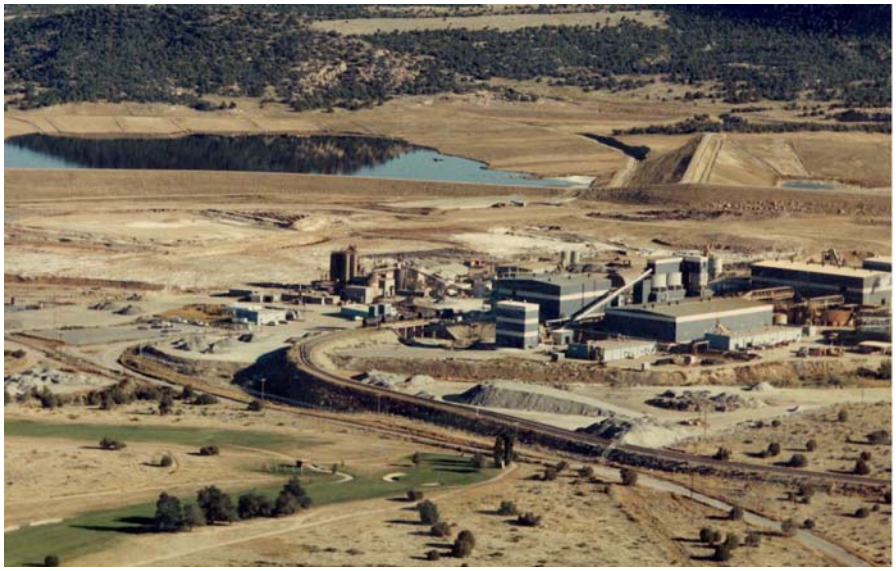
RESULTS OF THE PHASE I PASSIVE SOIL GAS SAMPLING AND ADDITIONAL GROUNDWATER SAMPLING PERFORMED AUGUST 2011 COTTER MILLING FACILITY, CANON CITY, COLORADO



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September 30, 2011

Results of Phase I Passive Soil Gas Sampling
And
Additional Groundwater Sampling
Performed August 2011
Cotter Milling Facility, Canon City, Colorado

Introduction

Passive soil gas sampling was conducted in August 2011, at the Cotter Milling Facility in Canon City, Colorado. The soil gas sampling was performed to evaluate the efficacy of passive soil gas sample collection with respect to identification of TCE groundwater contamination and/or potential TCE source areas to groundwater contamination. The passive soil gas investigation was performed as described in the Technical Memorandum dated July 27, 2011. As part of this investigation, three groundwater samples were also collected from site monitoring wells. Locations of the soil gas samplers and the sampled wells are provided in Figure 1.

The passive soil gas sampling was designed as a phased investigation. Twenty-six passive soil gas samplers and one field duplicate were installed, retrieved, and analyzed in the Phase I investigation. The methods and results of this investigation are described in the following sections.

Work Performed

The state plane coordinates for the 26 passive soil gas sample locations shown in Figure 2 of the Technical Memorandum were up-loaded to a GPS device. These locations were staked in the field on August 13, 2011 using the GPS capability. The accuracy of the GPS locations, based on field verification of known wells in the survey area, was determined to be approximately +/-10 feet. The passive soil gas samplers were installed at each of the 26 locations on August 15, 2011.

The initial plan was to use a heavy duty 24-volt battery powered hand drill, to make holes 2-3 feet deep for installation of the soil gas samplers. However, field conditions precluded such drilling to a depth of more than a few inches at nearly all locations. Instead, a 3-foot-long, and 1-inch diameter, steel bar and a heavy sledge hammer were used to drive holes to a depth of 2-2.5 feet at each sample location. Once driven, the bar was carefully removed with minimal caving to the hole. The soil gas sampler was attached to a wire, the cap on the sample was removed, and the sampler was lowered down the hole to a depth of approximately 2 feet. A wad of crumpled aluminum foil was then placed in the hole at a depth of 1-3 inches to hold it open. The wire extended from the hole by 1-foot. A rock was then firmly placed over the top of the hole as a protective cover. The protruding wire was marked with survey flagging. The passive soil gas samplers were left in the ground for two weeks. Photos of the soil gas samplers are presented in Appendix A. Additional pictures of the passive soil gas samplers are shown as part of Vista Geoscience's installation guidelines provided in Appendix B.

The soil gas samplers were retrieved on August 29, 2011. Each sampler was pulled from the ground by the wire, and capped. In cases where there was some collapse to the hole above the sampler, some samplers required careful digging for removal. Samplers were returned to Vista GeoSciences laboratory the day after sampling for login and analysis. VOCs adsorbed onto the carbon covered wires in the sample vials, were desorbed onto a trap in the analytical instrument. Samples were analyzed using gas chromatography/mass spectroscopy (GCMS) by modified method 8260.

The three groundwater samples collected during this investigation were collected using low flow sampling methodology. The sampling procedures were identical to those documented for the site-wide groundwater sampling event performed in May of 2011.

Results

Soil Gas - TCE was detected in approximately 25 percent of the Phase I soil gas samples. Results of the soil gas sampling are presented in Figure 2.. TCE results for passive soil gas samples are presented in the table below in units of nanograms (ng). A complete copy of the laboratory analytical report is provided in Appendix C.

Sample ID	TCE (ng)	Sample ID	TCE (ng)	Sample ID	TCE (ng)
SG-1	<5.0	SG-10	**90.9**	SG-19	**6.0**
SG-2	<5.0	SG-11	<5.0	SG-20	**112.2**
SG-3	**10.9**	SG-12	<5.0	SG-21	<5.0
SG-4	**1.6 J**	SG-13	**<5.1**	SG-22	<5.0
SG-5	**47.2**	SG-14	<5.0	SG-23	<5.0
SG-6	<5.0	SG-15	<5.0	SG-24	<5.0
SG-7	<5.0	SG-16	<5.0	SG-25	<5.0
SG-8	<5.0	SG-17	<5.0	SG-26	<5.0
SG-9	<5.0	SG-18	<5.0	DUP-01	<5.0

The TCE detections are generally grouped in the northern portion of the soil gas survey area. The highest TCE levels were measured at locations SG-10 and SG-20 (90.9 ng and 112.2 ng, respectively). These locations are within 150 feet of well 042 which had a dissolved TCE concentration of 1,200 ug/l in May 2011. Several soil gas samplers were placed around well 802 which had the highest groundwater TCE concentration in May 2011 (2,300 ug/L). The TCE concentrations for each of those soil gas samplers (and all the samplers south of well 802), were below detection levels.

Groundwater Sampling Results – Three monitoring wells (803, 038, and 044) were sampled in accordance with the July 27, 2011 Technical Memorandum. Low flow procedures described in the April 2011 work plan submitted to the Colorado Department of Public Health and Environment (CDPHE) were used. Well 803 is located on the Shadow Hills Golf Course property, just north of the Cotter Mill property boundary. Wells 038 and 044 are located within the restricted area north of the former milling area. The wells sampled with associated TCE results are shown in Figure 3.

Samples were submitted to TestAmerica Laboratory, located in Arvada Colorado, for analysis of VOCs by EPA Method 8260B. Results of the sampling are presented in the table below. A complete copy of the laboratory analytical report is provided in Appendix C. Field notes from the sampling are presented in Appendix D.

Sample ID	VOCs Detected (ug/L)	Comments
803	TCE = 4.3	Golf Course Well
38	TCE = 24 Cis-1,2-DCE = 0.30 *J* MTBE = 0.37 *J*	North of former milling area
044	TCE = 1,200 PCE = 8.7 Cis-1,2-DCE = 1.1 *J* Trans-1,2-DCE = 0.84 *J* 1,2-DCA = 3.1 *J* MTBE = 3.6 *J*	North of former milling area
DUP-01	TCE = 4.2	Field duplicate of well sample 803
EB-01	TCE = 4.8	Equipment Blank
Trip Blank	No Detections	Trip Blank

Quality Control – A blind field duplicate soil gas sample was collected with primary sample SG-04. TCE was detected in the primary sample at an estimated concentration of 1.6 ng. TCE was not detected in the duplicate sample at <5.0 ng. Precision for the soil gas samples is determined to be acceptable, as results agree within the reporting limit increment. A trip blank was obtained with the soil gas samples, but was damaged, and was not analyzed. Laboratory method blanks analyzed with the soil gas samples did not have any TCE detections.

Sample DUP-01 was submitted as a blind field duplicate of primary groundwater sample 803. TCE was detected in the primary and duplicate samples at concentrations of 4.3 ug/L and 4.2 ug/L, respectively. Precision between the field duplicate results is acceptable. One equipment blank was collected. The equipment blank had a TCE detection of 4.8 ug/L. This sample was collected directly after sampling and decontamination at well 044 (where TCE = 1,200 ug/L). No laboratory carry over contamination is evident. Carry over contamination from the pump is indicated. Additional rinsing, after the Alquinox rinse, and DI water rinse is indicated as a corrective action. One trip blank was analyzed, with no VOCs detected. Laboratory method blanks were analyzed, with no VOCs detected. Laboratory control samples and matrix spike samples were analyzed in support of the groundwater VOC analyses samples. Precision and accuracy, as demonstrated by these analyses is acceptable

Discussion

Based on the data collected, there does not appear to be a consistent correlation in the survey area between TCE in soil gas and groundwater. As previously described, elevated TCE was detected in soil gas samplers in the vicinity of monitor well 042 which had a

TCE concentration of 1,200 ug/L in May 2011. Two of the three highest passive soil gas TCE detections (SG-10 and SG-20) are within 150 feet of well 042, though the nearest soil gas sampler to well 042 had a TCE detection of only 6 ng. TCE was not detected in any of the soil gas samplers in the vicinity of well 802, which had the highest TCE concentration in groundwater of any well tested to date (2,300 ug/L in May 2011). Based on these data, the ability of passive soil gas sampling to identify TCE contamination in groundwater may be limited, within the study area.

The reason for the poor correlation between the soil gas samplers and groundwater monitor wells, with respect to TCE concentration, is most likely related to the site geology, the depth to water, and the possible location of the TCE source. The surficial geology of the unconsolidated sediments and the weathered and unweathered bedrock (Poison Canyon Formation) within the study area is highly variable with respect to lithology. Interfingered lenses of sandstones, siltstones and claystones are common in the fluvially deposited Poison Canyon Formation. These lenses may be laterally discontinuous over short distances.

There is also a potentially significant structural element in that Well 802 is located near the axis of the Chandler Syncline. Previous investigations (Daniel B Stevens 1997) indicated considerable dip toward the axis of the syncline within the Poison Canyon Formation. Fractures and dip of the geologic strata may control groundwater flow, resulting in flow directions that are discordant with the apparent hydraulic gradient to the north northeast. The distribution of soil gas may also be impacted by the fracture systems.

Clay and claystone beds are present between the ground surface and the water table. For example, at well 042 a sandy claystone bed is encountered at a depth of 6 to 10.5 feet below ground surface (ft bgs). At well 802, a much thicker clay and claystone unit is encountered from 10 to 25 ft bgs. The potential for the clay and claystone beds to mask soil gas signatures related to groundwater contamination may be significant.

Although groundwater TCE concentrations do not correlate well with the passive soil gas TCE detections, it is possible that a soil source is indicated. The fact that TCE was detected at elevated concentrations in several of the soil gas samplers, suggests that passive soil gas sampling can be useful to investigate and identify TCE sources.

The grouping of TCE soil gas detections along the northern edge of the study area suggests that a surficial source of TCE in groundwater may be located north of well 802. Features in this area that warrant additional investigation include the railspur that borders the northern extent of the soil gas survey, a bottle and can dump that is prominent along the small hilltop in the vicinity of soil gas sample locations SG-3 and SG-5 and the historic borrow area directly east of location SG-20.

It is also possible that the grouping of TCE soil gas detections along the northern edge of the study area represent a release point of soil gas trapped beneath the clay and claystone units previously described. Under this scenario TCE released from groundwater may

travel beneath the low permeability layer for some distance until reaching an area where the claystone is absent. Based on the configuration of the syncline and the presence of an overlying low permeability unit (such as a claystone), TCE gas released from groundwater in the area of 802 could travel north to northeast and eventually reach the surface near the railspur. To evaluate this possibility, the Phase II investigation will also include additional soil gas sampling to the southeast in the area of the former mill site.

Proposed Work

A Phase II passive soil gas investigation is proposed to investigate potential sources of TCE in the vadose zone. Elevated TCE detections in soil gas have not been delineated north and east of Phase I locations SG10 and SG20. Additional passive soil gas samplers will be placed along the rail spur, at locations north and south of the tracks, in the vicinity of the bottle and can dump, and in the area of the barrow pit. Figure 4 shows the locations of the proposed Phase II passive soil gas samplers.

As previously noted in the July 27, 2011, Technical Memorandum, the locations of known TCE use by Cotter were in the bay of the grind and leach building and in the old catalyst plant. Passive soil gas samplers will be placed in the vicinity of these former buildings to investigate if this area was a potential source of TCE in groundwater. A total of 93 samplers are proposed although the actual number to be placed may be adjusted based on field conditions and observations.

The passive soil gas samplers will be installed in the same manner as used in Phase I. Samplers will be left in the ground for two weeks before retrieval and analysis. The soil gas samplers will be analyzed for the same constituents and using the same methods as in Phase I.

Schedule

A tentative schedule for completion of the sampling analyses and reporting is provided below.

- Initiate Phase II passive soil gas sampling – October 15, 2011
- Retrieve samplers and submit to laboratory - October 30, 2011
- Receive results of laboratory analyses – November 15, 2011
- Submit Summary Report with recommendations for further action - December 15, 2011

Phase I Passive Soil Gas Sampling
And Groundwater Sampling, August 2011,
Cotter Milling Facility, Canon City, Colorado

Figures

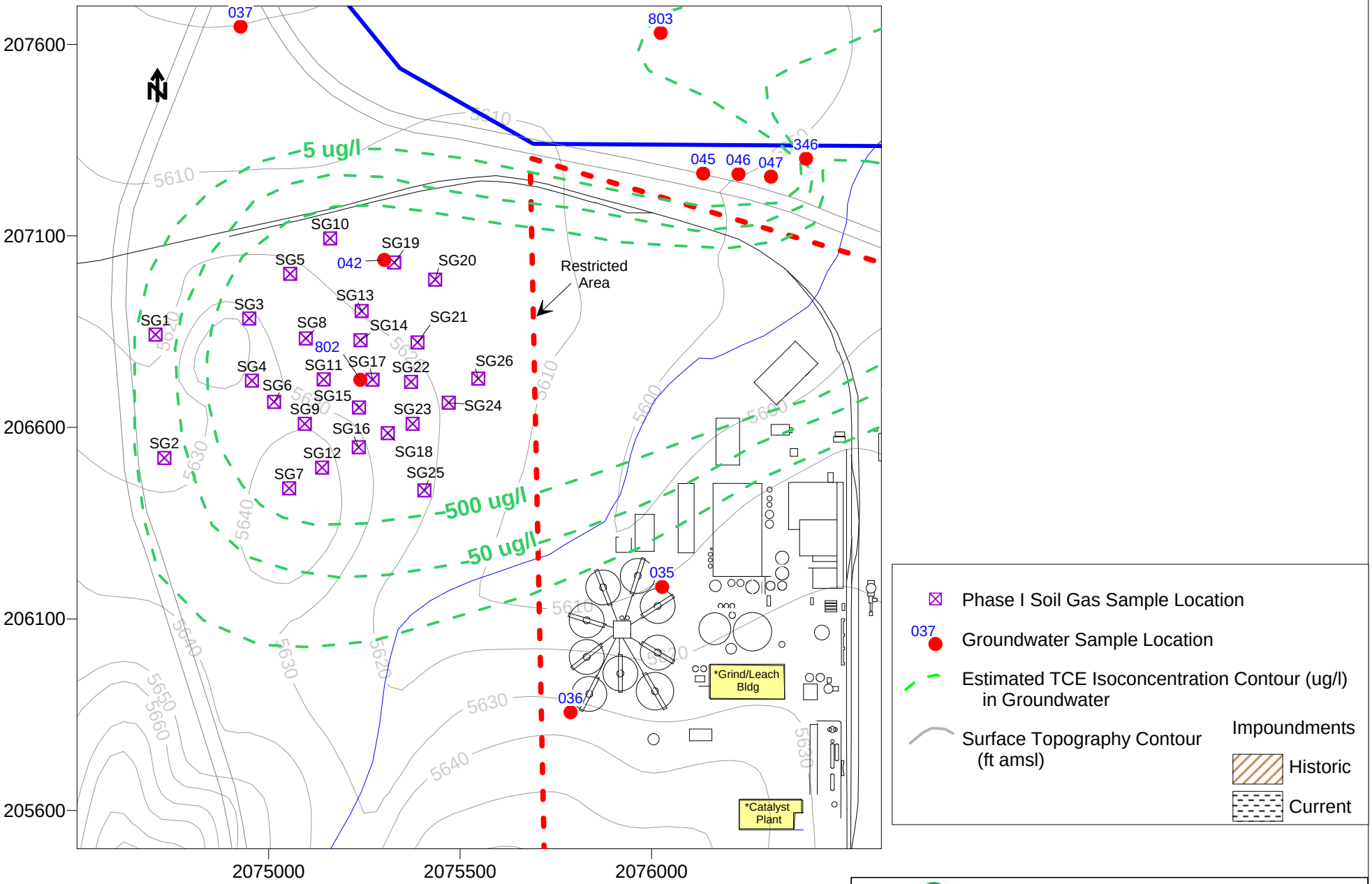

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Figure 1.
Phase I Soil Gas Sampling Locations

By: EPL Checked: JC File ID:fig1VOCInvest.srf Date:9/26/11

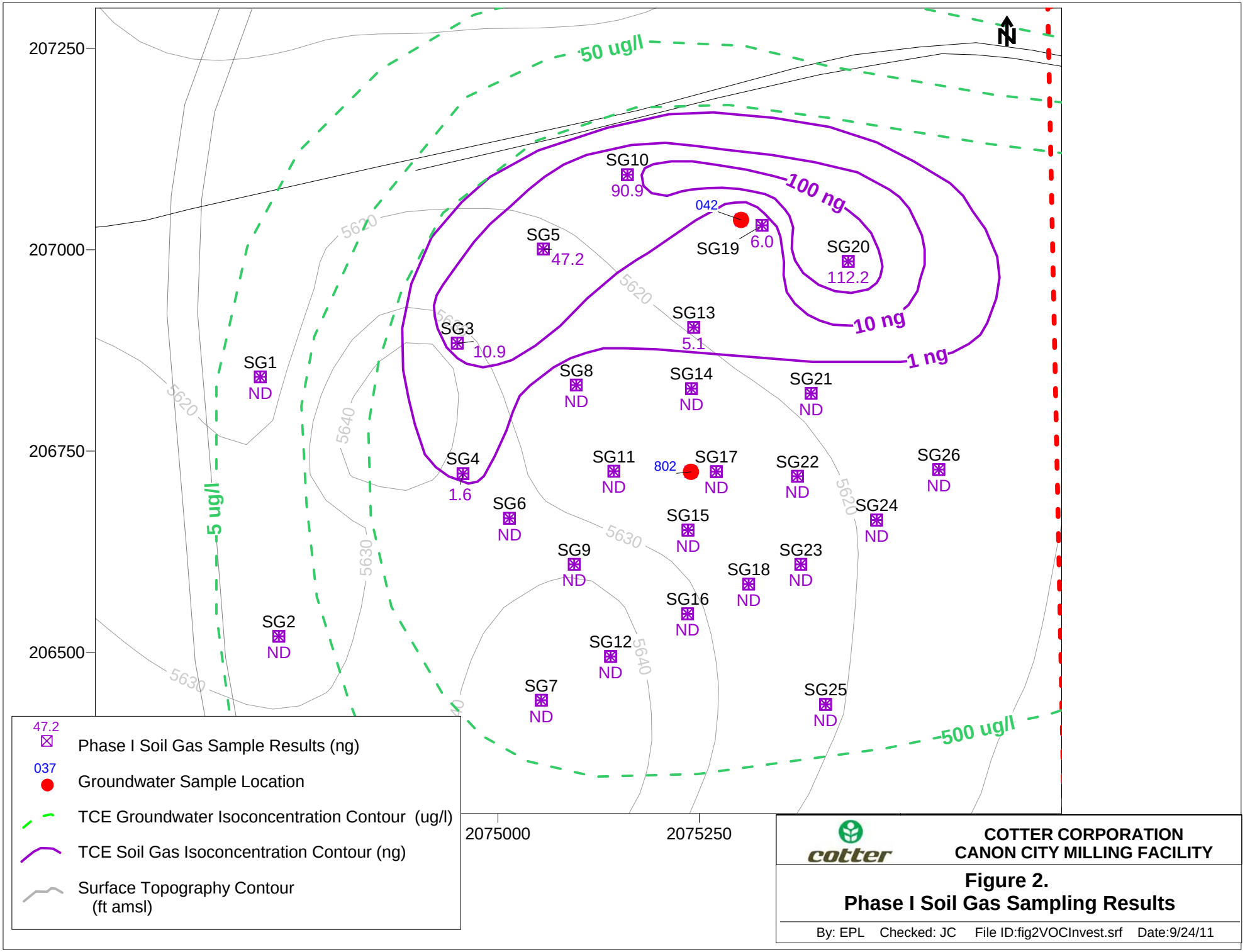

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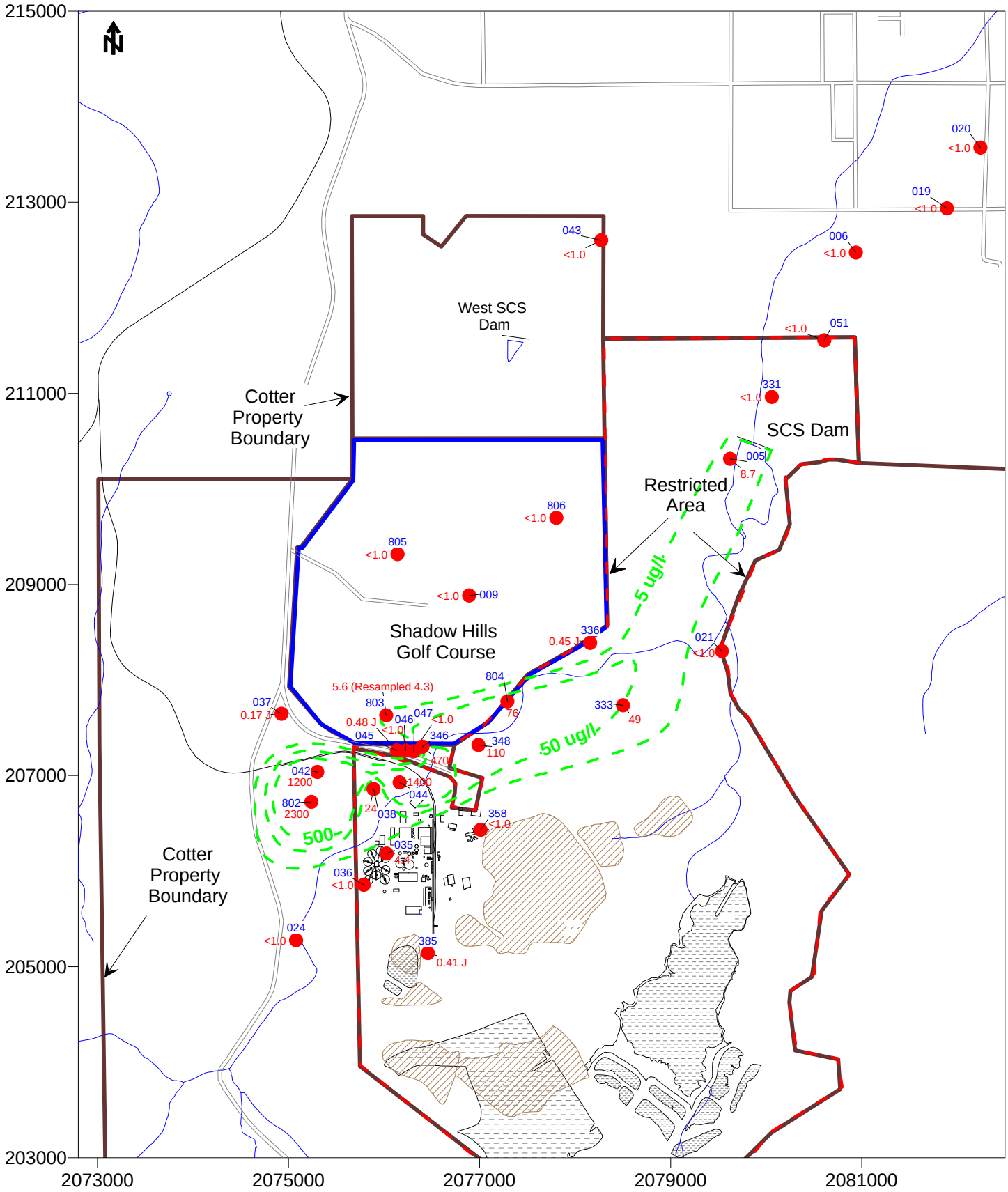
Figure 2.
Phase I Soil Gas Sampling Results

By: EPL Checked: JC File ID:fig2VOCInvest.srf Date:9/24/11



037 Sample Location

86 TCE Concentration (ug/l)

TCE Isoconcentration Contour

Impoundments

Historic

Current

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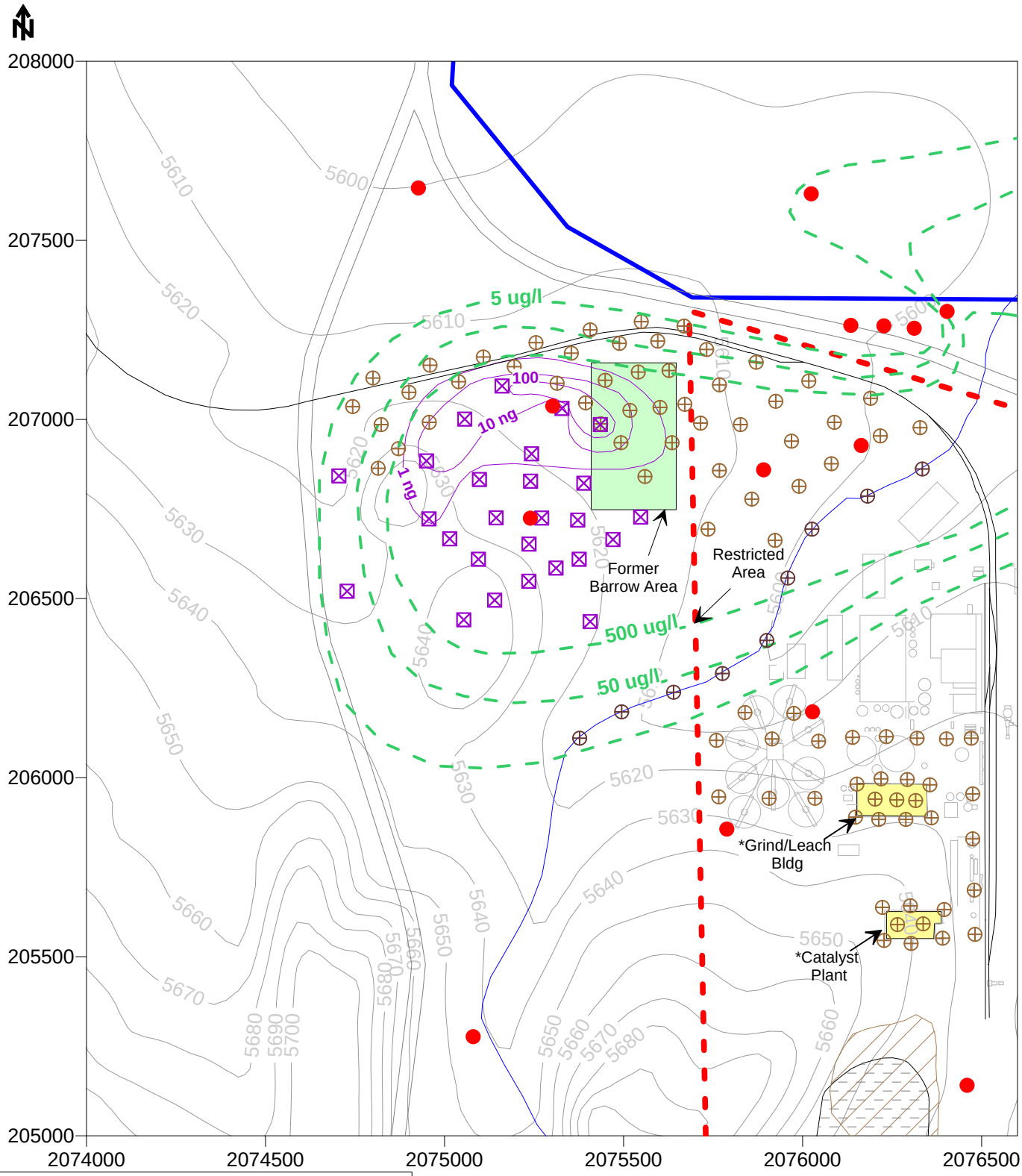
Figure 3. TCE Distribution, Groundwater May-Sept 2011

By: EPL Checked: JC File ID:fig3VOCInvest.srf Date:9/25/11



- Proposed Phase II Soil Gas Sample Location
- Phase I Soil Gas Sample Location
- Groundwater Sample Location
- TCE Concentration Contour-Groundwater (ug/l)
- TCE Concentration Contour-Soil Gas (ng)
- Surface Topography Contour (ft amsl)

Impoundments
- Historic
- Current

* Buildings where TCE use occurred but have since been demolished

Note:Soil Gas Sample Locations are approximate and may be adjusted in the field

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Figure 4.
Proposed Phase II Soil Gas Sampling Locations

By: EPL Checked: JC File ID:fig4VOCInvest.srf Date:9/30/11

Phase I Passive Soil Gas Sampling
And Groundwater Sampling, August 2011
Cotter Milling Facility, Canon City, Colorado

Appendix A-Photos Passive Soil Gas Sampler Installation and Recovery

Location of SG-08 on Rocky Slope of mixed lithology.

Preparing to remove sampler at flagged passive soil gas location.

Preparing to remove foil plug at passive soil gas sampler SG-01.

Removal of aluminum foil plug at SG-02

Removal of passive soil gas sampler before capping vial at SG-02.

Removal of duplicate passive soil gas samplers at SG-04.

Capped passive soil gas sampler. Wire coated in granular carbon capture media is shown.

Phase I Passive Soil Gas Sampling
And Groundwater Sampling, August 2011
Cotter Milling Facility, Canon City, Colorado

Appendix B-Vista Geoscience Passive Soil Gas Primer

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INSTALLATION AND RETRIEVAL OF VAPORTEC™ PASSIVE SOIL GAS SAMPLERS

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Title: Installation and Retrieval of VaporTec™ Passive Soil Gas Field Installation Procedure

Approved By: _____

Signature Date

1.0 AREA OF APPLICABILITY

The purpose of this Standard Operating Procedure is to describe the methods for installing VaporTec™ passive soil gas samplers in various situations and their subsequent retrieval.

1.1 BACKGROUND INFORMATION

The VaporTec™ passive soil gas sampler is manufactured according to stringent specifications developed by VGS specifically for the purposes of conducting passive soil gas sampling as practiced by VGS. The design incorporates sampler sorption dynamics, cleanliness and convenience for the field user. As a result, it combines designs that give you the best possible passive sample and the best possible analytical result.

Sampler Design
A proprietary hydrophobic, non-polar, activated sorbent is mounted on an aluminum rod and placed in a 10mL glass vial. The sampler is high-temperature cleaned and capped prior to release to the field, assuring there is no contamination present.

The vials are unsealed and installed in shallow boreholes below the surface, exposing the collector to the soil gas of the subsurface environment. Sample collection is by vapor diffusion into the opening of the vial. Glass vials assure that the soil gas sample is a vertical point sample, with minimal interference or contribution from horizontal sources. The samplers are very sensitive and will adsorb trace amounts of any VOCs.

As any field method, stringent QA/QC should be observed, including handling of samplers to assure they are kept away from any potential contaminant (gasoline, solvents, etc.). Keep them in their storage box with the activated charcoal adsorbent packs. Field personnel should wear Nitrile gloves when handling samplers. In addition, field staff should take appropriate steps regarding decontamination of tools in any area with the potential for surface contamination. Avoid any operating vehicles/motors and smoking during installation. Wear nitrile gloves and wash hands after fueling vehicles or smoking, and toss those gloves.

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2.0 MATERIALS REQUIRED

Note: Many materials on the list below are only required for special installations. These are marked with an "*."

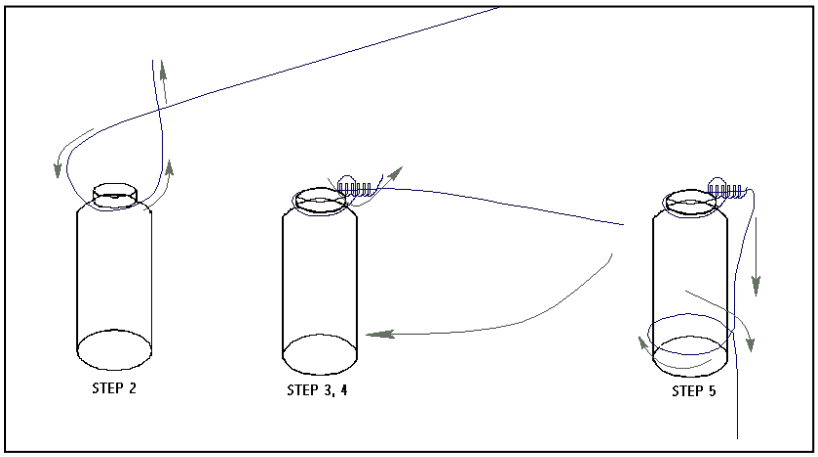
- VaporTec™ Sampler; single or double rod
- Chain of Custody Forms
- Vial Labels (Use ink pen and avoid sharpies and solvent based markers)
- Clean Nitrile Gloves for handling samplers
- Hand Augers, plunger bar, or rotary hammer drill and 1.5" Masonry Bit (for concrete installation)
- Aluminum Foil
- Sandwich-size Zip-Loc® bag for water or saturated intevals
- Kim Wipes clean tissues
- Thin wire (light gauge metal/copper - cleaned)
- PVC or metal piping (Optional to hold holes open)
- Location pin-flags or whisker-nail markers
- Plastic Zip Ties
- Bentonite paste or Portland cement grout
- Shovel or spade for recovery, if required.

3.0 INSTRUCTIONS

A. PREPARATION

Wear clean nitrile gloves: In order to ease removal of the VaporTec™ samplers, a retrieval wire may be wrapped around the sampler's neck. The diagram below shows how to attach the wire to the sampler. For illustrative purposes, the vial is shown without a cap. **The cap must be left on during this process!**

1. Cut a length of light-gauge wire several inches longer than the depth of the installation hole.
2. Wrap the wire around the neck of the closed vial.
3. Twist the wire several times to tighten it around the neck.
4. Bring the end of the wire to the base of the vial.
5. Wrap the wire around the base of the vial, pull the end through the loop, and tighten.
6. Do not pre-label the vials



B. INSTALLATION

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Installation in Native Soils: For installation of 40ml VaporTec modules in soils, create a small hole with a diameter between 1.5”-2” diameter using an electric drill, hand auger, or 1.5” diameter plunger bar. The minimum depth recommended is typically about 6”, but 18” is recommended. The samplers can be installed deeper if site conditions require it (deeper plumes, more sensitivity, dry soils). If soils collapse or are difficult to for removing sampler, a clean 1” diameter or length of cleaned copper pipe can be used to keep the hole open. (Contact Vista.) Avoid using gasoline/fuel powered equipment and to not have running vehicles nearby during installation. *NOTE: Cigarette smoke contains BTEX compounds, including benzene.*

After creating the hole, put on clean nitrile gloves to handle the sampler. Remove the sampler cap and store it for future use in a clean zip-loc bag. The sampler is placed, open end *down*, at the bottom of the hole leaving the attached retrieval wire with a short tail flat on the surface, perpendicular to the hole. Wad up a small piece of aluminum foil and place in the top of the hole to prevent surface material from caving in, pushing it down about 2” or so. Mix up bentonite granules or powder with clean water to form a paste and push it in the top of the hole to create a plug. Alternately, a clean cork that fits the hole diameter can be used. Soil from the core or cuttings may be placed back into the very top of the hole if you need to hide the sampler location. If grass is present at the surface, the sod plug is first removed and can then be reinstalled to hide the sampler. The location is flagged or marked (if the site is controlled) and noted in the field notes. Spray should not be used to mark the location. Only non-solvent water based paints, chalk or markers should be used to prevent contamination from paint solvents.

NOTE: Use only electric or hand powered equipment. Avoid operating gasoline powered equipment during the installation procedure to avoid contamination.

Installation Beneath Asphalt or Concrete: Samplers are placed beneath asphalt or concrete by coring with a 1.5” diameter by 18” long masonry bit in a rotary hammer drill. We recommend using a Bosch 11209 or equivalent heavy-duty hammer drill. In general, the hole is created by drilling a total depth of 12-18” to assure reaching native soil. The sampler is then placed at least 2” below the base of the hard cover, into the soil. An aluminum foil pack is used to fill the upper part of the hole, leaving a 0.5-1 inch bowl at the surface that is filled with a quick drying grout (e.g., anchor cement, hydraulic cement) to seal the pavement. Once the grout has dried, the location may be marked with non-solvent based paint, chaulk, or grease pencil. Do not use solvent based spray paints.

Installation at Depth: There are times when installation is called for at depths greater than or in addition to the near surface installations as described above. For example, surface contamination may be present in varying amounts all across a site (e.g., tank farm or chemical plant) in which the primary objective is to determine the presence of a groundwater plume. In such a case, the sampler will detect a wide array of

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contaminants, some of which might not relate to the targeted deeper contamination. Under these types of circumstances, VGS recommends installing samplers at a greater depth to avoid contact with surface-only contamination.

Deeper sampling can be accomplished in at least two ways, depending on the location of the site, number of samples, and depth required. In soft ground and shallower holes (<4'), samplers can ordinarily be installed by creating boreholes using hand tools (augers, hammer drills, etc.). For harder ground or deeper installations, the ideal approach is to use VGS's Direct-Push Probes. The probes can effectively install VaporTec™ samplers as deep as 50 feet or more, if appropriate.

Deep installation of VaporTec™ samplers may require a device to keep the hole from collapsing. This is important both for the recovery of the sampler and for preserving it from surface contamination. If a sampler is installed by pushing it down in contact with surface contaminated soils, the contamination will adversely affect the results. Thus, placing a 1" I.D. PVC or cleaned metal (e.g., EMT tubing) pipe in the hole after opening will not only position the samplers so that it traps contaminants migrating vertically up from the subsurface sources, but will prevent surface contamination from misleading the results. PVC has been tested extensively and will not adversely affect the results. Metal piping should always be cleaned of machine oils before use. The PVC or metal tubing is sealed at the ground during exposure. The casing can be sealed at the ground surface with bentonite paste or grout.

Installation Under Water: The VaporTec™ sampler can be equipped with a gas permeable membrane for sampling in saturated conditions to shield the sorbent from the liquid water. This is ordinarily not recommended in sampling **except** under water, as the use of such a membrane alters the gas composition from its "natural" state. In unsaturated conditions (in most any environment), a thin film of water forms via condensation on the membrane's surface. The water then acts as a filter for volatile and semi-volatile organic compounds, and does so as a function of the Henry's Law constant of each compound. The more soluble compounds will be preferentially trapped in the thin film of water, reducing their mass transfer rate across the membrane relative to other compounds.

The disadvantage is that many compounds of particular interest (e.g., aromatic hydrocarbons such as benzene, toluene and xylene) are preferentially lost in the water film compared to less significant compounds such as the C_6 to C_{10} alkanes and cycloalkanes that are also contained in fuels. In order to effectively detect the light aromatic compounds, it is necessary to increase the exposure time of the sampler. By using the VGS sampler without a gas permeable membrane, the average exposure time can often be reduced.

When gas permeable membranes are required for sampling, the following process is to be used. Open the hole first. Remove the cap and septum from the sampler and place immediately into the bottom of a Zip-Loc® polyethylene sandwich sized bag. Roll the bag from the bottom to remove as much air as

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possible, sealing the bag. Insert the bag and sampler into the borehole. If desired, the roll can be secured using a thin wire or a plastic zip tie.

Volatile and semi-volatile hydrocarbons effectively migrate through the polyethylene membrane, but liquid water does not. Membranes have been used effectively in water depths as great as 60 feet, both fresh and saline. In shallow conditions, the sampler can be attached to a wooden or metal stake and driven into muds. In very deep conditions, the samplers are placed in steel sleeves, driven into the muds and fixed for relocation with a buoy.

C. SAMPLE EXPOSURE TIME

The passive soil gas samplers are retrieved following a time period that has allowed for the soil gas emanating from the subsurface environment of a survey area to equilibrate with the installed samplers. This time integration period is determined (by VGS staff) for each soil gas survey generally based on experience with the type of site conditions and the nature of the target compounds or may be measured empirically. Samplers reach equilibrium with soil gas during the exposure period so that there are minimal variances in response between samples. Following a controlled period of time, the sampler is retrieved from the borehole, resealed, and submitted for analysis. The following represent typical exposure conditions using VaporTec:

- USTs, near surface sourced or high level contamination — 1-3 days
- Moderate soil contamination or shallow groundwater (≤ 25') — 3-10 days
- Deep ground water (≥ 25') — 10-30 days

In some cases, conditions are so unique or complex that exposure time calibration standards may be warranted. Additional site duplicate samplers are placed at strategic locations in the site and then retrieved perhaps every 2-3 days and returned for immediate analysis. These samples help discern the loading rate in the survey area and allow for empirically sound decisions on exposure time. If there are any questions regarding exposure time, consult with VGS for assistance in estimating exposure time.

D. SAMPLER RETRIEVAL

Retrieve the samplers by opening the top of the hole (either by removing the grass plug, bentonite or concrete) and lifting the sampler just out of the hole. The sealing rim of the vial is cleaned using a Kim Wipe or other clean tissue and a cap is immediately sealed on the vial and hand tightened. The sampler vial is numbered in accordance with a sample location map and placed back into the boxes in which they were sent, and wrapped carefully for shipping. When samplers use gas permeable membranes, remove the vial from the Zip-Loc® bag, then screw the cap onto the vial and handle as specified. Abandonment of the boreholes should be conducted according to contract, state requirements, or local right of way agency requirements.

Number each vial either using provided labels with an ink pen (avoid solvent based markers.) Use any numbering system desired so long as the numbering is clear and matches the COC.

Packages should be shipped by overnight courier to minimize shipment time. Use the packing materials

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supplied by VGS when the samplers were shipped to you including activated carbon packs. Be sure to cushion the shipment to avoid breakage. Avoid newspaper or any packing material that is either manufactured with or contains VOCs.

4.0 QUALITY CONTROL

Travel/Trip Blanks: A minimum of one trip blanks is supplied with each project. These are kept with the field staff during the trips to the field and returned with the samplers for analysis. They remain sealed during the entire project. If additional samplers are found to be needed, call for them; please do not use the travel blanks. Absence of travel blanks could compromise the usefulness or QC of the data.

Duplicate Samplers: Standard samplers containing two sorbent wires are shipped with every batch of samplers. The duplicate wires are used field/lab duplicates and for backup runs.

Field Notes: It is always advisable to take detailed notes about field conditions, unusual occurrences at the site, installation issues, etc.. A copy of the notes should accompany the samplers when they are sent back to VGS for analysis along with the completed Chain of Custody form.

If VGS is provided maps and a report, upon completion of retrieval, a survey map should be sent to VGS along with GPS or survey coordinates if available. The map should accurately show all features desired on presentation maps, plus sampler locations and other information needed to complete the interpretation. If a GIS, CAD file is available, please send it on disk or by email to VGS. VGS creates maps based on the information supplied by the client.

Sample Location Markings: Where markings must be kept as inconspicuous as possible, metal buried markers and a metal detectors can be using in combination with accurate GPS locations. Accurate measurement from fixed buildings or features can also be used to relocate the samplers.

Phase I Passive Soil Gas Sampling
And Groundwater Sampling, August 2011
Cotter Milling Facility, Canon City, Colorado

Appendix C-Laboratory Analytical Reports-Vista Geoscience and TestAmerica

Monday, September 12, 2011

Will Huskie
Nankoweep Environmental Consultants
202 Plateau Parkway
Golden, CO 80401

RE: 11097: Cotter Mill

Order No.: 1109001

Dear Will:

Vista GeoScience received 27 sample(s) on 8/30/2011 for the analyses presented in the following report.

There were no problems with the analyses and all data for associated QC met EPA or laboratory specifications except where noted in the Case Narrative.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Roger Bain
Senior Chemist

CLIENT: Nankoweep Environmental Consultants
Project: 11097: Cotter Mill
Lab Order: 1109001

CASE NARRATIVE

Samples were received on 8/30/2011 from Nankoweep and were accompanied by a chain of custody form. The samples and their containers appeared to be in good condition and the chain of custody form was complete and accurate.

Samples were analyzed using the methods outlined in the following references:
Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846,.

Calibration - The laboratory instruments are calibrated using method appropriate standards. On each day project samples are analyzed the instrument calibration is verified using a mid level Continuing Calibration Verification (CCV). Calculations are carried out by the data system to compute the actual concentration of analyte in the original sample.

Method Blanks, Trip Blanks and Instrument Blanks - Blanks are analyzed after each initial calibration, continuing calibration verification, and after samples determined to have high concentrations of analytes to verify system cleanliness. Method blanks are analyzed to verify the cleanliness of procedures requiring sample preparation prior to analysis. Trip blanks are prepared by the laboratory and accompany the samples to verify that there was no contamination during transport.

Batch QC - Prior to analysis, the project samples are associated with a QC batch. This batch is then prepared and analyzed along with QC samples prepared at the same time and using the same reagents and standards. The QC samples associated with a sample batch may include Method Blanks (MB). The results of the batch QC samples are included in the QC section of the report.

Analyst Comments:
None.

Roger Bain
Senior Chemist

Vista GeoScience

Date: *12-Sep-11*

CLIENT:	Nankoweep Environmental Consultants	**Client Sample ID:**	SG-01
Lab Order:	1109001	**Tag Number:**	
Project:	11097: Cotter Mill	**Collection Date:**	8/29/2011
Lab ID:	1109001-001A **Date Received:** 8/30/2011	**Matrix:**	

Analyses	**Result**	**Limit**	**Qual**	**Units**	**DF**	**Date Analyzed**
VAPORTEC BY 8260B MODIFIED		**SW8260B**		**(SW8260B)**		Analyst: **RB**
Trichloroethene	ND	5.0		ng	1	9/9/2011

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
S	Spike Recovery outside accepted recovery limits		

Vista GeoScience

Date: *12-Sep-11*

CLIENT:	Nankoweep Environmental Consultants	**Client Sample ID:**	SG-02
Lab Order:	1109001	**Tag Number:**	
Project:	11097: Cotter Mill	**Collection Date:**	8/29/2011
Lab ID:	1109001-002A **Date Received:** 8/30/2011	**Matrix:**	

Analyses	**Result**	**Limit**	**Qual**	**Units**	**DF**	**Date Analyzed**
VAPORTEC BY 8260B MODIFIED		**SW8260B**		**(SW8260B)**		Analyst: **RB**
Trichloroethene	ND	5.0		ng	1	9/9/2011

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
S	Spike Recovery outside accepted recovery limits		

Vista GeoScience

Date: *12-Sep-11*

CLIENT:	Nankoweep Environmental Consultants	**Client Sample ID:**	SG-03
Lab Order:	1109001	**Tag Number:**	
Project:	11097: Cotter Mill	**Collection Date:**	8/29/2011
Lab ID:	1109001-003A **Date Received:** 8/30/2011	**Matrix:**	

Analyses	**Result**	**Limit**	**Qual**	**Units**	**DF**	**Date Analyzed**
VAPORTEC BY 8260B MODIFIED		**SW8260B**		**(SW8260B)**		Analyst: **RB**
Trichloroethene	10.9	5.0		ng	1	9/9/2011

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
S	Spike Recovery outside accepted recovery limits		

Vista GeoScience

Date: *12-Sep-11*

CLIENT:	Nankoweep Environmental Consultants	**Client Sample ID:**	SG-04
Lab Order:	1109001	**Tag Number:**	
Project:	11097: Cotter Mill	**Collection Date:**	8/29/2011
Lab ID:	1109001-004A **Date Received:** 8/30/2011	**Matrix:**	

Analyses	**Result**	**Limit**	**Qual**	**Units**	**DF**	**Date Analyzed**
VAPORTEC BY 8260B MODIFIED		**SW8260B**		**(SW8260B)**		Analyst: **RB**
Trichloroethene	1.6	5.0	J	ng	1	9/9/2011

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
S	Spike Recovery outside accepted recovery limits		

Vista GeoScience

Date: *12-Sep-11*

CLIENT:	Nankoweep Environmental Consultants	**Client Sample ID:**	SG-05
Lab Order:	1109001	**Tag Number:**	
Project:	11097: Cotter Mill	**Collection Date:**	8/29/2011
Lab ID:	1109001-005A **Date Received:** 8/30/2011	**Matrix:**	

Analyses	**Result**	**Limit**	**Qual**	**Units**	**DF**	**Date Analyzed**
VAPORTEC BY 8260B MODIFIED		**SW8260B**		**(SW8260B)**		Analyst: **RB**
Trichloroethene	47.2	5.0		ng	1	9/9/2011

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
S	Spike Recovery outside accepted recovery limits		

Vista GeoScience

Date: *12-Sep-11*

CLIENT:	Nankoweep Environmental Consultants	**Client Sample ID:**	SG-06
Lab Order:	1109001	**Tag Number:**	
Project:	11097: Cotter Mill	**Collection Date:**	8/29/2011
Lab ID:	1109001-006A **Date Received:** 8/30/2011	**Matrix:**	

Analyses	**Result**	**Limit**	**Qual**	**Units**	**DF**	**Date Analyzed**
VAPORTEC BY 8260B MODIFIED		**SW8260B**		**(SW8260B)**		Analyst: **RB**
Trichloroethene	ND	5.0		ng	1	9/9/2011

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
S	Spike Recovery outside accepted recovery limits		

Vista GeoScience

Date: *12-Sep-11*

CLIENT:	Nankoweep Environmental Consultants	**Client Sample ID:**	SG-07
Lab Order:	1109001	**Tag Number:**	
Project:	11097: Cotter Mill	**Collection Date:**	8/29/2011
Lab ID:	1109001-007A **Date Received:** 8/30/2011	**Matrix:**	

Analyses	**Result**	**Limit**	**Qual**	**Units**	**DF**	**Date Analyzed**
VAPORTEC BY 8260B MODIFIED		**SW8260B**		**(SW8260B)**		Analyst: **RB**
Trichloroethene	ND	5.0		ng	1	9/9/2011

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
S	Spike Recovery outside accepted recovery limits		

Vista GeoScience

Date: *12-Sep-11*

CLIENT:	Nankoweep Environmental Consultants	**Client Sample ID:**	SG-08
Lab Order:	1109001	**Tag Number:**	
Project:	11097: Cotter Mill	**Collection Date:**	8/29/2011
Lab ID:	1109001-008A **Date Received:** 8/30/2011	**Matrix:**	

Analyses	**Result**	**Limit**	**Qual**	**Units**	**DF**	**Date Analyzed**
VAPORTEC BY 8260B MODIFIED		**SW8260B**		**(SW8260B)**		Analyst: **RB**
Trichloroethene	ND	5.0		ng	1	9/9/2011

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
S	Spike Recovery outside accepted recovery limits		

Vista GeoScience

Date: *12-Sep-11*

CLIENT:	Nankoweep Environmental Consultants	**Client Sample ID:**	SG-09
Lab Order:	1109001	**Tag Number:**	
Project:	11097: Cotter Mill	**Collection Date:**	8/29/2011
Lab ID:	1109001-009A **Date Received:** 8/30/2011	**Matrix:**	

Analyses	**Result**	**Limit**	**Qual**	**Units**	**DF**	**Date Analyzed**
VAPORTEC BY 8260B MODIFIED		**SW8260B**		**(SW8260B)**		Analyst: **RB**
Trichloroethene	ND	5.0		ng	1	9/9/2011

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
S	Spike Recovery outside accepted recovery limits		

Vista GeoScience

Date: *12-Sep-11*

CLIENT:	Nankoweep Environmental Consultants	**Client Sample ID:**	SG-10
Lab Order:	1109001	**Tag Number:**	
Project:	11097: Cotter Mill	**Collection Date:**	8/29/2011
Lab ID:	1109001-010A **Date Received:** 8/30/2011	**Matrix:**	

Analyses	**Result**	**Limit**	**Qual**	**Units**	**DF**	**Date Analyzed**
VAPORTEC BY 8260B MODIFIED		**SW8260B**		**(SW8260B)**		Analyst: **RB**
Trichloroethene	90.9	5.0		ng	1	9/9/2011

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
S	Spike Recovery outside accepted recovery limits		

Vista GeoScience

Date: *12-Sep-11*

CLIENT:	Nankoweep Environmental Consultants	**Client Sample ID:**	SG-11
Lab Order:	1109001	**Tag Number:**	
Project:	11097: Cotter Mill	**Collection Date:**	8/29/2011
Lab ID:	1109001-011A **Date Received:** 8/30/2011	**Matrix:**	

Analyses	**Result**	**Limit**	**Qual**	**Units**	**DF**	**Date Analyzed**
VAPORTEC BY 8260B MODIFIED		**SW8260B**		**(SW8260B)**		Analyst: **RB**
Trichloroethene	ND	5.0		ng	1	9/9/2011

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
S	Spike Recovery outside accepted recovery limits		

Vista GeoScience

Date: *12-Sep-11*

CLIENT:	Nankoweep Environmental Consultants	**Client Sample ID:**	SG-12
Lab Order:	1109001	**Tag Number:**	
Project:	11097: Cotter Mill	**Collection Date:**	8/29/2011
Lab ID:	1109001-012A **Date Received:** 8/30/2011	**Matrix:**	

Analyses	**Result**	**Limit**	**Qual**	**Units**	**DF**	**Date Analyzed**
VAPORTEC BY 8260B MODIFIED		**SW8260B**		**(SW8260B)**		Analyst: **RB**
Trichloroethene	ND	5.0		ng	1	9/9/2011

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
S	Spike Recovery outside accepted recovery limits		

Vista GeoScience

Date: *12-Sep-11*

CLIENT:	Nankoweep Environmental Consultants	**Client Sample ID:**	SG-13
Lab Order:	1109001	**Tag Number:**	
Project:	11097: Cotter Mill	**Collection Date:**	8/29/2011
Lab ID:	1109001-013A **Date Received:** 8/30/2011	**Matrix:**	

Analyses	**Result**	**Limit**	**Qual**	**Units**	**DF**	**Date Analyzed**
VAPORTEC BY 8260B MODIFIED		**SW8260B**		**(SW8260B)**		Analyst: **RB**
Trichloroethene	5.1	5.0		ng	1	9/9/2011

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
S	Spike Recovery outside accepted recovery limits		

Vista GeoScience

Date: *12-Sep-11*

CLIENT:	Nankoweep Environmental Consultants	**Client Sample ID:**	SG-14
Lab Order:	1109001	**Tag Number:**	
Project:	11097: Cotter Mill	**Collection Date:**	8/29/2011
Lab ID:	1109001-014A **Date Received:** 8/30/2011	**Matrix:**	

Analyses	**Result**	**Limit**	**Qual**	**Units**	**DF**	**Date Analyzed**
VAPORTEC BY 8260B MODIFIED		**SW8260B**		**(SW8260B)**		Analyst: **RB**
Trichloroethene	ND	5.0		ng	1	9/9/2011

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
S	Spike Recovery outside accepted recovery limits		

Vista GeoScience

Date: *12-Sep-11*

CLIENT:	Nankoweep Environmental Consultants	**Client Sample ID:**	SG-15
Lab Order:	1109001	**Tag Number:**	
Project:	11097: Cotter Mill	**Collection Date:**	8/29/2011
Lab ID:	1109001-015A **Date Received:** 8/30/2011	**Matrix:**	

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
VAPORTEC BY 8260B MODIFIED		**SW8260B**		**(SW8260B)**		Analyst: **RB**
Trichloroethene	ND	5.0		ng	1	9/9/2011

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
S	Spike Recovery outside accepted recovery limits		

Vista GeoScience

Date: *12-Sep-11*

CLIENT:	Nankoweep Environmental Consultants	**Client Sample ID:**	SG-16
Lab Order:	1109001	**Tag Number:**	
Project:	11097: Cotter Mill	**Collection Date:**	8/29/2011
Lab ID:	1109001-016A **Date Received:** 8/30/2011	**Matrix:**	

Analyses	**Result**	**Limit**	**Qual**	**Units**	**DF**	**Date Analyzed**
VAPORTEC BY 8260B MODIFIED		**SW8260B**		**(SW8260B)**		Analyst: **RB**
Trichloroethene	ND	5.0		ng	1	9/9/2011

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
S	Spike Recovery outside accepted recovery limits		

Vista GeoScience

Date: *12-Sep-11*

CLIENT:	Nankoweep Environmental Consultants	**Client Sample ID:**	SG-17
Lab Order:	1109001	**Tag Number:**	
Project:	11097: Cotter Mill	**Collection Date:**	8/29/2011
Lab ID:	1109001-017A **Date Received:** 8/30/2011	**Matrix:**	

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
VAPORTEC BY 8260B MODIFIED		**SW8260B**		**(SW8260B)**		Analyst: **RB**
Trichloroethene	ND	5.0		ng	1	9/9/2011

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
S	Spike Recovery outside accepted recovery limits		

Vista GeoScience

Date: *12-Sep-11*

CLIENT:	Nankoweep Environmental Consultants	**Client Sample ID:**	SG-18
Lab Order:	1109001	**Tag Number:**	
Project:	11097: Cotter Mill	**Collection Date:**	8/29/2011
Lab ID:	1109001-018A **Date Received:** 8/30/2011	**Matrix:**	

Analyses	**Result**	**Limit**	**Qual**	**Units**	**DF**	**Date Analyzed**
VAPORTEC BY 8260B MODIFIED		**SW8260B**		**(SW8260B)**		Analyst: **RB**
Trichloroethene	ND	5.0		ng	1	9/9/2011

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
S	Spike Recovery outside accepted recovery limits		

Vista GeoScience

Date: *12-Sep-11*

CLIENT:	Nankoweep Environmental Consultants	**Client Sample ID:**	SG-19
Lab Order:	1109001	**Tag Number:**	
Project:	11097: Cotter Mill	**Collection Date:**	8/29/2011
Lab ID:	1109001-019A **Date Received:** 8/30/2011	**Matrix:**	

Analyses	**Result**	**Limit**	**Qual**	**Units**	**DF**	**Date Analyzed**
VAPORTEC BY 8260B MODIFIED		**SW8260B**		**(SW8260B)**		Analyst: **RB**
Trichloroethene	6.0	5.0		ng	1	9/9/2011

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
S	Spike Recovery outside accepted recovery limits		

Vista GeoScience

Date: *12-Sep-11*

CLIENT:	Nankoweep Environmental Consultants	**Client Sample ID:**	SG-20
Lab Order:	1109001	**Tag Number:**	
Project:	11097: Cotter Mill	**Collection Date:**	8/29/2011
Lab ID:	1109001-020A **Date Received:** 8/30/2011	**Matrix:**	

Analyses	**Result**	**Limit**	**Qual**	**Units**	**DF**	**Date Analyzed**
VAPORTEC BY 8260B MODIFIED		**SW8260B**		**(SW8260B)**		Analyst: **RB**
Trichloroethene	112.2	5.0		ng	1	9/9/2011

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
S	Spike Recovery outside accepted recovery limits		

Vista GeoScience

Date: *12-Sep-11*

CLIENT:	Nankoweep Environmental Consultants	**Client Sample ID:**	SG-21
Lab Order:	1109001	**Tag Number:**	
Project:	11097: Cotter Mill	**Collection Date:**	8/29/2011
Lab ID:	1109001-021A **Date Received:** 8/30/2011	**Matrix:**	

Analyses	**Result**	**Limit**	**Qual**	**Units**	**DF**	**Date Analyzed**
VAPORTEC BY 8260B MODIFIED		**SW8260B**		**(SW8260B)**		Analyst: **RB**
Trichloroethene	ND	5.0		ng	1	9/9/2011

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
S	Spike Recovery outside accepted recovery limits		

Vista GeoScience

Date: *12-Sep-11*

CLIENT:	Nankoweep Environmental Consultants	**Client Sample ID:**	SG-22
Lab Order:	1109001	**Tag Number:**	
Project:	11097: Cotter Mill	**Collection Date:**	8/29/2011
Lab ID:	1109001-022A **Date Received:** 8/30/2011	**Matrix:**	

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
VAPORTEC BY 8260B MODIFIED		**SW8260B**		**(SW8260B)**		Analyst: **RB**
Trichloroethene	ND	5.0		ng	1	9/9/2011

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
S	Spike Recovery outside accepted recovery limits		

Vista GeoScience

Date: *12-Sep-11*

CLIENT:	Nankoweep Environmental Consultants	**Client Sample ID:**	SG-23
Lab Order:	1109001	**Tag Number:**	
Project:	11097: Cotter Mill	**Collection Date:**	8/29/2011
Lab ID:	1109001-023A **Date Received:** 8/30/2011	**Matrix:**	

Analyses	**Result**	**Limit**	**Qual**	**Units**	**DF**	**Date Analyzed**
VAPORTEC BY 8260B MODIFIED		**SW8260B**		**(SW8260B)**		Analyst: **RB**
Trichloroethene	ND	5.0		ng	1	9/9/2011

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
S	Spike Recovery outside accepted recovery limits		

Vista GeoScience

Date: *12-Sep-11*

CLIENT:	Nankoweep Environmental Consultants	**Client Sample ID:**	SG-24
Lab Order:	1109001	**Tag Number:**	
Project:	11097: Cotter Mill	**Collection Date:**	8/29/2011
Lab ID:	1109001-024A **Date Received:** 8/30/2011	**Matrix:**	

Analyses	**Result**	**Limit**	**Qual**	**Units**	**DF**	**Date Analyzed**
VAPORTEC BY 8260B MODIFIED		**SW8260B**		**(SW8260B)**		Analyst: **RB**
Trichloroethene	ND	5.0		ng	1	9/10/2011

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
S	Spike Recovery outside accepted recovery limits		

Vista GeoScience

Date: *12-Sep-11*

CLIENT:	Nankoweep Environmental Consultants	**Client Sample ID:**	SG-25
Lab Order:	1109001	**Tag Number:**	
Project:	11097: Cotter Mill	**Collection Date:**	8/29/2011
Lab ID:	1109001-025A **Date Received:** 8/30/2011	**Matrix:**	

Analyses	**Result**	**Limit**	**Qual**	**Units**	**DF**	**Date Analyzed**
VAPORTEC BY 8260B MODIFIED		**SW8260B**		**(SW8260B)**		Analyst: **RB**
Trichloroethene	ND	5.0		ng	1	9/10/2011

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
S	Spike Recovery outside accepted recovery limits		

Vista GeoScience

Date: *12-Sep-11*

CLIENT:	Nankoweep Environmental Consultants	**Client Sample ID:**	SG-26
Lab Order:	1109001	**Tag Number:**	
Project:	11097: Cotter Mill	**Collection Date:**	8/29/2011
Lab ID:	1109001-026A **Date Received:** 8/30/2011	**Matrix:**	

Analyses	**Result**	**Limit**	**Qual**	**Units**	**DF**	**Date Analyzed**
VAPORTEC BY 8260B MODIFIED		**SW8260B**		**(SW8260B)**		Analyst: **RB**
Trichloroethene	ND	5.0		ng	1	9/10/2011

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
S	Spike Recovery outside accepted recovery limits		

Vista GeoScience

Date: *12-Sep-11*

CLIENT:	Nankoweep Environmental Consultants	**Client Sample ID:**	Dup-01
Lab Order:	1109001	**Tag Number:**	
Project:	11097: Cotter Mill	**Collection Date:**	8/29/2011
Lab ID:	1109001-027A **Date Received:** 8/30/2011	**Matrix:**	

Analyses	**Result**	**Limit**	**Qual**	**Units**	**DF**	**Date Analyzed**
VAPORTEC BY 8260B MODIFIED		**SW8260B**		**(SW8260B)**		Analyst: **RB**
Trichloroethene	ND	5.0		ng	1	9/10/2011

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
S	Spike Recovery outside accepted recovery limits		

Vista GeoScience

12-Sep-11

Lab Order: 1109001

Client: Nankoweep Environmental Consultants

Project: 11097: Cotter Mill

DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1109001-001A	SG-01	8/29/2011		VaporTec Wires by 8260B modified		9/9/2011	9/9/2011
1109001-002A	SG-02			VaporTec Wires by 8260B modified		9/9/2011	9/9/2011
1109001-003A	SG-03			VaporTec Wires by 8260B modified		9/9/2011	9/9/2011
1109001-004A	SG-04			VaporTec Wires by 8260B modified		9/9/2011	9/9/2011
1109001-005A	SG-05			VaporTec Wires by 8260B modified		9/9/2011	9/9/2011
1109001-006A	SG-06			VaporTec Wires by 8260B modified		9/9/2011	9/9/2011
1109001-007A	SG-07			VaporTec Wires by 8260B modified		9/9/2011	9/9/2011
1109001-008A	SG-08			VaporTec Wires by 8260B modified		9/9/2011	9/9/2011
1109001-009A	SG-09			VaporTec Wires by 8260B modified		9/9/2011	9/9/2011
1109001-010A	SG-10			VaporTec Wires by 8260B modified		9/9/2011	9/9/2011
1109001-011A	SG-11			VaporTec Wires by 8260B modified		9/9/2011	9/9/2011
1109001-012A	SG-12			VaporTec Wires by 8260B modified		9/9/2011	9/9/2011
1109001-013A	SG-13			VaporTec Wires by 8260B modified		9/9/2011	9/9/2011
1109001-014A	SG-14			VaporTec Wires by 8260B modified		9/9/2011	9/9/2011
1109001-015A	SG-15			VaporTec Wires by 8260B modified		9/9/2011	9/9/2011
1109001-016A	SG-16			VaporTec Wires by 8260B modified		9/9/2011	9/9/2011
1109001-017A	SG-17			VaporTec Wires by 8260B modified		9/9/2011	9/9/2011
1109001-018A	SG-18			VaporTec Wires by 8260B modified		9/9/2011	9/9/2011
1109001-019A	SG-19			VaporTec Wires by 8260B modified		9/9/2011	9/9/2011
1109001-020A	SG-20			VaporTec Wires by 8260B modified		9/9/2011	9/9/2011
1109001-021A	SG-21			VaporTec Wires by 8260B modified		9/9/2011	9/9/2011
1109001-022A	SG-22			VaporTec Wires by 8260B modified		9/9/2011	9/9/2011
1109001-023A	SG-23			VaporTec Wires by 8260B modified		9/9/2011	9/9/2011
1109001-024A	SG-24			VaporTec Wires by 8260B modified		9/10/2011	9/10/2011
1109001-025A	SG-25			VaporTec Wires by 8260B modified		9/10/2011	9/10/2011
1109001-026A	SG-26			VaporTec Wires by 8260B modified		9/10/2011	9/10/2011
1109001-027A	Dup-01			VaporTec Wires by 8260B modified		9/10/2011	9/10/2011

Vista GeoScience

Date: *12-Sep-11*

CLIENT: Nankoweep Environmental Consultants
Work Order: 1109001
Project: 11097: Cotter Mill

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_V

Sample **MB-1402** SampTyp **MBLK** TestCode: **8260_V** Units: **ng** Prep Date: **9/9/2011** RunNo: **1589**
Client ID: **ZZZZZ** Batch ID: **1402** TestNo: **SW8260B** **(SW8260B)** Analysis **9/9/2011** SeqNo: **16784**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Trichloroethene	ND	5.000									

Sample **MB-1403** SampTyp **MBLK** TestCode: **8260_V** Units: **ng** Prep Date: **9/10/2011** RunNo: **1590**
Client ID: **ZZZZZ** Batch ID: **1403** TestNo: **SW8260B** **(SW8260B)** Analysis **9/10/2011** SeqNo: **16808**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Trichloroethene	ND	5.000									

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits

Vista GeoScience

Laboratory Chain of Custody Record

Client: Will Huskie
Address: 493 Canyon Pt Cr
Golden, CO 80403
Phone: 720 480 0652 Fax:
E-Mail: whuskie@mantoweep.com ☐ Fax ☐ E-Mail Prelim Results

Date: 8/30/2011 PAGE 1 OF 2
Client Project Manager: Will Huskie Client Project #:
Project/Site Name: Cotter Mill
Project/Site Address: Canon City, CO
Lab Project #: Lab Control #:

SAMPLE INFORMATION

Sampler Name: Sampler Signature:

Please fill out completely. Circle appropriate methods on right.
List special analytes (metals, anions), high concentration samples & special methods in comment section.

*PLEASE SEE BACK OF FORM FOR ABBREVIATIONS, PRESERVATION AND OTHER INFORMATION

☑	CLIENT SAMPLE IDENTIFICATION	CLIENT SITE ID	Depth	Date	Time	Matrix	Container #	Container Size & Type	Preserv Type*	TAT	~~VOC~~ by 8260 TCE	BTEX/MTBE 8260	BTEX&TVH 8021/8015	TVH by 8015	TEPH by 8015	PAH or SVOC - 8270	METALS (list below)	ANIONS (list below)	pH - CONDUCTIVITY	TDS - TSS	TOTAL ALKALINITY	CARBONATE/BICARB	C1-C6 HC	FIXED GASES				
	SG-01		2'	8/29/11	1558	Soil Gas Probe		40 ml VOA	None		X																	
	SG-02				1555																							
	SG-03				1606																							
	SG-04				1609																							
	SG-05				1619																							
	SG-06				1645																							
	SG-07				1653																							
	SG-08				1616																							
	SG-09				1644																							
	SG-10				1623																							
	SG-11				1641																							
	SG-12				1655																							
	SG-13				1629																							
	SG-14				1631																							

Comments: Run Samples for TCE only

1. Relinquished by (print): [illegible]	1. Received by (print): JOHN FONTANA	Date 8/30/11
Signature:	Signature: [illegible]	Time 1229
2. Relinquished by (print):	2. Received by (print):	Date
Signature:	Signature:	Time

White: File Copy Yellow: Return with Report Pink: Client's Field Copy

Vista GeoScience — Laboratory Chain of Custody Record

Client: Will Huskie
Address: 493 Canyon Pt Cr
Golden CO 80403
Phone: 720 480 0652 Fax:
E-Mail: whuskie@nankoweep.com
☐ Fax ☐ E-Mail Prelim Results

Date: 8/30/11
PAGE 2 OF 2
Client Project Manager: Will Huskie
Client Project #:
Project/Site Name: Cotter Mill
Project/Siite Address: Canon City, CO
Lab Project #:
Lab Control #:

SAMPLE INFORMATION

Sampler Name:
Sampler Signature:

Please fill out completely. Circle appropriate methods on right.
List special analytes (metals, anions), high concentration samples & special methods in comment section.
*PLEASE SEE BACK OF FORM FOR ABBREVIATIONS, PRESERVATION AND OTHER INFORMATION

☑	CLIENT SAMPLE IDENTIFICATION	CLIENT SITE ID	Depth	Date	Time	Matrix	Container #	Container Size & Type	Preserv Type*	TAT	VOC by 8260 TCE	BTEX/MTBE 8260	BTEX&TVH 8021/8015	TVH by 8015	TEPH by 8015	PAH or SVOC - 8270	METALS (list below)	ANIONS (list below)	pH - CONDUCTIVITY	TDS - TSS	TOTAL ALKALINITY	CARBONATE/BICARB	C1-C6 HC	FIXED GASES				
	SG-15		2'	8/29/11	1636	Soil Gas Probe		40ml VOA																				
	SG-16				1734																							
	SG-17				1633																							
	SG-18				1657																							
	SG-19				1626																							
	SG-20				1738																							
	SG-21				1724																							
	SG-22				1726																							
	SG-23				1705																							
	SG-24				1713																							
	SG-25				1742																							
	SG-26				1721																							
	DUP-01				2000																							
	Trip Blank				—																							

Comments: analysis for TCE only

1. Relinquished by (print): [signature] Signature:
1. Received by (print): JOHN V. FONTANA Signature: [signature] Date 8/30/2011 Time

2. Relinquished by (print): Signature:
2. Received by (print): Signature: Date Time

White: File Copy Yellow: Return with Report Pink: Client's Field Copy

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002
Tel: (303)736-0100

TestAmerica Job ID: 280-19676-1
Client Project/Site: Canon City - Cotter Mill

For:
Cotter Corporation
0502 Fremont County Road 68
Canon City, Colorado 81212

Attn: Mr. Will Huskie

Authorized for release by:
09/13/2011 04:46:44 PM

DiLea Griego
Project Manager I
dilea.griego@testamericainc.com

LINKS

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Visit us at: www.testamericainc.com

Results relate only to the items tested and the sample(s) as received by the laboratory. The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

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Job ID: 280-19676-1

Laboratory: TestAmerica Denver

Narrative

CASE NARRATIVE

Client: Cotter Corporation

Project: Canon City - Cotter Mill

Report Number: 280-19676-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The samples were received on 08/30/2011; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 4.8 C.

VOLATILE ORGANIC COMPOUNDS (GC-MS) - METHOD 8260B

Due to the concentration of target analytes, a reduced aliquot size (5mL) was used in the sample preparation of 44 (280-19676-3). Reporting limits and method detection limits have been elevated accordingly.

Due to the concentration of target analytes, sample 44 (280-19676-3) was analyzed on a diluted basis (0.5mL) due to high concentrations of target compounds. Reporting limits and method detection limits have been elevated accordingly.

The matrix spike / matrix spike duplicate (MS/MSD) samples associated with analysis batch 280-85195 were performed on a sample from another job. The matrix spike exhibited recoveries outside control limits for 2-Hexanone and Trichloroethene. The associated laboratory control sample (LCS) recovery met acceptance criteria.

The presence of the '4' qualifier in the report indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount.

No other difficulties were encountered.

Definitions/Glossary

Client: Cotter Corporation
Project/Site: Canon City - Cotter Mill

TestAmerica Job ID: 280-19676-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F	MS or MSD exceeds the control limits
4	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit (Dioxin)
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or method detection limit if shown)
PQL	Practical Quantitation Limit
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Detection Summary

Client: Cotter Corporation
Project/Site: Canon City - Cotter Mill

TestAmerica Job ID: 280-19676-1

Client Sample ID: 803 — Lab Sample ID: 280-19676-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	4.3		1.0	0.16	ug/L	1		8260B	Total/NA

Client Sample ID: 38 — Lab Sample ID: 280-19676-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	0.37	J	5.0	0.25	ug/L	1		8260B	Total/NA
Trichloroethene	24		1.0	0.16	ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	0.30	J	1.0	0.15	ug/L	1		8260B	Total/NA

Client Sample ID: 44 — Lab Sample ID: 280-19676-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
trans-1,2-Dichloroethene	0.84	J	4.0	0.60	ug/L	1		8260B	Total/NA
Methyl tert-butyl ether	3.6	J	20	1.0	ug/L	1		8260B	Total/NA
Tetrachloroethene	8.7		4.0	0.80	ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	1.1	J	4.0	0.60	ug/L	1		8260B	Total/NA
1,2-Dichloroethane	3.1	J	4.0	0.52	ug/L	1		8260B	Total/NA
Trichloroethene - DL	1200		40	6.4	ug/L	1		8260B	Total/NA

Client Sample ID: DUP-01 — Lab Sample ID: 280-19676-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	4.2		1.0	0.16	ug/L	1		8260B	Total/NA

Client Sample ID: EB-01 — Lab Sample ID: 280-19676-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	4.8		1.0	0.16	ug/L	1		8260B	Total/NA

Client Sample ID: TRIP BLANK — Lab Sample ID: 280-19676-6

No Detections

Method Summary

Client: Cotter Corporation
Project/Site: Canon City - Cotter Mill

TestAmerica Job ID: 280-19676-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL DEN

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL DEN = TestAmerica Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Sample Summary

Client: Cotter Corporation
Project/Site: Canon City - Cotter Mill

TestAmerica Job ID: 280-19676-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-19676-1	803	Water	08/29/11 11:35	08/30/11 11:09
280-19676-2	38	Water	08/29/11 13:25	08/30/11 11:09
280-19676-3	44	Water	08/29/11 14:45	08/30/11 11:09
280-19676-4	DUP-01	Water	08/29/11 23:00	08/30/11 11:09
280-19676-5	EB-01	Water	08/29/11 15:00	08/30/11 11:09
280-19676-6	TRIP BLANK	Water	08/29/11 11:35	08/30/11 11:09

Client Sample Results

Client: Cotter Corporation
Project/Site: Canon City - Cotter Mill

TestAmerica Job ID: 280-19676-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: 803
Date Collected: 08/29/11 11:35
Date Received: 08/30/11 11:09

Lab Sample ID: 280-19676-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	1.9	ug/L			09/09/11 01:19	1
2-Butanone (MEK)	ND		6.0	2.0	ug/L			09/09/11 01:19	1
Benzene	ND		1.0	0.16	ug/L			09/09/11 01:19	1
Chlorobenzene	ND		1.0	0.17	ug/L			09/09/11 01:19	1
Carbon disulfide	ND		2.0	0.45	ug/L			09/09/11 01:19	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			09/09/11 01:19	1
Cyclohexane	ND		2.0	0.28	ug/L			09/09/11 01:19	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.47	ug/L			09/09/11 01:19	1
Bromomethane	ND		2.0	0.21	ug/L			09/09/11 01:19	1
Chloroethane	ND		2.0	0.41	ug/L			09/09/11 01:19	1
Chlorobromomethane	ND		1.0	0.10	ug/L			09/09/11 01:19	1
Isopropylbenzene	ND		1.0	0.19	ug/L			09/09/11 01:19	1
2-Hexanone	ND		5.0	1.7	ug/L			09/09/11 01:19	1
Chloromethane	ND		2.0	0.30	ug/L			09/09/11 01:19	1
Dichlorodifluoromethane	ND		2.0	0.31	ug/L			09/09/11 01:19	1
trans-1,2-Dichloroethene	ND		1.0	0.15	ug/L			09/09/11 01:19	1
trans-1,3-Dichloropropene	ND		3.0	0.19	ug/L			09/09/11 01:19	1
Methylene Chloride	ND		2.0	0.32	ug/L			09/09/11 01:19	1
Methyl acetate	ND		5.0	1.6	ug/L			09/09/11 01:19	1
Methyl tert-butyl ether	ND		5.0	0.25	ug/L			09/09/11 01:19	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.98	ug/L			09/09/11 01:19	1
Methylcyclohexane	ND		1.0	0.36	ug/L			09/09/11 01:19	1
Styrene	ND		1.0	0.17	ug/L			09/09/11 01:19	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			09/09/11 01:19	1
1,2,3-Trichlorobenzene	ND		1.0	0.21	ug/L			09/09/11 01:19	1
1,2,4-Trichlorobenzene	ND		1.0	0.21	ug/L			09/09/11 01:19	1
Toluene	ND		1.0	0.17	ug/L			09/09/11 01:19	1
1,1,1-Trichloroethane	ND		1.0	0.16	ug/L			09/09/11 01:19	1
1,1,2-Trichloroethane	ND		1.0	0.27	ug/L			09/09/11 01:19	1
Trichloroethene	**4.3**		1.0	0.16	ug/L			09/09/11 01:19	1
1,1,2-Trichlorotrifluoroethane	ND		3.0	0.42	ug/L			09/09/11 01:19	1
Vinyl chloride	ND		1.0	0.10	ug/L			09/09/11 01:19	1
m-Xylene & p-Xylene	ND		2.0	0.34	ug/L			09/09/11 01:19	1
o-Xylene	ND		1.0	0.19	ug/L			09/09/11 01:19	1
Tetrachloroethene	ND		1.0	0.20	ug/L			09/09/11 01:19	1
1,2-Dichlorobenzene	ND		1.0	0.15	ug/L			09/09/11 01:19	1
1,3-Dichlorobenzene	ND		1.0	0.13	ug/L			09/09/11 01:19	1
1,4-Dichlorobenzene	ND		1.0	0.16	ug/L			09/09/11 01:19	1
cis-1,2-Dichloroethene	ND		1.0	0.15	ug/L			09/09/11 01:19	1
cis-1,3-Dichloropropene	ND		1.0	0.16	ug/L			09/09/11 01:19	1
1,1-Dichloroethane	ND		1.0	0.22	ug/L			09/09/11 01:19	1
1,1-Dichloroethene	ND		1.0	0.23	ug/L			09/09/11 01:19	1
1,2-Dichloroethane	ND		1.0	0.13	ug/L			09/09/11 01:19	1
1,2-Dichloropropane	ND		1.0	0.18	ug/L			09/09/11 01:19	1
1,4-Dioxane	ND		200	57	ug/L			09/09/11 01:19	1
Ethylbenzene	ND		1.0	0.16	ug/L			09/09/11 01:19	1
1,2-Dibromoethane	ND		1.0	0.18	ug/L			09/09/11 01:19	1
Trichlorofluoromethane	ND		2.0	0.29	ug/L			09/09/11 01:19	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	% Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		70 - 127		09/09/11 01:19	1
Toluene-d8 (Surr)	121		80 - 125		09/09/11 01:19	1
4-Bromofluorobenzene (Surr)	115		78 - 120		09/09/11 01:19	1
Dibromofluoromethane (Surr)	100		77 - 120		09/09/11 01:19	1

Client Sample ID: 38
Date Collected: 08/29/11 13:25
Date Received: 08/30/11 11:09

Lab Sample ID: 280-19676-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	1.9	ug/L			09/09/11 02:03	1
2-Butanone (MEK)	ND		6.0	2.0	ug/L			09/09/11 02:03	1
Benzene	ND		1.0	0.16	ug/L			09/09/11 02:03	1
Chlorobenzene	ND		1.0	0.17	ug/L			09/09/11 02:03	1
Carbon disulfide	ND		2.0	0.45	ug/L			09/09/11 02:03	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			09/09/11 02:03	1
Cyclohexane	ND		2.0	0.28	ug/L			09/09/11 02:03	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.47	ug/L			09/09/11 02:03	1
Bromomethane	ND		2.0	0.21	ug/L			09/09/11 02:03	1
Chloroethane	ND		2.0	0.41	ug/L			09/09/11 02:03	1
Chlorobromomethane	ND		1.0	0.10	ug/L			09/09/11 02:03	1
Isopropylbenzene	ND		1.0	0.19	ug/L			09/09/11 02:03	1
2-Hexanone	ND		5.0	1.7	ug/L			09/09/11 02:03	1
Chloromethane	ND		2.0	0.30	ug/L			09/09/11 02:03	1
Dichlorodifluoromethane	ND		2.0	0.31	ug/L			09/09/11 02:03	1
trans-1,2-Dichloroethene	ND		1.0	0.15	ug/L			09/09/11 02:03	1
trans-1,3-Dichloropropene	ND		3.0	0.19	ug/L			09/09/11 02:03	1
Methylene Chloride	ND		2.0	0.32	ug/L			09/09/11 02:03	1
Methyl acetate	ND		5.0	1.6	ug/L			09/09/11 02:03	1
Methyl tert-butyl ether	**0.37**	**J**	5.0	0.25	ug/L			09/09/11 02:03	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.98	ug/L			09/09/11 02:03	1
Methylcyclohexane	ND		1.0	0.36	ug/L			09/09/11 02:03	1
Styrene	ND		1.0	0.17	ug/L			09/09/11 02:03	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			09/09/11 02:03	1
1,2,3-Trichlorobenzene	ND		1.0	0.21	ug/L			09/09/11 02:03	1
1,2,4-Trichlorobenzene	ND		1.0	0.21	ug/L			09/09/11 02:03	1
Toluene	ND		1.0	0.17	ug/L			09/09/11 02:03	1
1,1,1-Trichloroethane	ND		1.0	0.16	ug/L			09/09/11 02:03	1
1,1,2-Trichloroethane	ND		1.0	0.27	ug/L			09/09/11 02:03	1
Trichloroethene	**24**		1.0	0.16	ug/L			09/09/11 02:03	1
1,1,2-Trichlorotrifluoroethane	ND		3.0	0.42	ug/L			09/09/11 02:03	1
Vinyl chloride	ND		1.0	0.10	ug/L			09/09/11 02:03	1
m-Xylene & p-Xylene	ND		2.0	0.34	ug/L			09/09/11 02:03	1
o-Xylene	ND		1.0	0.19	ug/L			09/09/11 02:03	1
Tetrachloroethene	ND		1.0	0.20	ug/L			09/09/11 02:03	1
1,2-Dichlorobenzene	ND		1.0	0.15	ug/L			09/09/11 02:03	1
1,3-Dichlorobenzene	ND		1.0	0.13	ug/L			09/09/11 02:03	1
1,4-Dichlorobenzene	ND		1.0	0.16	ug/L			09/09/11 02:03	1
cis-1,2-Dichloroethene	**0.30**	**J**	1.0	0.15	ug/L			09/09/11 02:03	1
cis-1,3-Dichloropropene	ND		1.0	0.16	ug/L			09/09/11 02:03	1
1,1-Dichloroethane	ND		1.0	0.22	ug/L			09/09/11 02:03	1
1,1-Dichloroethene	ND		1.0	0.23	ug/L			09/09/11 02:03	1
1,2-Dichloroethane	ND		1.0	0.13	ug/L			09/09/11 02:03	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: 38
Date Collected: 08/29/11 13:25
Date Received: 08/30/11 11:09

Lab Sample ID: 280-19676-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloropropane	ND		1.0	0.18	ug/L			09/09/11 02:03	1
1,4-Dioxane	ND		200	57	ug/L			09/09/11 02:03	1
Ethylbenzene	ND		1.0	0.16	ug/L			09/09/11 02:03	1
1,2-Dibromoethane	ND		1.0	0.18	ug/L			09/09/11 02:03	1
Trichlorofluoromethane	ND		2.0	0.29	ug/L			09/09/11 02:03	1

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*70 - 127*		*09/09/11 02:03*	*1*
Toluene-d8 (Surr)	*114*		*80 - 125*		*09/09/11 02:03*	*1*
4-Bromofluorobenzene (Surr)	*113*		*78 - 120*		*09/09/11 02:03*	*1*
Dibromofluoromethane (Surr)	*97*		*77 - 120*		*09/09/11 02:03*	*1*

Client Sample ID: 44
Date Collected: 08/29/11 14:45
Date Received: 08/30/11 11:09

Lab Sample ID: 280-19676-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		40	7.6	ug/L			09/09/11 00:35	1
2-Butanone (MEK)	ND		24	8.0	ug/L			09/09/11 00:35	1
Benzene	ND		4.0	0.64	ug/L			09/09/11 00:35	1
Chlorobenzene	ND		4.0	0.68	ug/L			09/09/11 00:35	1
Carbon disulfide	ND		8.0	1.8	ug/L			09/09/11 00:35	1
Carbon tetrachloride	ND		4.0	0.76	ug/L			09/09/11 00:35	1
Cyclohexane	ND		8.0	1.1	ug/L			09/09/11 00:35	1
1,2-Dibromo-3-Chloropropane	ND		20	1.9	ug/L			09/09/11 00:35	1
Bromomethane	ND		8.0	0.84	ug/L			09/09/11 00:35	1
Chloroethane	ND		8.0	1.6	ug/L			09/09/11 00:35	1
Chlorobromomethane	ND		4.0	0.40	ug/L			09/09/11 00:35	1
Isopropylbenzene	ND		4.0	0.76	ug/L			09/09/11 00:35	1
2-Hexanone	ND		20	6.8	ug/L			09/09/11 00:35	1
Chloromethane	ND		8.0	1.2	ug/L			09/09/11 00:35	1
Dichlorodifluoromethane	ND		8.0	1.2	ug/L			09/09/11 00:35	1
trans-1,2-Dichloroethene	**0.84**	**J**	4.0	0.60	ug/L			09/09/11 00:35	1
trans-1,3-Dichloropropene	ND		12	0.76	ug/L			09/09/11 00:35	1
Methylene Chloride	ND		8.0	1.3	ug/L			09/09/11 00:35	1
Methyl acetate	ND		20	6.6	ug/L			09/09/11 00:35	1
Methyl tert-butyl ether	**3.6**	**J**	20	1.0	ug/L			09/09/11 00:35	1
4-Methyl-2-pentanone (MIBK)	ND		20	3.9	ug/L			09/09/11 00:35	1
Methylcyclohexane	ND		4.0	1.4	ug/L			09/09/11 00:35	1
Styrene	ND		4.0	0.68	ug/L			09/09/11 00:35	1
1,1,2,2-Tetrachloroethane	ND		4.0	0.84	ug/L			09/09/11 00:35	1
1,2,3-Trichlorobenzene	ND		4.0	0.84	ug/L			09/09/11 00:35	1
1,2,4-Trichlorobenzene	ND		4.0	0.84	ug/L			09/09/11 00:35	1
Toluene	ND		4.0	0.68	ug/L			09/09/11 00:35	1
1,1,1-Trichloroethane	ND		4.0	0.64	ug/L			09/09/11 00:35	1
1,1,2-Trichloroethane	ND		4.0	1.1	ug/L			09/09/11 00:35	1
1,1,2-Trichlorotrifluoroethane	ND		12	1.7	ug/L			09/09/11 00:35	1
Vinyl chloride	ND		4.0	0.40	ug/L			09/09/11 00:35	1
m-Xylene & p-Xylene	ND		8.0	1.4	ug/L			09/09/11 00:35	1
o-Xylene	ND		4.0	0.76	ug/L			09/09/11 00:35	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: 44
Date Collected: 08/29/11 14:45
Date Received: 08/30/11 11:09

Lab Sample ID: 280-19676-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	**8.7**		4.0	0.80	ug/L			09/09/11 00:35	1
1,2-Dichlorobenzene	ND		4.0	0.60	ug/L			09/09/11 00:35	1
1,3-Dichlorobenzene	ND		4.0	0.52	ug/L			09/09/11 00:35	1
1,4-Dichlorobenzene	ND		4.0	0.64	ug/L			09/09/11 00:35	1
cis-1,2-Dichloroethene	**1.1**	**J**	4.0	0.60	ug/L			09/09/11 00:35	1
cis-1,3-Dichloropropene	ND		4.0	0.64	ug/L			09/09/11 00:35	1
1,1-Dichloroethane	ND		4.0	0.88	ug/L			09/09/11 00:35	1
1,1-Dichloroethene	ND		4.0	0.92	ug/L			09/09/11 00:35	1
1,2-Dichloroethane	**3.1**	**J**	4.0	0.52	ug/L			09/09/11 00:35	1
1,2-Dichloropropane	ND		4.0	0.72	ug/L			09/09/11 00:35	1
1,4-Dioxane	ND		800	230	ug/L			09/09/11 00:35	1
Ethylbenzene	ND		4.0	0.64	ug/L			09/09/11 00:35	1
1,2-Dibromoethane	ND		4.0	0.72	ug/L			09/09/11 00:35	1
Trichlorofluoromethane	ND		8.0	1.2	ug/L			09/09/11 00:35	1

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*70 - 127*		*09/09/11 00:35*	*1*
Toluene-d8 (Surr)	*117*		*80 - 125*		*09/09/11 00:35*	*1*
4-Bromofluorobenzene (Surr)	*115*		*78 - 120*		*09/09/11 00:35*	*1*
Dibromofluoromethane (Surr)	*99*		*77 - 120*		*09/09/11 00:35*	*1*

Client Sample ID: DUP-01
Date Collected: 08/29/11 23:00
Date Received: 08/30/11 11:09

Lab Sample ID: 280-19676-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	1.9	ug/L			09/09/11 02:47	1
2-Butanone (MEK)	ND		6.0	2.0	ug/L			09/09/11 02:47	1
Benzene	ND		1.0	0.16	ug/L			09/09/11 02:47	1
Chlorobenzene	ND		1.0	0.17	ug/L			09/09/11 02:47	1
Carbon disulfide	ND		2.0	0.45	ug/L			09/09/11 02:47	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			09/09/11 02:47	1
Cyclohexane	ND		2.0	0.28	ug/L			09/09/11 02:47	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.47	ug/L			09/09/11 02:47	1
Bromomethane	ND		2.0	0.21	ug/L			09/09/11 02:47	1
Chloroethane	ND		2.0	0.41	ug/L			09/09/11 02:47	1
Chlorobromomethane	ND		1.0	0.10	ug/L			09/09/11 02:47	1
Isopropylbenzene	ND		1.0	0.19	ug/L			09/09/11 02:47	1
2-Hexanone	ND		5.0	1.7	ug/L			09/09/11 02:47	1
Chloromethane	ND		2.0	0.30	ug/L			09/09/11 02:47	1
Dichlorodifluoromethane	ND		2.0	0.31	ug/L			09/09/11 02:47	1
trans-1,2-Dichloroethene	ND		1.0	0.15	ug/L			09/09/11 02:47	1
trans-1,3-Dichloropropene	ND		3.0	0.19	ug/L			09/09/11 02:47	1
Methylene Chloride	ND		2.0	0.32	ug/L			09/09/11 02:47	1
Methyl acetate	ND		5.0	1.6	ug/L			09/09/11 02:47	1
Methyl tert-butyl ether	ND		5.0	0.25	ug/L			09/09/11 02:47	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.98	ug/L			09/09/11 02:47	1
Methylcyclohexane	ND		1.0	0.36	ug/L			09/09/11 02:47	1
Styrene	ND		1.0	0.17	ug/L			09/09/11 02:47	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			09/09/11 02:47	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: DUP-01
Date Collected: 08/29/11 23:00
Date Received: 08/30/11 11:09

Lab Sample ID: 280-19676-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichlorobenzene	ND		1.0	0.21	ug/L			09/09/11 02:47	1
1,2,4-Trichlorobenzene	ND		1.0	0.21	ug/L			09/09/11 02:47	1
Toluene	ND		1.0	0.17	ug/L			09/09/11 02:47	1
1,1,1-Trichloroethane	ND		1.0	0.16	ug/L			09/09/11 02:47	1
1,1,2-Trichloroethane	ND		1.0	0.27	ug/L			09/09/11 02:47	1
Trichloroethene	**4.2**		1.0	0.16	ug/L			09/09/11 02:47	1
1,1,2-Trichlorotrifluoroethane	ND		3.0	0.42	ug/L			09/09/11 02:47	1
Vinyl chloride	ND		1.0	0.10	ug/L			09/09/11 02:47	1
m-Xylene & p-Xylene	ND		2.0	0.34	ug/L			09/09/11 02:47	1
o-Xylene	ND		1.0	0.19	ug/L			09/09/11 02:47	1
Tetrachloroethene	ND		1.0	0.20	ug/L			09/09/11 02:47	1
1,2-Dichlorobenzene	ND		1.0	0.15	ug/L			09/09/11 02:47	1
1,3-Dichlorobenzene	ND		1.0	0.13	ug/L			09/09/11 02:47	1
1,4-Dichlorobenzene	ND		1.0	0.16	ug/L			09/09/11 02:47	1
cis-1,2-Dichloroethene	ND		1.0	0.15	ug/L			09/09/11 02:47	1
cis-1,3-Dichloropropene	ND		1.0	0.16	ug/L			09/09/11 02:47	1
1,1-Dichloroethane	ND		1.0	0.22	ug/L			09/09/11 02:47	1
1,1-Dichloroethene	ND		1.0	0.23	ug/L			09/09/11 02:47	1
1,2-Dichloroethane	ND		1.0	0.13	ug/L			09/09/11 02:47	1
1,2-Dichloropropane	ND		1.0	0.18	ug/L			09/09/11 02:47	1
1,4-Dioxane	ND		200	57	ug/L			09/09/11 02:47	1
Ethylbenzene	ND		1.0	0.16	ug/L			09/09/11 02:47	1
1,2-Dibromoethane	ND		1.0	0.18	ug/L			09/09/11 02:47	1
Trichlorofluoromethane	ND		2.0	0.29	ug/L			09/09/11 02:47	1

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*70 - 127*		*09/09/11 02:47*	*1*
Toluene-d8 (Surr)	*112*		*80 - 125*		*09/09/11 02:47*	*1*
4-Bromofluorobenzene (Surr)	*108*		*78 - 120*		*09/09/11 02:47*	*1*
Dibromofluoromethane (Surr)	*98*		*77 - 120*		*09/09/11 02:47*	*1*

Client Sample ID: EB-01
Date Collected: 08/29/11 15:00
Date Received: 08/30/11 11:09

Lab Sample ID: 280-19676-5
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	1.9	ug/L			09/09/11 03:09	1
2-Butanone (MEK)	ND		6.0	2.0	ug/L			09/09/11 03:09	1
Benzene	ND		1.0	0.16	ug/L			09/09/11 03:09	1
Chlorobenzene	ND		1.0	0.17	ug/L			09/09/11 03:09	1
Carbon disulfide	ND		2.0	0.45	ug/L			09/09/11 03:09	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			09/09/11 03:09	1
Cyclohexane	ND		2.0	0.28	ug/L			09/09/11 03:09	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.47	ug/L			09/09/11 03:09	1
Bromomethane	ND		2.0	0.21	ug/L			09/09/11 03:09	1
Chloroethane	ND		2.0	0.41	ug/L			09/09/11 03:09	1
Chlorobromomethane	ND		1.0	0.10	ug/L			09/09/11 03:09	1
Isopropylbenzene	ND		1.0	0.19	ug/L			09/09/11 03:09	1
2-Hexanone	ND		5.0	1.7	ug/L			09/09/11 03:09	1
Chloromethane	ND		2.0	0.30	ug/L			09/09/11 03:09	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: EB-01
Date Collected: 08/29/11 15:00
Date Received: 08/30/11 11:09

Lab Sample ID: 280-19676-5
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		2.0	0.31	ug/L			09/09/11 03:09	1
trans-1,2-Dichloroethene	ND		1.0	0.15	ug/L			09/09/11 03:09	1
trans-1,3-Dichloropropene	ND		3.0	0.19	ug/L			09/09/11 03:09	1
Methylene Chloride	ND		2.0	0.32	ug/L			09/09/11 03:09	1
Methyl acetate	ND		5.0	1.6	ug/L			09/09/11 03:09	1
Methyl tert-butyl ether	ND		5.0	0.25	ug/L			09/09/11 03:09	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.98	ug/L			09/09/11 03:09	1
Methylcyclohexane	ND		1.0	0.36	ug/L			09/09/11 03:09	1
Styrene	ND		1.0	0.17	ug/L			09/09/11 03:09	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			09/09/11 03:09	1
1,2,3-Trichlorobenzene	ND		1.0	0.21	ug/L			09/09/11 03:09	1
1,2,4-Trichlorobenzene	ND		1.0	0.21	ug/L			09/09/11 03:09	1
Toluene	ND		1.0	0.17	ug/L			09/09/11 03:09	1
1,1,1-Trichloroethane	ND		1.0	0.16	ug/L			09/09/11 03:09	1
1,1,2-Trichloroethane	ND		1.0	0.27	ug/L			09/09/11 03:09	1
Trichloroethene	**4.8**		1.0	0.16	ug/L			09/09/11 03:09	1
1,1,2-Trichlorotrifluoroethane	ND		3.0	0.42	ug/L			09/09/11 03:09	1
Vinyl chloride	ND		1.0	0.10	ug/L			09/09/11 03:09	1
m-Xylene & p-Xylene	ND		2.0	0.34	ug/L			09/09/11 03:09	1
o-Xylene	ND		1.0	0.19	ug/L			09/09/11 03:09	1
Tetrachloroethene	ND		1.0	0.20	ug/L			09/09/11 03:09	1
1,2-Dichlorobenzene	ND		1.0	0.15	ug/L			09/09/11 03:09	1
1,3-Dichlorobenzene	ND		1.0	0.13	ug/L			09/09/11 03:09	1
1,4-Dichlorobenzene	ND		1.0	0.16	ug/L			09/09/11 03:09	1
cis-1,2-Dichloroethene	ND		1.0	0.15	ug/L			09/09/11 03:09	1
cis-1,3-Dichloropropene	ND		1.0	0.16	ug/L			09/09/11 03:09	1
1,1-Dichloroethane	ND		1.0	0.22	ug/L			09/09/11 03:09	1
1,1-Dichloroethene	ND		1.0	0.23	ug/L			09/09/11 03:09	1
1,2-Dichloroethane	ND		1.0	0.13	ug/L			09/09/11 03:09	1
1,2-Dichloropropane	ND		1.0	0.18	ug/L			09/09/11 03:09	1
1,4-Dioxane	ND		200	57	ug/L			09/09/11 03:09	1
Ethylbenzene	ND		1.0	0.16	ug/L			09/09/11 03:09	1
1,2-Dibromoethane	ND		1.0	0.18	ug/L			09/09/11 03:09	1
Trichlorofluoromethane	ND		2.0	0.29	ug/L			09/09/11 03:09	1

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*70 - 127*		*09/09/11 03:09*	*1*
Toluene-d8 (Surr)	*115*		*80 - 125*		*09/09/11 03:09*	*1*
4-Bromofluorobenzene (Surr)	*115*		*78 - 120*		*09/09/11 03:09*	*1*
Dibromofluoromethane (Surr)	*101*		*77 - 120*		*09/09/11 03:09*	*1*

Client Sample ID: TRIP BLANK
Date Collected: 08/29/11 11:35
Date Received: 08/30/11 11:09

Lab Sample ID: 280-19676-6
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	1.9	ug/L			09/09/11 03:31	1
2-Butanone (MEK)	ND		6.0	2.0	ug/L			09/09/11 03:31	1
Benzene	ND		1.0	0.16	ug/L			09/09/11 03:31	1
Chlorobenzene	ND		1.0	0.17	ug/L			09/09/11 03:31	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: TRIP BLANK
Date Collected: 08/29/11 11:35
Date Received: 08/30/11 11:09

Lab Sample ID: 280-19676-6
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon disulfide	ND		2.0	0.45	ug/L			09/09/11 03:31	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			09/09/11 03:31	1
Cyclohexane	ND		2.0	0.28	ug/L			09/09/11 03:31	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.47	ug/L			09/09/11 03:31	1
Bromomethane	ND		2.0	0.21	ug/L			09/09/11 03:31	1
Chloroethane	ND		2.0	0.41	ug/L			09/09/11 03:31	1
Chlorobromomethane	ND		1.0	0.10	ug/L			09/09/11 03:31	1
Isopropylbenzene	ND		1.0	0.19	ug/L			09/09/11 03:31	1
2-Hexanone	ND		5.0	1.7	ug/L			09/09/11 03:31	1
Chloromethane	ND		2.0	0.30	ug/L			09/09/11 03:31	1
Dichlorodifluoromethane	ND		2.0	0.31	ug/L			09/09/11 03:31	1
trans-1,2-Dichloroethene	ND		1.0	0.15	ug/L			09/09/11 03:31	1
trans-1,3-Dichloropropene	ND		3.0	0.19	ug/L			09/09/11 03:31	1
Methylene Chloride	ND		2.0	0.32	ug/L			09/09/11 03:31	1
Methyl acetate	ND		5.0	1.6	ug/L			09/09/11 03:31	1
Methyl tert-butyl ether	ND		5.0	0.25	ug/L			09/09/11 03:31	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.98	ug/L			09/09/11 03:31	1
Methylcyclohexane	ND		1.0	0.36	ug/L			09/09/11 03:31	1
Styrene	ND		1.0	0.17	ug/L			09/09/11 03:31	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			09/09/11 03:31	1
1,2,3-Trichlorobenzene	ND		1.0	0.21	ug/L			09/09/11 03:31	1
1,2,4-Trichlorobenzene	ND		1.0	0.21	ug/L			09/09/11 03:31	1
Toluene	ND		1.0	0.17	ug/L			09/09/11 03:31	1
1,1,1-Trichloroethane	ND		1.0	0.16	ug/L			09/09/11 03:31	1
1,1,2-Trichloroethane	ND		1.0	0.27	ug/L			09/09/11 03:31	1
Trichloroethene	ND		1.0	0.16	ug/L			09/09/11 03:31	1
1,1,2-Trichlorotrifluoroethane	ND		3.0	0.42	ug/L			09/09/11 03:31	1
Vinyl chloride	ND		1.0	0.10	ug/L			09/09/11 03:31	1
m-Xylene & p-Xylene	ND		2.0	0.34	ug/L			09/09/11 03:31	1
o-Xylene	ND		1.0	0.19	ug/L			09/09/11 03:31	1
Tetrachloroethene	ND		1.0	0.20	ug/L			09/09/11 03:31	1
1,2-Dichlorobenzene	ND		1.0	0.15	ug/L			09/09/11 03:31	1
1,3-Dichlorobenzene	ND		1.0	0.13	ug/L			09/09/11 03:31	1
1,4-Dichlorobenzene	ND		1.0	0.16	ug/L			09/09/11 03:31	1
cis-1,2-Dichloroethene	ND		1.0	0.15	ug/L			09/09/11 03:31	1
cis-1,3-Dichloropropene	ND		1.0	0.16	ug/L			09/09/11 03:31	1
1,1-Dichloroethane	ND		1.0	0.22	ug/L			09/09/11 03:31	1
1,1-Dichloroethene	ND		1.0	0.23	ug/L			09/09/11 03:31	1
1,2-Dichloroethane	ND		1.0	0.13	ug/L			09/09/11 03:31	1
1,2-Dichloropropane	ND		1.0	0.18	ug/L			09/09/11 03:31	1
1,4-Dioxane	ND		200	57	ug/L			09/09/11 03:31	1
Ethylbenzene	ND		1.0	0.16	ug/L			09/09/11 03:31	1
1,2-Dibromoethane	ND		1.0	0.18	ug/L			09/09/11 03:31	1
Trichlorofluoromethane	ND		2.0	0.29	ug/L			09/09/11 03:31	1

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*70 - 127*		*09/09/11 03:31*	*1*
Toluene-d8 (Surr)	*116*		*80 - 125*		*09/09/11 03:31*	*1*
4-Bromofluorobenzene (Surr)	*112*		*78 - 120*		*09/09/11 03:31*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: TRIP BLANK
Date Collected: 08/29/11 11:35
Date Received: 08/30/11 11:09

Lab Sample ID: 280-19676-6
Matrix: Water

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*100*		*77 - 120*		*09/09/11 03:31*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Client Sample ID: 44
Date Collected: 08/29/11 14:45
Date Received: 08/30/11 11:09

Lab Sample ID: 280-19676-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	**1200**		40	6.4	ug/L			09/09/11 00:57	1

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*70 - 127*		*09/09/11 00:57*	*1*
Toluene-d8 (Surr)	*119*		*80 - 125*		*09/09/11 00:57*	*1*
4-Bromofluorobenzene (Surr)	*113*		*78 - 120*		*09/09/11 00:57*	*1*
Dibromofluoromethane (Surr)	*99*		*77 - 120*		*09/09/11 00:57*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 280-85195/5
Matrix: Water
Analysis Batch: 85195

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	1.9	ug/L			09/08/11 19:28	1
2-Butanone (MEK)	ND		6.0	2.0	ug/L			09/08/11 19:28	1
Benzene	ND		1.0	0.16	ug/L			09/08/11 19:28	1
Chlorobenzene	ND		1.0	0.17	ug/L			09/08/11 19:28	1
Carbon disulfide	ND		2.0	0.45	ug/L			09/08/11 19:28	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			09/08/11 19:28	1
Cyclohexane	ND		2.0	0.28	ug/L			09/08/11 19:28	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.47	ug/L			09/08/11 19:28	1
Bromomethane	ND		2.0	0.21	ug/L			09/08/11 19:28	1
Chloroethane	ND		2.0	0.41	ug/L			09/08/11 19:28	1
Chlorobromomethane	ND		1.0	0.10	ug/L			09/08/11 19:28	1
Isopropylbenzene	ND		1.0	0.19	ug/L			09/08/11 19:28	1
2-Hexanone	ND		5.0	1.7	ug/L			09/08/11 19:28	1
Chloromethane	ND		2.0	0.30	ug/L			09/08/11 19:28	1
Dichlorodifluoromethane	ND		2.0	0.31	ug/L			09/08/11 19:28	1
trans-1,2-Dichloroethene	ND		1.0	0.15	ug/L			09/08/11 19:28	1
trans-1,3-Dichloropropene	ND		3.0	0.19	ug/L			09/08/11 19:28	1
Methylene Chloride	ND		2.0	0.32	ug/L			09/08/11 19:28	1
Methyl acetate	ND		5.0	1.6	ug/L			09/08/11 19:28	1
Methyl tert-butyl ether	ND		5.0	0.25	ug/L			09/08/11 19:28	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	0.98	ug/L			09/08/11 19:28	1
Methylcyclohexane	ND		1.0	0.36	ug/L			09/08/11 19:28	1
Styrene	ND		1.0	0.17	ug/L			09/08/11 19:28	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			09/08/11 19:28	1
1,2,3-Trichlorobenzene	ND		1.0	0.21	ug/L			09/08/11 19:28	1
1,2,4-Trichlorobenzene	ND		1.0	0.21	ug/L			09/08/11 19:28	1
Toluene	ND		1.0	0.17	ug/L			09/08/11 19:28	1
1,1,1-Trichloroethane	ND		1.0	0.16	ug/L			09/08/11 19:28	1
1,1,2-Trichloroethane	ND		1.0	0.27	ug/L			09/08/11 19:28	1
Trichloroethene	ND		1.0	0.16	ug/L			09/08/11 19:28	1
1,1,2-Trichlorotrifluoroethane	ND		3.0	0.42	ug/L			09/08/11 19:28	1
Vinyl chloride	ND		1.0	0.10	ug/L			09/08/11 19:28	1
m-Xylene & p-Xylene	ND		2.0	0.34	ug/L			09/08/11 19:28	1
o-Xylene	ND		1.0	0.19	ug/L			09/08/11 19:28	1
Tetrachloroethene	ND		1.0	0.20	ug/L			09/08/11 19:28	1
1,2-Dichlorobenzene	ND		1.0	0.15	ug/L			09/08/11 19:28	1
1,3-Dichlorobenzene	ND		1.0	0.13	ug/L			09/08/11 19:28	1
1,4-Dichlorobenzene	ND		1.0	0.16	ug/L			09/08/11 19:28	1
cis-1,2-Dichloroethene	ND		1.0	0.15	ug/L			09/08/11 19:28	1
cis-1,3-Dichloropropene	ND		1.0	0.16	ug/L			09/08/11 19:28	1
1,1-Dichloroethane	ND		1.0	0.22	ug/L			09/08/11 19:28	1
1,1-Dichloroethene	ND		1.0	0.23	ug/L			09/08/11 19:28	1
1,2-Dichloroethane	ND		1.0	0.13	ug/L			09/08/11 19:28	1
1,2-Dichloropropane	ND		1.0	0.18	ug/L			09/08/11 19:28	1
1,4-Dioxane	ND		200	57	ug/L			09/08/11 19:28	1
Ethylbenzene	ND		1.0	0.16	ug/L			09/08/11 19:28	1
1,2-Dibromoethane	ND		1.0	0.18	ug/L			09/08/11 19:28	1
Trichlorofluoromethane	ND		2.0	0.29	ug/L			09/08/11 19:28	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 280-85195/5
Matrix: Water
Analysis Batch: 85195

Client Sample ID: Method Blank
Prep Type: Total/NA

Surrogate	MB % Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		70 - 127		09/08/11 19:28	1
Toluene-d8 (Surr)	114		80 - 125		09/08/11 19:28	1
4-Bromofluorobenzene (Surr)	111		78 - 120		09/08/11 19:28	1
Dibromofluoromethane (Surr)	98		77 - 120		09/08/11 19:28	1

Lab Sample ID: LCS 280-85195/4
Matrix: Water
Analysis Batch: 85195

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits
Acetone	20.0	25.0		ug/L		125	48 - 130
2-Butanone (MEK)	20.0	22.3		ug/L		112	57 - 120
Benzene	5.00	4.40		ug/L		88	77 - 120
Chlorobenzene	5.00	4.67		ug/L		93	78 - 120
Carbon disulfide	5.00	4.52		ug/L		90	56 - 120
Carbon tetrachloride	5.00	4.35		ug/L		87	80 - 120
1,2-Dibromo-3-Chloropropane	5.00	4.51	J	ug/L		90	65 - 120
Bromomethane	5.00	6.67		ug/L		133	42 - 154
Chloroethane	5.00	6.54		ug/L		131	51 - 133
Chlorobromomethane	5.00	4.70		ug/L		94	78 - 120
Isopropylbenzene	5.00	4.89		ug/L		98	71 - 120
2-Hexanone	20.0	23.6		ug/L		118	57 - 121
Chloromethane	5.00	6.13		ug/L		123	46 - 142
Dichlorodifluoromethane	5.00	5.21		ug/L		104	56 - 140
trans-1,2-Dichloroethene	5.00	4.69		ug/L		94	80 - 120
trans-1,3-Dichloropropene	5.00	4.84		ug/L		97	72 - 120
Methylene Chloride	5.00	4.38		ug/L		88	60 - 134
Methyl tert-butyl ether	5.00	5.08		ug/L		102	58 - 120
4-Methyl-2-pentanone (MIBK)	20.0	23.2		ug/L		116	65 - 120
Styrene	5.00	4.67		ug/L		93	77 - 120
1,1,2,2-Tetrachloroethane	5.00	4.98		ug/L		100	73 - 120
1,2,3-Trichlorobenzene	5.00	4.78		ug/L		96	66 - 123
1,2,4-Trichlorobenzene	5.00	4.87		ug/L		97	73 - 121
Toluene	5.00	4.61		ug/L		92	73 - 120
1,1,1-Trichloroethane	5.00	4.21		ug/L		84	78 - 120
1,1,2-Trichloroethane	5.00	4.89		ug/L		98	76 - 120
Trichloroethene	5.00	4.53		ug/L		91	78 - 122
Vinyl chloride	5.00	6.62		ug/L		132	49 - 136
m-Xylene & p-Xylene	10.0	9.26		ug/L		93	78 - 120
o-Xylene	5.00	4.54		ug/L		91	77 - 120
Tetrachloroethene	5.00	4.39		ug/L		88	77 - 120
1,2-Dichlorobenzene	5.00	4.78		ug/L		96	76 - 120
1,3-Dichlorobenzene	5.00	4.66		ug/L		93	75 - 120
1,4-Dichlorobenzene	5.00	4.71		ug/L		94	77 - 120
cis-1,2-Dichloroethene	5.00	4.76		ug/L		95	75 - 120
cis-1,3-Dichloropropene	5.00	4.71		ug/L		94	76 - 120
1,1-Dichloroethane	5.00	4.60		ug/L		92	77 - 120
1,1-Dichloroethene	5.00	5.02		ug/L		100	68 - 133
1,2-Dichloroethane	5.00	4.48		ug/L		90	74 - 120

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 280-85195/4
Matrix: Water
Analysis Batch: 85195

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits
1,2-Dichloropropane	5.00	4.59		ug/L		92	76 - 120
Ethylbenzene	5.00	4.63		ug/L		93	78 - 120
1,2-Dibromoethane	5.00	4.80		ug/L		96	77 - 120
Trichlorofluoromethane	5.00	5.27		ug/L		105	63 - 135

Surrogate	*LCS % Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*109*		*70 - 127*
Toluene-d8 (Surr)	*109*		*80 - 125*
4-Bromofluorobenzene (Surr)	*107*		*78 - 120*
Dibromofluoromethane (Surr)	*98*		*77 - 120*

Lab Sample ID: 280-19694-K-2 MS
Matrix: Water
Analysis Batch: 85195

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	% Rec	% Rec. Limits
Acetone	ND		2000	2420		ug/L		121	48 - 130
2-Butanone (MEK)	ND		2000	2250		ug/L		112	57 - 120
Benzene	ND		500	480		ug/L		96	77 - 120
Chlorobenzene	ND		500	487		ug/L		97	78 - 120
Carbon disulfide	ND		500	473		ug/L		95	56 - 120
Carbon tetrachloride	ND		500	466		ug/L		93	80 - 120
1,2-Dibromo-3-Chloropropane	ND		500	476	J	ug/L		95	65 - 120
Bromomethane	ND		500	615		ug/L		123	42 - 154
Chloroethane	ND		500	638		ug/L		128	51 - 133
Chlorobromomethane	ND		500	497		ug/L		99	78 - 120
Isopropylbenzene	ND		500	529		ug/L		106	71 - 120
2-Hexanone	ND		2000	2510	F	ug/L		125	57 - 121
Chloromethane	ND		500	610		ug/L		122	46 - 142
Dichlorodifluoromethane	ND		500	445		ug/L		89	56 - 140
trans-1,2-Dichloroethene	ND		500	491		ug/L		98	80 - 120
trans-1,3-Dichloropropene	ND		500	481		ug/L		96	72 - 120
Methylene Chloride	ND		500	438		ug/L		88	60 - 134
Methyl tert-butyl ether	ND		500	491	J	ug/L		98	58 - 120
4-Methyl-2-pentanone (MIBK)	ND		2000	2210		ug/L		110	65 - 120
Styrene	ND		500	487		ug/L		97	77 - 120
1,1,2,2-Tetrachloroethane	ND		500	532		ug/L		106	73 - 120
1,2,3-Trichlorobenzene	ND		500	478		ug/L		96	66 - 123
1,2,4-Trichlorobenzene	ND		500	494		ug/L		99	73 - 121
Toluene	ND		500	469		ug/L		94	73 - 120
1,1,1-Trichloroethane	ND		500	437		ug/L		87	78 - 120
1,1,2-Trichloroethane	ND		500	488		ug/L		98	76 - 120
Trichloroethene	2300		500	2940	4	ug/L		126	78 - 122
Vinyl chloride	ND		500	631		ug/L		126	49 - 136
m-Xylene & p-Xylene	ND		1000	963		ug/L		96	78 - 120
o-Xylene	ND		500	477		ug/L		95	77 - 120
Tetrachloroethene	ND		500	505		ug/L		101	77 - 120
1,2-Dichlorobenzene	ND		500	488		ug/L		98	76 - 120
1,3-Dichlorobenzene	ND		500	488		ug/L		98	75 - 120

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 280-19694-K-2 MS
Matrix: Water
Analysis Batch: 85195

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	% Rec	% Rec. Limits
1,4-Dichlorobenzene	ND		500	495		ug/L		99	77 - 120
cis-1,2-Dichloroethene	980		500	1500		ug/L		104	75 - 120
cis-1,3-Dichloropropene	ND		500	482		ug/L		96	76 - 120
1,1-Dichloroethane	ND		500	485		ug/L		97	77 - 120
1,1-Dichloroethene	ND		500	509		ug/L		102	68 - 133
1,2-Dichloroethane	ND		500	486		ug/L		97	74 - 120
1,2-Dichloropropane	ND		500	472		ug/L		94	76 - 120
Ethylbenzene	ND		500	491		ug/L		98	78 - 120
1,2-Dibromoethane	ND		500	475		ug/L		95	77 - 120
Trichlorofluoromethane	ND		500	502		ug/L		100	63 - 135

Surrogate	*MS % Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*105*		*70 - 127*
Toluene-d8 (Surr)	*116*		*80 - 125*
4-Bromofluorobenzene (Surr)	*114*		*78 - 120*
Dibromofluoromethane (Surr)	*101*		*77 - 120*

Lab Sample ID: 280-19694-K-2 MSD
Matrix: Water
Analysis Batch: 85195

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	% Rec	% Rec. Limits	RPD	RPD Limit
Acetone	ND		2000	2390		ug/L		120	48 - 130	1	41
2-Butanone (MEK)	ND		2000	2170		ug/L		109	57 - 120	3	32
Benzene	ND		500	460		ug/L		92	77 - 120	4	20
Chlorobenzene	ND		500	478		ug/L		96	78 - 120	2	20
Carbon disulfide	ND		500	431		ug/L		86	56 - 120	9	20
Carbon tetrachloride	ND		500	451		ug/L		90	80 - 120	3	21
1,2-Dibromo-3-Chloropropane	ND		500	493	J	ug/L		99	65 - 120	4	22
Bromomethane	ND		500	634		ug/L		127	42 - 154	3	24
Chloroethane	ND		500	633		ug/L		127	51 - 133	1	25
Chlorobromomethane	ND		500	458		ug/L		92	78 - 120	8	20
Isopropylbenzene	ND		500	477		ug/L		95	71 - 120	10	20
2-Hexanone	ND		2000	2410		ug/L		120	57 - 121	4	25
Chloromethane	ND		500	615		ug/L		123	46 - 142	1	24
Dichlorodifluoromethane	ND		500	514		ug/L		103	56 - 140	14	24
trans-1,2-Dichloroethene	ND		500	476		ug/L		95	80 - 120	3	24
trans-1,3-Dichloropropene	ND		500	470		ug/L		94	72 - 120	2	20
Methylene Chloride	ND		500	430		ug/L		86	60 - 134	2	20
Methyl tert-butyl ether	ND		500	484	J	ug/L		97	58 - 120	1	21
4-Methyl-2-pentanone (MIBK)	ND		2000	2200		ug/L		110	65 - 120	1	22
Styrene	ND		500	474		ug/L		95	77 - 120	3	20
1,1,2,2-Tetrachloroethane	ND		500	500		ug/L		100	73 - 120	6	20
1,2,3-Trichlorobenzene	ND		500	452		ug/L		90	66 - 123	6	29
1,2,4-Trichlorobenzene	ND		500	454		ug/L		91	73 - 121	8	25
Toluene	ND		500	451		ug/L		90	73 - 120	4	20
1,1,1-Trichloroethane	ND		500	434		ug/L		87	78 - 120	1	20
1,1,2-Trichloroethane	ND		500	493		ug/L		99	76 - 120	1	21
Trichloroethene	2300		500	2860	4	ug/L		109	78 - 122	3	20

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 280-19694-K-2 MSD
Matrix: Water
Analysis Batch: 85195

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	% Rec	% Rec. Limits	RPD	RPD Limit
Vinyl chloride	ND		500	673		ug/L		135	49 - 136	6	24
m-Xylene & p-Xylene	ND		1000	912		ug/L		91	78 - 120	5	20
o-Xylene	ND		500	447		ug/L		89	77 - 120	6	20
Tetrachloroethene	ND		500	478		ug/L		96	77 - 120	5	20
1,2-Dichlorobenzene	ND		500	466		ug/L		93	76 - 120	5	20
1,3-Dichlorobenzene	ND		500	445		ug/L		89	75 - 120	9	20
1,4-Dichlorobenzene	ND		500	458		ug/L		92	77 - 120	8	23
cis-1,2-Dichloroethene	980		500	1510		ug/L		107	75 - 120	1	20
cis-1,3-Dichloropropene	ND		500	472		ug/L		94	76 - 120	2	20
1,1-Dichloroethane	ND		500	475		ug/L		95	77 - 120	2	21
1,1-Dichloroethene	ND		500	508		ug/L		102	68 - 133	0	20
1,2-Dichloroethane	ND		500	457		ug/L		91	74 - 120	6	20
1,2-Dichloropropane	ND		500	460		ug/L		92	76 - 120	3	20
Ethylbenzene	ND		500	455		ug/L		91	78 - 120	8	26
1,2-Dibromoethane	ND		500	484		ug/L		97	77 - 120	2	20
Trichlorofluoromethane	ND		500	565		ug/L		113	63 - 135	12	20

Surrogate	*MSD % Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*102*		*70 - 127*
Toluene-d8 (Surr)	*112*		*80 - 125*
4-Bromofluorobenzene (Surr)	*108*		*78 - 120*
Dibromofluoromethane (Surr)	*99*		*77 - 120*

QC Association Summary

Client: Cotter Corporation
Project/Site: Canon City - Cotter Mill

TestAmerica Job ID: 280-19676-1

GC/MS VOA

Analysis Batch: 85195

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-19676-1	803	Total/NA	Water	8260B	
280-19676-2	38	Total/NA	Water	8260B	
280-19676-3	44	Total/NA	Water	8260B	
280-19676-3 - DL	44	Total/NA	Water	8260B	
280-19676-4	DUP-01	Total/NA	Water	8260B	
280-19676-5	EB-01	Total/NA	Water	8260B	
280-19676-6	TRIP BLANK	Total/NA	Water	8260B	
280-19694-K-2 MS	Matrix Spike	Total/NA	Water	8260B	
280-19694-K-2 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	
LCS 280-85195/4	Lab Control Sample	Total/NA	Water	8260B	
MB 280-85195/5	Method Blank	Total/NA	Water	8260B	

Lab Chronicle

Client: Cotter Corporation
Project/Site: Canon City - Cotter Mill

TestAmerica Job ID: 280-19676-1

Client Sample ID: 803 — Lab Sample ID: 280-19676-1

Date Collected: 08/29/11 11:35 — **Matrix: Water**
Date Received: 08/30/11 11:09

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	20 mL	20 mL	85195	09/09/11 01:19	TBL	TAL DEN

Client Sample ID: 38 — Lab Sample ID: 280-19676-2

Date Collected: 08/29/11 13:25 — **Matrix: Water**
Date Received: 08/30/11 11:09

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	20 mL	20 mL	85195	09/09/11 02:03	TBL	TAL DEN

Client Sample ID: 44 — Lab Sample ID: 280-19676-3

Date Collected: 08/29/11 14:45 — **Matrix: Water**
Date Received: 08/30/11 11:09

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	20 mL	85195	09/09/11 00:35	TBL	TAL DEN
Total/NA	Analysis	8260B	DL	1	0.5 mL	20 mL	85195	09/09/11 00:57	TBL	TAL DEN

Client Sample ID: DUP-01 — Lab Sample ID: 280-19676-4

Date Collected: 08/29/11 23:00 — **Matrix: Water**
Date Received: 08/30/11 11:09

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	20 mL	20 mL	85195	09/09/11 02:47	TBL	TAL DEN

Client Sample ID: EB-01 — Lab Sample ID: 280-19676-5

Date Collected: 08/29/11 15:00 — **Matrix: Water**
Date Received: 08/30/11 11:09

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	20 mL	20 mL	85195	09/09/11 03:09	TBL	TAL DEN

Client Sample ID: TRIP BLANK — Lab Sample ID: 280-19676-6

Date Collected: 08/29/11 11:35 — **Matrix: Water**
Date Received: 08/30/11 11:09

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	20 mL	20 mL	85195	09/09/11 03:31	TBL	TAL DEN

Laboratory References:
TAL DEN = TestAmerica Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Login Sample Receipt Checklist

Client: Cotter Corporation

Job Number: 280-19676-1

Login Number: 19676

List Source: TestAmerica Denver

List Number: 1

Creator: Philipp, Nicholas A

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Chain of Custody Record

Sampler ID _____

Temperature on Receipt 4.8 IR 3 SE 8/3

Drinking Water? Yes ☐ No ☐

TestAmerica THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124-280 (0508)

Client: Cotter Corp	Project Manager: Will Huskie	Date: 8/30/11	Chain of Custody Number: 145498
Address	Telephone Number (Area Code)/Fax Number: 720 480 0652	Lab Number	Page 1 of 1
City: Canon City; State: CO; Zip Code	Site Contact: Will	Lab Contact: DiLea	
Project Name and Location (State): Cotter MILL	Carrier/Waybill Number		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Air	Aqueous	Sed.	Soil	Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	VOCs 8260	Special Instructions/ Conditions of Receipt
803	8/29/11	1135		X			X						X	Samples Unpreserved
38		1325		X			X						X	
44		1445		X			X						X	
DUP-01		2300		X			X						X	
EB-01		1500		X			X						X	
Trip Blank		—		X			X						X	

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By	8/30/11	1109	1. Received By	8/30/11	1109
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments: Call Will Huskie @ 720 480 0652 w/ Questions

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

Phase I Passive Soil Gas Sampling
And Groundwater Sampling, August 2011
Cotter Milling Facility, Canon City, Colorado

Appendix D- Field Notes-Groundwater Sampling Activities

Groundwater Sampling Log

Project Name: Cotter
Project Number:
Site Name: MILL
Field Crew: Will
Sampling Date: 8/29/11
Weather Conditions: cool

Well ID Number: 803
Type of Well: monitoring
Casing Stick Up: ≈ 1.5
Static Water Level: 42.55' set Pump @ 47'
Well Depth/Diameter: 50'/4"
Sampling Time: 1135

Analytical Instruments: pH 6.98
Temperature: 16.52
Conductivity: 3.61
DO: 1.38
ORP: —
Turbidity: —

Duplicate collected
DUP-01 @ 2300

Purging Equipment: GeoSub No #81400101/controller #81200031
Casing Volume Calculation
Gallons Per Foot (GPF): 2" = .163, 4" = .653, 6" = 1.469
One casing volume = [TD(ft) – DTW(ft)] x GPF =

Water clear - No odor

Time	Pumping Rate (ml/min)	Gallons/Liters Removed	Water Level	pH	Temperature °C	Conductivity ms/cm	DO (mg/L)	ORP	Turbidity
1034			42.53					changed to mg/L after second measurement	
1037	200		43.52	6.63	14.96	3.90	-2.3%		
1042	200		43.42	6.75	16.01	3.90	-1.9%		
1047	300		43.42	6.81	15.78	3.89	0.09 mg/L		
1052	300		43.45	6.82	16.21	3.86	0.02		
1057	100		43.26	6.88	17.58	3.83	0.24		
1101	100		43.20	6.90	16.56	3.80	0.51		
1105	400		43.36	6.92	16.11	3.74	0.83		
1110	370		43.44	6.93	16.34	3.70	1.03		
1115	320		43.47	6.94	16.43	3.68	1.08		
1120	300		43.45	6.96	16.38	3.65	1.20		
1125	300		43.50	6.97	16.56	3.62	1.30		
1130	280		43.50	6.99	16.50	3.60	1.36		
X 1135	280		43.51	6.98	16.52	3.61	1.38		

Depth to Water after Purging: 43.51
Sampling Equipment: See Above
Chemical Analyses: VOC'S / 8260

Sampler(s) Signatures: [signature]

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Pump speed between 42-43 Hz changes flow rate significantly. Removed 5.5 gallons

Groundwater Sampling Log

Project Name: Cotter
Project Number:
Site Name: MILL
Field Crew: WILL
Sampling Date: 8/29/11
Weather Conditions: cloudy warm/Hot

Well ID Number: 38
Type of Well: MONITORING WELL
Casing Stick Up: 1.5'
Static Water Level: 35.92'
Well Depth/Diameter: 50'
Sampling Time: 1325

Pump set @ 42'
Pump speed @ 38-39 Hz
Add valve @ end of tube to control flow

Analytical Instruments: pH 7.67
Temperature: 22.13 *
Conductivity: 1.961
DO: 4.52
ORP: —
Turbidity: —

Purging Equipment: Geo Sub Pump/Controller 812 0003
Casing Volume Calculation
Gallons Per Foot (GPF): 2" = .163, 4" = .653, 6" = 1.469
One casing volume = [TD(ft) – DTW(ft)] x GPF = _____

water clear - no ODOR

meter failed for 1st 10 minutes

Time	Pumping Rate	Gallons/Liters Removed	Water Level	pH	Temperature °C	Conductivity ms/cm	DO mg/L	ORP	Turbidity
1230			37.10						
1236	300		37.98						
1244	180		38.77	7.51	18.43	1.977	4.52		
1249	150		39.09	7.55	19.37	1.978	4.46		
1254	90		39.74	7.58	20.41	1.977	4.83		
1259	330		40.15	7.59	18.0	1.956	5.24		
1304	120		40.25	7.58	18.92	1.951	4.77		
1309	120		40.35	7.62	20.71	1.959	4.49		
1314	120		40.53	7.64	21.73	1.962	4.46		
1319	120		40.70	7.66	22.01	1.963	4.50		
1325	120	5.5	40.94	7.67	22.13	1.961	4.52		

* temp controlled by low flow and Hot weather, not GW temp.

Depth to Water after Purging: 40.60
Sampling Equipment: See Above
Chemical Analyses: VOC'S 8260

Sampler(s) Signatures: [signature]

Mike says this well pumps dry @ 1.5 gpm in 10 minutes.

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Groundwater Sampling Log

Project Name: COTTER
Project Number:
Site Name: MILL
Field Crew: WILL
Sampling Date: 8/29/2011
Weather Conditions: cloudy Hot

Well ID Number: 44
Type of Well: monitoring
Casing Stick Up: 2' / 4"
Static Water Level: 37.14 - Pump @ 42'
Well Depth/Diameter: 54'
Sampling Time: 1445

Analytical Instruments: pH 7.02
Temperature: 18.99 **
Conductivity: 3.53
DO: 1.30
ORP: ~
Turbidity: ~

Purging Equipment: GeoSub Pump / controller 8120003)
Casing Volume Calculation
Gallons Per Foot (GPF): 2" = .163, 4" = .653, 6" = 1.469
One casing volume = [TD(ft) – DTW(ft)] x GPF =

Final water Level = 37.35 w/o pump
** Temp does not represent GW condition.
Water clean - No odor

Time	Pumping Rate	Gallons/Liters Removed	Water Level	pH	Temperature °C	Conductivity ms/cm	DO mg/L	ORP	Turbidity
1405	270		37.29	6.99	19.55	3.53	2.26		
1410	240		37.31	6.98	18.72	3.54	1.57		
1415	280		37.31	6.98	18.71	3.54	1.44		
1420	240		37.35	7.00	20.04	3.55	1.44		
1425	240		37.37	7.00	18.91	3.54	1.39		
1430	240		37.39	7.01	19.17	3.54	1.36		
1435	240		37.39	7.01	18.92	3.53	1.35		
1440	240		37.41	7.01	19.05	3.53	1.30		
1445	240		37.42	7.02	18.99	3.53	1.30		

Depth to Water after Purging: 37.35
Sampling Equipment: See Above
Chemical Analyses: VOC'S / 8260

Sampler(s) Signatures:

* Collect Equipment Blank EB-01 after Decon @ this Location. 1500

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