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April 16, 2015

Mr. David Brownlee
Program Manager
Response and Remediation Program
Land Protection Branch
Georgia Environmental Protection Division
2 Martin Luther King, Jr. Drive, SE
Atlanta, GA 30334-9000

CERTIFIED MAIL No. 7012 3050 0000 3972 5936
RETURN RECEIPT REQUESTED

Re: Semi-Annual Status Report – April 2015
Voluntary Remediation Program, including Voluntary Remediation Plan
Roswell Cleaners, HSI Site No. 10883
Roswell, Fulton County, Georgia
Tax Parcel ID No. 12-1902-0412-061-6

AEC Report REB-2407.08

Dear Mr. Brownlee:

Atlanta Environmental Consultants (AEC), on behalf of Mr. Richard E. Bowen, Roswell Cleaners property, 1013 Alpharetta Street, Roswell, Fulton County, Georgia, is pleased to present our eighth Semi-Annual Status Report (SASR) for the above referenced facility. The Georgia Environmental Protection Division (Georgia EPD) accepted Richard E. Bowen into the Voluntary Remediation Program (VRP) by letter dated April 21, 2011. Progress of the VRP at the Roswell Cleaners property conducted during the time period between the previous SASR and this report is summarized herein. This submission is the third SASR since implementation of the recommended Monitored Natural Attenuation (MNA) program for the property containing Roswell Cleaners.

GEORGIA EPD CORRESPONDENCE

No correspondence has been received from the Georgia EPD by Mr. Richard Bowen or Atlanta Environmental Consultants (AEC) since submittal of the previous SASR and updated Conceptual Site Model (CSM).

Previous and Scheduled Milestones and Submittals

- The April 21, 2012 semiannual progress report shall demonstrate horizontal delineation on the qualifying property; this task has been completed for all detections *reasonably attributable to activities associated with Roswell Cleaners (e.g., dry cleaning)*, and
- The April 21, 2013 semiannual progress report shall demonstrate complete horizontal delineation; this task has been completed for all detections *reasonably attributable to activities associated with Roswell Cleaners*, and
- The October 21, 2013 semiannual progress report shall demonstrate complete horizontal and vertical delineation, finalize the remediation plan and provide a preliminary cost estimate for implementation of remediation and associated continuing actions. EPD recommends that the participant finalize approval of cleanup standards for all regulated substances prior to this submittal. The Voluntary Remediation Plan and preliminary cost estimate for implementation of remediation and associated continuing actions have been completed and submitted. Complete horizontal and vertical delineation has been completed for all detections *reasonably attributable to activities associated with Roswell Cleaners.*
- Semi-Annual sampling as proposed in our Voluntary Remediation Plan pursuant to our recommended Monitored Natural Attenuation (MNA) program will be conducted, and a SASR and updated CSM will be submitted every 6 months. This report is the third SASR submittal since implementation of the recommended MNA program. Semi-annual sampling is continuing on a regular semi-annual schedule.
- By April 21, 2016, a Compliance Status Report (CSR) must be submitted, including certifications.

Complete Horizontal Delineation Where Access is Available.

Horizontal and vertical delineation where access is available has been successfully completed for all detections *reasonably attributable to activities associated with Roswell Cleaners* as of the Additional Assessment activities conducted in October 2013. The deep well, MW-6D, down-gradient of the source well, has never had a single detection of PCE or PCE-related compounds in groundwater, and, therefore, has demonstrated vertical delineation. The down-gradient well, MW-3, has indicated no detectable concentrations in four successive groundwater sampling events, which has demonstrated horizontal delineation in the down-gradient direction. MW-5 and MW-2 demonstrate horizontal delineation in the side-gradient directions. (Note that MW-2 has not had a detection of PCE since 2012, when it was barely detectable at 0.0055 mg/l; TCE at 0.012 mg/l and cis-DCE at 0.0086 mg/l detected in the present sampling event can most reasonably be attributed to any of a number of former up-gradient sources). All assessment activities and sampling events have confirmed that the only significant source area onsite appears to be in the general area of MW-4, as originally identified at the inception of this investigation. A number of sampling events have clearly demonstrated that groundwater concentrations are generally decreasing over time. Concentrations at the source well, MW-4, showed increases during a recent period of heavy rainfalls approximately one year ago, most likely as a result of rising water table elevations. A decreasing trend in groundwater concentrations of PCE and its breakdown products appeared to be resuming

six months ago, as water table elevations have returned to more typical ranges. The most recent sampling event indicated an up-tick in PCE concentration in MW-4, although TCE concentration remained unchanged and cis-DCE concentration decreased. Since some contaminated soils remain in the area of MW-4, as discussed in the Voluntary Remediation Plan, it is believed that some relatively high water table elevations most likely occurred sometime within the previous six months (but not as high as occurred approximately one year ago), that resulted in groundwater being in contact with normally unsaturated soils exhibiting elevated concentrations of PCE and associated contaminants, resulting in a temporary increase in PCE concentration in MW-4.

Some TCE and cis-DCE were also detected in MW-2. It is most likely that the extremely high water table that resulted in increased PCE concentration in MW-4 approximately one year ago also rose in proximity to offsite PCE and/or TCE sources up-gradient of MW-2 such as the former NAPA Auto Parts machine shop. Since this and other sources are older than the onsite plume, most of the PCE, if any, has likely degraded to TCE and cis-DCE. Thus, only TCE and cis-DCE were detected in MW-2; PCE was not detected in MW-2. Since chlorinated hydrocarbons in MW-2 are almost certainly from offsite, this detection is very unlikely to be the same plume as identified at MW-4; therefore detection of TCE and cis-DCE in MW-2 should not be interpreted as contradicting our conclusion that horizontal and vertical delineation of the PCE plume *reasonably attributable to activities associated with Roswell Cleaners (e.g., dry cleaning)* has been successfully completed.

Field data, laboratory data and evaluation of information received to date indicate that horizontal and vertical delineation of PCE and associated compounds *reasonably attributable to activities associated with Roswell Cleaners* has been successfully delineated onsite. During the current sampling event on March 6, 2015, and previous sampling events, all detectable groundwater concentrations of EPA method 8260 analytes reasonably attributable to activities onsite have been successfully delineated onsite. Delineation where access is available has been completed, in effect completing delineation where access is not available.

All monitoring wells onsite, including the new deep well and the existing wells, have now been sampled several times following completion of additional delineation in October 2013, in order to acquire a consistent set of data across the site consisting of samples collected on the same date during the same monitoring event. Also, in conjunction with this event, depths to groundwater in all wells onsite, old and new, were gauged, current water table elevations were calculated, and field data was summarized. Details are presented in the attached updated Conceptual Site Model (CSM).

No concentrations of PCE were detected in any monitoring well onsite except in MW-4, the source well. TCE and cis-dichloroethene (cis-DCE) were detected in MW-4 and MW-2, during the current MNA event. It is likely that during the unusually high water table onsite 12 to 18 months ago, that groundwater rose into, and made contact with, soil concentrations that are normally well above the water table in the unsaturated zone. Soil concentrations of TCE and/or TCE-related compounds approximately 60 feet up-gradient of MW-2, have most likely gradually migrated down-gradient and have just recently

reached the vicinity of MW-2. Field measurement data, particularly oxidation reduction potential (ORP), pH and dissolved oxygen (DO), also suggest that at least a portion of groundwater in MW-2 has recently passed through deeper water-bearing zones before reaching MW-2. Groundwater in MW-2 exhibits reducing conditions typical of groundwater in deeper zones in this area. This suggests that fractures and/or other features effectively allow substantial quantities of deep water to rise into the shallow zone and enter MW-2. Chlorinated compounds in MW-2 have a different chemical signature (no detectable PCE; TCE and DCE only are present) from compounds detected in MW-4 (only PCE, TCE and DCE are or have been present; VC has never been detected). Compounds detected in MW-2 are almost certainly from an offsite source or sources. A NAPA Auto Parts machine shop was formerly located up-gradient of MW-2; however, TCE and cis-DCE detected in MW-2 may be from this source, other sources nearby or farther up-gradient, or a combination of former up-gradient sources.

The deep well, MW-6D, exhibited a detection of chloroform at 0.022 mg/l. Chloroform is not associated with dry cleaning activities. Chloroform is associated with public water supplies; chloroform is typically formed in small amounts when chlorine is added to water, as in public drinking water supplies (ATSDR 1997). Chloroform has also been used to make HCFC-22, a refrigerant, used in pulp and paper mills, and other industrial processes and at waste disposal sites (USEPA 2000). Chloroform can also be generated during use of chlorine bleach, and can be found in the atmosphere. Chloroform can also form naturally in soils (Howard 1990). The source area for groundwater in the vicinity of Roswell Cleaners extends approximately one mile or more toward the northwest. Numerous businesses and residences are located in the source area. Treated public water supplies enter the subsurface from home and business lawn and landscaping irrigation, car washing, building exterior and driveway washing, piping leaks and other household and business uses. Chloroform was also barely detected in MW-5 at 0.0045 mg/l. It is most likely that MW-5 contains a small percentage of water from deeper in the aquifer mixed with shallower groundwater. Since Roswell Cleaners is in a discharge area, any wells onsite may be mixed with some deeper groundwater; however, MW-6D, a deep well, typically has the highest content (probably close to 100%) of deep groundwater.

Complete Horizontal Delineation Where Access is not Available.

Field data, laboratory data and evaluation of information gathered to date demonstrates that horizontal and vertical delineation of PCE and associated compounds reasonably attributable to activities associated with Roswell Cleaners has been delineated onsite. During the current and previous three sampling events, all detectable groundwater concentrations of EPA method 8260 analytes reasonably attributable to activities onsite have been completely delineated onsite. The farthest down-gradient wells, MW-3 and MW-6D, have exhibited no detectable concentrations (except for compounds in MW-6D unrelated to PCE) in four consecutive groundwater sampling events, demonstrating completion of delineation where access is available, as well as, in effect, demonstrating completion of delineation where access is not available.

Updated Conceptual Site Model

An updated Conceptual Site Model report has been prepared following completion of horizontal and vertical delineation where access is available, completion of delineation where access is not available, and the most current semi-annual monitoring event on March 6, 2015. Tables listing historical and current groundwater data and elevations, and historical and current groundwater dissolved concentrations were prepared and are included. Existing figures were updated and/or new figures were drafted, as appropriate, showing locations of the monitoring wells, water table elevations, and dissolved concentrations. Water table elevation equipotential contours were developed and presented on appropriate figures in the CSM. Dissolved concentrations data is presented in the CSM.

REFERENCES

Agency for Toxic Substances and Disease Registry (ATSDR). 1997, Public Health Statement for Chloroform. September 1997. Accessed on September 17, 2014. http://www.atsdr.cdc.gov/phs/phs.asp?id=51&tid=16

United States Environmental Protection Agency (USEPA). 2000. Technology Transfer Network – Air Toxics Website. Chloroform. 67-66-3. Hazard Summary created in April 1992, revised in January 2000. http://www.epa.gov/airtoxics/hlthef/chlorofo.html

Howard, P. H. 1990. Handbook of Environmental Fate and Exposure Data for Organic Chemicals. Volume II Solvents. Lewis Publishers, Chelsea, Michigan.

Please do not hesitate to contact us should you have any questions.

Thank you.

Sincerely,

ATLANTA ENVIRONMENTAL CONSULTANTS

Peter T. Kallay, P.E.
Manager, Environmental Services 04/16/2015

Attachments:

- Updated Milestone Schedule
- Time Report
- Updated Conceptual Site Model Report

pc: Jessica Jewell McCarron, Georgia EPD
Richard E. Bowen
Richard A. Wingate, Esq., Hallman & Wingate LLC

PROJECTED MILESTONE SCHEDULE

Roswell Cleaners
1013 Alpharetta Street
Roswell, Fulton County, Georgia 30075
HSI #10883

April 15, 2015

The following presents the projected Milestone Schedule for implementation of the Voluntary Remediation Program (VRP) at property containing Roswell Cleaners (formerly Roswell Cleaners & Coin Laundry), 1013 Alpharetta Street, Roswell, Fulton County, Georgia. HSI #10883. Field data and information received was reviewed for potential revisions to the Milestone Schedule. The Milestone Schedule was updated. No recommended changes were identified. Tasks completed are identified below.

Plan, Report or Action	Date to be Submitted
Submit Preliminary Conceptual Site Model	at time of VRP Application ✓
Complete Horizontal Delineation where Access is Available	12 months after enrollment ✓
Complete Horizontal Delineation where Access is not Available	24 months ✓
Complete Vertical Delineation	30 months ✓
Final Voluntary Remediation Plan	30 months ✓
Preliminary Cost Estimate for Implementation of Remediation and Associated Actions	30 months ✓
Implement Voluntary Remediation Plan: Monitored Natural Attenuation with Semi-Annual Sampling	Every 6 months ✓ ✓ ✓ **
Submit Compliance Status Report Including Required Certifications	60 months
Semi-Annual Status Reports with Updated Conceptual Site Model	Every 6 months ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ **

✓ Tasks completed to date

** Included in the current submittal

AEC Proj. No. REB-2407/REB-2414
Client Richard Bowen
Client/File No. HSI Site No. 10883

Atlanta Environmental Consultants
TIME REPORT

Site Loc 1013 Alpharetta St., Roswell, GA
Signature
Time Period 2015 Project Hours VRP - Sheet 2015-1
Date April 15, 2015

DATE	HOURS	ACTIVITY DESCRIPTION
2/19	0.50	Receive signed proposal. Planning, preparation and scheduling for second semi-annual MNA sampling event. Make project file.
2/21	1.00	Consultation with Mr. Bowen, and set sampling date; order sample bottles and field equipment. Discuss details with Mr. Bowen.
3/5	2.25	Prepare for sampling event. Pick up sample kit and rental field equipment. Assemble supplies and equipment and load in truck.
3/6	7.00	Field day. Open wells to equilibrate with atmosphere; set up field eqmt, sample jars, decon station and supplies; pump monitor wells
		using low flow pump; measure water; collect and record field parameter data. Take samples to lab; return eqpt to Atl. Inst. Rental.
3/7	3.25	Demobe. Start entering field data in tables. Start drafting Semi-Annual status Report and updated.Conceptual Site Model
3/13	1.25	Continue data analysis. Start drafting Semi-Annual Status Report and updating Conceptual Site Model report. Work on tables.
3/14	2.75	Work on figures and tables. Continue drafting, reviewing and revising SASR and updated Conceptual Site model (CSM).
4/2	0.75	Receive lab report. Review and enter data on groundwater analytical data table. Begin evaluation of trends; tabulate; put on figures.
4/7	1.75	Continue drafting SASR, updating CSM, figures and tables; continue reviewing and revising the reports, figures and tables.
4/8	2.25	Evaluate trends and patterns in field parameter data. Review and revise SASR and CSM. Draft Figures to Terri to CADD
4/9	0.75	Continue reviewing, revising and finalizing draft reports, figures, tables and attachments. Talk to Terri: Figures.
4/10	1.50	Prepare draft final reports, figures and tables. Send Drafts to Bonnie, Terri, Richard Wingate and Mr. Bowen
4/11	2.00	Continue Editing, reviewing and revising Report. Receive some reviewed Drafts. Evaluate, revise text and figures.
4/13	0.50	Discuss figures with Terri. Review drafts and send back to Terri with comments.
4/13	1.25	Receive review comments from Bonnie. Review and revise SASR and CSM as appropriate
4/14	1.00	Check Draft reports, figures and tables. Send latest drafts to Richard Bowen and Richard Wingate. Communications.
4/15	0.50	Finalze reports, figures, and tables. Start publishing the report and preparing for submittal.

REV: 01/22/11 30.25

CONCEPTUAL SITE MODEL

ROSWELL CLEANERS
1013 Alpharetta Street
Roswell, Fulton County, Georgia 30075
HSI #10883

Prepared For:

Mr. Richard E. Bowen
811 Serramonte Drive
Marietta, Georgia 30068

APRIL 2015

AEC Project Number REB-2414

04/16/2015

Peter T. Kallay, P.E.

Atlanta Environmental Consultants
3440 Blue Springs Road, Suite 503
Kennesaw, Georgia 30144

Phone (770) 529-0386
Fax (678) 569-2419

Registered Professional Engineer Certification

I certify under penalty of law that this report and all attachments were prepared by me or under my direct supervision in accordance with the Voluntary Remediation Program Act (O.C.G.A. Section 12-8-101, et. seq.). I am a professional engineer/professional who is registered with the Georgia State Board of Registration for Professional Engineers and Land Surveyors and I have the necessary experience and am in charge of the investigation and remediation of this release of regulated substances.

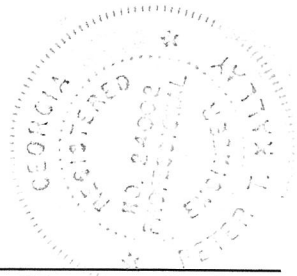
Furthermore, to document my direct oversight of the Voluntary and Investigation Remediation Plan development, implementation of corrective action, and long term monitoring, I have attached a monthly summary of hours invoiced and description of services provided by me to the Voluntary Remediation Program participant since the previous submittal to the Georgia Environmental Protection Division.

The information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name Peter T. Kallay, P.E.

Signature _____

Date 04/16/2015



Georgia Stamp or Seal

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Site Description

The site, a commercial property in the City of Roswell, Fulton County Tax Parcel # 12-1902-0412-061-6, contains one single story commercial building that has historically contained a dry cleaners and a coin laundry. The building is a concrete block slab-on-grade building constructed in 1966, based on available records of the Fulton County Tax Assessor. The building is well ventilated and was specifically constructed for dry cleaning; it currently houses Roswell Cleaners. The part of the building that had formerly contained a coin laundry is vacant at this time and/or is used for storage. Available records indicate the building has been used principally as a dry cleaners during all or most of its life history. Dry cleaners have operated at this location under the following names: Roswell Sunshine Center, Sunshine Center, Sunshine Cleaners, Roswell Sunshine Cleaners, Roswell Cleaners & Coin Laundry, and Roswell Cleaners. Figure 1 shows the site location. Figure 2 shows a site plan and possible sources of contamination that have been identified onsite and up-gradient of the site.

Site Surface and Subsurface Setting

The site is developed on fill material consisting of mostly clayey soil fill from the ground surface down to approximately 10 feet below ground surface at the front of the site gradually sloping down to approximately 15 feet deep in the rear of the property. The fill material overlies the original soil horizon. The site, including all areas with soil concentrations of volatile organic compounds (VOC), is capped with concrete or asphalt pavement in good condition, so no contact with these soils by the public will occur. Concentrations in soils are centered in the source area behind the building, on the property on which Roswell Cleaners is located. A layer of topsoil appears to be present at the depth of the original native soil surface; fill material appears to have been placed over the original topsoil layer, generally without disturbing or removing the topsoil layer. Concentrations of chlorinated hydrocarbons associated with dry cleaning activities in soils have been decreasing, and are expected to continue to decrease over time, as no new releases have occurred and natural attenuation mechanisms will likely reduce tetrachloroethene (PCE) and associated breakdown compounds concentrations over time.

No water wells or other groundwater use within a mile of the site is known or suspected, as confirmed by a water well and water resources survey conducted in conjunction with the Hazardous Site Response Act (HSRA) Notification submitted for this site, including drinking water and irrigation wells.

Environmental Assessment and Graphical 3-Dimensional Conceptual Site Model

Several phases of environmental assessment have been conducted onsite. These investigations have indicated the presence of PCE and its biodegradation products in soils and groundwater. The samples referenced in this report were collected on August 25-27, 2008, April 16-18, 2012, March 14-16, 2013, October 11-19, 2013, March 6, 2014, August 27, 2014 and March 6, 2015. Soil and groundwater samples were analyzed by Advanced Chemistry Labs, Inc., Atlanta, Georgia, a qualified analytical laboratory.

A sub-slab soil vapor sample was collected under the concrete floor slab 5 feet down-gradient of the dry cleaning machine on March 16, 2013. Sub-slab soil vapor sample analysis detected PCE in vapor phase at 39 parts per billion by volume (ppbv) or 450 micrograms per cubic meter (ug/m3) and trichloroethene (TCE) at 4.9 ppbv or 26 ug/m3.

Constituent concentrations were also identified in groundwater. The highest current ground-water concentrations from samples collected on March 6, 2015 were identified as 0.0470 milligrams per liter (mg/l) PCE, 0.038 mg/l TCE, 0.071 mg/l cis-DCE, all in MW-4. TCE at 0.012 mg/l and cis-DCE at 0.0086 mg/l were detected in MW-2. Chloroform at 0.022 mg/l was identified in MW-6D. No detectable concentrations of PCE, TCE or any other compound were detected in monitoring wells MW-1 and MW-3. MW-5 had a minor chloroform detection of 0.0045 mg/l. Concentrations have been on a generally decreasing trend onsite since 2008. While concentrations of PCE, TCE and DCE in MW-4 increased 1 year ago, believed to be because of unusually high water table elevations, concentrations were lower 6 months ago; PCE concentration in MW-4 has increased during the present sampling event, but not by as much as one year ago. It is believed that the water table elevation rose at times during the past 6 months, resulting in some additional dissolution of mostly PCE and some PCE-related products (e.g., TCE) from soils into groundwater, but not as much as occurred one year ago.

Potentiometric maps showing groundwater flow direction are presented as Figures 7A through 7J. The attached figures, included as part of this Conceptual Site Model (CSM), show a graphical three-dimensional representation of soil and groundwater concentrations, sources and potential sources of contamination, general contaminant migration direction, receptors and pathways (Figures 4 through 10).

Vapor Intrusion Pathway

The Vapor Intrusion Pathway was investigated using sub-slab vapor sampling inside the building 5 feet downgradient of the dry cleaning machine. The sample was collected on March 16, 2013. Analysis of the vapor sample indicated the presence of PCE at 39 parts per billion by volume (ppbv) or 270 micrograms per cubic meter (ug/m3). TCE was identified at 4.9 ppbv or 26 ug/m3. TVOC was 340 ppbv or 1000 ug/m3 for TO-15 target compounds. Other compounds, including acetone, ethanol and isopropyl alcohol were also identified. TVOC is approximately on the order of 1 mg/m3, or 1 ppm by weight. This approximately correlates with the 1.7 ppm reading on a photo-ionization detector in the same sub-slab zone as the analytical sample. An exact comparison is not possible because the 1000 ug/m3 value does not include tentatively identified compounds (TICs), and there were likely other VOCs present below the detection limit. This data was previously tabulated, and is not re-presented in this report.

It was concluded that the principal source of PCE and associated compounds at this site is not from the dry cleaning machine area. Rather, the only significant source area onsite that continues to be confirmed after years of assessment activities is in the rear of the facility (in the area of MW-4 and soil boring B-7), where drums of new and spent PCE product were typically loaded and unloaded, and perhaps formerly stored. Sweepings, mop water, temporary storage of used filters and vapor phase migration along the floor and out of the building may also have contributed to soil concentrations in this area. Spent filters may have been carried out of the

building and stored, and other associated PCE receiving, handling, and storage activities, have likely occurred over the years in this general area at the rear of the building near MW-4 and B-7.

The vapor intrusion pathway is incomplete because the low concentrations of PCE and other VOCs beneath a nearly foot-thick intact concrete floor do not allow any significant vapor concentrations to enter occupied spaces inside the building. *De minimis* concentrations of PCE and/or PCE breakdown products that could potentially occur at or near the floor will quickly dissipate, as the building was constructed for dry cleaning and is very well ventilated.

Investigation of the Dry Cleaning Machine Area

Investigation of the dry cleaning machine area was conducted using several approaches. A soil boring, completed as monitoring well MW-5, was installed hydraulically downgradient of the dry cleaning machine in April 2012. There were no detectable concentrations of any compounds in either soil or groundwater. No detectable concentrations of any VOCs in groundwater have ever been identified in MW-5 following analysis of a number of groundwater samples subsequently collected from this well, except for a minor concentration of chloroform at 0.0045 mg/l in the current sampling event. Chloroform is not associated with dry cleaning, but is associated with public water supplies, various industries and other sources, as discussed in the Additional Investigations section of this report, below. Since this site is located in a groundwater discharge area, some up-welling of deep zone groundwater occurs in this area. MW-5 may have some deep zone groundwater mixed with mostly shallow-zone groundwater. A soil boring, B-9, was installed just in front of the building at the nearest point to the dry cleaning machine. This boring indicated 0.005 mg/kg PCE and 0.052 mg/kg TCE at the 2-foot depth, 0.008 mg/kg PCE at the 10-foot depth, and 0.005 mg/kg PCE at the 15-foot depth. No DCE or VC was detected. The 2-foot depth also indicated minor concentrations of benzene, ethylbenzene and xylenes, most likely from minor fuel drips or exhaust vapors from vehicle traffic and parking by dry cleaners customers. The 15-foot deep sample indicated minor concentrations of acetone and carbon disulfide. Minor TCE in shallow soils is likely from minor vapor releases when the dry cleaning machine is opened. These minor vapor releases, which typically occur for a few minutes when the door of the dry cleaning machine is opened, may have resulted in low concentrations in shallow soils, at or near the detection limit for PCE. PCE and breakdown products at depth may also originate from the former NAPA Auto Parts store and machine shop and/or any of a number of other former businesses that have or may have formerly used PCE and/or TCE as solvents, that were formerly located hydraulically up-gradient of the site.

Sub-slab vapor sampling was also conducted near the dry cleaning machine, as described above. The sub-slab vapor sample indicated low concentrations of PCE and TCE, well under 1 ppm by both volume and weight, in vapor phase. If PCE is released to soils, it will evaporate fairly rapidly due to its high vapor pressure and low adsorption to soil (Howard 1990). The low concentrations detected in the vapor phase in the sub-slab soil sample suggest soil concentrations would be even lower, well below the Risk Reduction Standard (RRS) proposed for soils.

Observation and evaluation of the dry cleaning machine area suggests that there is no route for PCE migration into sub-slab soils, except migration through solid concrete, which is a relatively slow process. There are no visible cracks or breaches in the concrete floor. There is no opening in the concrete floor at or near the dry cleaning machine. Mr. Bowen stated that no significant

releases of PCE have occurred, to the best of his knowledge. Any minor drips of PCE were always wiped up immediately with towels, which were then promptly tossed into the dry cleaning machine to remove any PCE soaked up by the towels. All observations in the dry cleaning machine area indicate no significant concentrations of PCE in the subsurface. Only minor quantities resulting from infrequent drops of PCE slowly migrating through concrete 10 to 12 inches thick were identified. Concrete is a dense material. Although concrete is a porous material, migration through concrete is a relatively slow process. Minor concentrations likely entered soils from vapors briefly exiting the dry cleaning machine when the machine is opened, and settling into nearby soils in minor quantities. As previously stated, the only significant concentrations of PCE and associated compounds onsite were identified in the area at the rear of the building, around MW-4 and B-7.

No significant concentrations of PCE, TCE, or their degradation compounds have ever been identified in the dry cleaning machine area, utilizing several investigation techniques, including vapor phase sampling and analysis, soil sampling and analysis, and groundwater sampling and analysis. The only significant source identified onsite to date remains the originally identified area behind the building in the area of MW-4 and soil boring B-7. It is concluded, following completion of soil, sub-slab vapor and groundwater investigations in the dry cleaning machine area that there has been no significant release of PCE in the area of the dry cleaning machine.

Surface Water

Using a scaled U.S. Geological Survey (USGS) 7.5-minute series topographic map, Roswell, GA Quadrangle (Figure 1), a distance of approximately 1,800 feet is indicated in the direction of groundwater flow (east-southeast) from the source area to Hog Wallow Creek. Available data does not suggest that any concentrations exceeding applicable standards will reach Hog Wallow Creek or any other surface water body. Were any concentrations to reach Hog Wallow Creek, the most likely point, based on the groundwater flow direction determined using potentiometric contour mapping, is generally toward the east-southeast, in the predominant direction of groundwater flow. At the calculated rate of groundwater migration, ranging from 99 feet/year to 252 feet/year, average 145.6 feet/year, groundwater from the site would reach Hog Wallow Creek from 7 to 18 years, or an average of 12 years. This is the computed rate of groundwater flow and does not take into consideration any retardation or attenuation mechanisms, that would have the effect of further slowing contaminant migration velocity, and further increasing the length of time it would take dissolved VOC concentrations to reach Hog Wallow Creek, if at all. Concentrations decrease appreciably with distance from the source, and are expected to become non-detectable long before reaching Hog Wallow Creek. No other point of withdrawal between the site and Hog Wallow Creek was identified. No groundwater use between the site and Hog Wallow Creek was found; Hog Wallow Creek is the nearest point of exposure. Dissolved concentrations are projected to decrease to below applicable standards before reaching Hog Wallow Creek. Since no likelihood of contact with groundwater between the site and Hog Wallow Creek exists, and no standards will be exceeded when groundwater reaches Hog Wallow Creek, the groundwater pathway is incomplete.

Since groundwater concentrations of PCE and breakdown products reasonably attributable to activities on the Roswell Cleaners property have been successfully delineated onsite, a monitoring well, MW-4, exists in the source area, and already low concentrations decrease with distance

from the source, there is essentially no likelihood of any concentrations exceeding applicable standards reaching Hog Wallow Creek. Any minor concentrations that could potentially migrate offsite would decrease to below all applicable standards, and then to concentrations below the detection limit, long before any significant concentrations could ever reach Hog Wallow Creek.

Additional Investigations

Additional Assessment to complete horizontal delineation where access is available has been completed. MW-5 was installed hydraulically downgradient of the dry cleaning machine. Sampling of monitoring well MW-5 indicated no detectable Volatile Organic Compounds (VOC) in either soils or groundwater downgradient of the dry cleaning machine. The dry cleaning machine has reportedly always been at the same location inside the building. It was concluded that the primary source of PCE and associated compounds onsite was not from the dry cleaning machine area. Rather, it appears to be in the vicinity of the rear of the building (near MW-4), where drums of new and spent product were typically loaded and unloaded, floor cleaning water may have been released, and vapor phase migration along the floor and out of the building has occurred, filters may have been carried out of the building and temporarily stored, and/or other associated activities involving PCE-containing materials may have occurred over the number of years that dry cleaners have existed at this location.

Delineation where access is available has been completed for all compounds reasonably attributable to dry cleaning activities onsite. MW-4, which is near the likely source, currently has a PCE concentration of 0.047 mg/l, TCE concentration of 0.038 mg/l and cis-dichloroethene (DCE) at 0.071 mg/l. No vinyl chloride was detected in MW-4 or in any well onsite during the current sampling event. A former NAPA Auto Parts machine shop, believed to have formerly used PCE or TCE to clean used auto parts was formerly located more than 50 feet upgradient of MW-2; MW-2 exhibited concentrations of 0.012 mg/l TCE and 0.0086 mg/l cis-DCE. MW-3, down-gradient of MW-4, indicated no detectable concentrations of any EPA Method 8260 analytes during the most recent sampling event, and, therefore, concentrations are delineated in the down-gradient direction. No concentrations meeting or exceeding applicable standards were identified in any other wells onsite, except MW-2, for which all possible sources are up-gradient and offsite, indicating that groundwater delineation of all concentrations reasonably attributable to activities on the Roswell Cleaners property onsite has now been successfully completed. The only known significant onsite source is in the general area of MW-4. Concentrations of TCE at 0.0120 mg/l and cis-DCE at 0.086 most likely were leached from up-gradient offsite sources, such as the former NAPA Auto Parts machine shop, within the last year or so. Detectable concentrations of TCE and DCE are apparently just now reaching MW-2 (or first reached MW-2 after completion of the previous sampling event). These concentrations, because all possible sources of these compounds in MW-2 are up-gradient and offsite, are not considered to be part of the plume associated with onsite activities.

No concentrations of PCE or associated compounds were detected in any monitoring well onsite except in MW-4, the source well, and TCE and cis-dichloroethene in MW-2, during the current MNA event. It is likely that during the extremely high water table onsite 12 months or more ago, that groundwater rose into, and made contact with, soil concentrations that are normally well above the water table in the unsaturated zone. Since the nearest likely up-gradient contaminant source corresponding to MW-2 is more distant from MW-2 (likely

50 to 60 feet) than the corresponding contaminated soil zone that impacts MW-3 (in the immediate vicinity of MW-4), the detection of TCE and DCE in MW-2 has just recently occurred vs. detection of elevated PCE concentration approximately 12 months ago at MW-4. It is anticipated that these concentrations in MW-2 will decrease in subsequent groundwater sampling events, similar to how concentrations have already decreased from the 12-month-ago peak in MW-4. Field measurement data, particularly oxidation reduction potential (ORP), pH and dissolved oxygen (DO), also suggest that at least a portion of groundwater in MW-2 has recently passed through deeper water-bearing zones on its route to MW-2. Chlorinated compounds in MW-2 have a different chemical signature (no detectable PCE, only TCE and DCE were present) from compounds detected in MW-4. Compounds detected in MW-2 are almost certainly from an offsite source or sources. While a former NAPA Auto Parts machine shop was formerly located up-gradient of MW-2, the likely deep zone migration route of water toward MW-2 suggests that other old PCE and/or TCE sources formerly located farther up-gradient may also have contributed to chlorinated compounds concentrations identified in MW-2 during the current sampling event.

Deep well MW-6 was completed in 2013 to a depth of 70 feet; soils and groundwater were sampled and analyzed. Soils have been delineated in the source area. No soil samples collected from B-DW, the boring in which MW-6 was installed, indicated the presence of any concentrations meeting or exceeding Risk Reduction Standards (RRS) for soils. Groundwater sampling indicated no detectable concentrations of PCE or any associated compounds. Thus, groundwater delineation has now been successfully completed onsite both horizontally and vertically. Furthermore, boring B-DW was drilled until auger refusal was encountered. Auger refusal was encountered at 71 feet, at the soil/bedrock interface. Surficial aquifer thickness (e.g., the portion of the water table aquifer in unconsolidated materials) is therefore now estimated to be 50 feet, as depth to bedrock and the thickness of the saturated zone have now been determined.

The deep well, MW-6D, exhibited detections of chloroform at 0.022 mg/l and MW-5 had barely detectable chloroform at 0.0045 mg/l. Chloroform is not associated with dry cleaning activities nor any activities involving PCE use, storage or disposal. Chloroform is associated with public water supplies. Chloroform is typically formed in small amounts when chlorine is added to water, as in public drinking water supplies (ATSDR 1997). Chloroform has also been used to make HCFC-22, a refrigerant, in pulp and paper mills, and other industrial process and is also found at waste disposal sites (USEPA 2000). Chloroform can also be generated during use of chlorine bleach, and can be found in the atmosphere. Chloroform can also form naturally in soils (Howard 1990). The source area for groundwater in the vicinity of Roswell Cleaners extends approximately one mile or more toward the northwest. Numerous businesses and residences are located in the source area. Treated public water supplies enter the ground from home and business lawn irrigation, car washing, building exterior cleaning, piping leaks and other household and business uses. During recent well-above-average rainfalls, groundwater gradient magnitude likely increased, and a higher-than-average rate of groundwater flow likely flushed public water supply by-products in groundwater downhill toward this area at a higher-than average rate. Note that chloroform appears predominantly in the deep well, MW-6D, screened from 65 to 70 feet deep; chloroform was barely detected in MW-5. This is consistent with the likelihood of an uphill source, as stormwater infiltration from the predominant source areas (~0.1 to 1 mile uphill)

toward the site has likely pushed water from farther uphill containing these compounds deeper underground, deeper into the surficial aquifer. The site, however, is in a discharge area, and deeper groundwater rises to closer to ground surface in this area. While MW-6D contains entirely or predominantly deep-zone groundwater, other wells, including MW-2 and MW-5, may have some deep-zone groundwater mixing with shallow-zone groundwater.

Variations in rainfall patterns over time result in some variability in dissolved concentrations. Water table elevations approximately one year ago rose by several feet to the highest elevation ever recorded onsite since groundwater investigation commenced at this site in 2006, following several months of above-average rainfall. It is likely that the high groundwater level has resulted in groundwater contact with soils containing elevated concentrations of PCE and PCE degradation products, resulting in increased dissolution of PCE and related chlorinated hydrocarbons into groundwater. Nevertheless, the long-term trend indicates a definitive decreasing trend in groundwater concentrations in all monitoring wells onsite. Water table elevations are now trending toward historical average levels. Since the year-ago monitoring event, water table elevations have decreased by approximately two feet. If water table elevations remain in the neighborhood of, or below, historical average water table elevations, groundwater concentrations of PCE and products are expected to resume their historic downward trend.

Suspected Sources of Regulated Substances

The Subject Property has been the location of a successive series of businesses operating dry cleaners over a period of well over 40 years. All investigation findings to date indicate significant entry of PCE into the environment onsite was limited to the area around MW-4 located near the rear door of the building.

Additional Assessment and Risk Reduction Standards

The most current Risk Reduction Standards, rules and concentrations (or concentrations developed using a RRS Evaluation) as adopted by the Georgia Environmental Protection Division (EPD) at the time of the delineation will be utilized. Type III Risk Reduction Standards may be adopted as the applicable standard following evaluation of all data collected after delineation has been completed. In the event site-specific risk reduction standards are proposed, a point of demonstration well will be proposed, as appropriate, along with an appropriate monitoring schedule.

VOLUNTARY REMEDIATION PLAN

Site Delineation Concentration Criteria

Site delineation has been completed to Voluntary Remediation Program Type III Risk Reduction Standards. Risk Reduction Standards (RRS) proposed for groundwater are as follows, from Table 1 of Appendix III unless otherwise noted:

Constituent	Delineation of Groundwater Stds (mg/l)
Tetrachloroethene (PCE)	0.005
Trichloroethene (TCE)	0.005
Cis-Dichloroethene (cis-DCE)	0.07*
Trans-DCE	0.1
Vinyl Chloride	0.002

* Federal Maximum Contaminant Level (MCL).

Risk Reduction Standards proposed for soils are as follows, as discussed in Risk Reduction Standards guidance issued by the Georgia EPD and available on its website.

Constituent	Delineation of Soil Standards (mg/kg)
PCE	0.50
TCE	0.50
Cis-DCE	7.00
Trans-DCE	10.00

Proposed standards, when selected and finalized, shall apply to compounds reasonably associated with, or originating from, activities historically conducted onsite, as have been identified in monitoring wells MW-4 and MW-3. Compounds clearly originating from offsite sources, based upon the preponderance of evidence, over which we have no effective control, shall not be deemed to be the responsibility of Roswell Cleaners or the Bowen property.

Proposed Engineering Controls

Engineering Control, consisting of an asphalt cap, is the primary proposed remedy for soils until the soils located close to the building can be appropriately addressed. In the event additional delineation or investigation work suggests other points of exposure, they will be addressed as appropriate. In the event engineering controls are proposed or utilized, a long-term maintenance and monitoring plan will be included as part of the proposed engineering controls remedy.

Evaluation of Remediation Alternatives

Groundwater

A number of approaches to remediation of dry cleaning compounds in groundwater, including PCE, exist. A number of approaches were previously presented, and will not be repeated again. Monitored Natural Attenuation (MNA) has been selected as the appropriate remedy for this site.

Monitored Natural Attenuation (MNA). Monitored Natural Attenuation is an appropriate remedy when it has been demonstrated to effectively reduce concentrations at an appreciable rate. At the Subject Property, a number of years of monitoring have clearly demonstrated the ability of natural attenuation processes to considerably decrease groundwater concentrations.

The only significant source identified onsite is in the vicinity of MW-4 near the rear door of the building used as a dry cleaners. Concentrations in MW-4 recently increased somewhat, most likely due to a large increase in rainfall recently. This resulted in increasing water table elevations, likely saturating some contaminated soils that are normally well above the water table that are rarely, if ever, saturated, likely dissolving PCE and daughter products that may be generally relatively immobile in those normally unsaturated soils.

MW-3, the down-gradient well, which has been trending lower in concentrations over the recent years, has more recently shown no detectable VOC concentrations in the four most recent groundwater sampling events.

With no new source of PCE, TCE, etc., these and other daughter compounds are naturally in a long-term decreasing trend in concentrations due to Natural Attenuation mechanisms, notwithstanding the recent up-ticks in concentrations in MW-4 due primarily to a rising water table coming in contact with normally unsaturated contaminated soils located above average water table elevations. It is expected that once rainfall returns to average or lower ranges and the water table drops to historic average or lower levels, the concentration trend in the source well, MW-4, will resume its historic downward trend.

We propose continuing to monitor Natural Attenuation (e.g., implementing the Monitored Natural Attenuation program) as concentrations are expected to continue decreasing over time (even if temporary conditions may occasionally result in a short-term up-tick in concentrations). Monitored Natural Attenuation is the selected remedy for groundwater at this site.

Soils

A number of approaches to remediation of dry cleaning compounds in soils, including PCE, exist. A number of approaches were previously presented and discussed; this discussion will not be repeated again. Monitored Natural Attenuation (MNA) has been selected as the appropriate remedy for this site at this time, as long as the existing building remains onsite.

Monitored Natural Attenuation. Monitored Natural Attenuation can be an effective remedy if soils allow enough air and vapor movement through them; e.g., the soils are relatively coarse sandy or silty soils with little fines, and the soils are open to the atmosphere. Conditions at this site (e.g., tight soils with asphalt pavement overlying the soils) do not make this the most practical or technologically effective remedy at this time, although some decrease due to various Natural Attenuation mechanisms is expected to occur, at least gradually, over the years.

Soils concentrations under asphalt and/or concrete pavement are essentially immobile, but with effective asphalt cover, neither is there any significant rate of downward migration. Excavation and removal offsite is the obvious remedy, eventually, but excavation cannot safely be completed now due to the proximity of the dry cleaners building onsite to the affected soils. This is proposed for completion in the future. At some time in the future, likely after the current building has reach end of life, soil concentrations should be re-sampled, and available options should then be re-evaluated based on then-current soil concentrations.

GEORGIA EPD CORRESPONDENCE

No correspondence has been received by Atlanta Environmental Consultants (AEC) or by Mr. Richard Bowen since submittal of the previous Semi-Annual Status Report (SASR) and Updated Conceptual Site Model (CSM) Report.

CONCLUSIONS AND RECOMMENDATIONS

The evaluation of the assessment and monitoring conducted by Atlanta Environmental Consultants over the last 7 years at the Roswell Cleaners property has resulted in the following Conclusions and Recommendations for the Voluntary Remediation Plan:

For groundwater, Natural Attenuation has been demonstrated to successfully decrease PCE and TCE concentrations onsite over time. All indications are that Natural Attenuation has been successfully reducing concentrations onsite, as highest concentrations onsite have already decreased by approximately 98% to date. Therefore, Monitored Natural Attenuation (MNA) is the proposed and continuing remedy for groundwater concentrations of PCE and TCE.

For soils, MNA is proposed, as long as the presence of the building precludes safe excavation in this area at this time. It is proposed that excavation and offsite disposal or treatment be considered as the eventual remedy for soil concentrations of PCE and TCE. At some time in the future, likely after the current building has reach end of life, soil concentrations should be re-sampled, and available options should be re-evaluated. Because the source location is close to the building onsite, excavation to a depth of 15 feet or more would potentially result in undermining the building and/or weakening the building's foundation. Therefore, excavation and removal of soils is recommended to be deferred until such time as removal of the building is proposed and completed.

In the interim, the asphalt surface should be sealed and maintained in good condition to preclude contact by employees of the dry cleaners, construction workers, utility workers or members of the general public from coming in contact with the contaminated soils. Sealing the asphalt will also prevent or minimize any significant further downward migration of PCE and products from the soils into the groundwater zone. This will allow groundwater concentrations to naturally decrease in the near-term, and to approach non-detectable concentrations over the long term, once the source has been removed (e.g., once contaminated soil removal has been completed).

CONCLUSIONS

Completion of assessment and continuing monitoring at the Bowen property, on which Roswell Cleaners is located, 1013 Alpharetta Street, Roswell, Fulton County, Georgia 30075 suggests the following conclusions:

- Significant soil concentrations are limited to the general area behind the building in the vicinity of the location of MW-4. Soil concentrations have been effectively delineated

onsite. This is the only significant source area onsite that has ever been identified. All sampling methods, media and events continue to reinforce this conclusion.

- Groundwater concentrations have been on a long-term decreasing trend; some increase in PCE concentration was observed during the current sampling event, after water table elevation likely increased at some time over the past six months in a period of variable water table conditions. The highest PCE concentrations onsite are approximately 98% lower than groundwater concentrations of PCE at the start of this investigation. Ground-water concentrations of PCE and products reasonably attributable to onsite activities of dry cleaning have been delineated horizontally and vertically onsite.

- Sub-slab soil vapor was investigated by drilling through the concrete floor near the dry cleaning machine and collecting a sub-slab soil vapor sample for TO-15 analysis. The sub-slab soil sample indicated concentrations of PCE, TCE and other compounds well below 1 part per million (ppm). TCE in soil vapor was identified at 39 ppbv or 270 ug/m3. Trans-DCE and VC were not detected. The data indicate no significant vapor or soil concentrations beneath the building.

- Concentrations of TCE and cis-DCE identified in MW-2 almost certainly are from an offsite source or sources. All plausible sources of TCE and cis-DCE are up-gradient and offsite.

RECOMMENDATIONS

Completion of Additional Assessment and other assessments at the Bowen property, on which Roswell Cleaners is located, 1013 Alpharetta Street, Roswell, Fulton County, Georgia 30075 suggests the following Recommendations:

- Vertical and horizontal delineation of dissolved concentrations of PCE and products reasonably attributable to dry cleaning activities onsite has been completed onsite with only one source identified onsite, in the vicinity of MW-4. It is recommended that groundwater monitoring wells continue to be sampled every six months as part of a continuing Monitored Natural Attenuation program. MNA is the recommended remedy to address the remaining PCE concentrations in groundwater onsite. MNA has been demonstrated to be effective in significantly reducing dissolved concentrations at this site.

- It is recommended that soil excavation with offsite treatment and/or removal be the selected remedy for remediation of remaining soil concentrations of PCE and products in the source area behind the building, after the building is removed in the future; soils should be sampled, and available options re-evaluated. If soil concentrations still exceed applicable standards, excavation and disposal, and/or other appropriate options, can then be considered, evaluated and, if appropriate, selected and implemented.

- Until the building is removed, it is recommended that the asphalt surface be sealed and maintained in good condition. This will preclude rainfall entry into the shallow

subsurface, and preclude significant contaminant migration from the soils downward into the groundwater zone. This will effectively allow groundwater concentrations onsite to naturally decrease, as the onsite soil source would no longer be a significant source of groundwater contamination.

- Vertical and horizontal delineation of soils and groundwater from PCE and products reasonably attributable to onsite activities have been successfully completed onsite. No groundwater modeling is warranted at this time, as delineation onsite has been effectively completed. No further delineation activities onsite or offsite are required.

- Recent analytical results have been mixed, as considerable variability in intensity, duration and frequency of precipitation events has occurred over the last year and a half. It is recommended that groundwater monitoring continue. It is likely that historical long-term decreasing groundwater concentration trends will resume once water table elevations return to and remain near historical averages or lower.

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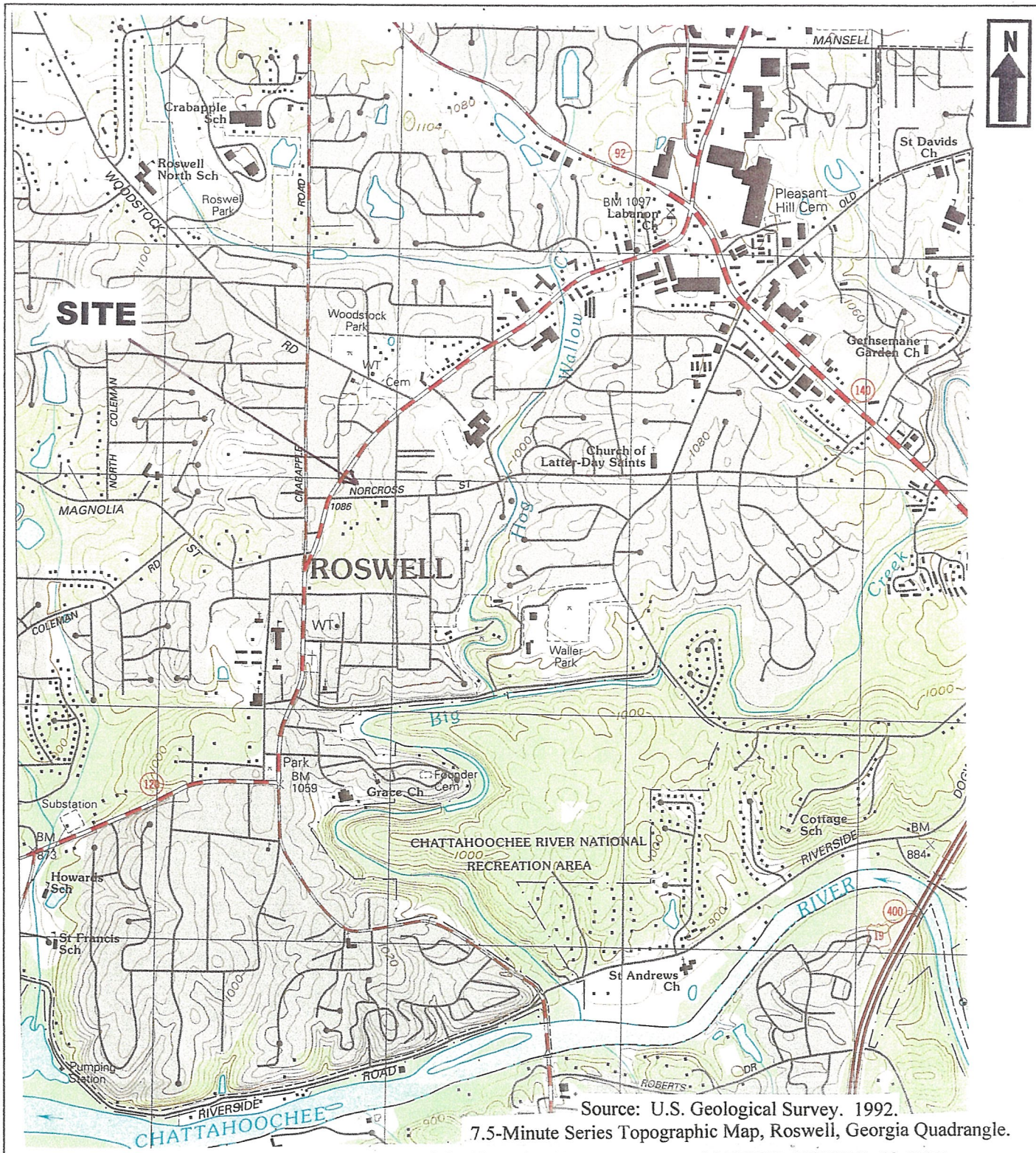
FIGURES



Source: U.S. Geological Survey. 1992.
7.5-Minute Series Topographic Map, Roswell, Georgia Quadrangle.

SCALE 1:24 000 CONTOUR INTERVAL 20 FEET

1 .5 0 1
MILES

Figure 1: Site Location Map

Roswell Cleaners and Coin Laundry
1013 Alpharetta Street
Roswell, Georgia 30075

aec
Atlanta Environmental Consultants

Drawn By: Terri Drabek

Checked By: Peter Kallay, P.E.

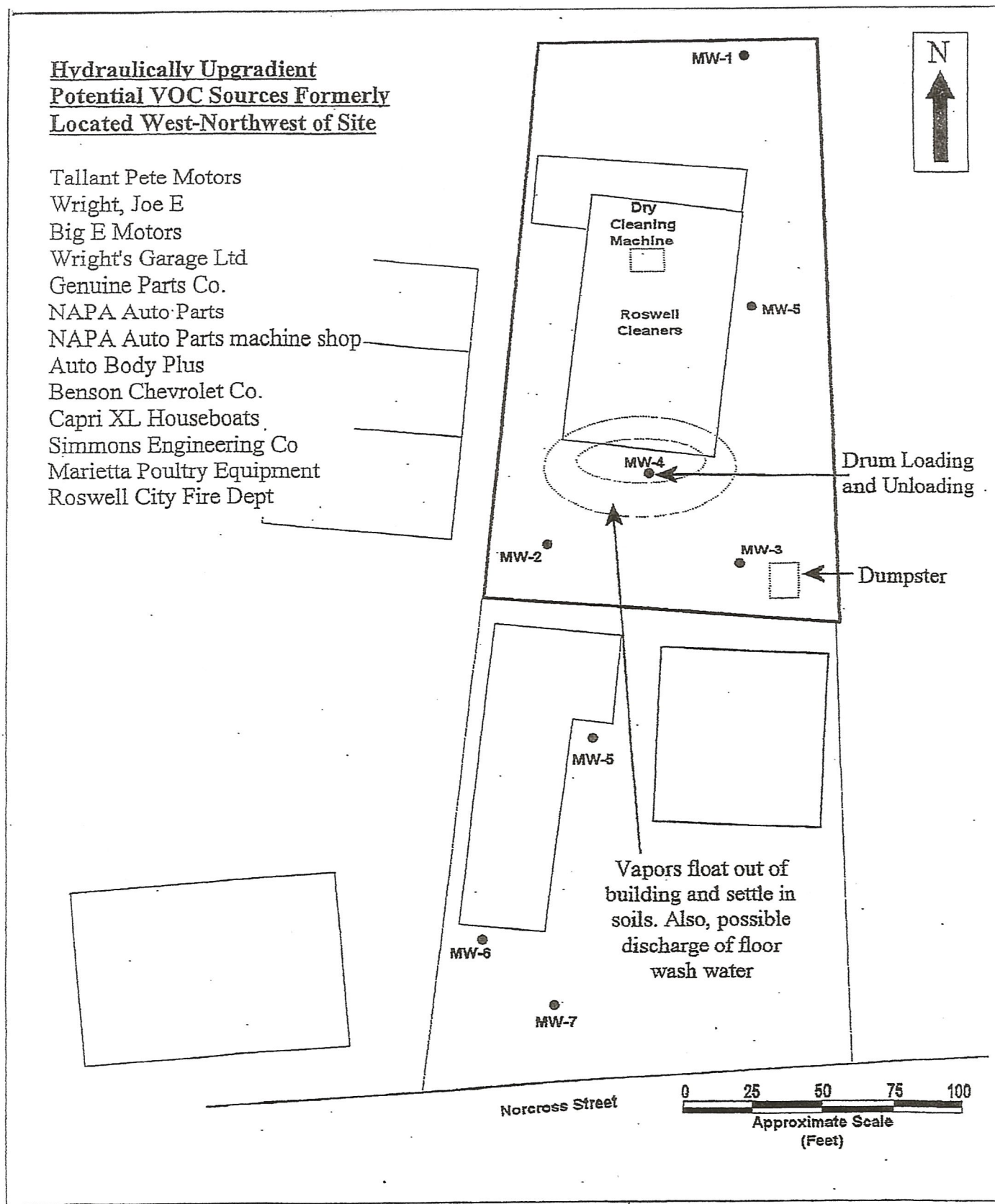


Figure 2: Site Plan Showing Possible Sources

Roswell Cleaners

1013 Alpharetta Street
Roswell, Fulton County, Georgia

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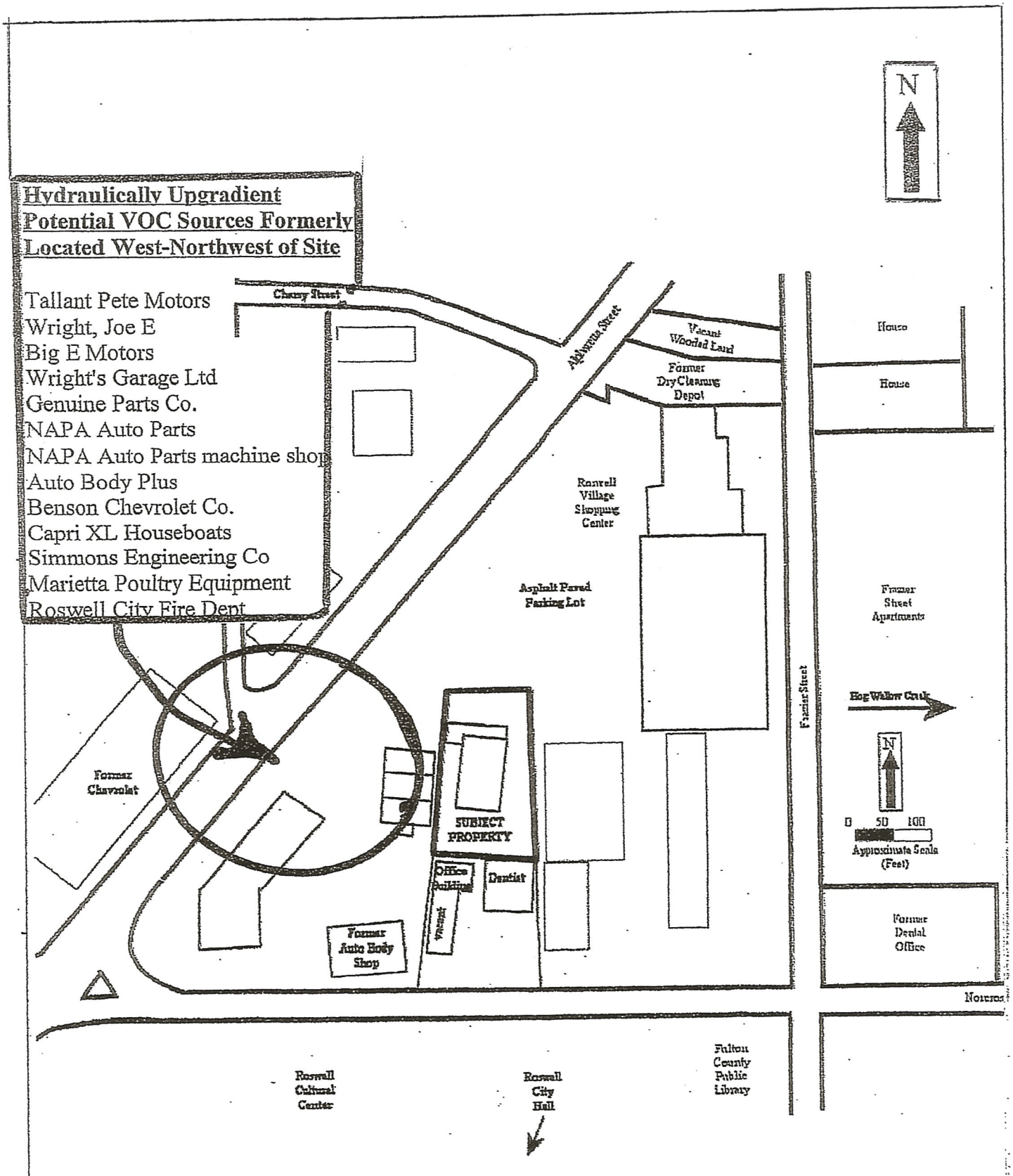

Figure 3: Site Area Plan
Locations Of Cross-Sections
Roswell Cleaners

1013 Alpharetta Street
Roswell, Fulton County, Georgia

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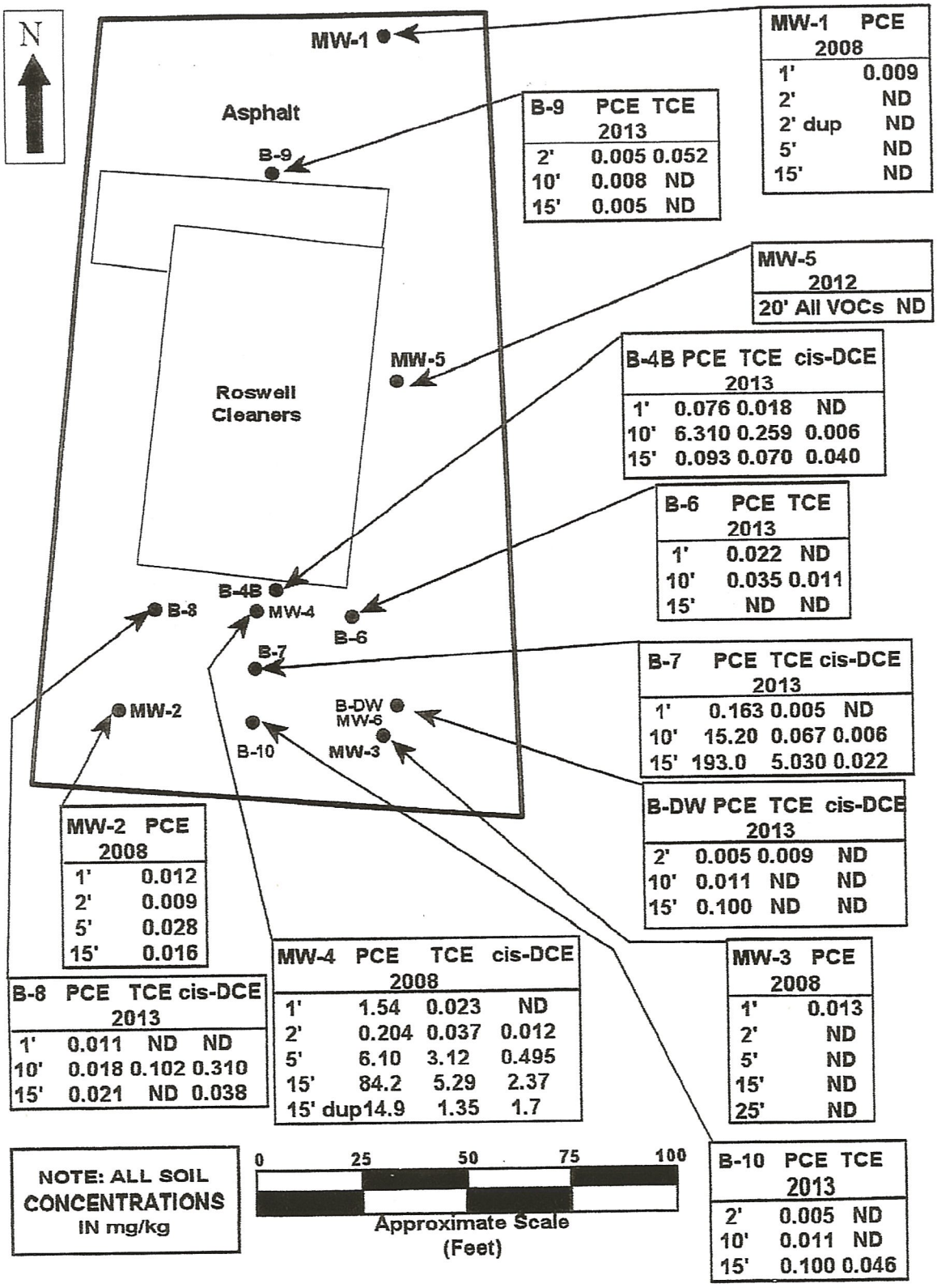

Figure 4: PCE Concentration in Soil, 2008 through 2013
Roswell Cleaners and Coin Laundry
1013 Alpharetta Street
Roswell, Fulton County, Georgia

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Checked By: Peter Kallay, P.E.

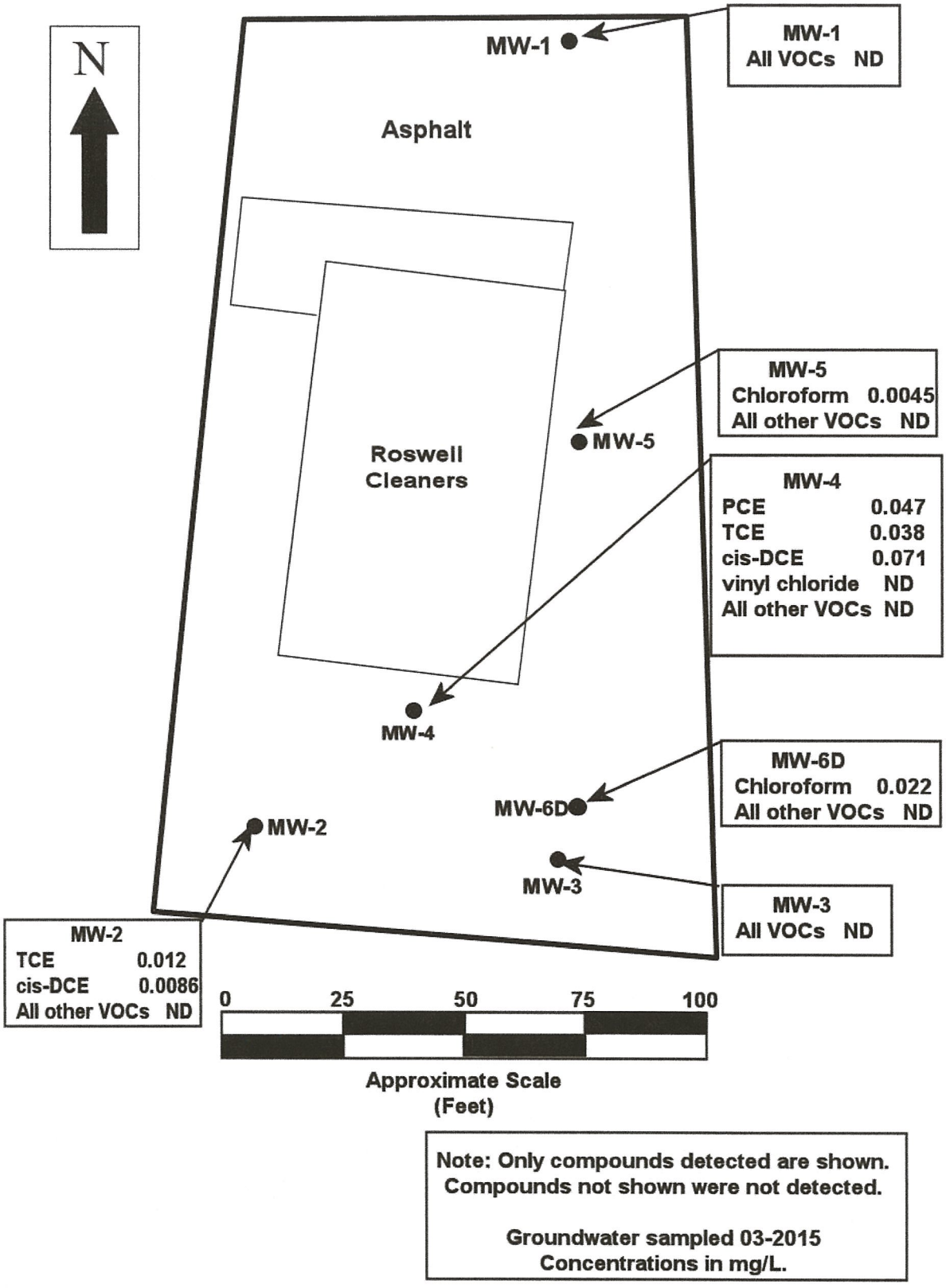

Figure 5: VOC Concentrations in Groundwater, March 2015
Roswell Cleaners and Coin Laundry
1013 Alpharetta Street
Roswell, Fulton County, Georgia

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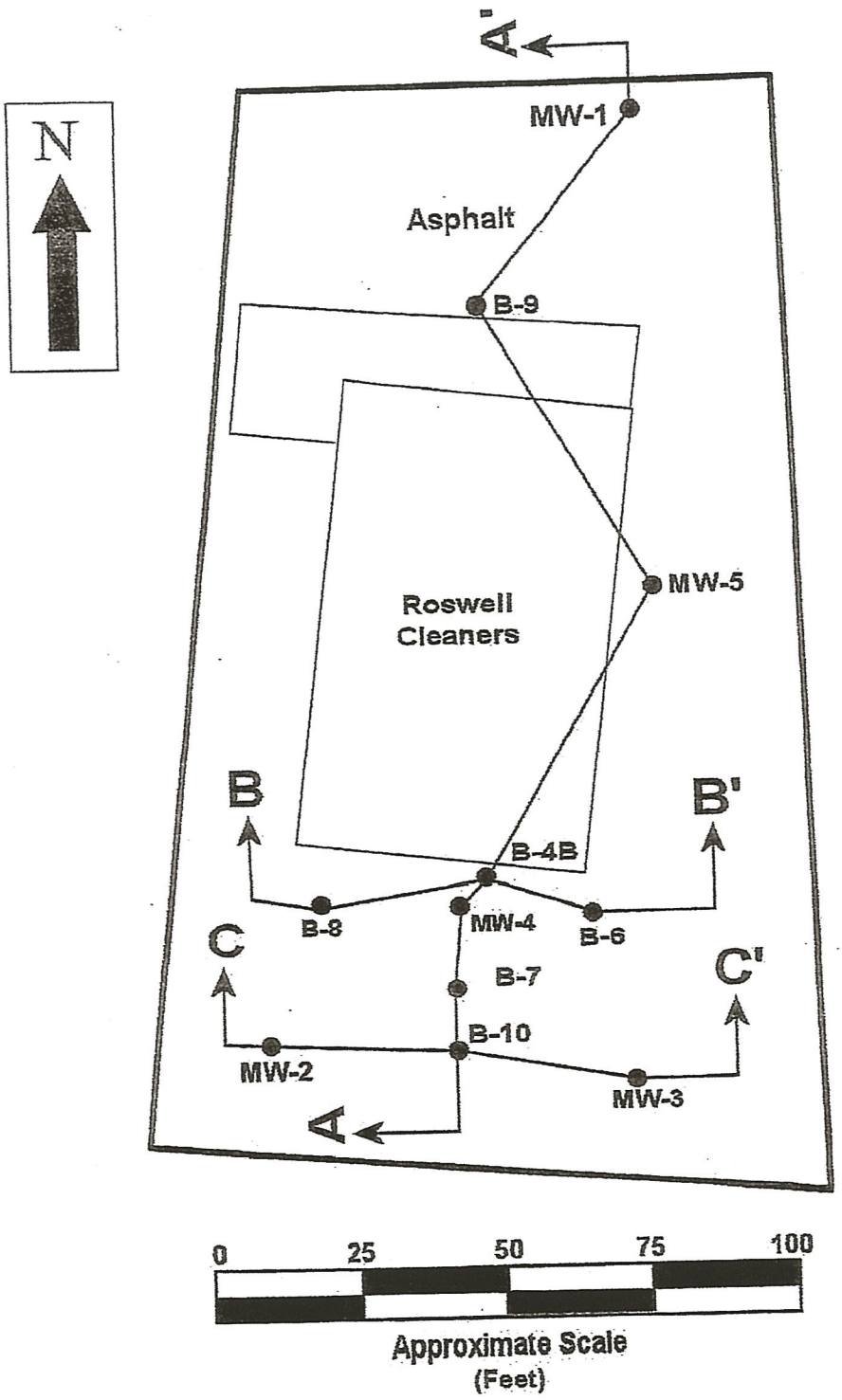

Figure 6: Cross-Section Locations
Roswell Cleaners
1013 Alpharetta Street
Roswell, Fulton County, Georgia

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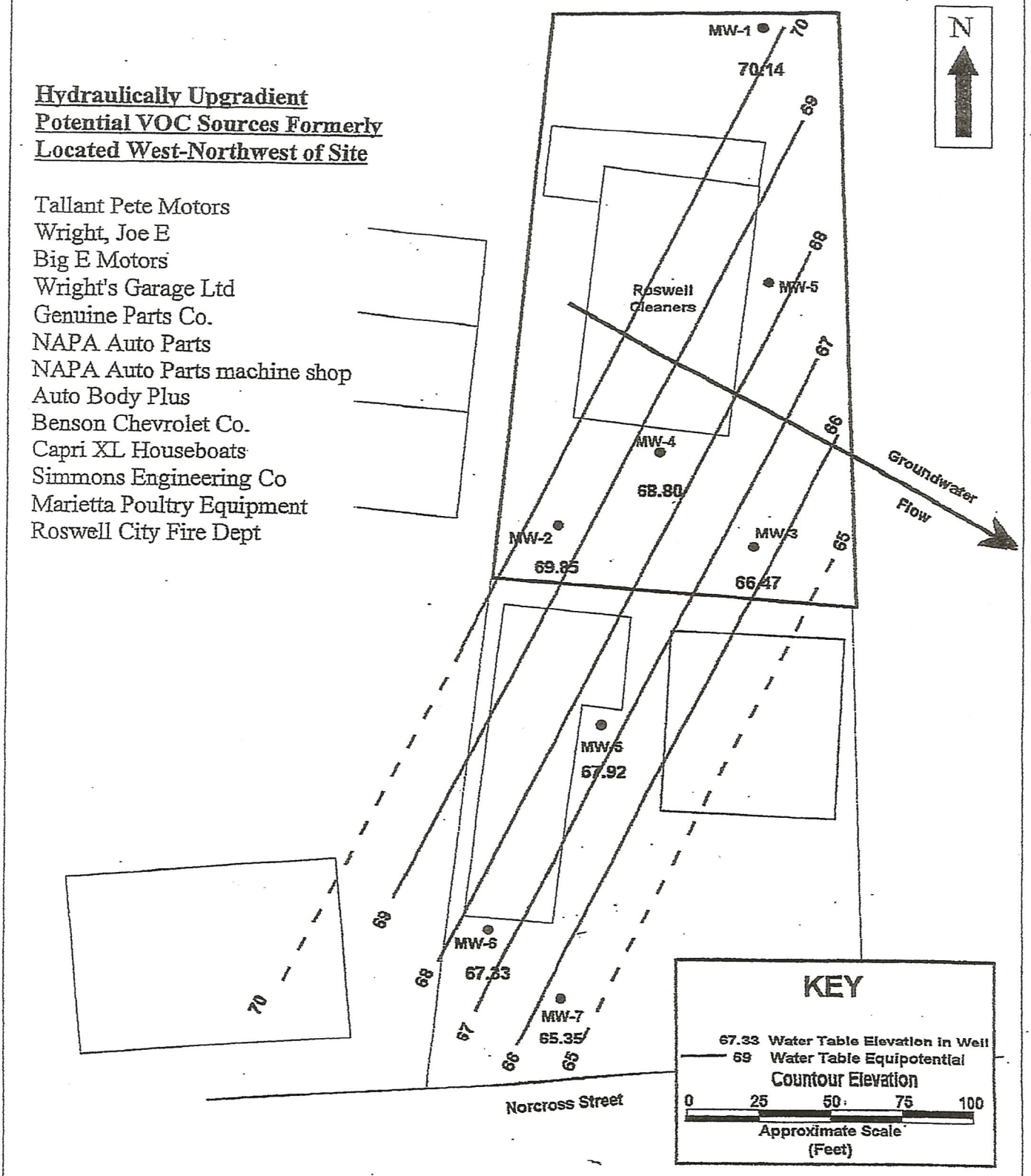

Figure 7a: Potentiometric Map, 08/27/2008

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Roswell, Fulton County, Georgia

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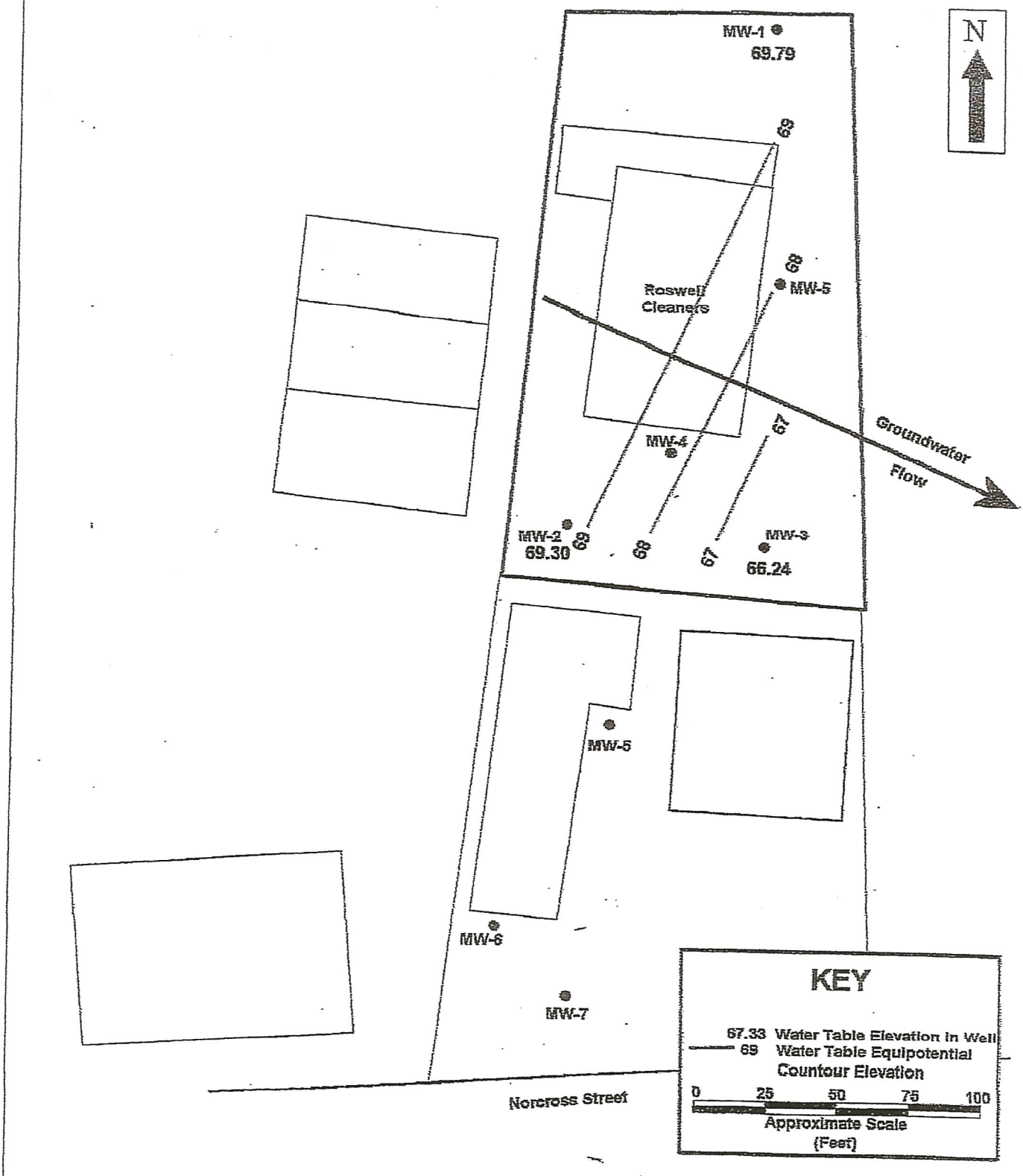

Figure 7B
Potentiometric Map, 09/28/2008

Roswell Cleaners and Coin Laundry
1013 Alpharetta Street
Roswell, Fulton County, Georgia

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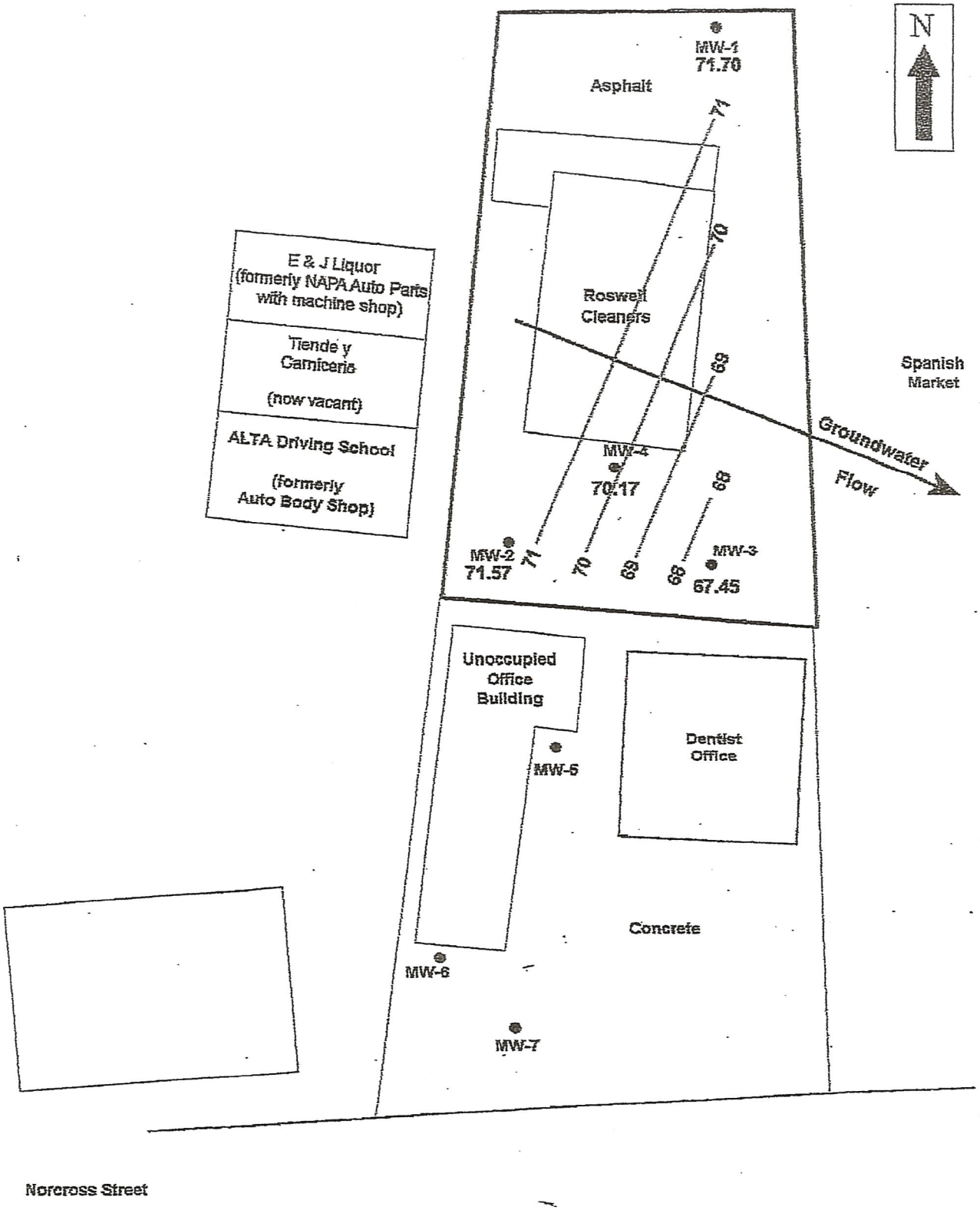

Figure 7C: Potentiometric Map, 04-16-2012

Roswell Cleaners and Coin Laundry
1013 Alpharetta Street
Roswell, Fulton County, Georgia

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Atlanta Environmental Consultants

Drawn By: Terri Drabek

Checked By: Peter Kallay, P.E.

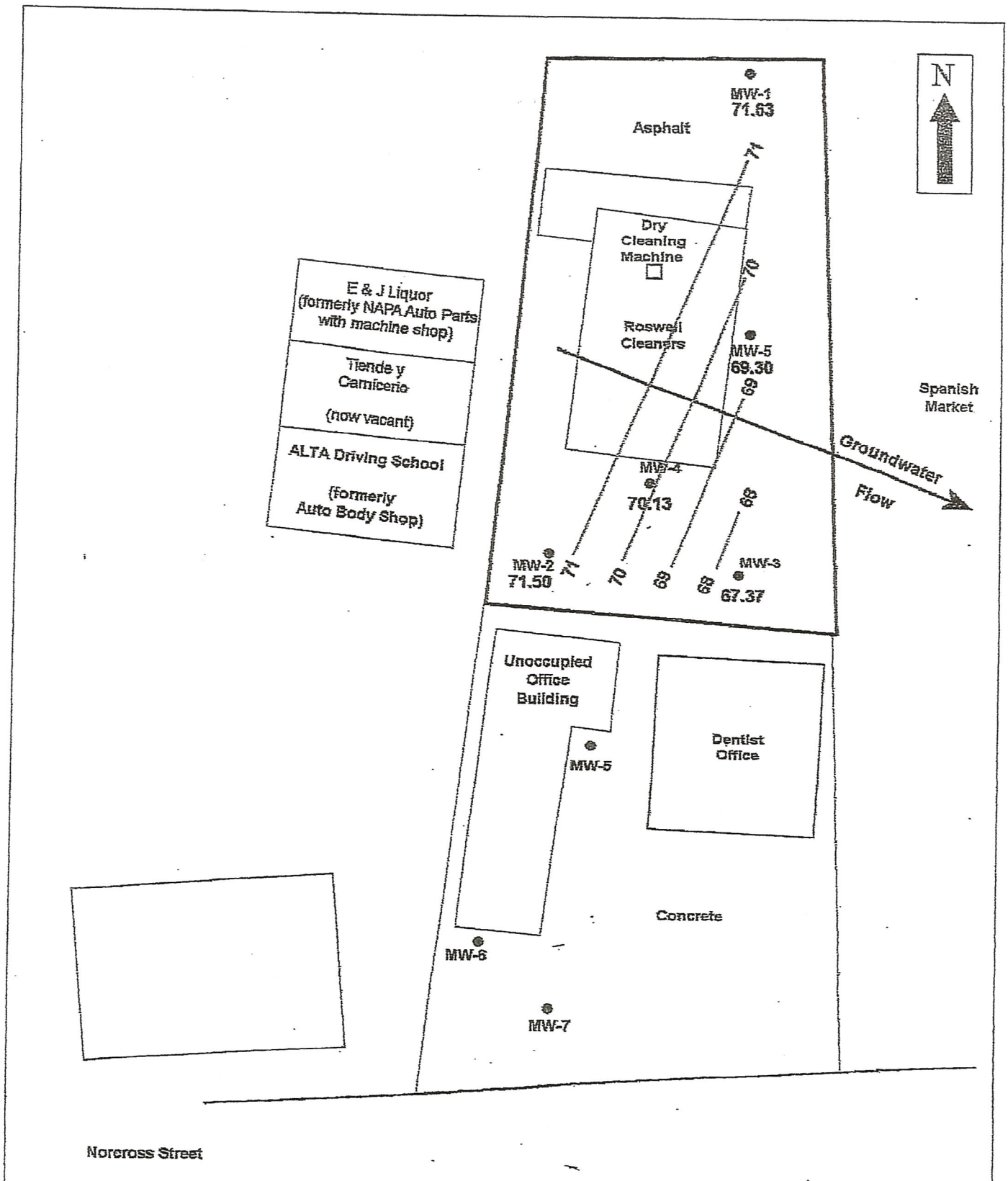

Figure 7D: Potentiometric Map, 04-18-2012

Roswell Cleaners and Coin
Laundry
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Roswell, Fulton County, Georgia

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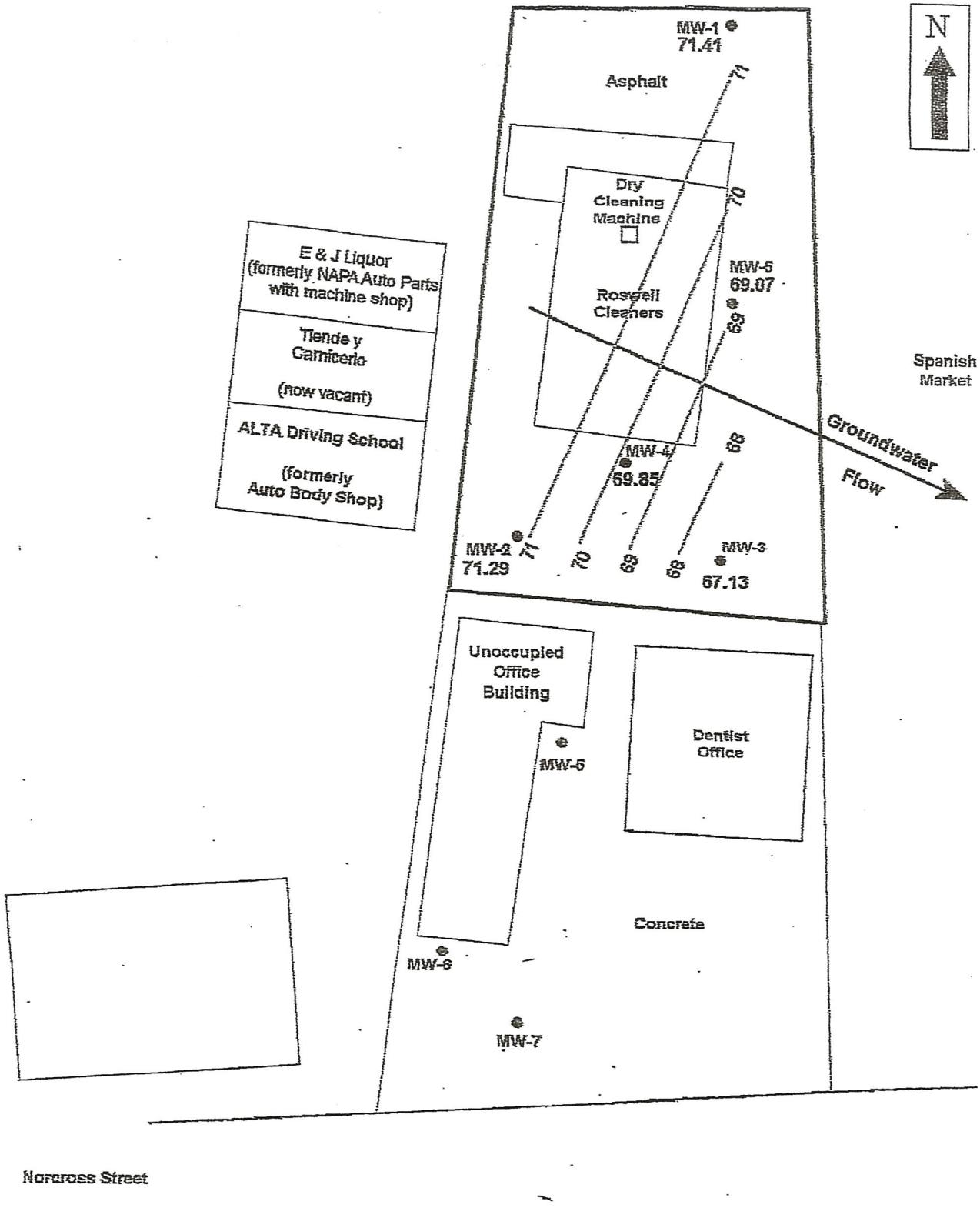

Figure 7E: Potentiometric Map, 05-16-2012

Roswell Cleaners and Coin
Laundry
1013 Alpharetta Street
Roswell, Fulton County, Georgia

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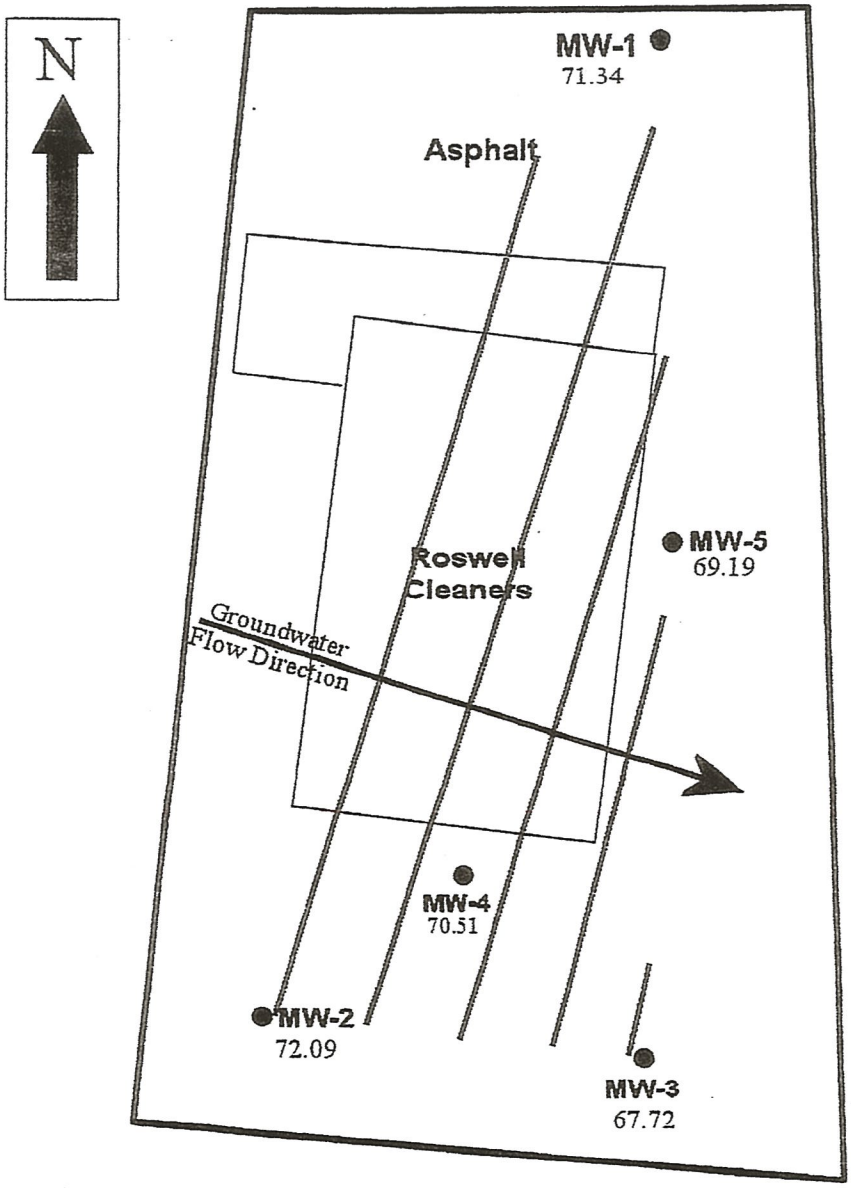
Checked By: Peter Kallay, P.E.



Groundwater Elevations
Measured March 14, 2013

Figure 7F: Potentiometric Contours, 2013
Roswell Cleaners
1013 Alpharetta Street
Roswell, Fulton County, Georgia

Equipotential Contours are at 1-foot Intervals

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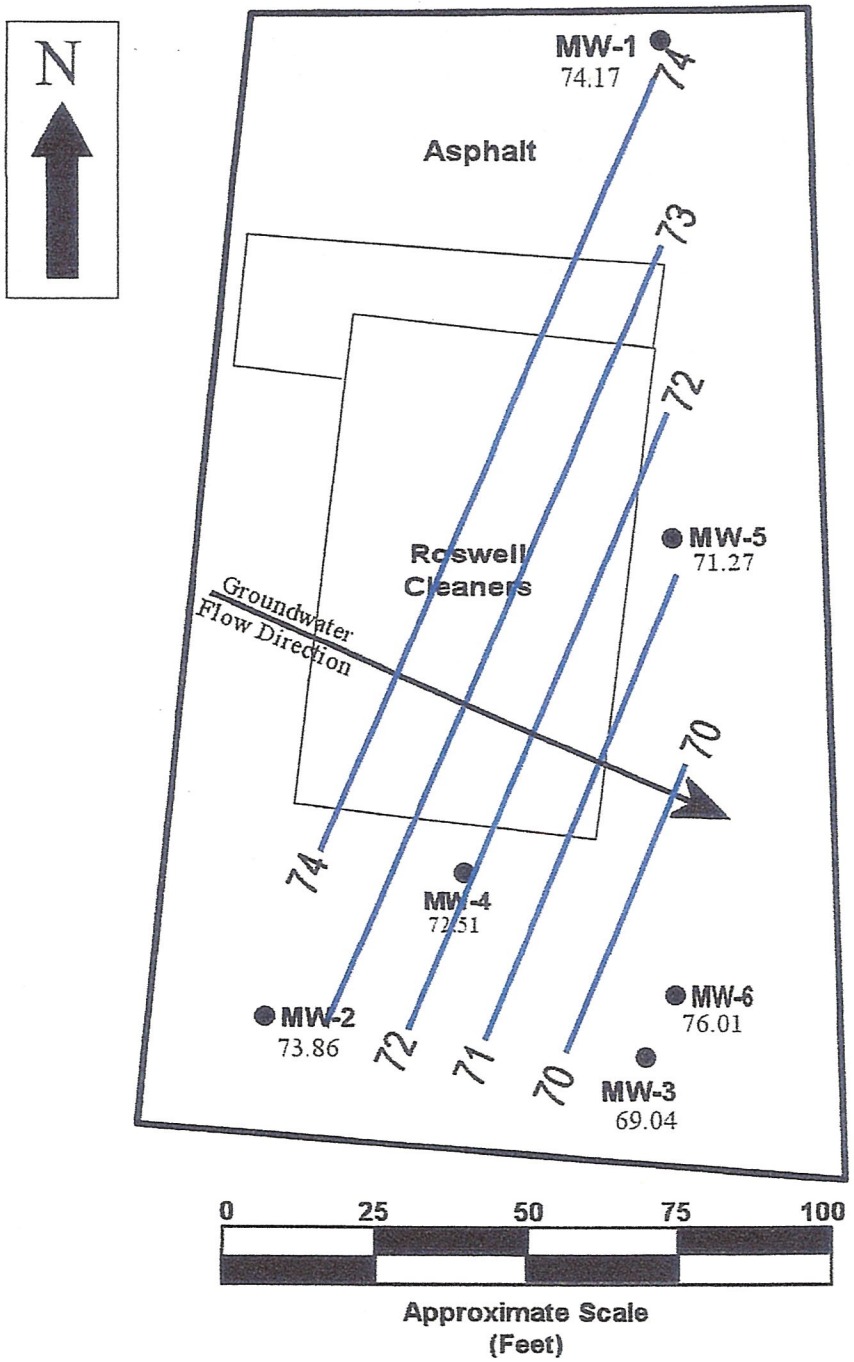
Checked By: Peter Kallav, P.E.



Groundwater Elevations
Measured October 19, 2013

Note: MW-6 is a deep well and was not used in determining groundwater contours

Figure 7G: Potentiometric Contours, October 2013
Roswell Cleaners and Coin Laundry
1013 Alpharetta Street
Roswell, Fulton County, Georgia

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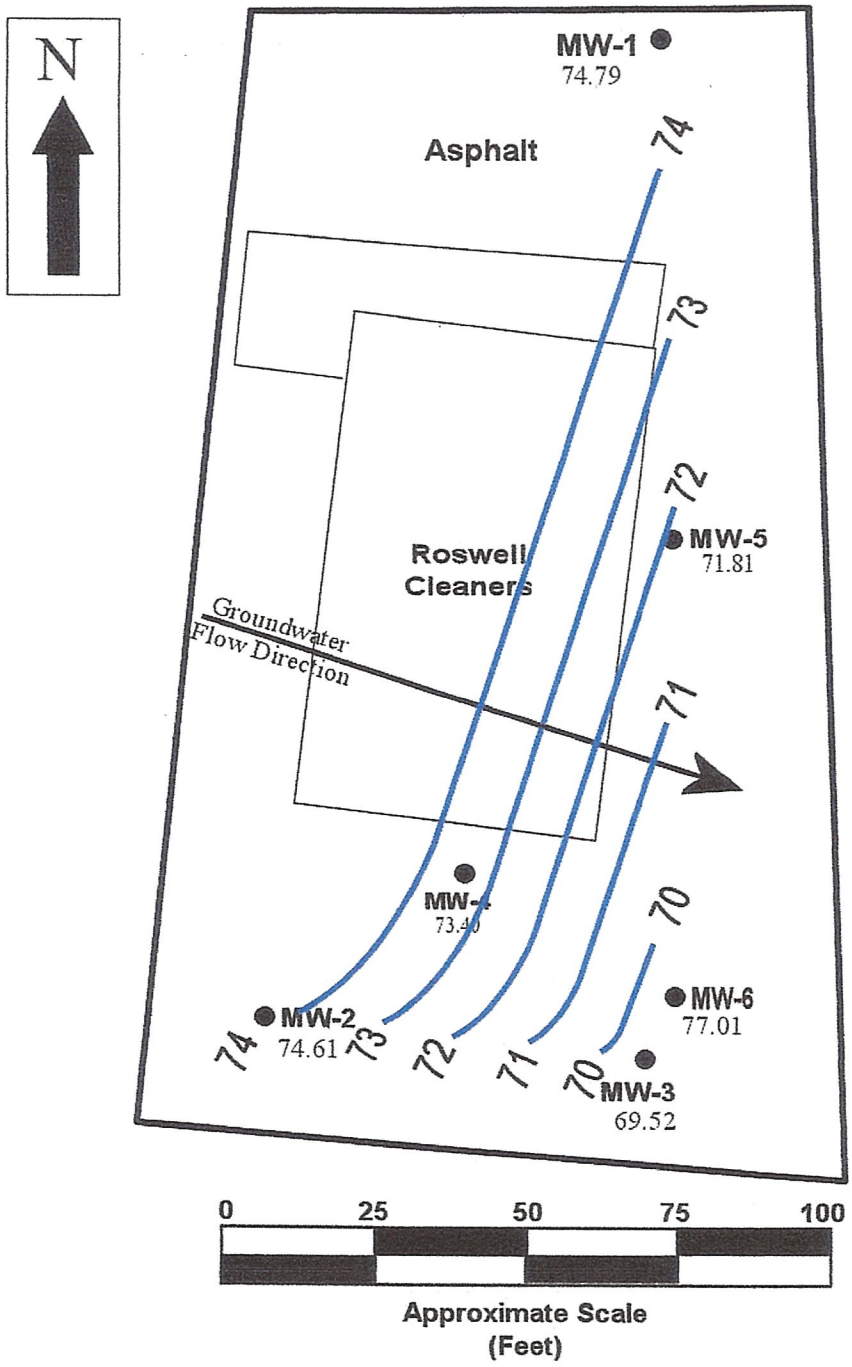

Groundwater Elevations
Measured March 6, 2014

Note: MW-6 is a deep well and was not used in determining groundwater contours

Figure 7H: Potentiometric Contours, March 6, 2014
Roswell Cleaners and Coin Laundry
1013 Alpharetta Street
Roswell, Fulton County, Georgia

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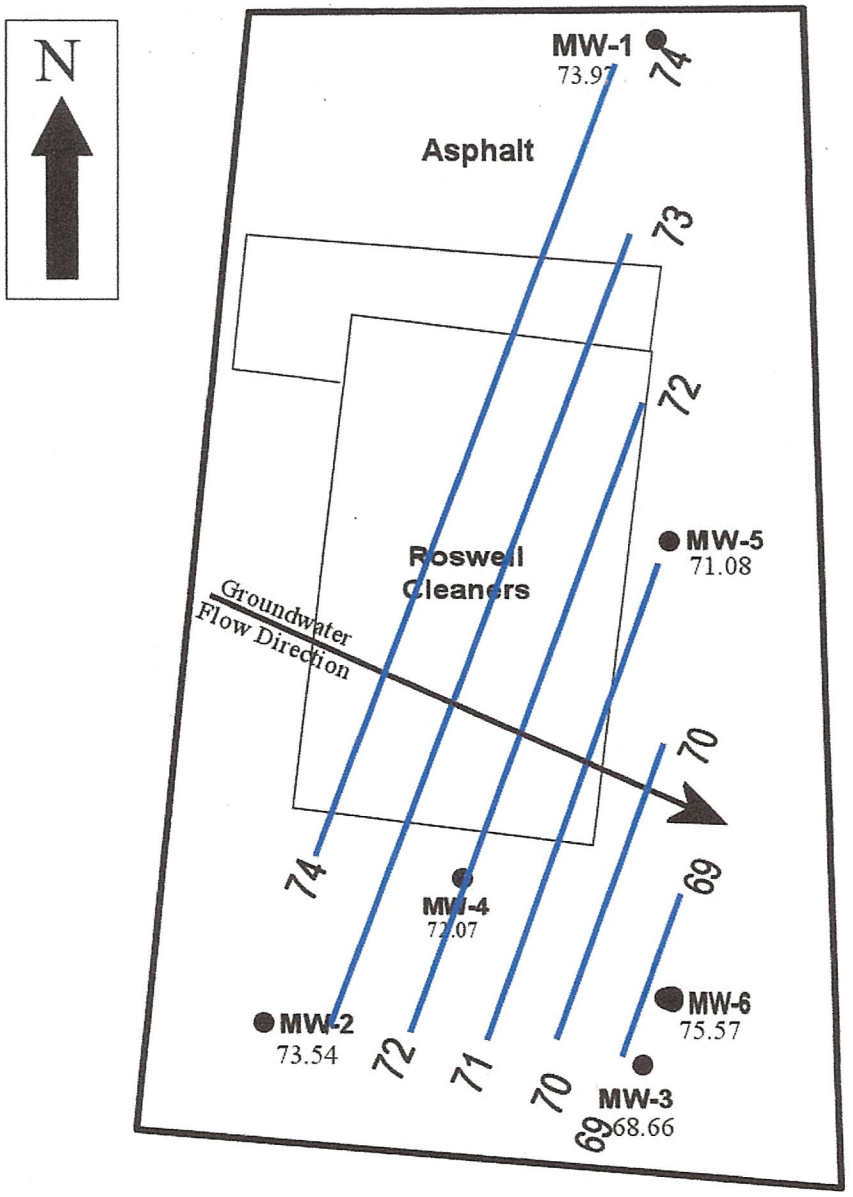
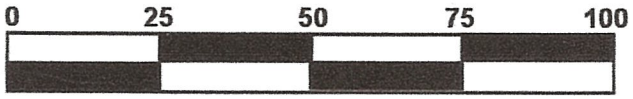
Drawn By: Terri Drabek

Checked By: Peter Kallay, P.E.





Approximate Scale
(Feet)

Groundwater Elevations
Measured August 27, 2014

Note: MW-6 is a deep well and was not used in determining groundwater contours

Figure 7I: Potentiometric Contours, August 27, 2014
Roswell Cleaners and Coin Laundry
1013 Alpharetta Street
Roswell, Fulton County, Georgia

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Drawn By: Terri Drabek

Checked By: Peter Kallay, P.E.

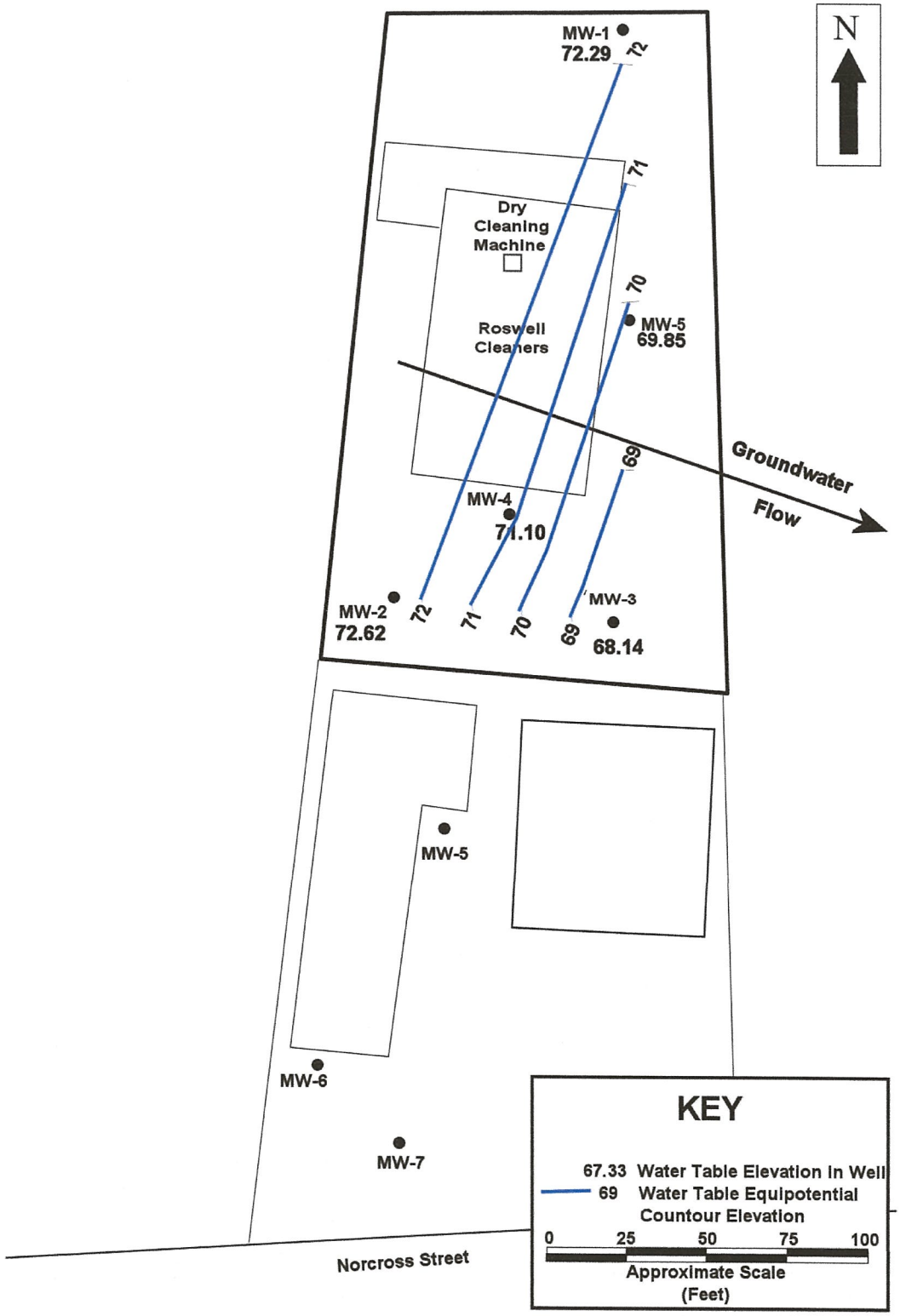

Figure 7J: Potentiometric Contours, March 6, 2015

Roswell Cleaners and Coin Laundry
1013 Alpharetta Street
Roswell, Fulton County, Georgia

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Drawn By: Terri Drabek

Checked By: Peter Kallay, P.E.

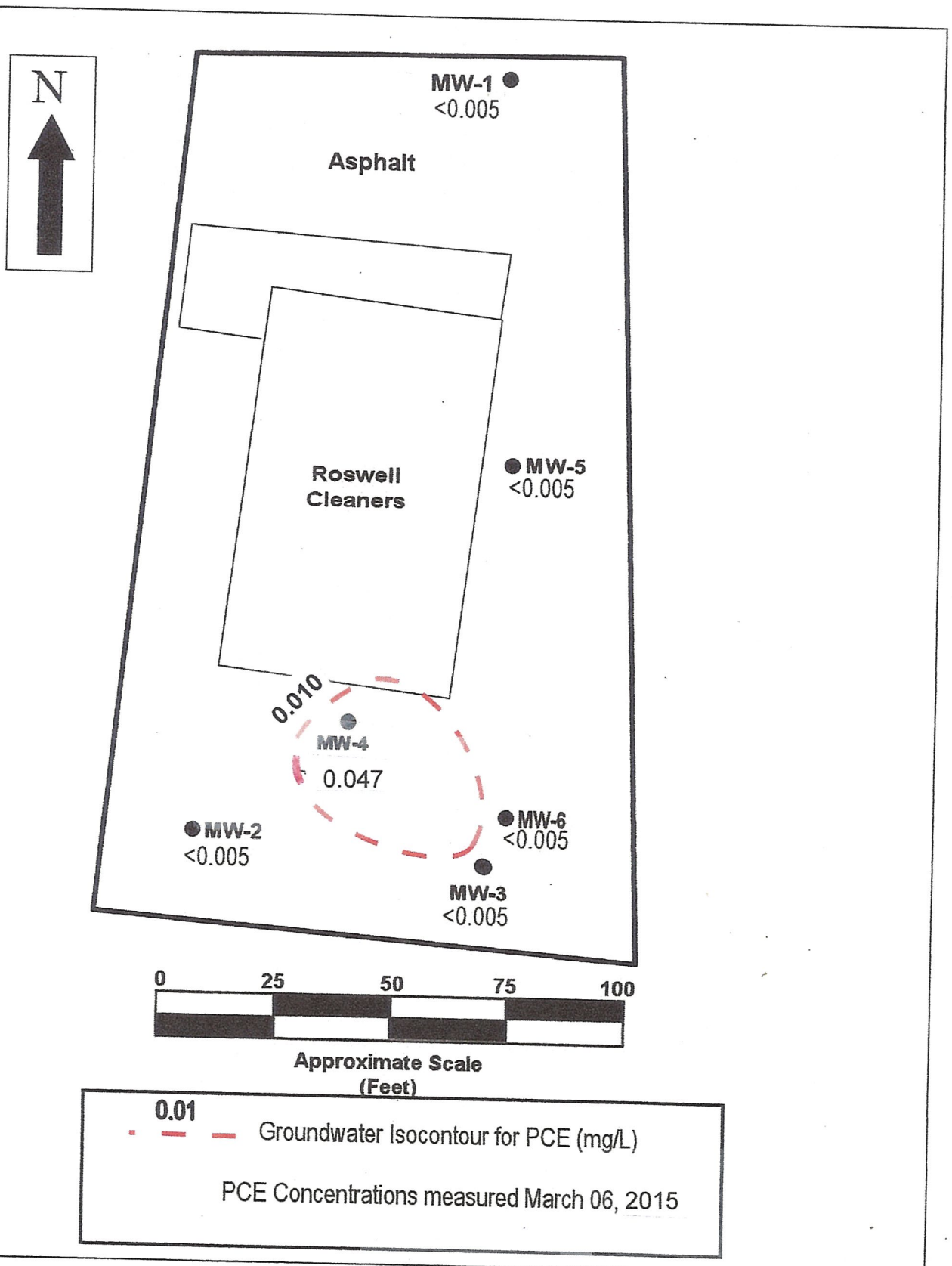

Figure 8: PCE Concentration in Groundwater, March 2015
Roswell Cleaners and Coin Laundry
1013 Alpharetta Street
Roswell, Fulton County, Georgia

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Drawn By: Terri Drabek

Checked By: Peter Kallay, P.E.

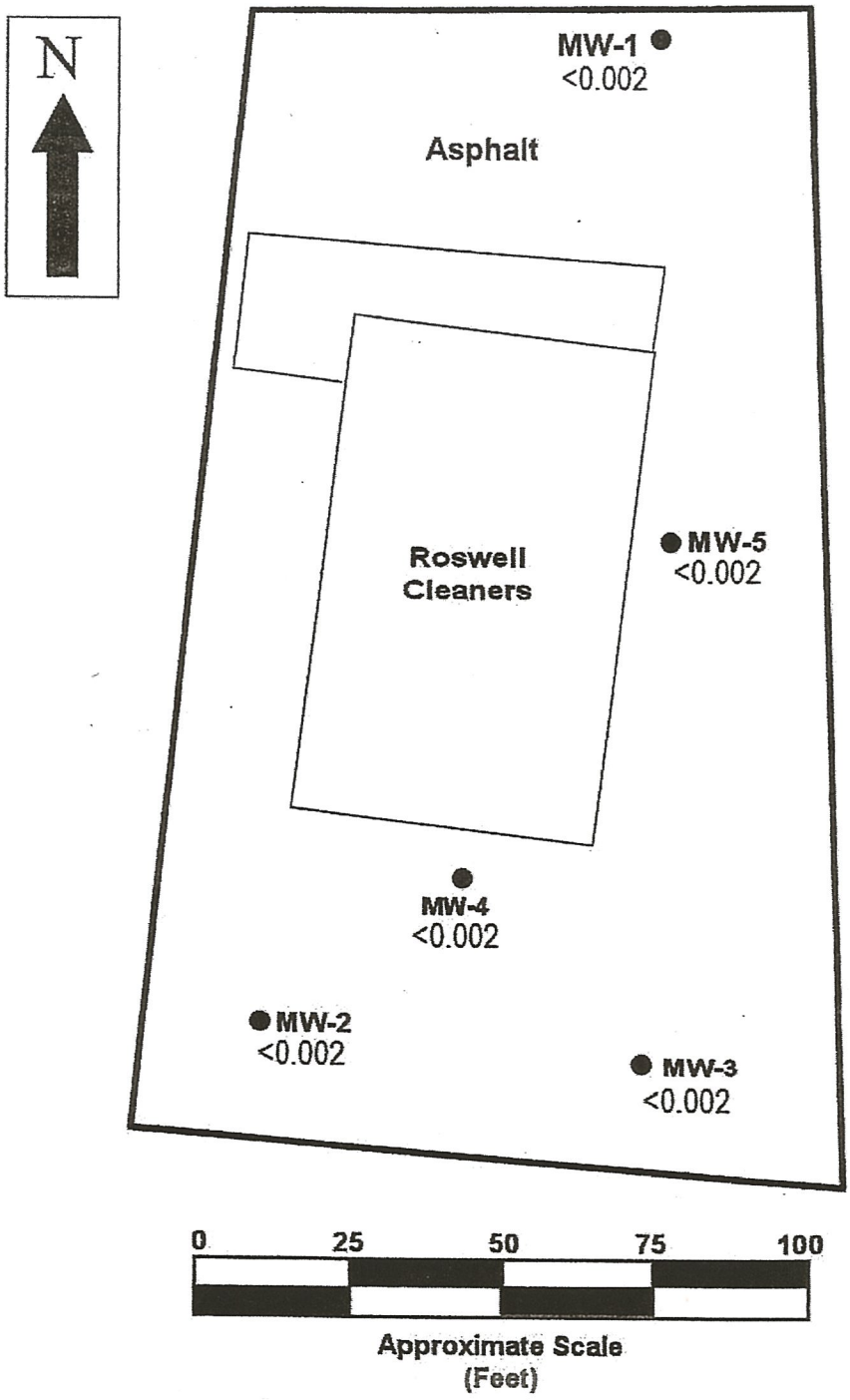

Figure 8B: Vinyl Chloride in Groundwater
Roswell Cleaners and Coin Laundry
1013 Alpharetta Street
Roswell, Fulton County, Georgia

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Checked By: Peter Kallav, P.E.

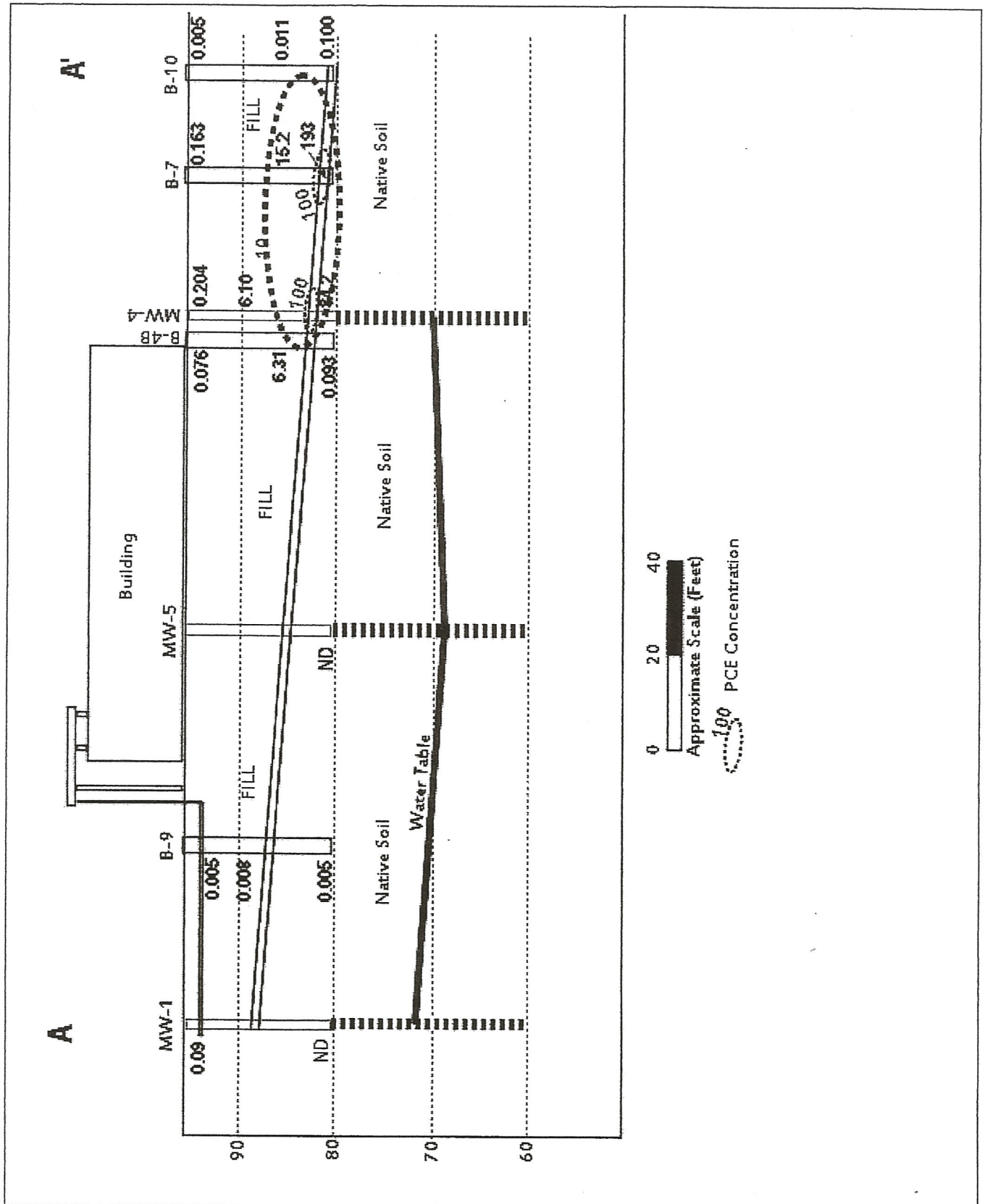

Figure 9: Cross-Section A-A'
Roswell Cleaners
1013 Alpharetta Street
Roswell, Fulton County, Georgia

Concentrations in mg/kg

===== Original Topsoil Layer

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Checked By: Peter Kallay, P.E.

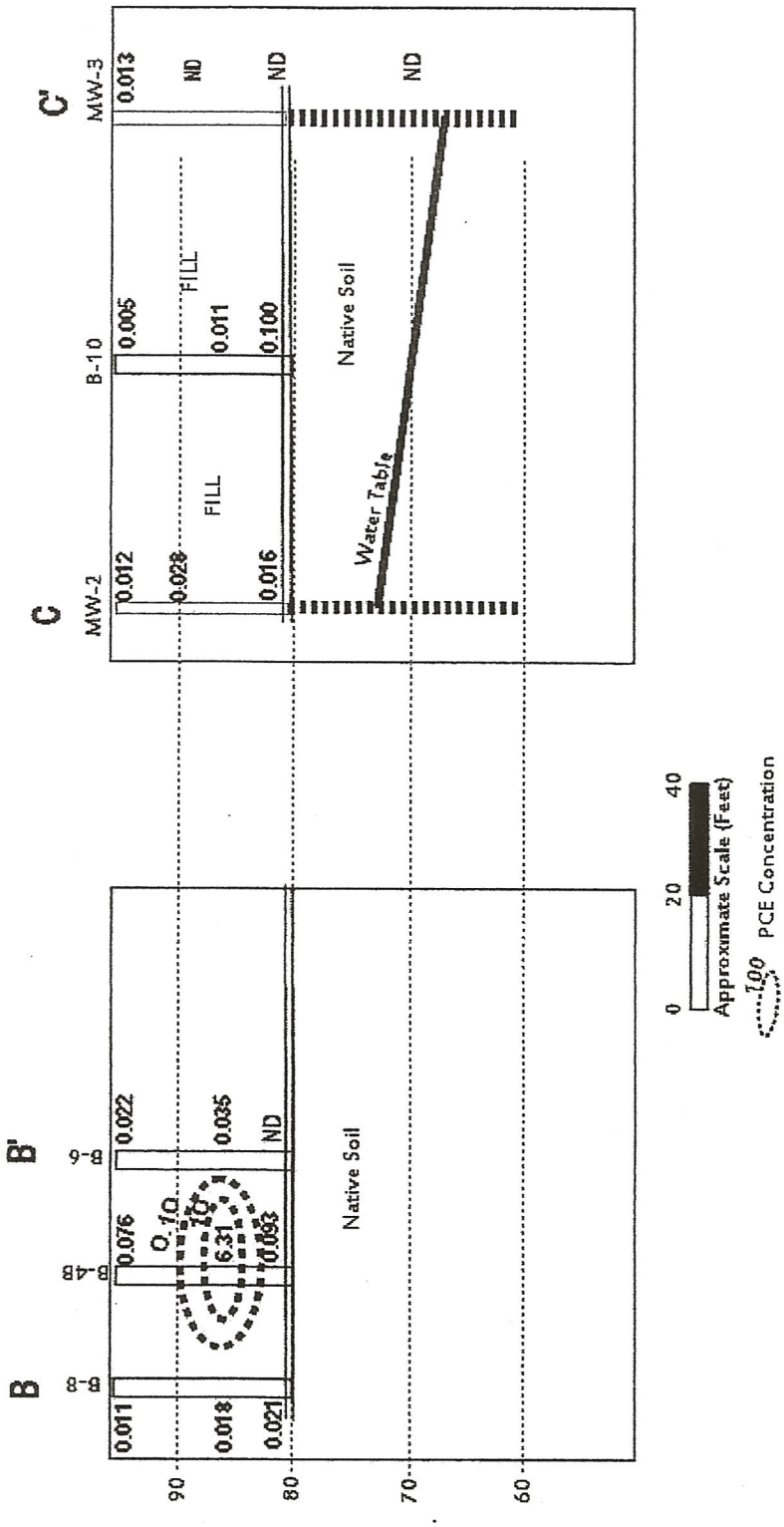

Figure 10: Cross-Section B-B' and C-C'
Roswell Cleaners
1013 Alpharetta Street
Roswell, Fulton County, Georgia

Concentrations in mg/kg

====== = Original Topsoil Layer

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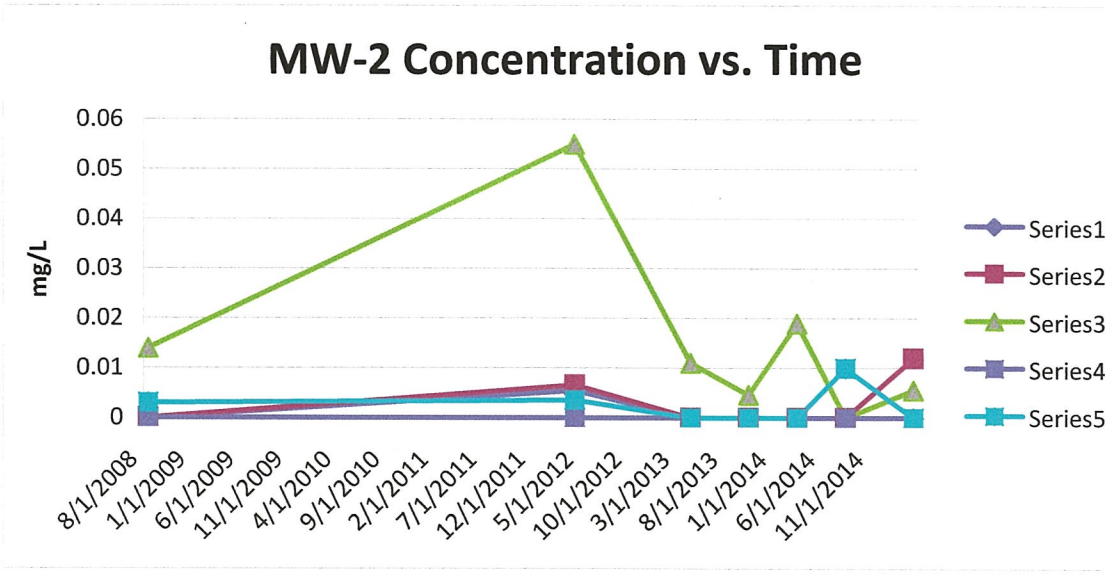
Drawn By: Terri Drabek

Checked By: Peter Kallay, P.E.

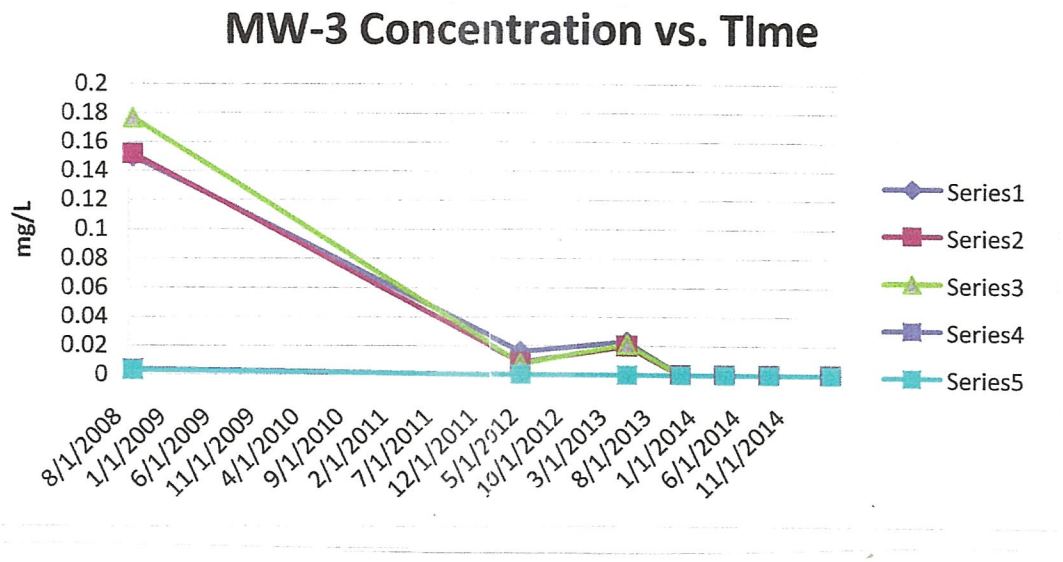
MW-2

	8/27/2008	4/18/2012	4/4/2013	10/19/2013	3/14/2014	8/14/2014	3/6/2015
PCE	0	0.0055	0	0	0	0	0
TCE	0	0.0066	0	0	0	0	0.012
Cis-DCE	0.014	0.055	0.011	0.0046	0.019	0	0.0056
Trans-DCE	0	0	0	0	0	0	0
VC	0.003	0.0036	0	0	0	0.01	0



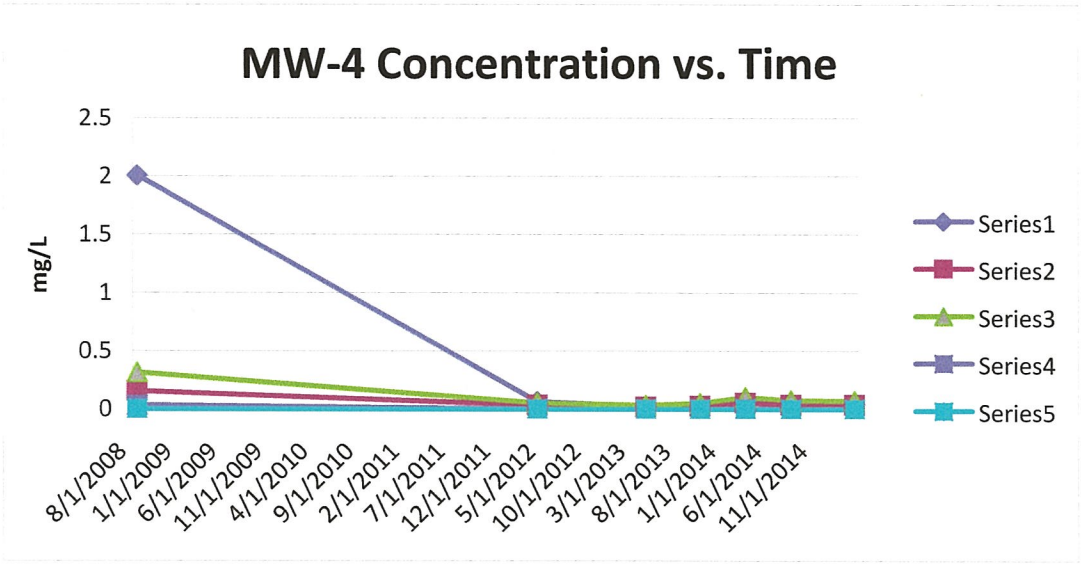
MW-3

	8/27/2008	4/18/2012	4/4/2013	10/13/2013	3/14/2014	8/14/2014	3/6/2015
PCE	0.15	0.016	0.023	0	0	0	0
TCE	0.152	0.0084	0.02	0	0	0	0
Cis-DCE	0.177	0.0077	0.021	0	0	0	0
Trans-DCE	0.004	0	0	0	0	0	0
VC	0.0036	0	0	0	0	0	0



MW-4

	8/27/2008	4/18/2012	4/4/2013	10/13/2013	3/14/2014	8/14/2014	3/6/2015
PCE	2.01	0.066	0.027	0.04	0.085	0.028	0.047
TCE	0.156	0.037	0.02	0.028	0.056	0.038	0.038
Cis-DCE	0.315	0.056	0.035	0.053	0.105	0.078	0.071
Trans-DCE	0.036	0.0031	0	0	0.0056	0	0
VC	0	0	0	0	0	0	0



TABLES

TABLE 1. Soil Analytical Results
Roswell Cleaners
1013 Alpharetta Street, Roswell, Fulton County, Georgia 30075

SAMPLE ID	SAMPLE Depth (feet)	SAMPLE Date	ANALYTICAL RESULTS - Milligrams Per Kilogram (mg/kg)					
			PCE	TCE	cis-DCE	trans-DCE	VC	OTHER
MW-1 1'	1'	8/25/2008	0.009	ND(.005)	ND(.005)	ND(.005)	ND(.010)	.016* (1)
MW-1 2'	2'	8/25/2008	ND(.005)	ND(.005)	ND(.005)	ND(.005)	ND(.010)	All ND
MW-1 5'	5'	8/25/2008	ND(.005)	ND(.005)	ND(.005)	ND(.005)	ND(.010)	All ND
MW-1 15'	15'	8/25/2008	ND(.005)	ND(.005)	ND(.005)	ND(.005)	ND(.010)	All ND
MW-2 1'	1'	8/25/2008	0.012	ND(.005)	ND(.005)	ND(.005)	ND(.010)	All ND
MW-2 2'	2'	8/25/2008	0.009	ND(.005)	ND(.005)	ND(.005)	ND(.010)	All ND
MW-2 5'	5'	8/25/2008	0.028	ND(.005)	ND(.005)	ND(.005)	ND(.010)	All ND
MW-2 15'	15'	8/25/2008	0.016	ND(.005)	ND(.005)	ND(.005)	ND(.010)	All ND
MW-3 1'	1'	8/25/2008	0.013	ND(.005)	ND(.005)	ND(.005)	ND(.010)	All ND
MW-3 2'	2'	8/25/2008	ND(.005)	ND(.005)	ND(.005)	ND(.005)	ND(.010)	All ND
MW-3 5'	5'	8/25/2008	ND(.005)	ND(.005)	ND(.005)	ND(.005)	ND(.010)	All ND
MW-3 15'	15'	8/25/2008	ND(.005)	ND(.005)	ND(.005)	ND(.005)	ND(.010)	All ND
MW-3 25'	25'	8/25/2008	ND(.005)	ND(.005)	ND(.005)	ND(.005)	ND(.010)	All ND
MW-4 1'	1'	8/26/2008	1.540	0.023	ND(.005)	ND(.005)	ND(.010)	.005 *(2)
MW-4 2'	2'	8/26/2008	0.204	0.037	0.012	ND(.005)	ND(.010)	All ND
MW-4 5'	5'	8/26/2008	6.100	3.120	0.495	ND(.005)	ND(.010)	All ND
MW-4 15'	15'	8/26/2008	84.200	5.290	2.370	0.841	ND(.010)	* (3)
MW-1 2' Dup	2'	8/25/2008	ND(.005)	ND(.005)	0.061	ND(.005)	ND(.010)	All ND
MW-4 15'Dup	15'	8/26/2008	14.900	1.350	1.700	0.282	ND(.010)	* (4)
MW-5 20'	20'	4/16/2012	ND(.005)	ND(.005)	ND(.005)	ND(.005)	ND(.010)	All ND
MW-5 Drum	Composite	4/16/2012	ND(.005)	ND(.005)	ND(.005)	ND(.005)	ND(.010)	All ND
B-4B 1'	1'	3/14/2013	0.076	0.018	ND(.005)	ND(.005)	ND(.010)	All ND
B-4B 10'	10'	3/14/2013	6.310	0.259	0.006	ND(.005)	ND(.010)	* (5)
B-4B 15'	15'	3/14/2013	0.093	0.070	'0.040	ND(.005)	ND(.010)	All ND
B-6 1'	1'	3/14/2013	0.022	ND(.005)	ND(.005)	ND(.005)	ND(.010)	All ND
B-6 10'	10'	3/14/2013	0.035	0.011	ND(.005)	ND(.005)	ND(.010)	All ND
B-6 15'	15'	3/14/2013	ND(.005)	ND(.005)	ND(.005)	ND(.005)	ND(.010)	All ND
B-7 1'	1'	3/14/2013	0.163	0.005	ND(.005)	ND(.005)	ND(.010)	All ND
B-7 10'	10'	3/14/2013	15.200	0.067	0.006	ND(.005)	ND(.010)	* (6)
B-7 15'	15'	3/14/2013	193.000	5.030	0.022	ND(.005)	ND(.010)	* (7)
B-8 1'	1'	3/14/2013	0.011	ND(.005)	ND(.005)	ND(.005)	ND(.010)	All ND
B-8 10'	10'	3/14/2013	0.018	0.102	0.310	0.035	ND(.010)	All ND
B-8 15'	15'	3/14/2013	0.021	ND(.005)	0.038	0.005	ND(.010)	All ND
B-9 2'	2'	3/14/2013	0.005	0.052	ND(.005)	ND(.005)	ND(.010)	* (8)
B-9 10'	10'	3/14/2013	0.008	ND(.005)	ND(.005)	ND(.005)	ND(.010)	All ND
B-9 15'	15'	3/14/2013	0.005	ND(.005)	ND(.005)	ND(.005)	ND(.010)	* (9)
B-10 2'	2'	3/14/2013	0.005	ND(.005)	ND(.005)	ND(.005)	ND(.010)	All ND
B-10 10'	10'	3/14/2013	0.011	ND(.005)	ND(.005)	ND(.005)	ND(.010)	All ND
B-10 15'	15'	3/14/2013	'0.100	0.046	ND(.005)	ND(.005)	ND(.010)	All ND

Note: Footnotes are on the following page.

FOOTNOTES

NOTES: MW-1, MW-2. MW-3 and MW-4 sampled 8-25-08; MW-5 sampled 4-16-12
All other samples, B-6 through B-10, as well as B-4B, were sampled on March 14, 2013.
Concentrations are given in milligrams per kilogram (mg/kg).
Volatile Organic Compounds (VOC) were extracted by EPA Method 5035 and
were analyzed by EPA Method 8260B
ND = Not Detected (I.e., compound, if present, is Below Quantitation Limits)
PCE = Tetrachloroethene, also known as perchloroethylene, tetrachloroethylene, or perc
TCE = Trichloroethene, also known as trichloroethylene
DCE = Dichloroethene
VC = Vinyl Chloride
Other Compounds identified in soil analyses are as follows:
*(1) Naphthalene 0.016
*(2) Toluene 0.005
*(3) 0.010 Ethylbenzene, 0.012 1,3,5-Trimethylbenzene, 0.041 m.p-Xylene and 0.015 o-Xylene
*(4) 0.022 Ethylbenzene, 0.006 Toluene, 0.027 1,2,4-Trimethylbenzene,
0.009 1,3,5-Trimethylbenzene, 0.097 m,p-Xylene, 0.036 o-Xylene
*(5) 0.013 Ethylbenzene, 0.016 1,2,4-Trimethylbenzene, 0.005 1,3,5-Trimethylbenzene,
0.063 m,p-Xylene, and 0.023 0-Xylene
*(6) 0.010 1,2,4-Trimethylbenzene, 0.056 m,p-Xylene and 0.017 o-Xylene.
*(7) 0.21 Ethylbenzene, 0.96 m,p-Xylene and 0.21 o-Xylene.
*(8) 0.006 Ethylbenzene, 0.005 Benzene, 0.023 m,p-Xylene and 0.009 o-Xylene.
*(9) 0.185 Acetone and 0.005 Carbon disulfide
The number of decimal places are equalized to improve ease of comparisons between relative concentrations.
The number of decimal places do not necessarily represent the number of significant figures (see lab report).

TABLE 2. Groundwater Analytical Results
Roswell Cleaners
1013 Alpharetta Street, Roswell, Fulton County, Georgia 30075

Groundwater samples were collected Aug 27, 2008, Apr 18, 2012, Apr 14, 2013, Oct 19, 2013, March 6, 2014, August 27, 2014 and March 6, 2015

SAMPLE ID and Approx Date	ANALYTICAL RESULTS - Milligrams Per Liter (mg/L)					
	PCE	TCE	cis-DCE	trans-DCE	VC	OTHER
MW-1 2008	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.002)	
MW-1 2012	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.002)	
MW-1 Mar 13	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.002)	
MW-1 Oct 13	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.002)	
MW-1 Mar 14	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.002)	
MW-1 Aug 14	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.002)	
MW-1 Mar 15	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.002)	
MW-2 2008	ND (0.005)	ND (0.005)	0.0140	ND (0.005)	0.0030	*
MW-2 2012	0.0055	0.0066	0.0550	ND (0.005)	0.0036	
MW-2 Mar 13	ND (0.005)	ND (0.005)	0.0110	ND (0.005)	ND (0.002)	
MW-2 Oct 13	ND (0.005)	ND (0.005)	J 0.0046	ND (0.005)	ND (0.002)	
MW-2 Mar 14	ND (0.005)	ND (0.005)	0.0190	ND (0.005)	ND (0.002)	
MW-2 Aug 14	ND (0.005)	ND (0.005)	0.0250	ND (0.005)	0.0100	
MW-2 Mar 15	ND (0.005)	0.0120	0.0086	ND (0.005)	ND (0.002)	
MW-3 2008	0.1500	0.1520	0.1770	0.0040	ND (0.002)	
MW-3 2012	0.0160	0.0084	0.0077	ND (0.005)	ND (0.002)	
MW-3 Mar 13	0.0230	0.0200	0.0210	ND (0.005)	ND (0.002)	
MW-3 Oct 13	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.002)	
MW-3 Mar 14	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.002)	
MW-3 Aug 14	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.002)	
MW-3 Mar 15	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.002)	
MW-4 2008	2.0100	0.1560	0.3150	0.0360	ND (0.002)	
MW-4 2012	0.0660	0.0370	0.0560	0.0031	ND (0.002)	
MW-4 Mar 13	0.0270	0.0200	0.0350	ND (0.005)	ND (0.002)	
MW-4 Oct 13	0.0400	0.0280	0.0530	ND (0.005)	ND (0.002)	
MW-4 Mar 14	0.0850	0.0560	0.1050	0.0056	ND (0.002)	
MW-4 Aug 14	0.0280	0.0380	0.0780	ND (0.005)	ND (0.002)	
MW-4 Mar 15	0.0470	0.0380	0.0710	ND (0.005)	ND (0.002)	
MW-5 2012	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.002)	
MW-5 Apr 13	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.002)	
MW-5 Oct 13	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.002)	
MW-5 Mar 14	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.002)	
MW-5 Aug 14	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.002)	
MW-5 Mar 15	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.002)	*****

Table 2 Continued on the next page

TABLE 2. Groundwater Analytical Results (Cont.) Page 2

SAMPLE ID and Approx Date	ANALYTICAL RESULTS - Milligrams Per Liter (mg/L)					
	PCE	TCE	cis-DCE	trans-DCE	VC	OTHER
MW-6D Oct 13	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.002)	***
MW-6D Mar 14	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.002)	
MW-6D Aug 14	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.002)	****
MW-6D Mar 15	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.002)	*****
MW-5 Lindsay 08	ND (0.005)	ND (0.005)	0.0050	ND (0.005)	ND (0.002)	
MW-6 Lindsay 08	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.002)	
MW-7 Lindsay 08	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.002)	
Eqpt Blank 08	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.002)	**
Trip Blank 08	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.002)	

FOOTNOTES FOR Table 2. Groundwater Analytical Results.

Concentrations are given in milligrams per liter (mg/L)
Volatile Organic Compounds (VOC) were analyzed by EPA Method 8260B
J before the sample concentration indicates estimated concentration was > MDL, but < PQL.
ND = Not Detected (Below Quantitation Limits)
PCE = Tetrachloroethene, also known as perchloroethylene, tetrachloroethylene, or perc
TCE = Trichloroethene, also known as trichloroethylene
DCE = Dichloroethene
VC = Vinyl Chloride
A monitoring well was located on the Lindsay Property that was only sampled in 2008. This well will be referred to as MW-5 Lindsay.
A Monitoring Well was installed on the Bowen property. "MW-5" without qualifiers refers to this well
Deep Monitoring Well, MW-6, 70'deep, was installed on the Bowen Property on October 11, 2013
2008 or 08 = Sample was collected on August 27, 2008
2012 or 12 = Sample was collected on April 18, 2012
* = Chloroform 0.004 mg/l
** = Naphthalene 0.006 mg/l
*** = Chloroform detected at 0.011 mg/l
**** = Chloroform 0.044 mg/l; Bromodichloromethane 0.0056 mg/l
***** = Chloroform detected at .0045 mg/l in MW-5 and at 0.022 mg/l in MW-6D
The number of decimal places have been equalized to improve the ease of comparisons between relative concentrations. Therefore, the number of decimal places shown do not necessarily equal the number of significant digits. See the lab report for the correct number of significant digits.

TABLE 3. Sub-Slab Soil Vapor Analytical Results
Roswell Cleaners
1013 Alpharetta Street
Roswell, Fulton County, Georgia 30075

SAMPLE ID	Compound	SUB-SLAB VAPOR SAMPLE ANALYTICAL RESULTS		
		parts per billion by volume(ppbv)	micrograms/cubic meter (ug/m3)	NOTES
	PRIMARY TARGET COMPOUNDS			
SSVS-1	Tetrachloroethene (PCE)	39.00	270.00	
SSVS-1	Trichloroethene (TCE)	4.90	26.00	
SSVS-1	cis-1,2-Dichloroethene	2.40	10.00	
SSVS-1	trans-1,2-Dichloroethene	ND(0.50)	ND(2.0)	not detected
SSVS-1	Vinyl Chloride	ND(0.50)	ND(1.3)	not detected
	OTHER TO-15 TARGET COMPOUNDS			
SSVS-1	Acetone	45.00	110.00	
SSVS-1	Acetonitrile	0.72	1.20	
SSVS-1	Benzene	5.90	19.00	
SSVS-1	n-Butane	1.80	4.20	
SSVS-1	2-Butanone (MEK)	2.20	6.60	
SSVS-1	Chloromethane	0.52	1.10	
SSVS-1	Ethanol	33.00	63.00	
SSVS-1	Ethyl Acetate	1.20	4.20	
SSVS-1	4-Ethyltoluene	0.54	2.70	
SSVS-1	n-Hexane	0.58	2.00	
SSVS-1	Isopropyl Alcohol	180.00	450.00	
SSVS-1	Naphthalene	0.54	2.80	
SSVS-1	Tertiary Butyl Alcohol (TBA)	8.40	25.00	
SSVS-1	Toluene	4.60	17.00	
SSVS-1	1,2,4-Trimethylbenzene	0.55	2.70	
SSVS-1	m,p Xylene	1.60	7.20	
SSVS-1	ortho Xylene	0.60	2.60	
	TENTATIVELY IDENTIFIED COMPOUNDS (TICs)			
SSVS-1	Acetaldehyde	5.50	9.90	
SSVS-1	Butanal	5.00	15.00	
SSVS-1	Difluorochloromethane	3.80	5.47	
SSVS-1	Hexanal	1.40	5.90	
SSVS-1	Limonene	5.90	33.00	
SSVS-1	Propanal,2,2-dimethyl-	2.40	8.40	
	Total Volatile Organic Compounds			
SSVS-1	TVOC TO-15 Target Compounds	340.00	1000.00	
SSVS-1	TVOC TICs only	24.00	85.00	
SSVS-1	TVOC Total of all VOCs detected	360.00	1100.00	rounded off

NOTES: ND = Not Detected

Concentrations are given in parts per billion by volume (ppbv) and micrograms per cubic meter (ug/m3)
Compounds not detected are not listed (except primary targets). See Laboratory Analytical Report.
The number of decimal places are equalized to improve comparisons between relative concentrations.
Number of decimal places shown do not necessarily represent number of significant figures (see lab report).

aec

Table 4. Water Table Elevations
Roswell Cleaners
1013 Alpharetta Street
Roswell, Fulton County, Georgia

MONITORING WELL	DATE MEASURED	TOP-OF-CASING ELEVATION (feet)	DEPTH TO WATER (feet)	WATER TABLE ELEVATION (feet)	NOTES
MW-1	8/26/2008	93.77	23.56	70.21	
MW-1	8/27/2008	93.77	23.63	70.14	
MW-1	9/28/2008	93.77	23.98	69.79	slug test date
MW-1	4/16/2012	93.77	22.07	71.70	
MW-1	4/18/2012	93.77	22.14	71.63	
MW-1	5/16/2012	93.77	22.36	71.41	
MW-1	3/14/2013	93.77	22.43	71.34	
MW-1	9/19/2013	93.77	19.60	74.17	
MW-1	3/6/2014	93.77	18.98	74.79	
MW-1	8/27/2014	93.77	19.80	73.97	
MW-1	3/6/2015	93.77	21.48	72.29	
MW-2	8/26/2008	94.12	24.49	69.63	
MW-2	8/27/2008	94.12	24.27	69.85	
MW-2	9/28/2008	94.12	24.82	69.30	slug test date
MW-2	4/16/2012	94.12	22.55	71.57	
MW-2	4/18/2012	94.12	22.62	71.50	
MW-2	5/16/2012	94.12	22.83	71.29	
MW-2	3/14/2013	94.12	22.03	72.09	
MW-2	9/19/2013	94.12	20.26	73.86	
MW-2	3/6/2014	94.12	19.51	74.61	
MW-2	8/27/2014	94.12	20.58	73.54	
MW-2	3/6/2015	94.12	21.50	72.62	
MW-3	8/26/2008	94.87	28.46	66.41	
MW-3	8/27/2008	94.87	28.40	66.47	
MW-3	9/28/2008	94.87	28.63	66.24	slug test date
MW-3	4/16/2012	94.87	27.42	67.45	
MW-3	4/18/2012	94.87	27.50	67.37	
MW-3	5/16/2012	94.87	27.74	67.13	
MW-3	3/14/2013	94.87	27.15	67.72	
MW-3	9/19/2013	94.87	25.83	69.04	
MW-3	3/6/2014	94.87	25.35	69.52	
MW-3	8/27/2014	94.87	26.21	68.66	
MW-3	3/6/2015	94.87	26.73	68.14	

Note: Table 4 Continued on the next page.

Table 4. Water Table Elevations (Cont.)
Roswell Cleaners
1013 Alpharetta Street
Roswell, Fulton County, Georgia

MONITORING WELL	DATE MEASURED	TOP-OF-CASING ELEVATION (feet)	DEPTH TO WATER (feet)	WATER TABLE ELEVATION (feet)	NOTES
MW-4	8/26/2008	94.57	26.22	68.35	
MW-4	8/27/2008	94.57	25.77	68.80	
MW-4	4/16/2012	94.57	24.40	70.17	
MW-4	4/18/2012	94.57	24.44	70.13	
MW-4	5/16/2012	94.57	24.72	69.85	
MW-4	3/14/2013	94.57	24.06	70.51	
MW-4	9/19/2013	94.57	22.06	72.51	
MW-4	3/6/2014	94.57	21.17	73.40	
MW-4	8/27/2014	94.57	22.50	72.07	
MW-4	3/6/2015	94.57	23.47	71.10	
MW-5	4/18/2012	94.82	25.52	69.30	
MW-5	5/16/2012	94.82	25.75	69.07	
MW-5	3/14/2013	94.82	25.63	69.19	
MW-5	9/19/2013	94.82	23.55	71.27	
MW-5	3/6/2014	94.82	23.01	71.81	
MW-5	8/27/2014	94.82	23.74	71.08	
MW-5	3/6/2015	94.82	24.97	69.85	
MW-6D	9/19/2013	95.54	19.53	76.01	deep well
MW-6D	3/6/2014	95.54	18.53	77.01	
MW-6D	8/27/2014	95.54	19.97	75.57	
MW-6D	3/6/2015	95.54	21.3	74.24	
MW-5 Lindsay	8/26/2008	82.92	15.22	67.70	
MW-5 Lindsay	8/27/2008	82.92	15.00	67.92	
MW-6 Lindsay	8/26/2008	81.59	14.60	66.99	
MW-6 Lindsay	8/27/2008	81.59	14.26	67.33	
MW-7 Lindsay	8/26/2008	81.18	16.00	65.18	
MW-7 Lindsay	8/27/2008	81.18	15.83	65.35	

NOTES:

1. Top of Casing Elevations are relative elevations, relative to an assumed height of instrument (H.I.) of 100.00 feet on August 26, 2008.
2. Gauging conducted on dates (and at monitoring wells) utilized for conducting slug tests is noted in the last column.
3. MW-5 and MW-6 (without notation) refers to wells on the Bowen Property. Wells denoted "Lindsay" are on the Lindsay Property. These wells have not been sampled by AEC since 2008; access has not been available.

ATTACHMENTS

WELL PURGING AND SAMPLING LOGS

WELL PURGING AND SAMPLING DATA

WELL NO: MW-1

DATE: 03-6-15 | PROJECT NAME: Roswell Cleaners | PROJECT NO. REB-2414

WEATHER CONDITIONS: Cloudy, overcast, cold, calm, not raining; Snow fell earlier

WELL DIAMETER (IN.) ☐ 1 ☑ 2 ☐ 4 ☐ 6 ☐ Other (specify)

SAMPLE TYPE ☑ GROUNDWATER ☐ WASTEWATER ☐ SURFACE WATER ☐ OTHER

WELL DEPTH (BTOC) 35' FT. | DEPTH TO WATER BEFORE PURGE 21.98'

HEIGHT OF COLUMN OF WATER FT | CALCULATED ONE WELL VOLUME 2.4 gal.

PURGING DEVICE: ☑ DEDICATED ☑ DISPOSABLE ☐ DECONTAMINATED

SAMPLING DEVICE: ☑ DEDICATED ☑ DISPOSABLE ☐ DECONTAMINATED

EQUIP'T DECON: ☑ TAP WATER WASH ☑ ISOPROPANOL ☑ ANALYTE FREE FINAL RINSE

☑ ALCONOX WASH ☐ DIST/DEION 1 RINSE ☐ OTHER SOLVENT ☑ DIST/DEION FINAL RINSE

☐ LIQUINOX WASH ☐ DIST/DEION 2 RINSE ☐ TAP WATER FINAL RINSE ☐ AIR DRY

CONTAINER PRESERVATION: ☑ LAB PRESERVED ☐ FIELD PRESERVED

WATER ANALYZER MAKE, MODEL, SERIAL NO. HORIBA U-53 2U3 CARSA

ACTUAL TIME (MIN)	CUMUL. VOLUME PURGED (GAL)	TEMP ☐ F ☑ C	pH	SPECIFIC CONDUCT (mS/cm)	TURBIDITY (NTUs)	DISS. OXYGEN (mg/L)	WATER APPEAR CL=CLEAR CO-CLOUDY TU=TURBID	REMARKS: ODOR COLOR PID
RP								
0	INITIAL	16.44	5.06	0.170	0.00	10.94	CL	No Color No odor
2	1	16.01	4.85	0.171	55.2	11.60	CL	" " " "
4	2	18.65	4.80	0.133	108.	7.54	CL	CL
6	3	19.04	4.75	0.129	64.0	7.68	CL	CL
8	4	19.41	4.71	0.128	61.5	7.48	CL	CL

DEPTH TO WATER AFTER PURGING (BTOC) 22.76' | SAMPLE FILTERED ☐ YES ☑ NO SIZE

NOTES: SNOW FELL EARLIER

SAMPLE TIME: 10:45 ID# MW-1

DUPLICATE ☐ TIME: ID#

EQUIP. BLANK ☐ TIME: ID#

PREPARED BY: PETER T. KALLAY

VOLUME OF WATER IN 1 FOOT: 0.0102 Gal in 1/2 inch 0.023 Gal in 3/4 inch 0.041 Gal in 1" DIA pipe
0.17 Gal in 2" inch 0.65 Gal in 4 inch 1.47 Gal in 6 inch DIA pipe

WELL PURGING AND SAMPLING DATA

WELL NO: MW-2

DATE: 03-6-15 | PROJECT NAME: Roswell Cleaners | PROJECT NO. REB-2414

WEATHER CONDITIONS: Cloudy, Overcast, Cold, Calm, not raining

WELL DIAMETER (IN.) ☐ 1 ☑ 2 ☐ 4 ☐ 6 ☐ Other (specify)

SAMPLE TYPE ☑ GROUNDWATER ☐ WASTEWATER ☐ SURFACE WATER ☐ OTHER

WELL DEPTH (BTOC) 35' FT. | DEPTH TO WATER BEFORE PURGE 21.50

HEIGHT OF COLUMN OF WATER 13' FT | CALCULATED ONE WELL VOLUME 2.2 gal

PURGING DEVICE: ☑ DEDICATED ☐ DISPOSABLE ☐ DECONTAMINATED

SAMPLING DEVICE: ☑ DEDICATED ☐ DISPOSABLE ☐ DECONTAMINATED

EQUIP'T DECON: ☑ TAP WATER WASH ☑ ISOPROPANOL ☑ ANALYTE FREE FINAL RINSE

☑ ALCONOX WASH ☐ DIST/DEION 1 RINSE ☐ OTHER SOLVENT ☑ DIST/DEION FINAL RINSE

☐ LIQUINOX WASH ☐ DIST/DEION 2 RINSE ☐ TAP WATER FINAL RINSE ☐ AIR DRY

CONTAINER PRESERVATION: ☑ LAB PRESERVED ☐ FIELD PRESERVED

WATER ANALYZER MAKE, MODEL, SERIAL NO. HORIBA U-53 2U3 CARSA

ACTUAL TIME (MIN)	CUMUL. VOLUME PURGED (GAL)	TEMP ☐ F ☑ C	pH	SPECIFIC CONDUCT (mS/cm)	TURBIDITY (NTUs)	DISS. OXYGEN (mg/L)	WATER APPEAR CL=CLEAR CO-CLOUDY TU=TURBID	REMARKS: ODOR COLOR PID
ORP								
84 1	INITIAL	17.47	5.85	0.177	>1000	7.29	TU	Very Turb., Red-Brown
48 3	2	19.73	5.90	0.208	>1000	7.49	V.TU	Very Turb., Red-Brown
32 5	4	18.49	5.90	0.216	>1000	6.69	V.TU	" " "
8	6	18.51	5.91	0.219	>1000	7.01	V.TU	" " "

DEPTH TO WATER AFTER PURGING (BTOC) 21.73 | SAMPLE FILTERED ☐ YES ☑ NO SIZE ___

NOTES: WATER IN MW-2 WAS VERY TURBID

SAMPLE TIME: 11:50 ID# MW-2

DUPLICATE ☐ TIME: ID#

EQUIP. BLANK ☐ TIME: ID#

PREPARED BY: PETER T. KALKAY

VOLUME OF WATER IN 1 FOOT: 0.0102 Gal in 1/2 inch 0.023 Gal in 3/4 inch 0.041 Gal in 1" DIA pipe
0.17 Gal in 2" inch 0.65 Gal in 4 inch 1.47 Gal in 6 inch DIA pipe

WELL PURGING AND SAMPLING DATA

WELL NO: MW-3

DATE: 03-6-15 | PROJECT NAME: Roswell Cleaners | PROJECT NO. RCB-2414

WEATHER CONDITIONS: Cloudy, Overcast, Cold, Calm, not raining

WELL DIAMETER (IN.) ☐ 1 ☑ 2 ☐ 4 ☐ 6 ☐ Other (specify)

SAMPLE TYPE ☑ GROUNDWATER ☐ WASTEWATER ☐ SURFACE WATER ☐ OTHER

WELL DEPTH (BTOC) 35' FT. | DEPTH TO WATER BEFORE PURGE 26.73

HEIGHT OF COLUMN OF WATER FT | CALCULATED ONE WELL VOLUME 1.3 gal

PURGING DEVICE: ☑ DEDICATED ☑ DISPOSABLE ☐ DECONTAMINATED

SAMPLING DEVICE: ☑ DEDICATED ☑ DISPOSABLE ☐ DECONTAMINATED

EQUIP'T DECON: ☑ TAP WATER WASH ☑ ISOPROPANOL ☑ ANALYTE FREE FINAL RINSE

☑ ALCONOX WASH ☐ DIST/DEION 1 RINSE ☐ OTHER SOLVENT ☑ DIST/DEION FINAL RINSE

☐ LIQUINOX WASH ☐ DIST/DEION 2 RINSE ☐ TAP WATER FINAL RINSE ☐ AIR DRY

CONTAINER PRESERVATION: ☑ LAB PRESERVED ☐ FIELD PRESERVED

WATER ANALYZER MAKE, MODEL, SERIAL NO. HORIBA U-53 203 CARSA

ACTUAL TIME (MIN)	CUMUL. VOLUME PURGED (GAL)	TEMP ☐ F ☑ C	pH	SPECIFIC CONDUCT (mS/cm)	TURBIDITY (NTUs)	DISS. OXYGEN (mg/L)	WATER APPEAR CL=CLEAR CO-CLOUDY TU=TURBID	REMARKS: ODOR COLOR PID
1714	1	INITIAL	18.12	4.92	0.103	706	8.54	CO	Brown, cloudy
1200	3	2.5	18.83	4.84	0.101	>1000	6.82	TU	Brown, turbid
1212	6	4	19.14	4.82	0.101	>1000	7.11	TU	Brown, v. turbid
1218	8	5.5	19.27	4.81	0.100	>1000	7.57	V TU	" "
1221	10	6.5	19.31	4.81	0.101	>1000	7.39	V.TU	" "

DEPTH TO WATER AFTER PURGING (BTOC) 27.51' | SAMPLE FILTERED ☐ YES ☑ NO SIZE ___

NOTES:

SAMPLE TIME: 1:00 ID# MW-3

DUPLICATE ☐ TIME: ID#

EQUIP. BLANK ☐ TIME: ID#

PREPARED BY: PETER T. KINLAY

VOLUME OF WATER IN 1 FOOT: 0.0102 Gal in 1/2 inch 0.023 Gal in 3/4 inch 0.041 Gal in 1" DIA pipe
0.17 Gal in 2" inch 0.65 Gal in 4 inch 1.47 Gal in 6 inch DIA pipe

WELL PURGING AND SAMPLING DATA

WELL NO: MW-4

DATE: 03-6-15 | PROJECT NAME: Roswell Cleaners | PROJECT NO. RCB-2414

WEATHER CONDITIONS: Cloudy, Overcast, Cold, Calm, not raining

WELL DIAMETER (IN.) ☐ 1 ☑ 2 ☐ 4 ☐ 6 ☐ Other (specify)

SAMPLE TYPE ☑ GROUNDWATER ☐ WASTEWATER ☐ SURFACE WATER ☐ OTHER

WELL DEPTH (BTOC) 35' FT. | DEPTH TO WATER BEFORE PURGE 23.47

HEIGHT OF COLUMN OF WATER FT | CALCULATED ONE WELL VOLUME 2.0 gal

PURGING DEVICE: ☑ DEDICATED ☐ DISPOSABLE ☐ DECONTAMINATED

SAMPLING DEVICE: ☑ DEDICATED ☐ DISPOSABLE ☐ DECONTAMINATED

EQUIP'T DECON: ☑ TAP WATER WASH ☑ ISOPROPANOL ☑ ANALYTE FREE FINAL RINSE

☑ ALCONOX WASH ☐ DIST/DEION 1 RINSE ☐ OTHER SOLVENT ☑ DIST/DEION FINAL RINSE

☐ LIQUINOX WASH ☐ DIST/DEION 2 RINSE ☐ TAP WATER FINAL RINSE ☐ AIR DRY

CONTAINER PRESERVATION: ☑ LAB PRESERVED ☐ FIELD PRESERVED

WATER ANALYZER MAKE, MODEL, SERIAL NO. HORIBA U-53 203 CARSA

ACTUAL TIME (MIN)	CUMUL. VOLUME PURGED (GAL)	TEMP ☐ F ☑ C	pH	SPECIFIC CONDUCT (mS/cm)	TURBIDITY (NTUs)	DISS. OXYGEN (mg/L)	WATER APPEAR CL=CLEAR CO-CLOUDY TU=TURBID	REMARKS: ODOR COLOR PID
1142	2	INITIAL	19.04	4.74	0.124	734	6.43	CO	Cloudy, beige-brown
1208	4	2	18.32	4.75	0.125	>1000	13.42?	CO	" " Aged PCE odor
1295	6	3.5	18.78	4.76	0.128	>1000	8.17	TU	Turbid " " "
1317	8	5.5	18.72	4.75	0.129	937	7.93	TU	" " " "
1309	11	6.5	18.70	4.77	0.131	738	7.87	TU	" " " "

DEPTH TO WATER AFTER PURGING (BTOC) 26.12' | SAMPLE FILTERED ☐ YES ☑ NO SIZE ____

NOTES: Same odor of aged PCE

SAMPLE TIME: 1:25 ID# MW-4

DUPLICATE ☐ TIME: ID#

EQUIP. BLANK ☐ TIME: ID#

PREPARED BY: PETER T. KALLAY

VOLUME OF WATER IN 1 FOOT: 0.0102 Gal in 1/2 inch 0.023 Gal in 3/4 inch 0.041 Gal in 1" DIA pipe
0.17 Gal in 2" inch 0.65 Gal in 4 inch 1.47 Gal in 6 inch DIA pipe

WELL PURGING AND SAMPLING DATA

WELL NO: MW-5

DATE: 03-6-15 | PROJECT NAME: Roswell Cleaners | PROJECT NO. REB-2414

WEATHER CONDITIONS: Cloudy, Overcast, Cold, Calm not raining

WELL DIAMETER (IN.) ☐ 1 ☑ 2 ☐ 4 ☐ 6 ☐ Other (specify)

SAMPLE TYPE ☑ GROUNDWATER ☐ WASTEWATER ☐ SURFACE WATER ☐ OTHER

WELL DEPTH (BTOC) 35' FT. | DEPTH TO WATER BEFORE PURGE 24.97

HEIGHT OF COLUMN OF WATER FT | CALCULATED ONE WELL VOLUME 1.791

PURGING DEVICE: ☑ DEDICATED ☑ DISPOSABLE ☐ DECONTAMINATED

SAMPLING DEVICE: ☑ DEDICATED ☑ DISPOSABLE ☐ DECONTAMINATED

EQUIP'T DECON: ☑ TAP WATER WASH ☑ ISOPROPANOL ☑ ANALYTE FREE FINAL RINSE

☑ ALCONOX WASH ☐ DIST/DEION 1 RINSE ☐ OTHER SOLVENT ☑ DIST/DEION FINAL RINSE

☐ LIQUINOX WASH ☐ DIST/DEION 2 RINSE ☐ TAP WATER FINAL RINSE ☐ AIR DRY

CONTAINER PRESERVATION: ☑ LAB PRESERVED ☐ FIELD PRESERVED

WATER ANALYZER MAKE, MODEL, SERIAL NO. HORIBA U-53 203 CARSA

ACTUAL TIME (MIN)	CUMUL. VOLUME PURGED (GAL)	TEMP ☐ F ☑ C	pH	SPECIFIC CONDUCT (mS/cm)	TURBIDITY (NTUs)	DISS. OXYGEN (mg/L)	WATER APPEAR CL=CLEAR CO-CLOUDY TU=TURBID	REMARKS: ODOR COLOR PID
1120	1	18.06	4.56	0.166	138	7.13	CL	CL, no odor
1189	3	18.45	4.71	0.168	740	9.11	CO	beige, no odor
1183	5	18.64	4.67	0.165	237	9.82	CO	cloudy " "
1179	8	18.58	4.66	0.163	219	10.12	CO	" " "
1178	10	18.56	4.66	0.162	207	10.07	CO	" " "

DEPTH TO WATER AFTER PURGING (BTOC) 26.11 | SAMPLE FILTERED ☐ YES ☑ NO SIZE ____

NOTES:

SAMPLE TIME: 10:59 ID# MW-5

DUPLICATE ☐ TIME: ID#

EQUIP. BLANK ☐ TIME: ID#

PREPARED BY: PETER T. KALLAY

VOLUME OF WATER IN 1 FOOT: 0.0102 Gal in 1/2 inch 0.023 Gal in 3/4 inch 0.041 Gal in 1" DIA pipe
0.17 Gal in 2" inch 0.65 Gal in 4 inch 1.47 Gal in 6 inch DIA pipe

WELL PURGING AND SAMPLING DATA

WELL NO: MW-6D

DATE: 03-6-15 | PROJECT NAME: Roswell Cleaners | PROJECT NO. RCB-2414

WEATHER CONDITIONS: Cloudy, Overcast, Cold, Calm not raining

WELL DIAMETER (IN.) ☐ 1 ☑ 2 ☐ 4 ☐ 6 ☐ Other (specify)

SAMPLE TYPE ☑ GROUNDWATER ☐ WASTEWATER ☐ SURFACE WATER ☐ OTHER

WELL DEPTH (BTOC) 70.00 FT. | DEPTH TO WATER BEFORE PURGE 21.30

HEIGHT OF COLUMN OF WATER 49' FT | CALCULATED ONE WELL VOLUME 8.39 gal

PURGING DEVICE: ☑ DEDICATED ☐ DISPOSABLE ☐ DECONTAMINATED

SAMPLING DEVICE: ☑ DEDICATED ☐ DISPOSABLE ☐ DECONTAMINATED

EQUIP'T DECON: ☑ TAP WATER WASH ☑ ISOPROPANOL ☑ ANALYTE FREE FINAL RINSE

☑ ALCONOX WASH ☐ DIST/DEION 1 RINSE ☐ OTHER SOLVENT ☑ DIST/DEION FINAL RINSE

☐ LIQUINOX WASH ☐ DIST/DEION 2 RINSE ☐ TAP WATER FINAL RINSE ☐ AIR DRY

CONTAINER PRESERVATION: ☑ LAB PRESERVED ☐ FIELD PRESERVED

WATER ANALYZER MAKE, MODEL, SERIAL NO. HORIBA U-53 203 CARSA

RP	ACTUAL TIME (MIN)	CUMUL. VOLUME PURGED (GAL)	TEMP ☐ F ☑ C	pH	SPECIFIC CONDUCT (mS/cm)	TURBIDITY (NTUs)	DISS. OXYGEN (mg/L)	WATER APPEAR CL=CLEAR CO-CLOUDY TU=TURBID	REMARKS: ODOR COLOR PID
63	2	INITIAL	17.36	4.98	0094	158	7.76	CL	No Color, No odor
143	4	2	18.74	6.05	0.094	188	7.20	CL	Clear, no odor
39	6	5	18.78	6.15	0.100	245	7.22	CL	" "
125	9	8	19.81	6.34	0.109	235	11.03	CL	" "
119	12	12	18.36	6.50	0.111	249	8.39	CL	" "
107	15	15	18.94	6.53	0.112	2:55	11.16	CL	" "
115	18	17	18.71	6.57	0.113	2:48	8.21	CL	" "

DEPTH TO WATER AFTER PURGING (BTOC) 22.57 | SAMPLE FILTERED ☐ YES ☑ NO SIZE ____

NOTES:

SAMPLE TIME: 11:30 ID# MW-6D

DUPLICATE ☐ TIME: ID#

EQUIP. BLANK ☐ TIME: ID#

PREPARED BY: PETER T. KALLAY

VOLUME OF WATER IN 1 FOOT: 0.0102 Gal in 1/2 inch 0.023 Gal in 3/4 inch 0.041 Gal in 1" DIA pipe
0.17 Gal in 2" inch 0.65 Gal in 4 inch 1.47 Gal in 6 inch DIA pipe

GROUNDWATER ANALYTICAL RESULTS

ACL

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Laboratory Report

ACL Project #: **67729**

Client Proj #: REB-2414 / Roswell Cleaners

Prepared For:

Atlanta Environmental Consultants
3440 Blue Springs Rd.
Suite 503
Kennesaw, GA 30144-0000

Attention: Mr. Peter Kallay

Report Date: 03/27/2015

This report contains 10 pages.
(including this cover page and chain of custody)

John Andros
Lab Manager

ACCREDITED IN ACCORDANCE WITH nelac

Advanced Chemistry Labs is a woman-owned, small business concern.

ACL

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Explanation of Symbols and Abbreviations

Listed below are common symbols and abbreviations typically used in reporting technical data:

PQL	Practical Quantitation Limit	MDL	Method Detection Limit
BQL	Below Quantitation Limit	BDL	Below Method Detection Limit
MPN	Most Probable Number	TNTC	Too Numerous To Count
NTU	Nephelometric Turbidity Units	BTU	British Thermal Units
°C	Degrees Centigrade	°F	Degrees Fahrenheit
µmhos/cm	micromhos/cm	cfu	Colony Forming Unit
DF	Dilution Factor	meq	milliequivalents
kg	kilogram(s)	g	gram(s)
mg	milligram(s)	µg	microgram(s)
l or L	liter(s)	ml or mL	milliliter(s)
µl or µL	microliter(s)	m^3	cubic meter(s)
lb	pound(s)	ft^3	cubic foot(feet)
ft	foot(feet)	su	Standard Units
<	Less than	>	Greater than

mg/L, mg/kg — Units of concentration in milligrams per liter for liquids and milligrams per kilogram for solids. Also referred to as parts per million or "ppm" when the assumption is made that the specific gravity or density is one (1 g/mL).

µg/L, µg/kg — Units of concentration in micrograms per liter for liquids and micrograms per kilogram for solids. Also referred to as parts per billion or "ppb" when the assumption is made that the specific gravity or density is one (1 g/mL).

wt % — Units of concentration expressed on a weight/weight basis (e.g. grams per 100 grams).

Surrogate — Compound(s) added by the laboratory for quality control monitoring.

mg/kg,dw — Units of concentration in milligrams per kilogram (dry weight basis).

Data Qualifiers:

B — Analyte was also detected in the method blank
E — Estimated value - analyte was detected at concentration greater than upper calibration limit
F — Estimated value - analyte should have been tested as a field parameter
H — Estimated value - sample was analyzed beyond the accepted holding time
J — Estimated value - analyte was detected < PQL and ≥ MDL
L — The batch-specific LCS and/or LCSD was not within lab control limits for this analyte
M — The batch-specific MS and/or MSD was not within lab control limits for this analyte
R — The RPD between batch-specific sample/dup or MS/MSD was not within lab control limits for this analyte
S — The surrogate recovery was not within quality control limits
Z — Laboratory specific qualifier – refer to case narrative
* — Performed in strict accordance with the procedures and controls of the ACL quality system, but not currently in the NELAC list of certified analytes/methods

Solid samples (i.e. soil, sludge, solid waste) are reported on a wet weight basis unless otherwise noted. Estimated uncertainty values are available upon request.

Representation and Limitation of Liability – The accuracy of all analytical results for samples begins as it is received by the laboratory. The integrity of the sample begins at the time it is placed in the possession of authorized ACL personnel. All other warranties, expressed or implied, are disclaimed. Liability is limited to the cost of the analysis.

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Client: Atlanta Environmental Consultants
3440 Blue Springs Rd.
Suite 503
Kennesaw, GA 30144-0000

Contact: Mr. Peter Kallay

Client Proj #: REB-2414 / Roswell Cleaners
ACL Project #: 67729
Date Received: 03/06/2015
Date Reported: 03/27/2015

Volatile Organics (8260B)

Sample ID: MW-1
ACL Sample #: 305779
Units: µg/L

Matrix: Water
Date Sampled: 03/06/2015 10:45
Date Prepared:
Date Analyzed: 03/07/2015
Analyst: JG

Analyte	Result	PQL	Analyte	Result	PQL
Acetone	BQL	100	1,3-Dichloropropane	BQL	5.0
Acrolein	BQL	50	2,2-Dichloropropane	BQL	5.0
Acrylonitrile	BQL	50	1,1-Dichloropropene	BQL	5.0
Benzene	BQL	5.0	cis-1,3-Dichloropropene	BQL	5.0
Bromobenzene	BQL	5.0	trans-1,3-Dichloropropene	BQL	5.0
Bromochloromethane	BQL	5.0	Ethylbenzene	BQL	5.0
Bromodichloromethane	BQL	5.0	Hexachlorobutadiene	BQL	5.0
Bromoform	BQL	5.0	2-Hexanone	BQL	50
Bromomethane	BQL	10	Isopropylbenzene	BQL	5.0
2-Butanone	BQL	100	p-Isopropyltoluene	BQL	5.0
n-Butylbenzene	BQL	5.0	4-Methyl-2-pentanone	BQL	50
sec-Butylbenzene	BQL	5.0	Methylene chloride	BQL	5.0
tert-Butylbenzene	BQL	5.0	Naphthalene	BQL	5.0
Carbon disulfide	BQL	5.0	n-Propylbenzene	BQL	5.0
Carbon tetrachloride	BQL	5.0	Styrene	BQL	5.0
Chlorobenzene	BQL	5.0	1,1,1,2-Tetrachloroethane	BQL	5.0
Chloroethane	BQL	10	1,1,2,2-Tetrachloroethane	BQL	5.0
2-Chloroethylvinyl ether	BQL	10	Tetrachloroethene	BQL	5.0
Chloroform	BQL	5.0	Toluene	BQL	5.0
Chloromethane	BQL	10	1,2,3-Trichlorobenzene	BQL	5.0
2-Chlorotoluene	BQL	5.0	1,2,4-Trichlorobenzene	BQL	5.0
4-Chlorotoluene	BQL	5.0	1,1,1-Trichloroethane	BQL	5.0
1,2-Dibromo-3-chloropropane	BQL	5.0	1,1,2-Trichloroethane	BQL	5.0
Dibromochloromethane	BQL	5.0	Trichloroethene	BQL	5.0
1,2-Dibromoethane	BQL	5.0	Trichlorofluoromethane	BQL	5.0
Dibromomethane	BQL	5.0	1,2,3-Trichloropropane	BQL	5.0
1,2-Dichlorobenzene	BQL	5.0	1,2,4-Trimethylbenzene	BQL	5.0
1,3-Dichlorobenzene	BQL	5.0	1,3,5-Trimethylbenzene	BQL	5.0
1,4-Dichlorobenzene	BQL	5.0	Vinyl acetate	BQL	50
Dichlorodifluoromethane	BQL	10	Vinyl chloride	BQL	2.0
1,1-Dichloroethane	BQL	5.0	m,p-Xylene	BQL	10
1,2-Dichloroethane	BQL	5.0	o-Xylene	BQL	5.0
1,1-Dichloroethene	BQL	5.0			
cis-1,2-Dichloroethene	BQL	5.0			
trans-1,2-Dichloroethene	BQL	5.0			
1,2-Dichloropropane	BQL	5.0			

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Contact: Mr. Peter Kallay

Client Proj #: REB-2414 / Roswell Cleaners
ACL Project #: 67729
Date Received: 03/06/2015
Date Reported: 03/27/2015

Volatile Organics (8260B)

Sample ID: MW-2
ACL Sample #: 305780
Units: µg/L

Matrix: Water
Date Sampled: 03/06/2015 11:50
Date Prepared:
Date Analyzed: 03/07/2015
Analyst: JG

Analyte	Result	PQL	Analyte	Result	PQL
Acetone	BQL	100	1,3-Dichloropropane	BQL	5.0
Acrolein	BQL	50	2,2-Dichloropropane	BQL	5.0
Acrylonitrile	BQL	50	1,1-Dichloropropene	BQL	5.0
Benzene	BQL	5.0	cis-1,3-Dichloropropene	BQL	5.0
Bromobenzene	BQL	5.0	trans-1,3-Dichloropropene	BQL	5.0
Bromochloromethane	BQL	5.0	Ethylbenzene	BQL	5.0
Bromodichloromethane	BQL	5.0	Hexachlorobutadiene	BQL	5.0
Bromoform	BQL	5.0	2-Hexanone	BQL	50
Bromomethane	BQL	10	Isopropylbenzene	BQL	5.0
2-Butanone	BQL	100	p-Isopropyltoluene	BQL	5.0
n-Butylbenzene	BQL	5.0	4-Methyl-2-pentanone	BQL	50
sec-Butylbenzene	BQL	5.0	Methylene chloride	BQL	5.0
tert-Butylbenzene	BQL	5.0	Naphthalene	BQL	5.0
Carbon disulfide	BQL	5.0	n-Propylbenzene	BQL	5.0
Carbon tetrachloride	BQL	5.0	Styrene	BQL	5.0
Chlorobenzene	BQL	5.0	1,1,1,2-Tetrachloroethane	BQL	5.0
Chloroethane	BQL	10	1,1,2,2-Tetrachloroethane	BQL	5.0
2-Chloroethylvinyl ether	BQL	10	Tetrachloroethene	12	5.0
Chloroform	BQL	5.0	Toluene	BQL	5.0
Chloromethane	BQL	10	1,2,3-Trichlorobenzene	BQL	5.0
2-Chlorotoluene	BQL	5.0	1,2,4-Trichlorobenzene	BQL	5.0
4-Chlorotoluene	BQL	5.0	1,1,1-Trichloroethane	BQL	5.0
1,2-Dibromo-3-chloropropane	BQL	5.0	1,1,2-Trichloroethane	BQL	5.0
Dibromochloromethane	BQL	5.0	Trichloroethene	BQL	5.0
1,2-Dibromoethane	BQL	5.0	Trichlorofluoromethane	BQL	5.0
Dibromomethane	BQL	5.0	1,2,3-Trichloropropane	BQL	5.0
1,2-Dichlorobenzene	BQL	5.0	1,2,4-Trimethylbenzene	BQL	5.0
1,3-Dichlorobenzene	BQL	5.0	1,3,5-Trimethylbenzene	BQL	5.0
1,4-Dichlorobenzene	BQL	5.0	Vinyl acetate	BQL	50
Dichlorodifluoromethane	BQL	10	Vinyl chloride	BQL	2.0
1,1-Dichloroethane	BQL	5.0	m,p-Xylene	BQL	10
1,2-Dichloroethane	BQL	5.0	o-Xylene	BQL	5.0
1,1-Dichloroethene	BQL	5.0			
cis-1,2-Dichloroethene	8.6	5.0			
trans-1,2-Dichloroethene	BQL	5.0			
1,2-Dichloropropane	BQL	5.0			

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Contact: Mr. Peter Kallay

Client Proj #: REB-2414 / Roswell Cleaners
ACL Project #: 67729
Date Received: 03/06/2015
Date Reported: 03/27/2015

Volatile Organics (8260B)

Sample ID: MW-3
ACL Sample #: 305781
Units: µg/L

Matrix: Water
Date Sampled: 03/06/2015 13:00
Date Prepared:
Date Analyzed: 03/07/2015
Analyst: JG

Analyte	Result	PQL	Analyte	Result	PQL
Acetone	BQL	100	1,3-Dichloropropane	BQL	5.0
Acrolein	BQL	50	2,2-Dichloropropane	BQL	5.0
Acrylonitrile	BQL	50	1,1-Dichloropropene	BQL	5.0
Benzene	BQL	5.0	cis-1,3-Dichloropropene	BQL	5.0
Bromobenzene	BQL	5.0	trans-1,3-Dichloropropene	BQL	5.0
Bromochloromethane	BQL	5.0	Ethylbenzene	BQL	5.0
Bromodichloromethane	BQL	5.0	Hexachlorobutadiene	BQL	5.0
Bromoform	BQL	5.0	2-Hexanone	BQL	50
Bromomethane	BQL	10	Isopropylbenzene	BQL	5.0
2-Butanone	BQL	100	p-Isopropyltoluene	BQL	5.0
n-Butylbenzene	BQL	5.0	4-Methyl-2-pentanone	BQL	50
sec-Butylbenzene	BQL	5.0	Methylene chloride	BQL	5.0
tert-Butylbenzene	BQL	5.0	Naphthalene	BQL	5.0
Carbon disulfide	BQL	5.0	n-Propylbenzene	BQL	5.0
Carbon tetrachloride	BQL	5.0	Styrene	BQL	5.0
Chlorobenzene	BQL	5.0	1,1,1,2-Tetrachloroethane	BQL	5.0
Chloroethane	BQL	10	1,1,2,2-Tetrachloroethane	BQL	5.0
2-Chloroethylvinyl ether	BQL	10	Tetrachloroethene	BQL	5.0
Chloroform	BQL	5.0	Toluene	BQL	5.0
Chloromethane	BQL	10	1,2,3-Trichlorobenzene	BQL	5.0
2-Chlorotoluene	BQL	5.0	1,2,4-Trichlorobenzene	BQL	5.0
4-Chlorotoluene	BQL	5.0	1,1,1-Trichloroethane	BQL	5.0
1,2-Dibromo-3-chloropropane	BQL	5.0	1,1,2-Trichloroethane	BQL	5.0
Dibromochloromethane	BQL	5.0	Trichloroethene	BQL	5.0
1,2-Dibromoethane	BQL	5.0	Trichlorofluoromethane	BQL	5.0
Dibromomethane	BQL	5.0	1,2,3-Trichloropropane	BQL	5.0
1,2-Dichlorobenzene	BQL	5.0	1,2,4-Trimethylbenzene	BQL	5.0
1,3-Dichlorobenzene	BQL	5.0	1,3,5-Trimethylbenzene	BQL	5.0
1,4-Dichlorobenzene	BQL	5.0	Vinyl acetate	BQL	50
Dichlorodifluoromethane	BQL	10	Vinyl chloride	BQL	2.0
1,1-Dichloroethane	BQL	5.0	m,p-Xylene	BQL	10
1,2-Dichloroethane	BQL	5.0	o-Xylene	BQL	5.0
1,1-Dichloroethene	BQL	5.0			
cis-1,2-Dichloroethene	BQL	5.0			
trans-1,2-Dichloroethene	BQL	5.0			
1,2-Dichloropropane	BQL	5.0			

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Contact: Mr. Peter Kallay

Client Proj #: REB-2414 / Roswell Cleaners
ACL Project #: 67729
Date Received: 03/06/2015
Date Reported: 03/27/2015

Volatile Organics (8260B)

Sample ID: MW-4
ACL Sample #: 305782
Units: µg/L

Matrix: Water
Date Sampled: 03/06/2015 13:25
Date Prepared:
Date Analyzed: 03/07/2015
Analyst: JG

Analyte	Result	PQL	Analyte	Result	PQL
Acetone	BQL	100	1,3-Dichloropropane	BQL	5.0
Acrolein	BQL	50	2,2-Dichloropropane	BQL	5.0
Acrylonitrile	BQL	50	1,1-Dichloropropene	BQL	5.0
Benzene	BQL	5.0	cis-1,3-Dichloropropene	BQL	5.0
Bromobenzene	BQL	5.0	trans-1,3-Dichloropropene	BQL	5.0
Bromochloromethane	BQL	5.0	Ethylbenzene	BQL	5.0
Bromodichloromethane	BQL	5.0	Hexachlorobutadiene	BQL	5.0
Bromoform	BQL	5.0	2-Hexanone	BQL	50
Bromomethane	BQL	10	Isopropylbenzene	BQL	5.0
2-Butanone	BQL	100	p-Isopropyltoluene	BQL	5.0
n-Butylbenzene	BQL	5.0	4-Methyl-2-pentanone	BQL	50
sec-Butylbenzene	BQL	5.0	Methylene chloride	BQL	5.0
tert-Butylbenzene	BQL	5.0	Naphthalene	BQL	5.0
Carbon disulfide	BQL	5.0	n-Propylbenzene	BQL	5.0
Carbon tetrachloride	BQL	5.0	Styrene	BQL	5.0
Chlorobenzene	BQL	5.0	1,1,1,2-Tetrachloroethane	BQL	5.0
Chloroethane	BQL	10	1,1,2,2-Tetrachloroethane	BQL	5.0
2-Chloroethylvinyl ether	BQL	10	Tetrachloroethene	47	5.0
Chloroform	BQL	5.0	Toluene	BQL	5.0
Chloromethane	BQL	10	1,2,3-Trichlorobenzene	BQL	5.0
2-Chlorotoluene	BQL	5.0	1,2,4-Trichlorobenzene	BQL	5.0
4-Chlorotoluene	BQL	5.0	1,1,1-Trichloroethane	BQL	5.0
1,2-Dibromo-3-chloropropane	BQL	5.0	1,1,2-Trichloroethane	BQL	5.0
Dibromochloromethane	BQL	5.0	Trichloroethene	38	5.0
1,2-Dibromoethane	BQL	5.0	Trichlorofluoromethane	BQL	5.0
Dibromomethane	BQL	5.0	1,2,3-Trichloropropane	BQL	5.0
1,2-Dichlorobenzene	BQL	5.0	1,2,4-Trimethylbenzene	BQL	5.0
1,3-Dichlorobenzene	BQL	5.0	1,3,5-Trimethylbenzene	BQL	5.0
1,4-Dichlorobenzene	BQL	5.0	Vinyl acetate	BQL	50
Dichlorodifluoromethane	BQL	10	Vinyl chloride	BQL	2.0
1,1-Dichloroethane	BQL	5.0	m,p-Xylene	BQL	10
1,2-Dichloroethane	BQL	5.0	o-Xylene	BQL	5.0
1,1-Dichloroethene	BQL	5.0			
cis-1,2-Dichloroethene	71	5.0			
trans-1,2-Dichloroethene	BQL	5.0			
1,2-Dichloropropane	BQL	5.0			

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Contact: Mr. Peter Kallay

Client Proj #: REB-2414 / Roswell Cleaners
ACL Project #: 67729
Date Received: 03/06/2015
Date Reported: 03/27/2015

Volatile Organics (8260B)

Sample ID: MW-5
ACL Sample #: 305783
Units: µg/L

Matrix: Water
Date Sampled: 03/06/2015 10:59
Date Prepared:
Date Analyzed: 03/07/2015
Analyst: JG

Analyte	Result	PQL	Analyte	Result	PQL
Acetone	BQL	100	1,3-Dichloropropane	BQL	5.0
Acrolein	BQL	50	2,2-Dichloropropane	BQL	5.0
Acrylonitrile	BQL	50	1,1-Dichloropropene	BQL	5.0
Benzene	BQL	5.0	cis-1,3-Dichloropropene	BQL	5.0
Bromobenzene	BQL	5.0	trans-1,3-Dichloropropene	BQL	5.0
Bromochloromethane	BQL	5.0	Ethylbenzene	BQL	5.0
Bromodichloromethane	BQL	5.0	Hexachlorobutadiene	BQL	5.0
Bromoform	BQL	5.0	2-Hexanone	BQL	50
Bromomethane	BQL	10	Isopropylbenzene	BQL	5.0
2-Butanone	BQL	100	p-Isopropyltoluene	BQL	5.0
n-Butylbenzene	BQL	5.0	4-Methyl-2-pentanone	BQL	50
sec-Butylbenzene	BQL	5.0	Methylene chloride	BQL	5.0
tert-Butylbenzene	BQL	5.0	Naphthalene	BQL	5.0
Carbon disulfide	BQL	5.0	n-Propylbenzene	BQL	5.0
Carbon tetrachloride	BQL	5.0	Styrene	BQL	5.0
Chlorobenzene	BQL	5.0	1,1,1,2-Tetrachloroethane	BQL	5.0
Chloroethane	BQL	10	1,1,2,2-Tetrachloroethane	BQL	5.0
2-Chloroethylvinyl ether	BQL	10	Tetrachloroethene	BQL	5.0
Chloroform	4.5 J	5.0	Toluene	BQL	5.0
Chloromethane	BQL	10	1,2,3-Trichlorobenzene	BQL	5.0
2-Chlorotoluene	BQL	5.0	1,2,4-Trichlorobenzene	BQL	5.0
4-Chlorotoluene	BQL	5.0	1,1,1-Trichloroethane	BQL	5.0
1,2-Dibromo-3-chloropropane	BQL	5.0	1,1,2-Trichloroethane	BQL	5.0
Dibromochloromethane	BQL	5.0	Trichloroethene	BQL	5.0
1,2-Dibromoethane	BQL	5.0	Trichlorofluoromethane	BQL	5.0
Dibromomethane	BQL	5.0	1,2,3-Trichloropropane	BQL	5.0
1,2-Dichlorobenzene	BQL	5.0	1,2,4-Trimethylbenzene	BQL	5.0
1,3-Dichlorobenzene	BQL	5.0	1,3,5-Trimethylbenzene	BQL	5.0
1,4-Dichlorobenzene	BQL	5.0	Vinyl acetate	BQL	50
Dichlorodifluoromethane	BQL	10	Vinyl chloride	BQL	2.0
1,1-Dichloroethane	BQL	5.0	m,p-Xylene	BQL	10
1,2-Dichloroethane	BQL	5.0	o-Xylene	BQL	5.0
1,1-Dichloroethene	BQL	5.0			
cis-1,2-Dichloroethene	BQL	5.0			
trans-1,2-Dichloroethene	BQL	5.0			
1,2-Dichloropropane	BQL	5.0			

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Client Proj #: REB-2414 / Roswell Cleaners
ACL Project #: 67729
Date Received: 03/06/2015
Date Reported: 03/27/2015

Volatile Organics (8260B)

Sample ID: MW-6D
ACL Sample #: 305784
Units: µg/L

Matrix: Water
Date Sampled: 03/06/2015 11:30
Date Prepared:
Date Analyzed: 03/07/2015
Analyst: JG

Analyte	Result	PQL	Analyte	Result	PQL
Acetone	BQL	100	1,3-Dichloropropane	BQL	5.0
Acrolein	BQL	50	2,2-Dichloropropane	BQL	5.0
Acrylonitrile	BQL	50	1,1-Dichloropropene	BQL	5.0
Benzene	BQL	5.0	cis-1,3-Dichloropropene	BQL	5.0
Bromobenzene	BQL	5.0	trans-1,3-Dichloropropene	BQL	5.0
Bromochloromethane	BQL	5.0	Ethylbenzene	BQL	5.0
Bromodichloromethane	BQL	5.0	Hexachlorobutadiene	BQL	5.0
Bromoform	BQL	5.0	2-Hexanone	BQL	50
Bromomethane	BQL	10	Isopropylbenzene	BQL	5.0
2-Butanone	BQL	100	p-Isopropyltoluene	BQL	5.0
n-Butylbenzene	BQL	5.0	4-Methyl-2-pentanone	BQL	50
sec-Butylbenzene	BQL	5.0	Methylene chloride	BQL	5.0
tert-Butylbenzene	BQL	5.0	Naphthalene	BQL	5.0
Carbon disulfide	BQL	5.0	n-Propylbenzene	BQL	5.0
Carbon tetrachloride	BQL	5.0	Styrene	BQL	5.0
Chlorobenzene	BQL	5.0	1,1,1,2-Tetrachloroethane	BQL	5.0
Chloroethane	BQL	10	1,1,2,2-Tetrachloroethane	BQL	5.0
2-Chloroethylvinyl ether	BQL	10	Tetrachloroethene	BQL	5.0
Chloroform	22	5.0	Toluene	BQL	5.0
Chloromethane	BQL	10	1,2,3-Trichlorobenzene	BQL	5.0
2-Chlorotoluene	BQL	5.0	1,2,4-Trichlorobenzene	BQL	5.0
4-Chlorotoluene	BQL	5.0	1,1,1-Trichloroethane	BQL	5.0
1,2-Dibromo-3-chloropropane	BQL	5.0	1,1,2-Trichloroethane	BQL	5.0
Dibromochloromethane	BQL	5.0	Trichloroethene	BQL	5.0
1,2-Dibromoethane	BQL	5.0	Trichlorofluoromethane	BQL	5.0
Dibromomethane	BQL	5.0	1,2,3-Trichloropropane	BQL	5.0
1,2-Dichlorobenzene	BQL	5.0	1,2,4-Trimethylbenzene	BQL	5.0
1,3-Dichlorobenzene	BQL	5.0	1,3,5-Trimethylbenzene	BQL	5.0
1,4-Dichlorobenzene	BQL	5.0	Vinyl acetate	BQL	50
Dichlorodifluoromethane	BQL	10	Vinyl chloride	BQL	2.0
1,1-Dichloroethane	BQL	5.0	m,p-Xylene	BQL	10
1,2-Dichloroethane	BQL	5.0	o-Xylene	BQL	5.0
1,1-Dichloroethene	BQL	5.0			
cis-1,2-Dichloroethene	BQL	5.0			
trans-1,2-Dichloroethene	BQL	5.0			
1,2-Dichloropropane	BQL	5.0			

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Sample Log-in Checklist

Client Name: Atlanta Environmental Consultants

ACL Project Number: **67729**

Cooler Check

	Yes	No
Ice Present?	☑	☐
Temperature	3 °C	

	Yes	No
Evidence Tape Present?	☐	☑
Evidence Tape Intact?	☐	☑

For coolers with a temperature greater than 6°C or with a damaged evidence seal, the bottles affected are identified below.

	Yes	No
Chain-of-Custody Form Included?	☑	☐
Field Sampling Sheet Included?	☐	☑

Cooler Shipping and Receipt

Shipping Method: Delivered by Customer

Tracking Number:

Receipt Date: 3/6/2015

Receipt Time: 3:49 PM

Bottle Check

Acid Preserved Sample (pH Check): pH<2? Yes
(pH for VO vials to be checked upon analysis)

Base Preserved Samples (pH Check): pH>12? N/A

Chlorine Check (Positive, Negative, N/A): N/A

Condition of Containers:

	Yes	No
Evidence Tape Present on Bottles?	☐	☑
Evidence Tape Intact?	☐	☑
Loose Caps?	☐	☑
Broken Bottles?	☐	☑

Cooler Unpacked/Checked By: JA **Logged In By:** JA **Log-in Date:** 3/6/2015

Comments (if any):

ACL ADVANCED CHEMISTRY LABS, INC.

3039 Amwiler Road · Suite 100 · Atlanta, GA 30360 ■ (770) 409-1444 · Fax (770) 409-1844

CHAIN-OF-CUSTODY RECORD

Company Name: ATLANTA ENVIRON. CONSULTANTS	Phone #: 770-529-0386 Fax #: 678-569-2419
Address: 3440 BLUE SPRINGS RD #503 KENNESAW, GA 30144	Site Location: ROSWELL CLEANERS (RC) ROSWELL, GA
Project Manager: PETER T. KALLAY, P.E.	Project #: REB-2414 Project Name: ROSWELL CLEANERS
I attest that the proper field sampling procedures were used during the collection of these samples.	Sampler Name (Print): PETER T. KALLAY

ANALYSIS REQUEST

Field Sample ID	# of Containers	Matrix: Water	Soil	Air	Sludge	Product	Other	Method Preserved: HCl	$NaHSO_4$	H_2SO_4	HNO_3	NaOH	None	Sampling: Date	Time	Grab	Comp	EPA METHOD 8260	Remarks
MW-1	2	✓						✓						3/6/15	10:45			✓	
MW-2	2	✓						✓							11:50			✓	
MW-3	2	✓						✓							1:00			✓	
MW-4	2	✓						✓							1:25			✓	
MW-5	2	✓						✓							10:59			✓	
MW-6D	2	✓						✓							11:30			✓	

Special Detection Limits: GEORGIA EPD

Remarks:

TAT: Next Bus. Day ☐ 2nd Bus. Day ☐ 3rd Bus. Day ☐ Normal ☑

Special Handling: ACL Contract _____ Quote # _____ P.O. _____

Special Reporting Requirements: Fax ☑

Lab Use Only: ACL Project #: 67729

Cooler Temp.: 3 °C

QA/QC Level: Level 1 ☐ Level 2 ☐ Other ☐ _____

CUSTODY RECORD		Date	Time	
	Relinquished by Sampler:	03/06/15	3:49	Received by:
	Relinquished by:	Date:	Time:	Received by:
	Relinquished by:	Date: 3-06-15	Time: 3:49	Received by Laboratory: