND | ND | ND | NA | ND | NA | NA |
| Nickel | ND | 13 | 18 | 11.8 | 7.7 | 4 | 8 | ND | ND | ND | NA | NA | NA | NA |
| Fluoride | NA | ND | NA | 170 | 230 | 200 | 300 | 200 | 300 | 260 | NA | NA | NA | NA |

ug/L - Micrograms per liter

NA - Not analyzed

ND - Non-detect, reporting limits were not given in report.

Analytical data are from Arcadis reports.

**Historical Groundwater Analytical Results
Owens Corning - Anderson, SC**

| Sample ID | MW-5 | | | | | | | | | | | | | |
|--|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Sample Date | Nov-90 | Aug-91 | Aug-93 | Dec-95 | Dec-96 | Nov-97 | Dec-98 | Dec-99 | Dec-00 | Nov-01 | Dec-02 | Dec-03 | Dec-04 | Nov-05 |
| Volatile Organic Compounds (ug/L) | | | | | | | | | | | | | | |
| Tetrachloroethene | NA | ND | NA | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Trichloroethene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1-Dichloroethene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Vinyl Chloride | NA | ND | NA | NA | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Carbon tetrachloride | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Chloroform | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Methylene chloride | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1,1-Trichloroethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2-Dichloroethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | NA | ND | ND |
| Benzene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | NA | ND | ND |
| Metals (ug/L) | | | | | | | | | | | | | | |
| Arsenic | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | ND | NA | NA |
| Barium | 390 | 220 | 240 | 174 | 160 | 100 | 130 | 89 | 140 | 140 | NA | NA | NA | NA |
| Beryllium | ND | 1.0 | 1.0 | ND | ND | ND | ND | ND | ND | ND | NA | NA | NA | NA |
| Chromium | ND | 16 | 10 | 4.3 | 2.3 | ND | 4 | ND | ND | ND | NA | NA | NA | NA |
| Lead | ND | ND | 30 | 8.5 | 3.2 | ND | 8 | ND | ND | ND | NA | NA | NA | NA |
| Nickel | ND | 7.1 | ND | 3.7 | ND | 1 | 3 | ND | ND | ND | NA | NA | NA | NA |
| Fluoride | NA | ND | NA | ND | 31.4 | 200 | ND | ND | 170 | ND | NA | NA | NA | NA |

ug/L - Micrograms per liter

NA - Not analyzed

ND - Non-detect, reporting limits were not given in report.

Analytical data are from Arcadis reports.

**Historical Groundwater Analytical Results
Owens Corning - Anderson, SC**

| Sample ID | MW-6 | | | | | | | | | | | |
|--|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Sample Date | Sep-93 | Dec-95 | Dec-96 | Nov-97 | Dec-98 | Dec-99 | Dec-00 | Nov-01 | Dec-02 | Dec-03 | Dec-04 | Nov-05 |
| Volatile Organic Compounds (ug/L) | | | | | | | | | | | | |
| Tetrachloroethene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Trichloroethene | NA | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1-Dichloroethene | ND | 25 | ND | ND | ND | ND | ND | ND | ND | ND | 1.8 | 1.4 |
| Vinyl Chloride | NA | NA | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Carbon tetrachloride | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Chloroform | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Methylene chloride | NA | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1,1-Trichloroethane | ND | 46 | ND | ND | ND | ND | ND | ND | ND | ND | 2.6 | 2.8 |
| 1,2-Dichloroethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | NA | ND | ND |
| Benzene | ND | ND | ND | ND | ND | ND | ND | ND | ND | NA | ND | ND |
| Metals (ug/L) | | | | | | | | | | | | |
| Arsenic | ND | NA | NA | ND | ND | NA | NA | ND | NA | ND | NA | NA |
| Barium | 46 | 40.1 | 38.7 | 40 | 40 | 42 | 40 | 37 | NA | NA | NA | NA |
| Beryllium | ND | ND | ND | ND | ND | ND | ND | ND | NA | NA | NA | NA |
| Chromium | ND | 5.6 | 4 | 2 | 1 | ND | 11 | ND | NA | NA | NA | NA |
| Lead | 1.2 | 4.1 | 2.6 | ND | ND | ND | ND | ND | NA | ND | NA | NA |
| Nickel | ND | 2.7 | ND | 2.0 | 2.0 | ND | ND | ND | NA | NA | NA | NA |
| Fluoride | ND | ND | 120 | 200 | 100 | ND | 270 | ND | NA | NA | NA | NA |

ug/L - Micrograms per liter

NA - Not analyzed

ND - Non-detect, reporting limits were not given in report.

Analytical data are from Arcadis reports.

**Historical Groundwater Analytical Results
Owens Corning - Anderson, SC**

| Sample ID | MW-7 | | | | | | | | | | | | | | | | |
|--|--------|--------|---------|--------|-----------|---------|--------|-----------|---------|-----------|--------|--------|--------|--------|--------|--------|--------|
| Sample Date | Nov-90 | Aug-91 | Sep-93 | Dec-95 | Dec-96 | Nov-97 | Dec-98 | Dec-99 | Dec-00 | Nov-01 | Dec-02 | Jun-03 | Dec-03 | Apr-04 | Jul-04 | Dec-04 | Nov-05 |
| Volatile Organic Compounds (ug/L) | | | | | | | | | | | | | | | | | |
| Tetrachloroethene | NA | ND | NA | ND | 40 | ND | ND | 23 | ND | ND | ND | ND | ND | ND | ND | ND | 4.5 |
| Trichloroethene | NA | ND | ND | ND | 62 | ND | ND | 26.6 | ND | ND | ND | ND | ND | ND | ND | ND | 3.2 |
| 1,1-Dichloroethene | NA | 13,000 | 3,600 | 31,000 | 24,000 | 14,000 | 2,900 | 14,000 | 27,600 | 30,100 | 45,000 | 1,600 | 4,400 | 6,200 | 3,200 | 1,000 | 1,700 |
| Vinyl Chloride | NA | ND | NA | NA | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Carbon tetrachloride | NA | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Chloroform | NA | ND | ND | ND | 22 | ND | ND | 11.8 | ND | ND | ND | ND | ND | ND | ND | ND | 3.3J |
| Methylene chloride | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1,1-Trichloroethane | NA | 35,000 | 9,000 | 55,000 | 58,000 | 28,000 | 8,200 | 24,600 | 36,500 | 36,000 | 76,000 | 18,000 | 9,100 | 13,000 | 8,300 | 3,800 | 5,500 |
| 1,2-Dichloroethane | NA | ND | ND | ND | 32 | ND | ND | 17.1 | ND | ND | ND | ND | NA | ND | ND | ND | ND |
| Benzene | NA | ND | ND | ND | 1 | ND | ND | ND | ND | ND | ND | NA | NA | ND | ND | ND | ND |
| Metals (ug/L) | | | | | | | | | | | | | | | | | |
| Arsenic | 400 | NA | 2.50 | 16.6 | ND | ND | ND | NA | NA | ND | NA | ND | ND | NA | NA | NA | NA |
| Barium | 470 | 170 | 530 | 327 | 620 | 100 | 70 | 220 | 190 | 170 | NA | NA | NA | NA | NA | NA | NA |
| Beryllium | 70 | 41 | 6.5 | 20.5 | 25 | 20 | 3 | 24 | 27 | 25 | NA | NA | NA | NA | NA | NA | NA |
| Chromium | 27 | 19 | 25 | 11.3 | 23.2 | 10 | 6 | ND | ND | ND | NA | NA | NA | NA | NA | NA | NA |
| Lead | 65 | ND | 43 | 17.4 | 27.1 | ND | ND | ND | ND | ND | NA | NA | ND | NA | NA | NA | NA |
| Nickel | 290 | 320 | 59 | 166 | 174 | 90 | 10 | 120 | 160 | 170 | NA | NA | NA | NA | NA | NA | NA |
| Fluoride | 6400 | 21,800 | 100,000 | 44,900 | 1,000,000 | 300,000 | 45,000 | 1,700,000 | 722,000 | 1,780,000 | NA | 1,500 | NA | 280 | 570 | NA | NA |

ug/L -Micrograms per liter
 NA -Not Analyzed
 ND - Non-detect, reporting limits were not given in report.
 Analytical data are from Arcadis reports.

**Historical Groundwater Analytical Results
Owens Corning - Anderson, SC**

| Sample ID | MW-9 | | | | | | | | | | | |
|--|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Sample Date | Sep-93 | Dec-95 | Dec-96 | Nov-97 | Dec-98 | Dec-99 | Dec-00 | Nov-01 | Dec-02 | Dec-03 | Dec-04 | Nov-05 |
| Volatile Organic Compounds (ug/L) | | | | | | | | | | | | |
| Tetrachloroethene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Trichloroethene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1-Dichloroethene | 74 | 41 | 1 | ND | ND | ND | ND | ND | ND | ND | 5.7 | 2.2 |
| Vinyl Chloride | NA | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Carbon tetrachloride | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Chloroform | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Methylene chloride | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1,1-Trichloroethane | ND | 70 | 1 | ND | ND | ND | ND | ND | ND | ND | 4.7 | ND |
| 1,2-Dichloroethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Benzene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Metals (ug/L) | | | | | | | | | | | | |
| Arsenic | ND | NA | NA | 6.5 | ND | NA | NA | ND | NA | ND | NA | NA |
| Barium | 960 | 959 | 74.5 | 50 | 70 | 70 | 110 | 68 | NA | NA | NA | NA |
| Beryllium | 0.55 | 4.8 | 1.4 | ND | ND | ND | ND | ND | NA | NA | NA | NA |
| Chromium | 61 | 86.1 | 4.4 | 1 | 4 | ND | 91 | ND | NA | NA | NA | NA |
| Lead | 20 | 19 | ND | ND | ND | ND | ND | ND | NA | ND | NA | NA |
| Nickel | 49 | 84.9 | 7.3 | 3 | 5 | 24 | 81 | ND | NA | NA | NA | NA |
| Fluoride | 21,000 | 2,060 | 1,640 | 600 | 800 | 500 | 42,600 | 2,700 | NA | NA | NA | NA |

ug/L - Micrograms per liter

NA - Not Analyzed

ND - Non-detect, reporting limits were not given in report.

Analytical data are from Arcadis reports.

| Historical Groundwater Analytical Results Owens Corning - Anderson, SC | | | | | | | | | | | |
|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Sample ID | MW-10 | | | | | | | | | | |
| Sample Date | Sep-93 | Dec-95 | Dec-96 | Nov-97 | Dec-98 | Dec-99 | Dec-00 | Nov-01 | Dec-02 | Dec-03 | Dec-04 |
| Volatile Organic Compounds (ug/L) | | | | | | | | | | | |
| Tetrachloroethene | NA | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Trichloroethene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1-Dichloroethene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Vinyl Chloride | NA | NA | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Carbon tetrachloride | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Chloroform | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Methylene chloride | ND | ND | ND | ND | ND | ND | ND | 0.94 | ND | ND | ND |
| 1,1,1-Trichloroethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2-Dichloroethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | NA | ND |
| Benzene | ND | ND | ND | ND | ND | ND | ND | ND | ND | NA | ND |
| Metals (ug/L) | | | | | | | | | | | |
| Arsenic | ND | NA | NA | ND | ND | NA | NA | ND | NA | ND | NA |
| Barium | 4,800 | 36.4 | 38 | 40 | 30 | 56 | 61 | 36 | NA | NA | NA |
| Beryllium | ND | ND | ND | ND | ND | ND | ND | ND | NA | NA | NA |
| Chromium | ND | 1.6 | ND | 1 | 1 | ND | 44 | ND | NA | NA | NA |
| Lead | ND | ND | ND | ND | ND | ND | 11 | ND | NA | ND | NA |
| Nickel | ND | ND | ND | ND | 2 | ND | 39 | ND | NA | NA | NA |
| Fluoride | ND | ND | 61.3 | 200 | ND | ND | 220 | ND | NA | NA | NA |

ug/L - Micrograms per liter

NA - Not analyzed

ND - Non-detect, reporting limits were not given in report.

Analytical data are from Arcadis reports.

**Historical Groundwater Analytical Results
Owens Corning - Anderson, SC**

| Sample ID | MW-11 | | | | | | | | | | | | | |
|--|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Sample Date | Nov-90 | Aug-91 | Sep-93 | Dec-95 | Dec-96 | Nov-97 | Dec-98 | Dec-99 | Dec-00 | Nov-01 | Dec-02 | Dec-03 | Dec-04 | Nov-05 |
| Volatile Organic Compounds (ug/L) | | | | | | | | | | | | | | |
| Tetrachloroethene | NA | ND | NA | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 1.3 |
| Trichloroethene | ND | ND | ND | ND | ND | ND | ND | ND | ND | 1.4 | NA | ND | ND | 1.2 |
| 1,1-Dichloroethene | 43 | 62 | 94 | 19 | 45 | 230 | 600 | 190 | 204 | 335 | 630 | ND | 360 | 280 |
| Vinyl Chloride | NA | ND | NA | NA | 6 | ND | ND | ND | 10.7 | 21.6 | ND | ND | 17 | 33 |
| Carbon tetrachloride | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Chloroform | ND | ND | ND | ND | 31 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Methylene chloride | ND | ND | 6 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1,1-Trichloroethane | ND | ND | ND | ND | ND | ND | ND | ND | 27.3 | ND | ND | ND | ND | ND |
| 1,2-Dichloroethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | 3.5 | ND | NA | ND | 4 |
| Benzene | ND | 7 | 6 | ND | 2 | ND | ND | ND | ND | 0.82 | ND | NA | ND | ND |
| Metals (ug/L) | | | | | | | | | | | | | | |
| Arsenic | NA | NA | NA | NA | NA | NA | NA | ND | NA | ND | NA | ND | NA | NA |
| Barium | 1,100 | 930 | 1,800 | 438 | 840 | 400 | 260 | 250 | 210 | 150 | NA | NA | NA | NA |
| Beryllium | ND | 6 | 12 | ND | 1.5 | ND | ND | ND | NA | NA | NA | NA | NA | NA |
| Chromium | 25 | 31 | 8 | 10 | 12.2 | 8 | 10 | ND | NA | NA | NA | NA | NA | NA |
| Lead | ND | ND | 41 | 3.9 | 3.5 | 2 | 3 | ND | NA | NA | NA | ND | NA | NA |
| Nickel | ND | 44 | 60 | 37.4 | 41.2 | 40 | 20 | 29 | 26 | NA | NA | NA | NA | NA |
| Fluoride | NA | ND | NA | 120 | 180 | 500 | 200 | 130 | 170 | 250 | NA | NA | NA | NA |

ug/L - Micrograms per liter

NA - Not analyzed

ND - Non-detect, reporting limits were not given in report.

Analytical data are from Arcadis reports.

**Historical Groundwater Analytical Results
Owens Corning - Anderson, SC**

| Sample ID | MW-12 | | | | | | | | | | | | | |
|--|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | Nov-90 | Aug-91 | Sep-93 | Dec-95 | Dec-96 | Nov-97 | Dec-98 | Dec-99 | Dec-00 | Nov-01 | Dec-02 | Dec-03 | Dec-04 | Nov-05 |
| Volatile Organic Compounds (ug/L) | | | | | | | | | | | | | | |
| Tetrachloroethene | NA | ND | NA | ND | 2 | 7 | ND | ND | ND | 1.9 | ND | ND | ND | 1.9 |
| Trichloroethene | ND | ND | ND | ND | 1 | ND | ND | ND | ND | ND | ND | ND | ND | 1.2 |
| 1,1-Dichloroethene | 680 | 460 | 310 | 250 | 260 | 180 | 120 | 284 | 338 | 383 | 350 | ND | 160 | 180 |
| Vinyl Chloride | NA | ND | NA | NA | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Carbon tetrachloride | 28 | 26 | 23 | 16 | 19 | 13 | 7.2 | 17.7 | 14.8 | 13.5 | 13 | ND | 8 | 15 |
| Chloroform | ND | ND | ND | ND | 10 | ND | 5 | 11.4 | 12.3 | 12 | 14 | ND | 10 | 14 |
| Methylene chloride | ND | ND | 10 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1,1-Trichloroethane | 25 | ND | 11 | ND | 3 | ND | ND | ND | 9.2 | ND | ND | ND | ND | ND |
| 1,2-Dichloroethane | ND | ND | ND | ND | 4 | 6.5 | ND | ND | ND | ND | ND | NA | 2.4 | 2.9 |
| Benzene | ND | ND | 10 | ND | ND | ND | ND | ND | ND | ND | ND | NA | ND | ND |
| Metals (ug/L) | | | | | | | | | | | | | | |
| Arsenic | NA | NA | NA | NA | NA | NA | NA | ND | NA | NA | NA | ND | NA | NA |
| Barium | ND | 140 | 170 | 150 | 600 | 100 | 130 | 220 | 170 | 190 | NA | NA | NA | NA |
| Beryllium | ND | ND | ND | ND | ND | ND | ND | ND | NA | NA | NA | NA | NA | NA |
| Chromium | 38 | 560 | 160 | 67.8 | 77.1 | 20 | 100 | 120 | 46 | 790 | NA | NA | NA | NA |
| Lead | ND | ND | 1.9 | ND | ND | ND | ND | ND | NA | NA | NA | ND | NA | NA |
| Nickel | 110 | 1,600 | 71 | 52.8 | 29.7 | 10 | 90 | 34 | 54 | 450 | NA | NA | NA | NA |
| Fluoride | NA | ND | NA | ND | 48.5 | 400 | ND | ND | 3,400 | ND | NA | NA | NA | NA |

ug/L - Micrograms per liter

NA - Not analyzed

ND - Non-detect, reporting limits were not given in report.

Analytical data are from Arcadis reports.

**Historical Groundwater Analytical Results
Owens Corning - Anderson, SC**

| Sample ID | MW-13 | | | | | | | | | | | |
|--|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Sample Date | Sep-93 | Dec-95 | Dec-96 | Nov-97 | Dec-98 | Dec-99 | Dec-00 | Nov-01 | Dec-02 | Dec-03 | Dec-04 | Nov-05 |
| Volatile Organic Compounds (ug/L) | | | | | | | | | | | | |
| Tetrachloroethene | NA | ND | 4 | 8.4 | ND | ND | ND | ND | ND | ND | ND | 2.1 |
| Trichloroethene | NA | ND | 2 | ND | ND | ND | ND | ND | ND | ND | ND | 1.3 |
| 1,1-Dichloroethene | 430 | 310 | 410 | 280 | 170 | 324 | 455 | 475 | 410 | 220 | 200 | 180 |
| Vinyl Chloride | NA | NA | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Carbon tetrachloride | 29 | 28 | 37 | 28 | 9.1 | 23.3 | 23 | 20 | ND | 14 | 14 | 17 |
| Chloroform | ND | ND | 13 | 16 | 6.8 | 13.2 | 15 | 13.9 | ND | 12 | 11 | 14 |
| Methylene chloride | NA | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1,1-Trichloroethane | 15 | ND | 4 | ND | 9.3 | ND | ND | ND | ND | ND | ND | 3.9 |
| 1,2-Dichloroethane | ND | ND | 6 | 9.3 | ND | 5.5 | 5.7 | ND | ND | NA | ND | 3 |
| Benzene | ND | ND | ND | ND | ND | ND | ND | ND | ND | NA | ND | ND |
| Metals (ug/L) | | | | | | | | | | | | |
| Arsenic | NA | NA | NA | NA | NA | NA | NA | NA | NA | ND | NA | NA |
| Barium | 140 | 93.1 | 100 | 100 | 100 | 110 | 110 | 110 | NA | NA | NA | NA |
| Beryllium | 0.37 | ND | ND | ND | ND | ND | ND | ND | NA | NA | NA | NA |
| Chromium | 8.6 | ND | ND | 2 | 2 | MD | ND | ND | NA | NA | NA | NA |
| Lead | 2.6 | ND | ND | ND | ND | ND | ND | ND | NA | ND | NA | NA |
| Nickel | ND | ND | ND | 2 | 2 | 60 | ND | ND | NA | NA | NA | NA |
| Fluoride | ND | ND | 41.9 | 300 | 300 | ND | 440 | ND | NA | NA | NA | NA |

ug/L - Micrograms per liter

NA - Not analyzed

ND - Non-detect, reporting limits were not given in report.

Analytical data are from Arcadis reports.

**Historical Groundwater Analytical Results
Owens Corning - Anderson, SC**

| Sample ID | MW-14 | | | | | | | | | | | |
|--|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Sample Date | Sep-93 | Dec-95 | Dec-96 | Nov-97 | Dec-98 | Dec-99 | Dec-00 | Nov-01 | Dec-02 | Dec-03 | Dec-04 | Nov-05 |
| Volatile Organic Compounds (ug/L) | | | | | | | | | | | | |
| Tetrachloroethene | NA | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Trichloroethene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1-Dichloroethene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Vinyl Chloride | NA | NA | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Carbon tetrachloride | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Chloroform | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Methylene chloride | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1,1-Trichloroethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2-Dichloroethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | NA | ND | ND |
| Benzene | ND | ND | ND | ND | ND | ND | ND | ND | ND | NA | ND | ND |
| Metals (ug/L) | | | | | | | | | | | | |
| Arsenic | ND | NA | NA | ND | ND | NA | NA | ND | NA | ND | NA | NA |
| Barium | 110 | 34.6 | 36.6 | 50 | 40 | 67 | 49 | 44 | NA | NA | NA | NA |
| Beryllium | ND | ND | ND | ND | ND | ND | ND | ND | NA | NA | NA | NA |
| Chromium | ND | ND | ND | 1 | 1 | MD | ND | ND | NA | NA | NA | NA |
| Lead | 12 | ND | ND | ND | ND | ND | ND | ND | NA | ND | NA | NA |
| Nickel | ND | ND | ND | 1 | 1 | ND | ND | ND | NA | NA | NA | NA |
| Fluoride | NA | 100 | 180 | 200 | 200 | ND | 380 | 170 | NA | NA | NA | NA |

ug/L - Micrograms per liter

NA - Not analyzed

ND - Non-detect, reporting limits were not given in report.

Analytical data are from Arcadis reports.

**Historical Groundwater Analytical Results
Owens Corning - Anderson, SC**

| Sample ID | MW-15 | | | | | | | | | | | |
|--|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Sample Date | Aug-93 | Dec-95 | Dec-96 | Nov-97 | Dec-98 | Dec-99 | Dec-00 | Nov-01 | Dec-02 | Dec-03 | Dec-04 | Nov-05 |
| Volatile Organic Compounds (ug/L) | | | | | | | | | | | | |
| Tetrachloroethene | ND | ND | 2 | 7.3 | ND | ND | ND | ND | ND | ND | 1.6 | ND |
| Trichloroethene | NA | ND | 1 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1-Dichloroethene | 2.5 | 320 | 230 | 99 | 83 | 230 | 354 | 322 | 360 | 140 | 290 | 44 |
| Vinyl Chloride | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Carbon tetrachloride | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Chloroform | 1.9 | ND | 8 | 5.3 | ND | 8.1 | 8 | 6.9 | ND | ND | ND | ND |
| Methylene chloride | NA | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1,1-Trichloroethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2-Dichloroethane | ND | ND | 4 | 5.5 | ND | ND | ND | ND | ND | NA | 2.5 | 1.1 |
| Benzene | ND | ND | ND | ND | ND | ND | ND | ND | ND | NA | ND | ND |
| Metals (ug/L) | | | | | | | | | | | | |
| Arsenic | 2 | 3.3 | NA | ND | 3 | NA | NA | ND | NA | ND | NA | NA |
| Barium | 100 | ND | 75.7 | 70 | 70 | 72 | 78 | 78 | NA | NA | NA | NA |
| Beryllium | 1 | ND | ND | ND | ND | ND | ND | ND | NA | NA | NA | NA |
| Chromium | ND | 1.2 | ND | 2 | 2 | ND | ND | ND | NA | NA | NA | NA |
| Lead | 15 | ND | ND | ND | ND | ND | ND | ND | NA | ND | NA | NA |
| Nickel | ND | 1.9 | ND | 1 | 1 | 22 | ND | ND | NA | NA | NA | NA |
| Fluoride | NA | 130 | 140 | 300 | 300 | ND | 300 | 110 | NA | NA | NA | NA |

ug/L - Micrograms per liter

NA - Not analyzed

ND - Non-detect, reporting limits were not given in report.

Analytical data are from Arcadis reports.

**Historical Groundwater Analytical Results
Owens Corning - Anderson, SC**

| Sample ID | MW-16 | | | | | | | | | | | |
|--|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Sample Date | Aug-93 | Dec-95 | Dec-96 | Nov-97 | Dec-98 | Dec-99 | Dec-00 | Nov-01 | Dec-02 | Dec-03 | Dec-04 | Nov-05 |
| Volatile Organic Compounds (ug/L) | | | | | | | | | | | | |
| Tetrachloroethene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Trichloroethene | NA | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1-Dichloroethene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Vinyl Chloride | NA | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Carbon tetrachloride | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Chloroform | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Methylene chloride | NA | NA | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1,1-Trichloroethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2-Dichloroethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | NA | ND | ND |
| Benzene | ND | ND | ND | ND | ND | ND | ND | ND | ND | NA | ND | ND |
| Metals (ug/L) | | | | | | | | | | | | |
| Arsenic | 17.4 | 3.6 | ND | ND | ND | NA | NA | ND | NA | ND | NA | NA |
| Barium | 1,300 | 163 | 180 | 80 | 50 | 78 | 54 | 65 | NA | NA | NA | NA |
| Beryllium | 2.5 | ND | 1.4 | ND | ND | ND | ND | ND | NA | NA | NA | NA |
| Chromium | 21 | 6.4 | 5.5 | 3 | 3 | MD | 20 | ND | NA | NA | NA | NA |
| Lead | 79 | 8.6 | 11.6 | 1 | 1 | ND | ND | ND | NA | ND | NA | NA |
| Nickel | ND | 3.1 | ND | 2 | 2 | ND | 20 | ND | NA | NA | NA | NA |
| Fluoride | NA | ND | 130 | 200 | 200 | 170 | 210 | 210 | NA | NA | NA | NA |

ug/L - Micrograms per liter

NA - Not analyzed

ND - Non-detect, reporting limits were not given in report.

Analytical data are from Arcadis reports.

**Historical Groundwater Analytical Results
Owens Corning - Anderson, SC**

| Sample ID | MW-17 | | | | | | | | | | | |
|--|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Sample Date | Sep-93 | Dec-95 | Dec-96 | Nov-97 | Dec-98 | Dec-99 | Dec-00 | Nov-01 | Dec-02 | Dec-03 | Dec-04 | Nov-05 |
| Volatile Organic Compounds (ug/L) | | | | | | | | | | | | |
| Tetrachloroethene | NA | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Trichloroethene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1-Dichloroethene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 3.4 | ND |
| Vinyl Chloride | NA | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Carbon tetrachloride | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Chloroform | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Methylene chloride | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1,1-Trichloroethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 4.9 | ND |
| 1,2-Dichloroethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | NA | ND | ND |
| Benzene | ND | ND | ND | ND | ND | ND | ND | ND | ND | NA | ND | ND |
| Metals (ug/L) | | | | | | | | | | | | |
| Arsenic | ND | NA | NA | ND | ND | NA | NA | ND | NA | ND | NA | NA |
| Barium | 130 | 200 | 700 | 100 | 90 | 260 | 150 | 170 | NA | NA | NA | NA |
| Beryllium | ND | ND | 1.5 | ND | ND | ND | ND | ND | NA | NA | NA | NA |
| Chromium | 7.1 | 3.9 | 3.6 | 1 | ND | ND | ND | ND | NA | NA | NA | NA |
| Lead | 1.9 | 4.9 | ND | ND | ND | 7 | ND | ND | NA | ND | NA | NA |
| Nickel | ND | 3.9 | ND | ND | ND | ND | ND | ND | NA | NA | NA | NA |
| Fluoride | ND | ND | 36 | 200 | ND | ND | 180 | ND | NA | NA | NA | NA |

ug/L - Micrograms per liter

NA - Not analyzed

ND - Non-detect, reporting limits were not given in report.

Analytical data are from Arcadis reports.

**Historical Groundwater Analytical Results
Owens Corning - Anderson, SC**

| Sample ID | MW-18 | | | | | | | | | | |
|--|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Sample Date | Aug-93 | Dec-96 | Nov-97 | Dec-98 | Dec-99 | Dec-00 | Nov-01 | Dec-02 | Dec-03 | Dec-04 | Nov-05 |
| Volatile Organic Compounds (ug/L) | | | | | | | | | | | |
| Tetrachloroethene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Trichloroethene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1-Dichloroethene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Vinyl Chloride | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Carbon tetrachloride | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Chloroform | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Methylene chloride | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1,1-Trichloroethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2-Dichloroethane | ND | ND | ND | ND | ND | ND | ND | ND | NA | ND | ND |
| Benzene | ND | ND | ND | ND | ND | ND | ND | ND | NA | ND | ND |
| Metals (ug/L) | | | | | | | | | | | |
| Arsenic | NA | NA | NA | NA | NA | NA | NA | NA | ND | NA | NA |
| Barium | 370 | 170 | 200 | 90 | 120 | 100 | 91 | NA | NA | NA | NA |
| Beryllium | 1 | ND | ND | ND | ND | ND | ND | NA | NA | NA | NA |
| Chromium | 11 | 3.1 | 6 | ND | ND | ND | ND | NA | NA | NA | NA |
| Lead | ND | 3.3 | 6 | ND | ND | ND | ND | NA | ND | NA | NA |
| Nickel | ND | ND | 5 | 1 | ND | ND | ND | NA | NA | NA | NA |
| Fluoride | ND | 32.5 | 200 | ND | ND | 210 | ND | NA | NA | NA | NA |

ug/L - Micrograms per liter

NA - Not analyzed

ND - Non-detect, reporting limits were not given in report.

Analytical data are from Arcadis reports.

**Historical Groundwater Analytical Results
Owens Corning - Anderson, SC**

| Sample ID | MW-19 | | | | | | | | | | | |
|--|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Sample Date | Sep-93 | Dec-95 | Dec-96 | Nov-97 | Dec-98 | Dec-99 | Dec-00 | Nov-01 | Dec-02 | Dec-03 | Dec-04 | Nov-05 |
| Volatile Organic Compounds (ug/L) | | | | | | | | | | | | |
| Tetrachloroethene | ND | ND | 3 | ND | ND | ND | ND | 4.6 | ND | ND | 2.5 | 1.5 |
| Trichloroethene | NA | ND | 2 | ND | ND | ND | ND | 2.3 | ND | ND | ND | ND |
| 1,1-Dichloroethene | 160 | 240 | 270 | 190 | 81 | 279 | 257 | 256 | 240 | 160 | 160 | 86 |
| Vinyl Chloride | NA | NA | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Carbon tetrachloride | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Chloroform | ND | ND | 7 | 5.2 | ND | 5.9 | 7.1 | 6.2 | ND | ND | 4.4 | 2.9 |
| Methylene chloride | NA | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1,1-Trichloroethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2-Dichloroethane | ND | ND | 6 | 6.1 | ND | 5.1 | 6.8 | 5.7 | ND | NA | 4.4 | 2.9 |
| Benzene | ND | ND | ND | 13 | 21 | ND | ND | ND | ND | NA | ND | ND |
| Metals (ug/L) | | | | | | | | | | | | |
| Arsenic | NA | NA | NA | NA | NA | NA | NA | NA | NA | ND | NA | NA |
| Barium | 3,200 | 40.4 | 20.5 | 30 | 30 | ND | ND | ND | NA | NA | NA | NA |
| Beryllium | 3.6 | ND | ND | ND | ND | ND | ND | ND | NA | NA | NA | NA |
| Chromium | 7.8 | 1.3 | ND | 2 | 2 | ND | ND | ND | NA | NA | NA | NA |
| Lead | 119 | 2.5 | ND | ND | 3 | ND | ND | ND | NA | ND | NA | NA |
| Nickel | ND | ND | ND | 2 | 2 | ND | ND | ND | NA | NA | NA | NA |
| Fluoride | 450 | 170 | 180 | 300 | 200 | 110 | 300 | 140 | NA | NA | NA | NA |

ug/L - Micrograms per liter

NA - Not analyzed

ND - Non-detect, reporting limits were not given in report.

Analytical data are from Arcadis reports.

**Historical Groundwater Analytical Results
Owens Corning - Anderson, SC**

| Sample ID | MW-20 | | | | | | | | | | | |
|--|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Sample Date | Sep-93 | Dec-95 | Dec-96 | Nov-97 | Dec-98 | Dec-99 | Dec-00 | Nov-01 | Dec-02 | Dec-03 | Dec-04 | Nov-05 |
| Volatile Organic Compounds (ug/L) | | | | | | | | | | | | |
| Tetrachloroethene | NA | 3 | ND | ND | ND | ND | 5.3 | 5 | ND | ND | ND | 1.8 |
| Trichloroethene | ND | ND | ND | ND | ND | ND | ND | 2.5 | ND | ND | ND | ND |
| 1,1-Dichloroethene | 9.6 | 7 | 10 | ND | ND | 74.4 | 113 | 126 | 22 | ND | 25 | 44 |
| Vinyl Chloride | NA | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Carbon tetrachloride | 1.6 | ND | 3 | ND | ND | 22.6 | 35.7 | 37.7 | 7.3 | ND | 5.9 | 16 |
| Chloroform | 17 | ND | 9 | 11 | 6.3 | 26.9 | 29.3 | 26.7 | 36 | ND | 20 | 43 |
| Methylene chloride | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1,1-Trichloroethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2-Dichloroethane | ND | 6 | ND | ND | ND | 5.3 | 8.1 | 7.6 | ND | NA | 1.3 | 3 |
| Benzene | ND | ND | ND | ND | ND | ND | ND | ND | ND | NA | ND | ND |
| Metals (ug/L) | | | | | | | | | | | | |
| Arsenic | ND | NA | NA | NA | NA | NA | NA | NA | NA | ND | NA | NA |
| Barium | 98 | 51.7 | 420 | 50 | 40 | 120 | 69 | 76 | NA | NA | NA | NA |
| Beryllium | ND | ND | ND | ND | ND | ND | ND | ND | NA | NA | NA | NA |
| Chromium | ND | 3.5 | 5.9 | 3 | 4 | ND | ND | ND | NA | NA | NA | NA |
| Lead | 1.5 | ND | 2.3 | ND | ND | ND | ND | ND | NA | ND | NA | NA |
| Nickel | 15 | 3.8 | 5.6 | 2 | 2 | ND | ND | ND | NA | NA | NA | NA |
| Fluoride | ND | ND | 63.9 | 100 | ND | 1,600 | 110 | ND | NA | NA | NA | NA |

ug/L - Micrograms per liter

NA - Not analyzed

ND - Non-detect, reporting limits were not given in report.

Analytical data are from Arcadis reports.

**Historical Groundwater Analytical Results
Owens Corning - Anderson, SC**

| Sample ID | MW-21 | | | | | | | | | | | |
|--|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Sample Date | Aug-93 | Dec-95 | Dec-96 | Nov-97 | Dec-98 | Dec-99 | Dec-00 | Nov-01 | Dec-02 | Dec-03 | Dec-04 | Nov-05 |
| Volatile Organic Compounds (ug/L) | | | | | | | | | | | | |
| Tetrachloroethene | NA | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Trichloroethene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1-Dichloroethene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Vinyl Chloride | NA | NA | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Carbon tetrachloride | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Chloroform | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Methylene chloride | ND | ND | ND | ND | ND | ND | ND | ND | ND | 12 | ND | ND |
| 1,1,1-Trichloroethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2-Dichloroethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | NA | ND | ND |
| Benzene | ND | ND | ND | ND | ND | ND | ND | ND | ND | NA | ND | ND |
| Metals (ug/L) | | | | | | | | | | | | |
| Arsenic | ND | NA | NA | ND | ND | NA | NA | ND | NA | ND | NA | NA |
| Barium | 1,200 | 661 | 280 | 100 | 100 | 130 | 250 | 82 | NA | NA | NA | NA |
| Beryllium | 3.3 | 2.2 | 1.8 | ND | ND | ND | ND | ND | NA | NA | NA | NA |
| Chromium | 9.5 | 4 | 2.8 | 1 | 1 | ND | ND | ND | NA | NA | NA | NA |
| Lead | 75 | 31.7 | 6.7 | ND | ND | ND | 5.8 | ND | NA | ND | NA | NA |
| Nickel | ND | 5.4 | ND | ND | ND | ND | ND | ND | NA | NA | NA | NA |
| Fluoride | NA | ND | 44.9 | 100 | ND | ND | 180 | ND | NA | NA | NA | NA |

ug/L - Micrograms per liter

NA - Not analyzed

ND - Non-detect, reporting limits were not given in report.

Analytical data are from Arcadis reports.

| Historical Groundwater Analytical Results Owens Corning - Anderson, SC | | | | | | | | | | | |
|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Sample ID | MW-22 | | | | | | | | | | |
| Sample Date | Aug-93 | Dec-95 | Dec-96 | Dec-98 | Dec-99 | Dec-00 | Nov-01 | Dec-02 | Dec-03 | Dec-04 | Nov-05 |
| Volatile Organic Compounds (ug/L) | | | | | | | | | | | |
| Tetrachloroethene | ND | ND | 3 | ND | ND | ND | ND | ND | ND | ND | 1.5 |
| Trichloroethene | NA | ND | 2 | ND | ND | ND | ND | ND | ND | ND | 1 |
| 1,1-Dichloroethene | 300 | 400 | 520 | 630 | 545 | 586 | 566 | 480 | 300 | 310 | 300 |
| Vinyl Chloride | NA | NA | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Carbon tetrachloride | 18 | 30 | 40 | 21 | 24.2 | 24.8 | 21.9 | ND | 12 | 14 | 19 |
| Chloroform | ND | ND | 11 | 12 | 11.4 | 12.9 | 12.7 | ND | 10 | 11 | 13 |
| Methylene chloride | NA | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1,1-Trichloroethane | ND | ND | 5 | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2-Dichloroethane | ND | ND | 5 | ND | 5 | 5.7 | 4.7 | ND | NA | ND | ND |
| Benzene | ND | ND | ND | ND | ND | ND | ND | ND | NA | ND | ND |
| Metals (ug/L) | | | | | | | | | | | |
| Arsenic | ND | NA | NA | NA | NA | NA | NA | NA | ND | NA | NA |
| Barium | 89 | 78.6 | 81.9 | 80 | 92 | 100 | 96 | NA | NA | NA | NA |
| Beryllium | ND | ND | ND | ND | ND | ND | ND | NA | NA | NA | NA |
| Chromium | ND | 1.3 | ND | ND | ND | ND | ND | NA | NA | NA | NA |
| Lead | ND | ND | ND | ND | ND | ND | ND | NA | ND | NA | NA |
| Nickel | ND | ND | ND | ND | ND | ND | ND | NA | NA | NA | NA |
| Fluoride | ND | ND | 38.3 | ND | ND | ND | ND | NA | NA | NA | NA |

ug/L - Micrograms per liter

NA - Not analyzed

ND - Non-detect, reporting limits were not given in report.

Analytical data are from Arcadis reports.

**Historical Groundwater Analytical Results
Owens Corning - Anderson, SC**

| Sample ID | MW-24 | | | | | | | | | | |
|--|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Sample Date | Sep-93 | Dec-95 | Dec-96 | Nov-97 | Dec-98 | Dec-99 | Dec-00 | Nov-01 | Dec-02 | Dec-03 | Dec-04 |
| Volatile Organic Compounds (ug/L) | | | | | | | | | | | |
| Tetrachloroethene | NA | ND | 1 | ND | ND | ND | ND | ND | ND | ND | ND |
| Trichloroethene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1-Dichloroethene | 23 | 32 | 24 | 34 | 37 | 20.3 | 47.5 | 67.4 | 69 | ND | 1 |
| Vinyl Chloride | NA | NA | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Carbon tetrachloride | 4.6 | 6 | 5 | 6.2 | 8.7 | ND | 6.6 | 6.6 | 8.1 | ND | ND |
| Chloroform | 12 | 12 | 14 | 15 | 21 | 17.9 | 20.1 | 21.1 | 26 | ND | ND |
| Methylene chloride | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1,1-Trichloroethane | 1.4 | ND | ND | ND | ND | ND | ND | ND | ND | ND | 1.6 |
| 1,2-Dichloroethane | 1.1 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Benzene | ND | ND | ND | ND | ND | ND | ND | ND | ND | NA | ND |
| Metals (ug/L) | | | | | | | | | | | |
| Arsenic | ND | NA | NA | NA | NA | NA | NA | NA | NA | ND | NA |
| Barium | 190 | 162 | 570 | 100 | 140 | 160 | 160 | 140 | NA | NA | NA |
| Beryllium | ND | ND | ND | ND | ND | ND | ND | ND | NA | NA | NA |
| Chromium | 9 | ND | 1.3 | 1 | 1 | ND | ND | ND | NA | NA | NA |
| Lead | 16 | ND | 2.6 | ND | ND | ND | ND | ND | NA | ND | NA |
| Nickel | ND | 3.2 | ND | 2 | 2 | ND | ND | ND | NA | NA | NA |
| Fluoride | ND | ND | 43.5 | 200 | ND | ND | ND | ND | NA | NA | NA |

ug/L - Micrograms per liter

NA - Not analyzed

ND - Non-detect, reporting limits were not given in report.

Analytical data are from Arcadis reports.

| Historical Groundwater Analytical Results | | | | | | | | | | | | |
|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Owens Corning - Anderson, SC | | | | | | | | | | | | |
| Sample ID | MW-25 | | | | | | | | | | | |
| Sample Date | Aug-93 | Dec-95 | Dec-96 | Dec-97 | Dec-98 | Dec-99 | Dec-00 | Nov-01 | Dec-02 | Dec-03 | Dec-04 | Nov-05 |
| Volatile Organic Compounds (ug/L) | | | | | | | | | | | | |
| Tetrachloroethene | NA | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 1.8 |
| Trichloroethene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1-Dichloroethene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Vinyl Chloride | NA | ND | ND | NA | NA | ND | ND | ND | ND | ND | ND | ND |
| Carbon tetrachloride | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Chloroform | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Methylene chloride | ND | ND | ND | ND | ND | ND | ND | 1.4 | ND | ND | ND | ND |
| 1,1,1-Trichloroethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2-Dichloroethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | NA | ND | ND |
| Benzene | ND | ND | ND | ND | ND | ND | ND | ND | ND | NA | ND | ND |
| Metals (ug/L) | | | | | | | | | | | | |
| Arsenic | ND | NA | NA | ND | NA | NA | NA | ND | NA | ND | NA | NA |
| Barium | 580 | 115 | 100 | 80 | 80 | 97 | 110 | 110 | NA | NA | NA | NA |
| Beryllium | 1.4 | ND | ND | ND | ND | ND | ND | ND | NA | NA | NA | NA |
| Chromium | 8.2 | ND | ND | 2 | 1 | ND | ND | ND | NA | NA | NA | NA |
| Lead | 27 | ND | ND | ND | ND | ND | ND | ND | NA | 11 | NA | NA |
| Nickel | ND | 1.3 | 35.1 | 2 | 2 | ND | ND | ND | NA | NA | NA | NA |
| Fluoride | NA | ND | ND | 100 | ND | ND | ND | ND | NA | NA | NA | NA |

ug/L - Micrograms per liter

NA - Not analyzed

ND - Non-detect, reporting limits were not given in report.

Analytical data are from Arcadis reports.

**Historical Groundwater Analytical Results
Owens Corning - Anderson, SC**

| Sample ID | MW-26 | | | | | | | | | | | |
|--|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Sample Date | Aug-93 | Dec-95 | Dec-96 | Nov-97 | Dec-98 | Dec-99 | Dec-00 | Nov-01 | Dec-02 | Dec-03 | Dec-04 | Nov-05 |
| Volatile Organic Compounds (ug/L) | | | | | | | | | | | | |
| Tetrachloroethene | NA | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Trichloroethene | 2 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1-Dichloroethene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Vinyl Chloride | NA | NA | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Carbon tetrachloride | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Chloroform | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Methylene chloride | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1,1-Trichloroethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2-Dichloroethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | NA | ND | ND |
| Benzene | ND | ND | ND | ND | ND | ND | ND | ND | ND | NA | ND | ND |
| Metals (ug/L) | | | | | | | | | | | | |
| Arsenic | NA | NA | NA | NA | NA | NA | ND | NA | ND | NA | NA | NA |
| Barium | 1,100 | 780 | 1,000 | 900 | 640 | 680 | 1,200 | 830 | NA | NA | NA | NA |
| Beryllium | 2.9 | 2.7 | 2.3 | 3.0 | 3 | ND | ND | ND | NA | NA | NA | NA |
| Chromium | 61 | 33.2 | 24.7 | 90 | 40 | 38 | 140 | 50 | NA | NA | NA | NA |
| Lead | 43 | 17.3 | 8.8 | 20 | 10 | 16 | 26 | 14 | ND | NA | NA | NA |
| Nickel | 47 | 67.2 | 51 | 100 | 50 | 98 | 180 | 99 | NA | NA | NA | NA |
| Fluoride | NA | 150 | 140 | 100 | 100 | ND | ND | 100 | NA | NA | NA | NA |

ug/L - Micrograms per liter

NA - Not analyzed

ND - Non-detect, reporting limits were not given in report.

Analytical data are from Arcadis reports.

| Historical Groundwater Analytical Results Owens Corning - Anderson, SC | | | | | | | | | | | |
|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Sample ID | MW-27 | | | | | | | | | | |
| Sample Date | Sep-93 | Dec-95 | Dec-96 | Dec-98 | Dec-99 | Dec-00 | Nov-01 | Dec-02 | Dec-03 | Dec-04 | Nov-05 |
| Volatile Organic Compounds (ug/L) | | | | | | | | | | | |
| Tetrachloroethene | 11 | ND | 8 | ND | 5.3 | 5.8 | 5.7 | ND | 4.9 | 2.5 | 3.1 |
| Trichloroethene | NA | ND | 4 | ND | ND | ND | 2.9 | ND | 23 | 1.3 | 2 |
| 1,1-Dichloroethene | 350 | 130 | 210 | 46 | 101 | 126 | 150 | 120 | 180 | 74 | 130 |
| Vinyl Chloride | NA | NA | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Carbon tetrachloride | 77 | 6 | 55 | 12 | 34.6 | 41.2 | 43 | 34 | 2.2 | 15 | 19 |
| Chloroform | 17 | 10 | 25 | 23 | 22.4 | 25.7 | 26.8 | 29 | 15 | 26 | 13 |
| Methylene chloride | NA | ND | ND | ND | ND | ND | 1.5 | ND | ND | ND | ND |
| 1,1,1-Trichloroethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | 1.3 | ND |
| 1,2-Dichloroethane | 13 | ND | 9 | ND | 7.4 | 9.8 | 8.8 | 6.9 | ND | 3.5 | 4.4 |
| Benzene | ND | ND | ND | ND | ND | ND | ND | ND | NA | ND | ND |
| Metals (ug/L) | | | | | | | | | | | |
| Arsenic | NA | NA | NA | NA | NA | NA | ND | NA | ND | NA | NA |
| Barium | 57 | 82.9 | 55.6 | 50 | 66 | 79 | 78 | NA | NA | NA | NA |
| Beryllium | ND | ND | ND | ND | ND | ND | ND | NA | NA | NA | NA |
| Chromium | ND | 2.6 | 1.3 | 1 | ND | ND | ND | NA | NA | NA | NA |
| Lead | ND | ND | ND | ND | ND | ND | ND | NA | ND | NA | NA |
| Nickel | ND | 1.8 | 53.9 | 2 | ND | ND | ND | NA | NA | NA | NA |
| Fluoride | ND | 100 | ND | ND | ND | 140 | ND | NA | NA | NA | NA |

ug/L - Micrograms per liter

NA - Not analyzed

ND - Non-detect, reporting limits were not given in report.

Analytical data are from Arcadis reports.

| Historical Groundwater Analytical Results Owens Corning - Anderson, SC | | | | | |
|---|---------|--------|--------|--------|--------|
| Sample ID | MW-28 | | | | |
| Sample Date | Apr-04 | May-04 | Jul-04 | Dec-04 | Nov-05 |
| Volatile Organic Compounds (ug/L) | | | | | |
| Tetrachloroethene | ND | ND | ND | ND | 38 |
| Trichloroethene | ND | ND | ND | ND | 53 |
| 1,1-Dichloroethene | 160,000 | 25,000 | 39,000 | 24,000 | 35,000 |
| Vinyl Chloride | ND | ND | ND | ND | ND |
| Carbon tetrachloride | ND | ND | ND | ND | ND |
| Chloroform | ND | ND | ND | ND | ND |
| Methylene chloride | ND | ND | ND | ND | ND |
| 1,1,1-Trichloroethane | 96,000 | 31,000 | 49,000 | 61,000 | 91,000 |
| 1,2-Dichloroethane | ND | ND | ND | ND | ND |
| Benzene | ND | ND | ND | ND | ND |
| Metals (ug/L) | | | | | |
| Arsenic | NA | NA | NA | NA | NA |
| Barium | NA | NA | NA | NA | NA |
| Beryllium | NA | NA | NA | NA | NA |
| Chromium | NA | NA | NA | NA | NA |
| Lead | NA | NA | NA | NA | NA |
| Nickel | NA | NA | NA | NA | NA |
| Fluoride | 3,800 | 1,800 | 330 | NA | NA |

ug/L - Micrograms per liter

NA - Not analyzed

ND - Non-detect, reporting limits were not given in report.

Analytical data are from Arcadis reports.

| Historical Groundwater Analytical Results | | |
|---|--------|--------|
| Sample ID | MW-29R | |
| Sample Date | Dec-04 | Nov-05 |
| Volatile Organic Compounds (ug/L) | | |
| Tetrachloroethene | ND | ND |
| Trichloroethene | ND | ND |
| 1,1-Dichloroethene | 290 | 95 |
| Vinyl Chloride | ND | ND |
| Carbon tetrachloride | 12 | 3.4 |
| Chloroform | 11 | 3.3 |
| Methylene chloride | ND | ND |
| 1,1,1-Trichloroethane | ND | ND |
| 1,2-Dichloroethane | ND | ND |
| Benzene | ND | ND |
| Metals (ug/L) | | |
| Arsenic | NA | NA |
| Barium | NA | NA |
| Beryllium | NA | NA |
| Chromium | NA | NA |
| Lead | NA | NA |
| Nickel | NA | NA |
| Fluoride | NA | NA |

ug/L - Micrograms per liter

NA - Not analyzed

ND - Non-detect, reporting limits were not given in report.

Analytical data are from Arcadis reports.

| Historical Groundwater Analytical Results Owens Corning - Anderson, SC | | | | | | |
|---|--------|--------|--------|--------|--------|--------|
| Sample ID | TW-40 | | | | | |
| Sample Date | Oct-01 | Nov-01 | Dec-02 | Dec-03 | Dec-04 | Nov-05 |
| Volatile Organic Compounds (ug/L) | | | | | | |
| Tetrachloroethene | ND | ND | ND | ND | ND | ND |
| Trichloroethene | ND | ND | ND | ND | ND | ND |
| 1,1-Dichloroethene | 1.6 | 4.6 | ND | ND | ND | 2.7 |
| Vinyl Chloride | ND | ND | ND | ND | ND | ND |
| Carbon tetrachloride | ND | ND | ND | ND | ND | ND |
| Chloroform | 11.3 | 2.6 | ND | ND | ND | ND |
| Methylene chloride | 1.1 | ND | ND | ND | ND | ND |
| 1,1,1-Trichloroethane | ND | ND | ND | ND | ND | ND |
| 1,2-Dichloroethane | ND | ND | ND | NA | ND | ND |
| Benzene | ND | ND | ND | NA | ND | ND |
| Metals (ug/L) | | | | | | |
| Arsenic | NA | ND | NA | ND | NA | NA |
| Barium | 130 | NA | NA | NA | NA | NA |
| Beryllium | ND | NA | NA | NA | NA | NA |
| Chromium | 11 | NA | NA | NA | NA | NA |
| Lead | 6.4 | NA | NA | 11 | NA | NA |
| Nickel | NA | NA | NA | NA | NA | ND |
| Fluoride | 120 | NA | NA | NA | NA | NA |

ug/L - Micrograms per liter

NA - Not analyzed

ND - Non-detect, reporting limits were not given in report.

Analytical data are from Arcadis reports.

| Historical Groundwater Analytical Results Owens Corning - Anderson, SC | | | | | | |
|---|--------|--------|--------|--------|--------|--------|
| Sample ID | TW-41 | | | | | |
| Sample Date | Oct-01 | Nov-01 | Dec-02 | Dec-03 | Dec-04 | Nov-05 |
| Volatile Organic Compounds (ug/L) | | | | | | |
| Tetrachloroethene | ND | ND | ND | ND | ND | ND |
| Trichloroethene | ND | ND | ND | ND | ND | ND |
| 1,1-Dichloroethene | ND | ND | ND | ND | ND | ND |
| Vinyl Chloride | ND | ND | ND | ND | ND | ND |
| Carbon tetrachloride | ND | ND | ND | ND | ND | ND |
| Chloroform | ND | ND | ND | ND | ND | ND |
| Methylene chloride | 2.1 | ND | ND | ND | ND | ND |
| 1,1,1-Trichloroethane | ND | ND | ND | ND | ND | ND |
| 1,2-Dichloroethane | ND | ND | ND | NA | ND | ND |
| Benzene | ND | ND | ND | NA | ND | ND |
| Metals (ug/L) | | | | | | |
| Arsenic | NA | ND | NA | ND | NA | NA |
| Barium | 680 | NA | NA | NA | NA | NA |
| Beryllium | ND | NA | NA | NA | NA | NA |
| Chromium | 45 | NA | NA | NA | NA | NA |
| Lead | 16 | NA | NA | ND | NA | NA |
| Nickel | 37 | NA | NA | ND | NA | NA |
| Fluoride | 500 | NA | NA | NA | NA | NA |

ug/L - Micrograms per liter

NA - Not analyzed

ND - Non-detect, reporting limits were not given in report.

Analytical data are from Arcadis reports.

| Historical Groundwater Analytical Results Owens Corning - Anderson, SC | | | | |
|---|--------|--------|--------|--------|
| Sample ID | TW-42 | | | |
| Sample Date | Dec-02 | Dec-03 | Dec-04 | Nov-05 |
| Volatile Organic Compounds (ug/L) | | | | |
| Tetrachloroethene | ND | ND | ND | ND |
| Trichloroethene | ND | ND | ND | ND |
| 1,1-Dichloroethene | ND | 1.9 | ND | ND |
| Vinyl Chloride | ND | ND | ND | ND |
| Carbon tetrachloride | ND | ND | ND | ND |
| Chloroform | ND | 36 | ND | ND |
| Methylene chloride | ND | ND | ND | ND |
| 1,1,1-Trichloroethane | ND | ND | ND | ND |
| 1,2-Dichloroethane | ND | ND | ND | ND |
| Benzene | ND | ND | ND | ND |
| Metals (ug/L) | | | | |
| Arsenic | NA | ND | NA | NA |
| Barium | NA | NA | NA | NA |
| Beryllium | NA | NA | NA | NA |
| Chromium | NA | NA | NA | NA |
| Lead | NA | ND | NA | NA |
| Nickel | NA | NA | NA | NA |
| Fluoride | NA | NA | NA | NA |

ug/L - Micrograms per liter

NA - Not analyzed

ND - Non-detect, reporting limits were not given in report.

Analytical data are from Arcadis reports.

| Historical Groundwater Analytical Results Owens Corning - Anderson, SC | | | | | | |
|---|--------|--------|--------|--------|--------|--------|
| Sample ID | TW-43 | | | | | |
| Sample Date | Nov-01 | Oct-01 | Dec-02 | Dec-03 | Dec-04 | Nov-05 |
| Volatile Organic Compounds (ug/L) | | | | | | |
| Tetrachloroethene | ND | ND | ND | ND | ND | ND |
| Trichloroethene | ND | ND | ND | ND | ND | ND |
| 1,1-Dichloroethene | ND | ND | ND | ND | ND | ND |
| Vinyl Chloride | ND | ND | ND | ND | ND | ND |
| Carbon tetrachloride | ND | ND | ND | ND | ND | ND |
| Chloroform | ND | ND | ND | ND | ND | ND |
| Methylene chloride | ND | 1.6 | ND | ND | ND | ND |
| 1,1,1-Trichloroethane | ND | ND | ND | NA | ND | ND |
| 1,2-Dichloroethane | ND | ND | ND | ND | ND | ND |
| Benzene | ND | ND | ND | ND | ND | ND |
| Metals (ug/L) | | | | | | |
| Arsenic | NA | NA | NA | ND | NA | NA |
| Barium | NA | 1,800 | NA | NA | NA | NA |
| Beryllium | NA | 4.1 | NA | NA | NA | NA |
| Chromium | NA | 23 | NA | NA | NA | NA |
| Lead | NA | 80 | NA | NA | NA | NA |
| Nickel | NA | ND | NA | NA | NA | NA |
| Fluoride | NA | ND | NA | NA | NA | NA |

ug/L - Micrograms per liter

NA - Not analyzed

ND - Non-detect, reporting limits were not given in report.

Analytical data are from Arcadis reports.

| Historical Groundwater Analytical Results Owens Corning - Anderson, SC | | | | | | |
|---|--------|--------|--------|--------|--------|--------|
| Sample ID | TW-44 | | | | | |
| Sample Date | Oct-01 | Nov-01 | Dec-02 | Dec-03 | Dec-04 | Nov-05 |
| Volatile Organic Compounds (ug/L) | | | | | | |
| Tetrachloroethene | ND | ND | ND | ND | ND | ND |
| Trichloroethene | ND | ND | ND | ND | ND | ND |
| 1,1-Dichloroethene | ND | ND | ND | ND | ND | ND |
| Vinyl Chloride | ND | ND | ND | ND | ND | ND |
| Carbon tetrachloride | ND | ND | ND | ND | ND | ND |
| Chloroform | ND | ND | ND | ND | ND | ND |
| Methylene chloride | 1.8 | ND | ND | ND | ND | ND |
| 1,1,1-Trichloroethane | ND | ND | ND | ND | ND | ND |
| 1,2-Dichloroethane | ND | ND | ND | NA | ND | ND |
| Benzene | ND | ND | ND | NA | ND | ND |
| Metals (ug/L) | | | | | | |
| Arsenic | NA | ND | NA | ND | NA | NA |
| Barium | 120 | NA | NA | NA | NA | NA |
| Beryllium | ND | NA | NA | NA | NA | NA |
| Chromium | ND | NA | NA | NA | NA | NA |
| Lead | 21 | NA | NA | 10 | NA | NA |
| Nickel | NA | NA | NA | NA | NA | NA |
| Fluoride | ND | NA | NA | NA | NA | NA |

ug/L - Micrograms per liter

NA - Not analyzed

ND - Non-detect, reporting limits were not given in report.

Analytical data are from Arcadis reports.

| Historical Groundwater Analytical Results Owens Corning - Anderson, SC | | | | | | |
|---|--------|--------|--------|--------|--------|--------|
| Sample ID | TW-45 | | | | | |
| Sample Date | Oct-01 | Nov-01 | Dec-02 | Dec-03 | Dec-04 | Nov-05 |
| Volatile Organic Compounds (ug/L) | | | | | | |
| Tetrachloroethene | ND | ND | ND | ND | ND | ND |
| Trichloroethene | ND | ND | ND | ND | ND | ND |
| 1,1-Dichloroethene | ND | ND | ND | ND | 9.1 | ND |
| Vinyl Chloride | ND | ND | ND | ND | ND | ND |
| Carbon tetrachloride | ND | ND | ND | ND | 2.8 | ND |
| Chloroform | 9.3 | 5.6 | 9.4 | ND | 33 | ND |
| Methylene chloride | ND | 2.8 | ND | ND | ND | ND |
| 1,1,1-Trichloroethane | ND | ND | ND | ND | ND | ND |
| 1,2-Dichloroethane | ND | ND | ND | NA | ND | NA |
| Benzene | ND | ND | ND | NA | ND | NA |
| Metals (ug/L) | | | | | | |
| Arsenic | NA | NA | NA | ND | NA | ND |
| Barium | NA | 220 | NA | NA | NA | NA |
| Beryllium | NA | ND | NA | NA | NA | NA |
| Chromium | NA | ND | NA | NA | NA | NA |
| Lead | NA | 21 | NA | NA | NA | NA |
| Nickel | NA | 60 | NA | ND | NA | ND |
| Fluoride | NA | ND | NA | NA | NA | NA |

ug/L - Micrograms per liter

NA - Not analyzed

ND - Non-detect, reporting limits were not given in report.

Analytical data are from Arcadis reports.

| Historical Groundwater Analytical Results Owens Corning - Anderson, SC | | | | | | |
|---|--------|--------|--------|--------|--------|--------|
| Sample ID | TW-46 | | | | | |
| Sample Date | Oct-01 | Nov-01 | Dec-02 | Dec-03 | Dec-04 | Nov-05 |
| Volatile Organic Compounds (ug/L) | | | | | | |
| Tetrachloroethene | ND | ND | ND | ND | ND | ND |
| Trichloroethene | ND | ND | ND | ND | ND | ND |
| 1,1-Dichloroethene | ND | 4.6 | ND | ND | ND | ND |
| Vinyl Chloride | ND | ND | ND | ND | ND | ND |
| Carbon tetrachloride | 2.1 | 1.6 | ND | ND | ND | ND |
| Chloroform | 40.6 | 51 | 100 | 85 | 56 | 34 |
| Methylene chloride | 2.3 | ND | ND | ND | ND | ND |
| 1,1,1-Trichloroethane | ND | ND | ND | NA | ND | ND |
| 1,2-Dichloroethane | ND | ND | ND | ND | ND | ND |
| Benzene | ND | ND | ND | ND | ND | ND |
| Metals (ug/L) | | | | | | |
| Arsenic | NA | ND | NA | ND | NA | NA |
| Barium | 77 | NA | NA | NA | NA | NA |
| Beryllium | ND | NA | NA | NA | NA | NA |
| Chromium | ND | NA | NA | NA | NA | NA |
| Lead | ND | NA | NA | ND | NA | NA |
| Nickel | ND | NA | NA | NA | NA | ND |
| Fluoride | ND | NA | NA | NA | NA | NA |

ug/L - Micrograms per liter

NA - Not analyzed

ND - Non-detect, reporting limits were not given in report.

Analytical data are from Arcadis reports.

**Historical Groundwater Analytical Results
Owens Corning - Anderson, SC**

| Sample ID | ALLOY | | | | | | | | | | | |
|--|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Sample Date | Aug-93 | Dec-95 | Dec-96 | Nov-97 | Dec-98 | Dec-99 | Dec-00 | Nov-01 | Dec-02 | Dec-03 | Dec-04 | Nov-05 |
| Volatile Organic Compounds (ug/L) | | | | | | | | | | | | |
| Tetrachloroethene | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Trichloroethene | NA | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,1-Dichloroethene | 1.2 | ND | 1.2 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Vinyl Chloride | NA | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Carbon tetrachloride | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Chloroform | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Methylene chloride | ND | ND | ND | ND | ND | ND | ND | 1.5 | ND | ND | ND | ND |
| 1,1,1-Trichloroethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1,2-Dichloroethane | ND | ND | ND | ND | ND | ND | ND | ND | ND | NA | ND | ND |
| Benzene | ND | ND | ND | ND | ND | ND | ND | ND | ND | NA | ND | ND |
| Metals (ug/L) | | | | | | | | | | | | |
| Arsenic | ND | NA | NA | NA | NA | NA | ND | NA | NA | ND | NA | NA |
| Barium | 1,100 | 216 | 160 | 50 | 40 | 88 | 65 | 77 | NA | NA | NA | NA |
| Beryllium | 3.1 | 1.1 | 1.7 | ND | ND | ND | ND | ND | NA | NA | NA | NA |
| Chromium | 22 | 4 | 3.6 | 3 | 2 | ND | ND | ND | NA | NA | NA | NA |
| Lead | 190 | 34 | 25.9 | 6 | 6 | 7.8 | 5.5 | 5.2 | ND | NA | NA | NA |
| Nickel | 28 | 5.6 | ND | 3 | 3 | ND | ND | ND | NA | NA | NA | NA |
| Fluoride | 370 | ND | 88.8 | 100 | 100 | ND | 230 | ND | NA | NA | NA | NA |

ug/L - Micrograms per liter

NA - Not analyzed

ND - Non-detect, reporting limits were not given in report.

Analytical data are from Arcadis reports.

| Historical Groundwater Analytical Results Owens Corning - Anderson, SC | | | | |
|---|---------|--------|--------|--------|
| Sample ID | GLADDEN | | | |
| Sample Date | Sep-93 | Dec-96 | Nov-97 | Dec-98 |
| Volatile Organic Compounds (ug/L) | | | | |
| Tetrachloroethene | ND | ND | ND | ND |
| Trichloroethene | NA | ND | ND | ND |
| 1,1-Dichloroethene | 3.2 | 2 | ND | ND |
| Vinyl Chloride | NA | ND | ND | ND |
| Carbon tetrachloride | ND | ND | ND | ND |
| Chloroform | ND | ND | ND | ND |
| Methylene chloride | NA | ND | ND | 9.7 |
| 1,1,1-Trichloroethane | ND | ND | ND | ND |
| 1,2-Dichloroethane | ND | ND | ND | ND |
| Benzene | ND | ND | ND | ND |
| Metals (ug/L) | | | | |
| Arsenic | NA | NA | NA | NA |
| Barium | 41.0 | 43.4 | 200 | 40 |
| Beryllium | ND | ND | ND | ND |
| Chromium | ND | ND | 2 | 1 |
| Lead | 1.6 | 6.8 | ND | ND |
| Nickel | ND | ND | 1 | 1 |
| Fluoride | ND | 49.3 | 200 | ND |

ug/L - Micrograms per liter

NA - Not analyzed

ND - Non-detect, reporting limits were not given in report.

Analytical data are from Arcadis reports.

Appendix E: Mann-Kendall Test Results

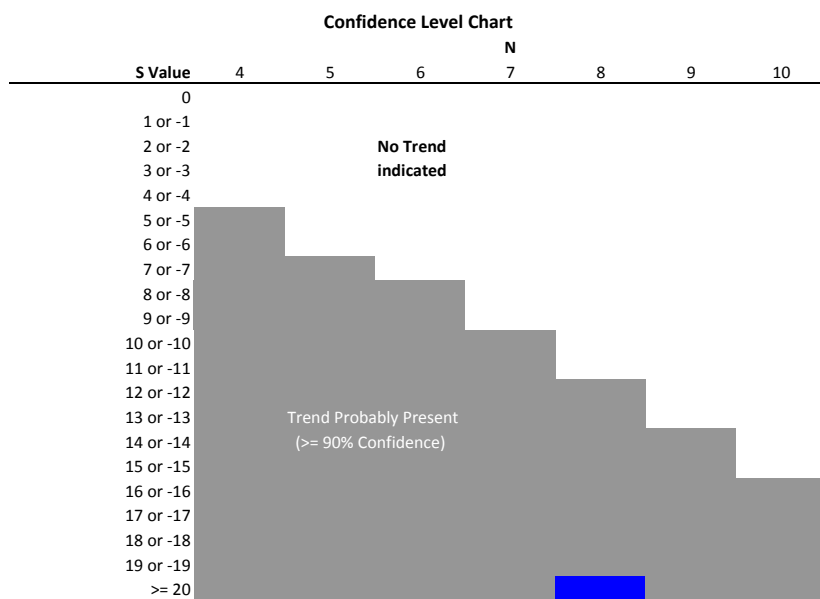


**Mann-Kendall Test - 1,1-DCE in MW-15
Owens Corning - Anderson, SC**

| Date | Nov-07 | Nov-08 | Nov-09 | Nov-10 | Nov-11 | Nov-12 | Nov-13 | Nov-14 | Sum of |
|--------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Concentration (ug/L) | 530 | 300 | 320 | 260 | 270 | 190 | 160 | 120 | Rows |
| Row 1: Compare to Nov-07 | | -1 | -1 | -1 | -1 | -1 | -1 | -1 | -7 |
| Row 2: Compare to Nov-08 | | | 1 | -1 | -1 | -1 | -1 | -1 | -4 |
| Row 3: Compare to Nov-09 | | | | -1 | -1 | -1 | -1 | -1 | -5 |
| Row 4: Compare to Nov-10 | | | | | 1 | -1 | -1 | -1 | -2 |
| Row 5: Compare to Nov-11 | | | | | | -1 | -1 | -1 | -3 |
| Row 6: Compare to Nov-12 | | | | | | | -1 | -1 | -2 |
| Row 7: Compare to Nov-13 | | | | | | | | -1 | -1 |

Mann-Kendall Statistic (S) = -24
N = 8

Conclusion: Decreasing Trend



| Stability Evaluation Results | |
|-----------------------------------|--------------------------|
| Trend present (>= 90% Confidence) | |
| S < 0 | Concentration decreasing |
| S > 0 | Concentration Increasing |

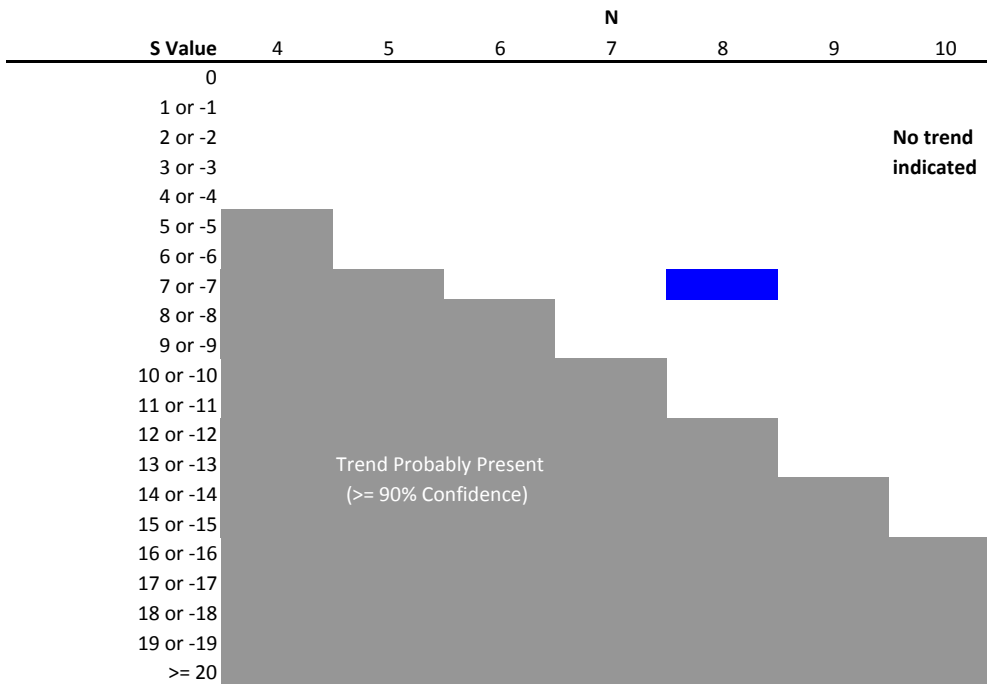
**Mann-Kendall Test - 1,1-DCE in MW-27
Owens Corning - Anderson, SC**

| Date | | Nov-07 | Nov-08 | Nov-09 | Nov-10 | Nov-11 | Nov-12 | Nov-13 | Nov-14 | Sum of |
|----------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Concentration (ug/L) | | 200 | 120 | 120 | 160 | 140 | 67 | 330 | 470 | Rows |
| Row 1: Compare to | Nov-07 | | -1 | -1 | -1 | -1 | -1 | 1 | 1 | -3 |
| Row 2: Compare to | Nov-08 | | | 0 | 1 | 1 | -1 | 1 | 1 | 3 |
| Row 3: Compare to | Nov-09 | | | | 1 | 1 | -1 | 1 | 1 | 3 |
| Row 4: Compare to | Nov-10 | | | | | -1 | -1 | 1 | 1 | 0 |
| Row 5: Compare to | Nov-11 | | | | | | -1 | 1 | 1 | 1 |
| Row 6: Compare to | Nov-12 | | | | | | | 1 | 1 | 2 |
| Row 7: Compare to | Nov-13 | | | | | | | | 1 | 1 |

Mann-Kendall Statistic (S) = 7
N = 8

Conclusion: No trend (stable)

Confidence Level Chart



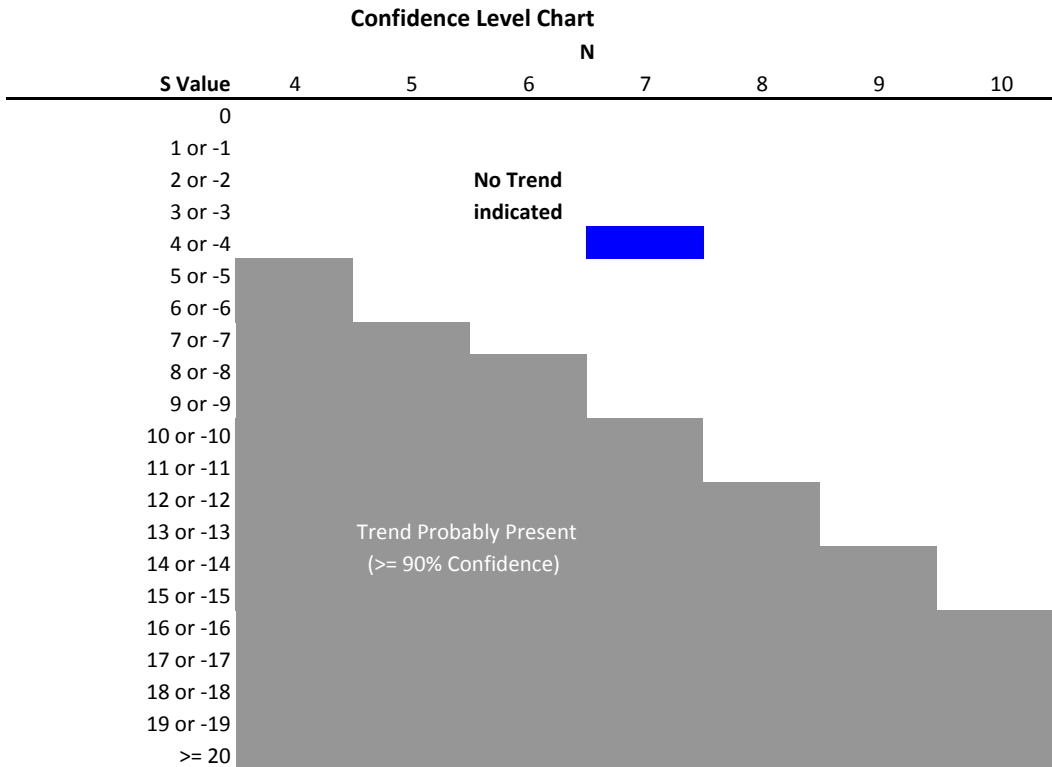
| Stability Evaluation Results | |
|-----------------------------------|--------------------------|
| Trend present (>= 90% Confidence) | |
| S < 0 | Concentration decreasing |
| S > 0 | Concentration Increasing |

**Mann-Kendall Test - 1,1-DCE in MW-29R Zone 3
Owens Corning - Anderson, SC**

| Date | | Nov-08 | Nov-09 | Nov-10 | Nov-11 | Nov-12 | Nov-13 | Nov-14 | Sum of |
|----------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Concentration (ug/L) | | 340 | 230 | 370 | 300 | 290 | 260 | 300 | Rows |
| Row 1: Compare to | Nov-08 | | -1 | 1 | -1 | -1 | -1 | -1 | -4 |
| Row 2: Compare to | Nov-09 | | | 1 | 1 | 1 | 1 | 1 | 5 |
| Row 3: Compare to | Nov-10 | | | | -1 | -1 | -1 | -1 | -4 |
| Row 4: Compare to | Nov-11 | | | | | -1 | -1 | 0 | -2 |
| Row 5: Compare to | Nov-12 | | | | | | -1 | 1 | 0 |
| Row 6: Compare to | Nov-13 | | | | | | | 1 | 1 |

Mann-Kendall Statistic (S) = -4
N = 7

Conclusion: No Trend (stable)



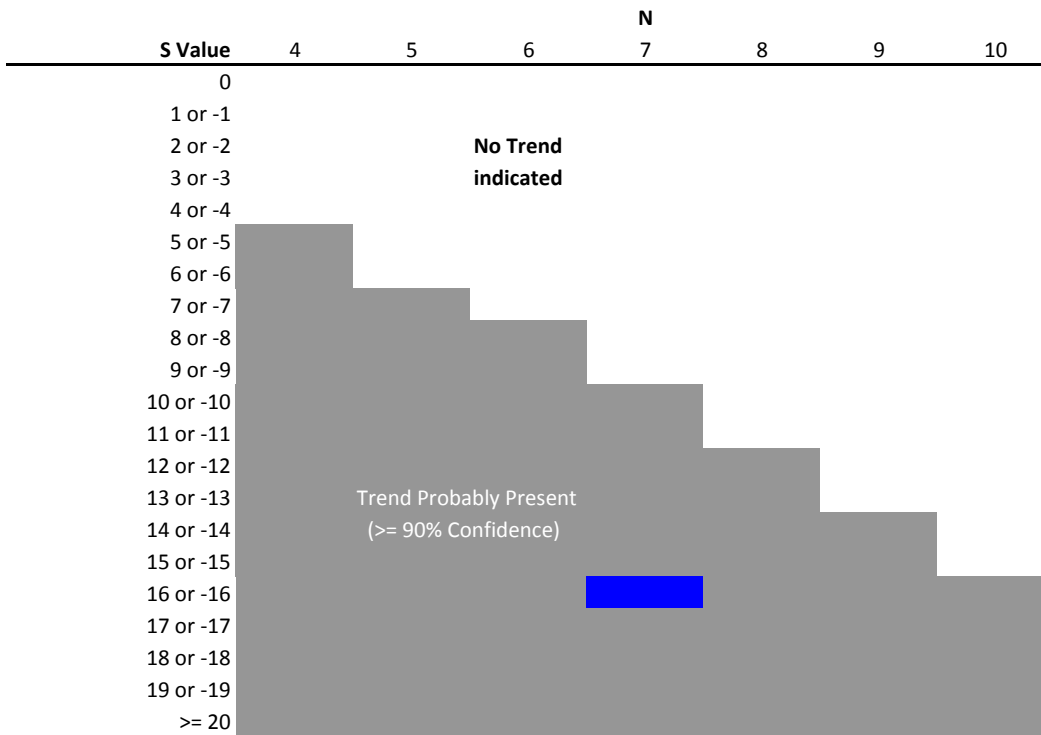
Stability Evaluation Results
Trend present (>= 90% Confidence)
Concentration decreasing
Concentration Increasing

**Mann-Kendall Test - 1,1-DCE in MW-29R Zone 4
Owens Corning - Anderson, SC**

| Date | | Nov-08 | Nov-09 | Nov-10 | Nov-11 | Nov-12 | Nov-13 | Nov-14 | Sum of |
|------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Concentration (ug/L) | | 340 | 320 | 360 | 300 | 290 | 230 | 290 | Rows |
| Row 1: Compare to | Nov-08 | | -1 | 1 | -1 | -1 | -1 | -1 | -4 |
| Row 2: Compare to | Nov-09 | | | 1 | -1 | -1 | -1 | -1 | -3 |
| Row 3: Compare to | Nov-10 | | | | -1 | -1 | -1 | -1 | -4 |
| Row 4: Compare to | Nov-11 | | | | | -1 | -1 | -1 | -3 |
| Row 5: Compare to | Nov-12 | | | | | | -1 | 0 | -1 |
| Row 6: Compare to | Nov-13 | | | | | | | -1 | -1 |
| Mann-Kendall Statistic (S) = | | | | | | | | | -16 |
| N = | | | | | | | | | 7 |

Conclusion: Decreasing Trend

Confidence Level Chart



| Stability Evaluation Results | |
|-------------------------------------|--------------------------|
| Trend present (>= 90% Confidence) | |
| S < 0 | Concentration decreasing |
| S > 0 | Concentration Increasing |

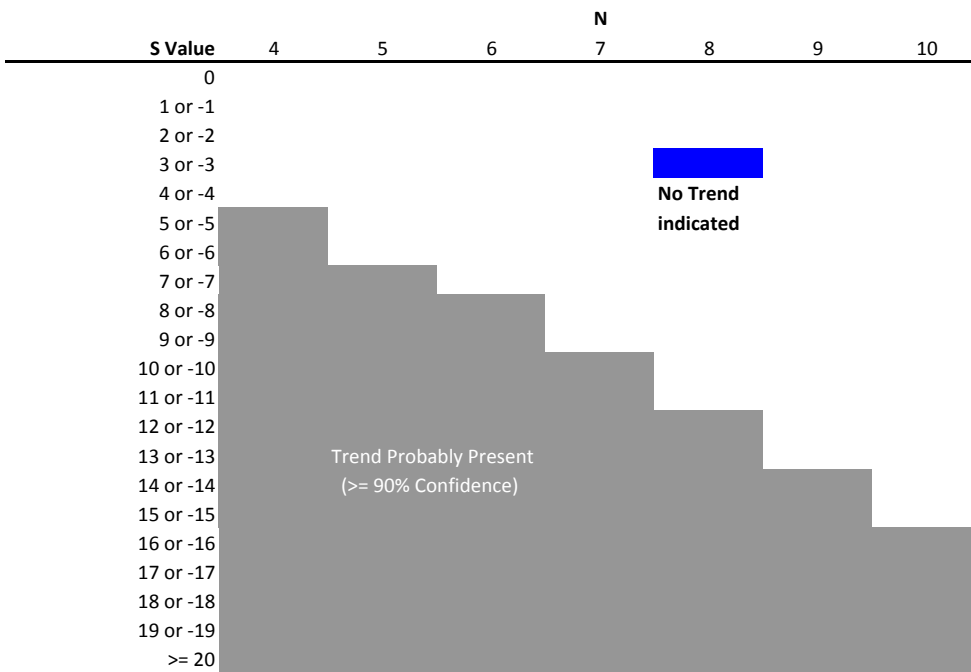
**Mann-Kendall Test - 1,1-DCE in MW-30
Owens Corning - Anderson, SC**

| Date | | Nov-07 | Nov-08 | Nov-09 | Nov-10 | Nov-11 | Nov-12 | Nov-13 | Nov-14 | Sum of Rows |
|-----------------------------|--------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Concentration (ug/L) | | 4700 | 3600 | 4200 | 5200 | 3900 | 4000 | 4200 | 4600 | |
| Row 1: Compare to | Nov-07 | | -1 | -1 | 1 | -1 | -1 | -1 | -1 | -5 |
| Row 2: Compare to | Nov-08 | | | 1 | 1 | 1 | 1 | 1 | 1 | 6 |
| Row 3: Compare to | Nov-09 | | | | 1 | -1 | -1 | 0 | 1 | 0 |
| Row 4: Compare to | Nov-10 | | | | | -1 | -1 | -1 | -1 | -4 |
| Row 5: Compare to | Nov-11 | | | | | | 1 | 1 | 1 | 3 |
| Row 6: Compare to | Nov-12 | | | | | | | 1 | 1 | 2 |
| Row 7: Compare to | Nov-13 | | | | | | | | 1 | 1 |

Mann-Kendall Statistic (S) = 3
N = 8

Conclusion: Increasing Trend

Confidence Level Chart



| Stability Evaluation Results | |
|-----------------------------------|--------------------------|
| Trend present (>= 90% Confidence) | |
| S < 0 | Concentration decreasing |
| S > 0 | Concentration Increasing |

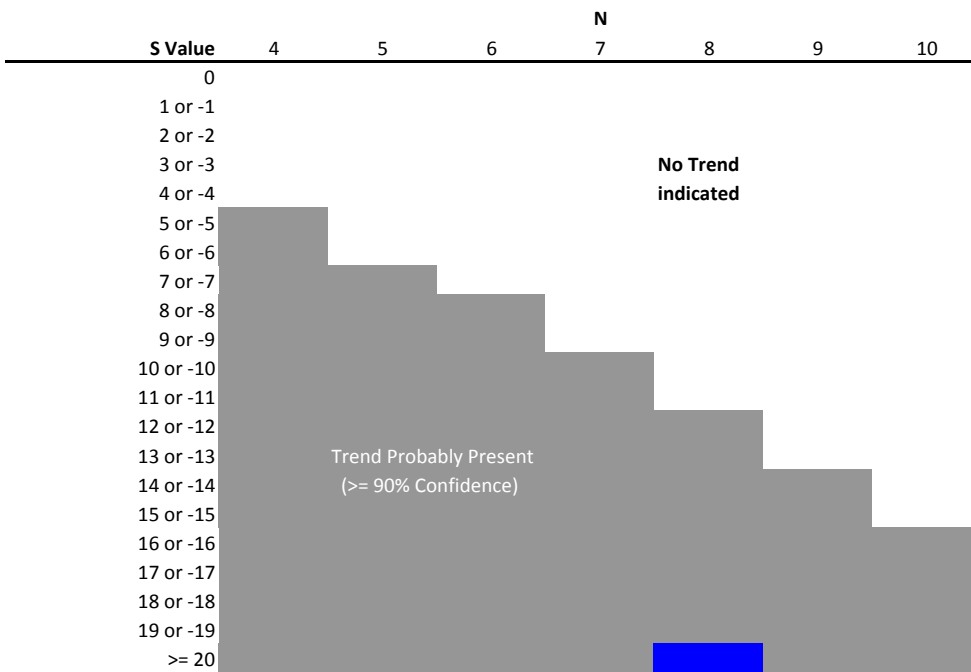
**Mann-Kendall Test - 1,1-DCE in MW-31
Owens Corning - Anderson, SC**

| Date | Nov-07 | Nov-08 | Nov-09 | Nov-10 | Nov-11 | Nov-12 | Nov-13 | Nov-14 | Sum of Rows |
|-----------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Concentration (ug/L) | 5300 | 4800 | 4900 | 4300 | 2700 | 1800 | 1400 | 1100 | |
| Row 1: Compare to Nov-07 | | -1 | -1 | -1 | -1 | -1 | -1 | -1 | -7 |
| Row 2: Compare to Nov-08 | | | 1 | -1 | -1 | -1 | -1 | -1 | -4 |
| Row 3: Compare to Nov-09 | | | | -1 | -1 | -1 | -1 | -1 | -5 |
| Row 4: Compare to Nov-10 | | | | | -1 | -1 | -1 | -1 | -4 |
| Row 5: Compare to Nov-11 | | | | | | -1 | -1 | -1 | -3 |
| Row 6: Compare to Nov-12 | | | | | | | -1 | -1 | -2 |
| Row 7: Compare to Nov-13 | | | | | | | | -1 | -1 |

Mann-Kendall Statistic (S) = -26
N = 8

Conclusion: Decreasing Trend

Confidence Level Chart



Stability Evaluation Results

Trend present (>= 90% Confidence)

S < 0 Concentration decreasing
S > 0 Concentration Increasing

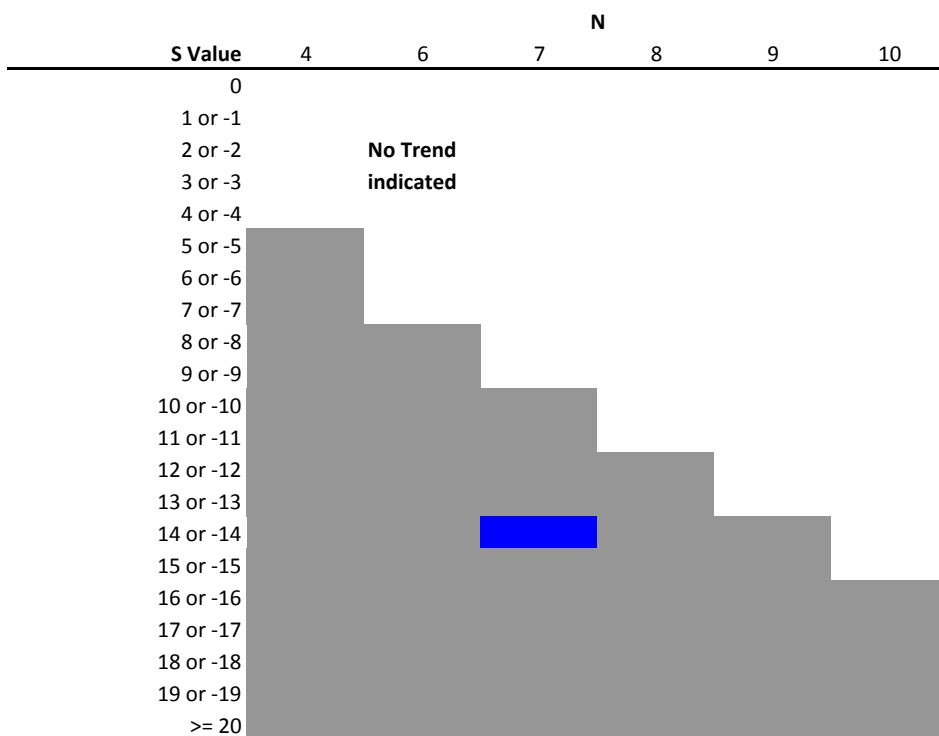
Mann-Kendall Test - 1,1-DCE in MW-35
Owens Corning - Anderson, SC

| Date | | Nov-08 | Nov-09 | Nov-10 | Nov-11 | Nov-12 | Nov-13 | Nov-14 | Sum of |
|----------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Concentration (ug/L) | | 330 | 340 | 490 | 330 | 170 | 98 | 50 | Rows |
| Row 1: Compare to | Nov-08 | | 1 | 1 | 0 | -1 | -1 | -1 | -1 |
| Row 2: Compare to | Nov-09 | | | 1 | -1 | -1 | -1 | -1 | -3 |
| Row 3: Compare to | Nov-10 | | | | -1 | -1 | -1 | -1 | -4 |
| Row 4: Compare to | Nov-11 | | | | | -1 | -1 | -1 | -3 |
| Row 5: Compare to | Nov-12 | | | | | | -1 | -1 | -2 |
| Row 6: Compare to | Nov-13 | | | | | | | -1 | -1 |

Mann-Kendall Statistic (S) = -14
N = 7

Conclusion: Decreasing Trend

Confidence Level Chart



Stability Evaluation Results

Trend present (>= 90% Confidence)

Concentration decreasing

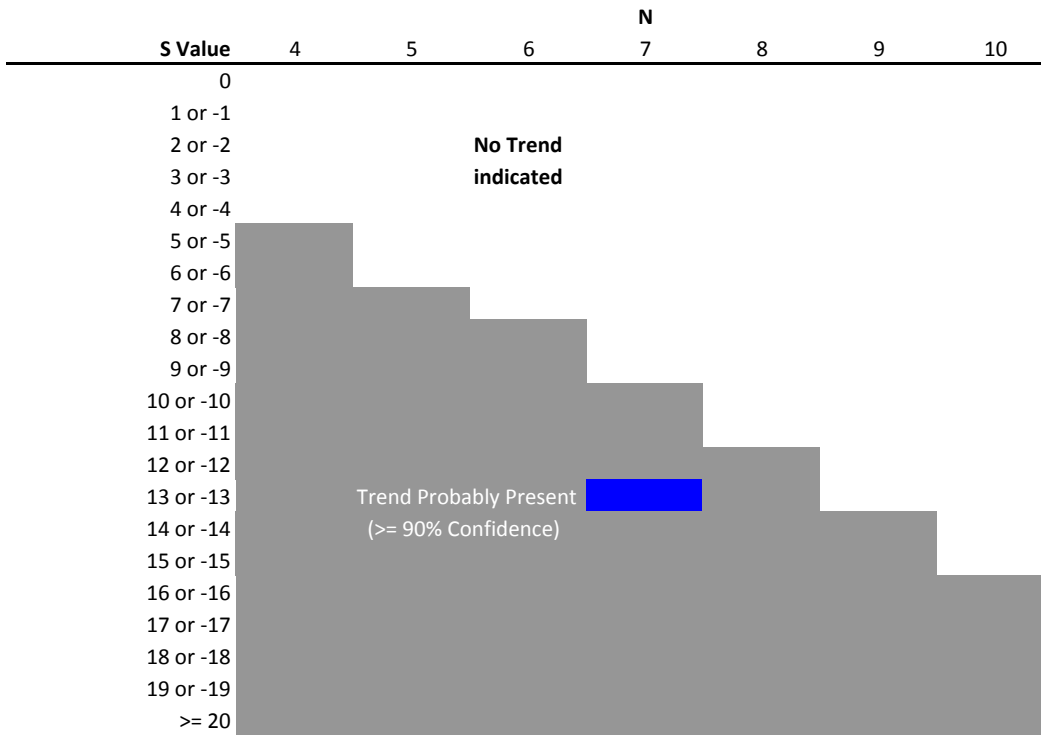
Concentration Increasing

**Mann-Kendall Test - 1,1-DCE in MW-37 Zone 1
Owens Corning - Anderson, SC**

| Date | | Nov-08 | Nov-09 | Nov-10 | Nov-11 | Nov-12 | Nov-13 | Nov-14 | Sum of Rows |
|------------------------------|--------|------------|-----------|-----------|-----------|-----------|-----------|-----------|-------------|
| Concentration (ug/L) | | 7.6 | 20 | 74 | 78 | 91 | 49 | 90 | |
| Row 1: Compare to | Nov-08 | | 1 | 1 | 1 | 1 | 1 | 1 | 6 |
| Row 2: Compare to | Nov-09 | | | 1 | 1 | 1 | 1 | 1 | 5 |
| Row 3: Compare to | Nov-10 | | | | 1 | 1 | -1 | 1 | 2 |
| Row 4: Compare to | Nov-11 | | | | | 1 | -1 | 1 | 1 |
| Row 5: Compare to | Nov-12 | | | | | | -1 | -1 | -2 |
| Row 6: Compare to | Nov-13 | | | | | | | 1 | 1 |
| Mann-Kendall Statistic (S) = | | | | | | | | | 13 |
| N = | | | | | | | | | 7 |

Conclusion: Increasing Trend

Confidence Level Chart



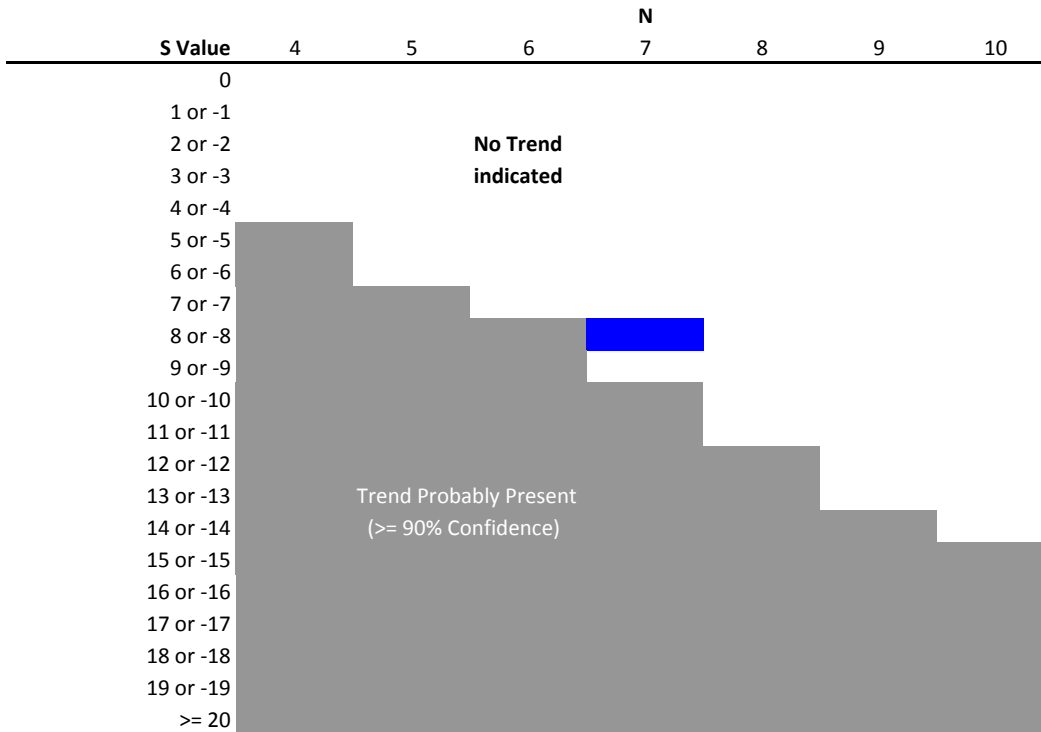
| Stability Evaluation Results | |
|-------------------------------------|--------------------------|
| Trend present (>= 90% Confidence) | |
| S < 0 | Concentration decreasing |
| S > 0 | Concentration Increasing |

**Mann-Kendall Test - 1,1-DCE in MW-37 Zone 2
Owens Corning - Anderson, SC**

| Date | | Nov-08 | Nov-09 | Nov-10 | Nov-11 | Nov-12 | Nov-13 | Nov-14 | Sum of Rows |
|------------------------------|--------|------------|------------|------------|------------|------------|------------|------------|-------------|
| Concentration (ug/L) | | 320 | 180 | 340 | 310 | 140 | 180 | 180 | |
| Row 1: Compare to | Nov-08 | | -1 | 1 | -1 | -1 | -1 | -1 | -4 |
| Row 2: Compare to | Nov-09 | | | 1 | 1 | -1 | 0 | 0 | 1 |
| Row 3: Compare to | Nov-10 | | | | -1 | -1 | -1 | -1 | -4 |
| Row 4: Compare to | Nov-11 | | | | | -1 | -1 | -1 | -3 |
| Row 5: Compare to | Nov-12 | | | | | | 1 | 1 | 2 |
| Row 6: Compare to | Nov-13 | | | | | | | 0 | 0 |
| Mann-Kendall Statistic (S) = | | | | | | | | | -8 |
| N = | | | | | | | | | 7 |

Conclusion: No Trend (stable)

Confidence Level Chart



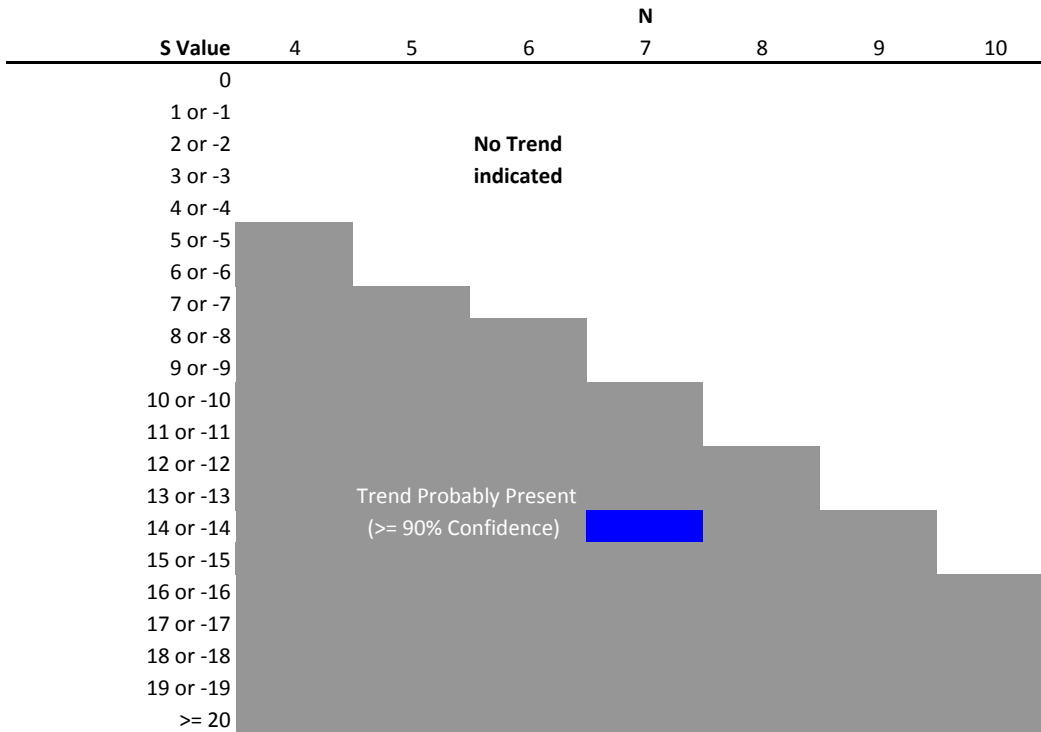
| Stability Evaluation Results | |
|-------------------------------------|--------------------------|
| Trend present (>= 90% Confidence) | |
| S < 0 | Concentration decreasing |
| S > 0 | Concentration Increasing |

**Mann-Kendall Test - 1,1-DCE in MW-37 Zone 3
Owens Corning - Anderson, SC**

| Date | | Nov-08 | Nov-09 | Nov-10 | Nov-11 | Nov-12 | Nov-13 | Nov-14 | Sum of Rows |
|------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|-------------|
| Concentration (ug/L) | | 23 | 4.8 | 6.7 | 2.5 | 2.5 | 2.5 | 2.5 | |
| Row 1: Compare to | Nov-08 | | -1 | -1 | -1 | -1 | -1 | -1 | -6 |
| Row 2: Compare to | Nov-09 | | | 1 | -1 | -1 | -1 | -1 | -3 |
| Row 3: Compare to | Nov-10 | | | | -1 | -1 | -1 | -1 | -4 |
| Row 4: Compare to | Nov-11 | | | | | 0 | 0 | 0 | 0 |
| Row 5: Compare to | Nov-12 | | | | | | 0 | -1 | -1 |
| Row 6: Compare to | Nov-13 | | | | | | | 0 | 0 |
| Mann-Kendall Statistic (S) = | | | | | | | | | -14 |
| N = | | | | | | | | | 7 |

Conclusion: Decreasing Trend

Confidence Level Chart



| Stability Evaluation Results | |
|-------------------------------------|--------------------------|
| Trend present (>= 90% Confidence) | |
| S < 0 | Concentration decreasing |
| S > 0 | Concentration Increasing |

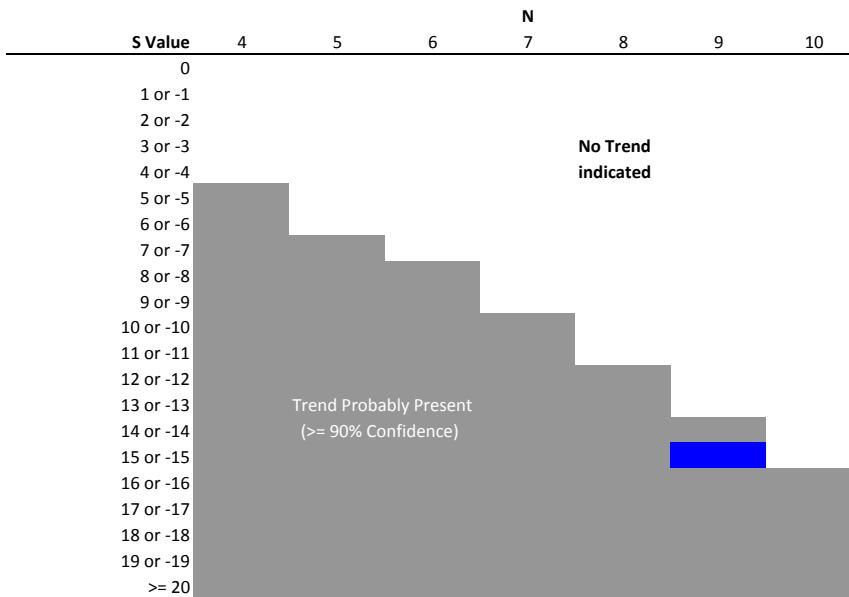
**Mann-Kendall Test - 1,1-DCE in MW-41 Zone 1
Owens Corning - Anderson, SC**

| Date | | Nov-12 | Feb-13 | May-13 | Aug-13 | Nov-13 | Feb-14 | May-14 | Aug-14 | Nov-14 | Sum of |
|----------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Concentration (ug/L) | | 190 | 250 | 240 | 150 | 110 | 150 | 77 | 120 | 160 | Rows |
| Row 1: Compare to | Nov-12 | | 1 | 1 | -1 | -1 | -1 | -1 | -1 | -1 | -4 |
| Row 2: Compare to | Feb-13 | | | -1 | -1 | -1 | -1 | -1 | -1 | -1 | -7 |
| Row 3: Compare to | May-13 | | | | -1 | -1 | -1 | -1 | -1 | -1 | -6 |
| Row 4: Compare to | Aug-13 | | | | | -1 | 0 | -1 | -1 | 1 | -2 |
| Row 5: Compare to | Nov-13 | | | | | | 1 | -1 | 1 | 1 | 2 |
| Row 6: Compare to | Feb-14 | | | | | | | -1 | -1 | 1 | -1 |
| Row 7: Compare to | May-14 | | | | | | | | 1 | 1 | 2 |
| Row 8: Compare to | Aug-14 | | | | | | | | | 1 | 1 |

Mann-Kendall Statistic (S) = -15
N = 9

Conclusion: Decreasing Trend

Confidence Level Chart



| Stability Evaluation Results | |
|-------------------------------------|--------------------------|
| Trend present (>= 90% Confidence) | |
| S < 0 | Concentration decreasing |
| S > 0 | Concentration Increasing |

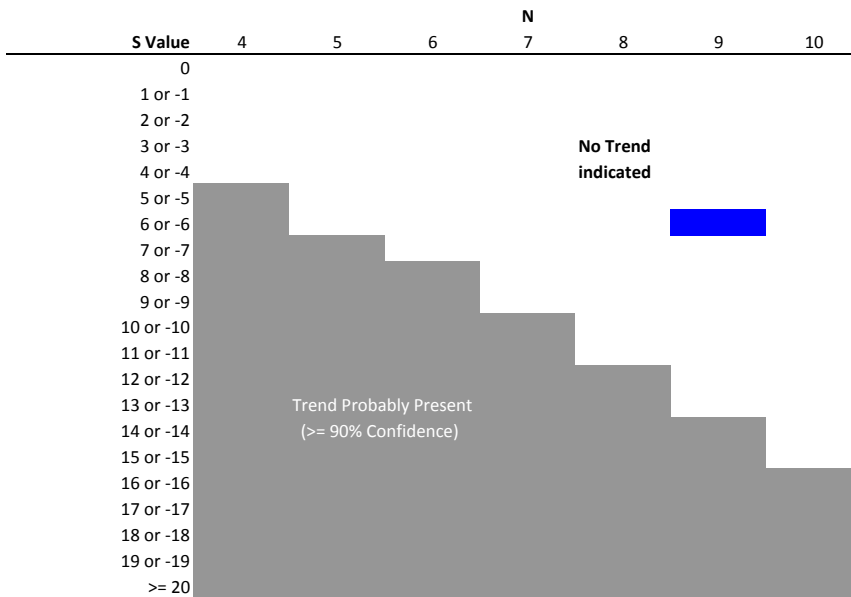
**Mann-Kendall Test - 1,1-DCE in MW-41 Zone 2
Owens Corning - Anderson, SC**

| Date | | Nov-12 | Feb-13 | May-13 | Aug-13 | Nov-13 | Feb-14 | May-14 | Aug-14 | Nov-14 | Sum of Rows |
|----------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------------|
| Concentration (ug/L) | | 78 | 230 | 280 | 200 | 190 | 160 | 240 | 140 | 180 | |
| Row 1: Compare to | Nov-12 | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 8 |
| Row 2: Compare to | Feb-13 | | | 1 | -1 | -1 | -1 | 1 | -1 | -1 | -3 |
| Row 3: Compare to | May-13 | | | | -1 | -1 | -1 | -1 | -1 | -1 | -6 |
| Row 4: Compare to | Aug-13 | | | | | -1 | -1 | 1 | -1 | -1 | -3 |
| Row 5: Compare to | Nov-13 | | | | | | -1 | 1 | -1 | -1 | -2 |
| Row 6: Compare to | Feb-14 | | | | | | | 1 | -1 | 1 | 1 |
| Row 7: Compare to | May-14 | | | | | | | | -1 | -1 | -2 |
| Row 8: Compare to | Aug-14 | | | | | | | | | 1 | 1 |

Mann-Kendall Statistic (S) = -6
N = 9

Conclusion: No Trend (Stable)

Confidence Level Chart



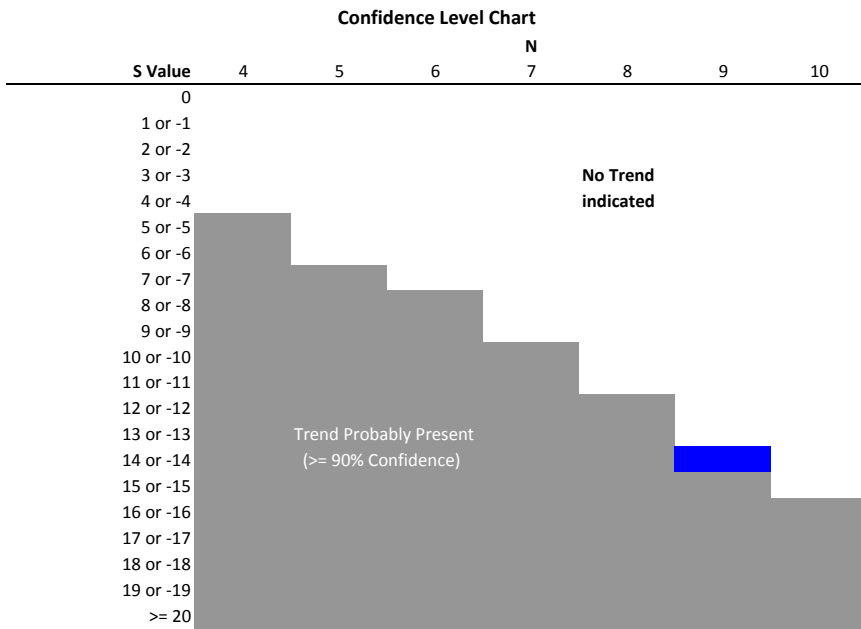
| Stability Evaluation Results | |
|-------------------------------------|--------------------------|
| Trend present (>= 90% Confidence) | |
| S < 0 | Concentration decreasing |
| S > 0 | Concentration Increasing |

**Mann-Kendall Test - 1,1-DCE in MW-41 Zone 3
Owens Corning - Anderson, SC**

| Date | | Nov-12 | Feb-13 | May-13 | Aug-13 | Nov-13 | Feb-14 | May-14 | Aug-14 | Nov-14 | Sum of Rows |
|-----------------------------|--------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-------------|
| Concentration (ug/L) | | 78 | 76 | 32 | 34 | 18 | 37 | 35 | 35 | 18 | |
| Row 2: Compare to | Nov-12 | | -1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | -8 |
| Row 3: Compare to | Feb-13 | | | -1 | -1 | -1 | -1 | -1 | -1 | -1 | -7 |
| Row 4: Compare to | May-13 | | | | 1 | -1 | 1 | 1 | 1 | -1 | 2 |
| Row 5: Compare to | Aug-13 | | | | | -1 | 1 | 1 | 1 | -1 | 1 |
| Row 6: Compare to | Nov-13 | | | | | | 1 | 1 | 1 | 0 | 3 |
| Row 7: Compare to | Feb-14 | | | | | | | -1 | -1 | -1 | -3 |
| Row 8: Compare to | May-14 | | | | | | | | 0 | -1 | -1 |
| Row 9: Compare to | Aug-14 | | | | | | | | | -1 | -1 |

Mann-Kendall Statistic (S) = -14
N = 9

Conclusion: Decreasing Trend



Stability Evaluation Results

Trend present (>= 90% Confidence)

S < 0 Concentration decreasing

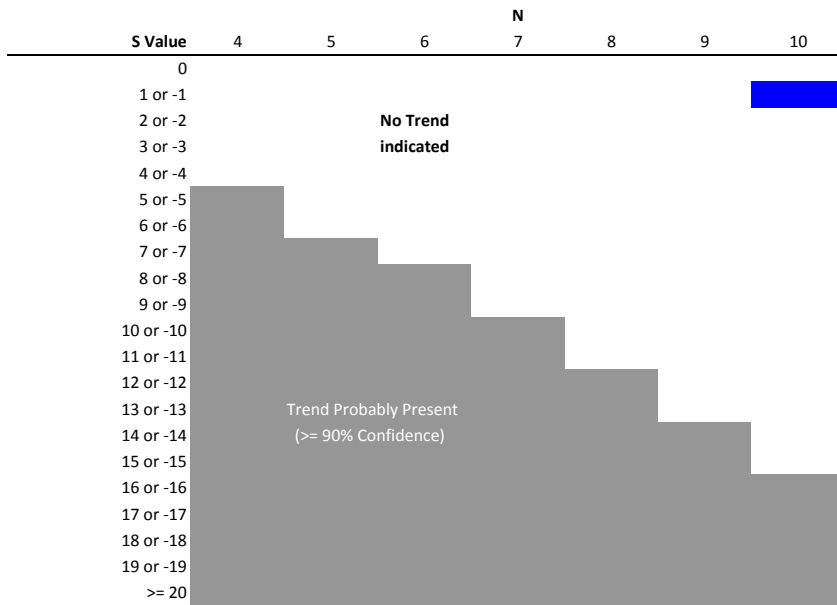
S > 0 Concentration Increasing

**Mann-Kendall Test - 1,1-DCE at SW-3A
Owens Corning - Anderson, SC**

| Date | Nov-05 | Nov-06 | Nov-07 | Nov-08 | Nov-09 | Nov-10 | Nov-11 | Nov-12 | Nov-13 | Nov-14 | Sum of Rows |
|------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------------|
| Concentration (ug/L) | 2.4 | 2.3 | 390 | 84 | 290 | 120 | 2.5 | 2.5 | 2.5 | 2.5 | |
| Row 1: Compare to Nov-05 | | -1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 6 |
| Row 2: Compare to Nov-06 | | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 7 |
| Row 3: Compare to Nov-07 | | | | -1 | -1 | -1 | -1 | -1 | -1 | -1 | -6 |
| Row 4: Compare to Nov-08 | | | | | 1 | 1 | -1 | -1 | -1 | -1 | -1 |
| Row 5: Compare to Nov-09 | | | | | | -1 | -1 | -1 | -1 | -1 | -4 |
| Row 6: Compare to Nov-10 | | | | | | | -1 | -1 | -1 | -1 | -3 |
| Row 7: Compare to Nov-11 | | | | | | | | 0 | 0 | 0 | 0 |
| Row 8: Compare to Nov-12 | | | | | | | | | 0 | 0 | 0 |
| Mann-Kendall Statistic (S) = | | | | | | | | | | | -1 |
| N = | | | | | | | | | | | 10 |

Conclusion: No Trend (Stable)

Confidence Level Chart

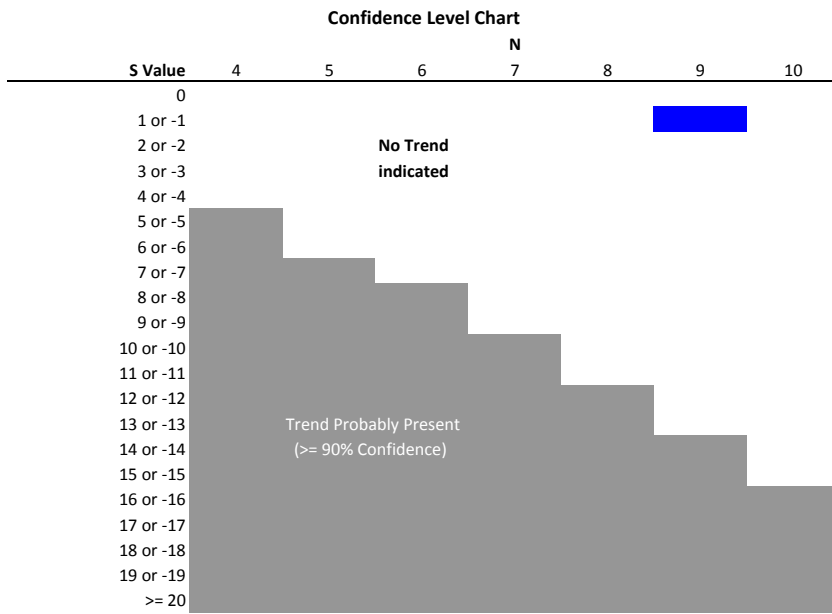


| Stability Evaluation Results | |
|-------------------------------------|--------------------------|
| Trend present (>= 90% Confidence) | |
| S < 0 | Concentration decreasing |
| S > 0 | Concentration Increasing |

**Mann-Kendall Test - Carbon Tetrachloride in MW-22
Owens Corning - Anderson, SC**

| Date | | Nov-12 | Feb-13 | May-13 | Aug-13 | Nov-13 | Feb-14 | May-14 | Aug-14 | Nov-14 | Sum of Rows |
|------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------------|
| Concentration (ug/L) | | 19 | 31 | 14 | 17 | 23 | 16 | 18 | 18 | 22 | |
| Row 2: Compare to | Nov-12 | | 1 | -1 | -1 | 1 | -1 | -1 | -1 | 1 | -2 |
| Row 3: Compare to | Feb-13 | | | -1 | -1 | -1 | -1 | -1 | -1 | -1 | -7 |
| Row 4: Compare to | May-13 | | | | 1 | 1 | 1 | 1 | 1 | 1 | 6 |
| Row 5: Compare to | Aug-13 | | | | | 1 | -1 | 1 | 1 | 1 | 3 |
| Row 6: Compare to | Nov-13 | | | | | | -1 | -1 | -1 | -1 | -4 |
| Row 7: Compare to | Feb-14 | | | | | | | 1 | 1 | 1 | 3 |
| Row 8: Compare to | May-14 | | | | | | | | 0 | 1 | 1 |
| Row 9: Compare to | Aug-14 | | | | | | | | | 1 | 1 |
| Mann-Kendall Statistic (S) = | | | | | | | | | | | 1 |
| N = | | | | | | | | | | | 9 |

Conclusion: No Trend (Stable)

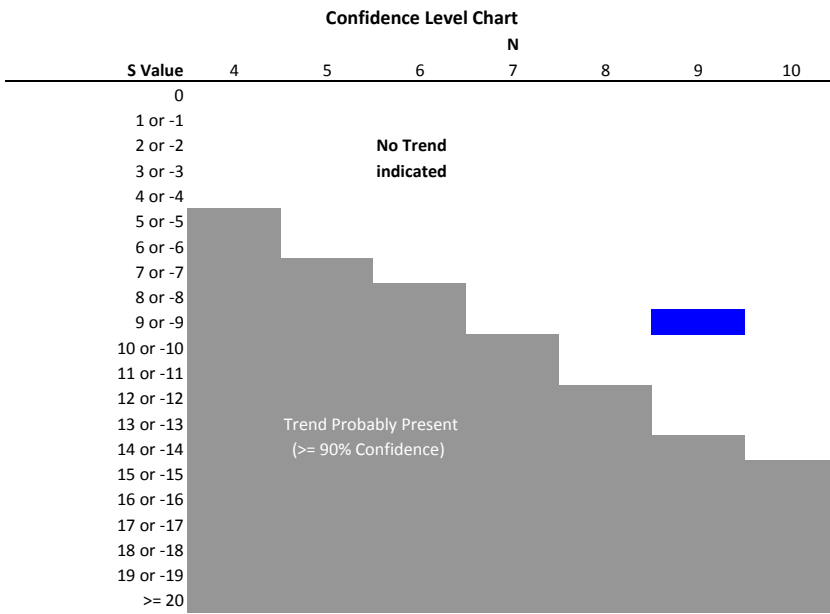


| Stability Evaluation Results | |
|-------------------------------------|--------------------------|
| Trend present (>= 90% Confidence) | |
| S < 0 | Concentration decreasing |
| S > 0 | Concentration Increasing |

**Mann-Kendall Test - Carbon Tetrachloride in MW-29R Zone 3
Owens Corning - Anderson, SC**

| Date | | Nov-12 | Feb-13 | May-13 | Aug-13 | Nov-13 | Feb-14 | May-14 | Aug-14 | Nov-14 | Sum of Rows |
|------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------------|
| Concentration (ug/L) | | 16 | 15 | 12 | 14 | 14 | 12 | 13 | 12 | 16 | |
| Row 2: Compare to | Nov-12 | | -1 | -1 | -1 | -1 | -1 | -1 | -1 | 0 | -7 |
| Row 3: Compare to | Feb-13 | | | -1 | -1 | -1 | -1 | -1 | -1 | 1 | -5 |
| Row 4: Compare to | May-13 | | | | 1 | 1 | 0 | 1 | 0 | 1 | 4 |
| Row 5: Compare to | Aug-13 | | | | | 0 | -1 | -1 | -1 | 1 | -2 |
| Row 6: Compare to | Nov-13 | | | | | | -1 | -1 | -1 | 1 | -2 |
| Row 7: Compare to | Feb-14 | | | | | | | 1 | 0 | 1 | 2 |
| Row 8: Compare to | May-14 | | | | | | | | -1 | 1 | 0 |
| Row 9: Compare to | Aug-14 | | | | | | | | | 1 | 1 |
| Mann-Kendall Statistic (S) = | | | | | | | | | | | -9 |
| N = | | | | | | | | | | | 9 |

Conclusion: No Trend (Stable)

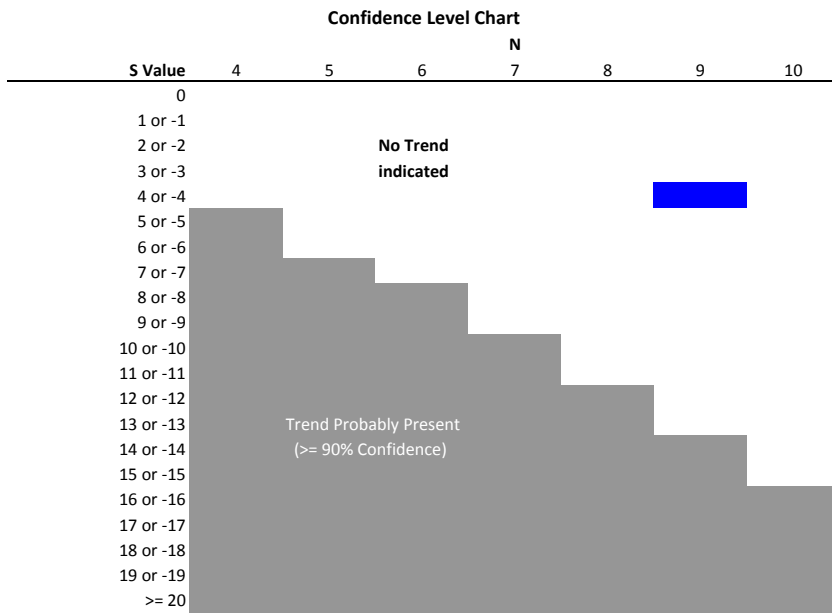


| Stability Evaluation Results | |
|-------------------------------------|--------------------------|
| Trend present (>= 90% Confidence) | |
| S < 0 | Concentration decreasing |
| S > 0 | Concentration Increasing |

**Mann-Kendall Test - Carbon Tetrachloride in MW-29R Zone 4
Owens Corning - Anderson, SC**

| Date | | Nov-12 | Feb-13 | May-13 | Aug-13 | Nov-13 | Feb-14 | May-14 | Aug-14 | Nov-14 | Sum of Rows |
|------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------------|
| Concentration (ug/L) | | 16 | 8 | 9.2 | 11 | 12 | 12 | 11 | 9.5 | 14 | |
| Row 2: Compare to | Nov-12 | | -1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | -8 |
| Row 3: Compare to | Feb-13 | | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 7 |
| Row 4: Compare to | May-13 | | | | 1 | 1 | 1 | 1 | 1 | 1 | 4 |
| Row 5: Compare to | Aug-13 | | | | | 1 | 1 | 0 | -1 | 1 | 2 |
| Row 6: Compare to | Nov-13 | | | | | | 0 | -1 | -1 | 1 | -1 |
| Row 7: Compare to | Feb-14 | | | | | | | -1 | -1 | 1 | -1 |
| Row 8: Compare to | May-14 | | | | | | | | -1 | 1 | 0 |
| Row 9: Compare to | Aug-14 | | | | | | | | | 1 | 1 |
| Mann-Kendall Statistic (S) = | | | | | | | | | | | 4 |
| N = | | | | | | | | | | | 9 |

Conclusion: No Trend (Stable)



| Stability Evaluation Results | |
|-------------------------------------|--------------------------|
| Trend present (>= 90% Confidence) | |
| S < 0 | Concentration decreasing |
| S > 0 | Concentration Increasing |