ARKANSAS STATE HIGHWAY COMMISSION
AHTD - EQUIPMENT AND PROCUREMENT DIVISION
BID INVITATION

Bid Number: M-17-050P

Bid Opening Date: May 9, 2017 Time: 11:00 a.m.

BID OPENING LOCATION:
AHTD Equipment and Procurement Division
11302 West Baseline Road
Little Rock, AR 72209

MAIL TO:
AHTD Equipment and Procurement Division
P.O. Box 2261
Little Rock, AR 72203

DELIVER TO:
AHTD Equipment and Procurement Division
11302 West Baseline Road
Little Rock, AR 72209

Sealed bids for furnishing the commodities and/or services described below, subject to the Standard Bid Conditions of this Bid Invitation will be received at the above-noted mail and delivery locations until the above-noted bid opening date and time, and then publicly opened at the above-noted bid opening location. **Bids must be submitted on this form, with attachments when appropriate, or bids will be rejected.** **Late bids and unsigned bids will not be considered.**

In compliance with this Bid Invitation and subject to all the Conditions thereof, the undersigned offers and agrees to furnish any and all items upon which prices are quoted, at the price set opposite each item.

Company Name:_____

Address:_____

_____

City:_____ State:_____ Zip:_____

Federal Tax ID or Social Security No.:_____

Name (Type or Print):_____

Title:_____

Phone:_____ Fax:_____

E-mail Address:_____

Signature:_____
Signature must be legible, original (not photocopied) and in ink.
Unsigned bids will be rejected.

Item No.	Description	Quantity	Unit	Unit Price	Amount

Environmental Contractor and Consultancy work for the Preparation of a Site Assessment Work Plan, Interim Free Product Removal and Cost Estimate. Job is located at Hwy. 18 (Blytheville) Mississippi County, Tract 2X
(Job #100705 – R/W Acquisition/Job #100740 - Construction)

ADEQ Facility ID #47-000222
LUST #47-0040
AFIN 47-00686

Contact for Technical Information: Nathaniel C. Williams, MPA – Section Head – Relocation (501-569-2308)
Contacts for Bidding Information: Danny Keene (501-569-2674) or Chicita Pate (501-569-2675)

All bidders should complete and return the Eligible Bidder Certification (Attachment A) and Disclosure Form (see Page 2 of Standard Bid Conditions – Item 18) issued with this bid. A current copy of the DFA Illegal Immigrant Contractor Disclosure Certification (see Page 2 of Standard Bid Conditions – Item 17) should also be submitted with bid.

To meet the requirements of Arkansas State Highway and Transportation Department Specifications and Drawings attached to and made a part of this bid.

Bid price shall include all labor, materials, and equipment necessary to perform the work as specified, and shall further include all licenses, fees, permits, royalties, and all taxes. Bid price shall represent full compensation for completion of the work. This provision supersedes Condition 5 on page 1 of Standard Bid Conditions. Payment will be made in accordance with Arkansas State Highway & Transportation Department Standard Specifications and Applicable Special Provisions.

Bid Bond in the amount of $1,000.00 required of all bidders at time of bid opening or bid will be rejected. **Personal and company checks are not acceptable as Bid Bonds.** See Condition 4 on page 1 of Standard Bid Conditions. **Performance Bond** in the amount of $1,000.00 will be required of successful bidder prior to providing goods/services. **Personal and company checks are not acceptable as Performance Bonds**. See Condition 4 on page 1 of Standard Bid Conditions.

The successful bidder will be required to complete job within 20 days after award.

Bids and Specifications are available on-line by going to the AHTD Web Site – www.arkansashighways.com and clicking on "Commodities and Services Bids/Contracts Information". Tabulations will also be available at this site after award of bid/contract. If you have any questions, call this office at 501-569-2667.

	(12-210)		TOTAL BID		

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARKANSAS
AHTD - EQUIPMENT & PROCUREMENT DIVISION
BID NO. M-17-050P

WORK LIST

1. Review of Documents listed under *1)d* $_____
2. Preparation of Site Assessment Work Plan $_____
3. Preparation of Interim Free Product Removal Work Plan $_____
4. Preparation of Cost Estimate $_____

Total Lump Sum Price: **$_____**

Items must be priced individually but bid will be awarded by the Lump Sum.

_____	_____
Company Name	Address
_____	_____
Authorized Signature	City, State, Zip Code
_____	_____
License #	Contact Person & Telephone #

ARKANSAS STATE HIGHWAY COMMISSION

STANDARD BID CONDITIONS

1. **GENERAL:** Any special terms and conditions included in the invitation for bid override these standard terms and conditions. The standard terms and conditions and any special terms and conditions become part of any contract entered into if any or all parts of the bid are accepted by the Arkansas State Highway Commission (AHTD).

2. **ACCEPTANCE AND REJECTION:** AHTD reserves the right to reject any or all bids, to accept bids in whole or in part (unless otherwise indicated by bidder), to waive any informalities in bids received, to accept bids on materials or equipment with variations from specifications where efficiency of operation will not be impaired, and to award bids to best serve the interest of the State.

3. **PRICES:** Unless otherwise stated in the Bid Invitation, the following will apply: (1) unit prices shall be bid, (2) prices should be stated in units of quantity specified (feet, each, lbs., etc.), (3) prices must be F.O.B. destination specified in bid, (4) prices must be firm and not subject to escalation, (5) bid must be firm for acceptance for 30 days from bid opening date. In case of errors in extension, unit prices shall govern. Discounts from bid price will not be considered in making awards.

4. **BID BONDS AND PERFORMANCE BONDS**: If required, a **Bid Bond** in the form of a cashier's check, certified check, or surety bond issued by a surety company, in an amount stated in the Bid Invitation, must accompany bid. **Personal and company checks are not acceptable as Bid Bonds**. Failure to submit a Bid Bond as required will cause a bid to be rejected. The Bid Bond will be forfeited as liquidated damages if the successful bidder fails to provide a required Performance Bond within the period stipulated by AHTD or fails to honor their bid. When a bidder claims and can show clear and convincing evidence that a material mistake was made in the bid and was not the bid intended, the bidder may be permitted to withdraw their bid prior to award without forfeiture of bid bond. Cashier's checks and certified checks submitted as Bid Bonds will be returned to unsuccessful bidders; surety bonds will be retained. The successful bidder will be required to furnish a **Performance Bond** in an amount stated in the Bid Invitation and in the form of a cashier's check, certified check, or surety bond issued by a surety company, unless otherwise stated in the Bid Invitation, as a guarantee of delivery of goods/services in accordance with the specifications and within the time established in the bid. **Personal and company checks are not acceptable as Performance Bonds**. In some cases, a cashier's check or certified check submitted as a Bid Bond will be held as the Performance Bond of the successful bidder. Cashier's checks or certified checks submitted as Performance Bonds will be refunded shortly after payment has been made to the successful bidder for completion of all terms of the bid; surety bonds will be retained. Surety bonds must be issued by a surety company authorized to do business in Arkansas, and must be signed by a Resident Local Agent licensed by the Arkansas State Insurance Commissioner to represent that surety company. Resident Agent's Power-of-Attorney must accompany the surety bond. Certain bids involving labor will require Performance Bonds in the form of surety bonds only (no checks of any kind allowed). These bonds shall not only serve to guarantee the completion of the work, but also to guarantee the excellence of both workmanship and material until the work is finally accepted and the provisions of the Plans, Specifications, and Special Provisions fulfilled. In such cases, the company issuing the surety bond must comply with all stipulations herein and must be named in the U. S. Treasury listing of companies holding Certificates of Authority as acceptable sureties on Federal Bonds and as acceptable reinsuring companies. Any excess between the face amount of the bond and the underwriting limitation of the bonding company shall be protected by reinsurance provided by an acceptable reinsuring company. Annual Bid and Performance Bonds on file with E & P Division must have sufficient unencumbered funds to meet current bonding requirements, or the bid will be rejected, unless the balance is submitted as set forth above, prior to bid opening.

5. **TAXES:** The AHTD is not exempt from Arkansas State Sales and Use Taxes, or local option city/county sales taxes, when applicable, and bidders are responsible to the State Revenue Department for such taxes. These taxes should not be included in bid prices, but where required by law, will be paid by the AHTD as an addition thereto, and should be added to the billing to the AHTD. The AHTD is exempt from Federal Excise Taxes on all commodities except motor fuels; and excise taxes should not be included in bid prices except for motor fuels. Where applicable, tax exemption certificates will be furnished by the AHTD.

6. **"ALL OR NONE" BIDS:** Bidders who wish to bid "All or None" on two or more items shall so stipulate on the face of bid sheet; otherwise, bid may be awarded on an individual item basis.

7. **SPECIFICATIONS:** Complete specifications should be attached for any substitution or alternate offered, or where amplification is necessary. Bidder's name must be placed on all attachments to the bid.

8. **EXCEPTIONS TO SPECIFICATIONS:** Any exceptions to the bid specifications must be stated in the bid. Any exceptions to manufacturer's published literature must be stated in the bid, or it will be assumed that bidder is bidding exactly as stated in the literature.

9. **BRAND NAME REFERENCES:** All brand name references in bid specifications refer to that commodity or its equivalent, unless otherwise stated in Bid Invitation. Bidder should state brand or trade name of item being bid, if such name exists.

10. **FREIGHT:** All freight charges should be included in bid price. Any change in common carrier rates authorized by the Interstate Commerce Commission will be adjusted if such change occurs after the bid opening date. Receipted common carrier bills that reflect ICC authorized rate changes must be furnished.

11. **SAMPLES, LITERATURE, DEMONSTRATIONS:** Samples and technical literature must be provided free of any charge within 14 days of AHTD request, and free demonstrations within 30 days, unless AHTD extends time. Failure to provide as requested within this period may cause bid to be rejected. Samples, literature and demonstrations must be substantially the same as the item(s) being bid, unless otherwise agreed to by AHTD. Samples that are not destroyed will be returned upon request at bidders expense. Samples from successful bidders may be retained for comparison with items actually furnished.

12. **GUARANTY:** Unless otherwise indicated in Bid Invitation, it is understood and agreed that any item offered or shipped on this bid shall be newly manufactured, latest model and design, and in first class condition; and that all containers shall be new, suitable for storage or shipment and in compliance with all applicable laws relating to construction, packaging, labeling and registration.

13. **BACKORDERS OR DELAY IN DELIVERY:** Backorders or failure to deliver within the time required may constitute default. Vendor must give written notice to the AHTD, as soon as possible, of the reason for any delay and the expected delivery date. The AHTD has the right to extend delivery if reasons appear valid. If reason or delivery date is not acceptable, vendor is in default.

14. **DEFAULT:** All commodities furnished will be subject to inspection and acceptance by AHTD after delivery. Default in promised delivery or failure to meet specifications authorizes the AHTD to cancel award or any portion of same, to reasonably purchase commodities or services elsewhere and to charge full increase, if any, in cost and handling to defaulting vendor. Applicable bonds may be forfeited.

15. **ETHICS:** *"It shall be a breach of ethical standards for a person to be retained, or to retain a person, to solicit or secure a State contract upon an agreement of understanding for a commission, percentage, brokerage, or contingent fee, except for retention of bona fide employees or bona fide established commercial selling agencies maintained by the contractor for the purpose of securing business."* (Arkansas Code, Annotated, Section 19-11-708).

16. **NOTICE OF NONDISCRIMINATION:** The Arkansas State Highway Commission, through the AHTD, complies with all civil rights provisions of federal statutes and related authorities that prohibit discrimination in programs and activities receiving federal financial assistance. Therefore, the AHTD does not discriminate on the basis of race, sex, color, age, national origin, religion (not applicable as a protected group under the Federal Motor Carrier Safety Administration Title VI Program), disability, Limited English Proficiency (LEP), or low-income status in the admission, access to and treatment in the AHTD's programs and activities, as well as the AHTD's hiring or employment practices. Complaints of alleged discrimination and inquiries regarding the AHTD nondiscrimination policies may be directed to Joanna P. McFadden Section Head – EEO/DBE (ADA/504/Title VI Coordinator), P. O. Box 2261, Little Rock, AR 72203, (501)569-2298, (Voice/TTY 711), or the following email address: **joanna.mcfadden@ahtd.ar.gov.** Free language assistance for Limited English Proficient individuals is available upon request. This notice is available from the ADA/504/Title VI Coordinator in large print, on audiotape and in Braille.

17. **PROHIBITION OF EMPLOYMENT OF ILLEGAL IMMIGRANTS:** Pursuant to Arkansas Code Annotated 19-11-105, all bidders must certify prior to award of a contract that they **do not** employ or contract with any illegal immigrant(s) in its contract with the state. Bidders shall certify online at https://www.ark.org/dfa/immigrant/index.php.

18. **DISCLOSURE:** Failure to make any disclosure required by Governor's Executive Order 98-04, or any violation of any rule, regulation, or policy adopted pursuant to that order, **shall** be a material breach of the terms of this contract. Any contractor, whether an individual or entity, who fails to make the required disclosure or who violates any rule, regulation, or policy **shall** be subject to all legal remedies available to the agency.

ARKANSAS STATE HIGHWAY & TRANSPORTATION DEPARTMENT

PROPERTY MANAGEMENT SPECIFICATIONS

Actual quantity of material to be removed may differ slightly from the estimated amount shown on the Work List. Bid price shall reflect actual quantity of material to be removed. Bidders are strongly encouraged to inspect the premises prior to bidding to verify the quantity. Any change in the scope of work must have prior approval by the Arkansas State Highway & Transportation Department (hereafter called the "AHTD") in order to be eligible for payment.

The Scope of Work shall include the following:

1) Prepare a Second Additional Site Assessment Work Plan, an Interim Free Product Removal Work Plan, and a Cost Estimate.

a. Contractor shall follow ADEQ's *Technical Branch Guidance Document on Preparing Site Assessment Work Plans.*

b. Contractor shall follow the *Arkansas Petroleum Storage Tank Trust Fund Guidelines for Reimbursement of Corrective Action Costs Document* dated July 2016.

c. Contractor shall comply with all state, local and federal laws associated with this work.

d. Contractor shall use, as a basis for the work plans and cost estimate, the following documents and materials:

i. Site Assessment Report dated January 13, 2015

ii. Additional Site Assessment-Laser Induced (LIF) Fluorescence Survey dated December 29, 2015

iii. Additional Site Assessment Report dated May 4, 2016

iv. Addendum to the Additional Site Assessment Report dated July 7, 2016

v. A Scoping Meeting with the Arkansas Department of Environmental Quality

e. All work shall be conducted within the AHTD Right of Way, the Temporary Demolition Easement, and the adjoining property as depicted on the plans attached hereto. All work described in the Work Plans shall be within AHTD Right of Way, the Temporary Demolition Easement and the adjoining property as depicted on the plans attached hereto.

f. The Interim Free Product Removal Work Plan shall include, at a minimum, the following:

i. Two mobile-dual phase extraction events (MDPE) of 8-hour durations, targeting Monitor Wells that exhibit Light Non-Aqueous Phase Liquid (LNAPL)

ii. A single, undisturbed soil core collected from the saturated zone during drilling, and analyzed for physical properties (i.e. ASTM D 422: grain size distribution, and ASTM D 5084: hydraulic conductivity)

iii. Three monitoring wells to delineator LNAPL located in Monitor Well 8 as specified in the Additional Site Assessment Report dated May 6, 2016

iv. Restoration of all disturbed and damaged property to its original condition.

g. As specified by ADEQ's *Technical Branch Guidance Document on Preparing Site Assessment Work Plans,* all work plans must be sealed by an Arkansas-licensed professional. The submitted plan **must** bear the seal and signature of the appropriate **Arkansas**-licensed professional, as required by Arkansas Code Annotated, (A.C.A.) 17-30-301 for Engineers and A.C.A. 17-32-301 for Geologists.

Bidders are strongly encouraged to inspect the premises prior to bidding. The successful bidder shall be required to hold a current license to close underground storage tanks issued by the Arkansas Department of Environmental Quality (ADEQ). Please include a copy of license and insurance. The AHTD reserves the right to reject any and all bids.

Contractor will be required to comply with the provisions of "Appendix A and E" (Required Contract Provisions Federal-Aid Construction Contracts) that will be attached and made a part of the bid and contract.

Contractor must call ONE CALL for location of other utilities at this job site. In the event that utility service lines are disconnected, destroyed or otherwise impaired in any way by reason of performance of this operation by the contractor, the contractor, at his own expense, will provide adequate substitute utility service in lieu of those affected.

It is also understood that the contractor will take all reasonable safety precautions to protect surrounding properties and pedestrian traffic and will accept the responsibility of all liabilities thus incurred during these operations. The work site must, at all times, be kept in a generally safe and sanitary condition. Contractor will leave the work site as such it can be mowed and maintained safely. Contractor will not leave any ruts or large pieces of debris on this job site.

Failure to complete work within twenty (20) days after the late dated signature on the contract will result in liquidated damages at the rate of $120.00 per day. Contractor shall call Property Management (501-569-2317 or 501-569-2318) to schedule a final inspection/acceptance of work performed.

All completed materials and compiled information including documents, statistics, specifications, designs, plans, diagrams, are property of the Arkansas State Highway and Transportation Department (AHTD).

In accordance with Arkansas Code § 19-11-708 (a), (b), and (c): It shall be a breach of ethical standards for a person to be retained, or to retain a person, to solicit or secure a state contract upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee, except for retention of bona fide employees of bona fide established commercial selling agencies maintained by the contractor for the purpose of securing business.

ATTACHMENT A

ELIGIBLE BIDDER CERTIFICATION

The Bidder represents and warrants for itself, its employees and its subcontractors and certifies they:

1. Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;

2. Have not within a three-year period preceding thus Bid been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

3. Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State, or local) with commission of any of the offenses enumerated in paragraph two (2) of this Certification;

4. Have not within a one-year period preceding this application/Bid had one or more public transactions (Federal, State, or local) terminated for cause or default; and

The Bidder represents, warrants and acknowledges the understanding that restrictions placed on the employment of labor or on the scale of pay for the work on a contract will be the requirements of the Fair Labor Standards Act (Federal Wage-Hour Law) of 1938, 28 USC §201 et seq., and other applicable labor laws.

The person executing this Certification further represents, warrants and affirms the truthfulness and accuracy of the contents of the statements submitted on or with this Certification and understands that the provisions of 31 USC §3801 et seq. are applicable thereto.

_____

BIDDER NAME

BY:_____
Signature

TITLE:_____

CONTRACT AND GRANT DISCLOSURE AND CERTIFICATION FORM

Failure to complete all of the following information may result in a delay in obtaining a contract, lease, purchase agreement, or grant award with any Arkansas State Agency.

SUBCONTRACTOR: ☐ Yes ☐ No

SUBCONTRACTOR NAME:

IS THIS FOR: ☐ Goods? ☐ Services? ☐ Both?

TAXPAYER ID NAME:

YOUR LAST NAME: FIRST NAME: M.I.:

ADDRESS:

CITY: STATE: ZIP CODE: COUNTY:

AS A CONDITION OF OBTAINING, EXTENDING, AMENDING, OR RENEWING A CONTRACT, LEASE, PURCHASE AGREEMENT, OR GRANT AWARD WITH ANY ARKANSAS STATE AGENCY, THE FOLLOWING INFORMATION MUST BE DISCLOSED:

FOR INDIVIDUALS*

Indicate below if: you, your spouse or the brother, sister, parent, or child of you or your spouse is a current or former: member of the General Assembly, Constitutional Officer, State Board or Commission Member, or State Employee:

Position Held	Mark (✓)		Name of Position of Job Held	For How Long?		What is the person(s) name and how are they related to you? (i.e., Jane Q. Public, spouse, John Q. Public, Jr., child, etc.)	
	Current	Former	(senator, representative, name of board/ commission, data entry, etc.)	From MM/YY	To MM/YY	Person's Name(s)	Relation
General Assembly							
Constitutional Officer							
State Board or Commission Member							
State Employee							

☐ **None of the above applies**

FOR AN ENTITY (BUSINESS)*

Indicate below lf any of the following persons, current or former, hold any position of control or hold any ownership interest of 10% or greater in the entity: member of the General Assembly, Constitutional Officer, State Board or Commission Member, State Employee, or the spouse, brother, sister, parent, or child of a member of the General Assembly, Constitutional Officer, State Board or Commission Member, or State Employee. Position of control means the power to direct the purchasing policies or influence the management of the entity.

Position Held	Mark (✓)		Name of Position of Job Held	For How Long?		What is the person(s) name and what is his/her % of ownership interest and/or what is his/her position of control?		
	Current	Former	(senator, representative, name of board/ commission, data entry, etc.)	From MM/YY	To MM/YY	Person's Name(s)	Ownership Interest (%)	Position of Control
General Assembly								
Constitutional Officer								
State Board or Commission Member								
State Employee								

☐ **None of the above applies**

Contract and Grant Disclosure and Certification Form

Failure to make any disclosure required by Governor's Executive Order 98-04, or any violation of any rule, regulation, or policy adopted pursuant to that Order, shall be a material breach of the terms of this contract. Any contractor, whether an individual or entity, who fails to make the required disclosure or who violates any rule, regulation, or policy shall be subject to all legal remedies available to the agency.

As an additional condition of obtaining, extending, amending, or renewing a contract with a state agency I agree as follows:

1. Prior to entering into any agreement with any subcontractor, prior or subsequent to the contract date, I will require the subcontractor to complete a **CONTRACT AND GRANT DISCLOSURE AND CERTIFICATION FORM**. Subcontractor shall mean any person or entity with whom I enter an agreement whereby I assign or otherwise delegate to the person or entity, for consideration, all, or any part, of the performance required of me under the terms of my contract with the state agency.

2. I will include the following language as a part of any agreement with a subcontractor:

   Failure to make any disclosure required by Governor's Executive Order 98-04, or any violation of any rule, regulation, or policy adopted pursuant to that Order, shall be a material breach of the terms of this subcontract. The party who fails to make the required disclosure or who violates any rule, regulation, or policy shall be subject to all legal remedies available to the contractor.

3. No later than ten (10) days after entering into any agreement with a subcontractor, whether prior or subsequent to the contract date, I will mail a copy of the CONTRACT AND GRANT DISCLOSURE AND CERTIFICATION FORM completed by the subcontractor and a statement containing the dollar amount of the subcontract to the state agency.

Signature _____ Title _____ Date _____

Vendor Contact Person _____ Title _____ Phone No. _____

Agency Use Only

Agency Number _____ Agency Name _____ Agency Contact Person _____ Contact Phone No. _____ Contract or Grant No. _____

THE Southern Co. NLR, INC.

Site Assessment Report

AHTD JOB #100705
100 North Division
Blytheville, Arkansas 72315
Facility ID # 47000222 and ADEQ LUST # 47-0040

Prepared for:

Arkansas State Highway and Transportation Department - ROW
10324 I-30, Room 705
Little Rock, Arkansas 72209

Prepared by:

Oriana Thompson, M.S.
Environmental Scientist

Reviewed by:

T. Scott Kemph, P.G.
Project Manager

STATE OF ARKANSAS
TSK
NO. 1788
T SCOTT KEMPH
REGISTERED PROFESSIONAL GEOLOGIST

1-3-15

January 13, 2015

1201 CYPRESS STREET
NORTH LITTLE ROCK, AR 72114
(501) 376-6333
(501 376-8715 FAX
800-482-5493

MEMBER PEI PETROLEUM EQUIPMENT INSTITUTE

7621 BALL ROAD
FORT SMITH, AR 72908
(479) 648-1601
(479) 646-1066 FAX
800-643-2156

THE Southern Co. NLR, INC.

January 13, 2015

Mr. Rodger Payne, P.E.
Arkansas Department of Environmental Quality
Regulated Storage Tank Division
5301 Northshore Drive
North Little Rock, AR 72118-5317

RE: Site Assessment Report
AHTD JOB #100705
100 North Division
Blytheville, Arkansas 72315
Facility ID # 47000222 and ADEQ LUST # 47-0040

Dear Mr. Payne:

Enclosed is one (1) paper copy with an electronic copy attached to the back cover of the Site Assessment report for the above-referenced facility. This document has been prepared in response to the Department of Environmental Quality's May 1, 2013, approving assessment activities of the above-referenced facility. Should you have any questions or require additional information, please do not hesitate to call us (501)-376-6333.

Sincerely,
On Behalf of The Southern Co. of NLR, Inc.

T. Scott Kemph

T. Scott Kemph, P.G.
Project Manager

c: Mr. Joel Clark, AHTD (w/ enclosure delivered via email)
Mr. Scott Wroten, AHTD (w/ enclosure delivered via email)
Mr. Rick Stanley, AHTD (w/ enclosure delivered via email)
Mr. Matt Modelevsky, Snell, Langley, Culpepper, Williams & Mullally (w/ enclosure delivered via email)

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NORTH LITTLE ROCK, AR 72114
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7621 BALL ROAD
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800-643-2156

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1.0 INTRODUCTION

In a letter dated May 1, 2013, the Arkansas Department of Environmental Quality (ADEQ) approved a work plan for site assessment at ADEQ Facility ID # 47000222 located at 100 North Division Street in Blytheville, Arkansas. The Southern Co. of NLR, Inc. (SOCO), on behalf of our client, the Arkansas Highway and Transportation Department (AHTD), is presenting the assessment methods employed and the data obtained during the implementation of the site assessment work plan.

1.1 LUST Facility Chronology

The following chronology of events is presented for ADEQ LUST File # 47-0040.

- February 1st and 2nd, 2012 - Notice of Suspected Release communicated to Mr. Clark Baker ADEQ inspector. Contaminated soils discovered during voluntary UST closure.
- February 10, 2012 - Release confirmed by analytical results emailed to Mr. Clark Baker.
- May 22nd and 23rd, 2012 - SOCO excavated contaminated soil (432.34 tons), transported to Mississippi County landfill and re-sampled confirmation sample locations.
- May 31, 2012 – Closure Report submitted by SOCO to ADEQ.
- June 8, 2012, - ADEQ LUST 47-0040 referred to ADEQ technical branch.
- June 12, 2012 – Request for Trust Fund Eligibility sent to ADEQ.
- July 12, 2012 - ADEQ Preliminary Assessment completed.
- July 17, 2012 - ADEQ issued request for Site Assessment Work Plan & Cost Estimate
- October 25, 2012 – Scoping Meeting with ADEQ Case Manager AHTD personnel.
- February 4, 2013 - ADEQ established Trust Fund eligibility for ADEQ LUST 47-0040.
- April 4, 2013 - Site Assessment Work Plan & Cost Estimate submitted to ADEQ for ADEQ LUST 47-0040.
- May 1, 2013 – Approval of Site Assessment Work plan and Cost Estimate
- June 2, 2014 – Third Party Access Agreement Signature obtained.
- October 10, 2014 - Change Order No. 1 submitted to ADEQ.
- October 13, 2014 – Change Order No. 1 approved by ADEQ.
- November 10, 2014 – December 21, 2014 – Field Work
- January 13, 2015 – Site Assessment Report submitted by SOCO to ADEQ.

1.2 Facility Description

The project site is located at 100 North Division Street in Blytheville, Arkansas as delineated on the Vicinity Map provided as Figure 1, Appendix A. The project site is vacant and is part of a road expansion/widening project (AHTD Job # 100705) performed by the Arkansas Highway and Transportation Department. A vacant lot borders the facility to the north. North Main Street (Arkansas State Highway 18) borders the project site to the south. The site is bordered by North Division Street (U.S. Highway 161) to the west. Ms. Onisca McCaig owns the residential property immediately to the east of the project site. The Site Plan for the facility is provided as Figure 2, Appendix A.

1.3 Physical and Geological Setting

According to the Arkansas Geologic Commission's Geologic Map (Arkansas Geologic Commission, 1979), the project site is situated in the Mississippi Embayment Geologic province. The project site is

underlain by the Quaternary alluvium deposits in the Mississippi Delta region which contains the uppermost aquifer in the region. The alluvium is comprised of the unconsolidated alluvial deposits formed by the Mississippi River and its tributaries. These deposits typically consist of unconsolidated clay, silt, sand, and gravel-sized particles. The alluvium was deposited by small streams, overbank deposits of major streams, and older meander deposits of major streams (McFarland, 2004).

1.4 Soil Characteristics

According to United States Department of Agriculture Soil Survey of Mississippi County, the soil series at the project site is the Hayti Soil Series. These soils consist of deep, poorly drained, slowly permeable soils formed in alluvium. These soils formed on the flood plain of the Mississippi River (USDA, 1971). A review of contractor's closure report and photographs indicates approximately six (6) to seven (7) feet of silty clay (CL) which transitioned into a silt (ML) in the areas of the former underground storage tank basin (SOCO, 2012).

1.5 Hydrogeology

The Mississippi River Valley Alluvial Aquifer (MRVAA) is comprised of the unconsolidated alluvial deposits formed by the Mississippi River and its tributaries. These deposits typically consist of unconsolidated clay, silt, sand, and gravel-sized particles. The aquifer is commonly overlain by a confining clay cap unit. Ground water generally flows to the southwest with an average hydraulic gradient of 1.7 feet per mile. In terms of water use and areal extent, this alluvial aquifer is the most important aquifer in the region and provides large quantities of water for irrigation and public supply (Arkansas State Water Plan, 1988).

Schrader (2008) shows the potentiometric surface of the MRVAA at approximately 233 feet above mean sea level (msl), approximately 33 feet below the site surface. Flow direction is generally toward the west-southwest. During drilling, saturated soil conditions were observed in soil cores from 14.0 to 25.0 feet below ground surface (bgs).

2.0 SITE DESCRIPTION

2.1 Location and Topography

Figure 1, Appendix A, Topographic Map depicts the site location and area topography. Surface elevation at the site is approximately 266 feet above mean sea level. The surface in the area of investigation is predominantly flat. Surface drainage from the asphalted areas flows via a sheet flow pattern into the stormwater drain located on the southwest corner of the facility. Appendix B contains photographs of the facility and surrounding area taken during site assessment activities.

2.2 Underground Utilities in the Area of Investigation

Underground utilities at the facility and surrounding area were delineated using the Arkansas One Call system (141031-0208 and 141120-0068). The approximate locations are depicted on the Site Plan presented as Figure 2, Appendix A. Underground utilities located in the area of investigation include municipal water which runs on the southern and western property boundaries, paralleling North Division

and Main Streets, sanitary sewer and natural gas located along the northern property boundary. Overhead electric lines are located south of the facility.

3.0 TASK 2: FIELD INVESTIGATION

3.1 Investigation of Soil Conditions

The investigation strategy used during the subsurface investigation was to drill soil borings for the purposes of identifying dissolved phase contaminants and light non-aqueous phase liquid (LNAPL) distribution in the subsurface underlying the facility. Based upon conversations with the ADEQ case manager, work plan approval, and coordination with the ADEQ case manager, the subsurface investigation proceeded without any deviations from the work plan. Appendix B contains photographs of the facility and surrounding area taken during the site assessment activities.

Hollow-stem augers were used to drill the twelve (12) soil borings to approximately 25.0 feet below ground surface (bgs) on the subject property. Additionally, three (3) angle 35 degree borings were drilled close to the eastern property border in order to investigate the environmental quality of the adjoining residential property.

Drilling and sampling of the soil borings was accomplished using 4.25 inch inside diameter hollow stem augers employing a 2.25 inch outside diameter continuous sampler. Continuous soil samples were collected through hollow-stem augers using the 5-foot continuous sampler. Sampling tools were decontaminated between uses using a soapy water solution and rinsed in potable water. The continuous soil core from each 5.0 foot interval was logged by the field geologist using ASTM 2488, Practice for Description and Identification of Soils Visual/Manual Method using the Unified Soil Classification (ASTM, 2009). Soil boring logs are presented in Appendix C.

Field screening for head space readings was conducted with a calibrated MiniRae 3000 photo ionization detector (PID) instrument. Prior to mobilization to the project site and on a daily basis, the PID instrument was calibrated using a 100-ppm isobutylene calibration gas. Calibration records are included in Appendix B.

Equal volumes, for each one (1) foot interval of soil, were removed from the continuous soil cores and immediately placed in the sealed bags and laboratory supplied sample containers. The soil in the sealed bags was lightly manipulated to break up the soil mass. Representative portions of each one (1) foot interval were collected for total organic vapor measurements. The sealed bags were allowed to stand, unopened, at ambient air temperatures for a period of approximately five (5) minutes. The PID probe was then carefully inserted through the bag and the accumulated volatile organics vapor was measured with the maximum headspace value recorded for that specific interval on the boring log. The one (1) foot soil sample interval, archived in the laboratory supplied sample container, which exhibited the highest headspace reading, was selected for the laboratory analyses described in Section 3.6. A second soil sample from each soil boring was also submitted for laboratory analysis. Chain-of-Custody record was established using time/date and provenance information from each sample container submitted for laboratory analysis.

3.2 Investigation of Groundwater Conditions

At the completion of soil sampling, the fifteen (15) borings were converted into groundwater monitoring wells. Monitoring well construction details are described below.

- Flush-threaded, 2-inch diameter PVC well materials was placed in the boring. A five-foot riser was installed in all monitoring wells. Screens were 0.010-inch machine slotted. Screen lengths were variable depending upon final boring depth. A 0.5-foot long sump section was placed below the screen in each installation.
- Filter pack media was 20-40 grade environmental quality silica sand placed to approximately 1.0 foot above the tops of the screens. The sand pack was constructed slowly through the augers to avoid bridging of the filter media.
- The annular seal was formed with coated bentonite pellets placed from the top of the filter pack to approximately 0.5 feet bgs. The pellets were hydrated with potable water as they were placed in the annular space to allow proper sealing.
- Flush-mount well covers with concrete aprons were constructed at the ground surface.

Monitoring wells were developed using the over pumping method (RCRA TEGD, 1986) to evacuate the wells until the water produced was visibly clear and silt was removed from the well sumps. All development water was containerized in DOT-approved 55-gallon drums and transported under manifest to the SOCO holding facility for recycling by FCC Environmental, Inc.'s hydrocarbon recovery services. SOCO provided previously used drums for this purpose. Development water was stored in DOT-approved 55-gallon drums and transported under manifest for recycling as described in section 3.7.

3.3 Groundwater Sample Collection

Groundwater samples were collected from fifteen (15) monitoring wells. Monitoring well purging and groundwater sample collection of the twelve (12) vertical wells was conducted using a QED® brand Sample Pro bladder pump with disposable plastic bladders. Purging was conducted in general accordance with the methods described in *Low-Flow (Minimal Drawdown) Groundwater Sampling Procedures* (USEPA, 1996). The intent of the described procedure is to produce groundwater samples that are representative of the mobile load of contaminants present in the aquifer. Low-flow refers to the rate at which water is transferred from the pore spaces of the aquifer to the well in the immediate vicinity of the pump intake. The pump's flow rate is established such that stress (or drawdown) is minimized and representative samples can be collected by avoiding mixing of overlying stagnant waters in the well casings.

Given below are the general purging and sampling procedures that were used.

1) The purge rate was set at approximately 1 liter per minute (0.26 gallon per minute). Draw-down in the well was monitored with a decontaminated oil/water interface probe as purge operations proceed. The purge rate was adjusted, as needed, to limit the amount of draw-down in the well.

2) Purge water was pumped through a Horiba U-53-2 flow cell. All purge water was containerized for recycling as described in Section 3.7.

3) Water quality indicator parameters were used to determine when groundwater representative of the formation is entering the well. The Horiba U-53-2 flow cell was equipped with probes for measurement of pH, temperature, conductivity, oxidation-reduction potential, and dissolved oxygen.

Measurements were conducted at intervals of three to five minutes and the readings were considered stable when three consecutive readings were within the following ranges:

- dissolved oxygen (+/- 0.2 mg/L);
- conductivity (+/- 0.020 mS/cm);
- temperature (+/- 3%);
- pH (+/- 0.2 units); and
- oxidation/reduction potential (+/- 20 millivolts).

4) Water quality stabilization parameter values were recorded for inclusion in the assessment report and are presented in Appendix B.

The pump discharge was reduced until the flow rate was approximately 0.1 liters per minute. Reduction of the flow rate for sampling reduces the potential for loss of entrained volatile organic compounds by minimizing aeration, bubble formation, and turbulent filling of sample containers. The bladder pump discharge tubing was disconnected from the flow-through cell and samples were then transferred to laboratory-supplied sample containers.

Angled monitor wells were sampled using disposable polyethylene bailers due to the bladder pump's inability to pump at an angle. Groundwater samples were collected from each of the fifteen monitoring wells. One blind duplicate sample (monitor well MW-12) was collected and submitted for analysis as a quality assurance check on analytical precision. Each container was labeled with the appropriate information, preserved (as required), and stored on ice. Each sample was logged on a Chain-of-Custody form to track the movement and handling of the samples.

3.4 Groundwater Elevation Monitoring

Monitoring wells were gauged for the presence of LNAPL and to determine the elevation of groundwater. The wells were allowed to stand open for approximately thirty (30) minutes to allow fluid levels to equalize with atmospheric pressure. A decontaminated oil/water interface probe was used to measure for the presence of LNAPL fluids and groundwater in each monitoring well. Measurements were recorded to the nearest 0.01 feet and were referenced to surveyed top-of-casing elevations. Groundwater elevation data was used to prepare potentiometric surface maps. Reference elevations are listed in Figure 2, Appendix A. Groundwater gauging data is presented as a spreadsheet in Appendix B.

3.5 Site Survey

Arkansas Surveying & Consulting provided the site plan survey of the area of investigation. The purpose of the survey was to provide horizontal and vertical control of drilling locations, surface features, and utility locations in the area of investigation. Horizontal control for the survey was referenced to the State Plane Coordinate System for the north zone of Arkansas. Vertical control was referenced to mean sea level using the North American Datum of 1983.

3.6 Environmental Sample Analytical Methods

Soil and groundwater samples were analyzed for benzene, toluene, ethylbenzene, and total xylenes (BTEX), methyl-tertiary butyl ether (MTBE), and naphthalene per United States Environmental Protection Agency (USEPA) Method 8021B and for total petroleum hydrocarbons (TPH) in the gasoline

range (GRO) and the diesel range (DRO) per USEPA Method 8015. Analytical reports and Chain-of-Custody documents for this project are provided in Appendix D.

Given below are field quality assurance measures that were implemented and documented during the investigation:

- The field instrument (Mini Rae 3000) was calibrated daily using manufacture's recommended span gas. Calibration logs are included in Appendix B.
- Soil sample collection equipment was decontaminated using non-phosphate soap and potable water prior to each use.
- Sample collection personnel used disposable nitrile gloves for each soil sample interval to limit the possibility of inadvertent sample cross contamination.
- A new pair of disposable nitrile gloves were used for each groundwater sample collected to limit the possibility of inadvertent sample cross contamination.
- Each container was labeled with the appropriate information, preserved (as required), and stored on ice.
- Strict chain-of-custody procedures were employed at all times to track the movement and handling of the samples. Samples were transported to Arkansas Analytical, Inc. (AAI), located in Little Rock, AR.
- A duplicate sample was obtained and analyzed as quality assurance check on analytical precision. Calculated relative percent differences for the duplicate sample (MW-12) analytes are all below 20%. The spreadsheet documenting the calculations is included in Appendix E.
- Laboratory Quality Control Reports for the trip blank are provided in Appendix E.

3.7 Waste Management

Investigative derived drilling waste (drill cuttings), excess soil samples, and investigative derived solid waste was drummed in 55 gallon DOT-approved drums and transported to Mississippi County Landfill, an ADEQ permitted landfill facility, for disposal. Soil disposal was performed on December 12, 2014. The disposal manifest for the twenty-one (21) drums (5.91 tons) of assessment derived waste is included in Appendix D.

Decontamination fluids, monitor well development water, and monitor well purge water were containerized in DOT-approved 55-gallon drums. Approximately 50 gallons of fluids were transported by SOCO personnel to SOCO's facility for recycling by FCC Environmental. Wastewater disposal documentation is included in Appendix D.

4.0 OBSERVATIONS

4.1 Physical Description of Subsurface Materials and Groundwater Occurrence

The native materials encountered in the first twenty-five (25) feet below the subject site are non-homogeneous alluvial deposits. Soils at this location are primarily clays, sandy clays, and sands. Dark browns and dark grayish brown silty clays were common on the first twelve feet in areas that were not backfilled during fuel system removal activities. Saturated grayish brown sands and dark grayish brown sands were present from 14.0 to 25.0 feet below ground surface (bgs). Varying amounts of clay and/or silt

was present throughout the sandy intervals. Most occurrences of sand were accompanied by strong petroleum odor, saturated conditions, and at some locations, petroleum sheen.

Soil/rock color is based upon the Munsell Soil Color Chart (1975) and soil classification is based upon ASTM International's ASTM 2488, Practice for Description and Identification of Soils Visual/Manual method using the Unified Soil Classification (ASTM 2487). The boring logs and monitoring well construction diagrams are provided as Appendix C.

Appendix B contains groundwater elevation data were collected from the twelve monitoring wells. The gauging dates were November 25, 2014 and December 21, 2014. An interpretation of the potentiometric surface configuration on December 21, 2014 is presented as Figure 3, Appendix A. The groundwater gradient observed on December 21, 2014 is calculated at 0.0007 ft/ft in the study area and appears to be following a west-southwest direction. Please note that data from angled wells MW-10, MW-14, MW-15 were not used in the interpretation of groundwater flow direction. Additionally, the data from monitor well MW-12 was not used in the interpretation because of the anomalous nature of the groundwater elevation data, most likely caused by a leaking nearby underground water line.

4.2 Petroleum Impact to Soils

Hydrocarbon contamination, in both the gasoline range and diesel range organics was encountered at this site. The reported concentrations for all analytes at each boring location are summarized in Table 2 below.

TABLE 1
SUMMARY OF CHEMICAL ANALYSIS FOR SOIL
AHTD JOB #100705
100 North Division, Blytheville, Arkansas 72315
Facility ID # 47000222 and ADEQ LUST # 47-0040

All Results Reported in mg/kg

Soil Boring No. & Depth	TPH-DRO	TPH-GRO	Benzene	Toluene	Ethylbenzene	Total Xylenes	Naphthalene	MTBE
MW-1@16-17	302	734	16.0	77.0	22.8	131.7	7.92	<0.400*
MW-1@24-25	34.1	148	2.79	14.7	5.26	29.62	1.38	<0.100
MW-2@16-17	2250	2240	46.7	313	78.5	446	19.6	<3.00*
MW-2@22	20.7	59.8	1.30	4.27	1.57	9.72	0.849	<0.100
MW-3@ 15	2570	1180	29.2	152	46.8	281.3	35.4	<1.00*
MW-3@21	<10.0	14.9	0.100	0.204	0.222	1.216	0.349	<0.100
MW-4@16	183	152	0.463	13.6	4.84	25.77	2.50	<0.200*
MW-4@22	32.3	66.3	0.153	2.00	1.31	6.76	0.763	<0.100
MW-5@14-15	408	1240	11.2	42.8	46.6	241.1	14.7	<1.50*
MW-5@17-18	45.7	105	2.62	4.27	5.24	26.85	1.83	<0.100
MW-6@11-12	661	3170	50.4	344	94.5	497	40.0	<5.50*
MW-6@17-18	24.5	46.4	0.739	3.56	0.860	4.68	0.680	<0.100
MW-7@13-14	457	1770	17.4	133	52.1	260.20	27.1	<2.50*
MW-7@14-15	675	2910	31.8	239	81.2	407	33.8	<6.50*
MW-8@7-8	<10.0	61.8	<0.100	0.666	0.885	4.36	0.897	<0.100
MW-8@10-11	<10.0	<2.00	<0.100	<0.100	<0.100[1]	<0.300[1]	<0.300	<0.100
MW-9@5-6	<10.0	31.6	0.228	1.87	0.675	3.64	0.531	<0.100
MW-9@10-11	<10.0	23.1	<0.100	<0.100	<0.100	<0.300	<0.300	<0.100

TABLE 1
SUMMARY OF CHEMICAL ANALYSIS FOR SOIL
AHTD JOB #100705
100 North Division, Blytheville, Arkansas 72315
Facility ID # 47000222 and ADEQ LUST # 47-0040

All Results Reported in mg/kg

MW-10@16	129	374	0.664	1.16	3.78	17.48	1.21	<1.50*
MW-10@18	254	686	1.35	2.32	7.90	33.90	2.70	<3.00*
MW-11@14	<10.0	<2.00	<0.100	<0.100	<0.100	<0.300	<0.300	<0.100
MW-11@25	<10.0	<2.00	<0.100	<0.100	<0.100	<0.300	<0.300	<0.100
MW-12@16	236	961	6.47	32.8	34.6	176.50	16.7	<1.50*
MW-12@18	602	1370	35.0	109	41.4	221.60	13.1	<3.50*
MW-13@13	1310	4850	86.9	652	172	926	50.5	<4.00*
MW-13@20	1160	2980	49.0	341	104	572	21.8	<4.00
MW-14@21	<10.0	<2.00	<0.100	<0.100	<0.100	<0.300	<0.300	<0.100
MW-14@27	<10.0	<2.00	<0.100	<0.100	<0.100	<0.300	<0.300	<0.100
MW-15@20-21	<10.0	2.02	<0.100	<0.100	<0.100	0.342	<0.300	<0.100
MW-15@24-25	818	1140	3.83	10.1	24.1	126.30	9.77	<4.50*

* EDL=Result was non-detect at an elevated detection limit
[1]=Sample used as "parent" for the associated analytical batch

Figures 3, is a site map showing the reported concentrations and sample depths of GRO, DRO, and benzene constituents in the soil samples submitted for laboratory analysis. Based on PID field screening levels and the analytical results, the extent of soil contamination is widespread throughout the site, both horizontally and vertically. Given below are brief descriptions of the results in terms of number of positive detections and concentrations reported.

- Benzene was detected in soil samples from twelve of the fifteen boring locations. Benzene concentrations ranged from 0.1 mg/Kg and 86.9 mg/Kg. The highest Benzene concentration (86.9 mg/Kg) was observed at MW-13 at 13 feet bgs.
- GRO was detected in thirteen of the fifteen boring locations. The highest GRO concentration (4,850 mg/Kg) was observed at MW13 at 13 feet bgs. Soil samples obtained from eight monitor wells (MW-2, MW-3, MW-5, MW-6, MW-7, MW-12, MW-13, and MW-15) exceeded ADEQ's LNAPL screening level for GRO (720 mg/Kg).
- DRO was detected in thirteen of the fifteen boring locations. The highest DRO concentration (2,570 mg/Kg) was observed at MW-3 at 15 feet bgs. Soil samples obtained from three monitor wells (MW-2, MW-3, and MW-13) exceeded ADEQ's LNAPL screening level for DRO (1,250 mg/Kg).

Figure 4 in Appendix A illustrates the GRO, DRO, and benzene distribution in soils.

4.3 Petroleum Impact to Groundwater

Table 2 presented on the following page lists the reported concentrations of dissolved phase petroleum compounds in groundwater:

TABLE 2
SUMMARY OF CHEMICAL ANALYSIS FOR GROUNDWATER
AHTD JOB #100705
100 North Division, Blytheville, Arkansas 72315
Facility ID # 47000222 and ADEQ LUST # 47-0040
All Results Reported in mg/L

Monitor Well Number	Benzene	Toluene	Ethyl-benzene	Total m,p & o Xylenes	DRO	GRO	MTBE	Naphthalene
MW-1	26.4	56.2	4.59	26.68	11.3	209	<0.215*	< 0.430*
MW-2	17.7	56.1	4.39	26.51	8.78	185	<0.215*	<0.430*
MW-3	22.4	32.9	3.77	15.38	7.13	122	0.423	0.271
MW-4	1.26	8.75	1.71	7.50	5.30	36.2	<0.100*	0.332
MW-5	25.0	34.2	4.04	20.68	6.46	143	0.221	0.229
MW-6	21.2	50.0	3.40	19.54	9.66	174	0.641	0.254
MW-7	4.01	22.4	3.04	15.24	10.3	82.9	<0.150*	0.529
MW-8	0.228	0.900	0.657	2.29	5.31	12.7	<0.050*	0.202
MW-9	0.010	0.008	0.014	0.059	< 0.500	2.15	<0.080*	<0.015
MW-10	0.416	1.20	0.472	2.427	5.76	15.0	<0.100*	0.134
MW-11	0.007	0.014	< 0.005	0.024	<0.500	0.104	<0.005	<0.015
MW-12	53.2	50.9	3.34	18.84	6.09	214	<0.150*	0.179
MW-13	11.5	36.5	5.32	28.71	10.4	136	<0.200*	0.339
MW-14	0.007	0.035	0.006	0.032	<0.500	0.483	<0.005	<0.015
MW-15	4.01	2.22	1.45	5.476	8.75	23.6	<0.050*	0.257
Duplicate (MW-12)	45.5	44.3	3.30	18.48	6.89	208	<0.150*	0.161

* EDL=Result was non-detect at an elevated detection limit

Given below are brief descriptions of the results in terms of number of positive detections and concentrations reported.

- Benzene was detected in groundwater from all fifteen (15) monitor wells. Benzene concentrations ranged from 0.007 mg/L (MW-11) to 53.2 mg/L (MW-12).

- GRO was detected in groundwater from all fifteen wells. Concentrations ranged from 0.104 mg/L to 214 mg/L. The highest GRO concentration (214 mg/L) was observed at MW-12.

- DRO was detected in twelve of the fifteen boring locations. The highest DRO concentration (11.3 mg/L) was observed at MW-1. Monitor wells MW-6, MW-7, and MW-13 also exhibited high concentrations of DRO.

Figures 5-7, Appendix A, depict the chemicals of concern (Benzene, TPH-GRO, and TPH-DRO) for groundwater in the area of investigation.

4.4 LNAPL Distribution

Measurable accumulations of free product (LNAPL) has been observed in five (5) of the recently installed monitor wells (MW-1, MW-3, MW-4, MW-5, and MW-6). Figure 8 depicts the free product wells in red

and provides an interpretation of the horizontal delineation of LNAPL extent. The data suggests the occurrence of more than one release on the property. The former storage tank area and product piping/island areas are potential point sources of hydrocarbon contamination at the property.

5.0 FINDINGS AND CONCLUSIONS

As directed by ADEQ, AHTD has completed site assessment at the AHTD Job #100705 facility (ADEQ Facility ID 47000222). The assessment was conducted between November 10, 2014 and December 21, 2014. The work consisted of subsurface drilling and sampling of twelve (12) vertical and three (3) angled soil borings, soil sample collection, and soil screening for volatile organic vapors. All soil borings were selected for construction of groundwater monitoring wells. The wells were sampled and analyzed to determine the degree of groundwater impact.

The native materials encountered in the first twenty-five feet below the subject site are non-homogeneous alluvial deposits. Dark browns and dark grayish brown silty clays were common on the first twelve feet. Saturated grayish brown sands and dark grayish brown sands were present from 14.0 to 25.0 feet below ground surface (bgs). Varying amounts of clay and/or silt was present throughout the sandy intervals. Most occurrences of sand were accompanied by strong petroleum odor, saturated conditions, and at some locations, petroleum sheen.

Multiple petroleum releases of gasoline and diesel fuel have produced subsurface impact to soils and groundwater at this site. Fuel released from piping and tanks to the ground surface, has penetrated the fine-grained clay sediments that dominate the upper twelve feet of the alluvial deposits. After the fuel breached the upper clay layer, the fuel entered the more permeable sands until groundwater was encountered. The LNAPL then spread laterally. It is unclear if LNAPL also spread in the direction of decreasing groundwater gradient.

Using the site assessment data, an exposure assessment has been developed using ASTM E-1739. SOCO has identified that potential completed exposure pathways include soil ingestion/absorption, inhalation, and potable water usage. Current receptors include AHTD construction employees working on and around AHTD Job #100705. An exposure pathway chart (ASTM, 1995) is provided as Figure 9, Appendix A.

6.0 RECOGNIZED DATA GAPS

The information presented in this report provides a general understanding of the level and extent of petroleum contamination within the confines of the subject site, and a conceptualization of how the LNAPL is transported in the subsurface. However, this assessment has not provided sufficient information regarding petroleum impact offsite. SOCO interviewed AHTD personnel involved with construction work for AHTD Job #100705. Mr. John McKimmey stated AHTD personnel encountered soils with a strong petroleum odor during the placement of temporary light poles on the southwest corner of the intersection of North Division Street and West Main Street (McKimmey, personal communication, 2014).

The information suggests that additional assessment may be warranted at this LUST site. Having the following additional information would enhance selection and design of an appropriate remediation strategy:

- level and extent of off-site impacts to both soil and groundwater; and
- relationship between changing groundwater elevations and contaminant smear zone.

7.0 RECOMMENDATIONS

Based on the information obtained during the performance of the work scope for the assessment, SOCO offers the following recommendations:

- SOCO suggests additional assessment be undertaken to address identified data gaps. The primary focus of such action would be to determine the off-site extent of petroleum release impacts.
- Monitoring of LNAPL occurrence is also recommended in order to further understand groundwater gradient and relationship between changing groundwater elevations and LNAPL smear zone.

In terms of a remedial approach, we think that free product abatement is necessary at this site in order to satisfy 40 CFR 280.64 requirements; free product removal "to the maximum extent practicable" as determined by the implementing agency.

8.0 LIMITATIONS

This report is an instrument of service of The Southern Company NLR, Inc. (SOCO). The subsurface investigation report was prepared for and is intended for the exclusive use of AHTD and it's assigns and for review by the governing regulatory authority – the Arkansas Department of Environmental Quality. Any party other than AHTD without the express written permission of SOCO may not rely upon the report's contents. The findings and conclusions presented in this report are based on observations made as a result of the drilling fifteen (15) soil borings, the installation of twelve (12) vertical monitor wells and the installation three (3) angled wells, the sampling and analysis of the soil and groundwater and the fluid measurements of monitor wells at the facility. This information has been used as the basis for our conclusions.

The report's findings are based on conditions that existed at the project site on November 11, 2014 through December 21, 2014 and should not be relied upon to precisely represent subsurface conditions at any other time. The conclusions included in this report are based on: SOCO's observation of existing site conditions; our interpretation of site history and site usage information; and the results of a limited program of subsurface exploration, sample screening, and analytical testing. The concentration of contaminants SOCO measured may not be representative of conditions between locations sampled.

Be aware that conditions may change at any sampled or un-sampled location as a function of time in response to natural conditions, chemical reactions, and/or other events. Conclusions about site conditions under no circumstances comprise a warranty that conditions in all areas within the site and beneath structures are of the same quality as those sampled. Recognize, too, that contamination might exist in forms not indicated by the assessment SOCO conducted.

The scope of service SOCO implemented was based, in part of rules and regulations that SOCO understood to be current or expected at the time SOCO developed its contract with AHTD. Changes in regulations, interpretations and/or enforcement policies may occur at any time and such changes could affect the extent of remediation required. Any additional information about this site that becomes available should be provided to SOCO for its review, so SOCO can modify its recommendations as necessary.

9.0 REFERENCES CITED

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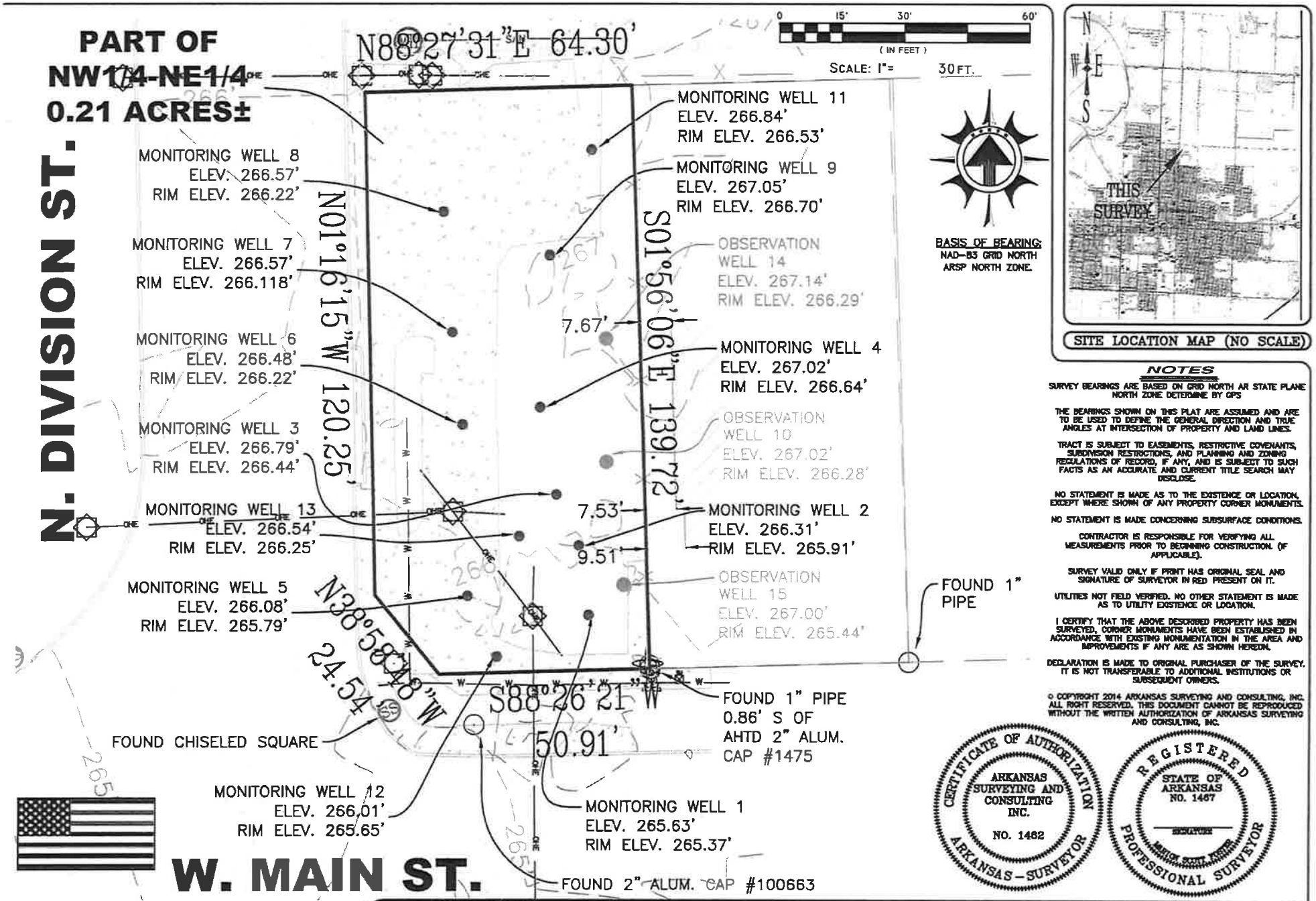
Appendix A

Figures

No Scale Implied

SoCo NLR	Figure 1. Vicinity Map AHTD JOB #100705 100 North Division Blytheville, Arkansas 72315 Facility ID # 47000222 ADEQ LUST 47-0040	↑


PART OF
NW1/4-NE1/4
0.21 ACRES±
N. DIVISION ST.
W. MAIN ST.
N88°27'31"E 64.30'
N01°16'15"W 120.25'
S01°56'06"E 139.72'
N38°58'48"W 24.54'
S88°26'21"W 50.91'
7.67'
7.53'
9.51'
MONITORING WELL 11
ELEV. 266.84'
RIM ELEV. 266.53'
MONITORING WELL 9
ELEV. 267.05'
RIM ELEV. 266.70'
OBSERVATION WELL 14
ELEV. 267.14'
RIM ELEV. 266.29'
MONITORING WELL 4
ELEV. 267.02'
RIM ELEV. 266.64'
OBSERVATION WELL 10
ELEV. 267.02'
RIM ELEV. 266.28'
MONITORING WELL 2
ELEV. 266.31'
RIM ELEV. 265.91'
OBSERVATION WELL 15
ELEV. 267.00'
RIM ELEV. 265.44'
MONITORING WELL 8
ELEV. 266.57'
RIM ELEV. 266.22'
MONITORING WELL 7
ELEV. 266.57'
RIM ELEV. 266.118'
MONITORING WELL 6
ELEV. 266.48'
RIM ELEV. 266.22'
MONITORING WELL 3
ELEV. 266.79'
RIM ELEV. 266.44'
MONITORING WELL 13
ELEV. 266.54'
RIM ELEV. 266.25'
MONITORING WELL 5
ELEV. 266.08'
RIM ELEV. 265.79'
MONITORING WELL 12
ELEV. 266.01'
RIM ELEV. 265.65'
MONITORING WELL 1
ELEV. 265.63'
RIM ELEV. 265.37'
FOUND 1" PIPE
FOUND 1" PIPE
0.86' S OF
AHTD 2" ALUM.
CAP #1475
FOUND CHISELED SQUARE
FOUND 2" ALUM. CAP #100663
0 15' 30' 60'
(IN FEET)
SCALE: 1"= 30 FT.
BASIS OF BEARING:
NAD-83 GRID NORTH
ARSP NORTH ZONE.
N
W E
S
THIS SURVEY
SITE LOCATION MAP (NO SCALE)
NOTES
SURVEY BEARINGS ARE BASED ON GRID NORTH AR STATE PLANE NORTH ZONE DETERMINE BY GPS
THE BEARINGS SHOWN ON THIS PLAT ARE ASSUMED AND ARE TO BE USED TO DEFINE THE GENERAL DIRECTION AND TRUE ANGLES AT INTERSECTION OF PROPERTY AND LAND LINES.
TRACT IS SUBJECT TO EASEMENTS, RESTRICTIVE COVENANTS, SUBDIVISION RESTRICTIONS, AND PLANNING AND ZONING REGULATIONS OF RECORD, IF ANY, AND IS SUBJECT TO SUCH FACTS AS AN ACCURATE AND CURRENT TITLE SEARCH MAY DISCLOSE.
NO STATEMENT IS MADE AS TO THE EXISTENCE OR LOCATION, EXCEPT WHERE SHOWN OF ANY PROPERTY CORNER MONUMENTS.
NO STATEMENT IS MADE CONCERNING SUBSURFACE CONDITIONS.
CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL MEASUREMENTS PRIOR TO BEGINNING CONSTRUCTION. (IF APPLICABLE).
SURVEY VALID ONLY IF PRINT HAS ORIGINAL SEAL AND SIGNATURE OF SURVEYOR IN RED PRESENT ON IT.
UTILITIES NOT FIELD VERIFIED. NO OTHER STATEMENT IS MADE AS TO UTILITY EXISTENCE OR LOCATION.
I CERTIFY THAT THE ABOVE DESCRIBED PROPERTY HAS BEEN SURVEYED, CORNER MONUMENTS HAVE BEEN ESTABLISHED IN ACCORDANCE WITH EXISTING MONUMENTATION IN THE AREA AND IMPROVEMENTS IF ANY ARE AS SHOWN HEREON.
DECLARATION IS MADE TO ORIGINAL PURCHASER OF THE SURVEY. IT IS NOT TRANSFERABLE TO ADDITIONAL INSTITUTIONS OR SUBSEQUENT OWNERS.
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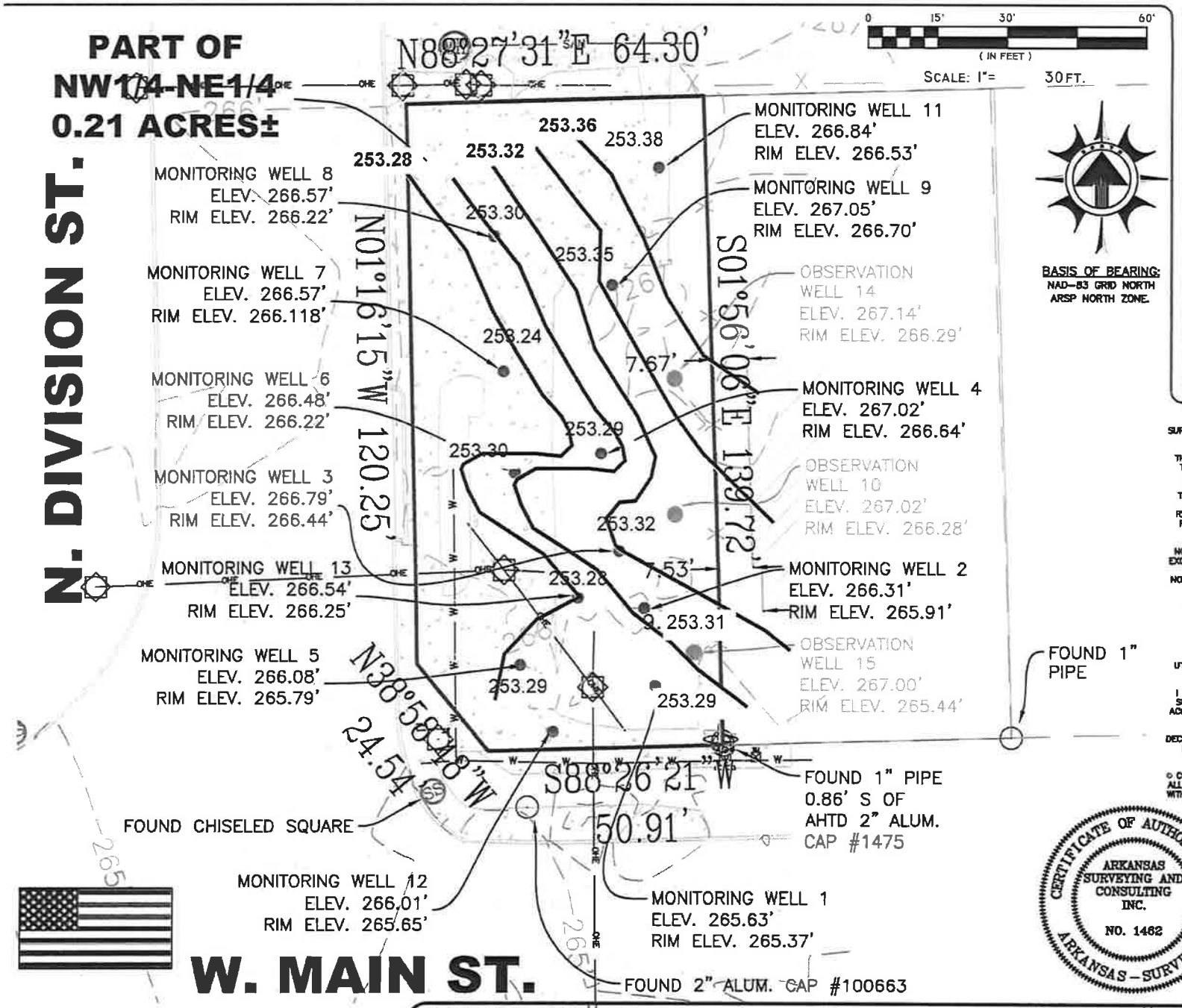
CERTIFICATE OF AUTHORIZATION
ARKANSAS SURVEYING AND CONSULTING INC.
NO. 1462
ARKANSAS-SURVEYOR
REGISTERED
STATE OF ARKANSAS
NO. 1467
SIGNATURE
MARK SCOTT MSF
PROFESSIONAL SURVEYOR
PROPERTY DESCRIPTION
LOT 7, BLOCK 2, JONES ADDITION TO THE CITY OF BLYTHEVILLE, MISSISSIPPI COUNTY, ARKANSAS.
Server4\Land Projects 2004\JONES ADDITION\dwg\AHTD Job 100705.dwg
DATE: 12-04-2014
SCALE: 1"= 30'
DRAWN BY: MSF/KST
CHECKED BY: MSF
FILE NAME: AHTD Job 100705
ASC
MALVERN AR OFFICE 304-2723
ARKANSAS SURVEYING & CONSULTING
1926 SALEM ROAD
BENTON, ARKANSAS 72019
TELE. (501) 794-4500
FAX. (501) 794-4501
E-MAIL:survey_man_jr@hotmail.com
THE SOUTHERN CO., NLR, INC
100 N DIVISION, BLYTHEVILLE, AR
Figure 2. Site Plan



NOTES

SURVEY BEARINGS ARE BASED ON GRID NORTH AR STATE PLANE NORTH ZONE DETERMINE BY GPS

THE BEARINGS SHOWN ON THIS PLAT ARE ASSUMED AND ARE TO BE USED TO DEFINE THE GENERAL DIRECTION AND TRUE ANGLES AT INTERSECTION OF PROPERTY AND LAND LINES.

TRACT IS SUBJECT TO EASEMENTS, RESTRICTIVE COVENANTS, SUBDIVISION RESTRICTIONS, AND PLANNING AND ZONING REGULATIONS OF RECORD, IF ANY, AND IS SUBJECT TO SUCH FACTS AS AN ACCURATE AND CURRENT TITLE SEARCH MAY DISCLOSE.

NO STATEMENT IS MADE AS TO THE EXISTENCE OR LOCATION, EXCEPT WHERE SHOWN OF ANY PROPERTY CORNER MONUMENTS.

NO STATEMENT IS MADE CONCERNING SUBSURFACE CONDITIONS.

CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL MEASUREMENTS PRIOR TO BEGINNING CONSTRUCTION. (IF APPLICABLE).

SURVEY VALID ONLY IF PRINT HAS ORIGINAL SEAL AND SIGNATURE OF SURVEYOR IN RED PRESENT ON IT.

UTILITIES NOT FIELD VERIFIED. NO OTHER STATEMENT IS MADE AS TO UTILITY EXISTENCE OR LOCATION.

I CERTIFY THAT THE ABOVE DESCRIBED PROPERTY HAS BEEN SURVEYED, CORNER MONUMENTS HAVE BEEN ESTABLISHED IN ACCORDANCE WITH EXISTING MONUMENTATION IN THE AREA AND IMPROVEMENTS IF ANY ARE AS SHOWN HEREON.

DECLARATION IS MADE TO ORIGINAL PURCHASER OF THE SURVEY. IT IS NOT TRANSFERABLE TO ADDITIONAL INSTITUTIONS OR SUBSEQUENT OWNERS.

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CERTIFICATE OF AUTHORIZATION
ARKANSAS SURVEYING AND CONSULTING INC.
NO. 1462
ARKANSAS – SURVEYOR

REGISTERED
STATE OF ARKANSAS
NO. 1467
SIGNATURE
MELVIN SCOTT KESTER
PROFESSIONAL SURVEYOR

PROPERTY DESCRIPTION
LOT 7, BLOCK 2, JONES ADDITION TO THE CITY OF BLYTHEVILLE, MISSISSIPPI COUNTY, ARKANSAS.

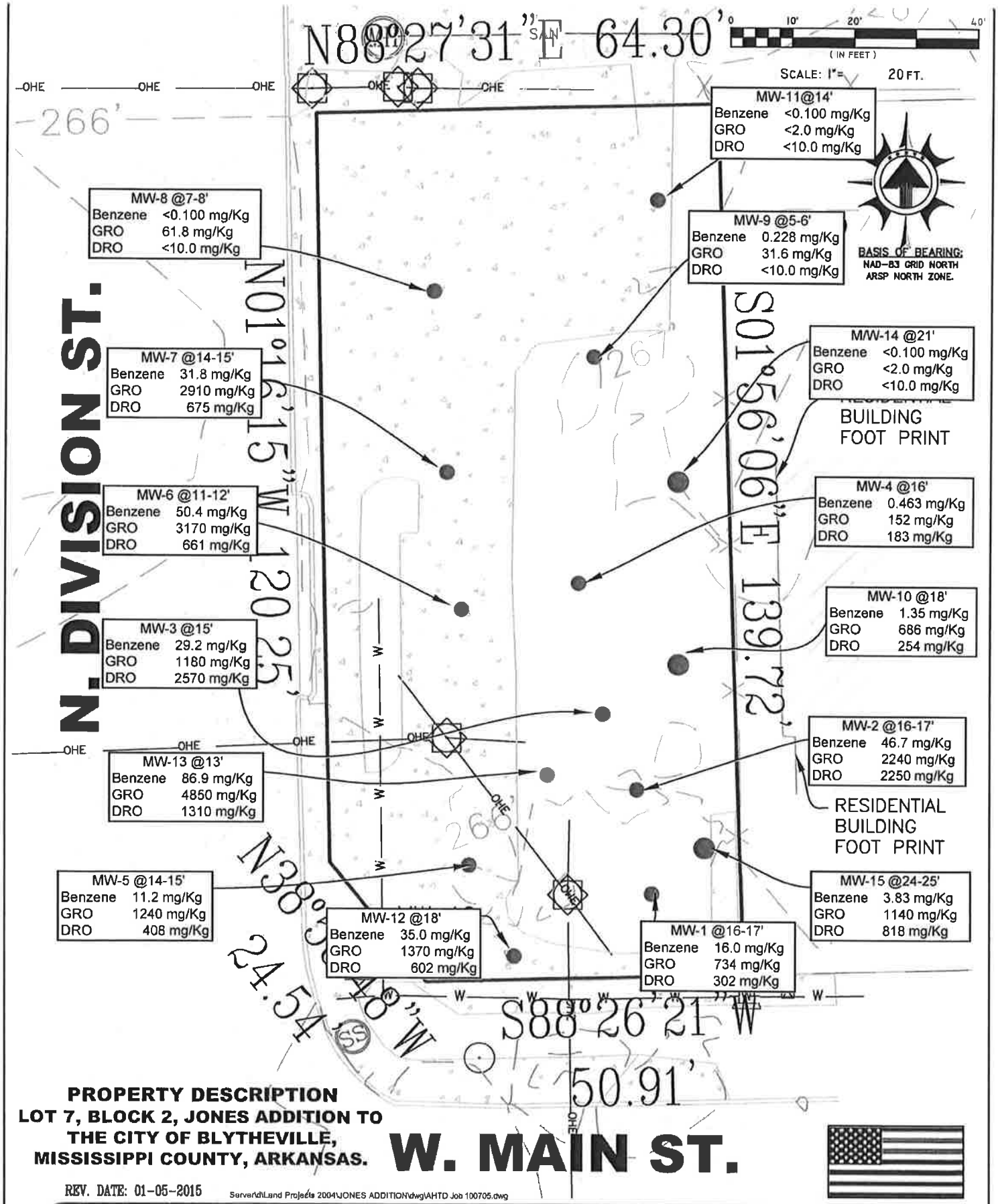
DATE: 12-04-2014	
SCALE: 1"= 30'	
DRAWN BY: MSF/KST	
CHECKED BY: MSF	
FILE NAME: AHTD Job 100705	

ARKANSAS SURVEYING & CONSULTING
ASC
1926 SALEM ROAD
BENTON, ARKANSAS 72019
TELE. (501) 794-4500
FAX. (501) 794-4501
E-MAIL: survey_man_jr@hotmail.com
MALVERN AR OFFICE 304-2723

THE SOUTHERN CO., NLR, INC
100 N DIVISION, BLYTHEVILLE, AR

Figure 3. Potentiometric Map Groundwater Elev 12/21/14

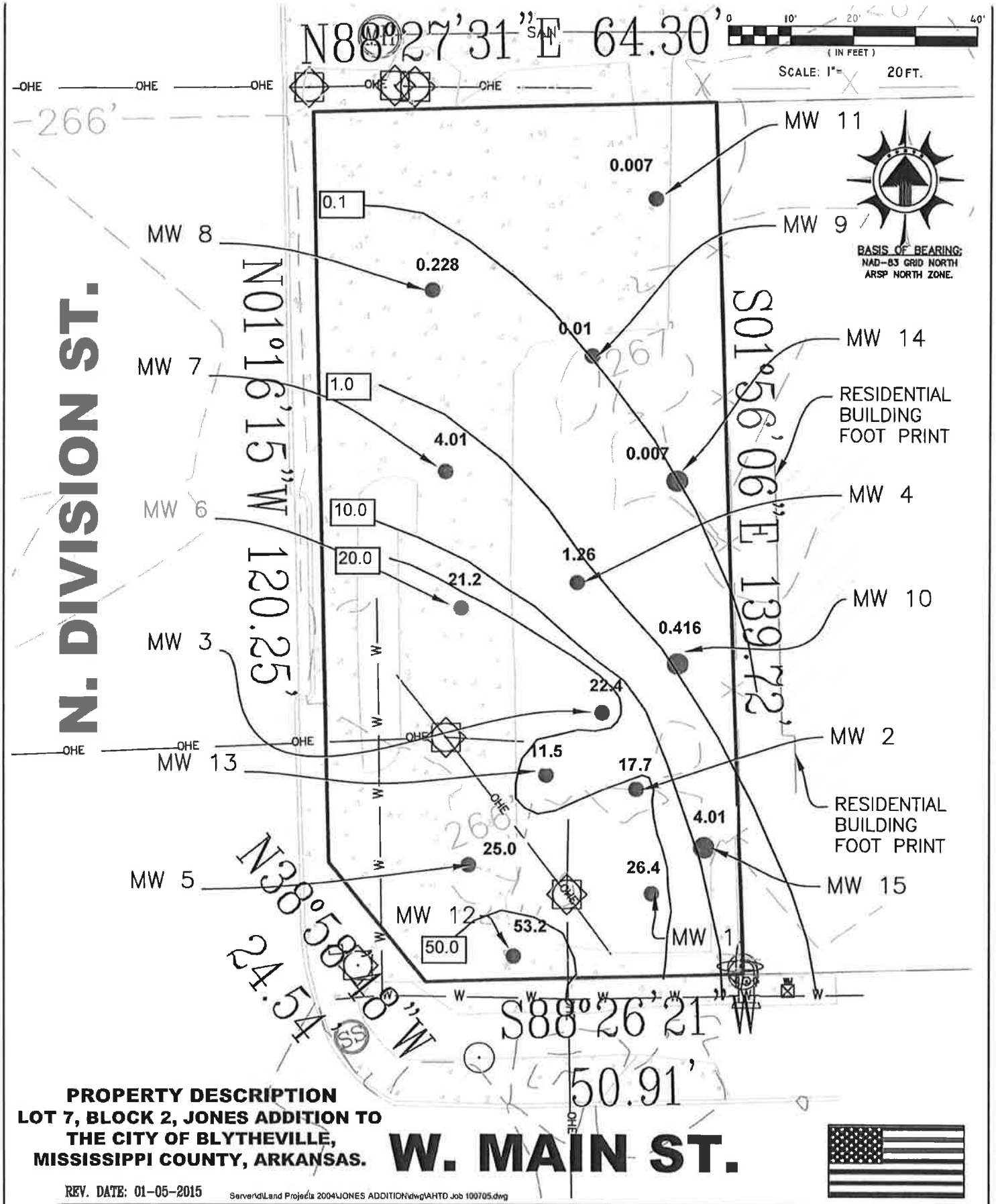
Server\d\Land Projects 2004\JONES ADDITION\dwg\AHTD Job 100705.dwg



PROPERTY DESCRIPTION
LOT 7, BLOCK 2, JONES ADDITION TO THE CITY OF BLYTHEVILLE, MISSISSIPPI COUNTY, ARKANSAS.

REV. DATE: 01-05-2015 Server\d\Land Projects 2004\JONES ADDITION\dwg\AHTD Job 100705.dwg

DATE: 12-04-2014	ARKANSAS SURVEYING & CONSULTING	THE SOUTHERN CO., NLR, INC
SCALE: 1"= 20'	ASC. 1926 SALEM ROAD	100 N DIVISION, BLYTHEVILLE, AR
DRAWN BY: MSF/KST	BENTON, ARKANSAS 72019	Petroleum Constituents in Soil
CHECKED BY: MSF	TELE. (501) 794-4500	Figure 4
FILE NAME: AHTD Job 100705	FAX. (501) 794-4501	
	MALVERN AR OFFICE 304-2723	E-MAIL: survey_man_jr@hotmail.com

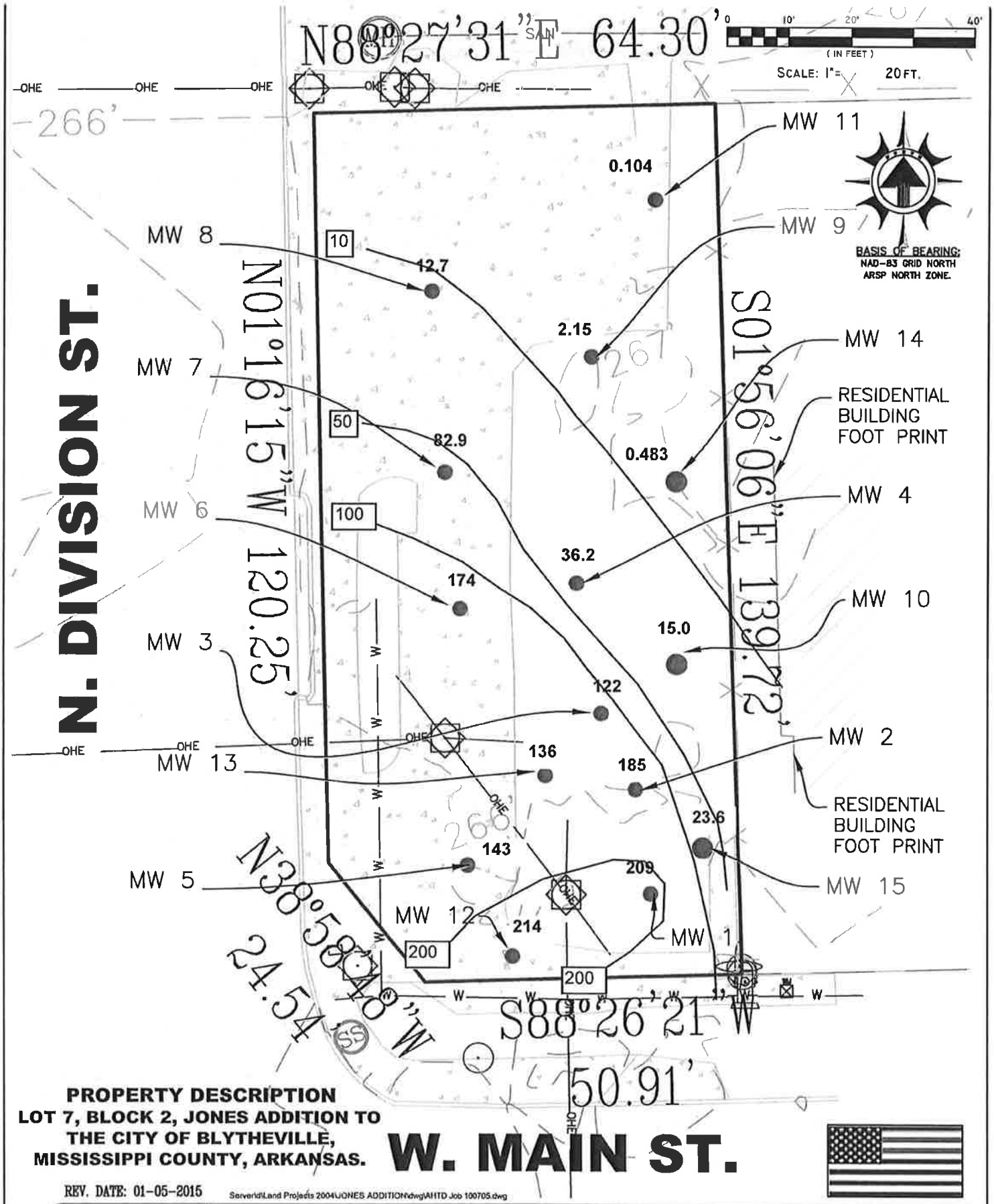


PROPERTY DESCRIPTION
LOT 7, BLOCK 2, JONES ADDITION TO THE CITY OF BLYTHEVILLE, MISSISSIPPI COUNTY, ARKANSAS.

REV. DATE: 01-05-2015

Server\d\Land Projects 2004\JONES ADDITION\dwg\AHTD Job 100705.dwg

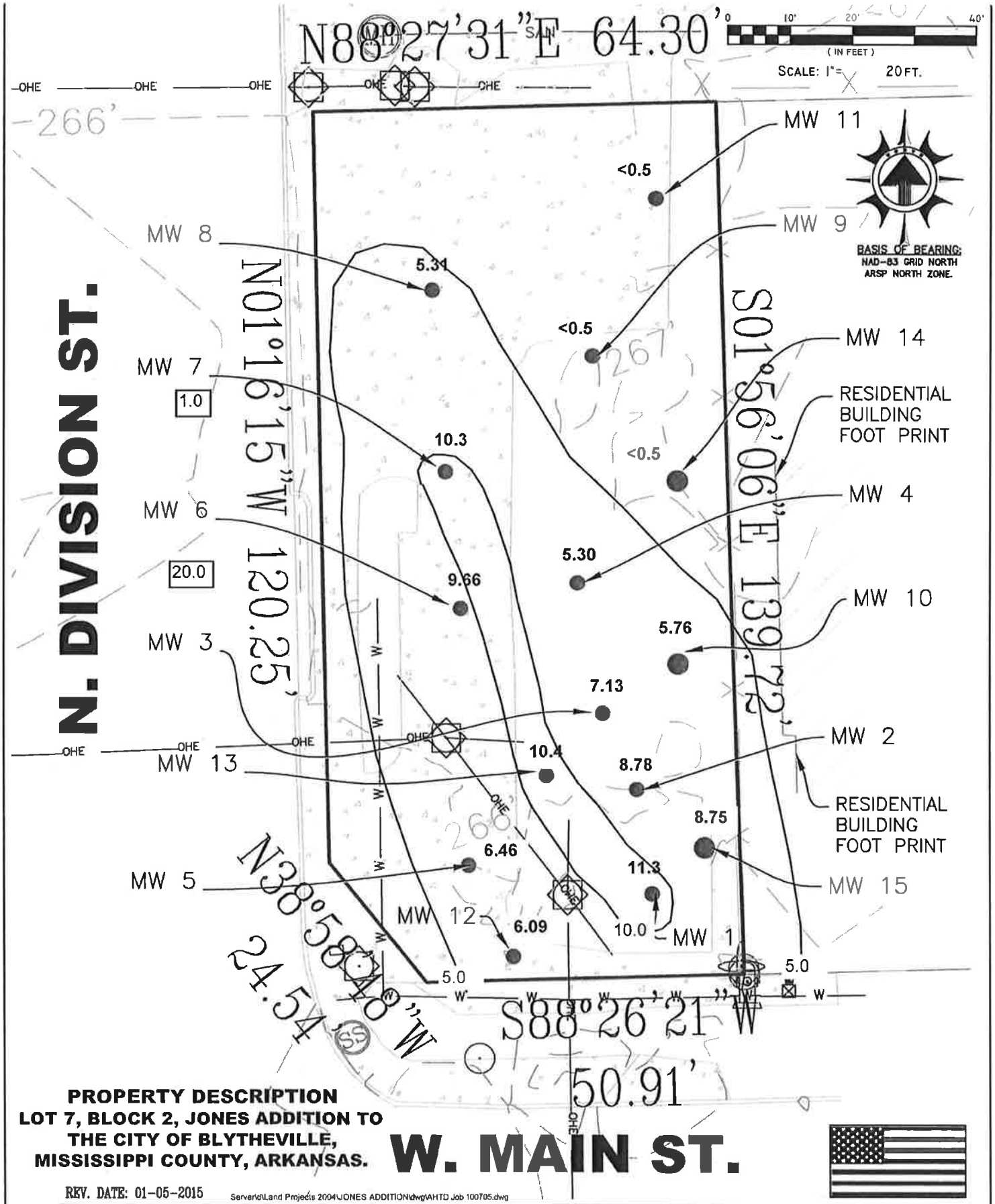
DATE: 12-04-2014	ARKANSAS SURVEYING & CONSULTING	THE SOUTHERN CO., NLR, INC
SCALE: 1"= 20'	ASC. 1926 SALEM ROAD BENTON, ARKANSAS 72019	100 N DIVISION, BLYTHEVILLE, AR
DRAWN BY: MSF/KST	TELE. (501) 794-4500	Benzene-Isoconcentration Lines in GW
CHECKED BY: MSF	FAX. (501) 794-4501	Figure 5
FILE NAME: AHTD Job 100705	MALVERN AR OFFICE 804-2723 E-MAIL:survey_man_jr@hotmail.com	



PROPERTY DESCRIPTION
LOT 7, BLOCK 2, JONES ADDITION TO THE CITY OF BLYTHEVILLE, MISSISSIPPI COUNTY, ARKANSAS.

REV. DATE: 01-05-2015 Server\d\Land Projects 2004\JONES ADDITION\dwg\AHTD Job 100705.dwg

DATE: 12-04-2014	ARKANSAS SURVEYING & CONSULTING	THE SOUTHERN CO., NLR, INC
SCALE: 1"= 20'	ASC. 1926 SALEM ROAD BENTON, ARKANSAS 72019 TELE. (501) 794-4500 FAX. (501) 794-4501	100 N DIVISION, BLYTHEVILLE, AR
DRAWN BY: MSF/KST		GRO - Isoconcentration Lines in GW
CHECKED BY: MSF		Figure 6
FILE NAME: AHTD Job 100705	MALVERN AR OFFICE 504-2723 E-MAIL: survey_man_jr@hotmail.com	

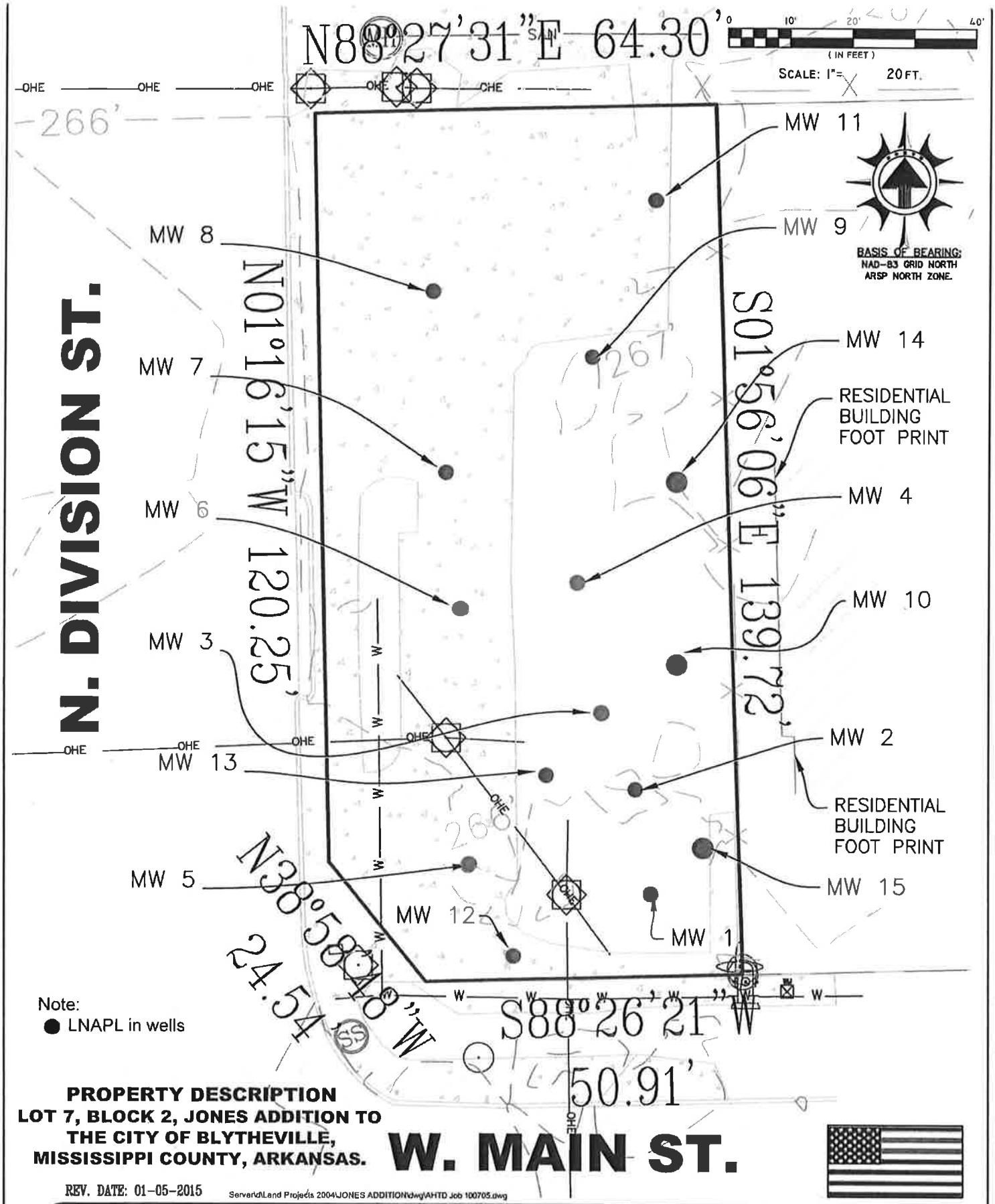


PROPERTY DESCRIPTION
LOT 7, BLOCK 2, JONES ADDITION TO THE CITY OF BLYTHEVILLE, MISSISSIPPI COUNTY, ARKANSAS.

REV. DATE: 01-05-2015

Server\d\Land Projects 2004\JONES ADDITION\dwg\AHTD Job 100705.dwg

DATE: 12-04-2014	ARKANSAS SURVEYING & CONSULTING	THE SOUTHERN CO., NLR, INC
SCALE: 1"= 20'	ASC. 1926 SALEM ROAD	100 N DIVISION, BLYTHEVILLE, AR
DRAWN BY: MSF/KST	BENTON, ARKANSAS 72019	DRO - Isoconcentration Lines in GW
CHECKED BY: MSF	TELE. (501) 794-4500	Figure 7
FILE NAME: AHTD Job 100705	MALVERN AR OFFICE 304-2723 · FAX. (501) 794-4501 · E-MAIL: survey_man_jr@hotmail.com	



Note:
● LNAPL in wells

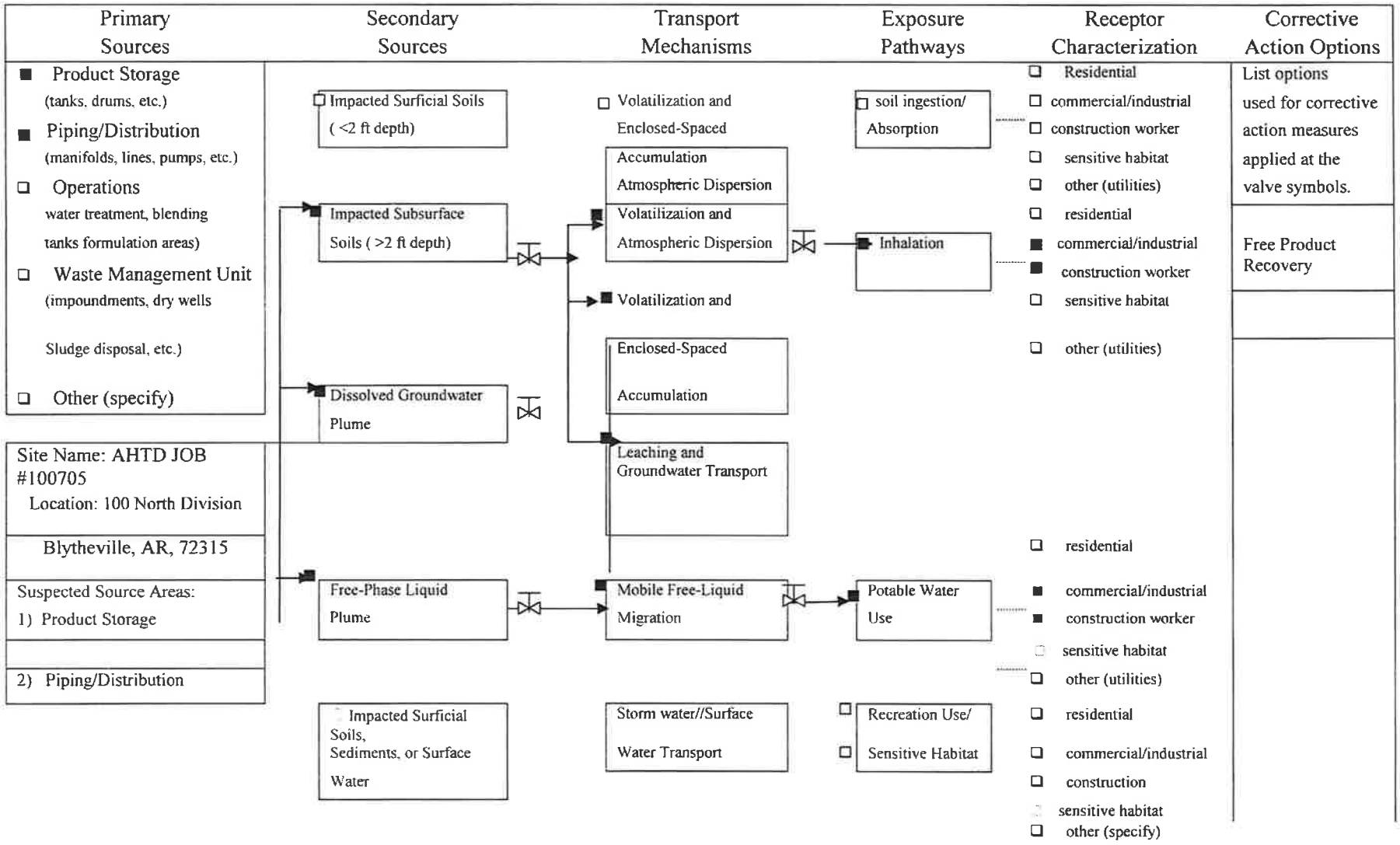
PROPERTY DESCRIPTION
LOT 7, BLOCK 2, JONES ADDITION TO THE CITY OF BLYTHEVILLE, MISSISSIPPI COUNTY, ARKANSAS.

REV. DATE: 01-05-2015

Server\d\Land Projects 2004\JONES ADDITION\dwg\AHTD Job 100705.dwg

DATE: 12-04-2014 SCALE: 1"= 20' DRAWN BY: MSF/KST CHECKED BY: MSF FILE NAME: AHTD Job 100705	ASC. MALVERN AR OFFICE 304-2723 ARKANSAS SURVEYING & CONSULTING 1926 SALEM ROAD BENTON, ARKANSAS 72019 TELE. (501) 794-4500 FAX. (501) 794-4501 E-MAIL:survey_man_jr@hotmail.com	THE SOUTHERN CO., NLR, INC 100 N DIVISION, BLYTHEVILLE, AR Observed LNAPL in Wells Figure 8

Figure 9
ASTM E 1739 EXPOSURE EVALAUTION FLOW CHART
AHTD JOB #100705
100 North Division
Blytheville, Arkansas 72315
Facility ID # 47000222 and ADEQ LUST # 47-0040



Appendix B

Investigation Photographs, Calibration Log, Groundwater Gauging Data, Access Agreements and Daily Reports

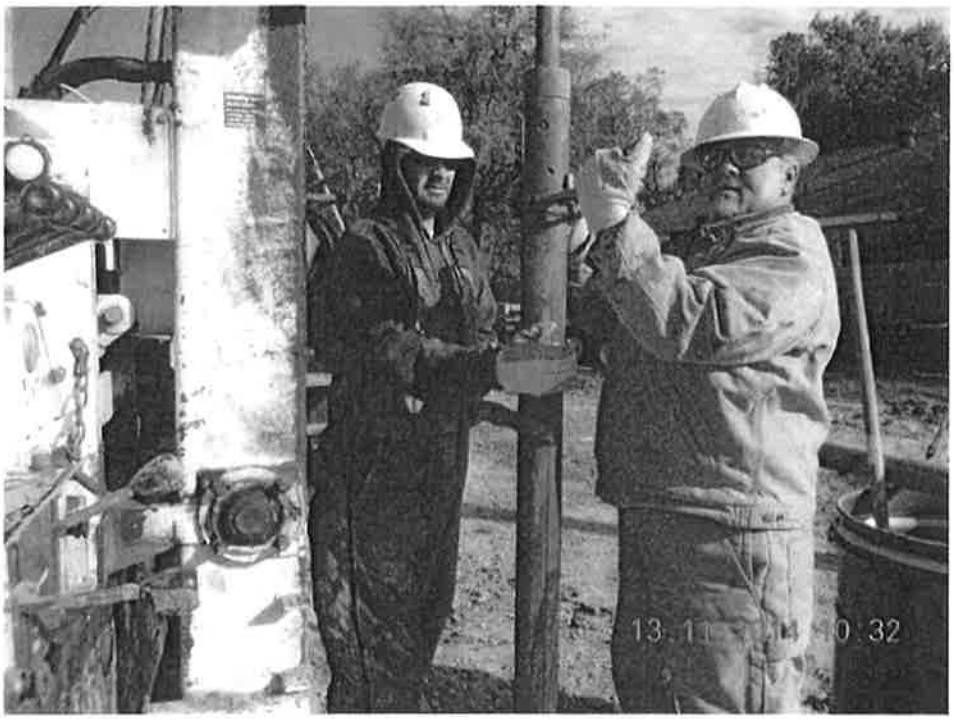


Figure 1 This photograph depicts the drilling of Monitor Well MW-5 on November 13, 2014.

Figure 2 This photograph depicts the drilling of Monitor Well MW-5 on November 13, 2014.

Figure 3 This photograph depicts drilling of angle boring MW-10 on November 11, 2014.

Figure 4 This photograph depicts drilling of angle boring MW-15 on November 20, 2014.

Figure 5 This photograph depicts LNAPL present in monitor well MW-1 on December 21, 2014.

Monitor Well Gauging Data
AHTD Job 100705
Blytheville, AR
Facility ID: 47000222;
LUST # 47-0040

Well ID	Date Gauged	Top of Casing Elevation (ft.)	Total Depth (ft.)	Depth to PSH (ft.)	Depth to Water (ft.)	PSH Thickness (ft.)	Groundwater Elevation (ft.)	Adjusted Groundwater Elevation (ft.)
MW-1	11/24/14	265.37	25.00	12.45	12.52	0.07	252.85	252.90
	12/21/14	265.37	25.00	11.98	12.39	0.41	252.98	253.29
Well ID	Date Gauged	Top of Casing Elevation (ft.)	Total Depth (ft.)	Depth to PSH (ft.)	Depth to Water (ft.)	PSH Thickness (ft.)	Groundwater Elevation (ft.)	Adjusted Groundwater Elevation (ft.)
MW-2	11/24/14	265.91	25.00	ND	12.99	0.00	252.92	252.92
	12/21/14	265.91	25.00	ND	12.60	0.00	253.31	253.31
Well ID	Date Gauged	Top of Casing Elevation (ft.)	Total Depth (ft.)	Depth to PSH (ft.)	Depth to Water (ft.)	PSH Thickness (ft.)	Groundwater Elevation (ft.)	Adjusted Groundwater Elevation (ft.)
MW-3	11/24/14	266.44	25.00	ND	13.51	0.00	252.93	252.93
	12/21/14	266.44	25.00	13.06	13.32	0.26	253.12	253.32
Well ID	Date Gauged	Top of Casing Elevation (ft.)	Total Depth (ft.)	Depth to PSH (ft.)	Depth to Water (ft.)	PSH Thickness (ft.)	Groundwater Elevation (ft.)	Adjusted Groundwater Elevation (ft.)
MW-4	11/24/14	266.64	25.00	ND	13.74	0.00	252.90	252.90
	12/21/14	266.64	25.00	13.35	13.36	0.01	253.28	253.29
Well ID	Date Gauged	Top of Casing Elevation (ft.)	Total Depth (ft.)	Depth to PSH (ft.)	Depth to Water (ft.)	PSH Thickness (ft.)	Groundwater Elevation (ft.)	Adjusted Groundwater Elevation (ft.)
MW-5	11/24/14	265.79	25.00	12.88	12.89	0.01	252.90	252.91
	12/21/14	265.79	25.00	12.44	12.67	0.23	253.12	253.29
Well ID	Date Gauged	Top of Casing Elevation (ft.)	Total Depth (ft.)	Depth to PSH (ft.)	Depth to Water (ft.)	PSH Thickness (ft.)	Groundwater Elevation (ft.)	Adjusted Groundwater Elevation (ft.)
MW-6	11/24/14	266.22	25.00	ND	13.31	0.00	252.91	252.91
	12/21/14	266.22	25.00	12.91	12.97	0.06	253.25	253.30
Well ID	Date Gauged	Top of Casing Elevation (ft.)	Total Depth (ft.)	Depth to PSH (ft.)	Depth to Water (ft.)	PSH Thickness (ft.)	Groundwater Elevation (ft.)	Adjusted Groundwater Elevation (ft.)
MW-7	11/24/14	266.11	25.00	ND	13.27	0.00	252.84	252.84
	12/21/14	266.11	25.00	ND	12.87	0.00	253.24	253.24
Well ID	Date Gauged	Top of Casing Elevation (ft.)	Total Depth (ft.)	Depth to PSH (ft.)	Depth to Water (ft.)	PSH Thickness (ft.)	Groundwater Elevation (ft.)	Adjusted Groundwater Elevation (ft.)
MW-8	11/24/14	266.22	25.00	ND	13.32	0.00	252.90	252.90
	12/21/14	266.22	25.00	ND	12.92	0.00	253.30	253.30

Adj. GW Elev.=(TOC Elev. - Depth to GW) + (0.755 x PSH Thickness)
ND - not detected
NM - not measured

Monitor Well Gauging Data
AHTD Job 100705
Blytheville, AR
Facility ID: 47000222;
LUST # 47-0040

Well ID	Date Gauged	Top of Casing Elevation (ft.)	Total Depth (ft.)	Depth to PSH (ft.)	Depth to Water (ft.)	PSH Thickness (ft.)	Groundwater Elevation (ft.)	Adjusted Groundwater Elevation (ft.)
MW-9	11/24/14	266.70	25.00	ND	13.75	0.00	252.95	252.95
	12/21/14	266.70	25.00	ND	13.35	0.00	253.35	253.35
Well ID	Date Gauged	Top of Casing Elevation (ft.)	Total Depth (ft.)	Depth to PSH (ft.)	Depth to Water (ft.)	PSH Thickness (ft.)	Groundwater Elevation (ft.)	Adjusted Groundwater Elevation (ft.)
MW-10*	11/24/14	266.28	30.00	ND	17.84	0.00	248.44	248.44
	12/21/14	266.28	30.00	ND	17.25	0.00	249.03	249.03
Well ID	Date Gauged	Top of Casing Elevation (ft.)	Total Depth (ft.)	Depth to PSH (ft.)	Depth to Water (ft.)	PSH Thickness (ft.)	Groundwater Elevation (ft.)	Adjusted Groundwater Elevation (ft.)
MW-11	11/24/14	266.53	25.00	ND	13.54	0.00	252.99	252.99
	12/21/14	266.53	25.00	ND	13.15	0.00	253.38	253.38
Well ID	Date Gauged	Top of Casing Elevation (ft.)	Total Depth (ft.)	Depth to PSH (ft.)	Depth to Water (ft.)	PSH Thickness (ft.)	Groundwater Elevation (ft.)	Adjusted Groundwater Elevation (ft.)
MW-12	11/24/14	265.85	25.00	ND	12.73	0	253.12	253.12
	12/21/14	265.85	25.00	ND	12.34	0	253.51	253.51
Well ID	Date Gauged	Top of Casing Elevation (ft.)	Total Depth (ft.)	Depth to PSH (ft.)	Depth to Water (ft.)	PSH Thickness (ft.)	Groundwater Elevation (ft.)	Adjusted Groundwater Elevation (ft.)
MW-13	11/24/14	266.25	25.00	ND	13.36	0	252.89	252.89
	12/21/14	266.25	25.00	ND	12.97	0	253.28	253.28
Well ID	Date Gauged	Top of Casing Elevation (ft.)	Total Depth (ft.)	Depth to PSH (ft.)	Depth to Water (ft.)	PSH Thickness (ft.)	Groundwater Elevation (ft.)	Adjusted Groundwater Elevation (ft.)
MW-14*	11/24/14	266.29	35.00	ND	18.16	0	248.13	248.13
	12/21/14	266.29	35.00	ND	17.55	0	248.74	248.74
Well ID	Date Gauged	Top of Casing Elevation (ft.)	Total Depth (ft.)	Depth to PSH (ft.)	Depth to Water (ft.)	PSH Thickness (ft.)	Groundwater Elevation (ft.)	Adjusted Groundwater Elevation (ft.)
MW-15*	11/24/14	265.44	35.00	ND	16.84	0	248.60	248.60
	12/21/14	265.44	35.00	ND	16.31	0	249.13	249.13

Adj. GW Elev.=(TOC Elev. - Depth to GW) + (0.755 x PSH Thickness)
ND - not detected
NM - not measured

Eco-Rental Solutions

Calibration Certificate

rev 8/9/11

Work Order No.: SE-016045
Date of Service: 11/04/14

Unit Under Test: RAE MiniRAE 3000 PID Handheld VOC Monitor

Asset No.: FA00715 Technician: Tom Kortkamp Initials:
Serial No: 592-909970

TEST	Specification	Result
Standard Calibration	Pass/Fail	PASS

TEST STANDARDS USED:

DESCRIPTION	LOT No./EXPIRATION DATE	QUANTITY
100ppm Isobutylene in Air	Lot No. HAO-248-100-2 Exp. 07/02/18	1

TEST EQUIPMENT USED:

DESCRIPTION	ASSET NO.	SERIAL NO.	DATE OF LAST CAL	DATE CAL DUE

Test Equipment and standards are traceable to National standards.

10.6 eV Lamp Installed.

PHOTO-IONIZATION DETECTOR FIELD CALIBRATION SHEET

SOCO TECHNICIAN: Scott Kemph and Oriana Thompson DATE: November 12, 2014 through November 25, 2014

WEATHER: Cold and Windy Snow on November 11, 2014

PROJECT NAME: AHTD Job #100705 PROJECT NUMBER: 4560

PROJECT LOCATION: 100 Division Street
Blytheville, Arkansas 72315

PID MODEL	Minnie Rae 3000
PID SERIAL NUMBER	592-909970
CALIBRATION SPAN GAS	Isobutylene
CALIBRATION STANDARD (IN PPM)	100

F I D F I E L D C A L I B R A T I O N D A T A

CALIBRATION TIME	FIELD CALIBRATION SETTING (IN PPM)	SOCO TECHNICIAN INITIALS
11/12/14 0800	99.9	OAT
11/3/14 0705	99.8	OAT/TSK
11/14/14 0700	99.8	TSK
10/3/13 0605	99.9	TSK
11/17/14 1100	99.9	TSK
11/18/14 1000	99.9	TSK
11/20/14 1100	99.8	TSK

GENERAL REMARKS:

SOCO TECHNICIAN SIGNATURE: Oriana Thompson M. Scott Kemph DATE: 11-20-14 11-20-14

Snellgrove, Langley, Culpepper, Williams & Mullally
Attorneys at Law

Frank Snellgrove (1921-2008)
Stanley R. Langley (1940-2011)
Malcolm Culpepper
Todd Williams
Michael E. Mullally
Matt Modelevsky
Joshua Robles

111 E. Huntington - P.O. Box 1346
Jonesboro, AR 72403-1346

Telephone
(870) 932-8357
Facsimile
(870) 932-5488

E-mail
matt@snellgrovefirm.com

March 15, 2013

VIA E-MAIL

Mr. Scott Kemph, P.G.
Project Manager
The Southern Co., NLR, Inc.

Dear Scott:

I appreciate the opportunity to visit with you earlier this week in regard to the attached Access Agreement. I understand based on our discussions that the Highway Department has assumed responsibility for clean up of the property subject to this Access Agreement and which is currently owned by my client and that clean up of the Highway Department includes fuel system and any contamination as a result thereof. If I have mistaken that for any reason please let me know.

Sincerely yours,

Matt Modelevsky

MM:th
Attachment

ACCESS AGREEMENT

CONSENT FOR RIGHT OF ENTRY TO PERFORM ASSESSMENT OR REMEDIATION, OR BOTH, ACTIVITIES AT 100 North Division Street, Blytheville, Arkansas 72315.

Case for which access is required: LUST # 47-0040, ADEQ Facility ID#47000222, AFIN # 47-00686.

JRM4, LLC, owner of the property located at, 100 North Division Street, Blytheville, Arkansas do hereby GRANT RIGHT OF ACCESS to the Arkansas Department of Environmental Quality (ADEQ), its contractors and subcontractors, agents, employees, authorized representatives (who may include state or local agencies and officials), the right to enter and have access upon the described property to do all things necessary or expedient to protect the environment, public health, and safety for the general welfare and to remediate releases to the environment, and for the following purposes:

> Entry to perform site assessment, investigation, and remediation pursuant to the authority prescribed to it under Arkansas Pollution Control & Ecology Commission Regulation No. 12; A.C.A. § 8-7-801, *et seq.*; and A.C.A. § 8-4-101, *et seq.*

I give this consent to enter upon the above-described property for the length of time necessary to complete the assessment, investigation, or remediation necessary to protect human health and the environment and to remediate releases to the environment subject to my continued ownership and use of the property.

Jackie R. McClure
Typed or Printed Name of Property Owner

Signature of Property Owner

State of Arkansas
County of Craighead
On this the 14 day of March, 20 13, before me, Lynette Murphy, the undersigned notary, personally appeared, Jackie R. McClure, known to me (or satisfactorily proven) to be the person whose name(s) is/are subscribed to the within instrument and acknowledged that he/she/they executed the same for the purposes therein contained.

In witness whereof I hereunto set my hand and official seal.

OFFICIAL SEAL - #12388128
LYNETTE MURPHY
NOTARY PUBLIC-ARKANSAS
CRAIGHEAD COUNTY
MY COMMISSION EXPIRES: 05-24-22

Notary Public

My Commission expires: _____

ACCESS AGREEMENT

CONSENT FOR RIGHT OF ENTRY TO PERFORM ASSESSMENT OR REMEDIATION, OR BOTH, ACTIVITIES AT 100 North Division Street, Blytheville, Arkansas 72315

Case for which access is required: LUST # 47-0040, ADEQ Facility ID#47000222, AFIN# 47-00686._____

I, Onisca McCaig, owner of the property located at 1140 W. Main, Blytheville, Arkansas, do hereby GRANT RIGHT OF ACCESS to the Arkansas Department of Environmental Quality (ADEQ), its contractors and subcontractors, agents, employees, authorized representatives (who may include state or local agencies and officials), the right to enter and have access upon the described property to do all things necessary or expedient to protect the environment, public health, and safety for the general welfare and to remediate releases to the environment, and for the following purposes:

> Entry to perform site assessment, investigation, and remediation pursuant to the authority prescribed to it under Arkansas Pollution Control & Ecology Commission Regulation No. 12; A.C.A. § 8-7-801, *et seq.*; and A.C.A. § 8-4-101, *et seq.*

I give this consent to enter upon the above-described property for the length of time necessary to complete the assessment, investigation, or remediation necessary to protect human health and the environment and to remediate releases to the environment subject to my continued ownership and use of the property.

Onisca McCaig Vanover
Typed or Printed Name of Property Owner

Onisca McCaig Vanover
Signature of Property Owner

State of Arkansas
County of Pulaski

On this the 2 day of June, 2014, before me, Rick Stanley, the undersigned notary, personally appeared, Onisca McCaig Vanover, known to me (or satisfactorily proven) to be the person whose name(s) is/are subscribed to the within instrument and acknowledged that he/she/they executed the same for the purposes therein contained.

In witness whereof I hereunto set my hand and official seal.

Notary Public

My Commission expires: 5/7/22

OFFICIAL SEAL - #12387667
RICK STANLEY
NOTARY PUBLIC-ARKANSAS
PULASKI COUNTY
MY COMMISSION EXPIRES: 05-07-22

Safety Plan Compliance

I Patrick Bradford have received a copy of the Health and Safety Plan (the plan) for the project. I have reviewed the plan, understand the plan, and agree to comply with all of it's provisions. I understand that I could be prohibited from working on the project for violating and of ht health and safety requirements specified in the plan.

Signed [signature] Date 11-11-14

Printed Name Patrick Bradford

Company Anderson Engineering

Safety Plan Compliance

I Joe Hall have received a copy of the Health and Safety Plan (the plan) for the project. I have reviewed the plan, understand the plan, and agree to comply with all of it's provisions. I understand that I could be prohibited from working on the project for violating and of ht health and safety requirements specified in the plan.

Signed [signature] Date 11-11-14

Printed Name Joe Hall

Company Anderson Eng.

Safety Plan Compliance

I T-Scott Kemph have received a copy of the Health and Safety Plan (the plan) for the project. I have reviewed the plan, understand the plan, and agree to comply with all of it's provisions. I understand that I could be prohibited from working on the project for violating and of ht health and safety requirements specified in the plan.

Signed T-Scott Date 11-11-14

Printed Name T-Scott Kemph

Company The Southern Company

Safety Plan Compliance

I Oriana Thompson have received a copy of the Health and Safety Plan (the plan) for the project. I have reviewed the plan, understand the plan, and agree to comply with all of it's provisions. I understand that I could be prohibited from working on the project for violating and of ht health and safety requirements specified in the plan.

Signed _____ Date 11.11.14

Printed Name ORIANA THOMPSON

Company THE SOUTHERN Co. NLR. INC.

#100740 - job number

11-11-14 AHTD #100705

0900 Arrive jobsite, tailgate safety meeting.

1130 complete drilling MW-1 Final continuous sampler stuck in the drillstem

1230 Un stuck sampler

1330 Begin to re drill MW-1

13:35 Sample

15:15 Finish MW-1 - ~~m~~ wellhead not finished

15:20 Drill MW-2

16:45 Sample MW-2 @ 16'

17:00 ⇒ Sunset - discontinue drilling MW-2 @ 20'. Left boring (augers) overnight

11.12.14

7:45 OAT onsite

8:00 AECI onsite - start rig

8:57 Sample MW-2. start well placement

8:57 AHTD John McInnes 870.623.8498 stopped by

10:50 MW3

11:30 Lunch

12:30 continue MW3

11-13-14 AHTD

0800 Arrive jobsite
tailgate safety meeting
0830 setup to drill MW-5
0845 start drilling MW-5
1110 complete drilling/installation of MW-5
1115 lunch
1215 setup to drill MW-6
1220 start drilling MW-6
1400 complete drilling/installation of MW-6
1415 start drilling MW-7
1558 complete drilling/installation of MW-7
1600 setup to drill MW-8
1608 start drilling MW-8
1700 stop drilling on MW-8 at 15 foot below ground surface
1710 site clean up
Depart site

N. Scott

11-13-14

11-14-14 AHTD Job 100705

0800 Arrive Jobsite
tailgate safety meeting

0838 continue to drill MW-8

0938 Finish drilling/installing MW-8

1100 site clean up Depart
Site

T. Scott [illegible]
11-14-14

11-17-14 AHTD Job 100705
0800 Arrive jobsite
Tailgate safety meeting
0845 Setup to angle drill
MW-10
1000 start angle drilling MW-10
12:16 lunch
12:45 Continue Drilling
5:15 Depart site

11/18/14 8:00 - Arrive site
8:30 AECI onsite
Setup to drill MW-11
11:15 → MW-11 set - Lunch
12:10 → Setup to drill MW12
12:20 → Drill MW-12
14:30 Drill MW 13
16:20 Complete well. Depart
site

11/19/14 8:00 Arrive onsite
8:45 AECI onsite
9:30 - AECI personnel sick
10:00 - depart site.

11-20-14 AHTD Job # 100705

0745 Arrive jobsite tailgate safety meeting

0815 continue to drill MW-14

1045 complete drilling MW-14

1100 Lunch

1200 back from Lunch, Attempt to pull augers to set well

1530 complete installing MW-14

1600 start drilling MW-15

1745 complete drilling MW-15

1800 Depart site

R. Scott [signature]

11-20-14

11:24:14 - AHTD
Arrive onsite @ 7:15
setup sampling equipment
Start on MW14 @ 7:35
could not sample angle well
MW 14 obtained from bailer @ 8:45

11:30 - lunch onsite -

left site @ 16:45

11.25.14 @ arrive at 8:05 open wells

8:40 gauge wells

MW1	12.45	12.52	
MW2	12.99	12.99	
MW3	13.51	13.51	
MW4	13.74	13.74	
MW5	12.88	12.89	
MW6	13.31	13.31	
MW7	13.27	13.27	
MW8	13.32	13.32	
MW9	13.75	13.75	
MW10	21.78	21.78 #	12.04
MW11	13.54	13.54	
MW12	12.73	12.73	
MW13	13.36	13.36	
MW14 *	22.18	22.18	18.16
MW15 #	20.57	20.57	16.84

9:45 - close wells
10:00 - depart site.

12.21.14
9:00 - Depart CR
1:00 pm - Arrive onsite
open wells
2:00 pm start gauge

	PTP	DTW	
MW1	11.98	12.39	23.55
MW2	—	12.60	23.16
MW3	13.06	13.32	23.86
MW4	13.35	13.36	24.58
MW5	12.44	12.67	24.59
MW6	12.91	12.97	23.54
MW7	—	12.87	24.12
MW8	—	12.92	24.60
MW9	—	13.35	24.29
MW10	—	21.08	27.58

MW 11	—	13.15	24.12
MW12	—	12.34	25.49
MW13	—	12.97	24.18
MW14	—	21.43	30.33
MW15	—	19.91	31.80

3:30 pm depart site

11.23.14 AHTD Job#1007105

12:15 Arrive onsite
open wells & gauge
start equipment setup
MW 11 — rain
sampled MW 8, MW 9 & MW 7
left site @ 17:15

Appendix C

Unified Soil Classification, Soil Boring Logs and Monitor Well Construction Details

THE Southern Co. NLR, INC.

UNIFIED SOIL CLASSIFICATION (ASTM D-2487-98)

MATERIAL TYPES	CRITERIA FOR ASSIGNING SOIL GROUP NAMES			GROUP SYMBOL	SOIL GROUP NAMES & LEGEND
COARSE GRAINED SOILS >50% RETAINED ON NO. 200 SIEVE	GRAVELS >50% OF COARSE FRACTION RETAINED ON NO 4 SIEVE	CLEAN GRAVELS <5% FINES	Cu>4 AND 1<Cc<3	GW	WELL-GRADED GRAVEL
			Cu>4 AND 1>Cc>3	GP	POORLY-GRADED GRAVEL
		GRAVELS WITH FINES >12% FINES	FINES CLASSIFY AS ML OR CL	GM	SILTY GRAVEL
			FINES CLASSIFY AS CL OR CH	GC	CLAYEY GRAVEL
	SANDS >50% OF COARSE FRACTION PASSES ON NO 4 SIEVE	CLEAN SANDS <5% FINES	Cu>6 AND 1<Cc<3	SW	WELL-GRADED SAND
			Cu>6 AND 1>Cc>3	SP	POORLY-GRADED SAND
		SANDS AND FINES >12% FINES	FINES CLASSIFY AS ML OR CL	SM	SILTY SAND
			FINES CLASSIFY AS CL OR CH	SC	CLAYEY SAND
FINE-GRAINED SOILS >50% PASSES NO. 200 SIEVE	SILTS AND CLAYS LIQUID LIMIT<50	INORGANIC	PI>7 AND PLOTS>="A" LINE	CL	LEAN CLAY
			PI<4 AND PLOTS<"A" LINE	ML	SILT
		ORGANIC	LL oven dried/LL not dried<0.75	OL	ORGANIC CLAY OR SILT
	SILTS AND CLAYS LIQUID LIMIT>50	INORGANIC	PI PLOTS >="A" LINE	CH	FAT CLAY
			PI PLOTS <"A" LINE	MH	ELASTIC SILT
		ORGANIC	LL oven dried/LL not dried<0.75	OH	ORGANIC CLAY OR SILT
HIGHLY ORGANIC SOILS	PRIMARILY ORGANIC MATTER, DARK IN COLOR, AND ORGANIC ODOR			PT	PEAT

OTHER MATERIAL SYMBOLS

- Poorly Graded Sand with Clay
- Clayey Sand
- Sandy Silt
- Low to High Plasticity Clay
- Poorly Graded Gravelly Sand
- Topsoil
- Well Graded Gravel with Clay
- Well Graded Gravel with Silt
- Sand
- Silt
- Well Graded Gravelly Sand
- Gravelly Silt
- Asphalt
- Boulders and Cobble

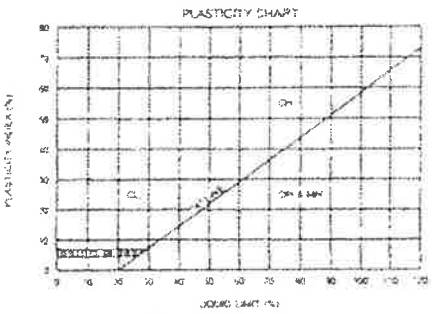
SAMPLE TYPES

- Split Spoon
- Shelby Tube
- Rock Core
- Grab Sample

ADDITIONAL TESTS

CA	-	CHEMICAL ANALYSIS (COMPOSITION)	200%	-	WITH % PASSING NO 200 SIEVE
CD	-	CONSOLIDATED DRAINED TRIAXIAL			
CN	-	CONSOLIDATION	SW	-	SWELL TEST
CU	-	CONSOLIDATED UNDRAINED TRIAXIAL	CY	-	CYCLIC TRIAXIAL
DS	-	DIRECT SHEAR	TV	-	TORVANE SHEAR
PP	-	POCKET PENETROMETER (TSF)	UC	-	UNCONFINED COMPRESSION
S.01	-	WITH SHEAR STRENGTH IN KSF	1.5	-	WITH SHEAR STRENGTH IN KSF
RV	-	RV VALUE			
SA	-	SIEVE ANALYSIS % PASSING #200 SIEVE	UU	-	UNCONSOLIDATED UNDRAINED TRIAXIAL
		WATER LEVEL WITH DATE OF MEASUREMENT	WA	-	WASH ANALYSIS
			200%1	-	WITH % PASSING NO 200 SIEVE

PLASTICITY CHART



PENETRATION RESISTANCE

RECORDED AS BLOWS / 0.5 FT

SAND & GRAVEL		SILT & CLAY		
RELATIVE DENSITY	BLOWS/FOOT*	CONSISTENCY	BLOWS/FOOT*	COMPRESSIVE STRENGTH (TSF)
VERY LOOSE	0 - 4	VERY SOFT	0 - 2	0 - 0.25
LOOSE	4 - 10	SOFT	2 - 4	0.25 - 0.50
MEDIUM DENSE	10 - 30	FIRM	4 - 8	0.50 - 1.0
DENSE	30 - 50	STIFF	8 - 15	1.0 - 2.0
VERY DENSE	OVER 50	VERY STIFF	15 - 30	2.0 - 4.0
		HARD	OVER 30	OVER 4.0

* NUMBER OF BLOWS OF 140 LB HAMMER FALLING 30 INCHES TO DRIVE A 2 INCH O.D. (UNLESS SHOWN O.D.) SPLIT BARREL SAMPLER THE LAST 12 INCHES OF AN 18-INCH DRIVE (ASTM D1586 STANDARD PENETRATION TEST)

PEI

AHTD 100705

100 N. Division
Blytheville, AR 72315

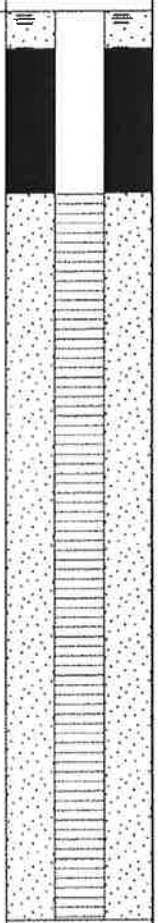
Soil Boring Log

MW-1

Date Started:	11/11/14 10:04	Surface Elev (ft):	0
Date Completed:	11/11/14 15:15	Total Depth (ft bgs):	25
ADEQ Facility ID:	47000222	First Water (ft bgs):	16
ADEQ LUST/LAST File:	47-0040	TOC Elev (ft):	265.37
Logged by:	Kemph/Thompson	GW Elev (ft):	
Project Number:	4560		
Drilling Company:	AECI		
Driller:	Hall		
Sample Method:	6 1/4 HSA		
Borehole Diameter:	Inches		

Lithology	Classification	Description	Depth	Sample #	Undefined (ppm)	Benzene (mg/Kg)	GRO (mg/Kg)	DRO (mg/Kg)
	SP	Brown (10YR 5/3) coarse sand. Moist. No HC odor.			0			
	SP	Brown (10YR 5/3) coarse sand. Moist. No HC odor.			0			
	SP	Brown (10YR 5/3) silty sand. No HC odor.			0			
	SP	Brown (10YR 5/3) silty sand. No HC odor.			0			
	SP	Brown (10YR 5/3) silty sand. No HC odor.			0			
	SP	Brown (10YR 5/3) silty sand. No HC odor.	5		0			
	SC	Dark brown (10YR 3/3) sandy clay. No hc odor.			0			
	SC	Very dark brown (10YR 3/2) sandy clay. No HC odor.			0			
	CL	Very dark brown (10YR 3/2) sandy clay. No HC odor.			0			
	Concrete	Concrete layer at 10 ft.			0			
	SC	Very dark brown (10YR 3/2) sandy clay. No HC odor.	10		0			
	SC	Very dark brown (10YR 3/2) sandy clay. No HC odor.			11.0			
	SC	Very dark brown (10YR 3/2) sandy clay. No HC odor.			9.8			
	SC	Very dark brown (10YR 3/2) sandy clay. No HC odor.			1425			
	SP	Very dark brown (10YR 3/2) silty sand. Strong HC odor.			1835			
	SP	Very dark brown (10YR 3/2) silty sand. Strong HC odor.	15	MW-1@16	1925	16.0	734	302
	SP	Dark brown (10YR 3/3) sand. Strong HC odor.			507.0			
	SP	Dark brown (10YR 3/3) sand. Strong HC odor.			479.3			
	SP	Dark brown (10YR 3/3) sand. Strong HC odor.			416.2			
	SP	Brown (10YR 4/3) silty sand. Strong HC odor.			1354			
	SP	Brown (10YR 4/3) silty sand. Strong HC odor.	20		913.2			
	SP	Brown (10YR 4/3) silty sand. Strong HC odor.			794.8			
	SP	Brown (10YR 4/3) silty sand. Strong HC odor.			1457			
	SP	Dark grayish brown (10YR 4/2) sand. Strong HC odor.		MW-4@24	1322	2.79	148	34.1
	SP	Dark grayish brown (10YR 4/2) sand. Strong HC odor.			1299			
		Boring terminated at 25 feet in sand.	25					

Well Completion Diagram



Notes:
6 Bags Sand
1/2 Bucket Bentonite.
Well headspace 1308 ppm

The Southern Company NLR, Inc.

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AHTD 100705

100 N. Division
Blytheville, AR 72315

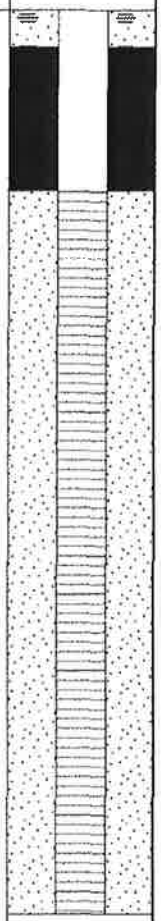
Soil Boring Log

MW-2

Date Started:	11/11/14 15:20
Date Completed:	11/11/14 17:15
ADEQ Facility ID:	47000222
ADEQ LUST/LAST File:	47-0040
Logged by:	Kemph/Thompson
Project Number:	4560
Drilling Company:	AECI
Driller:	Hall
Sample Method:	6 1/4 HSA
Borehole Diameter:	Inches
Surface Elev (ft):	0
Total Depth (ft bgs):	25
First Water (ft bgs):	16
TOC Elev (ft):	265.91
GW Elev (ft):	

Lithology	Classification	Description	Depth	Sample #	Undefined (ppm)	Benzene (mg/Kg)	GRO (mg/Kg)	DRO (mg/Kg)
	SP	Dark brown (10YR 3/3) coarse sand. No HC odor.			4.0			
	SP	Dark brown (10YR 3/3) coarse sand. No HC odor.			5.4			
	SW	Dark brown (10YR 3/3) coarse sand and gravel. No HC odor.			5.0			
	SP	Dark brown (10YR 3/3) coarse sand. No HC odor.			4.3			
	SP	Dark brown (10YR 3/3) coarse sand. No HC odor.			6.2			
	SP	Dark brown (10YR 3/3) clayey sand. Coarse. No HC odor.	5		3.5			
	SP	Dark brown (10YR 3/3) clayey sand. Coarse. No HC odor.			11.2			
	Concrete	Concrete layer at 8 ft. bgs.			11.7			
	SP	Very dark brown (10YR 3/2) clayey sand. No HC odor.			17.2			
	SC	Very dark brown (10YR 3/2) sandy clay. Cohesive. No HC odor.			12.5			
	SC	Very dark brown (10YR 3/2) sandy clay. Cohesive. No HC odor.	10		6.6			
	SP	Dark brown (10YR 3/3) clayey sand. Moist.			9.2			
	SP	Dark brown (10YR 3/3) clayey sand. Moist.			8.4			
	SP	Very dark brown (10YR 3/2) sand. Moist.			6.9			
	SP	Very dark brown (10YR 3/2) sand. Wet. Strong HC odor.			1393			
	SP	Very dark brown (10YR 3/2) sand. Wet. Strong HC odor.	15	MW-2@16	1878	46.7	2240	2250
	SP	Very dark brown (10YR 3/2) sand. Wet. Strong HC odor.			1862			
	SP	Very dark brown (10YR 3/2) silty sand. Wet. Strong HC odor.			1769			
	SP	Dark grayish brown (10YR 4/2) sand. Strong HC odor.			1600			
	SP	Dark grayish brown (10YR 4/2) sand. Strong HC odor.			1597			
	SP	Dark grayish brown (10YR 4/2) sand. Strong HC odor.	20		187.1			
	SP	Dark grayish brown (10YR 4/2) sand. Strong HC odor.			100.8			
	SP	Dark grayish brown (10YR 4/2) sand. Strong HC odor.		MW-2@22	331.1	1.30	59.8	20.7
	SP	Dark grayish brown (10YR 4/2) sand. Strong HC odor.			77.5			
	SP	Dark grayish brown (10YR 4/2) sand. Strong HC odor.			15.1			
		Boring terminated at 25 feet in sand.	25					

Well Completion Diagram



Notes:
5.5 Bags Sand
1/2 Bucket Bentonite.
Well headspace 1526 ppm

The Southern Company NLR, Inc.

AHTD 100705

100 N. Division
Blytheville, AR 72315

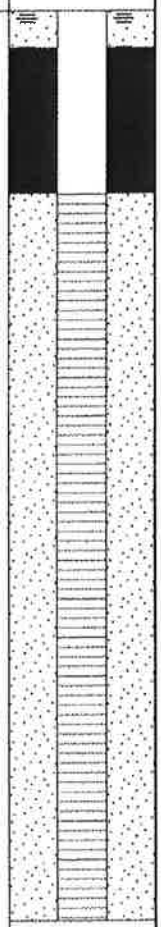
Soil Boring Log

MW-3

Date Started:	11/12/14 10:00
Date Completed:	11/12/14 13:40
Surface Elev (ft):	0
Total Depth (ft bgs):	25
First Water (ft bgs):	15
TOC Elev (ft):	266.44
GW Elev (ft):	
ADEQ Facility ID:	47000222
ADEQ LUST/LAST File:	47-0040
Logged by:	Kemph/Thompson
Project Number:	4560
Drilling Company:	AECI
Driller:	Hall
Sample Method:	6 1/4 HSA
Borehole Diameter:	Inches

Lithology	Classification	Description	Depth	Sample #	Undefined (ppm)	Benzene (mg/Kg)	GRO (mg/Kg)	DRO (mg/Kg)
	SP	Dark yellowish brown (10YR 3/4) sand. No HC odor.			6.7			
	SP	Dark yellowish brown (10YR 3/4) sand. No HC odor.			8.8			
	SP	Dark yellowish brown (10YR 3/4) sand. No HC odor.			13.9			
	SP	Dark yellowish brown (10YR 3/4) sand. No HC odor.			16.5			
	SP	Dark yellowish brown (10YR 3/4) sand. No HC odor.			9.5			
	SP	Dark yellowish brown (10YR 3/4) sand. No HC odor.	5		12.2			
	SP	Dark brown (10YR 3/3) clayey sand. Coarse. No HC odor. Moist.			8.8			
	Concrete	Concrete layer at 8 ft. bgs.			18.4			
	SC	Dark yellowish brown (10YR 3/4) sandy clay. No HC odor.			117.9			
	SC	Dark yellowish brown (10YR 3/4) sandy clay. No HC odor.			414.2			
	SC	Very dark grayish brown (10YR 3/2) sandy clay. Moist.	10		1271			
	SC	Very dark grayish brown (10YR 3/2) sandy clay. Moist.			1217			
	CL	Very dark grayish brown (10YR 3/2) clay. Moist. Cohesive.			554.0			
	SP	Very dark grayish brown (10YR 3/2) sand.			798.4			
	SP	Very dark grayish brown (10YR 3/2) sand. Wet.		MW-3@15	1510	29.2	1180	2570
	SP	Very dark grayish brown (10YR 3/2) sand. Sheen. Strong HC odor.	15		1104			
	SP	Very dark grayish brown (10YR 3/2) sand. Sheen. Strong HC odor.			1509			
	SP	Very dark grayish brown (10YR 3/2) sand. Sheen. Strong HC odor.			592.8			
	SP	Very dark grayish brown (10YR 3/2) sand. Wet.			755.5			
	SP	Very dark grayish brown (10YR 3/2) sand. Wet.			590.0			
	SP	Very dark grayish brown (10YR 3/2) sand. Wet.	20	MW-3@21	462.0	0.100	14.9	<10.0
	SP	Very dark grayish brown (10YR 3/2) sand. Wet.			375.1			
	SP	Very dark grayish brown (10YR 3/2) sand. Wet.			352.7			
	SP	Very dark grayish brown (10YR 3/2) sand. Wet.			295.4			
	SP	Very dark grayish brown (10YR 3/2) sand. Wet.			216.2			
		Boring terminated at 25 feet in sand.	25					

Well Completion Diagram



Notes:
6 Bags Sand
1/2 Bucket Bentonite.
Well headspace 1053 ppm

The Southern Company NLR, Inc.

AHTD 100705

100 N. Division
Blytheville, AR 72315

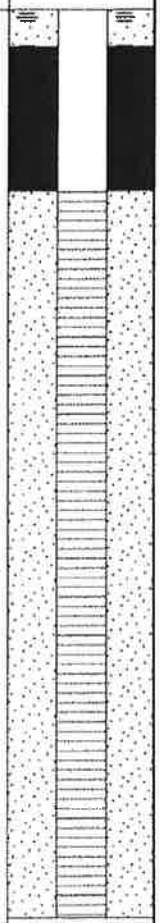
Soil Boring Log

MW-4

Date Started:	11/12/14 13:50
Date Completed:	11/12/14 16:20
Surface Elev (ft):	0
Total Depth (ft bgs):	25
First Water (ft bgs):	15
TOC Elev (ft):	266.64
GW Elev (ft):	
ADEQ Facility ID:	47000222
ADEQ LUST/LAST File:	47-0040
Logged by:	Kemph/Thompson
Project Number:	4560
Drilling Company:	AECI
Driller:	Hall
Sample Method:	6 1/4 HSA
Borehole Diameter:	Inches

Lithology	Classification	Description	Depth	Sample #	Undefined (ppm)	Benzene (mg/Kg)	GRO (mg/Kg)	DRO (mg/Kg)
	CL	Dark yellowish brown (10YR 3/4) tops soil. Roots. No HC odor.			4.3			
	CL	Dark yellowish brown (10YR 3/4) tops soil. Roots. No HC odor.			3.1			
	CL	Dark yellowish brown (10YR 3/4) silty clay. Moist. No HC odor.			6.6			
	CL	Dark yellowish brown (10YR 3/4) silty clay. Moist. No HC odor.			9.4			
	CL	Very dark grayish brown (10YR 3/2) clay. Cohesive. Moist.	5		11.9			
	CL	Very dark grayish brown (10YR 3/2) clay. Cohesive. Moist.			9.8			
	CL	Very dark grayish brown (10YR 3/2) clay. Cohesive. Moist.			9.4			
	CL	Very dark grayish brown (10YR 3/2) clay. Cohesive. Moist.			13.4			
	CL	Dark brown (10YR 3/3) clay. Cohesive. Moist.			39.5			
	CL	Dark brown (10YR 3/3) clay. Cohesive. Moist.	10		737.0			
	SC	Dark grayish brown (10YR 3/2) clay.			820.5			
	SC	Dark grayish brown (10YR 3/2) clay.			932.9			
	SP	Very dark grayish brown (10YR 3/2) sandy clay. Moist.			965.4			
	SP	Very dark grayish brown (10YR 3/2) sand. Moist.			1091			
	SP	Very dark grayish brown (10YR 3/2) sand. Wet.			1035			
	SP	Very dark grayish brown (10YR 3/2) sand. Sheen. Strong HC odor.	15	MW-4@16	1102	0.463	152	183
	SP	Very dark grayish brown (10YR 3/2) sand. Sheen. Strong HC odor.			720.5			
	SP	Very dark grayish brown (10YR 3/2) sand. Coarse.			845.8			
	SP	Very dark grayish brown (10YR 3/2) sand. Wet.			578.2			
	SP	Very dark grayish brown (10YR 3/2) sand. Wet.			105.6			
	SP	Very dark grayish brown (10YR 3/2) sand. Wet.	20		78.8			
	SP	Very dark grayish brown (10YR 3/2) sand. Wet. Weathered sheen.		MW-4@22	110.3	0.153	66.3	32.3
	SP	Very dark grayish brown (10YR 3/2) sand. Wet.			100.9			
	SP	Very dark grayish brown (10YR 3/2) sand. Wet.			100.4			
	SP	Very dark grayish brown (10YR 3/2) sand. Wet.			98.5			
		Boring terminated at 25 feet in sand.	25					

Well Completion Diagram



Notes:
6 Bags Sand
1/2 Bucket Bentonite.
Well headspace 570.7 ppm

The Southern Company NLR, Inc.

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AHTD 100705

100 N. Division
Blytheville, AR 72315

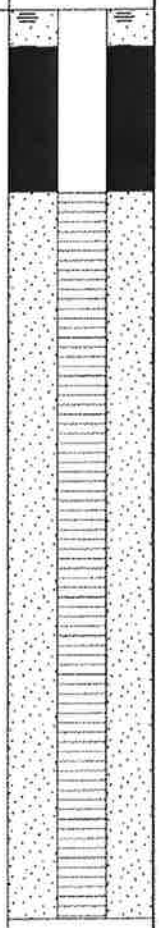
Soil Boring Log

MW-5

Date Started:	11/13/14 08:45
Date Completed:	11/13/14 11:10
Surface Elev (ft):	0
Total Depth (ft bgs):	25
First Water (ft bgs):	15
TOC Elev (ft):	265.79
GW Elev (ft):	
ADEQ Facility ID:	47000222
ADEQ LUST/LAST File:	47-0040
Logged by:	Kemph/Thompson
Project Number:	4560
Drilling Company:	AECI
Driller:	Hall
Sample Method:	6 1/4 HSA
Borehole Diameter:	Inches

Lithology	Classification	Description	Depth	Sample #	Undefined (ppm)	Benzene (mg/Kg)	GRO (mg/Kg)	DRO (mg/Kg)
	CL	6" concrete, then dark yellowish brown (10YR 4/4) silty clay (CL)			140.2			
	CL	Dark yellowish brown (10YR 4/4) silty clay (CL)			85.6			
	ML	Dark grayish brown (10YR 4/2) silt (ML). Moist.			104.1			
	ML	Dark grayish brown (10YR 4/2) silt (ML). Moist.			74.5			
	SC	Dark brown (10YR 3/3) sandy clay (SC). Moist.			53.8			
	SC	Dark brown (10YR 3/3) sandy clay (SC). Moist.	5		59.8			
	SC	Dark brown (10YR 3/3) sandy clay (SC). Moist.			31.7			
	SC	Dark brown (10YR 3/3) sandy clay (SC). Moist.			38.4			
	SC	Dark brown (10YR 3/3) sandy clay (SC). Moist.			33.8			
	SC	Dark brown (10YR 3/3) sandy clay (SC). Moist.			39.1			
	SC	Dark brown (10YR 3/3) sandy clay (SC). Moist.	10		377.1			
	SC	Dark brown (10YR 3/3) sandy clay (SC). Moist.			498.4			
	SC	Dark brown (10YR 3/3) sandy clay (SC). Moist.			765.3			
	SC	Dark brown (10YR 3/3) sandy clay (SC). Wet.			728.6			
	SC	Dark brown (10YR 3/3) sandy clay (SC). Wet.		MW5a 14-15	1880	11.2	1240	408
	SP	Dark brown (10YR 3/3) sand (SP). Wet.	15		1848			
	SP	Dark brown (10YR 3/3) sand (SP). Wet.			1505			
	SP	Dark brown (10YR 3/3) sand (SP). Wet.		MW5a 17-18	1902	2.62	105	45.7
	SP	Dark brown (10YR 3/3) silty sand (SP). Wet.			348.8			
	SP	Dark brown (10YR 3/3) sand (SP). Wet.			679.9			
	SP	Dark brown (10YR 3/3) sand (SP). Wet.	20		369.7			
	SP	Very dark grayish brown (10YR 3/2) sand (SP).			358.9			
	SP	Very dark grayish brown (10YR 3/2) sand (SP).			247.8			
	SP	Very dark grayish brown (10YR 3/2) sand (SP).			259.1			
	SP	Very dark grayish brown (10YR 3/2) sand (SP).			328.1			
		Boring terminated at 25 feet in sand.	25					

Well Completion Diagram



Notes:
6 Bags Sand
1/2 Bucket Bentonite.

The Southern Company NLR, Inc.

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AHTD 100705

100 N. Division
Blytheville, AR 72315

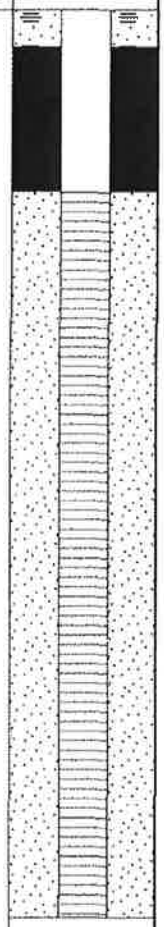
Soil Boring Log

MW-6

Date Started:	11/13/14 12:20	Surface Elev (ft):	0
Date Completed:	11/13/14 14:00	Total Depth (ft bgs):	25
ADEQ Facility ID:	47000222	First Water (ft bgs):	15
ADEQ LUST/LAST File:	47-0040	TOC Elev (ft):	266.22
Logged by:	Kemph/Thompson	GW Elev (ft):	
Project Number:	4560		
Drilling Company:	AECI		
Driller:	Hall		
Sample Method:	6 1/4 HSA		
Borehole Diameter:	Inches		

Lithology	Classification	Description	Depth	Sample #	Undefined (ppm)	Benzene (mg/Kg)	GRO (mg/Kg)	DRO (mg/Kg)
	Concrete	6" concrete, then 4" SB-2			634.1			
	CL	Dark yellowish brown (10YR 4/4) silty clay (CL). Moist.			598.1			
	CL	Dark yellowish brown (10YR 4/4) silty clay (CL). Moist.			362.8			
	CL	Grayish brown (10YR 5/2) silty clay (CL). Moist.			302.6			
	CL	Grayish brown (10YR 5/2) silty clay (CL). Moist.			700.8			
	CL	Grayish brown (10YR 5/2) silty clay (CL). Moist.	5		537.4			
	CL	Grayish brown (10YR 5/2) silty clay (CL). Moist.			803.2			
	CL	Very dark grayish brown (10YR 3/2) silty clay (CL). Moist.			825.3			
	CL	Very dark grayish brown (10YR 3/2) silty clay (CL). Moist.			738.2			
	CL	Dark grayish brown (10YR 4/2) silty clay (CL). Moist.			727.7			
	SC	Dark grayish brown (10YR 4/2) sandy clay (SC). Moist.	10	6a11-12	1668	50.4	3170	661
	SC	Dark grayish brown (10YR 4/2) sandy clay (SC). Moist.			883.2			
	SC	Dark grayish brown (10YR 4/2) sandy clay (SC). Moist.			327.5			
	SC	Dark grayish brown (10YR 4/2) sandy clay (SC). Moist.			943.9			
	SC	Dark grayish brown (10YR 4/2) sandy clay (SC). Moist.			348.9			
	SP	Dark grayish brown (10YR 4/2) sand (SP). Wet.	15		995.8			
	SW	Dark grayish brown (10YR 4/2) sand gravel (SW). Wet.			1378			
	SP	Very dark grayish brown (10YR 3/2) sand (SP). Wet.		6a17-18	1029	0.739	46.4	24.5
	SP	Very dark grayish brown (10YR 3/2) sand (SP). Wet.			351.3			
	SP	Very dark grayish brown (10YR 3/2) sand (SP). Wet.			311.1			
	SP	Very dark grayish brown (10YR 3/2) sand (SP). Wet.	20		312.8			
	SP	Very dark grayish brown (10YR 3/2) sand (SP). Wet.			257.9			
	SP	Very dark grayish brown (10YR 3/2) sand (SP). Wet.			300.6			
	SP	Very dark grayish brown (10YR 3/2) sand (SP). Wet.			270.8			
	SP	Very dark grayish brown (10YR 3/2) sand (SP). Wet.			252.6			
		Boring terminated at 25 feet in sand.	25					

Well Completion Diagram



Notes:
6 Bags Sand
1/2 Bucket Bentonite.

The Southern Company NLR, Inc.

AHTD 100705

100 N. Division
Blytheville, AR 72315

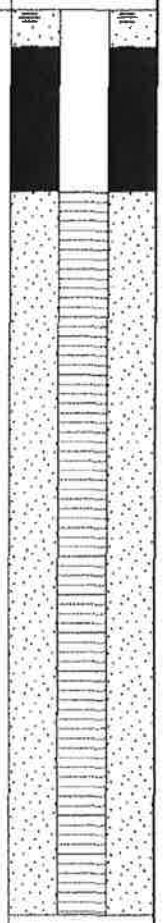
Soil Boring Log

MW-7

Date Started:	11/13/14 14:15
Date Completed:	11/13/14 15:58
Surface Elev (ft):	0
Total Depth (ft bgs):	25
First Water (ft bgs):	14
TOC Elev (ft):	266.118
GW Elev (ft):	
ADEQ Facility ID:	47000222
ADEQ LUST/LAST File:	47-0040
Logged by:	Kemph/Thompson
Project Number:	4560
Drilling Company:	AECI
Driller:	Hall
Sample Method:	6 1/4 HSA
Borehole Diameter:	Inches

Lithology	Classification	Description	Depth	Sample #	Undefined (ppm)	Benzene (mg/Kg)	GRO (mg/Kg)	DRO (mg/Kg)
	Concrete	6" concrete, then 4" SB-2 gravel			261.2			
	CL	Dark yellowish brown (10YR 3/4) silty clay (CL). Moist.			96.1			
	CL	Dark yellowish brown (10YR 3/4) silty clay (CL). Moist.			228.7			
	CL	Dark grayish brown (10YR 4/2) silty clay (CL). Moist.			299.9			
	CL	Dark grayish brown (10YR 4/2) silty clay (CL). Moist.			155.1			
	SC	Dark grayish brown (10YR 4/2) sandy clay (SC). Moist.	5		43.0			
	SC	Dark grayish brown (10YR 4/2) sandy clay (SC). Moist.			589.1			
	SC	Dark grayish brown (10YR 4/2) sandy clay (SC). Moist.			338.8			
	SC	Dark grayish brown (10YR 4/2) sandy clay (SC). Moist.			536.7			
	SC	Very dark grayish brown (10YR 3/2) sandy clay (SC). Moist.			674.8			
	SC	Very dark grayish brown (10YR 3/2) sandy clay (SC). Moist.	10		458.7			
	SC	Very dark grayish brown (10YR 3/2) sandy clay (SC). Moist.			622.5			
	SC	Very dark grayish brown (10YR 3/2) sandy clay (SC). Moist.			973.0			
	SP	Very dark grayish brown (10YR 3/2) sandy clay (SC). Moist.		MW-7@13	1280	17.4	1770	457
	SP	Very dark grayish brown (10YR 3/2) sand (SP). Wet.		MW-7@14	1228	31.8	2910	675
	SP	Very dark grayish brown (10YR 3/2) sand (SP). Wet.	15		982.1			
	SP	Very dark grayish brown (10YR 3/2) sand (SP). Wet.			577.1			
	SC	Very dark grayish brown (10YR 3/2) sandy clay (SC). Wet.			207.6			
	SP	Very dark grayish brown (10YR 3/2) sand (SP). Wet.			387.8			
	SP	Very dark grayish brown (10YR 3/2) sand (SP). Wet.			226.4			
	SP	Very dark grayish brown (10YR 3/2) sand (SP). Wet.	20		223.4			
	SP	Very dark grayish brown (10YR 3/2) sand (SP). Wet.			218.7			
	SP	Very dark grayish brown (10YR 3/2) sand (SP). Wet.			226.5			
	SP	Very dark grayish brown (10YR 3/2) sand (SP). Wet.			207.8			
	SP	Very dark grayish brown (10YR 3/2) sand (SP). Wet.			198.8			
		Boring terminated at 25 feet in sand.	25					

Well Completion Diagram



Notes:
6 Bags Sand
1/2 Bucket Bentonite.

The Southern Company NLR, Inc.

AHTD 100705

100 N. Division
Blytheville, AR 72315

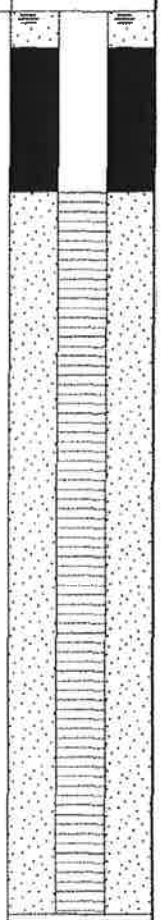
Soil Boring Log

MW-8

Date Started:	11/13/14 14:08
Date Completed:	11/14/14 09:38
Surface Elev (ft):	0
Total Depth (ft bgs):	25
First Water (ft bgs):	15
TOC Elev (ft):	266.22
GW Elev (ft):	
ADEQ Facility ID:	47000222
ADEQ LUST/LAST File:	47-0040
Logged by:	Kemph/Thompson
Project Number:	4560
Drilling Company:	AECI
Driller:	Hall
Sample Method:	6 1/4 HSA
Borehole Diameter:	Inches

Lithology	Classification	Description	Depth	Sample #	Undefined (ppm)	Benzene (mg/Kg)	GRO (mg/Kg)	DRO (mg/Kg)
	Concrete	6" concrete, then 4" SB-2 gravel			318.1			
	CL	Dark yellowish brown (10YR 3/4) silty clay (CL). Moist.			85.4			
	CL	Dark yellowish brown (10YR 3/4) silty clay (CL). Moist.			101.2			
	CL	Dark grayish brown (10YR 4/2) silty clay (CL). Moist.			32.9			
	CL	Dark grayish brown (10YR 4/2) silty clay (CL). Moist.			35.8			
	CL	Dark grayish brown (10YR 4/2) silty clay (CL). Moist.	5		124.6			
	CL	Dark grayish brown (10YR 4/2) silty clay (CL). Moist.			115.7			
	CL	Dark grayish brown (10YR 4/2) silty clay (CL). Moist.		MW-8@7	502.6	<0.100	61.8	<10.0
	SC	Dark grayish brown (10YR 4/2) sandy clay (SC). Moist.			112.7			
	SC	Dark grayish brown (10YR 4/2) sandy clay (SC). Moist.			179.2			
	SC	Dark grayish brown (10YR 4/2) sandy clay (SC). Moist.	10	MW-8@10	355.5	<0.100	<2.00	<10.0
	SC	Dark grayish brown (10YR 4/2) sandy clay (SC). Moist.			172.4			
	SC	Dark grayish brown (10YR 4/2) sandy clay (SC). Moist.			179.6			
	SC	Dark grayish brown (10YR 4/2) sandy clay (SC). Moist.			331.5			
	SP	Very dark grayish brown (10YR 3/2) sand (SP). Wet.			63.9			
	SP	Very dark grayish brown (10YR 3/2) sand (SP). Wet.	15		262.8			
	SP	Very dark grayish brown (10YR 3/2) sand (SP). Wet.			271.5			
	SP	Very dark grayish brown (10YR 3/2) sand (SP). Wet.			257.6			
	SP	Very dark grayish brown (10YR 3/2) sand (SP). Wet.			328.9			
	SP	Very dark grayish brown (10YR 3/2) sand (SP). Wet.			116.0			
	SP	Very dark grayish brown (10YR 3/2) sand (SP). Wet.	20		328.8			
	SP	Very dark grayish brown (10YR 3/2) sand (SP). Wet.			321.8			
	SP	Very dark grayish brown (10YR 3/2) sand (SP). Wet.			317.8			
	SP	Very dark grayish brown (10YR 3/2) sand (SP). Wet.			322.1			
	SP	Very dark grayish brown (10YR 3/2) sand (SP). Wet.			321.7			
		Boring terminated at 25 feet in sand.	25					

Well Completion Diagram



Notes:
6 Bags Sand
1/2 Bucket Bentonite.

The Southern Company NLR, Inc.

AHTD 100705

100 N. Division
Blytheville, AR 72315

Soil Boring Log

MW-9

Date Started:	11/14/14 09:50
Date Completed:	11/14/14 12:20
Drilling Company:	AECI
Driller:	Hall
Sample Method:	6 1/4 HSA
Borehole Diameter:	Inches

Surface Elev (ft):	0
Total Depth (ft bgs):	25
First Water (ft bgs):	15
TOC Elev (ft):	266.70
GW Elev (ft):	

ADEQ Facility ID:	47000222
ADEQ LUST/LAST File:	47-0040
Logged by:	Kemph/Thompson
Project Number:	4560

Lithology	Classification	Description	Depth	Sample #	Undefined (ppm)	Benzene (mg/Kg)	GRO (mg/Kg)	DRO (mg/Kg)	Well Completion Diagram
	GC	Yellowish brown (10YR 5/4) clayey gravel (GC)			7.0				
	GC	Yellowish brown (10YR 5/4) clayey gravel (GC) with construction debris			11.7				
	CL	Dark yellowish brown (10YR 4/4) silty clay (CL).			11.6				
	CL	Dark yellowish brown (10YR 4/4) silty clay (CL).			10.9				
	CL	Dark yellowish brown (10YR 4/4) silty clay (CL).			8.0				
	CL	Dark yellowish brown (10YR 4/4) silty clay (CL).	5	MW-9@5	682.4	0.228	31.6	<10.0	
	CL	Dark yellowish brown (10YR 4/4) silty clay (CL).			217.9				
	CL	Dark yellowish brown (10YR 4/4) silty clay (CL).			572.9				
	CL	Dark yellowish brown (10YR 4/4) silty clay (CL).			411.8				
	CL	Dark yellowish brown (10YR 4/4) silty clay (CL).			48.7				
	SC	Dark grayish brown (10YR 4/2) sandy clay (SC).	10	MW-9@10	333.8	<0.100	23.1	<10.0	
	SC	Dark grayish brown (10YR 4/2) sandy clay (SC).			202.8				
	SC	Dark grayish brown (10YR 4/2) sandy clay (SC).			101.5				
	SC	Dark grayish brown (10YR 4/2) sandy clay (SC).			41.1				
	SP	Very dark grayish brown (10YR 3/2) sand (SP).			58.8				
	CL	Dark yellowish brown (10YR 3/4) silty clay (CL).	15		19.4				
	SC	Dark yellowish brown (10YR 3/4) sandy clay (SC).			463.6				
	SC	Dark yellowish brown (10YR 3/4) sandy clay (SC).			93.0				
	SP	Very dark grayish brown (10YR 3/2) sand (SP).			129.9				
	SP	Very dark grayish brown (10YR 3/2) sand (SP).			69.7				
	SP	Very dark grayish brown (10YR 3/2) sand (SP).	20		53.9				
	SP	Very dark grayish brown (10YR 3/2) sand (SP).			47.1				
	SP	Very dark grayish brown (10YR 3/2) sand (SP).			48.2				
	SP	Very dark grayish brown (10YR 3/2) sand (SP).			39.7				
	SP	Very dark grayish brown (10YR 3/2) sand (SP).			40.1				
		Boring terminated at 25 feet in sand.	25						

Notes:
6 Bags Sand
1/2 Bucket Bentonite.

The Southern Company NLR, Inc.

AHTD 100705

100 N. Division
Blytheville, AR 72315

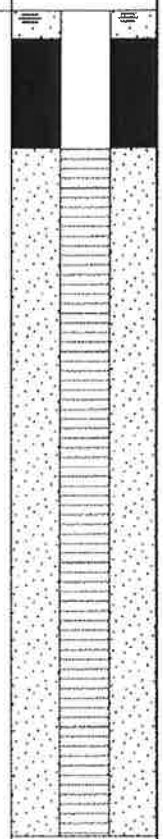
Soil Boring Log

MW-10

Date Started:	11/17/14 10:00
Date Completed:	11/17/14 17:00
ADEQ Facility ID:	47000222
ADEQ LUST/LAST File:	47-0040
Logged by:	Kemph/Thompson
Project Number:	4560
Drilling Company:	AECI
Driller:	Hall
Sample Method:	6 1/4 HSA
Borehole Diameter:	Inches
Surface Elev (ft):	0
Total Depth (ft bgs):	35
First Water (ft bgs):	16
TOC Elev (ft):	266.28
GW Elev (ft):	

Lithology	Classification	Description	Depth	Sample #	Undefined (ppm)	Benzene (mg/Kg)	GRO (mg/Kg)	DRO (mg/Kg)
	ML	Yellowish brown (10YR 3/4) sandy silt (ML)			4.7			
	CL	Yellowish brown (10YR 3/4) sandy silt becoming silty			9.1			
	CL	clay (CL)			8.2			
	CL	Dark brown (10YR 3/3) silty clay (CL).			8.8			
	CL	Dark brown (10YR 3/3) silty clay (CL)			7.2			
	CL	Dark brown (10YR 3/3) silty clay (CL)	5		8.3			
	CL	Dark yellowish brown (10YR 3/4) silty clay (CL)			11.6			
	CL	Dark yellowish brown (10YR 3/4) silty clay (CL)			9.1			
	CL	Dark yellowish brown (10YR 3/4) silty clay (CL)			11.1			
	CL	Yellowish brown (10YR 5/4) silty clay (CL).			12.3			
	CL	Yellowish brown (10YR 5/4) silty clay (CL)	10		13.8			
	CL	Dark brown (10YR 3/3) silty clay (CL)			10.5			
	CL	Dark brown (10YR 3/3) silty clay (CL).			19.2			
	CL	Dark gray (10YR 4/1) silty clay (CL).			5.8			
	CL	Grayish brown (10YR 4/2) silty clay (CL)			6.2			
	SP	Grayish brown (10YR 4/2) sand (SP).	15	[illegible]	418.5	0.664	374	129
	SP	Grayish brown (10YR 4/2) sand (SP)			411.1			
	SP	Grayish brown (10YR 4/2) sand (SP).		[illegible]	628.5	1.35	686	254
	SP	Grayish brown (10YR 4/2) sand (SP).			205.7			
	SP	Grayish brown (10YR 4/2) sand (SP).			223.5			
	SP	Very dark grayish brown (10YR 3/2) sand (SP)	20		155.1			
	SP	Very dark grayish brown (10YR 3/2) sand (SP).			178.1			
	SP	Very dark grayish brown (10YR 3/2) sand (SP).			127.6			
	SP	Very dark grayish brown (10YR 3/2) sand (SP)			220.9			
	SP	Very dark grayish brown (10YR 3/2) sand (SP)			154.9			
	SP	Very dark grayish brown (10YR 3/2) sand (SP).	25		198.8			
	SP	Very dark grayish brown (10YR 3/2) sand (SP)			161.2			
	SP	Very dark grayish brown (10YR 3/2) sand (SP).			147.0			
	SP	Very dark grayish brown (10YR 3/2) sand (SP).			121.1			
	SP	Very dark grayish brown (10YR 3/2) sand (SP)			124.7			
		Boring terminated at 30 feet in sand.	30					
			35					

Well Completion Diagram



Notes:
35° angle boring
8 Bags Sand

The Southern Company NLR, Inc.

AHTD 100705

100 N. Division
Blytheville, AR 72315

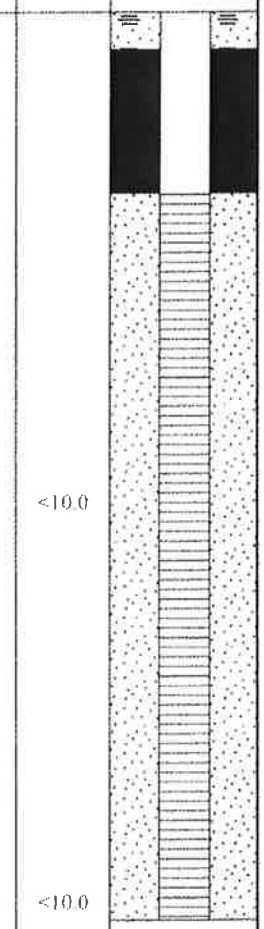
Soil Boring Log

MW-11

Date Started:	11/18/14 09:30
Date Completed:	11/18/14 11:05
Surface Elev (ft):	0
Total Depth (ft bgs):	25
First Water (ft bgs):	15
TOC Elev (ft):	266.53
GW Elev (ft):	
ADEQ Facility ID:	47000222
ADEQ LUST/LAST File:	47-0040
Logged by:	Kemph/Thompson
Project Number:	4560
Drilling Company:	AECI
Driller:	Hall
Sample Method:	6 1/4 HSA
Borehole Diameter:	Inches

Lithology	Classification	Description	Depth	Sample #	Undefined (ppm)	Benzene (mg/Kg)	GRO (mg/Kg)	DRO (mg/Kg)
	CL	Concrete, then dark yellowish brown (10YR 3/4) silty clay.			2.4			
	CL	Dark yellowish brown (10YR 3/4) silty clay. Moist.			4.3			
	CL	Dark yellowish brown (10YR 3/4) silty clay. Moist.			3.5			
	CL	Dark yellowish brown (10YR 3/4) silty clay. Moist. No odor.			4.0			
	CL	Dark grayish brown (10YR 4/2) silty clay.			4.8			
	CL	Dark grayish brown (10YR 4/2) silty clay.	5		2.4			
	CL	Dark grayish brown (10YR 4/2) clay. No HC odor.			3.2			
	CL	Dark grayish brown (10YR 4/2) clay. No HC odor.			4.6			
	CL	Dark grayish brown (10YR 4/2) clay. Cohesive.			5.5			
	CL	Dark grayish brown (10YR 4/2) clay. Cohesive.			3.9			
	CL	Dark grayish brown (10YR 4/2) clay. Cohesive.	10		3.5			
	SC	Dark grayish brown (10YR 4/2) sandy clay (SC).			6.9			
	SC	Dark grayish brown (10YR 4/2) sandy clay (SC).			6.1			
	SC	Dark grayish brown (10YR 4/2) sandy clay (SC).		MW-11@14	16.9	<0.100	<2.00	<10.0
	SP	Very dark grayish brown (10YR 3/2) sand (SP).			15.4			
	CL	Dark yellowish brown (10YR 3/4) silty clay (CL).	15		9.8			
	SC	Dark yellowish brown (10YR 3/4) sandy clay (SC).			4.9			
	SC	Dark yellowish brown (10YR 3/4) sandy clay (SC).			6.1			
	SP	Very dark grayish brown (10YR 3/2) sand (SP).			4.6			
	SP	Dark brown (10YR 3/3) sand (SP).			5.5			
	SP	Dark brown (10YR 3/3) sand (SP).	20		3.8			
	SP	Dark brown (10YR 3/3) sand (SP).			3.4			
	SP	Dark brown (10YR 3/3) sand (SP).			6.3			
	SP	Dark brown (10YR 3/3) sand (SP).			5.1			
	SP	Dark brown (10YR 3/3) sand (SP).		MW-11@25	5.5	<0.100	<2.00	<10.0
		Boring terminated at 25 feet in sand.	25					

Well Completion Diagram



Notes:
6 Bags Sand
1 Bucket Bentonite.
Headspace is 9.8 ppm

The Southern Company NLR, Inc.

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AHTD 100705

100 N. Division
Blytheville, AR 72315

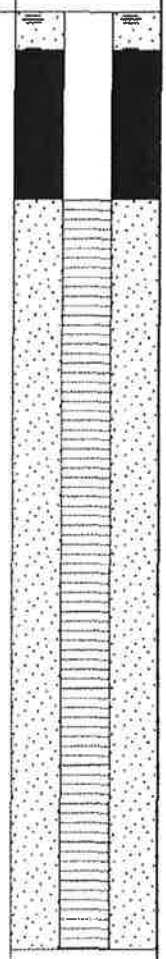
Soil Boring Log

MW-12

Date Started:	11/18/14 12:20
Date Completed:	11/18/14 14:25
Surface Elev (ft):	0
Total Depth (ft bgs):	25
First Water (ft bgs):	15
TOC Elev (ft):	265.65
GW Elev (ft):	
ADEQ Facility ID:	47000222
ADEQ LUST/LAST File:	47-0040
Logged by:	Kemph/Thompson
Project Number:	4560
Drilling Company:	AECI
Driller:	Hall
Sample Method:	6 1/4 HSA
Borehole Diameter:	Inches

Lithology	Classification	Description	Depth	Sample #	Undefined (ppm)	Benzene (mg/Kg)	GRO (mg/Kg)	DRO (mg/Kg)
	CL	8" concrete, then dark brown (10YR 3/3) silty clay.			16.8			
	CL	Dark brown (10YR 3/3) silty clay. Moist.			16.2			
	CL	Dark brown (10YR 3/3) silty clay. Moist.			9.9			
	CL	Dark brown (10YR 3/3) silty clay. Moist.			10.8			
	CL	Dark brown (10YR 3/3) silty clay. Moist.			11.0			
	CL	Very dark grayish brown (10YR 3/2) silty clay.	5		10.1			
	CL	Very dark grayish brown (10YR 3/2) silty clay.			14.8			
	CL	Very dark grayish brown (10YR 3/2) clay.			2.9			
	CL	Very dark grayish brown (10YR 3/2) clay.			20.4			
	CL	Dark brown (10YR 3/3) clay. Moist.			21.0			
	CL	Dark brown (10YR 3/3) clay. Moist.	10		18.8			
	SC	Very dark grayish brown (10YR 3/2) sandy clay.			23.4			
	SP	Very dark grayish brown (10YR 3/2) sand (SP).			37.0			
	SP	Very dark grayish brown (10YR 3/2) sand (SP).			144.7			
	SP	Very dark grayish brown (10YR 3/2) sand (SP). Wet.			1529			
	SP	Very dark grayish brown (10YR 3/2) sand (SP).	15	MW-12@16	1695	6.47	961	236
	SP	Very dark grayish brown (10YR 3/2) sand (SP).			1542			
	SP	Very dark grayish brown (10YR 3/2) sand (SP).		MW-12@18	1751	35.0	1370	602
	SP	Very dark grayish brown (10YR 3/2) sand (SP).			1226			
	SP	Very dark grayish brown (10YR 3/2) sand (SP).			1401			
	SP	Very dark grayish brown (10YR 3/2) sand (SP).	20		645.1			
	SP	Very dark grayish brown (10YR 3/2) sand (SP).			179.9			
	SP	Very dark grayish brown (10YR 3/2) sand (SP). Coarse.			305.7			
	SP	Very dark grayish brown (10YR 3/2) sand (SP).			361.9			
	SP	Very dark grayish brown (10YR 3/2) sand (SP).			370.1			
		Boring terminated at 25 feet in sand.	25					

Well Completion Diagram



Notes:
6 Bags Sand
1 Bucket Bentonite.
Headspace is 578.3 ppm

The Southern Company NLR, Inc.

AHTD 100705

100 N. Division
Blytheville, AR 72315

Soil Boring Log

MW-13

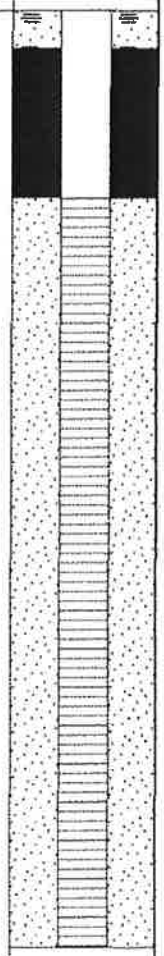
Date Started:	11/18/14 14:30
Date Completed:	11/18/14 16:20
Drilling Company:	AECI
Driller:	Hall
Sample Method:	6 1/4 HSA
Borehole Diameter:	Inches

Surface Elev (ft):	0
Total Depth (ft bgs):	25
First Water (ft bgs):	15
TOC Elev (ft):	266.25
GW Elev (ft):	

ADEQ Facility ID:	47000222
ADEQ LUST/LAST File:	47-0040
Logged by:	Kemph/Thompson
Project Number:	4560

Lithology	Classification	Description	Depth	Sample #	Undefined (ppm)	Benzene (mg/Kg)	GRO (mg/Kg)	DRO (mg/Kg)
	CL	Top soil, yellowish brown (10yR 3/4) silty clay.			28.1			
	CL	Yellowish brown (10YR 5/4) silty clay. Moist.			64.0			
	CL	Yellowish brown (10YR 5/4) silty clay. Moist.			160.6			
	CL	Dark brown (10YR 3/3) silty clay. Moist.			152.5			
	CL	Dark brown (10YR 3/3) silty clay. Moist.			80.0			
	CL	Dark brown (10YR 3/3) silty clay. Moist.	5		95.4			
	CL	Dark brown (10YR 3/3) clay. Moist.			132.2			
	CL	Dark brown (10YR 3/3) clay. Moist.			170.7			
	CL	Very dark grayish brown (10YR 3/2) clay. Cohesive.			275.9			
	CL	Very dark grayish brown (10YR 3/2) clay. Cohesive.			381.5			
	CL	Very dark grayish brown (10YR 3/2) clay.	10		872.6			
	CL	Very dark grayish brown (10YR 3/2) clay.			1809			
	CL	Very dark grayish brown (10YR 3/2) clay.		MW-13@13	1998	86.9	4850	1310
	SC	Very dark grayish brown (10YR 3/2) sandy clay (SC).			1923			
	SP	Very dark grayish brown (10YR 3/2) sand (SP). Wet.			1993			
	SP	Very dark grayish brown (10YR 3/2) sand (SP).	15		1537			
	SP	Very dark grayish brown (10YR 3/2) sand (SP).			1568			
	SP	Very dark grayish brown (10YR 3/2) sand (SP).			1467			
	SP	Very dark grayish brown (10YR 3/2) sand (SP).			1631			
	SP	Very dark grayish brown (10YR 3/2) sand (SP).		MW-13@20	1857	49.0	2980	1160
	SP	Very dark grayish brown (10YR 3/2) sand (SP). Coarse.	20		1216			
	SP	Very dark grayish brown (10YR 3/2) sand (SP). Coarse.			1167			
	SP	Very dark grayish brown (10YR 3/2) sand (SP). Coarse.			710.5			
	SP	Very dark grayish brown (10YR 3/2) sand (SP). Coarse.			705.6			
	SP	Very dark grayish brown (10YR 3/2) sand (SP). Coarse.			820.0			
		Boring terminated at 25 feet in sand.	25					

Well Completion Diagram



Notes:
6 bags of sand.
1 bucket bentonite,

The Southern Company NLR, Inc.

:SOLITSBS01:Users:OrianaA:My Documents:Projects:AHTD:AHTD Blytheville:AHTD Blytheville.wl2

AHTD 100705

100 N. Division
Blytheville, AR 72315

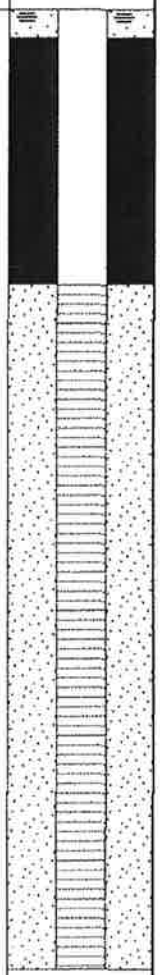
Soil Boring Log

MW-14

Date Started:	11/19/14 14:00	Surface Elev (ft):	0
Date Completed:	11/20/14 15:30	Total Depth (ft bgs):	35
ADEQ Facility ID:	47000222	First Water (ft bgs):	16
ADEQ LUST/LAST File:	47-0040	TOC Elev (ft):	266.29
Logged by:	Kemph/Thompson	GW Elev (ft):	
Project Number:	4560		
Drilling Company:	AECI		
Driller:	Hall		
Sample Method:	6 1/4 HSA		
Borehole Diameter:	Inches		

Lithology	Classification	Description	Depth	Sample #	Undefined (ppm)	Benzene (mg/Kg)	GRO (mg/Kg)	DRO (mg/Kg)
	ML	Yellowish brown (10YR 4/4) silt (ML)			0.4			
	ML	Yellowish brown (10YR 4/4) silt (ML)			0.3			
	ML	Dark grayish brown (10YR 4/2) silt (ML)			1.3			
	ML	Dark grayish brown (10YR 4/2) silt (ML)			0.4			
	SC	Dark brown (10YR 3/3) sandy clay (SC)			0.5			
	SC	Dark brown (10YR 3/3) sandy clay (SC)	5		0.2			
	SC	Dark brown (10YR 3/3) sandy clay (SC)			0.7			
	SC	Dark brown (10YR 3/3) sandy clay (SC)			1.1			
	CL	Very dark grayish brown (10YR 3/2) silty clay (CL)			0.3			
	CL	Very dark grayish brown (10YR 3/2) silty clay (CL)			0.3			
	CL	Very dark grayish brown (10YR 3/2) silty clay (CL)	10		0.3			
	CL	Very dark grayish brown (10YR 3/2) silty clay (CL)			0.6			
	SC	Dark grayish brown (10YR 4/2) sandy clay (SC)			0.4			
	SC	Dark grayish brown (10YR 4/2) sandy clay (SC)			0.3			
	SP	Dark grayish brown (10YR 4/2) sand (SP)			1.3			
	SP	Dark grayish brown (10YR 4/2) sand (SP)	15		0.6			
	SP	Dark grayish brown (10YR 4/2) sand (SP)			0.8			
	SP	Dark grayish brown (10YR 4/2) sand (SP)			2.1			
	SP	Dark brown (10YR 3/3) sand (SP)			2.8			
	SP	Dark brown (10YR 3/3) sand (SP)			2.9			
	SP	Dark brown (10YR 3/3) sand (SP)	20	MW-14/21	53.4	<0.100	<2.00	<10.0
	SP	Dark brown (10YR 3/3) sand (SP)			0.6			
	SP	Very dark grayish brown (10YR 3/2) sand (SP)			1.2			
	SP	Very dark grayish brown (10YR 3/2) sand (SP)			0.4			
	SP	Very dark grayish brown (10YR 3/2) sand (SP)			0.8			
	SP	Very dark grayish brown (10YR 3/2) sand (SP)	25		5.7			
	SP	Very dark grayish brown (10YR 3/2) sand (SP)			6.1			
	SP	Very dark grayish brown (10YR 3/2) sand (SP)		MW-14/27	7.5	<0.100	<2.00	<10.0
	SP	Very dark grayish brown (10YR 3/2) sand (SP)			5.9			
	SP	Very dark grayish brown (10YR 3/2) sand (SP)			5.2			
	SP	Very dark grayish brown (10YR 3/2) sand (SP)	30					
	SP	Very dark grayish brown (10YR 3/2) sand (SP)						
	SP	Very dark grayish brown (10YR 3/2) sand (SP)						
	SP	Very dark grayish brown (10YR 3/2) sand (SP)						
	SP	Very dark grayish brown (10YR 3/2) sand (SP)						
		Boring terminated at 35 feet in sand.	35					

Well Completion Diagram



Notes:
35° angle boring
8 bags sand.

The Southern Company NLR, Inc.

AHTD 100705

100 N. Division
Blytheville, AR 72315

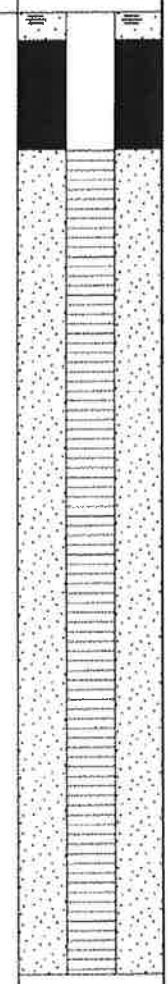
Soil Boring Log

MW-15

Date Started:	11/20/14 16:00
Date Completed:	11/21/14 17:45
Surface Elev (ft):	0
Total Depth (ft bgs):	35
First Water (ft bgs):	16
TOC Elev (ft):	265.44
GW Elev (ft):	
ADEQ Facility ID:	47000222
ADEQ LUST/LAST File:	47-0040
Logged by:	Kemph/Thompson
Project Number:	4560
Drilling Company:	AECI
Driller:	Hall
Sample Method:	6 1/4 HSA
Borehole Diameter:	Inches

Lithology	Classification	Description	Depth	Sample #	Undefined (ppm)	Benzene (mg/Kg)	GRO (mg/Kg)	DRO (mg/Kg)
	ML	Yellowish brown (10YR 4/4) silt (ML)			8.6			
	ML	Yellowish brown (10YR 4/4) silt (ML)			15.6			
	ML	Yellowish brown (10YR 4/4) silt (ML)			18.2			
	CL	Dark yellowish brown (10YR 3/4) silty clay (CL)			40.4			
	CL	Dark yellowish brown (10YR 3/4) silty clay (CL)			39.8			
	CL	Dark yellowish brown (10YR 3/4) silty clay (CL)	5		27.8			
	CL	Dark yellowish brown (10YR 3/4) silty clay (CL)			28.9			
	CL	Yellowish brown (10YR 5/4) silty clay (CL)			22.8			
	CL	Yellowish brown (10YR 5/4) silty clay (CL)			27.9			
	CL	Yellowish brown (10YR 5/4) silty clay (CL)			55.6			
	CL	Yellowish brown (10YR 5/4) silty clay (CL)	10		57.8			
	SC	Yellowish brown (10YR 5/4) sandy clay (SC)			26.1			
	SC	Yellowish brown (10YR 5/4) sandy clay (SC)			29.6			
	SC	Yellowish brown (10YR 5/4) sandy clay (SC)			14.6			
	SC	Yellowish brown (10YR 5/4) sandy clay (SC)			30.1			
	SC	Yellowish brown (10YR 5/4) sandy clay (SC)	15		20.7			
	SC	Yellowish brown (10YR 5/4) sandy clay (SC)			32.1			
	SP	Dark grayish brown (10YR 4/2) sand (SP)			11.8			
	SP	Dark grayish brown (10YR 4/2) sand (SP)			40.1			
	SP	Dark grayish brown (10YR 4/2) sand (SP)			96.7			
	SP	Dark grayish brown (10YR 4/2) sand (SP)	20	MW-15@21	118.9	<0.100	<2.00	<10.0
	SP	Dark grayish brown (10YR 4/2) sand (SP)			65.6			
	SP	Dark grayish brown (10YR 4/2) sand (SP)			78.7			
	SP	Dark grayish brown (10YR 4/2) sand (SP)			82.1			
	SP	Dark grayish brown (10YR 4/2) sand (SP)			85.6			
	SP	Dark grayish brown (10YR 4/2) sand (SP)	25	MW-15@25	108.1	3.83	1140	818
	SP	Dark grayish brown (10YR 4/2) sand (SP)			97.8			
	SP	Dark grayish brown (10YR 4/2) sand (SP)			90.1			
	SP	Dark grayish brown (10YR 4/2) sand (SP)			62.9			
	SP	Dark grayish brown (10YR 4/2) sand (SP)			65.8			
	SP	Dark grayish brown (10YR 4/2) sand (SP)	30		42.1			
	SP	Dark grayish brown (10YR 4/2) sand (SP)			31.8			
	SP	Dark grayish brown (10YR 4/2) sand (SP)			59.9			
	SP	Dark grayish brown (10YR 4/2) sand (SP)			60.1			
	SP	Dark grayish brown (10YR 4/2) sand (SP)			42.1			
		Boring terminated at 35 feet in sand.	35					

Well Completion Diagram



Notes:
35° angle boring
8 bags sand.

The Southern Company NLR, Inc.

Appendix D

Waste Disposal Documentation and Groundwater Sampling Logs

THE Southern Co. NLR, INC.

NON-HAZARDOUS MANIFEST

No. _____

GENERATOR

Generator: AHTD Job #100705

Address 100 North Division Street
Blytheville, Arkansas

Phone: 501.376.6333

ADEQ ID: 47000222

Shipping Location: 100 North Division Street
Address: Blytheville, Arkansas

Phone: 501.376.6333

Description of Waste Materials	Industrial Waste Code #	Profile Number	Total Quantity	Unit of Measure	Container Type
Petroleum Contaminated Soil			5.91	Ton	Truck

I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law or regulation, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable law and regulations.

T. Scott Kemph
Generator Authorized Agent (Print)

Signature

Delivery Date

TRANSPORTER

Transporter Name: The Southern CO.

Address 1201 Cypress St
N. Little Rock, AR 72114

I hereby acknowledge receipt of the above-described materials for transport from the generator shipping location listed above

Signature:

Driver Name (Print): Trapper Wagner

Truck Number:

Truck Type:

I hereby acknowledge that the above-described materials were received from the generator shipping location and were transported without incident to the destination listed below

Signature:

DESTINATION

Site Name: Mississippi County Landfill

Phone Number: 870-658-2407

Address: 1695 East County Road. 506 ,
Luxora, Arkansas 72358

I hereby acknowledge receipt of the above-described materials.

Gary Pate
Name of Authorized Agent

Signature

12-10-14
Receipt Date

MISSISSIPPI COUNTY LANDFILL
1695 East County Road 506
Luxora, AR 72358

001355 THE SOUTHERN CO OF NLR, INC.
1201 Cypress Street
North Little Rock AR 72114

SITE	TICKET	GRID	WEIGHMASTER
02	00289811		GP

DATE IN	DATE OUT	TIME IN	TIME OUT	VEHICLE	ROLL OFF
12/10/14	12/10/14	15:05	15:34		

REFERENCE	ORIGIN
	BLYTHEVILLE

Scale 1 Gross Wt.	21640	LB	Inbound - Charge ticket
Scale 1 Tare Wt.	9820	LB	
Net Weight	11820	LB	

QTY	UNIT	DESCRIPTION	RATE	EXTENSION	FEE	TOTAL
5.91	TON	CLASS#1 NON-HAZARD S				

MISS/CO LANDFILL INVOICE/RECEIPT

STATE SURC
AR TAX
COUNTY TAX

NET AMOUNT
TENDERED
CHANGE
CHECK NO.

WW6T1 TO REORDER CONTACT CAROLINA SOFTWARE (910) 799-6767 SIGNATURE

THE Southern Co. NLR, INC.

№ 4631

1201 North Cypress Street
North Little Rock, AR 72114
(501) 376-6333

7621 Ball Road
Fort Smith, AR 72908
(479) 648-1601

OFF SPECIFICATION PRODUCT MANIFEST

GENERATOR INFORMATION

Business Name AHTD #100705

Address 100 N. Division Telephone

Blytheville AR 72315

General Description of Waste Purge and decon water

Total Quantity (Gallon) 50 Drums [X] Bulk [ ] WCF=

I certify that the waste materials removed from the above premises contains no hazardous materials.

Generator Representative (Print)

12-10-14
Date Serviced

Trapper Wagner
Generator Representative Signature

TRANSPORTATION INFORMATION

Name The Southern Co. NLR Inc. Telephone 501-376-6333

To be held at The Southern Company of NLR, Inc. for pickup and recycling by the company named below.

12-10-14
Date Serviced

Generator Representative Signature

RECYCLING FACILITY

Name FCC Environmental Services Telephone 903-874-1188

Address 2124 East Highway 31 City/State/Zip Corsicana, TX 75110

EPA ID TXD988059291 STATE ID 20095 USEPA TRANSPORTER ID TXR 00078094

I certify that I have received into this facility the above listed waste.

Site Operator (Print)

Date Received

Site Operator Signature

GROUNDWATER SAMPLING LOG

SITE NAME: AHTP	SITE
WELL NO: MW1	SAMPLE ID: MW1	DATE: 4.24.14

PURGING DATA

1240 - 10 inches of product

WELL DIAMETER (inches):	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH TO WATER (feet): 12.50	PURGE PUMP TYPE OR BAILER:

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT:	PURGING ENDED AT:	TOTAL VOLUME PURGED (gallons):

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
16:08					5.35	17.00	0.830	1.93		-108	
16:10					5.42	17.65	0.842	1.51		-135	
16:13					5.48	18.05	0.844	1.56		-147	
16:15					5.53	18.34	0.845	1.86		-157	
16:20					5.52	18.30	0.839	1.70		-160	
16:25					5.49	18.29	0.838	1.44		-160	
16:26					5.49	18.30	0.838	1.48		-160	
16:27					5.49	18.32	0.838	1.51		-160	
16:28					5.49	18.32	0.838	1.50		-160	
		Stable									
		Sampled @ 16:30									

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION:	SAMPLER(S) SIGNATURE(S):	SAMPLING INITIATED AT:	SAMPLING ENDED AT:
PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE:	FIELD-FILTERED: Y N Filtration Equipment Type:	FILTER SIZE: ____ µm

FIELD DECONTAMINATION: PUMP Y N TUBING Y N (replaced) DUPLICATE: Y N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			

REMARKS: Sheen on bailer. Odd look.

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: February 12, 2009

GROUNDWATER SAMPLING LOG

SITE NAME: AHTD	SITE
WELL NO: MW2	SAMPLE ID: MW2	DATE: 11.24.1[illegible]

PURGING DATA

WELL DIAMETER (inches):	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH TO WATER (feet) 2.95	PURGE PUMP TYPE OR BAILER:

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT:	PURGING ENDED AT:	TOTAL VOLUME PURGED (gallons):

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) umhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	~~COLOR~~ (describe) Odor	ODOR (describe)
13:40					5.46	18.68	0.689	2.27		-129	
13:50					5.55	18.86	0.714	2.02		-150	
13:55					5.54	18.93	0.715	2.11		-155	
14:06					5.47	18.88	0.717	2.05		-154	
14:05					5.37	18.80	0.718	1.96		-150	
14:10					5.28	18.56	0.720	1.82		-146	
14:13					5.40	18.73	0.722	1.73		-153	
14:14					5.42	18.73	0.723	1.63		-154	
14:15					5.44	18.78	0.723	1.63		-156	
14:16					5.44	18.75	0.723	1.61		-156	
			equilibrated								
			sampled @ 14:18								
		3gall.									

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION:	SAMPLER(S) SIGNATURE(S):	SAMPLING INITIATED AT:	SAMPLING ENDED AT:
PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE:	FIELD-FILTERED: Y N Filtration Equipment Type:	FILTER SIZE: ____ µm

FIELD DECONTAMINATION: PUMP Y N TUBING Y N (replaced) DUPLICATE: Y N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			

REMARKS:

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: February 12, 2009

GROUNDWATER SAMPLING LOG

SITE NAME: [illegible]	SITE
WELL NO: MW 3	SAMPLE ID: MW. 3	DATE: 11. 24 10

PURGING DATA

WELL DIAMETER (inches):	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH TO WATER (feet): 13.49	PURGE PUMP TYPE OR BAILER:

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT:	PURGING ENDED AT:	TOTAL VOLUME PURGED (gallons):

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	~~COLOR (describe)~~ ORP	ODOR (describe)
10:47					5.36	15.98	0.690	6.66		-89	
10:50					5.40	17.17	0.737	5.72		-114	
10:55					5.34	17.89	0.740	5.86		-12	
11:00					5.36	17.80	0.741	5.86		-131	
11:05					5.39	17.77	0.740	5.78		-134	
11:10					5.39	17.86	0.741	5.64		-135	
11:12					5.40	17.93	0.741	5.60		-136	
11:13					5.40	17.87	0.740	5.56		-136	
11:14					5.41	17.81	0.740	5.47		-137	
11:15					5.41	17.79	0.741	5.53		-137	
11:16					5.42	18.12	0.743	5.29		-138	
11:18					5.43	18.12	0.742	5.33		-138	
11:20					5.45	18.10	0.742	5.31		-139	
11:21		1 gall			5.43	18.12	0.742	5.31		-139	
		Sampled @ 11.25									

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016
PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION:	SAMPLER(S) SIGNATURE(S):	SAMPLING INITIATED AT:	SAMPLING ENDED AT:
PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE:	FIELD-FILTERED: Y N Filtration Equipment Type:	FILTER SIZE: ____ µm

FIELD DECONTAMINATION: PUMP Y N TUBING Y N (replaced) DUPLICATE: Y N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			

REMARKS:

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: February 12, 2009

GROUNDWATER SAMPLING LOG

SITE NAME: AHTD	SITE	
WELL NO: MW4	SAMPLE ID: MW4	DATE: 11. 24. 14

PURGING DATA

WELL DIAMETER (inches):	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH TO WATER (feet): 13.75	PURGE PUMP TYPE OR BAILER:

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT:	PURGING ENDED AT:	TOTAL VOLUME PURGED (gallons):

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	~~COLOR~~ (describe) ORP	ODOR (describe)
9:52					4.81	[illegible]	0.416	5.89		-38	Clear
9:55					4.89	16.14	0.447	6.13		-57	color
10:00					5.00	17.01	0.447	6.61		-82	slight
10:05					5.15	16.97	0.550	6.63		-98	odor
10:10					5.15	17.03	0.454	6.58		-108	
10:15					5.11	17.28	0.455	6.40		-112	
10:17					4.93	17.25	0.457	6.32		-104	
10:20					4.89	17.23	0.456	6.20		-103	
10:21					4.88	17.23	0.456	6.22		-103	
10:22					4.88	17.26	0.456	6.22		-103	
			Sample @		10:20						
		4 gal									

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION:	SAMPLER(S) SIGNATURE(S):	SAMPLING INITIATED AT:	SAMPLING ENDED AT:
PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE:	FIELD-FILTERED: Y N Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y N	TUBING Y N (replaced)	DUPLICATE: Y N	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL. ADDED IN FIELD (mL)	FINAL pH			

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **PE** = Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU, optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: February 12, 2009

GROUNDWATER SAMPLING LOG

SITE NAME: AHFD	SITE	
WELL NO: MW 5	SAMPLE ID:	DATE: 11.24.14

PURGING DATA

WELL DIAMETER (inches):	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH TO WATER (feet): 12.84 12.84	PURGE PUMP TYPE OR BAILER:

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT:	PURGING ENDED AT:	TOTAL VOLUME PURGED (gallons)

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
14:35					5.37	18.50	0.844	1.15		-108	
14:40					5.46	19.47	0.859	1.56		-140	
14:45					[illegible]	[illegible]	4 pmd	- restart			
14:51					5.48	18.29	0.856	2.95		-119	
14:59					5.44	18.38	0.853	2.40		-130	
15:00					5.47	19.32	0.854	2.10		-140	
8:~~03~~ 15:03					5.47	19.35	0.859	2.07		-140	
15:04					5.44	19.37	0.851	1.87		-141	
15:05					5.45	19.30	0.850	1.87		-142	
15:06					5.45	19.29	0.851	1.88		-143	
15:07					5.45	19.33	0.851	1.89		-144	
15:08					5.44	19.33	0.85	1.94		-143	
	Sampled @ 15:08										
		4 gal									

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016
PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION:	SAMPLER(S) SIGNATURE(S):	SAMPLING INITIATED AT:	SAMPLING ENDED AT:
PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE:	FIELD-FILTERED: Y N Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y N	TUBING Y N (replaced)	DUPLICATE: Y N	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			

REMARKS:

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: February 12, 2009

GROUNDWATER SAMPLING LOG

SITE NAME: AHTD	SITE	
WELL NO: MW 6	SAMPLE ID: MW 6	DATE: 11. 24. 19

PURGING DATA

WELL DIAMETER (inches):	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH TO WATER (feet): 15.29	PURGE PUMP TYPE OR BAILER:

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT:	PURGING ENDED AT:	TOTAL VOLUME PURGED (gallons):

TIME	VOLUME PURGED (gallons)	CUMUL VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP (°C)	COND (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
9.51					5.02	15.56	0.791	20.07	—	-74	
9:55					5.23	18.02	0.789	5.78		-98	
9:00					5.42	18.59	0.787	2.35		-114	
9.05					5.42	18.50	0.785	0.88		-116	
9:10					5.45	18.61	0.784	0.19		-119	
9.15					5.48	18.57	0.782	0		-122	
9.18					5.48	18.53	0.781	0		-122	
9:19					5.50	18.53	0.780	0		-123	
9.20					5.48	18.54	0.780	0		-122	
			Sampled	@	9:20						

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04, **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION:	SAMPLER(S) SIGNATURE(S):	SAMPLING INITIATED AT	SAMPLING ENDED AT:
PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE:	FIELD-FILTERED: Y N Filtration Equipment Type:	FILTER SIZE: ____ µm

FIELD DECONTAMINATION: PUMP Y N TUBING Y N (replaced) DUPLICATE: Y N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **PE** = Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: February 12, 2009

GROUNDWATER SAMPLING LOG

SITE NAME: AHTO	SITE	
WELL NO: MW 7	SAMPLE ID: MW 7	DATE: 11.23.14

PURGING DATA

WELL DIAMETER (inches):	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH TO WATER (feet): 13.15	PURGE PUMP TYPE OR BAILER:

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT:	PURGING ENDED AT:	TOTAL VOLUME PURGED (gallons):

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
16:16					5.57	18.43	0.470	3.14	–	12	
16:20					5.53	19.81	0.467	1.89		4	
16:25					5.54	20.16	0.475	1.22		-5	
16:30					5.54	20.21	0.484	0.66		-12	
16:35					5.46	20.21	0.489	0.28		-16	
16:40					5.55	20.07	0.492	0.15		-21	
16:45					5.58	20.08	0.495	0.05		-27	
16:46					5.58	20.07	0.496	0		-28	
16:47					5.58	20.06	0.497	0		-29	
16:48					5.58	20.06	0.498	0		-24	
16:49	– Sampled @ 16:49										
		4 gall									

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION:	SAMPLER(S) SIGNATURE(S):	SAMPLING INITIATED AT:	SAMPLING ENDED AT:
PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE:	FIELD-FILTERED: Y N Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y N	TUBING Y N (replaced)	DUPLICATE: Y N	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			

REMARKS:

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. **The above do not constitute all of the information required by Chapter 62-160, F.A.C.**
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2) optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: February 12, '

GROUNDWATER SAMPLING LOG

SITE NAME: AHTD	SITE	
WELL NO. MW 8	SAMPLE ID: MW8	DATE: 11.23.14

PURGING DATA

WELL DIAMETER (inches):	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH TO WATER (feet): 13.21	PURGE PUMP TYPE OR BAILER:

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT:	PURGING ENDED AT:	TOTAL VOLUME PURGED (gallons):

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	~~COLOR (describe)~~ ORP	ODOR (describe)
14:26					5.50	20.22	0.867	38.6	—		
14.30					5.52	20.51	0.864	1.39			
14:35					5.56	20.54	0.864	—		-75	
14:40					5.57	20.41	-0.860	—		-77	
14:42					5.58	20.41	-0.800			-78	
14:43					5.57	20.39	0.860			-78	
14:44					5.56	20.37	0.860			-77	
14:45					5.54	20.37	0.859			-70	
14:46		1.5 gal			5.56	20.37	0.854			-73	
	stable	sample @									
					2:46						
		2.5 gal									

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION:	SAMPLER(S) SIGNATURE(S):	SAMPLING INITIATED AT:	SAMPLING ENDED AT:
PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE:	FIELD-FILTERED: Y N Filtration Equipment Type:	FILTER SIZE: ____ µm

FIELD DECONTAMINATION: PUMP Y N TUBING Y N (replaced) DUPLICATE: Y N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			

REMARKS: DO reading @ 0.60 @ 14:37

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **PE** = Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: February 12, 2009

GROUNDWATER SAMPLING LOG

SITE NAME: AHTD	SITE:	
WELL NO: MW9	SAMPLE ID: MW9	DATE: 11.23.14

PURGING DATA

WELL DIAMETER (inches):	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH TO WATER (feet) 13.66	PURGE PUMP TYPE OR BAILER:

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT:	PURGING ENDED AT:	TOTAL VOLUME PURGED (gallons):

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe) ORP	ODOR (describe)
15:03				13.67	5.58	17.67	0.576	0.91	—	-75	
15:05					5.57	17.75	0.584	0.41		-86	
15:10					5.52	17.87	0.588	0		-94	
5:15					5.55	17.92	0.588	0		-95	
15:18					5.45	19.97	0.589	0.07		-89	
15:20					5.45	19.92	0.588	0.13		-89	
15:23					5.50	17.95	0.588	0		-93	
15:25					5.52	17.91	0.589	0		-93	
15:26					5.52	17.92	0.589	0		-92	
15:27					5.27	17.86	0.588	0		-78	
15:28					5.29	17.83	0.587	0		-79	
15:29					5.29	17.75	0.587	0		-79	
15:30					5.29	17.65	0.587	0		-78	
15:33					5.29	17.50	0.587	0		-77	
15:34					5.29	17.52	0.587	0		-77	
15:35					5.27	17.51	0.586	0		-77	
		5gall									
			Sampled @			15:40					

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION:	SAMPLER(S) SIGNATURE(S):	SAMPLING INITIATED AT:	SAMPLING ENDED AT:
PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE:	FIELD-FILTERED: Y N Filtration Equipment Type:	FILTER SIZE: ____ µm

FIELD DECONTAMINATION: PUMP Y N TUBING Y N (replaced) DUPLICATE: Y N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			

REMARKS:

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. **The above do not constitute all of the information required by Chapter 62-160, F.A.C.**
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: February 12, 2009

GROUNDWATER SAMPLING LOG

SITE NAME: AHID	SITE

WELL NO: MW16	SAMPLE ID: MW16	DATE: 11 24 14

PURGING DATA

WELL DIAMETER (inches):	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH TO WATER (feet): ~1.75	PURGE PUMP TYPE OR BAILER:

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT:	PURGING ENDED AT:	TOTAL VOLUME PURGED (gallons):

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP (°C)	COND (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
	low flow	not	v+	filter	eq						
		scaled		sampled			9.32				

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION:	SAMPLER(S) SIGNATURE(S):	SAMPLING INITIATED AT:	SAMPLING ENDED AT:
PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE:	FIELD-FILTERED: Y N Filtration Equipment Type:	FILTER SIZE: ____ µm

FIELD DECONTAMINATION: PUMP Y N TUBING Y N (replaced) DUPLICATE Y N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **PE** = Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: February 12, 2009

GROUNDWATER SAMPLING LOG

SITE NAME: AHTD	SITE	
WELL NO: 11	SAMPLE ID:	DATE: 11.23.14

PURGING DATA

WELL DIAMETER (inches):	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH TO WATER (feet): 13.45	PURGE PUMP TYPE OR BAILER:

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT:	PURGING ENDED AT:	TOTAL VOLUME PURGED (gallons):

TIME	VOLUME PURGED (gallons)	CUMUL VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP (°C)	COND (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
21 1				17.	4.53	18.83	0.664	9.13	—		NO
4					4.84	19.06	0.651	6.93			
13:35					4.95	19.02	0.649	6.26			
13:40					5.01	18.95	0.662	4.28			
13:43					5.29	18.91	0.673	3.52			
13:45					5.22	18.89	0.675	3.46			
13:48					5.39	18.89	0.675	3.18			
13:49					5.39	18.89	0.677	3.06			
13:50					5.33	18.88	0.676	3.03			
13:53					5.37	18.86	0.675	2.82			
13:54					5.40	18.81	0.673	2.02			
13:55					5.42	18.71	0.672	1.92			
		Sgall									
			Sample @			14:00					

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION:	SAMPLER(S) SIGNATURE(S):	SAMPLING INITIATED AT	SAMPLING ENDED AT:
PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE:	FIELD-FILTERED: Y N Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y N	TUBING Y N (replaced)	DUPLICATE: Y N	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			

REMARKS:

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: February 12, 2009

GROUNDWATER SAMPLING LOG

SITE NAME: AHID	SITE	
WELL NO: MW12	SAMPLE ID: MW12 & Dup	DATE: 11.24.14

PURGING DATA

WELL DIAMETER (inches):	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH TO WATER (feet): 12.69	PURGE PUMP TYPE OR BAILER

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT:	PURGING ENDED AT:	TOTAL VOLUME PURGED (gallons):

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP (°C)	COND (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
15:29					5.37	18.58	1.01	1.47		-117	
15:30					5.49	19.53	1.05	1.69		-147	
15:35					5.53	19.85	1.03	1.42		-149	
15:40					5.55	19.86	1.01	1.39		-147	
15:41					5.55	19.82	1.01	1.38		-147	
15:42					5.55	19.86	1.00	1.37		-146	
15:43					5.54	19.85	0.996	1.35		-145	
	Sampling @ 15:45					equilibrated					

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION:	SAMPLER(S) SIGNATURE(S):	SAMPLING INITIATED AT:	SAMPLING ENDED AT:
PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE:	FIELD-FILTERED: Y N Filtration Equipment Type:	FILTER SIZE: ____ µm

FIELD DECONTAMINATION: PUMP Y N TUBING Y N (replaced) DUPLICATE: Y N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			

REMARKS:

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: February 12, 2009

GROUNDWATER SAMPLING LOG

SITE NAME: AHTD	SITE
WELL NO: MW13	SAMPLE ID: MW13	DATE: 11.24.15

PURGING DATA

WELL DIAMETER (inches):	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH TO WATER (feet):	PURGE PUMP TYPE OR BAILER:

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT:	PURGING ENDED AT:	TOTAL VOLUME PURGED (gallons):

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe) ORP	ODOR (describe)
12:58					5.38	18.61	0.831	13.05		-101	
13:00					5.54	19.17	0.860	9.56		-130	
13:05					5.49	19.53	0.865	5.74		-147	
13:10					5.51	19.64	0.866	4.93		-153	
13:15					5.50	19.58	0.866	4.57		-155	
13:18					5.52	19.54	0.866	4.32		-156	
13:19					5.51	19.54	0.866	4.24		-156	
13:20					5.51	19.53	0.866	4.15		-157	
13:25					5.51	19.51	0.867	3.59		-157	
13:27					5.54	19.45	0.866	3.41		-158	
13:28					5.55	19.48	0.866	3.32		-159	
13:29					5.55	19.48	0.867	3.19		-159	
		4 gal		Sampled	@	13:30					

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION:	SAMPLER(S) SIGNATURE(S):	SAMPLING INITIATED AT:	SAMPLING ENDED AT:
PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE:	FIELD-FILTERED: Y N Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y N	TUBING Y N (replaced)	DUPLICATE: Y N	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **PE** = Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: February 12, 2009

GROUNDWATER SAMPLING LOG

SITE NAME: HTO	SITE	
WELL NO: MW14	SAMPLE ID: MW14	DATE: 11 24 14

PURGING DATA

WELL DIAMETER (inches):	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH TO WATER (feet): 22.04	PURGE PUMP TYPE OR BAILER:

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT:	PURGING ENDED AT:	TOTAL VOLUME PURGED (gallons):

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
Checked pump. Changed tubing, lowered pump to near bottom of the well while running increase throttle & cycle, no sample water coming up in pump change											
Sample well w/ bailer @ 9:45											

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION:	SAMPLER(S) SIGNATURE(S):	SAMPLING INITIATED AT:	SAMPLING ENDED AT:
PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE:	FIELD-FILTERED: Y N Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y N	TUBING Y N (replaced)	DUPLICATE: Y N	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			

REMARKS: Switched to pump @ 7:35

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: February 12, 2009

GROUNDWATER SAMPLING LOG

SITE NAME: AHTD	SITE

WELL NO: MW15	SAMPLE ID: MW15	DATE: 11-29-11

PURGING DATA

WELL DIAMETER (inches):	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH TO WATER (feet):	PURGE PUMP TYPE OR BAILER:

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT:	PURGING ENDED AT:	TOTAL VOLUME PURGED (gallons)

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
		well	was	not	sampled	due	to	12.5			

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION:	SAMPLER(S) SIGNATURE(S):	SAMPLING INITIATED AT:	SAMPLING ENDED AT:

PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE:	FIELD-FILTERED: Y N Filtration Equipment Type:	FILTER SIZE: ____ µm

FIELD DECONTAMINATION: PUMP Y N TUBING Y N (replaced) DUPLICATE: Y N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **PE** = Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: February 12, 2009

Appendix E

Relative Percent Differences, Analytical Reports and Chain-of-Custody Documents

AHTD Job 100705
100 North Division Street
Blytheville, Arkansas
ADEQ # 470000222
LUST 47-0040

Relative Percent Difference	Monitoring Well	Sample Date	Benzene	Toluene	Ethyl- Benzene	Total Xylene	MTBE	TPH-DRO	TPH-GRO	Napthalene
			mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
	MW-12	11/23/2014	53.200	50.900	3.340	18.840	NA	6.090	214.000	0.179
	Duplicate of MW-'	11/23/2014	45.500	44.300	3.300	18.480	NA	6.890	208.000	0.161
Relative Percent Difference			15.6	13.9	1.2	1.9		12.3	2.8	10.6

Arkansas Analytical Inc.

11701 I-30 Bldg 1, Ste 115 - Little Rock, AR 72209
501-455-3233 Fax 501-455-6118

21 November 2014

Scott Kemph
Southern Co. NLR Inc.
1201 Cypress
North Little Rock, AR 72114

RE: ADEQ 47000222

SDG Number: 1411197

Enclosed are the results of analyses for samples received by the laboratory on 14-Nov-14 15:06. If you have any questions concerning this report, please feel free to contact me.

Sample Receipt Information:

Custody Seals	✔
Containers Correct	✔
COC/Labels Agree	✔
Received On Ice	✔
Temperature on Receipt	2.0°C

Sincerely,

Norma James / Teresa Coins

Norma James and/or Teresa Coins
Technical Director and/or QA Officer

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21 November 2014

Scott Kemph
Southern Co. NLR Inc.
1201 Cypress
North Little Rock, AR 72114
Project: ADEQ 47000222

Date Received: 14-Nov-14 15:06

CASE NARRATIVE

Sample Delivery Group – 1411197

One *OR* more of the qualifiers described below may appear in this report.

ANALYTICAL QUALIFIERS:

Qualifier	Description
EDL	Result was non-detect at an elevated detection limit due to one or more of the following: Sample Matrix, Sample Dilution, or Limited Sample Volume.
EX	Result exceeds DAILY MAXIMUM and/or MONTHLY AVERAGE.
EX2	The result exceeds the TCLP limit.
J	At client request, J-Values are reported. J-Values are considered "estimated" results as they are below the limit of quantitation yet above the method detection limit (MDL).
N	Insufficient sample volume received as required by the method.
T40	The ambient temperature exceeded 23 +/- 2°C during the TCLP rotation process.

QUALITY CONTROL QUALIFIERS:

Qualifier	Description
E20	Sample used as "parent" for the associated analytical batch.
%D3/S-01 / E1	Surrogate failed to recover within acceptance criteria (%D3/S-01). Results associated with this surrogate were qualified as "estimated" (E1).
B	Present in the Associated Blank
B1	Present in Blank, but Not In the Sample.
%D2 / E5	Laboratory Control Spike (LCS) and/or Laboratory Control Spike Duplicate (LCSD) failed to recover with acceptance criteria (%D2). Associated results were qualified as "estimated" (E5).
%D1	Matrix Spike (MS) and/or Matrix Spike Duplicate (MSD) failed acceptance criteria.
MBA	Failed criteria due the high concentration of analyte in the parent sample.
MBI	Failed criteria due an interference in the parent sample.
%D3	Quality Control Surrogate failed acceptance criteria
NREC	Quality Control Surrogate failed.

This report must be reproduced in its entirety.

21 November 2014

Scott Kemph
Southern Co. NLR Inc.
1201 Cypress
North Little Rock, AR 72114
Project: ADEQ 47000222

Date Received: 14-Nov-14 15:06

ANALYTICAL RESULTS

Lab Number: 1411197-01
Sample Name: MW-1 @ 16-17
Date/Time Collected: 11/11/14 9:38
Sample Matrix: Soil

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Benzene	mg/kg	**16.0**		11/19/14 16:20	A411242	8021B Rev 2 1996
Toluene	mg/kg	**77.0**		11/19/14 16:20	A411242	8021B Rev 2 1996
Ethylbenzene	mg/kg	**22.8**		11/19/14 16:20	A411242	8021B Rev 2 1996
m,p-Xylene	mg/kg	**96.0**		11/19/14 16:20	A411242	8021B Rev 2 1996
o-Xylene	mg/kg	**35.7**		11/19/14 16:20	A411242	8021B Rev 2 1996
Fluorobenzene [surr]	%	84.0		11/19/14 16:20	A411242	8021B Rev 2 1996
4-Bromochlorobenzene [surr]	%	95.7		11/19/14 16:20	A411242	8021B Rev 2 1996

TPH-DRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-DRO	mg/kg	**302**		11/19/14 18:50	A411243	8015D Rev 4 2003 (Mod)
o-Terphenyl [surr]	%	104		11/19/14 18:50	A411243	8015D Rev 4 2003 (Mod)

TPH-GRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-GRO	mg/kg	**734**		11/19/14 16:20	A411242	8015D Rev 4 2003 (Mod)
Fluorobenzene [surr]	%	84.0		11/19/14 16:20	A411242	8015D Rev 4 2003 (Mod)
4-Bromochlorobenzene [surr]	%	95.7		11/19/14 16:20	A411242	8015D Rev 4 2003 (Mod)

ANALYTICAL RESULTS

Lab Number: 1411197-01RE1
Sample Name: MW-1 @ 16-17
Date/Time Collected: 11/11/14 9:38
Sample Matrix: Soil

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Methyl t-Butyl Ether	mg/kg	< 0.400	EDL	11/20/14 12:05	A411242	8021B Rev 2 1996
Naphthalene	mg/kg	**7.92**		11/20/14 12:05	A411242	8021B Rev 2 1996
Fluorobenzene [surr]	%	87.1		11/20/14 12:05	A411242	8021B Rev 2 1996
4-Bromochlorobenzene [surr]	%	95.9		11/20/14 12:05	A411242	8021B Rev 2 1996

ANALYTICAL RESULTS

Lab Number: 1411197-02
Sample Name: MW-1 @ 24-25
Date/Time Collected: 11/11/14 13:45
Sample Matrix: Soil

TPH-DRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-DRO	mg/kg	**34.1**		11/19/14 19:31	A411243	8015D Rev 4 2003 (Mod)
o-Terphenyl [surr]	%	92.7		11/19/14 19:31	A411243	8015D Rev 4 2003 (Mod)

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ANALYTICAL RESULTS

Lab Number: 1411197-02RE1
Sample Name: MW-1 @ 24-25
Date/Time Collected: 11/11/14 13:45
Sample Matrix: Soil

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Benzene	mg/kg	**2.79**		11/20/14 12:32	A411242	8021B Rev 2 1996
Toluene	mg/kg	**14.7**		11/20/14 12:32	A411242	8021B Rev 2 1996
Ethylbenzene	mg/kg	**5.26**		11/20/14 12:32	A411242	8021B Rev 2 1996
m,p-Xylene	mg/kg	**21.7**		11/20/14 12:32	A411242	8021B Rev 2 1996
o-Xylene	mg/kg	**7.92**		11/20/14 12:32	A411242	8021B Rev 2 1996
Fluorobenzene [surr]	%	88.8		11/20/14 12:32	A411242	8021B Rev 2 1996
4-Bromochlorobenzene [surr]	%	100		11/20/14 12:32	A411242	8021B Rev 2 1996

TPH-GRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-GRO	mg/kg	**148**		11/20/14 12:32	A411242	8015D Rev 4 2003 (Mod)
Fluorobenzene [surr]	%	88.8		11/20/14 12:32	A411242	8015D Rev 4 2003 (Mod)
4-Bromochlorobenzene [surr]	%	100		11/20/14 12:32	A411242	8015D Rev 4 2003 (Mod)

ANALYTICAL RESULTS

Lab Number: 1411197-02RE2
Sample Name: MW-1 @ 24-25
Date/Time Collected: 11/11/14 13:45
Sample Matrix: Soil

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Methyl t-Butyl Ether	mg/kg	< 0.100		11/20/14 13:55	A411242	8021B Rev 2 1996
Naphthalene	mg/kg	**1.38**		11/20/14 13:55	A411242	8021B Rev 2 1996
Fluorobenzene [surr]	%	84.3		11/20/14 13:55	A411242	8021B Rev 2 1996
4-Bromochlorobenzene [surr]	%	97.5		11/20/14 13:55	A411242	8021B Rev 2 1996

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ANALYTICAL RESULTS

Lab Number: 1411197-03
Sample Name: MW-2 @ 16-17
Date/Time Collected: 11/11/14 16:45
Sample Matrix: Soil

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Benzene	mg/kg	**46.7**		11/19/14 17:16	A411242	8021B, Rev 2 1996
Methyl t-Butyl Ether	mg/kg	< 3.00	EDL	11/19/14 17:16	A411242	8021B Rev 2 1996
Toluene	mg/kg	**313**		11/19/14 17:16	A411242	8021B Rev 2 1996
Ethylbenzene	mg/kg	**78.5**		11/19/14 17:16	A411242	8021B, Rev 2 1996
Naphthalene	mg/kg	**19.6**		11/19/14 17:16	A411242	8021B Rev 2 1996
m,p-Xylene	mg/kg	**321**		11/19/14 17:16	A411242	8021B, Rev 2 1996
o-Xylene	mg/kg	**125**		11/19/14 17:16	A411242	8021B Rev 2 1996
Fluorobenzene [surr]	%	86.9		11/19/14 17:16	A411242	8021B, Rev 2 1996
4-Bromochlorobenzene [surr]	%	99.5		11/19/14 17:16	A411242	8021B Rev 2 1996

TPH-DRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-DRO	mg/kg	**2250**		11/20/14 9:29	A411243	8015D Rev 4 2003 (Mod)
o-Terphenyl [surr]	%	84.8		11/20/14 9:29	A411243	8015D Rev 4 2003 (Mod)

TPH-GRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-GRO	mg/kg	**2240**		11/19/14 17:16	A411242	8015D, Rev 4 2003 (Mod)
Fluorobenzene [surr]	%	86.9		11/19/14 17:16	A411242	8015D Rev 4 2003 (Mod)
4-Bromochlorobenzene [surr]	%	99.5		11/19/14 17:16	A411242	8015D Rev 4 2003 (Mod)

ANALYTICAL RESULTS

Lab Number: 1411197-04
Sample Name: MW-2 @ 22'
Date/Time Collected: 11/12/14 8:57
Sample Matrix: Soil

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Methyl t-Butyl Ether	mg/kg	< 0.100		11/19/14 17:46	A411242	8021B, Rev 2 1996
Naphthalene	mg/kg	**0.849**		11/19/14 17:46	A411242	8021B Rev 2 1996
Fluorobenzene [surr]	%	94.2		11/19/14 17:46	A411242	8021B Rev 2 1996
4-Bromochlorobenzene [surr]	%	110		11/19/14 17:46	A411242	8021B Rev 2 1996

TPH-DRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-DRO	mg/kg	**20.7**		11/19/14 20:53	A411243	8015D Rev 4 2003 (Mod)
o-Terphenyl [surr]	%	90.2		11/19/14 20:53	A411243	8015D Rev 4 2003 (Mod)

TPH-GRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-GRO	mg/kg	**59.8**		11/19/14 17:46	A411242	8015D Rev 4 2003 (Mod)
Fluorobenzene [surr]	%	94.2		11/19/14 17:46	A411242	8015D Rev 4 2003 (Mod)
4-Bromochlorobenzene [surr]	%	110		11/19/14 17:46	A411242	8015D Rev 4 2003 (Mod)

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ANALYTICAL RESULTS

Lab Number: 1411197-04RE1
Sample Name: MW-2 @ 22'
Date/Time Collected: 11/12/14 8:57
Sample Matrix: Soil

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Benzene	mg/kg	**1.30**		11/20/14 13:00	A411242	8021B, Rev 2 1996
Toluene	mg/kg	**4.27**		11/20/14 13:00	A411242	8021B, Rev 2 1996
Ethylbenzene	mg/kg	**1.57**		11/20/14 13:00	A411242	8021B, Rev 2 1996
m,p-Xylene	mg/kg	**7.15**		11/20/14 13:00	A411242	8021B, Rev 2 1996
o-Xylene	mg/kg	**2.57**		11/20/14 13:00	A411242	8021B, Rev 2 1996
Fluorobenzene [surr]	%	91.0		11/20/14 13:00	A411242	8021B, Rev 2 1996
4-Bromochlorobenzene [surr]	%	102		11/20/14 13:00	A411242	8021B, Rev 2 1996

ANALYTICAL RESULTS

Lab Number: 1411197-05
Sample Name: MW-3 @ 15
Date/Time Collected: 11/12/14 11:25
Sample Matrix: Soil

TPH-DRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-DRO	mg/kg	**2570**		11/20/14 10:09	A411243	8015D, Rev 4 2003 (Mod)
o-Terphenyl [surr]	%	82.2		11/20/14 10:09	A411243	8015D, Rev 4 2003 (Mod)

ANALYTICAL RESULTS

Lab Number: 1411197-05RE1
Sample Name: MW-3 @ 15
Date/Time Collected: 11/12/14 11:25
Sample Matrix: Soil

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Benzene	mg/kg	**29.2**		11/20/14 14:23	A411242	8021B, Rev 2 1996
Methyl t-Butyl Ether	mg/kg	< 1.00	EDL	11/20/14 14:23	A411242	8021B, Rev 2 1996
Naphthalene	mg/kg	**35.4**		11/20/14 14:23	A411242	8021B, Rev 2 1996
Fluorobenzene [surr]	%	85.3		11/20/14 14:23	A411242	8021B, Rev 2 1996
4-Bromochlorobenzene [surr]	%	103		11/20/14 14:23	A411242	8021B, Rev 2 1996

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ANALYTICAL RESULTS

Lab Number: 1411197-05RE2
Sample Name: MW-3 @ 15
Date/Time Collected: 11/12/14 11:25
Sample Matrix: Soil

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Toluene	mg/kg	**152**		11/21/14 9:09	A411242	8021B Rev 2 1996
Ethylbenzene	mg/kg	**46.8**		11/21/14 9:09	A411242	8021B Rev 2 1996
m,p-Xylene	mg/kg	**203**		11/21/14 9:09	A411242	8021B Rev 2 1996
o-Xylene	mg/kg	**78.3**		11/21/14 9:09	A411242	8021B Rev 2 1996
Fluorobenzene [surr]	%	85.3		11/21/14 9:09	A411242	8021B Rev 2 1996
4-Bromochlorobenzene [surr]	%	93.0		11/21/14 9:09	A411242	8021B Rev 2 1996

TPH-GRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-GRO	mg/kg	**1180**		11/21/14 9:09	A411242	8015D Rev 4 2003 (Mod)
Fluorobenzene [surr]	%	85.3		11/21/14 9:09	A411242	8015D Rev 4 2003 (Mod)
4-Bromochlorobenzene [surr]	%	93.0		11/21/14 9:09	A411242	8015D Rev 4 2003 (Mod)

ANALYTICAL RESULTS

Lab Number: 1411197-06
Sample Name: MW-3 @ 21'
Date/Time Collected: 11/12/14 12:55
Sample Matrix: Soil

TPH-DRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-DRO	mg/kg	< 10.0		11/19/14 22:13	A411243	8015D Rev 4 2003 (Mod)
o-Terphenyl [surr]	%	92.3		11/19/14 22:13	A411243	8015D Rev 4 2003 (Mod)

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ANALYTICAL RESULTS

Lab Number:	**1411197-06RE1**
Sample Name:	**MW-3 @ 21'**
Date/Time Collected:	**11/12/14 12:55**
Sample Matrix:	**Soil**

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Benzene	mg/kg	**0.100**		11/20/14 15:19	A411242	8021B Rev 2 1996
Methyl t-Butyl Ether	mg/kg	< 0.100		11/20/14 15:19	A411242	8021B Rev 2 1996
Toluene	mg/kg	**0.204**		11/20/14 15:19	A411242	8021B Rev 2 1996
Ethylbenzene	mg/kg	**0.222**		11/20/14 15:19	A411242	8021B Rev 2 1996
Naphthalene	mg/kg	**0.349**		11/20/14 15:19	A411242	8021B Rev 2 1996
m,p-Xylene	mg/kg	**0.868**		11/20/14 15:19	A411242	8021B Rev 2 1996
o-Xylene	mg/kg	**0.348**		11/20/14 15:19	A411242	8021B Rev 2 1996
Fluorobenzene [surr]	%	88.5		11/20/14 15:19	A411242	8021B Rev 2 1996
4-Bromochlorobenzene [surr]	%	108		11/20/14 15:19	A411242	8021B Rev 2 1996

TPH-GRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-GRO	mg/kg	**14.9**		11/20/14 15:19	A411242	8015D Rev 4 2003 (Mod)
Fluorobenzene [surr]	%	88.5		11/20/14 15:19	A411242	8015D Rev 4 2003 (Mod)
4-Bromochlorobenzene [surr]	%	108		11/20/14 15:19	A411242	8015D Rev 4 2003 (Mod)

ANALYTICAL RESULTS

Lab Number:	**1411197-07**
Sample Name:	**MW-4 @ 16'**
Date/Time Collected:	**11/12/14 14:45**
Sample Matrix:	**Soil**

TPH-DRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-DRO	mg/kg	**183**		11/19/14 23:33	A411243	8015D Rev 4 2003 (Mod)
o-Terphenyl [surr]	%	93.8		11/19/14 23:33	A411243	8015D Rev 4 2003 (Mod)

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ANALYTICAL RESULTS

Lab Number: 1411197-07RE1
Sample Name: MW-4 @ 16'
Date/Time Collected: 11/12/14 14:45
Sample Matrix: Soil

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Benzene	mg/kg	**0.463**		11/20/14 14:51	A411242	8021B, Rev 2 1996
Methyl t-Butyl Ether	mg/kg	< 0.200	EDL	11/20/14 14:51	A411242	8021B Rev 2 1996
Toluene	mg/kg	**13.6**		11/20/14 14:51	A411242	8021B Rev 2 1996
Ethylbenzene	mg/kg	**4.84**		11/20/14 14:51	A411242	8021B, Rev 2 1996
Naphthalene	mg/kg	**2.50**		11/20/14 14:51	A411242	8021B Rev 2 1996
m,p-Xylene	mg/kg	**18.8**		11/20/14 14:51	A411242	8021B Rev 2 1996
o-Xylene	mg/kg	**6.97**		11/20/14 14:51	A411242	8021B Rev 2 1996
Fluorobenzene [surr]	%	86.8		11/20/14 14:51	A411242	8021B Rev 2 1996
4-Bromochlorobenzene [surr]	%	102		11/20/14 14:51	A411242	8021B, Rev 2 1996

TPH-GRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-GRO	mg/kg	**152**		11/20/14 14:51	A411242	8015D, Rev 4 2003 (Mod)
Fluorobenzene [surr]	%	86.8		11/20/14 14:51	A411242	8015D, Rev 4 2003 (Mod)
4-Bromochlorobenzene [surr]	%	102		11/20/14 14:51	A411242	8015D Rev 4 2003 (Mod)

ANALYTICAL RESULTS

Lab Number: 1411197-08
Sample Name: MW-4 @ 22
Date/Time Collected: 11/12/14 15:50
Sample Matrix: Soil

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Benzene	mg/kg	**0.153**		11/19/14 19:39	A411242	8021B, Rev 2 1996
Methyl t-Butyl Ether	mg/kg	< 0.100		11/19/14 19:39	A411242	8021B Rev 2 1996
Toluene	mg/kg	**2.00**		11/19/14 19:39	A411242	8021B Rev 2 1996
Ethylbenzene	mg/kg	**1.31**		11/19/14 19:39	A411242	8021B Rev 2 1996
Naphthalene	mg/kg	**0.783**		11/19/14 19:39	A411242	8021B Rev 2 1996
m,p-Xylene	mg/kg	**5.00**		11/19/14 19:39	A411242	8021B Rev 2 1996
o-Xylene	mg/kg	**1.76**		11/19/14 19:39	A411242	8021B Rev 2 1996
Fluorobenzene [surr]	%	91.1		11/19/14 19:39	A411242	8021B Rev 2 1996
4-Bromochlorobenzene [surr]	%	114		11/19/14 19:39	A411242	8021B Rev 2 1996

TPH-DRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-DRO	mg/kg	**32.3**		11/20/14 0:13	A411243	8015D Rev 4 2003 (Mod)
o-Terphenyl [surr]	%	96.7		11/20/14 0:13	A411243	8015D Rev 4 2003 (Mod)

TPH-GRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-GRO	mg/kg	**66.3**		11/19/14 19:39	A411242	8015D Rev 4 2003 (Mod)
Fluorobenzene [surr]	%	91.1		11/19/14 19:39	A411242	8015D Rev 4 2003 (Mod)
4-Bromochlorobenzene [surr]	%	114		11/19/14 19:39	A411242	8015D Rev 4 2003 (Mod)

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ANALYTICAL RESULTS

Lab Number: 1411197-09
Sample Name: MW-5 @ 14-15
Date/Time Collected: 11/13/14 9:38
Sample Matrix: Soil

TPH-DRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-DRO	mg/kg	**408**		11/20/14 0:53	A411243	8015D Rev 4 2003 (Mod)
o-Terphenyl [surr]	%	99.5		11/20/14 0:53	A411243	8015D Rev 4 2003 (Mod)

ANALYTICAL RESULTS

Lab Number: 1411197-09RE1
Sample Name: MW-5 @ 14-15
Date/Time Collected: 11/13/14 9:38
Sample Matrix: Soil

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Benzene	mg/kg	**11.2**		11/20/14 16:10	A411242	8021B Rev 2 1996
Methyl t-Butyl Ether	mg/kg	< 1.50	EDL	11/20/14 16:10	A411242	8021B Rev 2 1996
Toluene	mg/kg	**42.8**		11/20/14 16:10	A411242	8021B Rev 2 1996
Ethylbenzene	mg/kg	**46.6**		11/20/14 16:10	A411242	8021B Rev 2 1996
Naphthalene	mg/kg	**14.7**		11/20/14 16:10	A411242	8021B Rev 2 1996
m,p-Xylene	mg/kg	**179**		11/20/14 16:10	A411242	8021B Rev 2 1996
o-Xylene	mg/kg	**62.1**		11/20/14 16:10	A411242	8021B Rev 2 1996
Fluorobenzene [surr]	%	84.9		11/20/14 16:10	A411242	8021B Rev 2 1996
4-Bromochlorobenzene [surr]	%	96.6		11/20/14 16:10	A411242	8021B Rev 2 1996

TPH-GRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-GRO	mg/kg	**1240**		11/20/14 16:10	A411242	8015D Rev 4 2003 (Mod)
Fluorobenzene [surr]	%	84.9		11/20/14 16:10	A411242	8015D Rev 4 2003 (Mod)
4-Bromochlorobenzene [surr]	%	96.6		11/20/14 16:10	A411242	8015D Rev 4 2003 (Mod)

ANALYTICAL RESULTS

Lab Number: 1411197-10
Sample Name: MW-5 @ 17-18
Date/Time Collected: 11/13/14 9:48
Sample Matrix: Soil

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Methyl t-Butyl Ether	mg/kg	< 0.100		11/19/14 20:35	A411242	8021B Rev 2 1996
Naphthalene	mg/kg	**1.83**		11/19/14 20:35	A411242	8021B Rev 2 1996
Fluorobenzene [surr]	%	89.6		11/19/14 20:35	A411242	8021B Rev 2 1996
4-Bromochlorobenzene [surr]	%	105		11/19/14 20:35	A411242	8021B Rev 2 1996

TPH-DRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-DRO	mg/kg	**45.7**		11/20/14 1:32	A411243	8015D Rev 4 2003 (Mod)
o-Terphenyl [surr]	%	87.5		11/20/14 1:32	A411243	8015D Rev 4 2003 (Mod)

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ANALYTICAL RESULTS

Lab Number:	**1411197-10RE1**
Sample Name:	**MW-5 @ 17-18**
Date/Time Collected:	**11/13/14 9:48**
Sample Matrix:	**Soil**

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Benzene	mg/kg	**2.62**		11/20/14 16:37	A411242	8021B Rev 2 1996
Toluene	mg/kg	**4.27**		11/20/14 16:37	A411242	8021B Rev 2 1996
Ethylbenzene	mg/kg	**5.24**		11/20/14 16:37	A411242	8021B Rev 2 1996
m,p-Xylene	mg/kg	**20.3**		11/20/14 16:37	A411242	8021B Rev 2 1996
o-Xylene	mg/kg	**6.55**		11/20/14 16:37	A411242	8021B Rev 2 1996
Fluorobenzene [surr]	%	89.1		11/20/14 16:37	A411242	8021B Rev 2 1996
4-Bromochlorobenzene [surr]	%	101		11/20/14 16:37	A411242	8021B Rev 2 1996

TPH-GRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-GRO	mg/kg	**105**		11/20/14 16:37	A411242	8015D Rev 4 2003 (Mod)
Fluorobenzene [surr]	%	89.1		11/20/14 16:37	A411242	8015D Rev 4 2003 (Mod)
4-Bromochlorobenzene [surr]	%	101		11/20/14 16:37	A411242	8015D Rev 4 2003 (Mod)

ANALYTICAL RESULTS

Lab Number:	**1411197-11**
Sample Name:	**MW-6 @ 11-12**
Date/Time Collected:	**11/13/14 13:00**
Sample Matrix:	**Soil**

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Methyl t-Butyl Ether	mg/kg	< 5.50	EDL	11/19/14 23:22	A411242	8021B Rev 2 1996
Naphthalene	mg/kg	**40.0**		11/19/14 23:22	A411242	8021B Rev 2 1996
Fluorobenzene [surr]	%	83.1		11/19/14 23:22	A411242	8021B Rev 2 1996
4-Bromochlorobenzene [surr]	%	105		11/19/14 23:22	A411242	8021B Rev 2 1996

TPH-DRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-DRO	mg/kg	**661**		11/20/14 2:12	A411243	8015D Rev 4 2003 (Mod)
o-Terphenyl [surr]	%	93.4		11/20/14 2:12	A411243	8015D Rev 4 2003 (Mod)

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Project: ADEQ 47000222

Date Received: 14-Nov-14 15:06

ANALYTICAL RESULTS

Lab Number: 1411197-11RE1
Sample Name: MW-6 @ 11-12
Date/Time Collected: 11/13/14 13:00
Sample Matrix: Soil

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Benzene	mg/kg	**50.4**		11/20/14 17:05	A411242	8021B, Rev 2 1996
Toluene	mg/kg	**344**		11/20/14 17:05	A411242	8021B Rev 2 1996
Ethylbenzene	mg/kg	**94.5**		11/20/14 17:05	A411242	8021B Rev 2 1996
m,p-Xylene	mg/kg	**364**		11/20/14 17:05	A411242	8021B Rev 2 1996
o-Xylene	mg/kg	**133**		11/20/14 17:05	A411242	8021B Rev 2 1996
Fluorobenzene [surr]	%	88.1		11/20/14 17:05	A411242	8021B Rev 2 1996
4-Bromochlorobenzene [surr]	%	99.5		11/20/14 17:05	A411242	8021B Rev 2 1996

TPH-GRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-GRO	mg/kg	**3170**		11/20/14 17:05	A411242	8015D Rev 4 2003 (Mod)
Fluorobenzene [surr]	%	88.1		11/20/14 17:05	A411242	8015D Rev 4 2003 (Mod)
4-Bromochlorobenzene [surr]	%	99.5		11/20/14 17:05	A411242	8015D Rev 4 2003 (Mod)

ANALYTICAL RESULTS

Lab Number: 1411197-12
Sample Name: MW-6 @ 17-18
Date/Time Collected: 11/13/14 13:18
Sample Matrix: Soil

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Benzene	mg/kg	**0.739**		11/19/14 23:50	A411242	8021B Rev 2 1996
Methyl t-Butyl Ether	mg/kg	< 0.100		11/19/14 23:50	A411242	8021B, Rev 2 1996
Ethylbenzene	mg/kg	**0.860**		11/19/14 23:50	A411242	8021B Rev 2 1996
Naphthalene	mg/kg	**0.680**		11/19/14 23:50	A411242	8021B, Rev 2 1996
m,p-Xylene	mg/kg	**3.36**		11/19/14 23:50	A411242	8021B, Rev 2 1996
o-Xylene	mg/kg	**1.32**		11/19/14 23:50	A411242	8021B Rev 2 1996
Fluorobenzene [surr]	%	93.5		11/19/14 23:50	A411242	8021B Rev 2 1996
4-Bromochlorobenzene [surr]	%	107		11/19/14 23:50	A411242	8021B, Rev 2 1996

TPH-DRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-DRO	mg/kg	**24.5**		11/20/14 14:51	A411243	8015D, Rev 4 2003 (Mod)
o-Terphenyl [surr]	%	109		11/20/14 14:51	A411243	8015D Rev 4 2003 (Mod)

TPH-GRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-GRO	mg/kg	**46.4**		11/19/14 23:50	A411242	8015D Rev 4 2003 (Mod)
Fluorobenzene [surr]	%	93.5		11/19/14 23:50	A411242	8015D Rev 4 2003 (Mod)
4-Bromochlorobenzene [surr]	%	107		11/19/14 23:50	A411242	8015D Rev 4 2003 (Mod)

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1201 Cypress
North Little Rock, AR 72114
Project: ADEQ 47000222

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ANALYTICAL RESULTS

Lab Number: **1411197-12RE1**
Sample Name: **MW-6 @ 17-18**
Date/Time Collected: **11/13/14 13:18**
Sample Matrix: **Soil**

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Toluene	mg/kg	**3.56**		11/20/14 17:33	A411242	8021B Rev 2 1996
Fluorobenzene [surr]	%	89.7		11/20/14 17:33	A411242	8021B Rev 2 1996
4-Bromochlorobenzene [surr]	%	104		11/20/14 17:33	A411242	8021B Rev 2 1996

ANALYTICAL RESULTS

Lab Number: **1411197-13**
Sample Name: **MW-7 @ 13-14**
Date/Time Collected: **11/13/14 14:38**
Sample Matrix: **Soil**

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Benzene	mg/kg	**17.4**		11/20/14 0:17	A411242	8021B Rev 2 1996
Methyl t-Butyl Ether	mg/kg	< 2.50	EDL	11/20/14 0:17	A411242	8021B Rev 2 1996
Naphthalene	mg/kg	**27.1**		11/20/14 0:17	A411242	8021B Rev 2 1996
Fluorobenzene [surr]	%	84.2		11/20/14 0:17	A411242	8021B Rev 2 1996
4-Bromochlorobenzene [surr]	%	105		11/20/14 0:17	A411242	8021B Rev 2 1996

TPH-DRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-DRO	mg/kg	**457**		11/20/14 3:31	A411243	8015D Rev 4 2003 (Mod)
o-Terphenyl [surr]	%	85.2		11/20/14 3:31	A411243	8015D Rev 4 2003 (Mod)

ANALYTICAL RESULTS

Lab Number: **1411197-13RE1**
Sample Name: **MW-7 @ 13-14**
Date/Time Collected: **11/13/14 14:38**
Sample Matrix: **Soil**

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Toluene	mg/kg	**133**		11/20/14 18:00	A411242	8021B Rev 2 1996
Ethylbenzene	mg/kg	**52.1**		11/20/14 18:00	A411242	8021B Rev 2 1996
m,p-Xylene	mg/kg	**192**		11/20/14 18:00	A411242	8021B Rev 2 1996
o-Xylene	mg/kg	**68.2**		11/20/14 18:00	A411242	8021B Rev 2 1996
Fluorobenzene [surr]	%	87.0		11/20/14 18:00	A411242	8021B Rev 2 1996
4-Bromochlorobenzene [surr]	%	96.6		11/20/14 18:00	A411242	8021B Rev 2 1996

TPH-GRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-GRO	mg/kg	**1770**		11/20/14 18:00	A411242	8015D Rev 4 2003 (Mod)
Fluorobenzene [surr]	%	87.0		11/20/14 18:00	A411242	8015D Rev 4 2003 (Mod)
4-Bromochlorobenzene [surr]	%	96.6		11/20/14 18:00	A411242	8015D Rev 4 2003 (Mod)

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Date Received: 14-Nov-14 15:06

ANALYTICAL RESULTS

Lab Number: 1411197-14
Sample Name: MW-7 @ 14-15
Date/Time Collected: 11/13/14 14:39
Sample Matrix: Soil

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Benzene	mg/kg	**31.8**		11/20/14 0:45	A411242	8021B Rev 2 1996
Methyl t-Butyl Ether	mg/kg	< 6.50	EDL	11/20/14 0:45	A411242	8021B Rev 2 1996
Naphthalene	mg/kg	**33.8**		11/20/14 0:45	A411242	8021B Rev 2 1996
Fluorobenzene [surr]	%	80.8		11/20/14 0:45	A411242	8021B Rev 2 1996
4-Bromochlorobenzene [surr]	%	102		11/20/14 0:45	A411242	8021B Rev 2 1996

TPH-DRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-DRO	mg/kg	**675**		11/20/14 4:10	A411243	8015D Rev 4 2003 (Mod)
o-Terphenyl [surr]	%	92.4		11/20/14 4:10	A411243	8015D, Rev 4 2003 (Mod)

ANALYTICAL RESULTS

Lab Number: 1411197-14RE1
Sample Name: MW-7 @ 14-15
Date/Time Collected: 11/13/14 14:39
Sample Matrix: Soil

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Toluene	mg/kg	**239**		11/20/14 18:28	A411242	8021B Rev 2 1996
Ethylbenzene	mg/kg	**81.2**		11/20/14 18:28	A411242	8021B Rev 2 1996
m,p-Xylene	mg/kg	**299**		11/20/14 18:28	A411242	8021B Rev 2 1996
o-Xylene	mg/kg	**108**		11/20/14 18:28	A411242	8021B, Rev 2 1996
Fluorobenzene [surr]	%	87.2		11/20/14 18:28	A411242	8021B Rev 2 1996
4-Bromochlorobenzene [surr]	%	96.5		11/20/14 18:28	A411242	8021B Rev 2 1996

TPH-GRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-GRO	mg/kg	**2910**		11/20/14 18:28	A411242	8015D Rev 4 2003 (Mod)
Fluorobenzene [surr]	%	87.2		11/20/14 18:28	A411242	8015D Rev 4 2003 (Mod)
4-Bromochlorobenzene [surr]	%	96.5		11/20/14 18:28	A411242	8015D Rev 4 2003 (Mod)

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ANALYTICAL RESULTS

Lab Number: 1411197-15
Sample Name: MW-8 @ 7-8'
Date/Time Collected: 11/13/14 16:18
Sample Matrix: Soil

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Benzene	mg/kg	< 0.100		11/20/14 1:13	A411242	8021B Rev 2 1996
Methyl t-Butyl Ether	mg/kg	< 0.100		11/20/14 1:13	A411242	8021B, Rev 2 1996
Toluene	mg/kg	**0.666**		11/20/14 1:13	A411242	8021B Rev 2 1996
Ethylbenzene	mg/kg	**0.885**		11/20/14 1:13	A411242	8021B Rev 2 1996
Naphthalene	mg/kg	**0.897**		11/20/14 1:13	A411242	8021B Rev 2 1996
m,p-Xylene	mg/kg	**3.25**		11/20/14 1:13	A411242	8021B Rev 2 1996
o-Xylene	mg/kg	**1.11**		11/20/14 1:13	A411242	8021B Rev 2 1996
Fluorobenzene [surr]	%	91.7		11/20/14 1:13	A411242	8021B, Rev 2 1996
4-Bromochlorobenzene [surr]	%	111		11/20/14 1:13	A411242	8021B, Rev 2 1996

TPH-DRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-DRO	mg/kg	< 10.0		11/20/14 16:50	A411243	8015D Rev 4 2003 (Mod)
o-Terphenyl [surr]	%	90.7		11/20/14 16:50	A411243	8015D, Rev 4 2003 (Mod)

TPH-GRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-GRO	mg/kg	**61.8**		11/20/14 1:13	A411242	8015D Rev 4 2003 (Mod)
Fluorobenzene [surr]	%	91.7		11/20/14 1:13	A411242	8015D Rev 4 2003 (Mod)
4-Bromochlorobenzene [surr]	%	111		11/20/14 1:13	A411242	8015D Rev 4 2003 (Mod)

ANALYTICAL RESULTS

Lab Number: 1411197-16
Sample Name: MW-8 @ 10'-11'
Date/Time Collected: 11/13/14 16:28
Sample Matrix: Soil

TPH-DRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-DRO	mg/kg	< 10.0		11/20/14 5:30	A411243	8015D Rev 4 2003 (Mod)
o-Terphenyl [surr]	%	91.3		11/20/14 5:30	A411243	8015D Rev 4 2003 (Mod)

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ANALYTICAL RESULTS

Lab Number: 1411197-16RE1
Sample Name: MW-8 @ 10'-11'
Date/Time Collected: 11/13/14 16:28
Sample Matrix: Soil

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Benzene	mg/kg	< 0.100		11/20/14 19:23	A411242	8021B Rev 2 1996
Methyl t-Butyl Ether	mg/kg	< 0.100		11/20/14 19:23	A411242	8021B Rev 2 1996
Toluene	mg/kg	< 0.100		11/20/14 19:23	A411242	8021B Rev 2 1996
Ethylbenzene	mg/kg	< 0.100	E20	11/20/14 19:23	A411242	8021B Rev 2 1996
Naphthalene	mg/kg	< 0.300		11/20/14 19:23	A411242	8021B Rev 2 1996
m,p-Xylene	mg/kg	< 0.200	E20	11/20/14 19:23	A411242	8021B Rev 2 1996
o-Xylene	mg/kg	< 0.100		11/20/14 19:23	A411242	8021B Rev 2 1996
Fluorobenzene [surr]	%	90.9		11/20/14 19:23	A411242	8021B Rev 2 1996
4-Bromochlorobenzene [surr]	%	103		11/20/14 19:23	A411242	8021B Rev 2 1996

TPH-GRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-GRO	mg/kg	< 2.00		11/20/14 19:23	A411242	8015D Rev 4 2003 (Mod)
Fluorobenzene [surr]	%	90.9		11/20/14 19:23	A411242	8015D Rev 4 2003 (Mod)
4-Bromochlorobenzene [surr]	%	103		11/20/14 19:23	A411242	8015D Rev 4 2003 (Mod)

ANALYTICAL RESULTS

Lab Number: 1411197-17
Sample Name: MW-9 @ 5'-6'
Date/Time Collected: 11/11/14 9:58
Sample Matrix: Soil

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Benzene	mg/kg	**0.228**		11/20/14 2:08	A411242	8021B Rev 2 1996
Methyl t-Butyl Ether	mg/kg	< 0.100		11/20/14 2:08	A411242	8021B Rev 2 1996
Toluene	mg/kg	**1.87**		11/20/14 2:08	A411242	8021B Rev 2 1996
Ethylbenzene	mg/kg	**0.675**		11/20/14 2:08	A411242	8021B Rev 2 1996
Naphthalene	mg/kg	**0.531**		11/20/14 2:08	A411242	8021B Rev 2 1996
m,p-Xylene	mg/kg	**2.65**		11/20/14 2:08	A411242	8021B Rev 2 1996
o-Xylene	mg/kg	**0.990**		11/20/14 2:08	A411242	8021B Rev 2 1996
Fluorobenzene [surr]	%	89.3		11/20/14 2:08	A411242	8021B Rev 2 1996
4-Bromochlorobenzene [surr]	%	108		11/20/14 2:08	A411242	8021B Rev 2 1996

TPH-DRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-DRO	mg/kg	< 10.0		11/20/14 6:49	A411243	8015D Rev 4 2003 (Mod)
o-Terphenyl [surr]	%	84.3		11/20/14 6:49	A411243	8015D Rev 4 2003 (Mod)

TPH-GRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-GRO	mg/kg	**31.6**		11/20/14 2:08	A411242	8015D Rev 4 2003 (Mod)
Fluorobenzene [surr]	%	89.3		11/20/14 2:08	A411242	8015D Rev 4 2003 (Mod)
4-Bromochlorobenzene [surr]	%	108		11/20/14 2:08	A411242	8015D Rev 4 2003 (Mod)

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1201 Cypress
North Little Rock, AR 72114
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Date Received: 14-Nov-14 15:06

ANALYTICAL RESULTS

Lab Number: 1411197-18
Sample Name: MW-9 @ 10'-11'
Date/Time Collected: 11/11/14 10:28
Sample Matrix: Soil

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Benzene	mg/kg	< 0.100		11/20/14 2:35	A411242	8021B Rev 2 1996
Methyl t-Butyl Ether	mg/kg	< 0.100		11/20/14 2:35	A411242	8021B Rev 2 1996
Toluene	mg/kg	< 0.100		11/20/14 2:35	A411242	8021B Rev 2 1996
Ethylbenzene	mg/kg	< 0.100		11/20/14 2:35	A411242	8021B Rev 2 1996
Naphthalene	mg/kg	< 0.300		11/20/14 2:35	A411242	8021B Rev 2 1996
m,p-Xylene	mg/kg	< 0.200		11/20/14 2:35	A411242	8021B Rev 2 1996
o-Xylene	mg/kg	< 0.100		11/20/14 2:35	A411242	8021B Rev 2 1996
Fluorobenzene [surr]	%	94.3		11/20/14 2:35	A411242	8021B Rev 2 1996
4-Bromochlorobenzene [surr]	%	111		11/20/14 2:35	A411242	8021B Rev 2 1996

TPH-DRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-DRO	mg/kg	< 10.0		11/20/14 7:29	A411243	8015D Rev 4 2003 (Mod)
o-Terphenyl [surr]	%	107		11/20/14 7:29	A411243	8015D Rev 4 2003 (Mod)

TPH-GRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-GRO	mg/kg	**23.1**		11/20/14 2:35	A411242	8015D Rev 4 2003 (Mod)
Fluorobenzene [surr]	%	94.3		11/20/14 2:35	A411242	8015D Rev 4 2003 (Mod)
4-Bromochlorobenzene [surr]	%	111		11/20/14 2:35	A411242	8015D Rev 4 2003 (Mod)

QUALITY CONTROL RESULTS

8021B Analytes -- Batch: A411242 (Soil)
Prepared: 19-Nov-14 12:00 By: CT -- Analyzed: 20-Nov-14 20:17 By: ct

Analyte	BLK	LCS / LCSD	MS / MSD	Dup	RPD	Qualifiers
Benzene	<0.100 mg/kg	97.4% / NA	112% / 112%		0.357%	
Ethylbenzene	<0.100 mg/kg	119% / NA	121% / 127%		4.97%	%D1
m,p-Xylene	<0.200 mg/kg	116% / NA	120% / 123%		2.55%	%D1
Methyl t-Butyl Ether	<0.100 mg/kg	89.2% / NA	85.9% / 98.9%		14.1%	D
Naphthalene	<0.300 mg/kg	103% / NA	99.1% / 105%		6.11%	
o-Xylene	<0.100 mg/kg	112% / NA	116% / 119%		2.38%	
Toluene	<0.100 mg/kg	115% / NA	126% / 124%		1.00%	
TPH-GRO	<2.00 mg/kg	105% / NA	107% / 110%		2.47%	
4-Bromochlorobenzene [surr]	95.2 %	95.3% / NA	102% / 98.1%		NA	
Fluorobenzene [surr]	83.0 %	88.2% / NA	92.2% / 91.7%		NA	

TPH-DRO by 8015D -- Batch: A411243 (Soil)
Prepared: 19-Nov-14 12:56 By: MB -- Analyzed: 20-Nov-14 13:41 By: MB

Analyte	BLK	LCS / LCSD	MS / MSD	Dup	RPD	Qualifiers
TPH-DRO	<10.0 mg/kg	90.5% / NA	90.4% / 89.9%		0.572%	
o-Terphenyl [surr]	89.2 %	94.3% / NA	94.4% / 95.3%		NA	

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North Little Rock, AR 72114
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QUALIFIER(S)

*%D1:	Matrix Spike and/or Matrix Spike Duplicate Percent Recovery Does Not Meet Laboratory Acceptance Criteria
*D:	RPD Value Does Not Meet Laboratory Acceptance Criteria
*E20:	Estimated Result Due to Matrix Spike and/or Matrix Spike Duplicate Failure; This sample was used as the "parent sample" in MS/MSD prep.
*EDL:	Elevated Detection Limit Due to one or more of the following: Sample Matrix, Sample Dilution, or Limited Sample Volume

All Analysis performed according to EPA approved methodology when available:
SW 846, Revised December, 1996; EPA 600/4-79-020, Revised March, 1983; Standard Methods.
Instrument calibration and quality control samples performed at or above frequency specified in analytical method.

Reviewed by: Norma James / Teresa Coins

Norma James and/or Teresa Coins
Technical Director and/or QA Officer

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Arkansas Analytical Inc.
11701 Interstate 30, Bldg. 1, Ste. 115
Little Rock, AR 72209
PHONE: 501-455-3233
FAX: 501-455-6118

CHAIN OF CUSTODY RECORD

CLIENT INFORMATION	Project Description	Turnaround Time	Preservation Codes:	
Southern Co. NLR Inc.	ADEQ 47000222	1 Day (100%)	1. Cool, 4 Degrees Centigrade	4. Thiosulfate for Dechlorination
1201 Cypress	PO 41852	2 Day (50%)	2. Sulfuric Acid (H_2SO_4), pH < 2	5. Hydrochloric Acid(HCl)
North Little Rock, AR 72114	Reporting Information	3 Day (25%)	3. Nitric Acid (HNO_3), pH < 2	6. Sodium Hydroxide (NaOH), pH > 12
	Telephone: 501-376-6333	5 Day (Routine)		
Attn: Scott Kemph	Fax: 501-376-8715			
	Email: skemph@thesoco.com			

Sampler(s) Signature: N. Scott NW

Sampler(s) Printed: T. Scott Kemph

Field Number	SAMPLE COLLECTION Date/s	Time/s	Grab	Comp	Number of Bottles	Sample Matrix	SAMPLE IDENTIFICATION/ DESCRIPTION	8021B - BTEX, MTBE, Naphthalene	8015D - TPH-GRO	8015D - TPH-DRO	Arkansas Analytical Work Order Number: 1411197-
MW-1@16-17	11.11.14	0938	X		1	S	Soil sample MW-1 16'-17'	X	X	X	01
MW-1@24-25	11.11.14	13:45	X		1	S	Soil sample MW-1 24'-25'	X	X	X	02
MW-2@16-17	11.11.14	16:45	X		1	S	Soil sample MW-2 16'-17'	X	X	X	03
MW-2@22'	11.12.14	8:57	X		1	S	soil sample MW-2 22'	X	X	X	04
MW3@15	11.12.14	11:25	X		1	S	Soil Sample MW3 @ 15'	X	X	X	05
MW3@21'	11.12.14	12:55	X		1	S	soil sample MW3 @ 21'	X	X	X	06
MW4@16'	11.12.14	14:45	X		1	S	Soil sample MW4@16'	X	X	X	07
MW4@22	11.12.14	15:50	X		1	S	Soil Sample MW4 @ 22'	X	X	X	08
MW5@14-15	11-13-14	0938	X		1	S	Soil sample MW5@ 14'-15'	X	X	X	09
MW5@17-18	11-13-14	0944	X		1	S	Soil Sample MW5@17-18'	X	X	X	10

1. Relinquished by: (Signature)	Date/Time	2. Received by: (Signature)
N. Scott NW	11-14-14 1506	
3. Relinquished by: (Signature)	**Date/Time**	**4. Received by lab: (Signature)**
		Sydney Jama

SAMPLE CONDITION UPON RECEIPT IN LAB

1. CUSTODY SEALS: ✓ Yes ___ No
2. CONTAINERS CORRECT: ✓ Yes ___ No
3. COC/LABELS AGREE: ✓ Yes ___ No
4. RECEIVED ON ICE: ✓ Yes ___ No
5. TEMPERATURE ON RECEIPT: 2°C
6. TEMPERATURE GUN ID. HH#2

FOR COMPLETION BY LAB ONLY

REMARKS / SAMPLE COMMENTS

PO 41852

Please email results to skemph@thesoco.com

8015 D TPH-DRO

8015 D TPH-GRO

8021B MTBE, Benzene, Toluene, Ethylbenzene, Xylene, and Napthalene

Revision 2
2/14/14

Arkansas Analytical Inc.
11701 Interstate 30, Bldg. 1, Ste. 115
Little Rock, AR 72209
PHONE: 501-455-3233
FAX: 501-455-6118

CHAIN OF CUSTODY RECORD

CLIENT INFORMATION	Project Description	Turnaround Time	Preservation Codes:	
Southern Co. NLR Inc.	ADEQ 47000222	1 Day (100%)	1. Cool, 4 Degrees Centigrade	4. Thiosulfate for Dechlorination
1201 Cypress	PO 41852	2 Day (50%)	2. Sulfuric Acid (H_2SO_4), pH < 2	5. Hydrochloric Acid(HCl)
North Little Rock, AR 72114	Reporting Information	3 Day (25%)	3. Nitric Acid (HNO_3), pH < 2	6. Sodium Hydroxide (NaOH), pH > 12
	Telephone: 501-376-6333	5 Day (Routine)		
Attn: Scott Kemph	Fax: 501-376-8715	Preservative Code		
	Email: skemph@thesoco.com	Bottle Type		

Sampler(s) Signature: T. Scott Kemph

Sampler(s) Printed: T. Scott Kemph

Field Number	SAMPLE COLLECTION Date/s	Time/s	Grab	Comp	Number of Bottles	Sample Matrix	SAMPLE IDENTIFICATION/ DESCRIPTION	8021B - BTEX, MTBE, Naphthalene	8015D - TPH-GRO	8015D - TPH-DRO							Arkansas Analytical Work Order Number:
MW-6 11-12	11-13-14	1300	X		1	S	Soil sample MW-6 11-12'	X	X	X							11
MW-6 17-18	11-13-14	1318	X		1	S	Soil sample MW-6 17-18	X	X	X							12
MW-7 13-14	11-13-14	1438	X		1	S	Soil sample MW-7 13-14	X	X	X							13
MW-7 14-15	11-13-14	1439	X		1	S	Soil sample MW-7 14-15	X	X	X							14
MW-8 7-8	11-13-14	1618	X		1	S	Soil sample MW-8 7-8'	X	X	X							15
MW-8 10-11'	11-13-14	1628	X		1	S	Soil sample MW-8 10-11'	X	X	X							16
MW-9 5-6	11-14-14	0958	X		1	S	Soil sample MW-9 5-6'	X	X	X							17
MW-9 16-17	11-14-14	1028	X		1	S	Soil sample MW-9 16-17'	X	X	X							18
			X		1	S		X	X	X							
			X		1	S		X	X	X							

TSK 11-14-14

1. Relinquished by: (Signature)	Date/Time	2. Received by: (Signature)
T. Scott Kemph	11-14-14 1506	
3. Relinquished by: (Signature)	Date/Time	4. Received by lab: (Signature)
		Sydney Hm

SAMPLE CONDITION UPON RECEIPT IN LAB		
1. CUSTODY SEALS	✓ Yes	___ No
2. CONTAINERS CORRECT	___ Yes	___ No
3. COC/LABELS AGREE	___ Yes	___ No
4. RECEIVED ON ICE	✓ Yes	___ No
5. TEMPERATURE ON RECEIPT	2°C	
6. TEMPERATURE GUN ID	IHT #2	
FOR COMPLETION BY LAB ONLY		

REMARKS / SAMPLE COMMENTS
PO 41852
Please email results to skemph@thesoco.com
8015 D TPH-DRO
8015 D TPH-GRO
8021B MTBE, Benzene, Toluene, Ethylbenzene, Xylene, and Napthalene

Revision 2
2/14/14

Arkansas Analytical Inc.

11701 I-30 Bldg 1, Ste 115 - Little Rock, AR 72209
501-455-3233 Fax 501-455-6118

26 November 2014

Scott Kemph
Southern Co. NLR Inc.
1201 Cypress
North Little Rock, AR 72114

RE: ADEQ 47000222

SDG Number: 1411296

Enclosed are the results of analyses for samples received by the laboratory on 21-Nov-14 13:19. If you have any questions concerning this report, please feel free to contact me.

Sample Receipt Information:

Custody Seals	✔
Containers Correct	✔
COC/Labels Agree	✔
Received On Ice	✔
Temperature on Receipt	3.0°C

Sincerely,

Norma James / Teresa Coins

Norma James and/or Teresa Coins
Technical Director and/or QA Officer

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26 November 2014

Scott Kemph
Southern Co. NLR Inc.
1201 Cypress
North Little Rock, AR 72114
Project: ADEQ 47000222

Date Received: 21-Nov-14 13:19

CASE NARRATIVE

Sample Delivery Group – 1411296

One *OR* more of the qualifiers described below may appear in this report.

ANALYTICAL QUALIFIERS:

Qualifier	Description
EDL	Result was non-detect at an elevated detection limit due to one or more of the following: Sample Matrix, Sample Dilution, or Limited Sample Volume.
EX	Result exceeds DAILY MAXIMUM and/or MONTHLY AVERAGE.
EX2	The result exceeds the TCLP limit.
J	At client request, J-Values are reported. J-Values are considered "estimated" results as they are below the limit of quantitation yet above the method detection limit (MDL).
N	Insufficient sample volume received as required by the method.
T40	The ambient temperature exceeded 23 +/- 2 oC during the TCLP rotation process.

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26 November 2014

Scott Kemph
Southern Co. NLR Inc.
1201 Cypress
North Little Rock, AR 72114
Project: ADEQ 47000222

Date Received: 21-Nov-14 13:19

ANALYTICAL RESULTS

Lab Number:	**1411296-01**
Sample Name:	**MW-10 @ 16'**
Date/Time Collected:	**11/17/14 11:56**
Sample Matrix:	**Soil**

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Benzene	mg/kg	**0.664**		11/24/14 17:49	A411307	8021B Rev 2 1996
Methyl t-Butyl Ether	mg/kg	< 1.50	EDL	11/24/14 17:49	A411307	8021B Rev 2 1996
Toluene	mg/kg	**1.16**		11/24/14 17:49	A411307	8021B Rev 2 1996
Ethylbenzene	mg/kg	**3.78**		11/24/14 17:49	A411307	8021B Rev 2 1996
Naphthalene	mg/kg	**1.21**		11/24/14 17:49	A411307	8021B Rev 2 1996
m,p-Xylene	mg/kg	**13.7**		11/24/14 17:49	A411307	8021B Rev 2 1996
o-Xylene	mg/kg	**3.78**		11/24/14 17:49	A411307	8021B Rev 2 1996
Fluorobenzene [surr]	%	84.2		11/24/14 17:49	A411307	8021B Rev 2 1996
4-Bromochlorobenzene [surr]	%	108		11/24/14 17:49	A411307	8021B Rev 2 1996

TPH-DRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-DRO	mg/kg	**129**		11/24/14 18:07	A411301	8015D Rev 4 2003 (Mod)
o-Terphenyl [surr]	%	87.5		11/24/14 18:07	A411301	8015D Rev 4 2003 (Mod)

TPH-GRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-GRO	mg/kg	**374**		11/24/14 17:49	A411307	8015D Rev 4 2003 (Mod)
Fluorobenzene [surr]	%	84.2		11/24/14 17:49	A411307	8015D Rev 4 2003 (Mod)
4-Bromochlorobenzene [surr]	%	108		11/24/14 17:49	A411307	8015D Rev 4 2003 (Mod)

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26 November 2014

Scott Kemph
Southern Co. NLR Inc.
1201 Cypress
North Little Rock, AR 72114
Project: ADEQ 47000222

Date Received: 21-Nov-14 13:19

ANALYTICAL RESULTS

Lab Number: **1411296-02**
Sample Name: **MW-10 @ 18'**
Date/Time Collected: **11/17/14 12:02**
Sample Matrix: **Soil**

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Benzene	mg/kg	**1.35**		11/24/14 18:16	A411307	8021B Rev 2 1996
Methyl t-Butyl Ether	mg/kg	< 3.00	EDL	11/24/14 18:16	A411307	8021B Rev 2 1996
Toluene	mg/kg	**2.32**		11/24/14 18:16	A411307	8021B Rev 2 1996
Ethylbenzene	mg/kg	**7.90**		11/24/14 18:16	A411307	8021B Rev 2 1996
Naphthalene	mg/kg	**2.70**		11/24/14 18:16	A411307	8021B Rev 2 1996
m,p-Xylene	mg/kg	**26.6**		11/24/14 18:16	A411307	8021B, Rev 2 1996
o-Xylene	mg/kg	**7.30**		11/24/14 18:16	A411307	8021B, Rev 2 1996
Fluorobenzene [surr]	%	83.4		11/24/14 18:16	A411307	8021B, Rev 2 1996
4-Bromochlorobenzene [surr]	%	107		11/24/14 18:16	A411307	8021B, Rev 2 1996

TPH-DRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-DRO	mg/kg	**254**		11/24/14 18:46	A411301	8015D Rev 4 2003 (Mod)
o-Terphenyl [surr]	%	89.8		11/24/14 18:46	A411301	8015D Rev 4 2003 (Mod)

TPH-GRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-GRO	mg/kg	**686**		11/24/14 18:16	A411307	8015D Rev 4 2003 (Mod)
Fluorobenzene [surr]	%	83.4		11/24/14 18:16	A411307	8015D Rev 4 2003 (Mod)
4-Bromochlorobenzene [surr]	%	107		11/24/14 18:16	A411307	8015D Rev 4 2003 (Mod)

ANALYTICAL RESULTS

Lab Number: **1411296-03**
Sample Name: **MW-11 @ 14'**
Date/Time Collected: **11/18/14 10:20**
Sample Matrix: **Soil**

TPH-DRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-DRO	mg/kg	< 10.0		11/24/14 19:25	A411301	8015D Rev 4 2003 (Mod)
o-Terphenyl [surr]	%	93.6		11/24/14 19:25	A411301	8015D Rev 4 2003 (Mod)

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26 November 2014

Scott Kemph
Southern Co. NLR Inc.
1201 Cypress
North Little Rock, AR 72114
Project: ADEQ 47000222

Date Received: 21-Nov-14 13:19

ANALYTICAL RESULTS

Lab Number: 1411296-03RE1
Sample Name: MW-11 @ 14'
Date/Time Collected: 11/18/14 10:20
Sample Matrix: Soil

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Benzene	mg/kg	< 0.100		11/25/14 15:23	A411307	8021B Rev 2 1996
Methyl t-Butyl Ether	mg/kg	< 0.100		11/25/14 15:23	A411307	8021B Rev 2 1996
Toluene	mg/kg	< 0.100		11/25/14 15:23	A411307	8021B Rev 2 1996
Ethylbenzene	mg/kg	< 0.100		11/25/14 15:23	A411307	8021B Rev 2 1996
Naphthalene	mg/kg	< 0.300		11/25/14 15:23	A411307	8021B Rev 2 1996
m,p-Xylene	mg/kg	< 0.200		11/25/14 15:23	A411307	8021B Rev 2 1996
o-Xylene	mg/kg	< 0.100		11/25/14 15:23	A411307	8021B Rev 2 1996
Fluorobenzene [surr]	%	82.7		11/25/14 15:23	A411307	8021B Rev 2 1996
4-Bromochlorobenzene [surr]	%	98.5		11/25/14 15:23	A411307	8021B Rev 2 1996

TPH-GRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-GRO	mg/kg	< 2.00		11/25/14 15:23	A411307	8015D Rev 4 2003 (Mod)
Fluorobenzene [surr]	%	82.7		11/25/14 15:23	A411307	8015D Rev 4 2003 (Mod)
4-Bromochlorobenzene [surr]	%	98.5		11/25/14 15:23	A411307	8015D Rev 4 2003 (Mod)

ANALYTICAL RESULTS

Lab Number: 1411296-04
Sample Name: MW-11 @ 25'
Date/Time Collected: 11/18/14 10:30
Sample Matrix: Soil

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Benzene	mg/kg	< 0.100		11/24/14 19:11	A411307	8021B Rev 2 1996
Methyl t-Butyl Ether	mg/kg	< 0.100		11/24/14 19:11	A411307	8021B Rev 2 1996
Toluene	mg/kg	< 0.100		11/24/14 19:11	A411307	8021B Rev 2 1996
Ethylbenzene	mg/kg	< 0.100		11/24/14 19:11	A411307	8021B Rev 2 1996
Naphthalene	mg/kg	< 0.300		11/24/14 19:11	A411307	8021B Rev 2 1996
m,p-Xylene	mg/kg	< 0.200		11/24/14 19:11	A411307	8021B Rev 2 1996
o-Xylene	mg/kg	< 0.100		11/24/14 19:11	A411307	8021B Rev 2 1996
Fluorobenzene [surr]	%	83.7		11/24/14 19:11	A411307	8021B Rev 2 1996
4-Bromochlorobenzene [surr]	%	99.8		11/24/14 19:11	A411307	8021B Rev 2 1996

TPH-DRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-DRO	mg/kg	< 10.0		11/24/14 20:04	A411301	8015D Rev 4 2003 (Mod)
o-Terphenyl [surr]	%	89.4		11/24/14 20:04	A411301	8015D Rev 4 2003 (Mod)

TPH-GRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-GRO	mg/kg	< 2.00		11/24/14 19:11	A411307	8015D Rev 4 2003 (Mod)
Fluorobenzene [surr]	%	83.7		11/24/14 19:11	A411307	8015D Rev 4 2003 (Mod)
4-Bromochlorobenzene [surr]	%	99.8		11/24/14 19:11	A411307	8015D Rev 4 2003 (Mod)

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Southern Co. NLR Inc.
1201 Cypress
North Little Rock, AR 72114
Project: ADEQ 47000222

Date Received: 21-Nov-14 13:19

ANALYTICAL RESULTS

Lab Number: 1411296-05
Sample Name: MW-12 @ 16'
Date/Time Collected: 11/18/14 13:35
Sample Matrix: Soil

TPH-DRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-DRO	mg/kg	**236**		11/24/14 20:43	A411301	8015D Rev 4 2003 (Mod)
o-Terphenyl [surr]	%	94.9		11/24/14 20:43	A411301	8015D Rev 4 2003 (Mod)

ANALYTICAL RESULTS

Lab Number: 1411296-05RE1
Sample Name: MW-12 @ 16'
Date/Time Collected: 11/18/14 13:35
Sample Matrix: Soil

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Benzene	mg/kg	**6.47**		11/25/14 17:05	A411307	8021B Rev 2 1996
Methyl t-Butyl Ether	mg/kg	< 1.50	EDL	11/25/14 17:05	A411307	8021B Rev 2 1996
Toluene	mg/kg	**32.8**		11/25/14 17:05	A411307	8021B Rev 2 1996
Ethylbenzene	mg/kg	**34.6**		11/25/14 17:05	A411307	8021B Rev 2 1996
Fluorobenzene [surr]	%	89.7		11/25/14 17:05	A411307	8021B Rev 2 1996
4-Bromochlorobenzene [surr]	%	97.2		11/25/14 17:05	A411307	8021B Rev 2 1996

ANALYTICAL RESULTS

Lab Number: 1411296-05RE2
Sample Name: MW-12 @ 16'
Date/Time Collected: 11/18/14 13:35
Sample Matrix: Soil

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Naphthalene	mg/kg	**16.7**		11/26/14 9:40	A411307	8021B Rev 2 1996
m,p-Xylene	mg/kg	**133**		11/26/14 9:40	A411307	8021B Rev 2 1996
o-Xylene	mg/kg	**43.5**		11/26/14 9:40	A411307	8021B Rev 2 1996
Fluorobenzene [surr]	%	89.1		11/26/14 9:40	A411307	8021B Rev 2 1996
4-Bromochlorobenzene [surr]	%	93.4		11/26/14 9:40	A411307	8021B Rev 2 1996

TPH-GRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-GRO	mg/kg	**961**		11/26/14 9:40	A411307	8015D Rev 4 2003 (Mod)
Fluorobenzene [surr]	%	89.1		11/26/14 9:40	A411307	8015D Rev 4 2003 (Mod)
4-Bromochlorobenzene [surr]	%	93.4		11/26/14 9:40	A411307	8015D Rev 4 2003 (Mod)

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26 November 2014

Scott Kemph
Southern Co. NLR Inc.
1201 Cypress
North Little Rock, AR 72114
Project: ADEQ 47000222

Date Received: 21-Nov-14 13:19

ANALYTICAL RESULTS

Lab Number: 1411296-06
Sample Name: MW-12 @ 18'
Date/Time Collected: 11/18/14 13:41
Sample Matrix: Soil

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Benzene	mg/kg	**35.0**		11/24/14 20:06	A411307	8021B, Rev 2 1996
Methyl t-Butyl Ether	mg/kg	< 3.50	EDL	11/24/14 20:06	A411307	8021B, Rev 2 1996
Toluene	mg/kg	**109**		11/24/14 20:06	A411307	8021B Rev 2 1996
Ethylbenzene	mg/kg	**41.4**		11/24/14 20:06	A411307	8021B Rev 2 1996
Naphthalene	mg/kg	**13.1**		11/24/14 20:06	A411307	8021B Rev 2 1996
m,p-Xylene	mg/kg	**163**		11/24/14 20:06	A411307	8021B, Rev 2 1996
o-Xylene	mg/kg	**58.6**		11/24/14 20:06	A411307	8021B Rev 2 1996
Fluorobenzene [surr]	%	84.3		11/24/14 20:06	A411307	8021B Rev 2 1996
4-Bromochlorobenzene [surr]	%	98.0		11/24/14 20:06	A411307	8021B Rev 2 1996

TPH-DRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-DRO	mg/kg	**602**		11/24/14 21:21	A411301	8015D, Rev 4 2003 (Mod)
o-Terphenyl [surr]	%	104		11/24/14 21:21	A411301	8015D Rev 4 2003 (Mod)

TPH-GRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-GRO	mg/kg	**1370**		11/24/14 20:06	A411307	8015D Rev 4 2003 (Mod)
Fluorobenzene [surr]	%	84.3		11/24/14 20:06	A411307	8015D Rev 4 2003 (Mod)
4-Bromochlorobenzene [surr]	%	98.0		11/24/14 20:06	A411307	8015D Rev 4 2003 (Mod)

ANALYTICAL RESULTS

Lab Number: 1411296-07
Sample Name: MW-13 @ 13'
Date/Time Collected: 11/18/14 15:13
Sample Matrix: Soil

TPH-DRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-DRO	mg/kg	**1310**		11/25/14 8:07	A411301	8015D, Rev 4 2003 (Mod)
o-Terphenyl [surr]	%	83.4		11/25/14 8:07	A411301	8015D Rev 4 2003 (Mod)

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26 November 2014

Scott Kemph
Southern Co. NLR Inc.
1201 Cypress
North Little Rock, AR 72114
Project: ADEQ 47000222

Date Received: 21-Nov-14 13:19

ANALYTICAL RESULTS

Lab Number: 1411296-07RE1
Sample Name: MW-13 @ 13'
Date/Time Collected: 11/18/14 15:13
Sample Matrix: Soil

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Benzene	mg/kg	**86.9**		11/25/14 17:32	A411307	8021B Rev 2 1996
Methyl t-Butyl Ether	mg/kg	< 4.00	EDL	11/25/14 17:32	A411307	8021B Rev 2 1996
Toluene	mg/kg	**652**		11/25/14 17:32	A411307	8021B Rev 2 1996
Ethylbenzene	mg/kg	**172**		11/25/14 17:32	A411307	8021B Rev 2 1996
Naphthalene	mg/kg	**50.5**		11/25/14 17:32	A411307	8021B Rev 2 1996
m,p-Xylene	mg/kg	**670**		11/25/14 17:32	A411307	8021B Rev 2 1996
o-Xylene	mg/kg	**256**		11/25/14 17:32	A411307	8021B Rev 2 1996
Fluorobenzene [surr]	%	91.2		11/25/14 17:32	A411307	8021B Rev 2 1996
4-Bromochlorobenzene [surr]	%	92.1		11/25/14 17:32	A411307	8021B Rev 2 1996

TPH-GRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-GRO	mg/kg	**4850**		11/25/14 17:32	A411307	8015D Rev 4 2003 (Mod)
Fluorobenzene [surr]	%	91.2		11/25/14 17:32	A411307	8015D Rev 4 2003 (Mod)
4-Bromochlorobenzene [surr]	%	92.1		11/25/14 17:32	A411307	8015D Rev 4 2003 (Mod)

ANALYTICAL RESULTS

Lab Number: 1411296-08
Sample Name: MW-13 @ 20'
Date/Time Collected: 11/18/14 15:25
Sample Matrix: Soil

TPH-DRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-DRO	mg/kg	**1160**		11/25/14 8:46	A411301	8015D Rev 4 2003 (Mod)
o-Terphenyl [surr]	%	89.6		11/25/14 8:46	A411301	8015D Rev 4 2003 (Mod)

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26 November 2014

Scott Kemph
Southern Co. NLR Inc.
1201 Cypress
North Little Rock, AR 72114
Project: ADEQ 47000222

Date Received: 21-Nov-14 13:19

ANALYTICAL RESULTS

Lab Number: 1411296-08RE1
Sample Name: MW-13 @ 20'
Date/Time Collected: 11/18/14 15:25
Sample Matrix: Soil

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Benzene	mg/kg	**49.0**		11/25/14 18:00	A411307	8021B Rev 2 1996
Methyl t-Butyl Ether	mg/kg	< 4.00		11/25/14 18:00	A411307	8021B Rev 2 1996
Toluene	mg/kg	**341**		11/25/14 18:00	A411307	8021B Rev 2 1996
Ethylbenzene	mg/kg	**104**		11/25/14 18:00	A411307	8021B Rev 2 1996
Naphthalene	mg/kg	**21.8**		11/25/14 18:00	A411307	8021B Rev 2 1996
m,p-Xylene	mg/kg	**416**		11/25/14 18:00	A411307	8021B Rev 2 1996
o-Xylene	mg/kg	**156**		11/25/14 18:00	A411307	8021B Rev 2 1996
Fluorobenzene [surr]	%	91.1		11/25/14 18:00	A411307	8021B Rev 2 1996
4-Bromochlorobenzene [surr]	%	92.4		11/25/14 18:00	A411307	8021B Rev 2 1996

TPH-GRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-GRO	mg/kg	**2980**		11/25/14 18:00	A411307	8015D Rev 4 2003 (Mod)
Fluorobenzene [surr]	%	91.1		11/25/14 18:00	A411307	8015D Rev 4 2003 (Mod)
4-Bromochlorobenzene [surr]	%	92.4		11/25/14 18:00	A411307	8015D Rev 4 2003 (Mod)

ANALYTICAL RESULTS

Lab Number: 1411296-09
Sample Name: MW-14 @ 21'
Date/Time Collected: 11/20/14 10:48
Sample Matrix: Soil

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Benzene	mg/kg	< 0.100		11/24/14 22:50	A411307	8021B Rev 2 1996
Methyl t-Butyl Ether	mg/kg	< 0.100		11/24/14 22:50	A411307	8021B Rev 2 1996
Toluene	mg/kg	< 0.100		11/24/14 22:50	A411307	8021B Rev 2 1996
Ethylbenzene	mg/kg	< 0.100		11/24/14 22:50	A411307	8021B Rev 2 1996
Naphthalene	mg/kg	< 0.300		11/24/14 22:50	A411307	8021B Rev 2 1996
m,p-Xylene	mg/kg	< 0.200		11/24/14 22:50	A411307	8021B Rev 2 1996
o-Xylene	mg/kg	< 0.100		11/24/14 22:50	A411307	8021B Rev 2 1996
Fluorobenzene [surr]	%	82.3		11/24/14 22:50	A411307	8021B Rev 2 1996
4-Bromochlorobenzene [surr]	%	104		11/24/14 22:50	A411307	8021B Rev 2 1996

TPH-DRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-DRO	mg/kg	< 10.0		11/24/14 23:57	A411301	8015D Rev 4 2003 (Mod)
o-Terphenyl [surr]	%	87.0		11/24/14 23:57	A411301	8015D Rev 4 2003 (Mod)

TPH-GRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-GRO	mg/kg	< 2.00		11/24/14 22:50	A411307	8015D Rev 4 2003 (Mod)
Fluorobenzene [surr]	%	82.3		11/24/14 22:50	A411307	8015D Rev 4 2003 (Mod)
4-Bromochlorobenzene [surr]	%	104		11/24/14 22:50	A411307	8015D Rev 4 2003 (Mod)

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26 November 2014

Scott Kemph
Southern Co. NLR Inc.
1201 Cypress
North Little Rock, AR 72114
Project: ADEQ 47000222

Date Received: 21-Nov-14 13:19

ANALYTICAL RESULTS

Lab Number: 1411296-10
Sample Name: MW-14 @ 27'
Date/Time Collected: 11/20/14 9:28
Sample Matrix: Soil

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Benzene	mg/kg	< 0.100		11/24/14 23:18	A411307	8021B Rev 2 1996
Methyl t-Butyl Ether	mg/kg	< 0.100		11/24/14 23:18	A411307	8021B Rev 2 1996
Toluene	mg/kg	< 0.100		11/24/14 23:18	A411307	8021B Rev 2 1996
Ethylbenzene	mg/kg	< 0.100		11/24/14 23:18	A411307	8021B Rev 2 1996
Naphthalene	mg/kg	< 0.300		11/24/14 23:18	A411307	8021B Rev 2 1996
m,p-Xylene	mg/kg	< 0.200		11/24/14 23:18	A411307	8021B Rev 2 1996
o-Xylene	mg/kg	< 0.100		11/24/14 23:18	A411307	8021B Rev 2 1996
Fluorobenzene [surr]	%	84.2		11/24/14 23:18	A411307	8021B Rev 2 1996
4-Bromochlorobenzene [surr]	%	103		11/24/14 23:18	A411307	8021B Rev 2 1996

TPH-DRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-DRO	mg/kg	< 10.0		11/25/14 0:35	A411301	8015D, Rev 4 2003 (Mod)
o-Terphenyl [surr]	%	94.6		11/25/14 0:35	A411301	8015D, Rev 4 2003 (Mod)

TPH-GRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-GRO	mg/kg	< 2.00		11/24/14 23:18	A411307	8015D Rev 4 2003 (Mod)
Fluorobenzene [surr]	%	84.2		11/24/14 23:18	A411307	8015D Rev 4 2003 (Mod)
4-Bromochlorobenzene [surr]	%	103		11/24/14 23:18	A411307	8015D Rev 4 2003 (Mod)

ANALYTICAL RESULTS

Lab Number: 1411296-11
Sample Name: MW-15 @ 20'-21'
Date/Time Collected: 11/20/14 16:38
Sample Matrix: Soil

TPH-DRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-DRO	mg/kg	< 10.0		11/25/14 1:14	A411301	8015D, Rev 4 2003 (Mod)
o-Terphenyl [surr]	%	87.9		11/25/14 1:14	A411301	8015D, Rev 4 2003 (Mod)

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26 November 2014

Scott Kemph
Southern Co. NLR Inc.
1201 Cypress
North Little Rock, AR 72114
Project: ADEQ 47000222

Date Received: 21-Nov-14 13:19

ANALYTICAL RESULTS

Lab Number: 1411296-11RE1
Sample Name: MW-15 @ 20'-21'
Date/Time Collected: 11/20/14 16:38
Sample Matrix: Soil

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Benzene	mg/kg	< 0.100		11/25/14 16:28	A411307	8021B, Rev 2 1996
Methyl t-Butyl Ether	mg/kg	< 0.100		11/25/14 16:28	A411307	8021B Rev 2 1996
Toluene	mg/kg	< 0.100		11/25/14 16:28	A411307	8021B Rev 2 1996
Ethylbenzene	mg/kg	< 0.100		11/25/14 16:28	A411307	8021B Rev 2 1996
Naphthalene	mg/kg	< 0.300		11/25/14 16:28	A411307	8021B Rev 2 1996
m,p-Xylene	mg/kg	**0.242**		11/25/14 16:28	A411307	8021B, Rev 2 1996
o-Xylene	mg/kg	**0.100**		11/25/14 16:28	A411307	8021B Rev 2 1996
Fluorobenzene [surr]	%	82.0		11/25/14 16:28	A411307	8021B Rev 2 1996
4-Bromochlorobenzene [surr]	%	94.5		11/25/14 16:28	A411307	8021B, Rev 2 1996

TPH-GRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-GRO	mg/kg	**2.02**		11/25/14 16:28	A411307	8015D Rev 4 2003 (Mod)
Fluorobenzene [surr]	%	82.0		11/25/14 16:28	A411307	8015D, Rev 4 2003 (Mod)
4-Bromochlorobenzene [surr]	%	94.5		11/25/14 16:28	A411307	8015D Rev 4 2003 (Mod)

ANALYTICAL RESULTS

Lab Number: 1411296-12
Sample Name: MW-15 @ 24'-25'
Date/Time Collected: 11/20/14 17:08
Sample Matrix: Soil

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Benzene	mg/kg	**3.83**		11/25/14 0:12	A411307	8021B, Rev 2 1996
Methyl t-Butyl Ether	mg/kg	< 4.50	EDL	11/25/14 0:12	A411307	8021B Rev 2 1996
Toluene	mg/kg	**10.1**		11/25/14 0:12	A411307	8021B Rev 2 1996
Ethylbenzene	mg/kg	**24.1**		11/25/14 0:12	A411307	8021B Rev 2 1996
Naphthalene	mg/kg	**9.77**		11/25/14 0:12	A411307	8021B Rev 2 1996
m,p-Xylene	mg/kg	**98.5**		11/25/14 0:12	A411307	8021B Rev 2 1996
o-Xylene	mg/kg	**27.8**		11/25/14 0:12	A411307	8021B Rev 2 1996
Fluorobenzene [surr]	%	82.8		11/25/14 0:12	A411307	8021B Rev 2 1996
4-Bromochlorobenzene [surr]	%	99.7		11/25/14 0:12	A411307	8021B Rev 2 1996

TPH-DRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-DRO	mg/kg	**818**		11/25/14 1:53	A411301	8015D Rev 4 2003 (Mod)
o-Terphenyl [surr]	%	92.2		11/25/14 1:53	A411301	8015D Rev 4 2003 (Mod)

TPH-GRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-GRO	mg/kg	**1140**		11/25/14 0:12	A411307	8015D Rev 4 2003 (Mod)
Fluorobenzene [surr]	%	82.8		11/25/14 0:12	A411307	8015D Rev 4 2003 (Mod)
4-Bromochlorobenzene [surr]	%	99.7		11/25/14 0:12	A411307	8015D Rev 4 2003 (Mod)

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26 November 2014

Scott Kemph
Southern Co. NLR Inc.
1201 Cypress
North Little Rock, AR 72114
Project: ADEQ 47000222

Date Received: 21-Nov-14 13:19

QUALITY CONTROL RESULTS

TPH-DRO by 8015D -- Batch: A411301 (Soil)
Prepared: 24-Nov-14 14:54 By: MB -- Analyzed: 24-Nov-14 17:28 By: MB

Analyte	BLK	LCS / LCSD			MS / MSD			Dup	RPD	Qualifiers
TPH-DRO	<10.0 mg/kg	85.3%	/	NA	85.2%	/	86.5%		1.46%	
o-Terphenyl [surr]	84.3 %	86.4%	/	NA	86.3%	/	87.5%		NA	

8021B Analytes -- Batch: A411307 (Soil)
Prepared: 24-Nov-14 17:06 By: CT -- Analyzed: 25-Nov-14 14:55 By: ct

Analyte	BLK	LCS / LCSD			MS / MSD			Dup	RPD	Qualifiers
Benzene	<0.100 mg/kg	106%	/	NA	106%	/	107%		1.23%	
Ethylbenzene	<0.100 mg/kg	118%	/	NA	119%	/	117%		1.55%	
m,p-Xylene	<0.200 mg/kg	114%	/	NA	114%	/	113%		0.979%	
Methyl t-Butyl Ether	<0.100 mg/kg	89.6%	/	NA	91.5%	/	94.2%		2.84%	
Naphthalene	<0.300 mg/kg	86.8%	/	NA	82.4%	/	90.0%		8.44%	
o-Xylene	<0.100 mg/kg	111%	/	NA	111%	/	109%		1.06%	
Toluene	<0.100 mg/kg	121%	/	NA	121%	/	120%		0.427%	
TPH-GRO	<2.00 mg/kg	106%	/	NA	104%	/	103%		0.116%	
4-Bromochlorobenzene [surr]	93.9 %	92.5%	/	NA	95.9%	/	97.3%		NA	
Fluorobenzene [surr]	80.9 %	84.4%	/	NA	83.9%	/	84.7%		NA	

QUALIFIER(S)

*EDL: Elevated Detection Limit Due to one or more of the following: Sample Matrix, Sample Dilution, or Limited Sample Volume

All Analysis performed according to EPA approved methodology when available:
SW 846, Revised December, 1996; EPA 600/4-79-020, Revised March, 1983; Standard Methods.
Instrument calibration and quality control samples performed at or above frequency specified in analytical method.

Reviewed by: Norma James / Teresa Coins

Norma James and/or Teresa Coins
Technical Director and/or QA Officer

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Arkansas Analytical Inc.
11701 Interstate 30, Bldg. 1, Ste. 115
Little Rock, AR 72209
PHONE: 501-455-3233
FAX: 501-455-6118

CHAIN OF CUSTODY RECORD

CLIENT INFORMATION	Project Description	Turnaround Time	Preservation Codes:	
Southern Co. NLR Inc.	ADEQ 47000222	1 Day (100%)	1. Cool, 4 Degrees Centigrade	4. Thiosulfate for Dechlorination
1201 Cypress	PO 41852	2 Day (50%)	2. Sulfuric Acid (H_2SO_4), pH < 2	5. Hydrochloric Acid(HCl)
North Little Rock, AR 72114	Reporting Information	3 Day (25%)	3. Nitric Acid (HNO_3), pH < 2	6. Sodium Hydroxide (NaOH), pH > 12
	Telephone: 501-376-6333	5 Day (Routine)	TEST PARAMETERS	Bottle Type Code
Attn: Scott Kemph	Fax 501-376-8715	Preservative Code:	1 1	G = Glass, P = Plastic
	Email: skemph@thesoco.com	Bottle Type:		V = Septum, A = Ampoo

Sampler(s) Signature: Oriana Thompson

Sampler(s) Printed: ORIANA THOMPSON

Arkansas Analytical Work Order Number: 141126

Field Number	SAMPLE COLLECTION Date/s	Time/s	Grab	Comp	Number of Bottles	Sample Matrix	SAMPLE IDENTIFICATION/ DESCRIPTION	8021B - BTEX, MTBE, Naphthalene	8015D - TPH-GRO	8015D - TPH-DRO								Arkansas Analytical Work Order Number
1	11.17.14	11:56	X		1	S	MW-10 @ 16'	X	X	X								01
2	11.17.14	12:02	X		1	S	MW-10 @ 18'	X	X	X								02
3	11.18.14	10:20	X		1	S	MW-11 @ 14'	X	X	X								03
4	11.18.14	10:30	X		1	S	MW 11 @ 25'	X	X	X								04
5	11.18.14	13:35	X		1	S	MW12 @ 16'	X	X	X								05
6	11.18.14	13:41	X		1	S	MW12 @ 18'	X	X	X								06
7	11.18.14	1513	X		1	S	MW 13 @ 13'	X	X	X								07
8	11.18.14	1525	X		1	S	MW 13 @ 20'	X	X	X								08
9	11.20.14	1048	X		1	S	MW 14 @ 21'	X	X	X								09
10	11.20.14	0928	X		1	S	MW 14 @ 27'	X	X	X								10

1. Relinquished by: (Signature)	Date/Time	2. Received by: (Signature)
Oriana Thompson	1312 11.19.14	A. Scott Kemph
3. Relinquished by: (Signature)	**Date/Time**	**4. Received by lab: (Signature)**
A. Scott Kemph	11.21.14 1319	Amanda Robinson

SAMPLE CONDITION UPON RECEIPT IN LAB

1. CUSTODY SEALS	✓ Yes	___ No
2. CONTAINERS CORRECT:	✓ Yes	___ No
3. COC/LABELS AGREE:	✓ Yes	___ No
4. RECEIVED ON ICE:	✓ Yes	___ No
5. TEMPERATURE ON RECEIPT:	3°C	
6. TEMPERATURE GUN ID:	HHTH2	

FOR COMPLETION BY LAB ONLY

REMARKS / SAMPLE COMMENTS

PO 41852

Please email results to skemph@thesoco.com

8015 D TPH-DRO

8015 D TPH-GRO

8021B MTBE, Benzene, Toluene, Ethylbenzene, Xylene, and Napthalene

Revision 2
2/14/14

Arkansas Analytical Inc

11701 Interstate 30, Bldg. 1, Ste. 115
Little Rock, AR 72209
PHONE: 501-455-3233
FAX: 501-455-6118

CHAIN OF CUSTODY RECORD

CLIENT INFORMATION	Project Description	Turnaround Time	Preservation Codes:	
Southern Co. NLR Inc.	ADEQ 47000222	1 Day (100%)	1. Cool, 4 Degrees Centigrade	4. Thiosulfate for Dechlorination
1201 Cypress	PO 41852	2 Day (50%)	2. Sulfuric Acid (H_2SO_4), pH < 2	5. Hydrochloric Acid(HCl)
North Little Rock, AR 72114	Reporting Information	3 Day (25%)	3. Nitric Acid (HNO_3), pH < 2	6. Sodium Hydroxide (NaOH), pH > 12
	Telephone: 501-376-6333	5 Day (Routine)		
Attn: Scott Kemph	Fax: 501-376-8715	Preservative Code:		
	Email: skemph@thesoco.com	Bottle Type:		

Sampler(s) Signature: A. Scott Kemph

Sampler(s) Printed: T. Scott Kemph

Field Number	SAMPLE COLLECTION Date/s	Time/s	Grab	Comp	Number of Bottles	Sample Matrix	SAMPLE IDENTIFICATION/ DESCRIPTION	8021B - BTEX, MTBE, Naphthalene	8015D - TPH-GRO	8015D - TPH-DRO								Arkansas Analytical Work Order Number: 1411296
11	11.20.14	1638	X		1	S	MW-15 @ 20'-21'	X	X	X								11
12	11.20.14	1708	X		1	S	MW-15 @ 24'-25'	X	X	X								12
			X		1	S		X	X	X								
			X		1	S		X	X	X								
			X		1	S		X	X	X								
			X		1	S		X	X	X								
			X		1	S		X	X	X								
			X		1	S		X	X	X								
			X		1	S		X	X	X								
			X		1	S		X	X	X								

TEST PARAMETERS

Bottle Type Code: G = Glass; P = Plastic; V = Septum; A = Amber

1. Relinquished by: (Signature)	Date/Time	2. Received by: (Signature)
A. Scott Kemph	11.21.14 1318	
3. Relinquished by: (Signature)	Date/Time	4. Received by lab: (Signature)
		Amanda Sobrosh

SAMPLE CONDITION UPON RECEIPT IN LAB

1. CUSTODY SEALS ✓ Yes ___ No
2. CONTAINERS CORRECT ✓ Yes ___ No
3. COC/LABELS AGREE ✓ Yes ___ No
4. RECEIVED ON ICE ✓ Yes ___ No
5. TEMPERATURE ON RECEIPT: 3.0
6. TEMPERATURE GUN ID: IR#2

FOR COMPLETION BY LAB ONLY

REMARKS / SAMPLE COMMENTS

PO 41852

Please email results to skemph@thesoco.com

8015 D TPH-DRO

8015 D TPH-GRO

8021B MTBE, Benzene, Toluene, Ethylbenzene, Xylene, and Napthalene

Revision 2
2/14/14

Arkansas Analytical Inc.
11701 Interstate 30, Bldg. 1, Ste. 115
Little Rock, AR 72209
PHONE: 501-455-3233
FAX: 501-455-6118

CHAIN OF CUSTODY RECORD

CLIENT INFORMATION	Project Description	Turnaround Time	Preservation Codes:	
Southern Co. NLR Inc.	ADEQ 47000222	1 Day (100%)	1. Cool, 4 Degrees Centigrade	4. Thiosulfate for Dechlorination
1201 Cypress	PO 41852	2 Day (50%)	2. Sulfuric Acid (H_2SO_4), pH < 2	5. Hydrochloric Acid(HCl)
North Little Rock, AR 72114	Reporting Information	3 Day (25%)	3. Nitric Acid (HNO_3), pH < 2	6. Sodium Hydroxide (NaOH), pH > 12
	Telephone: 501-376-6333	5 Day (Routine)		
Attn: Scott Kemph	Fax: 501-376-8715	Preservative Code:		
	Email: skemph@thesoco.com	Bottle Type:		

Sampler(s) Signature: N. Scott NW

Sampler(s) Printed: T. Scott Kemph

Field Number	SAMPLE COLLECTION Date/s	Time/s	Grab	Comp	Number of Bottles	Sample Matrix	SAMPLE IDENTIFICATION/ DESCRIPTION	8021B - BTEX, MTBE, Naphthalene	8015D - TPH-GRO	8015D - TPH-DRO							Arkansas Analytical Work Order Number:
MW-1@16-17	11.11.14	0938	X		1	S	Soil sample MW-1 16'-17'	X	X	X							
MW-1@24-25	11.11.14	13:45	X		1	S	Soil sample MW-1 24'-25'	X	X	X							
MW-2@16-17	11.11.14	16:45	X		1	S	Soil sample MW-2 16'-17'	X	X	X							
MW-2@22'	11.12.14	8:57	X		1	S	soil sample MW-2 22'	X	X	X							
MW3@15	11.12.14	11:25	X		1	S	Soil Sample MW3 @ 15'	X	X	X							
MW3@21'	11.12.14	12:55	X		1	S	soil sample MW3 @ 21'	X	X	X							
MW4@16'	11.12.14	14:45	X		1	S	Soil sample MW4@16'	X	X	X							
MW4@22	11.12.14	15:50	X		1	S	Soil Sample MW4 @ 22'	X	X	X							
MW5@14-15	11-13-14	0938	X		1	S	Soil sample MW5@ 14'-15'	X	X	X							
MW5@17-18	11-13-14	0948	X		1	S	Soil Sample MW5@17-18'	X	X	X							

1. Relinquished by: (Signature)	Date/Time	2. Received by: (Signature)
N. Scott NW	11-14-14 1506	
3. Relinquished by: (Signature)	Date/Time	4. Received by lab: (Signature)

SAMPLE CONDITION UPON RECEIPT IN LAB

1. CUSTODY SEALS: ___Yes ___No
2. CONTAINERS CORRECT: ___Yes ___No
3. COC/LABELS AGREE: ___Yes ___No
4. RECEIVED ON ICE: ___Yes ___No
5. TEMPERATURE ON RECEIPT:
6. TEMPERATURE GUN ID

FOR COMPLETION BY LAB ONLY

REMARKS / SAMPLE COMMENTS

PO 41852

Please email results to skemph@thesoco.com

8015 D TPH-DRO

8015 D TPH-GRO

8021B MTBE, Benzene, Toluene, Ethylbenzene, Xylene, and Napthalene

Arkansas Analytical Inc.
11701 Interstate 30, Bldg. 1, Ste. 115
Little Rock, AR 72209
PHONE: 501-455-3233
FAX: 501-455-6118

CHAIN OF CUSTODY RECORD

CLIENT INFORMATION	Project Description	Turnaround Time	Preservation Codes:	
Southern Co. NLR Inc.	ADEQ 47000222	1 Day (100%)	1. Cool, 4 Degrees Centigrade	4. Thiosulfate for Dechlorination
1201 Cypress	PO 41852	2 Day (50%)	2. Sulfuric Acid (H_2SO_4), pH < 2	5. Hydrochloric Acid(HCl)
North Little Rock, AR 72114	Reporting Information	3 Day (25%)	3. Nitric Acid (HNO_3), pH < 2	6. Sodium Hydroxide (NaOH), pH > 12
	Telephone: 501-376-6333	5 Day (Routine)		
Attn: Scott Kemph	Fax: 501-376-8715	Preservative Code		
	Email: skemph@thesoco.com	Bottle Type		

Sampler(s) Signature: T. Scott Kemph

Sampler(s) Printed: T. Scott Kemph

Field Number	SAMPLE COLLECTION Date/s	Time/s	Grab	Comp	Number of Bottles	Sample Matrix	SAMPLE IDENTIFICATION/ DESCRIPTION	8021B - BTEX, MTBE, Naphthalene	8015D - TPH-GRO	8015D - TPH-DRO							Arkansas Analytical Work Order Number:
							TEST PARAMETERS										Bottle Type Code
								1	1								G = Glass, P = Plastic
																	V = Septum, A = Amber
MW-6 11-12	11-13-14	1300	X		1	S	Soil sample MW-6 11'-12'	X	X	X							
MW-6 17-18	11-13-14	1318	X		1	S	Soil sample MW-6 17-18	X	X	X							
MW-7 13-14	11-13-14	1438	X		1	S	Soil sample MW-7 13-14	X	X	X							
MW-7 14-15	11-13-14	1439	X		1	S	Soil sample MW-7 14-15	X	X	X							
MW-8 7-8	11-13-14	1618	X		1	S	Soil sample MW-8 7'-8'	X	X	X							
MW-8 10-11'	11-13-14	1628	X		1	S	Soil sample MW-8 10'-11'	X	X	X							
MW-9 5'-6'	11-14-14	0958	X		1	S	Soil sample MW-9 5'-6'	X	X	X							
MW-9 16'-17'	11-14-14	1028	X		1	S	Soil sample MW-9 16'-17'	X	X	X							
			X		1	S		X	X	X							
			X		1	S		X	X	X							

TSK 11-14-14

1. Relinquished by: (Signature)	Date/Time	2. Received by: (Signature)
A. Scott Kemph	11-14-14 1506	
3. Relinquished by: (Signature)	Date/Time	4. Received by lab: (Signature)

SAMPLE CONDITION UPON RECEIPT IN LAB

1. CUSTODY SEALS: ___Yes ___No
2. CONTAINERS CORRECT: ___Yes ___No
3. COC/LABELS AGREE: ___Yes ___No
4. RECEIVED ON ICE: ___Yes ___No
5. TEMPERATURE ON RECEIPT:
6. TEMPERATURE GUN ID:

FOR COMPLETION BY LAB ONLY

REMARKS / SAMPLE COMMENTS

PO 41852

Please email results to skemph@thesoco.com

8015 D TPH-DRO

8015 D TPH-GRO

8021B MTBE, Benzene, Toluene, Ethylbenzene, Xylene, and Napthalene

Revision 2
2/14/14

Arkansas Analytical Inc.

11701 I-30 Bldg 1, Ste 115 - Little Rock, AR 72209
501-455-3233 Fax 501-455-6118

02 December 2014

Scott Kemph
Southern Co. NLR Inc.
1201 Cypress
North Little Rock, AR 72114

RE: ADEQ 47000222

SDG Number: 1411329

Enclosed are the results of analyses for samples received by the laboratory on 25-Nov-14 12:32. If you have any questions concerning this report, please feel free to contact me.

Sample Receipt Information:

Custody Seals	✓
Containers Correct	✓
COC/Labels Agree	✓
Received On Ice	✓
Temperature on Receipt	2.0°C

Sincerely,

Norma James and/or Teresa Coins
Technical Director and/or QA Officer

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02 December 2014

Scott Kemph
Southern Co. NLR Inc.
1201 Cypress
North Little Rock, AR 72114
Project: ADEQ 47000222

Date Received: 25-Nov-14 12:32

CASE NARRATIVE

Sample Delivery Group – 1411329

One *OR* more of the qualifiers described below may appear in this report.

ANALYTICAL QUALIFIERS:

Qualifier	Description
EDL	Result was non-detect at an elevated detection limit due to one or more of the following: Sample Matrix, Sample Dilution, or Limited Sample Volume.
EX	Result exceeds DAILY MAXIMUM and/or MONTHLY AVERAGE.
EX2	The result exceeds the TCLP limit.
J	At client request, J-Values are reported. J-Values are considered "estimated" results as they are below the limit of quantitation yet above the method detection limit (MDL).
N	Insufficient sample volume received as required by the method.
T40	The ambient temperature exceeded 23 +/- 2oC during the TCLP rotation process.

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1201 Cypress
North Little Rock, AR 72114
Project: ADEQ 47000222

Date Received: 25-Nov-14 12:32

ANALYTICAL RESULTS

Lab Number: **1411329-01**
Sample Name: **MW-11**
Date/Time Collected: **11/23/14 14:00**
Sample Matrix: **Water**

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Benzene	mg/L	**0.007**		11/25/14 23:01	A411322	8021B Rev 2 1996
Methyl t-Butyl Ether	mg/L	< 0.005		11/25/14 23:01	A411322	8021B Rev 2 1996
Toluene	mg/L	**0.014**		11/25/14 23:01	A411322	8021B Rev 2 1996
Ethylbenzene	mg/L	< 0.005		11/25/14 23:01	A411322	8021B Rev 2 1996
Naphthalene	mg/L	< 0.015		11/25/14 23:01	A411322	8021B Rev 2 1996
m,p-Xylene	mg/L	**0.015**		11/25/14 23:01	A411322	8021B Rev 2 1996
o-Xylene	mg/L	**0.009**		11/25/14 23:01	A411322	8021B Rev 2 1996
Fluorobenzene [surr]	%	95.1		11/25/14 23:01	A411322	8021B Rev 2 1996
4-Bromochlorobenzene [surr]	%	94.9		11/25/14 23:01	A411322	8021B Rev 2 1996

TPH-DRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-DRO	mg/L	< 0.500		11/26/14 16:47	A411335	8015D Rev 4 2003 (Mod)
o-Terphenyl [surr]	%	95.6		11/26/14 16:47	A411335	8015D Rev 4 2003 (Mod)

TPH-GRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-GRO	mg/L	**0.104**		11/25/14 23:01	A411322	8015D Rev 4 2003 (Mod)
Fluorobenzene [surr]	%	95.1		11/25/14 23:01	A411322	8015D Rev 4 2003 (Mod)
4-Bromochlorobenzene [surr]	%	94.9		11/25/14 23:01	A411322	8015D Rev 4 2003 (Mod)

ANALYTICAL RESULTS

Lab Number: **1411329-02**
Sample Name: **MW-8**
Date/Time Collected: **11/23/14 14:46**
Sample Matrix: **Water**

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Methyl t-Butyl Ether	mg/L	< 0.050	EDL	11/25/14 23:28	A411322	8021B Rev 2 1996
Fluorobenzene [surr]	%	96.0		11/25/14 23:28	A411322	8021B Rev 2 1996
4-Bromochlorobenzene [surr]	%	98.8		11/25/14 23:28	A411322	8021B Rev 2 1996

TPH-DRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-DRO	mg/L	**5.31**		11/26/14 17:28	A411335	8015D Rev 4 2003 (Mod)
o-Terphenyl [surr]	%	91.0		11/26/14 17:28	A411335	8015D Rev 4 2003 (Mod)

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North Little Rock, AR 72114
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Date Received: 25-Nov-14 12:32

ANALYTICAL RESULTS

Lab Number: 1411329-02RE1
Sample Name: MW-8
Date/Time Collected: 11/23/14 14:46
Sample Matrix: Water

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Benzene	mg/L	**0.228**		11/26/14 12:28	A411322	8021B Rev 2 1996
Toluene	mg/L	**0.900**		11/26/14 12:28	A411322	8021B Rev 2 1996
Ethylbenzene	mg/L	**0.657**		11/26/14 12:28	A411322	8021B Rev 2 1996
Naphthalene	mg/L	**0.202**		11/26/14 12:28	A411322	8021B Rev 2 1996
m,p-Xylene	mg/L	**1.77**		11/26/14 12:28	A411322	8021B Rev 2 1996
o-Xylene	mg/L	**0.520**		11/26/14 12:28	A411322	8021B Rev 2 1996
Fluorobenzene [surr]	%	97.7		11/26/14 12:28	A411322	8021B Rev 2 1996
4-Bromochlorobenzene [surr]	%	97.2		11/26/14 12:28	A411322	8021B Rev 2 1996

TPH-GRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-GRO	mg/L	**12.7**		11/26/14 12:28	A411322	8015D Rev 4 2003 (Mod)
Fluorobenzene [surr]	%	97.7		11/26/14 12:28	A411322	8015D Rev 4 2003 (Mod)
4-Bromochlorobenzene [surr]	%	97.2		11/26/14 12:28	A411322	8015D Rev 4 2003 (Mod)

ANALYTICAL RESULTS

Lab Number: 1411329-03
Sample Name: MW-9
Date/Time Collected: 11/23/14 15:40
Sample Matrix: Water

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Benzene	mg/L	**0.010**		11/25/14 23:56	A411322	8021B Rev 2 1996
Methyl t-Butyl Ether	mg/L	< 0.080	EDL	11/25/14 23:56	A411322	8021B Rev 2 1996
Toluene	mg/L	**0.008**		11/25/14 23:56	A411322	8021B Rev 2 1996
Ethylbenzene	mg/L	**0.014**		11/25/14 23:56	A411322	8021B Rev 2 1996
Naphthalene	mg/L	< 0.015		11/25/14 23:56	A411322	8021B Rev 2 1996
m,p-Xylene	mg/L	**0.044**		11/25/14 23:56	A411322	8021B Rev 2 1996
o-Xylene	mg/L	**0.015**		11/25/14 23:56	A411322	8021B Rev 2 1996
Fluorobenzene [surr]	%	94.3		11/25/14 23:56	A411322	8021B Rev 2 1996
4-Bromochlorobenzene [surr]	%	101		11/25/14 23:56	A411322	8021B Rev 2 1996

TPH-DRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-DRO	mg/L	< 0.500		11/26/14 18:09	A411335	8015D Rev 4 2003 (Mod)
o-Terphenyl [surr]	%	88.2		11/26/14 18:09	A411335	8015D Rev 4 2003 (Mod)

TPH-GRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-GRO	mg/L	**2.15**		11/25/14 23:56	A411322	8015D Rev 4 2003 (Mod)
Fluorobenzene [surr]	%	94.3		11/25/14 23:56	A411322	8015D Rev 4 2003 (Mod)
4-Bromochlorobenzene [surr]	%	101		11/25/14 23:56	A411322	8015D Rev 4 2003 (Mod)

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ANALYTICAL RESULTS

Lab Number: 1411329-04
Sample Name: MW-7
Date/Time Collected: 11/23/14 16:49
Sample Matrix: Water

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Benzene	mg/L	**4.01**		11/26/14 0:23	A411322	8021B Rev 2 1996
Methyl t-Butyl Ether	mg/L	< 0.150	EDL	11/26/14 0:23	A411322	8021B Rev 2 1996
Ethylbenzene	mg/L	**3.04**		11/26/14 0:23	A411322	8021B Rev 2 1996
Naphthalene	mg/L	**0.529**		11/26/14 0:23	A411322	8021B Rev 2 1996
m,p-Xylene	mg/L	**10.7**		11/26/14 0:23	A411322	8021B Rev 2 1996
o-Xylene	mg/L	**4.54**		11/26/14 0:23	A411322	8021B Rev 2 1996
Fluorobenzene [surr]	%	99.2		11/26/14 0:23	A411322	8021B Rev 2 1996
4-Bromochlorobenzene [surr]	%	97.2		11/26/14 0:23	A411322	8021B Rev 2 1996

TPH-DRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-DRO	mg/L	**10.3**		11/26/14 18:50	A411335	8015D Rev 4 2003 (Mod)
o-Terphenyl [surr]	%	94.2		11/26/14 18:50	A411335	8015D Rev 4 2003 (Mod)

TPH-GRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-GRO	mg/L	**82.9**		11/26/14 0:23	A411322	8015D Rev 4 2003 (Mod)
Fluorobenzene [surr]	%	99.2		11/26/14 0:23	A411322	8015D Rev 4 2003 (Mod)
4-Bromochlorobenzene [surr]	%	97.2		11/26/14 0:23	A411322	8015D Rev 4 2003 (Mod)

ANALYTICAL RESULTS

Lab Number: 1411329-04RE1
Sample Name: MW-7
Date/Time Collected: 11/23/14 16:49
Sample Matrix: Water

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Toluene	mg/L	**22.4**		11/26/14 12:55	A411322	8021B Rev 2 1996
Fluorobenzene [surr]	%	93.9		11/26/14 12:55	A411322	8021B Rev 2 1996
4-Bromochlorobenzene [surr]	%	95.1		11/26/14 12:55	A411322	8021B Rev 2 1996

ANALYTICAL RESULTS

Lab Number: 1411329-05
Sample Name: MW-14
Date/Time Collected: 11/24/14 8:45
Sample Matrix: Water

TPH-DRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-DRO	mg/L	< 0.500		11/26/14 19:30	A411335	8015D Rev 4 2003 (Mod)
o-Terphenyl [surr]	%	93.7		11/26/14 19:30	A411335	8015D Rev 4 2003 (Mod)

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North Little Rock, AR 72114
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ANALYTICAL RESULTS

Lab Number: 1411329-05RE1
Sample Name: MW-14
Date/Time Collected: 11/24/14 8:45
Sample Matrix: Water

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Benzene	mg/L	**0.007**		11/26/14 14:01	A411322	8021B, Rev 2 1996
Methyl t-Butyl Ether	mg/L	< 0.005		11/26/14 14:01	A411322	8021B Rev 2 1996
Toluene	mg/L	**0.035**		11/26/14 14:01	A411322	8021B Rev 2 1996
Ethylbenzene	mg/L	**0.006**		11/26/14 14:01	A411322	8021B, Rev 2 1996
Naphthalene	mg/L	< 0.015		11/26/14 14:01	A411322	8021B Rev 2 1996
m,p-Xylene	mg/L	**0.022**		11/26/14 14:01	A411322	8021B Rev 2 1996
o-Xylene	mg/L	**0.010**		11/26/14 14:01	A411322	8021B Rev 2 1996
Fluorobenzene [surr]	%	92.0		11/26/14 14:01	A411322	8021B Rev 2 1996
4-Bromochlorobenzene [surr]	%	94.0		11/26/14 14:01	A411322	8021B Rev 2 1996

TPH-GRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-GRO	mg/L	**0.483**		11/26/14 14:01	A411322	8015D Rev 4 2003 (Mod)
Fluorobenzene [surr]	%	92.0		11/26/14 14:01	A411322	8015D, Rev 4 2003 (Mod)
4-Bromochlorobenzene [surr]	%	94.0		11/26/14 14:01	A411322	8015D Rev 4 2003 (Mod)

ANALYTICAL RESULTS

Lab Number: 1411329-06
Sample Name: MW-6
Date/Time Collected: 11/24/14 9:20
Sample Matrix: Water

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Benzene	mg/L	**21.2**		11/26/14 1:18	A411322	8021B, Rev 2 1996
Methyl t-Butyl Ether	mg/L	**0.641**		11/26/14 1:18	A411322	8021B, Rev 2 1996
Ethylbenzene	mg/L	**3.40**		11/26/14 1:18	A411322	8021B Rev 2 1996
Naphthalene	mg/L	**0.254**		11/26/14 1:18	A411322	8021B, Rev 2 1996
m,p-Xylene	mg/L	**13.5**		11/26/14 1:18	A411322	8021B, Rev 2 1996
o-Xylene	mg/L	**6.04**		11/26/14 1:18	A411322	8021B, Rev 2 1996
Fluorobenzene [surr]	%	98.6		11/26/14 1:18	A411322	8021B Rev 2 1996
4-Bromochlorobenzene [surr]	%	95.5		11/26/14 1:18	A411322	8021B Rev 2 1996

TPH-DRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-DRO	mg/L	**9.66**		11/26/14 20:11	A411335	8015D Rev 4 2003 (Mod)
o-Terphenyl [surr]	%	100		11/26/14 20:11	A411335	8015D Rev 4 2003 (Mod)

TPH-GRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-GRO	mg/L	**174**		11/26/14 1:18	A411322	8015D Rev 4 2003 (Mod)
Fluorobenzene [surr]	%	98.6		11/26/14 1:18	A411322	8015D, Rev 4 2003 (Mod)
4-Bromochlorobenzene [surr]	%	95.5		11/26/14 1:18	A411322	8015D, Rev 4 2003 (Mod)

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ANALYTICAL RESULTS

Lab Number: 1411329-06RE1
Sample Name: MW-6
Date/Time Collected: 11/24/14 9:20
Sample Matrix: Water

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Toluene	mg/L	**50.0**		11/26/14 14:29	A411322	8021B, Rev 2 1996
Fluorobenzene [surr]	%	97.8		11/26/14 14:29	A411322	8021B, Rev 2 1996
4-Bromochlorobenzene [surr]	%	98.7		11/26/14 14:29	A411322	8021B, Rev 2 1996

ANALYTICAL RESULTS

Lab Number: 1411329-07
Sample Name: MW-10
Date/Time Collected: 11/24/14 9:35
Sample Matrix: Water

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Benzene	mg/L	**0.416**		11/26/14 1:45	A411322	8021B, Rev 2 1996
Methyl t-Butyl Ether	mg/L	< 0.100	EDL	11/26/14 1:45	A411322	8021B, Rev 2 1996
Toluene	mg/L	**1.20**		11/26/14 1:45	A411322	8021B, Rev 2 1996
Ethylbenzene	mg/L	**0.472**		11/26/14 1:45	A411322	8021B, Rev 2 1996
Naphthalene	mg/L	**0.134**		11/26/14 1:45	A411322	8021B, Rev 2 1996
m,p-Xylene	mg/L	**1.86**		11/26/14 1:45	A411322	8021B, Rev 2 1996
o-Xylene	mg/L	**0.567**		11/26/14 1:45	A411322	8021B, Rev 2 1996
Fluorobenzene [surr]	%	96.7		11/26/14 1:45	A411322	8021B, Rev 2 1996
4-Bromochlorobenzene [surr]	%	96.5		11/26/14 1:45	A411322	8021B, Rev 2 1996

TPH-DRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-DRO	mg/L	**5.76**		11/26/14 21:31	A411335	8015D, Rev 4 2003 (Mod)
o-Terphenyl [surr]	%	108		11/26/14 21:31	A411335	8015D, Rev 4 2003 (Mod)

TPH-GRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-GRO	mg/L	**15.0**		11/26/14 1:45	A411322	8015D, Rev 4 2003 (Mod)
Fluorobenzene [surr]	%	96.7		11/26/14 1:45	A411322	8015D, Rev 4 2003 (Mod)
4-Bromochlorobenzene [surr]	%	96.5		11/26/14 1:45	A411322	8015D, Rev 4 2003 (Mod)

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Date Received: 25-Nov-14 12:32

ANALYTICAL RESULTS

Lab Number: 1411329-08
Sample Name: MW-4
Date/Time Collected: 11/24/14 10:20
Sample Matrix: Water

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Toluene	mg/L	**8.75**		11/26/14 2:12	A411322	8021B, Rev 2 1996
Fluorobenzene [surr]	%	96.8		11/26/14 2:12	A411322	8021B, Rev 2 1996
4-Bromochlorobenzene [surr]	%	92.8		11/26/14 2:12	A411322	8021B, Rev 2 1996

TPH-DRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-DRO	mg/L	**5.30**		11/26/14 22:11	A411335	8015D, Rev 4 2003 (Mod)
o-Terphenyl [surr]	%	96.1		11/26/14 22:11	A411335	8015D, Rev 4 2003 (Mod)

ANALYTICAL RESULTS

Lab Number: 1411329-08RE1
Sample Name: MW-4
Date/Time Collected: 11/24/14 10:20
Sample Matrix: Water

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Benzene	mg/L	**1.26**		11/26/14 14:57	A411322	8021B, Rev 2 1996
Methyl t-Butyl Ether	mg/L	< 0.100	EDL	11/26/14 14:57	A411322	8021B, Rev 2 1996
Ethylbenzene	mg/L	1.71		11/26/14 14:57	A411322	8021B, Rev 2 1996
Naphthalene	mg/L	**0.332**		11/26/14 14:57	A411322	8021B, Rev 2 1996
m,p-Xylene	mg/L	**5.50**		11/26/14 14:57	A411322	8021B, Rev 2 1996
o-Xylene	mg/L	**2.00**		11/26/14 14:57	A411322	8021B, Rev 2 1996
Fluorobenzene [surr]	%	98.3		11/26/14 14:57	A411322	8021B, Rev 2 1996
4-Bromochlorobenzene [surr]	%	99.1		11/26/14 14:57	A411322	8021B, Rev 2 1996

TPH-GRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-GRO	mg/L	**36.2**		11/26/14 14:57	A411322	8015D, Rev 4 2003 (Mod)
Fluorobenzene [surr]	%	98.3		11/26/14 14:57	A411322	8015D, Rev 4 2003 (Mod)
4-Bromochlorobenzene [surr]	%	99.1		11/26/14 14:57	A411322	8015D, Rev 4 2003 (Mod)

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ANALYTICAL RESULTS

Lab Number: 1411329-09
Sample Name: MW-3
Date/Time Collected: 11/24/14 11:25
Sample Matrix: Water

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Methyl t-Butyl Ether	mg/L	**0.423**		11/26/14 2:39	A411322	8021B Rev 2 1996
Ethylbenzene	mg/L	**3.77**		11/26/14 2:39	A411322	8021B, Rev 2 1996
Naphthalene	mg/L	**0.271**		11/26/14 2:39	A411322	8021B Rev 2 1996
m,p-Xylene	mg/L	**10.9**		11/26/14 2:39	A411322	8021B Rev 2 1996
o-Xylene	mg/L	**4.48**		11/26/14 2:39	A411322	8021B Rev 2 1996
Fluorobenzene [surr]	%	106		11/26/14 2:39	A411322	8021B Rev 2 1996
4-Bromochlorobenzene [surr]	%	92.0		11/26/14 2:39	A411322	8021B Rev 2 1996

TPH-DRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-DRO	mg/L	**7.13**		11/26/14 22:51	A411335	8015D Rev 4 2003 (Mod)
o-Terphenyl [surr]	%	103		11/26/14 22:51	A411335	8015D Rev 4 2003 (Mod)

TPH-GRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-GRO	mg/L	**122**		11/26/14 2:39	A411322	8015D, Rev 4 2003 (Mod)
Fluorobenzene [surr]	%	106		11/26/14 2:39	A411322	8015D, Rev 4 2003 (Mod)
4-Bromochlorobenzene [surr]	%	92.0		11/26/14 2:39	A411322	8015D, Rev 4 2003 (Mod)

ANALYTICAL RESULTS

Lab Number: 1411329-09RE1
Sample Name: MW-3
Date/Time Collected: 11/24/14 11:25
Sample Matrix: Water

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Benzene	mg/L	**22.4**		11/26/14 15:26	A411322	8021B Rev 2 1996
Toluene	mg/L	**32.9**		11/26/14 15:26	A411322	8021B Rev 2 1996
Fluorobenzene [surr]	%	99.9		11/26/14 15:26	A411322	8021B, Rev 2 1996
4-Bromochlorobenzene [surr]	%	98.0		11/26/14 15:26	A411322	8021B Rev 2 1996

ANALYTICAL RESULTS

Lab Number: 1411329-10
Sample Name: MW-15
Date/Time Collected: 11/24/14 12:35
Sample Matrix: Water

TPH-DRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-DRO	mg/L	**8.75**		11/26/14 23:31	A411335	8015D, Rev 4 2003 (Mod)
o-Terphenyl [surr]	%	111		11/26/14 23:31	A411335	8015D, Rev 4 2003 (Mod)

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Southern Co. NLR Inc.
1201 Cypress
North Little Rock, AR 72114
Project: ADEQ 47000222

Date Received: 25-Nov-14 12:32

ANALYTICAL RESULTS

Lab Number: 1411329-10RE1
Sample Name: MW-15
Date/Time Collected: 11/24/14 12:35
Sample Matrix: Water

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Benzene	mg/L	**4.01**		11/26/14 15:54	A411322	8021B, Rev 2 1996
Methyl t-Butyl Ether	mg/L	< 0.050	EDL	11/26/14 15:54	A411322	8021B Rev 2 1996
Toluene	mg/L	**2.22**		11/26/14 15:54	A411322	8021B Rev 2 1996
Ethylbenzene	mg/L	**1.45**		11/26/14 15:54	A411322	8021B Rev 2 1996
Naphthalene	mg/L	**0.257**		11/26/14 15:54	A411322	8021B Rev 2 1996
m,p-Xylene	mg/L	**4.50**		11/26/14 15:54	A411322	8021B Rev 2 1996
o-Xylene	mg/L	**0.976**		11/26/14 15:54	A411322	8021B Rev 2 1996
Fluorobenzene [surr]	%	101		11/26/14 15:54	A411322	8021B Rev 2 1996
4-Bromochlorobenzene [surr]	%	97.9		11/26/14 15:54	A411322	8021B Rev 2 1996

TPH-GRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-GRO	mg/L	**23.6**		11/26/14 15:54	A411322	8015D, Rev 4 2003 (Mod)
Fluorobenzene [surr]	%	101		11/26/14 15:54	A411322	8015D, Rev 4 2003 (Mod)
4-Bromochlorobenzene [surr]	%	97.9		11/26/14 15:54	A411322	8015D, Rev 4 2003 (Mod)

ANALYTICAL RESULTS

Lab Number: 1411329-11
Sample Name: MW-13
Date/Time Collected: 11/24/14 13:30
Sample Matrix: Water

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Methyl t-Butyl Ether	mg/L	< 0.200	EDL	11/26/14 3:34	A411322	8021B, Rev 2 1996
Ethylbenzene	mg/L	**5.32**		11/26/14 3:34	A411322	8021B, Rev 2 1996
Naphthalene	mg/L	**0.339**		11/26/14 3:34	A411322	8021B Rev 2 1996
m,p-Xylene	mg/L	**19.4**		11/26/14 3:34	A411322	8021B Rev 2 1996
o-Xylene	mg/L	**9.31**		11/26/14 3:34	A411322	8021B Rev 2 1996
Fluorobenzene [surr]	%	103		11/26/14 3:34	A411322	8021B Rev 2 1996
4-Bromochlorobenzene [surr]	%	91.5		11/26/14 3:34	A411322	8021B Rev 2 1996

TPH-DRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-DRO	mg/L	**10.4**		11/27/14 0:11	A411335	8015D Rev 4 2003 (Mod)
o-Terphenyl [surr]	%	93.2		11/27/14 0:11	A411335	8015D Rev 4 2003 (Mod)

TPH-GRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-GRO	mg/L	**136**		11/26/14 3:34	A411322	8015D, Rev 4 2003 (Mod)
Fluorobenzene [surr]	%	103		11/26/14 3:34	A411322	8015D, Rev 4 2003 (Mod)
4-Bromochlorobenzene [surr]	%	91.5		11/26/14 3:34	A411322	8015D Rev 4 2003 (Mod)

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02 December 2014

Scott Kemph
Southern Co. NLR Inc.
1201 Cypress
North Little Rock, AR 72114
Project: ADEQ 47000222

Date Received: 25-Nov-14 12:32

ANALYTICAL RESULTS

Lab Number: 1411329-11RE1
Sample Name: MW-13
Date/Time Collected: 11/24/14 13:30
Sample Matrix: Water

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Benzene	mg/L	**11.5**		11/26/14 16:22	A411322	8021B, Rev 2 1996
Toluene	mg/L	**36.5**		11/26/14 16:22	A411322	8021B, Rev 2 1996
Fluorobenzene [surr]	%	96.8		11/26/14 16:22	A411322	8021B, Rev 2 1996
4-Bromochlorobenzene [surr]	%	96.5		11/26/14 16:22	A411322	8021B, Rev 2 1996

ANALYTICAL RESULTS

Lab Number: 1411329-12
Sample Name: MW-2
Date/Time Collected: 11/24/14 14:18
Sample Matrix: Water

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Benzene	mg/L	**17.7**		11/26/14 4:01	A411322	8021B, Rev 2 1996
Methyl t-Butyl Ether	mg/L	< 0.215	EDL	11/26/14 4:01	A411322	8021B, Rev 2 1996
Ethylbenzene	mg/L	**4.39**		11/26/14 4:01	A411322	8021B, Rev 2 1996
Naphthalene	mg/L	< 0.430	EDL	11/26/14 4:01	A411322	8021B, Rev 2 1996
m,p-Xylene	mg/L	**18.1**		11/26/14 4:01	A411322	8021B, Rev 2 1996
o-Xylene	mg/L	**8.41**		11/26/14 4:01	A411322	8021B, Rev 2 1996
Fluorobenzene [surr]	%	97.9		11/26/14 4:01	A411322	8021B, Rev 2 1996
4-Bromochlorobenzene [surr]	%	91.6		11/26/14 4:01	A411322	8021B, Rev 2 1996

TPH-DRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-DRO	mg/L	**8.78**		11/27/14 0:51	A411335	8015D, Rev 4 2003 (Mod)
o-Terphenyl [surr]	%	96.8		11/27/14 0:51	A411335	8015D, Rev 4 2003 (Mod)

TPH-GRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-GRO	mg/L	**185**		11/26/14 4:01	A411322	8015D, Rev 4 2003 (Mod)
Fluorobenzene [surr]	%	97.9		11/26/14 4:01	A411322	8015D, Rev 4 2003 (Mod)
4-Bromochlorobenzene [surr]	%	91.7		11/26/14 4:01	A411322	8015D, Rev 4 2003 (Mod)

ANALYTICAL RESULTS

Lab Number: 1411329-12RE1
Sample Name: MW-2
Date/Time Collected: 11/24/14 14:18
Sample Matrix: Water

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Toluene	mg/L	**56.1**		11/26/14 16:50	A411322	8021B, Rev 2 1996
Fluorobenzene [surr]	%	95.4		11/26/14 16:50	A411322	8021B, Rev 2 1996
4-Bromochlorobenzene [surr]	%	97.0		11/26/14 16:50	A411322	8021B, Rev 2 1996

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1201 Cypress
North Little Rock, AR 72114
Project: ADEQ 47000222

Date Received: 25-Nov-14 12:32

ANALYTICAL RESULTS

Lab Number: **1411329-13**
Sample Name: **MW-5**
Date/Time Collected: **11/24/14 15:08**
Sample Matrix: **Water**

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Methyl t-Butyl Ether	mg/L	**0.221**		11/26/14 4:29	A411322	8021B Rev 2 1996
Ethylbenzene	mg/L	**4.04**		11/26/14 4:29	A411322	8021B Rev 2 1996
Naphthalene	mg/L	**0.229**		11/26/14 4:29	A411322	8021B Rev 2 1996
m,p-Xylene	mg/L	**14.3**		11/26/14 4:29	A411322	8021B Rev 2 1996
o-Xylene	mg/L	**6.38**		11/26/14 4:29	A411322	8021B Rev 2 1996
Fluorobenzene [surr]	%	109		11/26/14 4:29	A411322	8021B Rev 2 1996
4-Bromochlorobenzene [surr]	%	91.4		11/26/14 4:29	A411322	8021B Rev 2 1996

TPH-DRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-DRO	mg/L	**6.46**		11/27/14 1:31	A411335	8015D Rev 4 2003 (Mod)
o-Terphenyl [surr]	%	93.0		11/27/14 1:31	A411335	8015D Rev 4 2003 (Mod)

TPH-GRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-GRO	mg/L	**143**		11/26/14 4:29	A411322	8015D Rev 4 2003 (Mod)
Fluorobenzene [surr]	%	109		11/26/14 4:29	A411322	8015D Rev 4 2003 (Mod)
4-Bromochlorobenzene [surr]	%	91.4		11/26/14 4:29	A411322	8015D Rev 4 2003 (Mod)

ANALYTICAL RESULTS

Lab Number: **1411329-13RE1**
Sample Name: **MW-5**
Date/Time Collected: **11/24/14 15:08**
Sample Matrix: **Water**

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Benzene	mg/L	**25.0**		12/1/14 11:33	A411322	8021B Rev 2 1996
Toluene	mg/L	**34.2**		12/1/14 11:33	A411322	8021B Rev 2 1996
Fluorobenzene [surr]	%	90.4		12/1/14 11:33	A411322	8021B Rev 2 1996
4-Bromochlorobenzene [surr]	%	91.8		12/1/14 11:33	A411322	8021B Rev 2 1996

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1201 Cypress
North Little Rock, AR 72114
Project: ADEQ 47000222

Date Received: 25-Nov-14 12:32

ANALYTICAL RESULTS

Lab Number: 1411329-14
Sample Name: MW-12
Date/Time Collected: 11/24/14 15:45
Sample Matrix: Water

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Methyl t-Butyl Ether	mg/L	< 0.150	EDL	11/26/14 4:56	A411322	8021B, Rev 2 1996
Ethylbenzene	mg/L	**3.34**		11/26/14 4:56	A411322	8021B Rev 2 1996
Naphthalene	mg/L	**0.179**		11/26/14 4:56	A411322	8021B Rev 2 1996
m,p-Xylene	mg/L	**12.7**		11/26/14 4:56	A411322	8021B Rev 2 1996
o-Xylene	mg/L	**6.14**		11/26/14 4:56	A411322	8021B Rev 2 1996
Fluorobenzene [surr]	%	116		11/26/14 4:56	A411322	8021B Rev 2 1996
4-Bromochlorobenzene [surr]	%	90.9		11/26/14 4:56	A411322	8021B Rev 2 1996

TPH-DRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-DRO	mg/L	**6.09**		11/27/14 2:10	A411335	8015D, Rev 4 2003 (Mod)
o-Terphenyl [surr]	%	100		11/27/14 2:10	A411335	8015D Rev 4 2003 (Mod)

TPH-GRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-GRO	mg/L	**214**		11/26/14 4:56	A411322	8015D Rev 4 2003 (Mod)
Fluorobenzene [surr]	%	116		11/26/14 4:56	A411322	8015D Rev 4 2003 (Mod)
4-Bromochlorobenzene [surr]	%	90.9		11/26/14 4:56	A411322	8015D Rev 4 2003 (Mod)

ANALYTICAL RESULTS

Lab Number: 1411329-14RE2
Sample Name: MW-12
Date/Time Collected: 11/24/14 15:45
Sample Matrix: Water

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Benzene	mg/L	**53.2**		11/26/14 17:46	A411322	8021B, Rev 2 1996
Toluene	mg/L	**50.9**		11/26/14 17:46	A411322	8021B Rev 2 1996
Fluorobenzene [surr]	%	102		11/26/14 17:46	A411322	8021B Rev 2 1996
4-Bromochlorobenzene [surr]	%	97.3		11/26/14 17:46	A411322	8021B Rev 2 1996

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Southern Co. NLR Inc.
1201 Cypress
North Little Rock, AR 72114
Project: ADEQ 47000222

Date Received: 25-Nov-14 12:32

ANALYTICAL RESULTS

Lab Number: 1411329-15
Sample Name: MW-1
Date/Time Collected: 11/24/14 16:30
Sample Matrix: Water

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Benzene	mg/L	**26.4**		11/26/14 5:23	A411322	8021B Rev 2 1996
Methyl t-Butyl Ether	mg/L	< 0.215	EDL	11/26/14 5:23	A411322	8021B Rev 2 1996
Ethylbenzene	mg/L	**4.59**		11/26/14 5:23	A411322	8021B Rev 2 1996
Naphthalene	mg/L	< 0.430	EDL	11/26/14 5:23	A411322	8021B Rev 2 1996
m,p-Xylene	mg/L	**18.4**		11/26/14 5:23	A411322	8021B Rev 2 1996
o-Xylene	mg/L	**8.28**		11/26/14 5:23	A411322	8021B Rev 2 1996
Fluorobenzene [surr]	%	99.7		11/26/14 5:23	A411322	8021B Rev 2 1996
4-Bromochlorobenzene [surr]	%	92.9		11/26/14 5:23	A411322	8021B Rev 2 1996

TPH-DRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-DRO	mg/L	**11.3**		11/27/14 2:50	A411335	8015D Rev 4 2003 (Mod)
o-Terphenyl [surr]	%	95.4		11/27/14 2:50	A411335	8015D Rev 4 2003 (Mod)

TPH-GRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-GRO	mg/L	**209**		11/26/14 5:23	A411322	8015D Rev 4 2003 (Mod)
Fluorobenzene [surr]	%	99.7		11/26/14 5:23	A411322	8015D Rev 4 2003 (Mod)
4-Bromochlorobenzene [surr]	%	92.9		11/26/14 5:23	A411322	8015D Rev 4 2003 (Mod)

ANALYTICAL RESULTS

Lab Number: 1411329-15RE1
Sample Name: MW-1
Date/Time Collected: 11/24/14 16:30
Sample Matrix: Water

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Toluene	mg/L	**56.2**		11/26/14 18:14	A411322	8021B Rev 2 1996
Fluorobenzene [surr]	%	97.6		11/26/14 18:14	A411322	8021B Rev 2 1996
4-Bromochlorobenzene [surr]	%	96.1		11/26/14 18:14	A411322	8021B Rev 2 1996

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North Little Rock, AR 72114
Project: ADEQ 47000222

Date Received: 25-Nov-14 12:32

ANALYTICAL RESULTS

Lab Number: 1411329-16
Sample Name: Dup
Date/Time Collected: 11/24/14 0:00
Sample Matrix: Water

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Methyl t-Butyl Ether	mg/L	< 0.150	EDL	11/26/14 5:50	A411322	8021B, Rev 2 1996
Ethylbenzene	mg/L	**3.30**		11/26/14 5:50	A411322	8021B, Rev 2 1996
Naphthalene	mg/L	**0.161**		11/26/14 5:50	A411322	8021B, Rev 2 1996
m,p-Xylene	mg/L	**12.5**		11/26/14 5:50	A411322	8021B, Rev 2 1996
o-Xylene	mg/L	**5.98**		11/26/14 5:50	A411322	8021B, Rev 2 1996
Fluorobenzene [surr]	%	114		11/26/14 5:50	A411322	8021B, Rev 2 1996
4-Bromochlorobenzene [surr]	%	90.7		11/26/14 5:50	A411322	8021B, Rev 2 1996

TPH-DRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-DRO	mg/L	**6.89**		11/27/14 3:29	A411335	8015D, Rev 4 2003 (Mod)
o-Terphenyl [surr]	%	99.0		11/27/14 3:29	A411335	8015D, Rev 4 2003 (Mod)

TPH-GRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-GRO	mg/L	**208**		11/26/14 5:50	A411322	8015D, Rev 4 2003 (Mod)
Fluorobenzene [surr]	%	114		11/26/14 5:50	A411322	8015D, Rev 4 2003 (Mod)
4-Bromochlorobenzene [surr]	%	90.7		11/26/14 5:50	A411322	8015D, Rev 4 2003 (Mod)

ANALYTICAL RESULTS

Lab Number: 1411329-16RE2
Sample Name: Dup
Date/Time Collected: 11/24/14 0:00
Sample Matrix: Water

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Benzene	mg/L	**45.5**		11/26/14 19:11	A411322	8021B, Rev 2 1996
Toluene	mg/L	**44.3**		11/26/14 19:11	A411322	8021B, Rev 2 1996
Fluorobenzene [surr]	%	98.7		11/26/14 19:11	A411322	8021B, Rev 2 1996
4-Bromochlorobenzene [surr]	%	95.7		11/26/14 19:11	A411322	8021B, Rev 2 1996

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Southern Co. NLR Inc.
1201 Cypress
North Little Rock, AR 72114
Project: ADEQ 47000222

Date Received: 25-Nov-14 12:32

ANALYTICAL RESULTS

Lab Number:	**1411329-17**
Sample Name:	**Trip Blank**
Date/Time Collected:	**11/25/14 12:32**
Sample Matrix:	**Water**

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Benzene	mg/L	< 0.001		11/26/14 6:18	A411322	8021B Rev 2 1996
Methyl t-Butyl Ether	mg/L	< 0.005		11/26/14 6:18	A411322	8021B Rev 2 1996
Toluene	mg/L	< 0.005		11/26/14 6:18	A411322	8021B Rev 2 1996
Ethylbenzene	mg/L	< 0.005		11/26/14 6:18	A411322	8021B Rev 2 1996
Naphthalene	mg/L	< 0.015		11/26/14 6:18	A411322	8021B Rev 2 1996
m,p-Xylene	mg/L	< 0.010		11/26/14 6:18	A411322	8021B, Rev 2 1996
o-Xylene	mg/L	< 0.005		11/26/14 6:18	A411322	8021B, Rev 2 1996
Fluorobenzene [surr]	%	92.6		11/26/14 6:18	A411322	8021B, Rev 2 1996
4-Bromochlorobenzene [surr]	%	95.9		11/26/14 6:18	A411322	8021B, Rev 2 1996

QUALITY CONTROL RESULTS

8021B Analytes -- Batch: A411322 (Water)
Prepared: 25-Nov-14 12:30 By: CT -- Analyzed: 26-Nov-14 20:07 By: ct

Analyte	BLK	LCS / LCSD	MS / MSD	Dup	RPD	Qualifiers
Benzene	<0.001 mg/L	107% / NA	104% / 105%		0.781%	
Ethylbenzene	<0.005 mg/L	122% / NA	119% / 120%		1.07%	
m,p-Xylene	<0.010 mg/L	116% / NA	118% / 119%		0.214%	
Methyl t-Butyl Ether	<0.005 mg/L	89.2% / NA	92.3% / 92.5%		0.248%	
Naphthalene	<0.015 mg/L	83.5% / NA	108% / 110%		1.76%	
o-Xylene	<0.005 mg/L	113% / NA	116% / 116%		0.121%	
Toluene	<0.005 mg/L	123% / NA	119% / 119%		0.654%	
TPH-GRO	<0.100 mg/L	108% / NA	104% / 105%		0.693%	
4-Bromochlorobenzene [surr]	93.3 %	91.3% / NA	101% / 102%		NA	
Fluorobenzene [surr]	81.3 %	83.7% / NA	95.9% / 96.0%		NA	

TPH-DRO by 8015D -- Batch: A411335 (Water)
Prepared: 26-Nov-14 11:07 By: MB -- Analyzed: 26-Nov-14 16:05 By: MB

Analyte	BLK	LCS / LCSD	MS / MSD	Dup	RPD	Qualifiers
TPH-DRO	<0.500 mg/L	82.0% / NA	78.7% / 82.1%		4.28%	
o-Terphenyl [surr]	97.9 %	91.7% / NA	94.5% / 92.7%		NA	

QUALIFIER(S)

*EDL: Elevated Detection Limit Due to one or more of the following: Sample Matrix, Sample Dilution, or Limited Sample Volume

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1201 Cypress
North Little Rock, AR 72114
Project: ADEQ 47000222

Date Received: 25-Nov-14 12:32

All Analysis performed according to EPA approved methodology when available:
SW 846, Revised December, 1996; EPA 600/4-79-020, Revised March, 1983; Standard Methods.
Instrument calibration and quality control samples performed at or above frequency specified in analytical method.

Reviewed by: Norma James / Teresa Coins

Norma James and/or Teresa Coins
Technical Director and/or QA Officer

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Arkansas Analytical Inc.
11701 Interstate 30, Bldg. 1, Ste. 115
Little Rock, AR 72209
PHONE: 501-455-3233
FAX: 501-455-6118

CHAIN OF CUSTODY RECORD

CLIENT INFORMATION	Project Description	Turnaround Time	Preservation Codes:	
Southern Co. NLR Inc.	ADEQ 47000222	1 Day (100%)	1. Cool, 4 Degrees Centigrade	4. Thiosulfate for Dechlorination
1201 Cypress	po 41852	2 Day (50%)	2. Sulfuric Acid (H_2SO_4), pH < 2	5. Hydrochloric Acid(HCl)
North Little Rock, AR 72114	Reporting Information	3 Day (25%)	3. Nitric Acid (HNO_3), pH < 2	6. Sodium Hydroxide (NaOH), pH > 12
	Telephone: 501-376-6333	5 Day (Routine)	TEST PARAMETERS	Bottle Type Code
Attn: Scott Kemph @ Oriana Thompson	Fax: 501-376-8715	Preservative Code		G = Glass, P = Plastic
	Email: oalba@thesoco.com	Bottle Type		V = Septum, A = Amber

Sampler(s) Signature: Oriana Thompson

Sampler(s) Printed: Oriana Thompson

Field Number	SAMPLE COLLECTION Date/s	Time/s	Grab	Comp	Number of Bottles	Sample Matrix	SAMPLE IDENTIFICATION/ DESCRIPTION	8015	8021								Arkansas Analytical Work Order Number: 1411329
	11-23-14	14:00	x		7	w	MW 11	X	X								01
	11-23-14	14:46	x		7	w	MW 8	X	X								02
	11-23-14	15:40	x		7	w	MW 9	X	X								03
	11-23-14	16:49	x		7	w	MW 7	X	X								04
	11-24-14	8:45	x		7	w	MW 14	X	X								05
	11-24-14	9:20	x		7	w	MW 6	X	X								06
	11-24-14	9:35	x		7	w	MW 10	X	X								07
	11-24-14	10:20	x		7	w	MW4	X	X								08
	11-24-14	11:25	x		7	w	MW 3	X	X								09
	11-24-14	12:35	x		7	w	MW 15	X	X								10

1. Relinquished by: (Signature)	Date/Time	2. Received by: (Signature)	SAMPLE CONDITION UPON RECEIPT IN LAB	REMARKS / SAMPLE COMMENTS
	11-25-14 1252		1. CUSTODY SEALS: ✓ Yes ___ No	P.O. Number - 41852
			2. CONTAINERS CORRECT: ✓ Yes ___ No	please email results to skemph@thesoco.com and
			3. COC/LABELS AGREE: ✓ Yes ___ No	oalba@thesoco.com
3. Relinquished by: (Signature)	Date/Time	4. Received by lab: (Signature)	4. RECEIVED ON ICE: ✓ Yes ___ No	8015 DRO, GRO
			5. TEMPERATURE ON RECEIPT: 2°C	8021 MTBE, BTEX, and Naphthalene
			6. TEMPERATURE GUN ID: HATH 2	
			FOR COMPLETION BY LAB ONLY	

Arkansas Analytical Inc.
11701 Interstate 30, Bldg. 1, Ste. 115
Little Rock, AR 72209
PHONE: 501-455-3233
FAX: 501-455-6118

CHAIN OF CUSTODY RECORD

CLIENT INFORMATION	Project Description	Turnaround Time	Preservation Codes:	
Southern Co. NLR Inc.	ADEQ 47000222	1 Day (100%)	1. Cool, 4 Degrees Centigrade	4. Thiosulfate for Dechlorination
1201 Cypress	po 41852	2 Day (50%)	2. Sulfuric Acid (H_2SO_4), pH < 2	5. Hydrochloric Acid(HCl)
North Little Rock, AR 72114	Reporting Information	3 Day (25%)	3. Nitric Acid (HNO_3), pH < 2	6. Sodium Hydroxide (NaOH), pH > 12
	Telephone: 501-376-6333	5 Day (Routine)		
Attn: Scott Kemph & ORIANA THOMPSON	Fax: 501-376-8715	Preservative Code		
	Email: oalba@thesoco.com	Bottle Type		

Sampler(s) Signature: Oriana Thompson

Sampler(s) Printed: Oriana Thompson

Field Number	SAMPLE COLLECTION Date/s	Time/s	Grab	Comp	Number of Bottles	Sample Matrix	SAMPLE IDENTIFICATION/ DESCRIPTION	8015	8021	Arkansas Analytical Work Order Number 141329
	11.24.14	13:30	x		7	w	MW13	X	X	11
	11.24.14	14:18	x		7	w	MW 2	X	X	12
	11.24.14	15:08	x		7	w	MW 5	X	X	13
	11.24.14	15:45	x		7	w	MW 12	X	X	14
	11.24.14	16:30	x		7	w	MW 1	X	X	15
	11.24.14		x			w	DUP	X	X	16
	11.25.14	12:32	x			w	Trip Blank			17
			x			w				
			x			w				
			x			w				

1. Relinquished by: (Signature)	Date/Time	2. Received by: (Signature)
Oriana Thompson	11.25.14 1232	
3. Relinquished by: (Signature)	Date/Time	4. Received by lab: (Signature)
		Sylvia Hahn

SAMPLE CONDITION UPON RECEIPT IN LAB		
1. CUSTODY SEALS:	✓ Yes	___ No
2. CONTAINERS CORRECT:	✓ Yes	___ No
3. COC/LABELS AGREE:	✓ Yes	___ No
4. RECEIVED ON ICE:	___ Yes	___ No
5. TEMPERATURE ON RECEIPT:	2°C	
6. TEMPERATURE GUN ID:	HATH2	
FOR COMPLETION BY LAB ONLY		

REMARKS / SAMPLE COMMENTS

P.O. Number - 41852

please email results to skemph@thesoco.com and oalba@thesoco.com

8015 DRO, GRO

8021 MTBE, BTEX, and Naphthalene

Revision 2
2/14/14

THE Southern Co. NLR, INC.

Additional Site Assessment-Laser Induced (LIF) Fluorescence Survey

AHTD JOB #100705
100 North Division
Blytheville, Arkansas 72315
Facility ID # 47000222 and ADEQ LUST # 47-0040

Prepared for:

Arkansas State Highway and Transportation Department - ROW
10324 I-30, Room 705
Little Rock, Arkansas 72209

Prepared by:

T. Scott Kemph

STATE OF ARKANSAS
TSK
NO. 1788
T SCOTT KEMPH
REGISTERED PROFESSIONAL GEOLOGIST
12-29-15

T. Scott Kemph, P.G.
Project Manager

Reviewed by:

Oriana Thompson, M.S.
Environmental Department Manager

December 29, 2015

1201 CYPRESS STREET
NORTH LITTLE ROCK, AR 72114
(501) 376-6333
(501) 376-8715 FAX
800-482-5493

MEMBER PEI

7621 BALL ROAD
FORT SMITH, AR 72908
(479) 648-1601
(479) 646-1066 FAX
800-643-2156

THE Southern Co. NLR, INC.

December 29, 2015

Mr. Rodger Payne, P.E.
Arkansas Department of Environmental Quality (ADEQ)
Regulated Storage Tank Division
5301 Northshore Drive
North Little Rock, AR 72118

RE: Additional Site Assessment-Laser Induced (LIF) Fluorescence Survey
AHTD JOB #100705
100 North Division
Blytheville, Arkansas 72315
Facility ID # 47000222 and ADEQ LUST # 47-0040

Dear Mr. Payne:

Enclosed, please find one paper copy and one electronic copy of the Additional Site Assessment-Laser Induced (LIF) Fluorescence Survey for the above-referenced facility. Should you have any questions, or require additional information, please do not hesitate to contact me at 501-376-6333.

Very truly yours,

THE SOUTHERN COMPANY, NLR, INC.

T. Scott Kemph

T. Scott Kemph, R.E.M., P.G.
Project Manager

cc: Mr. Joel Clark, AHTD (w/ enclosure delivered via email)
Mr. Scott Wroten, AHTD (w/ enclosure delivered via email)
Mr. Rick Stanley, AHTD (w/ enclosure delivered via email)
Mr. Matt Modelevsky, Snell, Langley, Culpepper, Williams & Mullally (w/ enclosure delivered via email)

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THE Southern Co. NLR, INC.

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Appendix D: Waste Disposal Documentation

1201 CYPRESS STREET
NORTH LITTLE ROCK, AR 72114
(501) 376-6333
(501) 376-8715 FAX
800-482-5493

MEMBER PEI

7621 BALL ROAD
FORT SMITH, AR 72908
(479) 648-1601
(479) 646-1066 FAX
800-643-2156

1.0 INTRODUCTION

The Arkansas Department of Environmental Quality (ADEQ) has requested a site assessment work plan and cost estimate in correspondence to the responsible party, Arkansas Highway and Transportation Department (AHTD), dated March 13, 2015. This request is based upon site assessment requirements as per 40 CFR 280.65 to determine the lateral and vertical extent from the release(s) at the facility. Due to issues with offsite access, only the laser induced fluorescence (LIF) survey of the portion of the June 26, 2015 ADEQ approved Additional Site Assessment Work plan and Cost Estimate is presented in this report.

1.1 LUST Chronology

The following chronology of events is presented for ADEQ LUST File # 47-0040.

- February 1 and 2, 2012 - Notice of Suspected Release communicated to Mr. Clark Baker ADEQ inspector. Contaminated soils discovered during voluntary UST closure.
- February 10, 2012 - Release confirmed by analytical results emailed to Mr. Clark Baker.
- May 22 and 23, 2012 - SOCO excavated contaminated soil (432.34 tons), transported to Mississippi County landfill and re-sampled confirmation sample locations.
- May 31, 2012 – Closure Report submitted by SOCO to ADEQ.
- June 8, 2012, - ADEQ LUST 47-0040 referred to ADEQ technical branch.
- June 12, 2012 – Request for Trust Fund Eligibility sent to ADEQ.
- July 12, 2012 - ADEQ Preliminary Assessment completed.
- July 17, 2012 - ADEQ issued request for Site Assessment Work Plan & Cost Estimate
- October 25, 2012 – Scoping Meeting with ADEQ Case Manager, SOCO personnel and AHTD personnel.
- February 4, 2013 - ADEQ established Trust Fund eligibility for ADEQ LUST 47-0040.
- April 4, 2013 - Site Assessment Work Plan & Cost Estimate submitted to ADEQ for ADEQ LUST 47-0040.
- May 1, 2013 – Approval of Site Assessment Work plan and Cost Estimate
- June 2, 2014 – Third Party Access Agreement Signature obtained.
- October 10, 2014 - Change Order No. 1 submitted to ADEQ.
- October 13, 2014 – Change Order No. 1 approved by ADEQ.
- November 10, 2014 – December 21, 2014 – Field Work
- January 13, 2015 – Site Assessment Report submitted by SOCO to ADEQ.
- March 13, 2015 - ADEQ requested an Additional Site Assessment Work Plan and Cost Estimate in correspondence to the responsible party.
- April 16, 2015 – AHTD, SOCO and ADEQ meet for work scope meeting. SOCO emailed proposed work scope to ADEQ.
- April 27, 2015 – ADEQ concurred with work scope proposed on April 16, 2015.
- May 28, 2015 - SOCO submitted Additional Site Assessment Work Plan and Cost Estimate to ADEQ.
- June 26, 2015 – Approval of Additional Site Assessment Work plan and Cost Estimate

- July 21 and 22, 2015 – SOCO implemented the Laser Induced Florescence portion of the field work.
- July 31, 2015 – Mrs. Onisca McCaig Vanoven called AHTD to request cessation of additional site assessment activities on her property until an offer to purchase the property was tendered by AHTD.
- August 20, 2015 – AHTD requested SOCO cease additional site assessment activities until the offsite access issues are resolved with Mrs. Onisca McCaig Vanoven.
- December 10, 2015 – ADEQ case manager called to inquire on the progress of the additional site assessment work plan implementation. SOCO informed ADEQ of Mrs. Onisca McCaig Vanoven request for cessation of assessment activities until an offer to purchase was tendered by AHTD. It was agreed upon to submit what LIF data has been generated to date and submit to ADEQ.
- December 29, 2015 - SOCO submitted the LIF survey of the Additional Site Assessment to ADEQ.

1.2 Facility Description

The project site is located at 100 North Division Street in Blytheville, Arkansas as delineated on the Vicinity Map provided as Figure 1, Appendix A. The project site is vacant and is part of a road expansion/widening project (AHTD Job # 100705) performed by the Arkansas Highway and Transportation Department (AHTD). A vacant lot borders the facility to the north. North Main Street (Arkansas State Highway 18) borders the project site to the south. The site is bordered by North Division Street (U.S. Highway 161) to the west. Ms. Onisca McCaig owns the residential property immediately to the east of the project site. The Site Plan for the facility is provided as Figure 2, Appendix A.

1.3 Physical and Geological Setting

According to the Arkansas Geologic Commission's Geologic Map (Arkansas Geologic Commission, 1979), the project site is situated in the Mississippi Embayment Geologic province. The project site is underlain by the Quaternary alluvium deposits in the Mississippi Delta region which contains the uppermost aquifer in the region. The alluvium is comprised of the unconsolidated alluvial deposits formed by the Mississippi River and its tributaries. These deposits typically consist of unconsolidated clay, silt, sand, and gravel-sized particles. The alluvium was deposited by small streams, overbank deposits of major streams, and older meander deposits of major streams (McFarland, 2004).

According to United States Department of Agriculture Soil Survey of Mississippi County, the soil series at the project site is the Hayti Soil Series. These soils consist of deep, poorly drained, slowly permeable soils formed in alluvium. These soils formed on the flood plain of the Mississippi River (USDA, 1971). A review of the Site Assessment report and photographs indicates approximately six (6) to seven (7) feet of silty clay (CL) which transitioned into a silt (ML) in the areas of the former underground storage tank basin (SOCO, 2015).

1.4 Facility Hydrogeologic Information

The area of investigation is underlain by the Mississippi River Valley Alluvial Aquifer (MRVAA). The MRVAA is comprised of the unconsolidated alluvial deposits formed by the Mississippi River and its tributaries. These deposits typically consist of unconsolidated clay, silt, sand, and gravel-sized particles. The aquifer is commonly overlain by a confining clay cap unit. Ground water generally flows to the southwest with an average hydraulic gradient of 1.7 feet per mile. In terms of water use and areal extent, this alluvial aquifer is the most important aquifer in the region and provides large quantities of water for irrigation and public supply (Arkansas State Water Plan, 1988).

Groundwater elevations in the area of investigation ranged from 253.38 feet above mean sea level (msl) in the northeast corner of the project site to 253.29 feet msl in the southwest corner of the project site. Groundwater flow direction is generally toward the west-southwest (SOCO, 2015).

1.5 Objectives for Assessment

The objectives of the work plan approved by ADEQ is intended to fulfill ADEQ's March 2, 2015 correspondence request to the responsible party in accordance with 40 CFR 280.65 and Arkansas PC&E Commission Regulation 12; site assessment to determine lateral and vertical extent of the release(s) logged to the facility. This information will be used by ADEQ to draft an Exposure assessment for the release(s) logged to the facility.

2.0 SITE ASSESSMENT WORK PLAN TASKS

2.1 Task 1: Project Planning

The project planning task began on March 13, 2015 and was considered complete with the submittal of the work plan on June 25, 2015. Activities conducted as part of this task included the following:

- review of LUST Case files and previous assessment reports and other reports;
- discussion with the ADEQ Case Manager regarding assessment objectives and specific investigative approach performed during a scoping meeting at ADEQ;
- obtaining contractor quotes; and
- site assessment work plan and cost estimate preparation.

All activities described below were conducted by Occupational Safety and Health Administration (OSHA) certified workers under a project specific Health and Safety Plan (HASP). Project planning for this work plan included conversations with the Arkansas Highway and Transportation Department (AHTD), and discussions with ADEQ.

2.2 Task 2: Subsurface Investigation

2.2.1 Geo Probing and LIF Survey

Prior to any subsurface intrusive work, utilities in the investigation area were located and physically marked on the ground surface by use of the Arkansas One-Call system using the following call ticket; 15702-0534.

A site-specific health and safety plan was made available to all on-site personnel during the first tailgate safety meeting prior to the start of field activities. Health and safety compliance agreements for each worker are included in Appendix B to this report.

Standard real time data services included LIF//UVOST® technology, a high resolution survey using vertical profiling with direct sensing technology. This technology was utilized to delineate the light non-aqueous phase liquid (LNAPL) mass within the area of investigation. Services included an interactive 2D/3D data visualization package provided by Bear Environmental Services, Inc. The site characterization began as per the ADEQ approved work plan in the residential area and moved to areas suspected to contain LNAPL utilizing the LIF/UVOST® working wesrtward to delineate LNAPL occurrence in the area of investigation.

Eleven (11) Geoprobe® soil borings were advanced to a maximum of depth of twenty five (25) feet below ground surface (bgs) to determine light non-aqueous phase liquid (LNAPL) distribution in the area of investigation using a direct push rig employing laser induced fluorescence (LIF)/UVOST® technology. Figure 3, Appendix A depicts the boring locations within the area of investigation. After completion of each Geoprobe® boring location, the borings were plugged with bentonite hole plug specially designed for plugging direct push boreholes. All down-hole probing/drilling and sampling equipment was decontaminated prior to use. Decontamination fluids will be containerized and transported under manifest to the SOCO holding facility for recycling. Waste management is discussed in further detail in Section 2.3. Investigation Derived Waster Management.

Appendix C is presented as Bear Environmental Inc.'s complete report (Bear Environmental, Inc, 2015). The following is copied directly from the results section of the report:

Elevated fluorescence responses were noted on LIF locations 05, 06, 07, 08, 09, 10 and 11. The majority of the waveform signatures appear to be aged, weathered gasoline and possibly a combination of some diesel fuel. The majority of the fluorescence responses were encountered in a depth range of 14 to 18 feet below land surface. This correlates to the approximate top of the water table at the site.

Please note, various factors can affect the total fluorescence intensity and waveform signatures associated with UVOST screening. These factors include age of the product, weathering of the product, natural attenuation of the product, and oxygen content in the subsurface. We recommend confirmation sampling to definitively identify the product types and concentrations.
Locations 01, 02, 03 and 04 returned no significant fluorescence response that is associated with petroleum contamination. These borings contain no free phase LNAPL and for the purposes of

the LIF investigation can be considered clean. These borings may still contain dissolved phase contamination.

Please note that the majority of the LIF locations were located along the southern perimeter of the site property. No locations were performed in the center of the property or in the area of the former tank pit or dispenser island. We recommend additional LIF screening across the site to better delineate the source of the contamination as well as additional locations at properties located to the north, south and west of the site (Bear Environmental, Inc, 2015).

2.2.2 Groundwater Elevation and Phase-Separated Hydrocarbon Monitoring

After completion of the LIF survey, on July 22, 2015, all monitoring wells were gauged for the presence of LNAPL and to determine the elevation of groundwater. A decontaminated oil/water interface probe was used to measure for the presence of LNAPL fluids and groundwater in each monitoring well. Measurements were recorded in the field notebook to the nearest 0.01 feet and were referenced to surveyed top-of-casing elevations. LNAPL is present in the following monitor wells; MW-1, MW-5, MW-12, and MW-13.

Decontamination fluids were containerized and transported under manifest to the SOCO holding facility for recycling. Waste management is discussed in further detail in Section 2.4. Investigation Derived Waster Management. Groundwater elevations for all gauging events are presented in Table 1 presented in Appendix A. Field notes for the LIF survey and groundwater gauging event are presented in Appendix B.

2.3 Task 4: Investigation Derived Waste Management

2.3.1 Solid Waste

All disposable personal protective equipment and miscellaneous refuse from the LIF survey and groundwater gauging event was bagged in trash bags and transported to SOCO's trash dumpster for disposal at Waste Management's Two Pine Landfill.

2.3.2 Wastewater

Decontamination water was containerized in lidded 5-gallon buckets and transported to the SOCO's holding facility in North Little Rock, Arkansas and recycled through Agricultural Services, Inc. Approximately 8 gallons of wastewater was transported by SOCO personnel for recycling by Agricultural Services, Inc. Wastewater disposal documentation is included in Appendix D.

3.0 FINDINGS AND CONCLUSIONS

Based upon the performance of the assessment activities to date, SOCO offers following findings and conclusions:

- Eleven (11) Geoprobe® soil borings were advanced to a maximum of depth of twenty five (25) feet bgs to determine LNAPL distribution in the area of investigation using a direct push rig employing laser induced fluorescence (LIF)/UVOST® technology. The LIF survey indicated the majority of the fluorescence responses were encountered in a depth range of 14 to 18 feet bgs, which correlates to the approximate top of the water table at the site. Elevated fluorescence responses were noted on LIF locations 05, 06, 07, 08, 09, 10 and 11. The majority of the waveform signatures appear to be aged, weathered gasoline and possibly some diesel fuel indicating the former underground storage tank pit as the most likely source area for the LNAPL occurrence.
- Based upon LNAPL and groundwater elevations from the July 22, 2015 gauging event LNAPL is present in the following monitor wells; MW-1, MW-5, MW-12, and MW-13.
- Multiple petroleum releases have impacted subsurface soils, groundwater and presumably the vadose zone at AHTD Job 100705. Fuel released from the former fuel system has penetrated the fine-grained clay sediments that dominate the upper alluvial deposits. After the fuel breached the upper clay layer, the fuel entered the more permeable alluvium until groundwater was encountered. The LNAPL then spread laterally and downgradient to the adjacent residential property and in the areas of former underground storage tanks and product dispensers.

4.0 RECOMMENDATIONS

Based on the information obtained during the performance of the work scope for site assessment, SOCO offers the following recommendations:

- It is recommended the existing monitoring wells be monitored for LNAPL occurrence, and perform free product removal in accordance with 40 CFR 280.64, free product removal to the maximum extent practicable.
- It is recommended the offsite access issues be resolved, between AHTD and Mrs. Onisca McCaig Vanoven, once this has been accomplished, perform site characterization activities to fulfill ADEQ's March 2, 2015 correspondence request in accordance with 40 CFR 280.65 and Arkansas PC&E Commission Regulation 12; site assessment to determine lateral and vertical extent of the release(s) logged to the facility.

5.0 LIMITATIONS

This report is an instrument of service of The Southern Company NLR, Inc. (SOCO). The subsurface investigation report was prepared for and is intended for the exclusive use of AHTD and it's assigns and for review by the governing regulatory authority – the Arkansas Department of Environmental Quality. Any party other than AHTD without the express written permission of SOCO may not rely upon the report's contents. The findings and conclusions presented in this report are based on observations made as a result of the probing eleven (11) LIF soil borings, and the fluid measurements of monitor wells at the facility. This information has been used as the basis for our conclusions.

The report's findings are based on conditions that existed at the project site on July 21 and 22, 2015 and should not be relied upon to precisely represent subsurface conditions at any other

time. The conclusions included in this report are based on: SOCO's observation of existing site conditions; our interpretation of site history and site usage information; and the results of a limited program of subsurface exploration, sample screening, and analytical testing. The concentration of contaminants SOCO measured may not be representative of conditions between locations sampled.

Be aware that conditions may change at any sampled or un-sampled location as a function of time in response to natural conditions, chemical reactions, and/or other events. Conclusions about site conditions under no circumstances comprise a warranty that conditions in all areas within the site and beneath structures are of the same quality as those sampled. Recognize, too, that contamination might exist in forms not indicated by the assessment SOCO conducted.

The scope of service SOCO implemented was based, in part of rules and regulations that SOCO understood to be current or expected at the time SOCO developed its contract with AHTD. Changes in regulations, interpretations and/or enforcement policies may occur at any time and such changes could affect the extent of remediation required. Any additional information about this site that becomes available should be provided to SOCO for its review, so SOCO can modify its recommendations as necessary.

6.0 REFERENCES CITED

AGC, 1979. Geologic Map of Arkansas. Arkansas Geologic Commission and United States Geological Survey.

American Society for Testing and Materials D 2487 Practice for Classification of Soils for Engineering Purposes (Unified Soil Classification System). ASTM International 2000. ASTM International, 100 Barr Harbor Drive, PO Box C700, West Conshohocken, PA, 19428-2959.

American Society for Testing and Materials D ASTM 2488, Standard Practice for Description and Identification of Soils Visual/Manual. ASTM International, 100 Barr Harbor Drive, PO Box C700, West Conshohocken, PA, 19428-2959

American Society for Testing and Materials D ASTM E 1739, Standard Guide for Risk-Based Corrective Action Applied at Petroleum Release Sites. ASTM International, 100 Barr Harbor Drive, PO Box C700, West Conshohocken, PA, 19428-2959

Arkansas Geologic Commission and United States Geological Survey as Mapped by Stone and Haley during the Co-geology Mapping project. Arkansas Geologic Commission, 3815 W Roosevelt Road, Little Rock, AR 72204, (501) 296-1877.

Arkansas State Water Plan, Mississippi River Basin, U.S. Army Corps of Engineers, Little Rock District. March, 1988.

Bear Environmental Services, Inc., Subsurface Characterization using Laser Induced Fluorescence Report, July 28, 2015, 1039 Ponder Trammell Road, Juliette, Georgia 31046, 678-409-7925.

McFarland, John, David, 2004 Stratigraphic Summary of Arkansas, Information Circular 34, Page 34.

The Southern Company of NLR, Inc., Site Assessment Report AHTD Job 100705, January 13, 2015, 1201 Cypress Street, North Little Rock, Arkansas 72114.

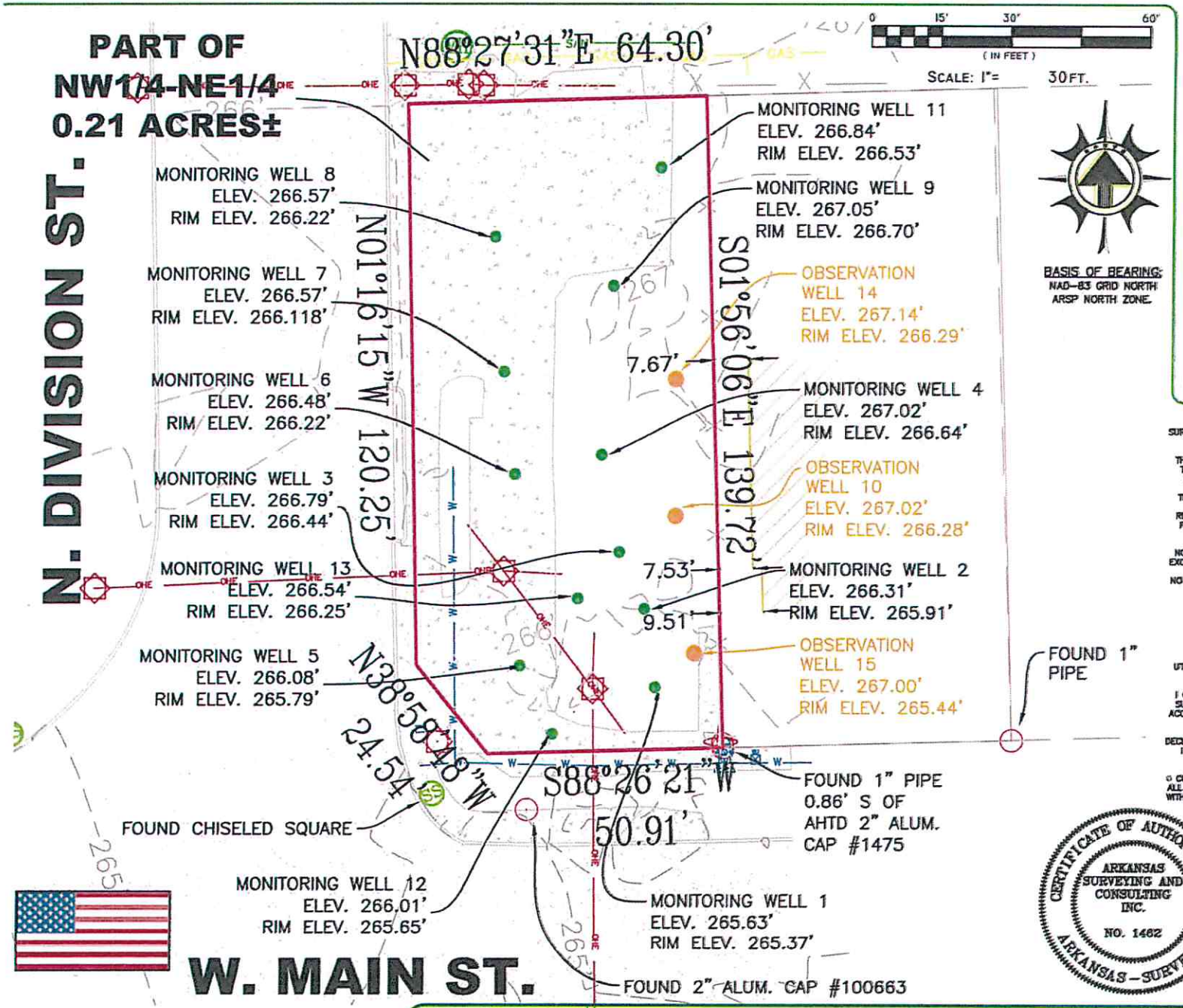
United States Department of Agriculture Soil Conservation Service Soil Survey of Mississippi County, June, 1971.

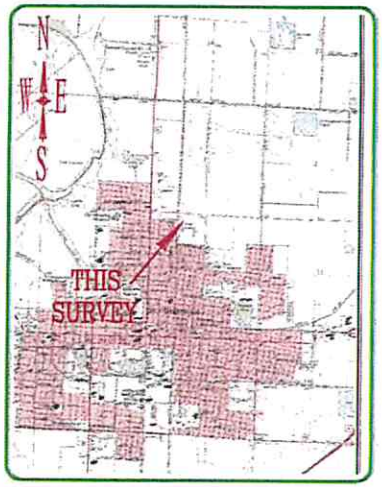
APPENDIX A

FIGURES and Table 1 MONITOR WELL GAUGING

No Scale Implied

SoCo NLR	Figure 1. Vicinity Map AHTD JOB #100705 100 North Division Blytheville, Arkansas 72315 Facility ID # 47000222 ADEQ LUST 47-0040	





SITE LOCATION MAP (NO SCALE)

NOTES

SURVEY BEARINGS ARE BASED ON GRID NORTH AR STATE PLANE NORTH ZONE DETERMINE BY GPS

THE BEARINGS SHOWN ON THIS PLAT ARE ASSUMED AND ARE TO BE USED TO DEFINE THE GENERAL DIRECTION AND TRUE ANGLES AT INTERSECTION OF PROPERTY AND LAND LINES.

TRACT IS SUBJECT TO EASEMENTS, RESTRICTIVE COVENANTS, SUBDIVISION RESTRICTIONS, AND PLANNING AND ZONING REGULATIONS OF RECORD, IF ANY, AND IS SUBJECT TO SUCH FACTS AS AN ACCURATE AND CURRENT TITLE SEARCH MAY DISCLOSE.

NO STATEMENT IS MADE AS TO THE EXISTENCE OR LOCATION, EXCEPT WHERE SHOWN OF ANY PROPERTY CORNER MONUMENTS.

NO STATEMENT IS MADE CONCERNING SUBSURFACE CONDITIONS.

CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL MEASUREMENTS PRIOR TO BEGINNING CONSTRUCTION. (IF APPLICABLE).

SURVEY VALID ONLY IF PRINT HAS ORIGINAL SEAL AND SIGNATURE OF SURVEYOR IN RED PRESENT ON IT.

UTILITIES NOT FIELD VERIFIED. NO OTHER STATEMENT IS MADE AS TO UTILITY EXISTENCE OR LOCATION.

I CERTIFY THAT THE ABOVE DESCRIBED PROPERTY HAS BEEN SURVEYED, CORNER MONUMENTS HAVE BEEN ESTABLISHED IN ACCORDANCE WITH EXISTING MONUMENTATION IN THE AREA AND IMPROVEMENTS IF ANY ARE AS SHOWN HEREON.

DECLARATION IS MADE TO ORIGINAL PURCHASER OF THE SURVEY. IT IS NOT TRANSFERABLE TO ADDITIONAL INSTITUTIONS OR SUBSEQUENT OWNERS.

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CERTIFICATE OF AUTHORIZATION
ARKANSAS SURVEYING AND CONSULTING INC.
NO. 1462
ARKANSAS-SURVEYOR

REGISTERED
STATE OF ARKANSAS
NO. 1467
SIGNATURE
PROFESSIONAL SURVEYOR

PROPERTY DESCRIPTION
LOT 7, BLOCK 2, JONES ADDITION TO THE CITY OF BLYTHEVILLE, MISSISSIPPI COUNTY, ARKANSAS.

DATE: 12-04-2014	
SCALE: 1"= 30'	
DRAWN BY: MSF/KST	
CHECKED BY: MSF	
FILE NAME: AHTD Job 100705	

ARKANSAS SURVEYING & CONSULTING
ASC
MALVERN AR OFFICE 304-2723
1926 SALEM ROAD
BENTON, ARKANSAS 72019
TELE. (501) 794-4500
FAX. (501) 794-4501
E-MAIL:survey_man_jr@hotmail.com

THE SOUTHERN CO., NLR, INC
100 N DIVISION, BLYTHEVILLE, AR

Figure 2. Site Plan

Server\d\Land Projects 2004\JONES ADDITION\dwg\AHTD Job 100705.dwg

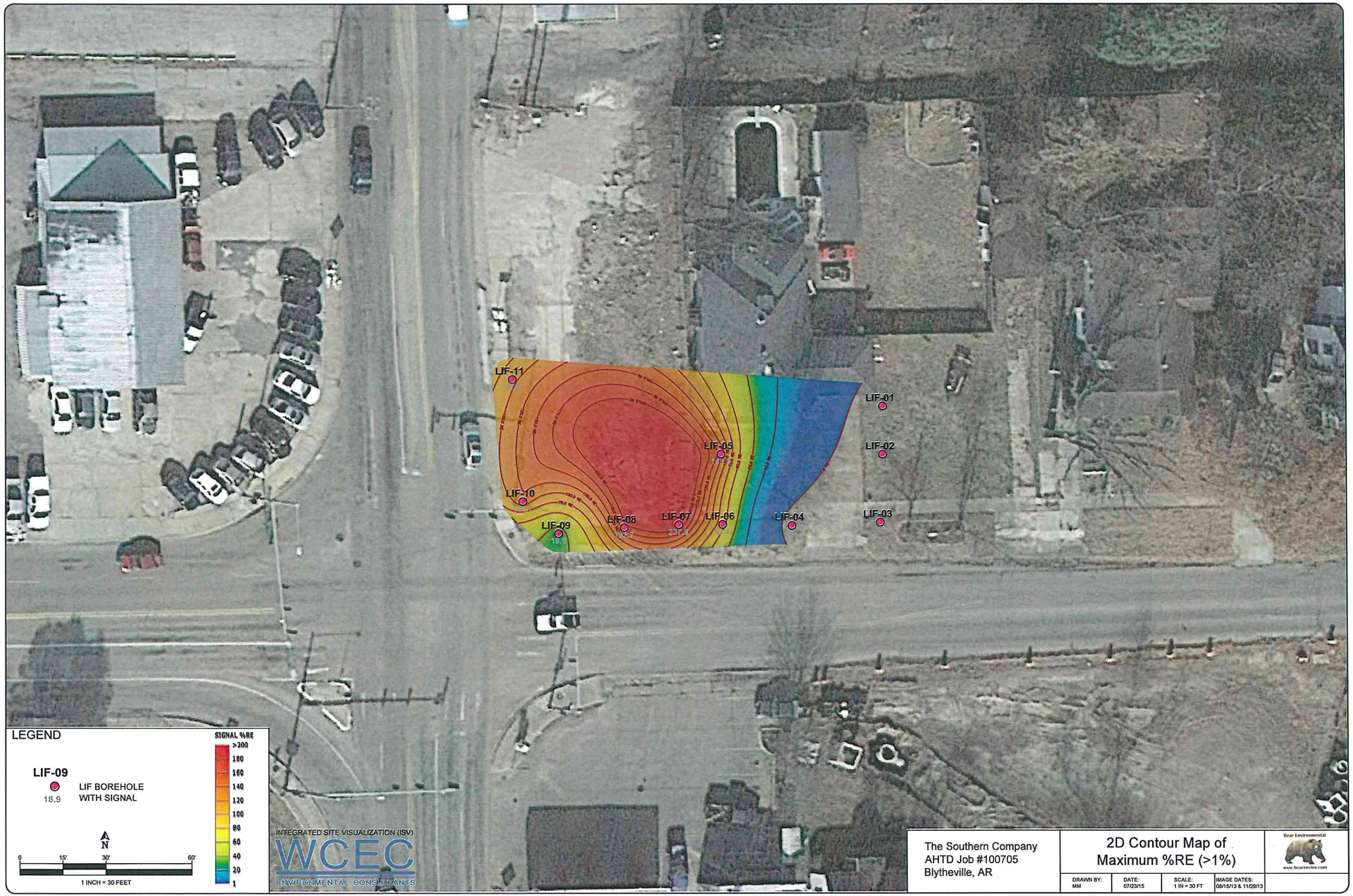
LIF-11
LIF-01
LIF-05
LIF-02
LIF-10
LIF-08
LIF-07
LIF-06
LIF-04
LIF-03
LIF-09
18.9
237.9
LEGEND
LIF-09
18.9
LIF BOREHOLE WITH SIGNAL
N
0
15'
30'
60'
1 INCH = 30 FEET
SIGNAL %RE
>200
180
160
140
120
100
80
60
40
20
1
INTEGRATED SITE VISUALIZATION (ISV)
WCEC
ENVIRONMENTAL CONSULTANTS
The Southern Company
AHTD Job #100705
Blytheville, AR
2D Contour Map of
Maximum %RE (>1%)
DRAWN BY: MM
DATE: 07/23/15
SCALE: 1 IN = 30 FT
IMAGE DATES: 08/15/13 & 11/29/13
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Figure 3

TABLE 1
Monitor Well Gauging
AHTD JOB #100705
ADEQ LUST 47-0040

Well ID	Date Gauged	Top of Casing Elevation (ft.)	Total Depth (ft.)	Depth to PSH (ft.)	Depth to Water (ft.)	PSH Thickness (ft.)	Groundwater Elevation (ft.)	Adjusted Groundwater Elevation (ft.)
MW-1	11/24/14	265.37	25.00	12.45	12.52	0.07	252.85	252.90
MW-1	12/21/14	265.37	25.00	11.98	12.39	0.41	252.98	253.29
MW-1	07/22/15	265.37	25.00	11.04	13.01	1.97	252.36	253.85
Well ID	Date Gauged	Top of Casing Elevation (ft.)	Total Depth (ft.)	Depth to PSH (ft.)	Depth to Water (ft.)	PSH Thickness (ft.)	Groundwater Elevation (ft.)	Adjusted Groundwater Elevation (ft.)
MW-2	11/24/14	265.91	25.00	ND	12.99	0.00	252.92	252.92
MW-2	12/21/14	265.91	25.00	ND	12.60	0.00	253.31	253.31
MW-2	07/22/15	265.91	25.00	ND	12.11	0.00	253.80	253.80
	Date Gauged	Top of Casing Elevation (ft.)	Total Depth (ft.)	Depth to PSH (ft.)	Depth to Water (ft.)	PSH Thickness (ft.)	Groundwater Elevation (ft.)	Adjusted Groundwater Elevation (ft.)
MW-3	11/24/14	266.44	25.00	ND	13.51	0.00	252.93	252.93
MW-3	12/21/14	266.44	25.00	13.06	13.32	0.26	253.12	253.32
MW-3	07/22/15	266.44	25.00	ND	12.41	0.00	254.03	254.03
Well ID	Date Gauged	Casing Elevation (ft.)	Total Depth (ft.)	Depth to PSH (ft.)	to Water (ft.)	PSH Thickness (ft.)	Groundwater Elevation (ft.)	Groundwater Elevation (ft.)
MW-4	11/24/14	266.64	25.00	ND	13.74	0.00	252.90	252.90
MW-4	12/21/14	266.64	25.00	13.35	13.36	0.01	253.28	253.29
MW-4	07/22/15	266.64	25.00	ND	12.75	0.00	253.89	253.89
Well ID	Date Gauged	Top of Casing Elevation (ft.)	Total Depth (ft.)	Depth to PSH (ft.)	Depth to Water (ft.)	PSH Thickness (ft.)	Groundwater Elevation (ft.)	Adjusted Groundwater Elevation (ft.)
MW-5	11/24/14	265.79	25.00	12.88	12.89	0.01	252.90	252.91
MW-5	12/21/14	265.79	25.00	12.44	12.67	0.23	253.12	253.29
MW-5	07/22/15	265.79	25.00	ND	12.40	0.00	253.39	253.39
Well ID	Date Gauged	Top of Casing Elevation (ft.)	Total Depth (ft.)	Depth to PSH (ft.)	Depth to Water (ft.)	PSH Thickness (ft.)	Groundwater Elevation (ft.)	Adjusted Groundwater Elevation (ft.)
MW-6	11/24/14	266.22	25.00	ND	13.31	0.00	252.91	252.91
MW-6	12/21/14	266.22	25.00	12.91	12.97	0.06	253.25	253.30
MW-6	07/22/15	266.22	25.00	ND	12.18	0.00	254.04	254.04
Well ID	Date Gauged	Top of Casing Elevation (ft.)	Total Depth (ft.)	Depth to PSH (ft.)	Depth to Water (ft.)	PSH Thickness (ft.)	Groundwater Elevation (ft.)	Adjusted Groundwater Elevation (ft.)
MW-7	11/24/14	266.11	25.00	ND	13.27	0.00	252.84	252.84
MW-7	12/21/14	266.11	25.00	ND	12.87	0.00	253.24	253.24
MW-7	07/22/15	266.11	25.00	ND	12.40	0.00	253.71	253.71
Well ID	Date Gauged	Top of Casing Elevation (ft.)	Total Depth (ft.)	Depth to PSH (ft.)	Depth to Water (ft.)	PSH Thickness (ft.)	Groundwater Elevation (ft.)	Adjusted Groundwater Elevation (ft.)
MW-8	11/24/14	266.22	25.00	ND	13.32	0.00	252.90	252.90
MW-8	12/21/14	266.22	25.00	ND	12.92	0.00	253.30	253.30
MW-8	07/22/15	266.22	25.00	ND	12.44	0.00	253.78	253.78
Well ID	Date Gauged	Top of Casing Elevation (ft.)	Total Depth (ft.)	Depth to PSH (ft.)	Depth to Water (ft.)	PSH Thickness (ft.)	Groundwater Elevation (ft.)	Adjusted Groundwater Elevation (ft.)
MW-9	11/24/14	266.70	25.00	ND	13.75	0.00	252.95	252.95
MW-9	12/21/14	266.70	25.00	ND	13.35	0.00	253.35	253.35
MW-9	07/22/15	266.70	25.00	ND	12.95	0.00	253.75	253.75
Well ID	Date Gauged	Top of Casing Elevation (ft.)	Total Depth (ft.)	Depth to PSH (ft.)	Depth to Water (ft.)	PSH Thickness (ft.)	Groundwater Elevation (ft.)	Adjusted Groundwater Elevation (ft.)
MW-10*	11/24/14	266.28	25.00	ND	17.84	0.00	248.44	248.44
MW-10*	12/21/14	266.28	25.00	ND	17.25	0.00	249.03	249.03
MW-10*	07/22/15	266.28	25.00	ND	16.53	0.00	249.75	249.75

Adj. GW Elev.=(TOC Elev. - Depth to GW) + (0.755 x PSH Thickness)
ND - not detected
NM - not measured

* Groundwater level adjusted for angled well

TABLE 1
Monitor Well Gauging
AHTD JOB #100705
ADEQ LUST 47-0040

Well ID	Date Gauged	Top of Casing Elevation (ft.)	Total Depth (ft.)	Depth to PSH (ft.)	Depth to Water (ft.)	PSH Thickness (ft.)	Groundwater Elevation (ft.)	Adjusted Groundwater Elevation (ft.)
MW-11	11/24/14	266.53	25.00	ND	13.54	0.00	252.99	252.99
MW-11	12/21/14	266.53	25.00	ND	13.15	0.00	253.38	253.38
MW-11	07/22/15	266.53	25.00	ND	12.69	0.00	253.84	253.84
Well ID	Date Gauged	Top of Casing Elevation (ft.)	Total Depth (ft.)	Depth to PSH (ft.)	Depth to Water (ft.)	PSH Thickness (ft.)	Groundwater Elevation (ft.)	Adjusted Groundwater Elevation (ft.)
MW-12	11/24/14	265.85	25.00	ND	12.73	0	253.12	253.12
MW-12	12/21/14	265.85	25.00	ND	12.34	0	253.51	253.51
MW-12	07/22/15	265.85	25.00	11.84	11.85	0.01	254.00	254.01
Well ID	Date Gauged	Top of Casing Elevation (ft.)	Total Depth (ft.)	Depth to PSH (ft.)	Depth to Water (ft.)	PSH Thickness (ft.)	Groundwater Elevation (ft.)	Adjusted Groundwater Elevation (ft.)
MW-13	11/24/14	266.25	25.00	ND	13.36	0	252.89	252.89
MW-13	12/21/14	266.25	25.00	ND	12.97	0	253.28	253.28
MW-13	07/22/15	266.25	25.00	12.22	13.41	1.19	252.84	253.74
Well ID	Date Gauged	Top of Casing Elevation (ft.)	Total Depth (ft.)	Depth to PSH (ft.)	Depth to Water (ft.)	PSH Thickness (ft.)	Groundwater Elevation (ft.)	Adjusted Groundwater Elevation (ft.)
MW-14*	11/24/14	266.29	25.00	ND	18.16	0	248.13	248.13
MW-14*	12/21/14	266.29	25.00	ND	17.55	0	248.74	248.74
MW-14*	07/22/15	266.29	25.00	ND	16.34	0.00	249.95	249.95
Well ID	Date Gauged	Top of Casing Elevation (ft.)	Total Depth (ft.)	Depth to PSH (ft.)	Depth to Water (ft.)	PSH Thickness (ft.)	Groundwater Elevation (ft.)	Adjusted Groundwater Elevation (ft.)
MW-15*	11/24/14	265.44	25.00	ND	16.84	0	248.60	248.60
MW-15*	12/21/14	265.44	25.00	ND	16.31	0	249.13	249.13
MW-15*	07/22/15	265.44	25.00	ND	16.34	0	249.10	249.10

Adj. GW Elev.=(TOC Elev. - Depth to GW) + (0.755 x PSH Thickness)
ND - not detected
NM - not measured

* Groundwater level adjusted for angled well

APPENDIX B

INVESTIGATION PHOTOGRAPHS, SAFETY PLAN COMPLIANCE, and DAILY REPORTS

Figure 1 This photograph depicts the Bear Environmental crew initiating the Laser Induced Fluorescence (LIF) survey at the AHTD Job # 100705 on July 21, 2015.

Figure 2 This photograph depicts the Bear Environmental crew performing the LIF survey at the AHTD Job # 100705 on July 21, 2015 in Mrs. Onisca McCaig Vanoven's front yard.

Figure 3 This photograph depicts the Bear Environmental crew performing the LIF survey at the AHTD Job # 100705 on July 21, 2015 in right of way adjacent to Mrs. Onisca McCaig Vanoven's front yard.

Figure 4 This photograph depicts the Bear Environmental crew performing the LIF survey at the AHTD Job # 100705 on July 21, 2015.

Safety Plan Compliance

I T-Scott Kemph have received a copy of the Health and Safety Plan (the plan) for the project. I have reviewed the plan, understand the plan, and agree to comply with all of it's provisions. I understand that I could be prohibited from working on the project for violating and of ht health and safety requirements specified in the plan.

Signed T-Scott Date 7-21-15

Printed Name T-Scott Kemph

Company The Southern Company

Safety Plan Compliance

I Kevin VanDeVusse have received a copy of the Health and Safety Plan (the plan) for the project. I have reviewed the plan, understand the plan, and agree to comply with all of it's provisions. I understand that I could be prohibited from working on the project for violating and of ht health and safety requirements specified in the plan.

Signed _____ Date 7/21/15

Printed Name Kevin VanDeVusse

Company BEAR ENVIRONMENTAL

Safety Plan Compliance

I Brian Starr have received a copy of the Health and Safety Plan (the plan) for the project. I have reviewed the plan, understand the plan, and agree to comply with all of it's provisions. I understand that I could be prohibited from working on the project for violating and of ht health and safety requirements specified in the plan.

Signed Brian S Date 7/21/15

Printed Name Brian Starr

Company Bear

Safety Plan Compliance

I Al C. Smith have received a copy of the Health and Safety Plan (the plan) for the project. I have reviewed the plan, understand the plan, and agree to comply with all of it's provisions. I understand that I could be prohibited from working on the project for violating and of ht health and safety requirements specified in the plan.

Signed Al C. Smith Date 7-21-15

Printed Name Al C. Smith

Company Bear

PHOTO-IONIZATION DETECTOR FIELD CALIBRATION SHEET

SOCO TECHNICIAN:__Scott Kemph DATE: July 21 and July 22, 2015

WEATHER: Hot and Dry

PROJECT NAME: AHTD Job #100705 PROJECT NUMBER: 5669

PROJECT LOCATION: 100 Division Street
Blytheville, Arkansas 72315

PID MODEL	Minnie Rae 3000
PID SERIAL NUMBER	592-909970
CALIBRATION SPAN GAS	Isobutylene
CALIBRATION STANDARD (IN PPM)	100

F I D F I E L D C A L I B R A T I O N D A T A

CALIBRATION TIME	FIELD CALIBRATION SETTING (IN PPM)	SOCO TECHNICIAN INITIALS
7/20/15 1700	99.8	TSK

GENERAL REMARKS:

SOCO TECHNICIAN SIGNATURE: T. Scott Kemph DATE: 7-20-15

\\SOLITSBS01\USERS\SCOTTK\MY DOCUMENTS\PROJECTS\AHTD\BLYETHEVILLE, 2012\ADDITIONAL SITE ASSESSMENT\IMPLEMENTATION\7.21.2015_PID CALIBRATION.DOCX

FIELD CALIBRATION SHEET

SOCO TECHNICIAN:__Scott Kemph DATE: July 21 and July 22, 2015

WEATHER: Hot and Dry

PROJECT NAME: AHTD Job #100705 PROJECT NUMBER: 5669

PROJECT LOCATION: 100 Division Street
Blytheville, Arkansas 72315

MODEL	Eagle RKI
SERIAL NUMBER	E 82054
CALIBRATION SPAN GAS	Methane (CH4)
CALIBRATION STANDARD (In Parts Per Million)	30% LEL

F I D F I E L D C A L I B R A T I O N D A T A

CALIBRATION TIME and DATE	FIELD CALIBRATION SETTING (IN %)	SOCO TECHNICIAN INITIALS
7/20/15 1740	29.7%	TSK

GENERAL REMARKS:

SOCO TECHNICIAN SIGNATURE: N. Scott DATE: 7-20-15

\\SOLITSBS01\USERS\SCOTTK\MY DOCUMENTS\PROJECTS\AHTD\BLYETHEVILLE, 2012\ADDITIONAL SITE ASSESSMENT\7.21.2015_EAGLE_RKI_SOCO___CALIBRATION_SHEET[1].DOCX

Time	PID	EID
1018	0ppm	0%LEL
1118	0ppm	0%LEL
1200	0ppm	0%LEL
1218	0ppm	0%LEL
1325	0ppm	0%LEL
1418	0.3ppm	0%LEL
1510	0.0ppm	0%LEL

7-21-15 ~~Start~~ AHTD LIF survey

0945 Arrive site, tailgate safety meeting w/ Bear Environmental

0950 walk around discuss boring locations

1015 setup/start LIF1

1020 complete LIF-2 plug w/ bentonite

1050 setup/start LIF-2

1108 complete LIF2, plug w/ bentonite

1110 setup/start LIF 3

1120 complete LIF-3, plug w/ bentonite

1145 start LIF-4

1200 complete LI-4, plug w/ bentonite

1210 start LIF 5

1230 Complete LIF-5 plug w/ bentonite

~~1250~~ Start LIF-6

1315 complete LIF-6, plug w/ bentonite

1320 start LIF-7

1340 complete LIF-7, plug w/ bentonite

1345 start LIF 8

1348 AHTD personnel stop for 10 minute

1400 complete LIF 8, plug w/ bentonite

1415 Start LIF-9

1428 complete LIF-9

1443 start LIF-10

1500 complete LIF10 plug w/ bentonite

Please see next page

well #	FPL	WL
11		12.69
9		12.95
8		12.44
7		12.40
6		12.18
4		12.25
3		12.41
2		12.11
1	11.04	13.09
12	11.84	11.85
5	11.64	11.65
13	12.22	13.41
15		19.95
10		20.19
14		19.95

7-21-15 AHTD LIF Survey/continued

1515 Start LIF-11

1542 complete LIF-11 Plug w/ bentonite

1543 site cleanup Depart site

A. Scott

7-22-15 AHTD GW Gauging

0610 Arrive jobsite
open wells

0625 Begin gauging

0810 complete gauging

0815 site clean up depart site

A. Scott

7-22-15

APPENDIX C

BEAR ENVIRONMENTAL INC. SUBSURFACE CHACTERIZATION using LIF AHTD JOB #100705

SUBSURFACE CHARACTERIZATION USING LASER INDUCED FLUORESCENCE
AHTD JOB #100705
100 N. DIVISION STREET
BLYTHEVILLE, ARKANSAS
FACILITY ID# 47000222
LUST # 47-0040

PREPARED FOR

THE SOUTHERN CO., NLR, INC.
1201 N. Cypress Street
North Little Rock, AR 72114
July 28, 2015

PREPARED BY

Bear Environmental Services, Inc.
1039 Ponder Trammell Road
Juliette, Georgia 31046
678-409-7925

www.bearenviro.com

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2D Map of UVOST Data	7

APPENDICES

Appendix A: UVOST Logs

1039 Ponder Trammell Road - Juliette, GA 31046
Tel: 678-409-7925 - Fax: 678-623-3568
www.bearenviro.com

Introduction

Bear Environmental Services, Inc. (Bear) was contracted by The Southern Co., NLR, Inc. to perform a Laser Induced Fluorescence (LIF) study of the subsurface soils at the AHTD Job #100705 site, located at 100 North Division Street, Blytheville, AR. The LIF study was performed on July 21, 2015.

A total of 11 LIF soundings were performed to an approximate depth of 25 feet below land surface (bls). A track mounted, Geoprobe Model 6610DT Direct Push Technology (DPT) rig was used to advance the LIF tooling and rod string. No confirmation soil or groundwater samples were collected during this mobilization.

Description of LIF Equipment

Fluorescence is a property of some compounds where the absorption of UV light stimulates the release of photons (light) of a longer wavelength than the excitation light. This release of photons can be used to detect small amounts of substance (i.e. polycyclic aromatic hydrocarbons – PAHs) in a larger matrix (soil). This method of PAH detection has been used in laboratories for decades. UVOST uses these fluorescence properties to collect in-situ fluorescence data.

The UVOST system consists of an Excimer laser, two fiber optic cables (pre-strung through the DPT rods), an optical detection system, and a UVOST probe. The UVOST probe, which is approximately 12-inches (30 cm) in length and 1.5-inches (3.8 cm) in diameter, consists of a sapphire window, a parabolic mirror, and a Shock Prevention Optical Cavity (SPOC).

UVOST screening is performed by driving the UVOST probe into the soil at the nominal rate of 0.8 inches per second (2 cm/sec). As the probe is being advanced, energy, in the form of photons (308nm), is generated by the excimer laser. These photons travel through one of the fiber optic cables to the SPOC. Once at the SPOC, the photons are reflected through the sapphire window. If any PAHs are in contact with the sapphire window, they absorb this energy and then emit fluorescence in order to return to their base state. A portion of this fluorescence is carried back to the optical detection system via the second fiber optic.

As the probe is advanced, the total fluorescence intensity is displayed in real-time as a function of depth on the UVOST system computer. In addition, four specific wavelengths – 350, 400, 450, and 500 nanometers (nm) of fluorescence are monitored and recorded. These wavelengths represent a common range of fluorescence associated with PAHs. Typically lighter fuels (jet fuel and gasoline) emit fluorescence at the shorter wavelengths – 350nm and 400nm, while heavier compounds such as coal tar, creosote, and crude emit fluorescence at the longer wavelengths – 450nm and 500nm.

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Immediately upon completion of testing, computer printouts of the fluorescence versus depth log are generated. Typically, the total fluorescence intensity is proportion to contaminant concentration. In addition, at any depth, or over a depth range, "callouts" of the fluorescence signature over the four monitored wavelengths can be generated. These callouts provide information used to identify the specific contaminant present.

Calibration of the LIF System

Reference Emitter (RE): Prior to, and upon completion, of every log, the RE is placed on the window to determine the qualitative and semi-quantitative properties of the system. The RE must have the correct waveform shape and total fluoresce intensity to proceed with testing.

Background: In addition to the RE, background readings are measured and recorded before and after every log. The background reading is a measure of the optical cleanliness of the light path (e.g. fiber optics, mirror, window, filters). Generally background values of 0.1% - 1% are accepted by the UVOST operator. The background waveform is not applied to the collected data and is taken only as a measurement of general data quality.

UVOST Log Interpretation

The UVOST system records and analyzes three (3) basic components of the induced fluorescence. These components are:

- Total Flourescence Intensity – how "bright" does the product fluoresce.
- Specific Flourescence Wavelength – how much fluorescence occurs at four (4) specific wavelengths (colors).
- Duration of Fluorescence – how long does the product fluoresce at each of the monitoried wavelengths.

In the center of each UVOST log is the "Signal" graph - which is a plot of the total fluorescence response versus depth. Total fluorescence is the sum of fluorescence of the four monitored wavelengths at a specific depth and is presented as a percentage of RE. The %RE scales with NAPL fluorescence and can be significantly higher the RE response. The fill color is based on the relative contribution of each individual wavelegth's area to the total waveform area. The channel to color relationship and corresponding wavelengths are given in the upper right corner of the Signal plot.

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The left side of each UVOST log displays up to five (5) waveform "callout" boxes. Each callout box represent individual waveforms from specific depths or depth ranges from the log. Each waveform represents the intensity and relationship of the four (4) monitored wavelengths. Various NAPLs will have a unique waveform "fingerprints" based on the relative amplitude of the individual wavelengths and/or the widening of one or more of the wavelengths.

The graph on the far right of each UVOST log is the Push Rate and refelects the rate the probe is being advanced into the subsurface. A constant rate of 0.8 in/sec is the target rate of advancement. However, soil density and rod friction can influence the push rate.

Results

Elevated fluorescence responses were noted on LIF locations 05, 06, 07, 08, 09, 10 and 11. The majority of the waveform signatures appear to be aged, weathered gasolene and possibly a combination of some deisel fuel. The majority of the flourescence responses were encountered in a depth range of 14 to 18 feet below land surface. This correlates to the approximate top of the water table at the site.

Please note, various factors can effect the total flourescence intensity and waveform signatures associated with UVOST screening. These factors include age of the product, weathering of the product, natural attenuation of the product, and oxygen content in the subsurface. We recommend confirmation sampling to definatively identify the product types and concentrations.

Locations 01, 02, 03 and 04 returned no significant fluorescence response that is associated with petroleum contamination. These borings contain no free phase LNAPL and for the purposes of the LIF investigation can be considered clean. These borings may still contain dissolved phase contamination.

Please note that the majority of the LIF locations were located along the southern perimeter of the site property. No locations were performed in the center of the propertty or in the area of the former tank pit or dispenser island. We recommend additional LIF screening across the site to better delineate the source of the contamination as well as additional locations at properties located to the north, south amd west of the site.

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UVOST Summary Log

AHTD Job #100705
Blytheville, Arkansas

FILE	DATE	TIME	FINAL DEPTH	MAX SIGNAL	MAX SIGNAL DEPTH	DEPTH INTERVAL WITH ELEVATED RESPONSE > 2% (FT)		NOTES
						TOP	BOTTOM	
LIF-01	7/21/15	11:20	25.10	4.4	1.0	-	-	Pre-Probed to 4 Feet
LIF-02	**7/21/15**	**11:48**	**25.12**	**1.0**	**0.4**	**-**	**-**	Pre-Probed to 4 Feet
LIF-03	7/21/15	12:13	25.16	0.5	0.2	-	-	Pre-Probed to 4 Feet
LIF-04	**7/21/15**	**12:40**	**25.06**	**0.5**	**0.0**	**-**	**-**	Pre-Probed to 4 Feet Tank Excavation to 12 Feet
LIF-05	7/21/15	13:10	25.10	143.8	15.9	15	18	Pre-Probed to 4 Feet
LIF-06	**7/21/15**	**13:52**	**25.05**	**62.7**	**14.7**	**14**	**15**	Pre-Probed to 4 Feet Tank Excavation to 9.5 Feet
LIF-07	7/21/15	14:18	25.05	237.9	14.0	13	16	Pre-Probed to 4 Feet Tank Excavation to 5 Feet
LIF-08	**7/21/15**	**14:43**	**25.24**	**192.7**	**16.0**	**14**	**17**	Pre-Probed to 4 Feet
LIF-09	7/21/15	15:18	25.02	18.9	14.7	12	16.5	Pre-Probed to 4 Feet
LIF-10	**7/21/15**	**15:57**	**25.17**	**122.7**	**15.2**	**14**	**16**	Pre-Probed to 4 Feet
LIF-11	7/21/15	16:21	25.05	92.8	14.7	12	16	Pre-Probed to 4 Feet

A portion of every invoice goes to fight childhood cancer through cure – www.curechildhoodcancer.org

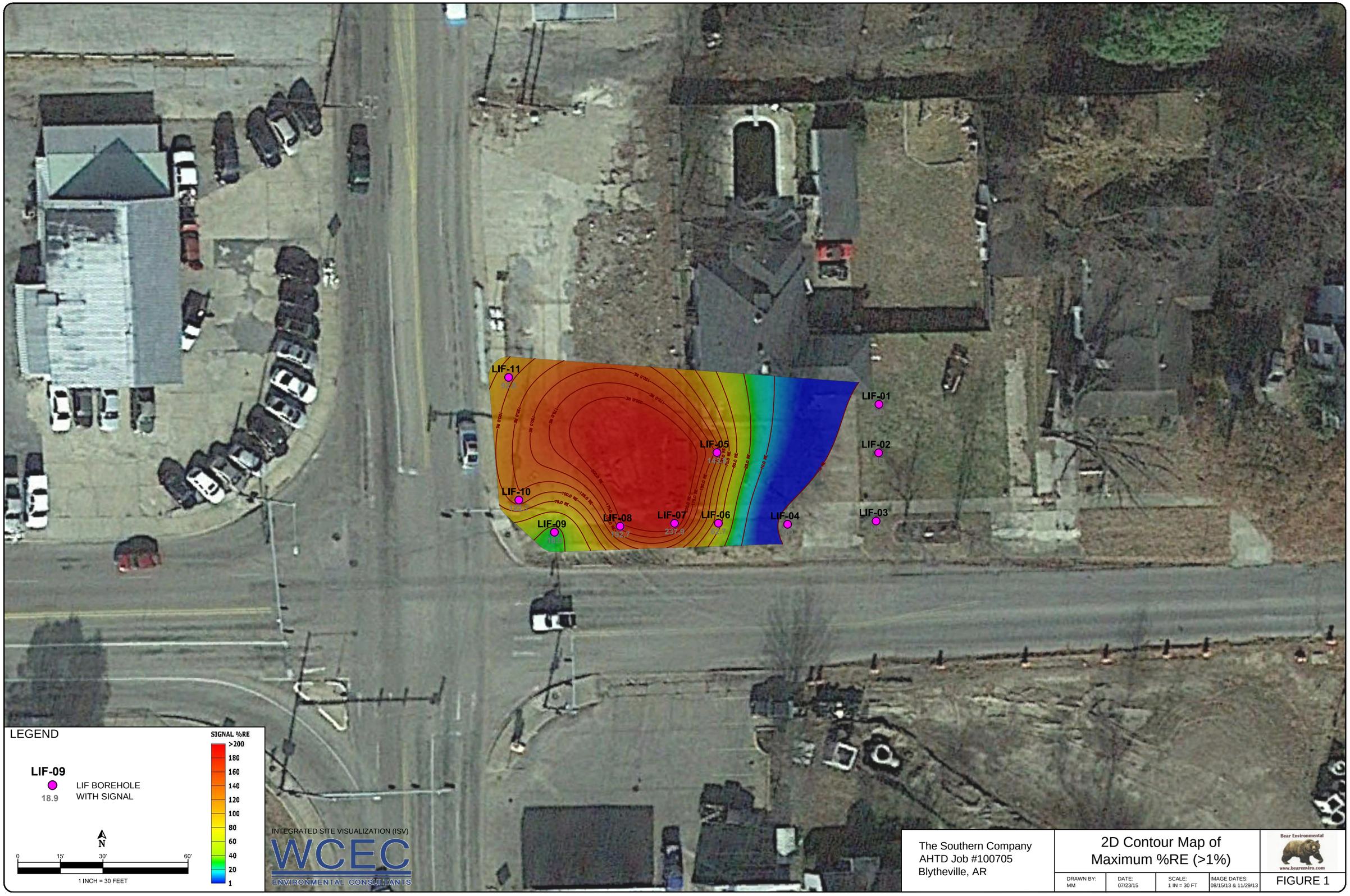
LIF-11
LIF-01
LIF-05
LIF-02
LIF-10
LIF-09
LIF-08
LIF-07
LIF-06
LIF-04
LIF-03
LEGEND
LIF-09
18.9
LIF BOREHOLE
WITH SIGNAL
N
0
15'
30'
60'
1 INCH = 30 FEET
SIGNAL %RE
>200
180
160
140
120
100
80
60
40
20
1
INTEGRATED SITE VISUALIZATION (ISV)
WCEC
ENVIRONMENTAL CONSULTANTS
The Southern Company
AHTD Job #100705
Blytheville, AR
2D Contour Map of
Maximum %RE (>1%)
DRAWN BY:
MM
DATE:
07/23/15
SCALE:
1 IN = 30 FT
IMAGE DATES:
08/15/13 & 11/29/13
Bear Environmental
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FIGURE 1

Appendix A

UVOST LOGS

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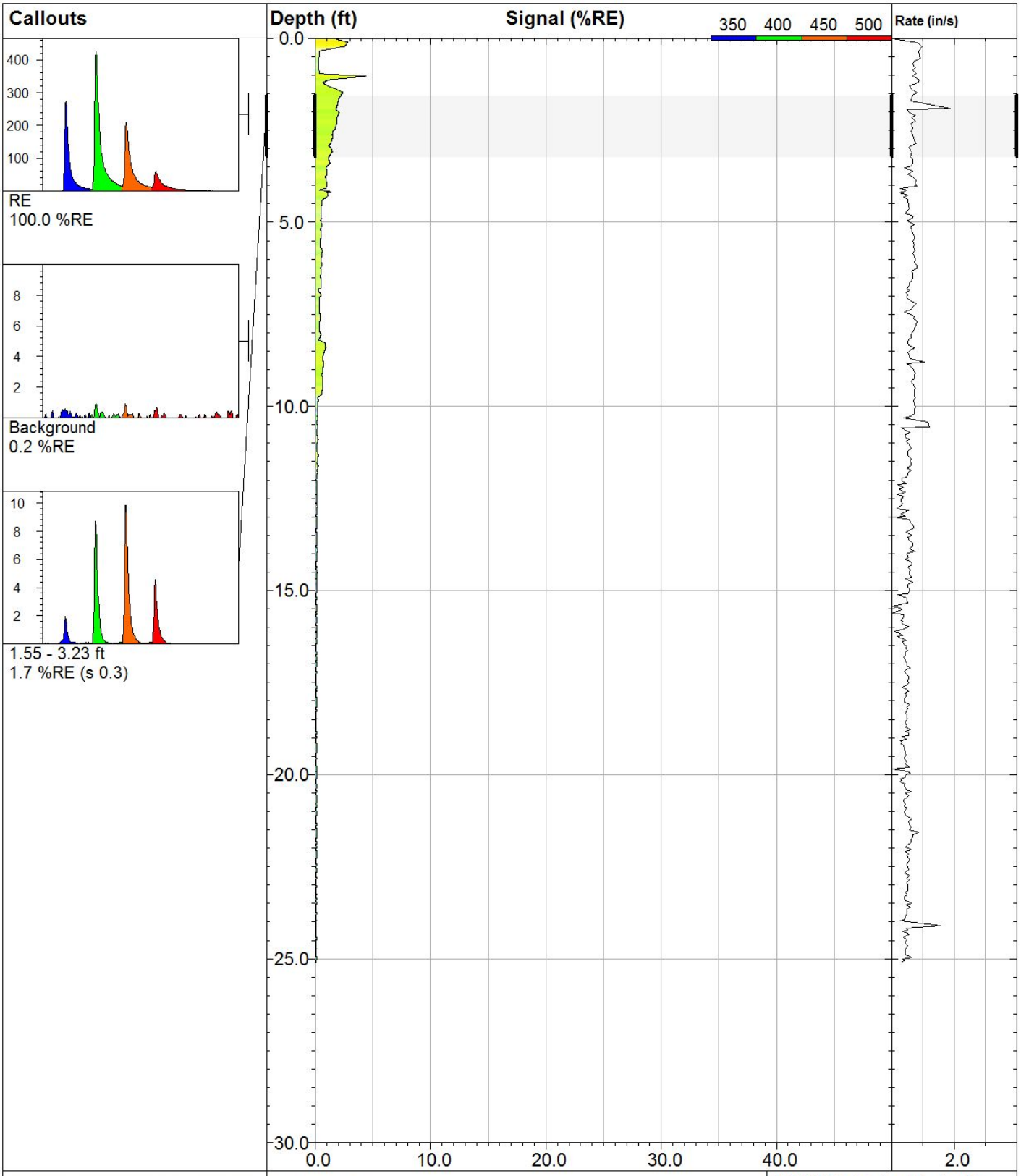

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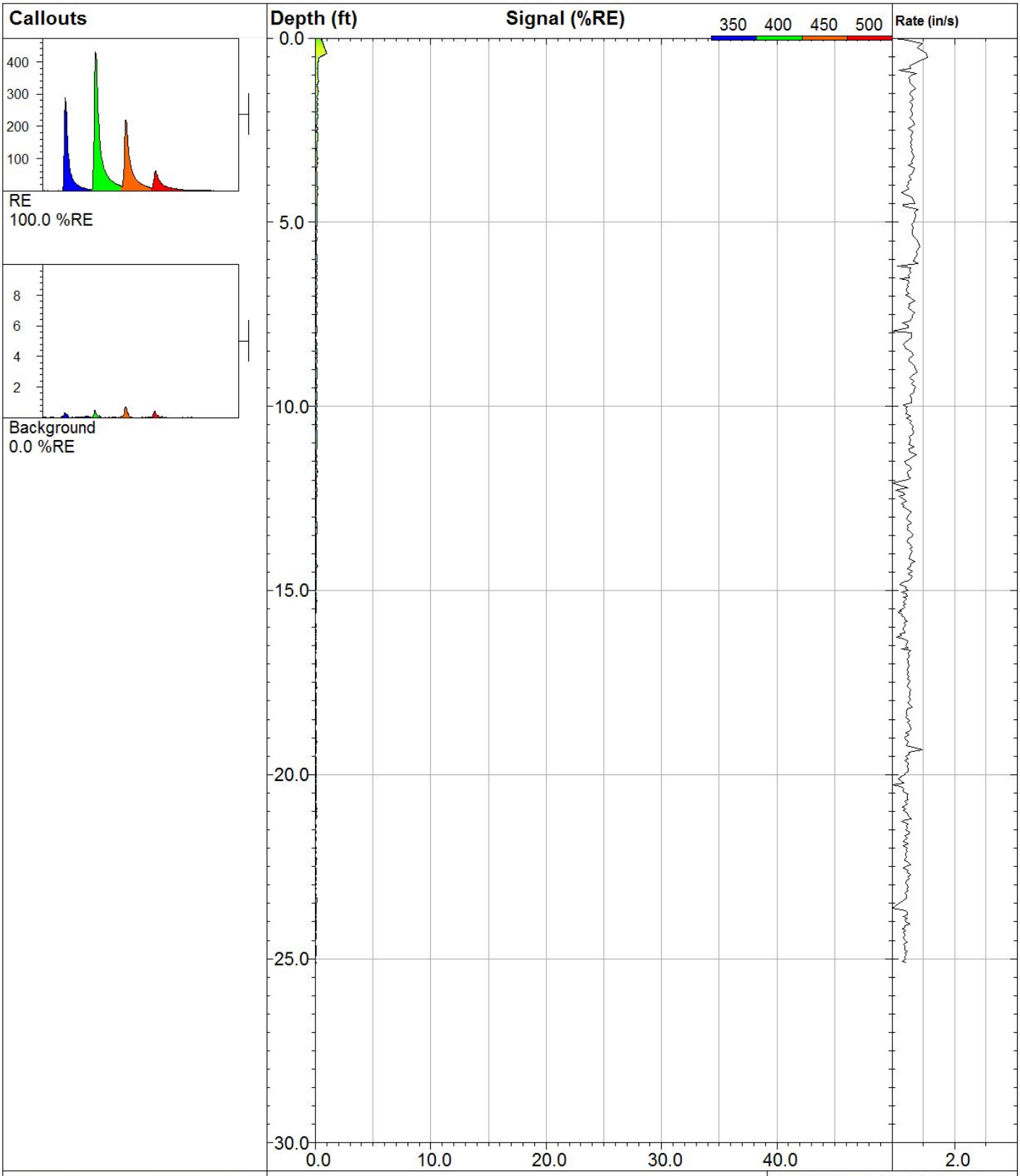
LIF-01

UVOST By Dakota
www.DakotaTechnologies.com

Site: **AHTD Job #100705**	*Y Coord.(Lat-N) / System:* **Unavailable / NA**	*Final depth:* **25.10 ft**
Client / Job: **The Southern Co /**	*X Coord.(Lng-E) / Fix:* **Unavailable / NA**	*Max signal:* **4.4 %RE @ 1.04 ft**
Operator / Unit: **KVDV / UVOST1434**	*Elevation:* **Unavailable**	*Date & Time:* **2015-07-21 11:20 EDT**



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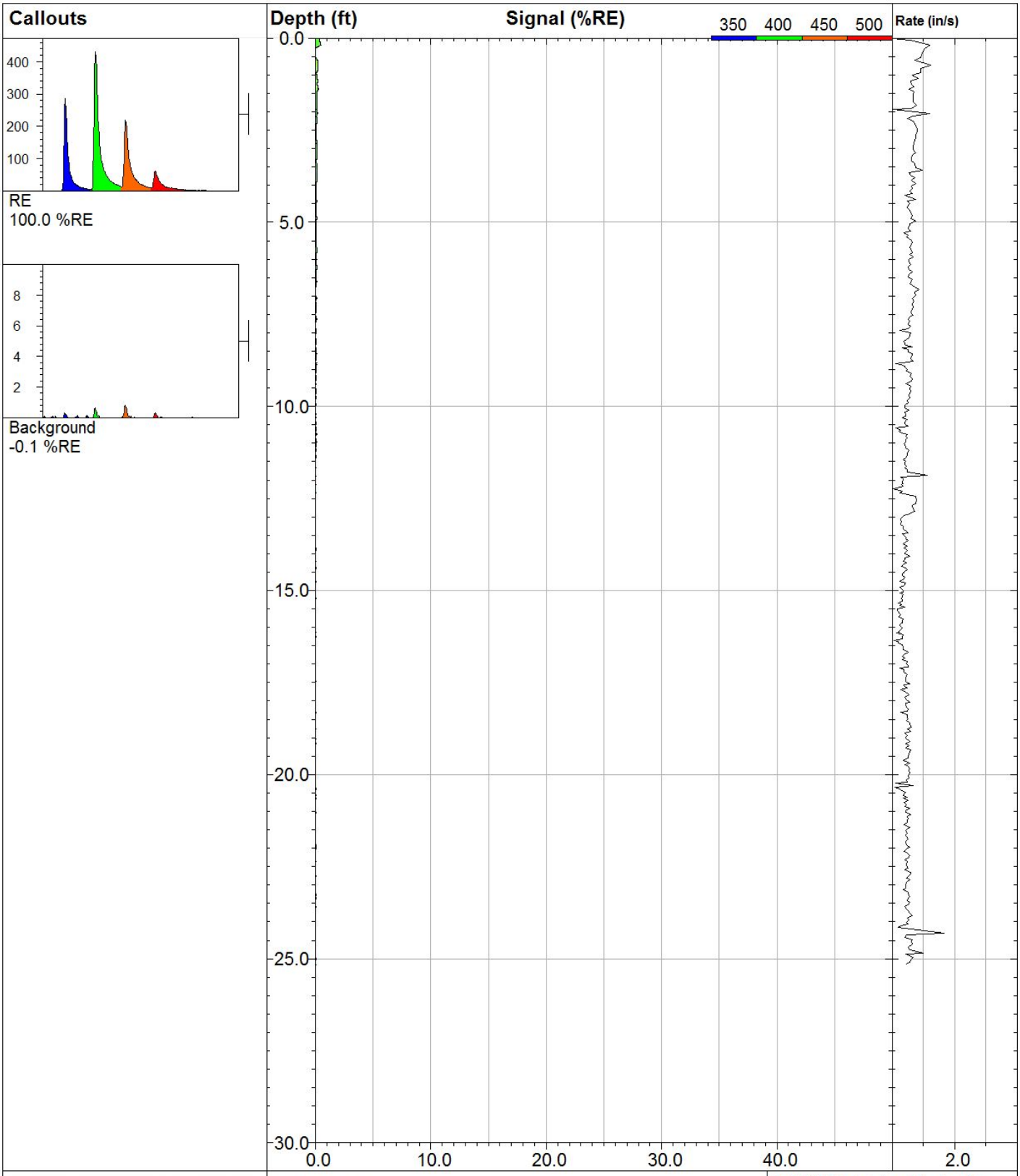
LIF-02

UVOST By Dakota
www.DakotaTechnologies.com

Site: **AHTD Job #100705**	*Y Coord.(Lat-N) / System:* **Unavailable / NA**	*Final depth:* **25.12 ft**
Client / Job: **The Southern Co /**	*X Coord.(Lng-E) / Fix:* **Unavailable / NA**	*Max signal:* **1.0 %RE @ 0.41 ft**
Operator / Unit: **KVDV / UVOST1434**	*Elevation:* **Unavailable**	*Date & Time:* **2015-07-21 11:48 EDT**



Bear Environmental

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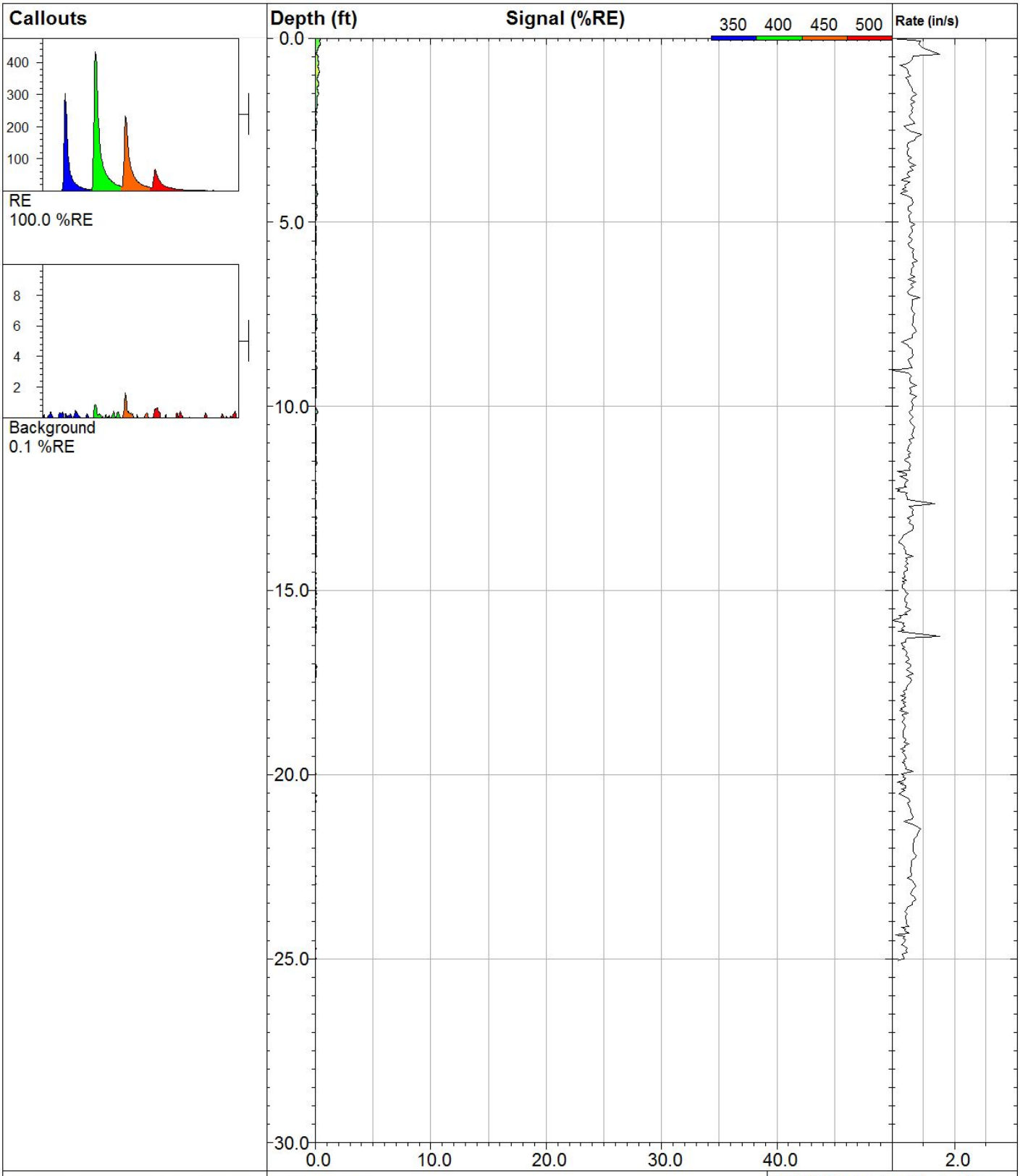
LIF-03

UVOST By Dakota
www.DakotaTechnologies.com

Site: **AHTD Job #100705**	*Y Coord.(Lat-N) / System:* **Unavailable / NA**	*Final depth:* **25.16 ft**
Client / Job: **The Southern Co /**	*X Coord.(Lng-E) / Fix:* **Unavailable / NA**	*Max signal:* **0.5 %RE @ 0.19 ft**
Operator / Unit: **KVDV / UVOST1434**	*Elevation:* **Unavailable**	*Date & Time:* **2015-07-21 12:13 EDT**



Bear Environmental

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LIF-04

UVOST By Dakota
www.DakotaTechnologies.com

Site: **AHTD Job #100705**	*Y Coord.(Lat-N) / System:* **Unavailable / NA**	*Final depth:* **25.06 ft**
Client / Job: **The Southern Co /**	*X Coord.(Lng-E) / Fix:* **Unavailable / NA**	*Max signal:* **0.5 %RE @ 0.00 ft**
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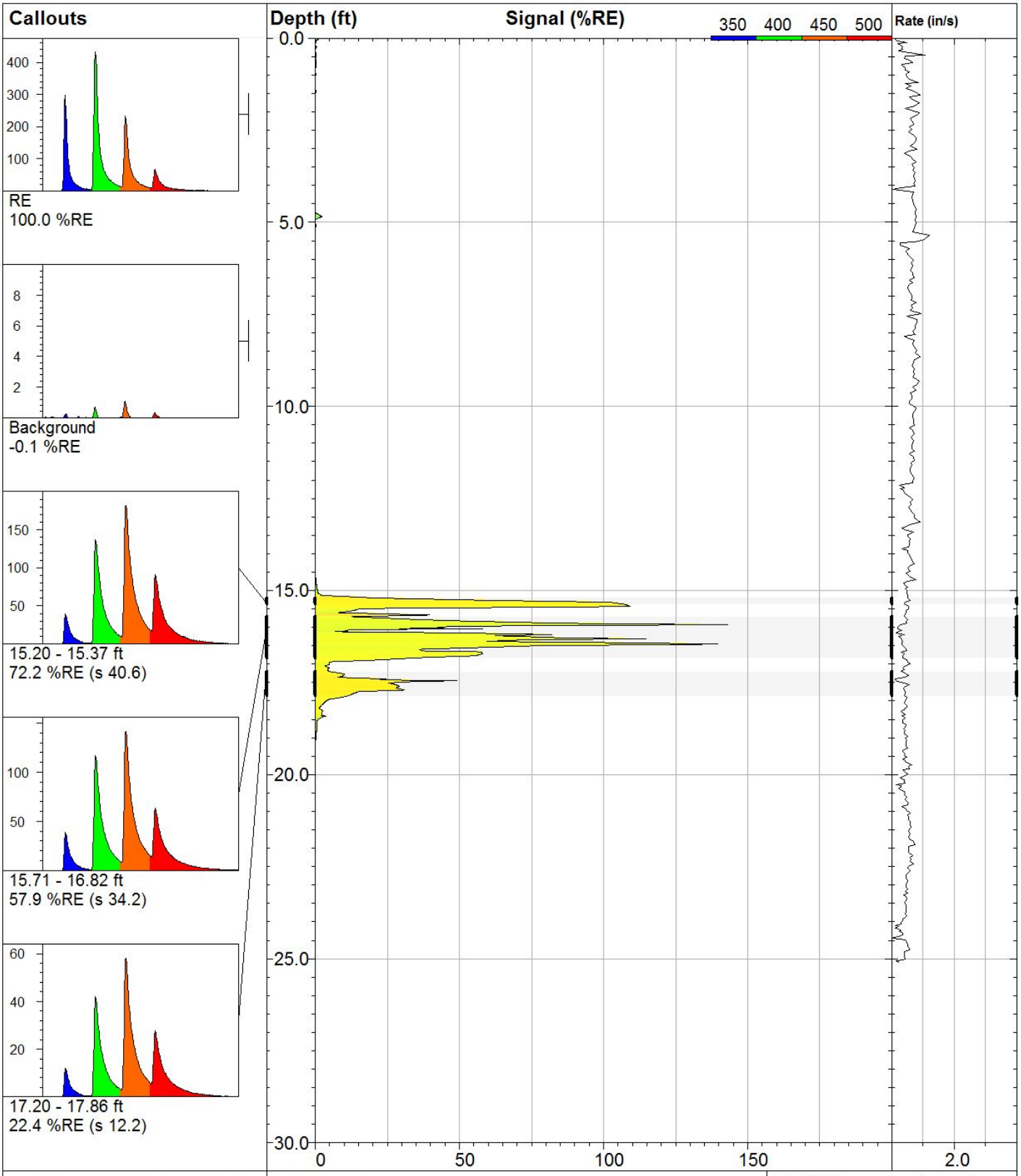

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LIF-05

UVOST By Dakota
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Site: **AHTD Job #100705**	*Y Coord.(Lat-N) / System:* **Unavailable / NA**	*Final depth:* **25.10 ft**
Client / Job: **The Southern Co /**	*X Coord.(Lng-E) / Fix:* **Unavailable / NA**	*Max signal:* **143.8 %RE @ 15.93 ft**
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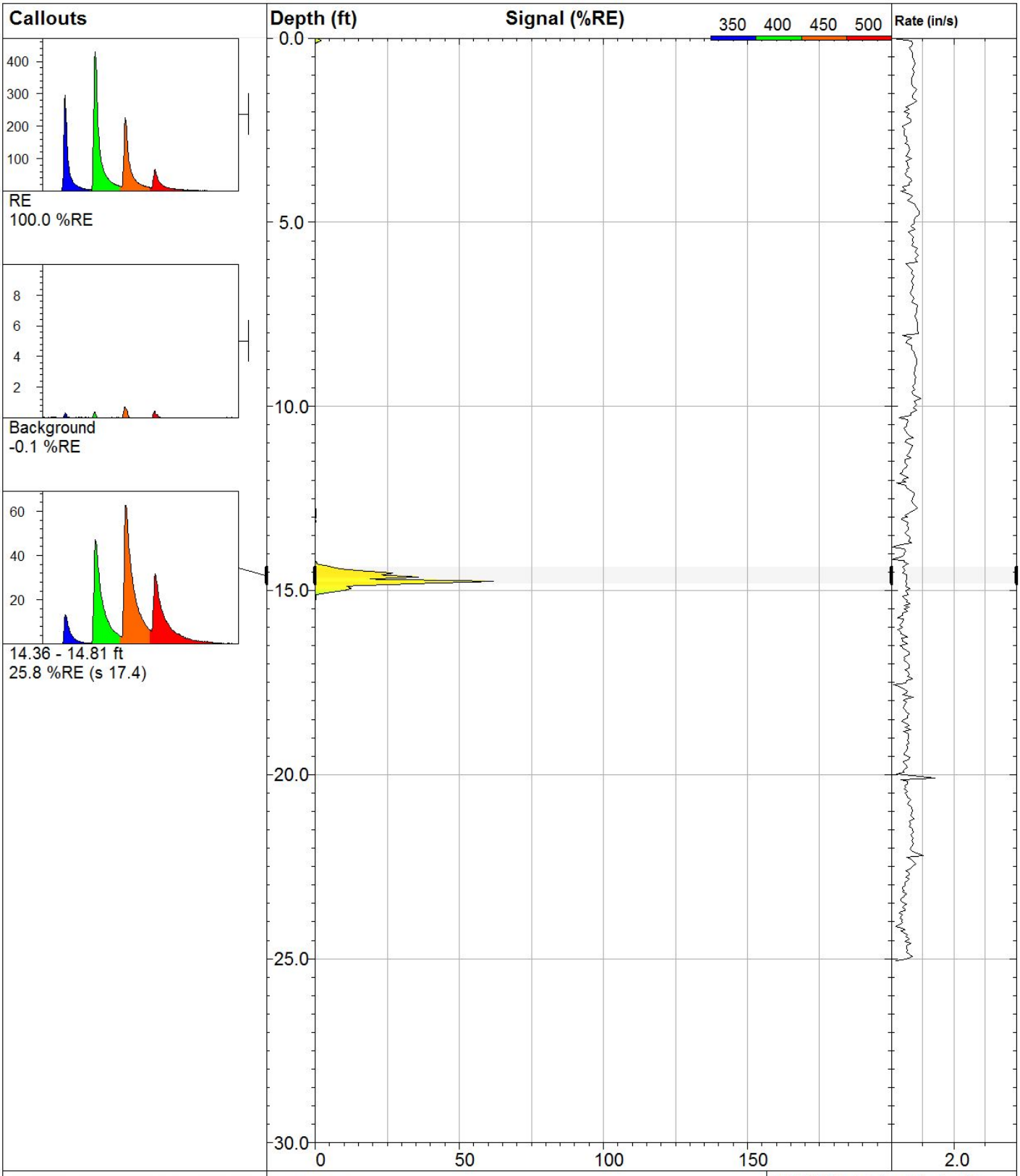

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LIF-06

UVOST By Dakota
www.DakotaTechnologies.com

Site: **AHTD Job #100705**	*Y Coord.(Lat-N) / System:* **Unavailable / NA**	*Final depth:* **25.05 ft**
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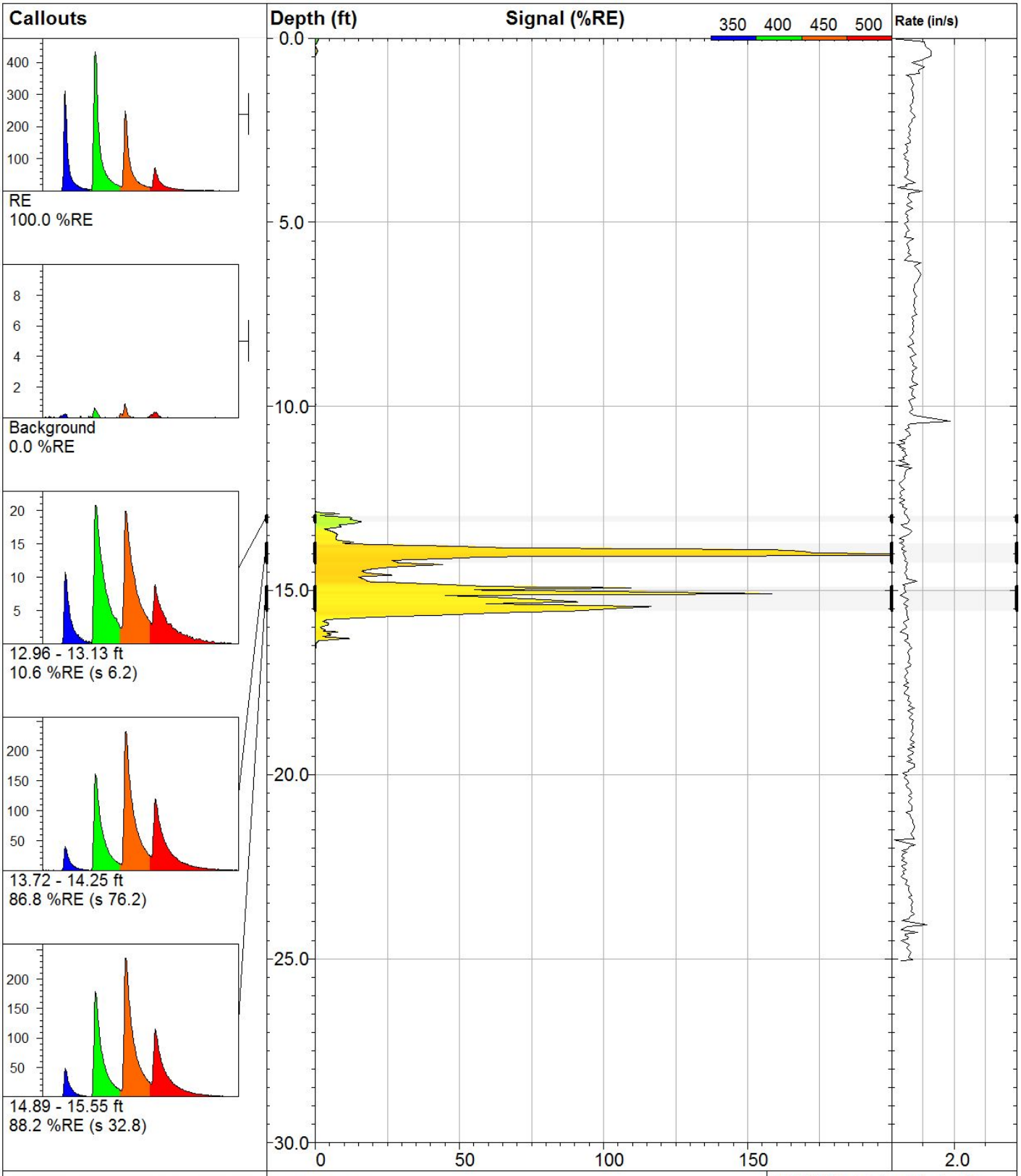

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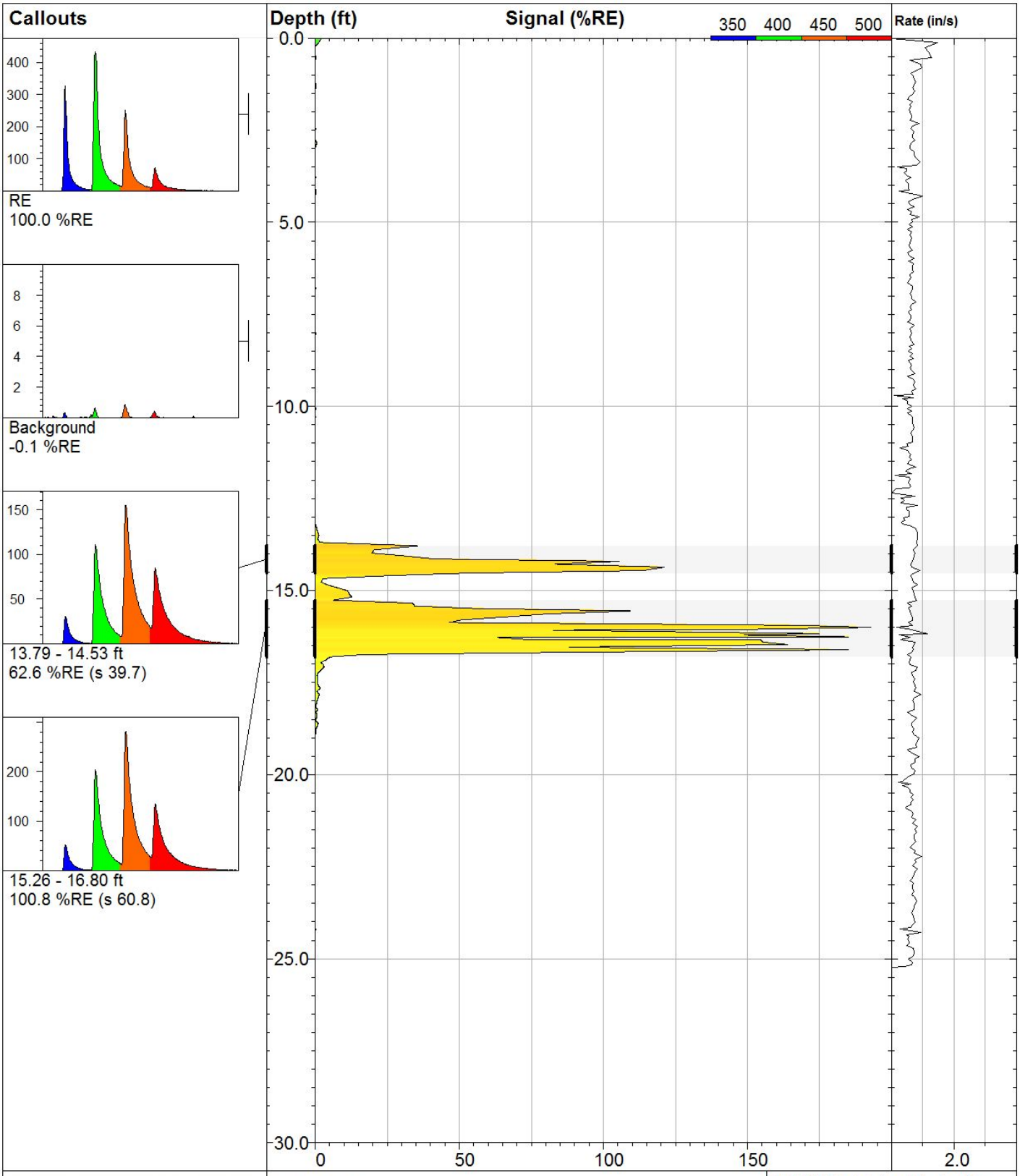
LIF-07

UVOST By Dakota
www.DakotaTechnologies.com

Site: **AHTD Job #100705**	*Y Coord.(Lat-N) / System:* **Unavailable / NA**	*Final depth:* **25.05 ft**
Client / Job: **The Southern Co /**	*X Coord.(Lng-E) / Fix:* **Unavailable / NA**	*Max signal:* **237.9 %RE @ 14.04 ft**
Operator / Unit: **KVDV / UVOST1434**	*Elevation:* **Unavailable**	*Date & Time:* **2015-07-21 14:18 EDT**



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LIF-08

UVOST By Dakota
www.DakotaTechnologies.com

Site: **AHTD Job #100705**	*Y Coord.(Lat-N) / System:* **Unavailable / NA**	*Final depth:* **25.24 ft**
Client / Job: **The Southern Co /**	*X Coord.(Lng-E) / Fix:* **Unavailable / NA**	*Max signal:* **192.7 %RE @ 16.00 ft**
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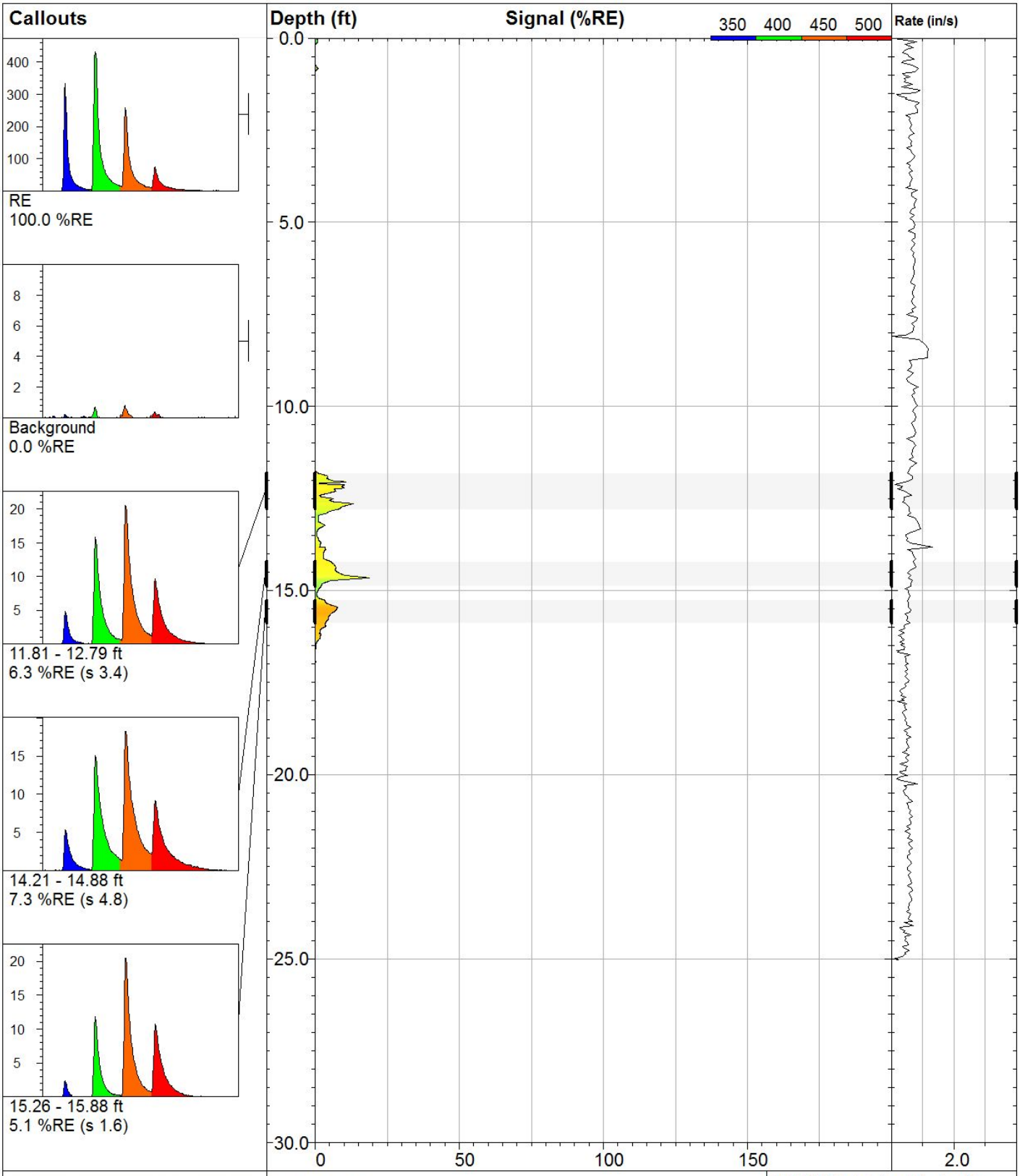

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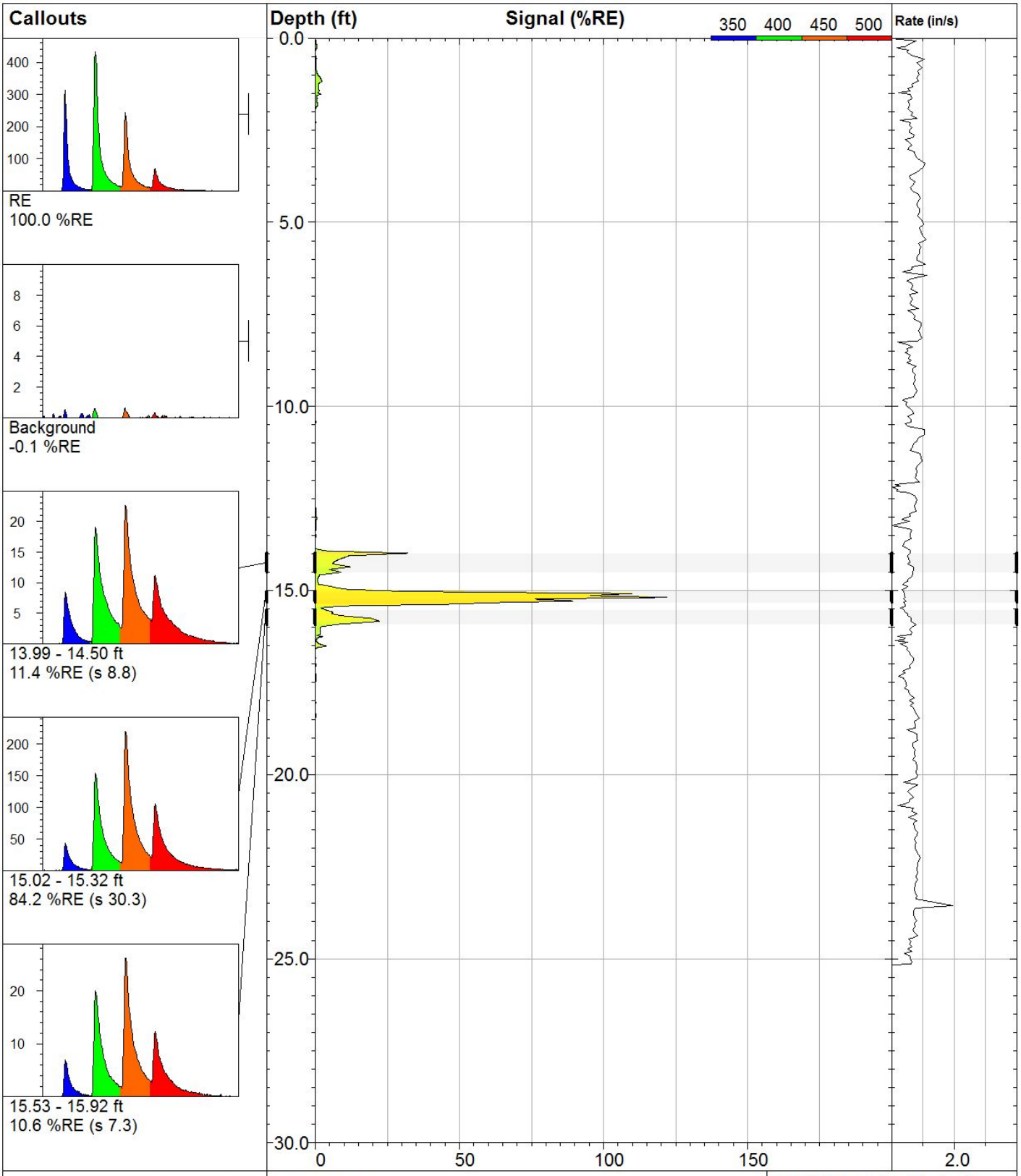
LIF-09

UVOST By Dakota
www.DakotaTechnologies.com

Site: **AHTD Job #100705**	*Y Coord.(Lat-N) / System:* **Unavailable / NA**	*Final depth:* **25.02 ft**
Client / Job: **The Southern Co /**	*X Coord.(Lng-E) / Fix:* **Unavailable / NA**	*Max signal:* **18.9 %RE @ 14.66 ft**
Operator / Unit: **KVDV / UVOST1434**	*Elevation:* **Unavailable**	*Date & Time:* **2015-07-21 15:18 EDT**



Bear Environmental

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LIF-10

UVOST By Dakota
www.DakotaTechnologies.com

Site: **AHTD Job #100705**	*Y Coord.(Lat-N) / System:* **Unavailable / NA**	*Final depth:* **25.17 ft**
Client / Job: **The Southern Co /**	*X Coord.(Lng-E) / Fix:* **Unavailable / NA**	*Max signal:* **122.7 %RE @ 15.19 ft**
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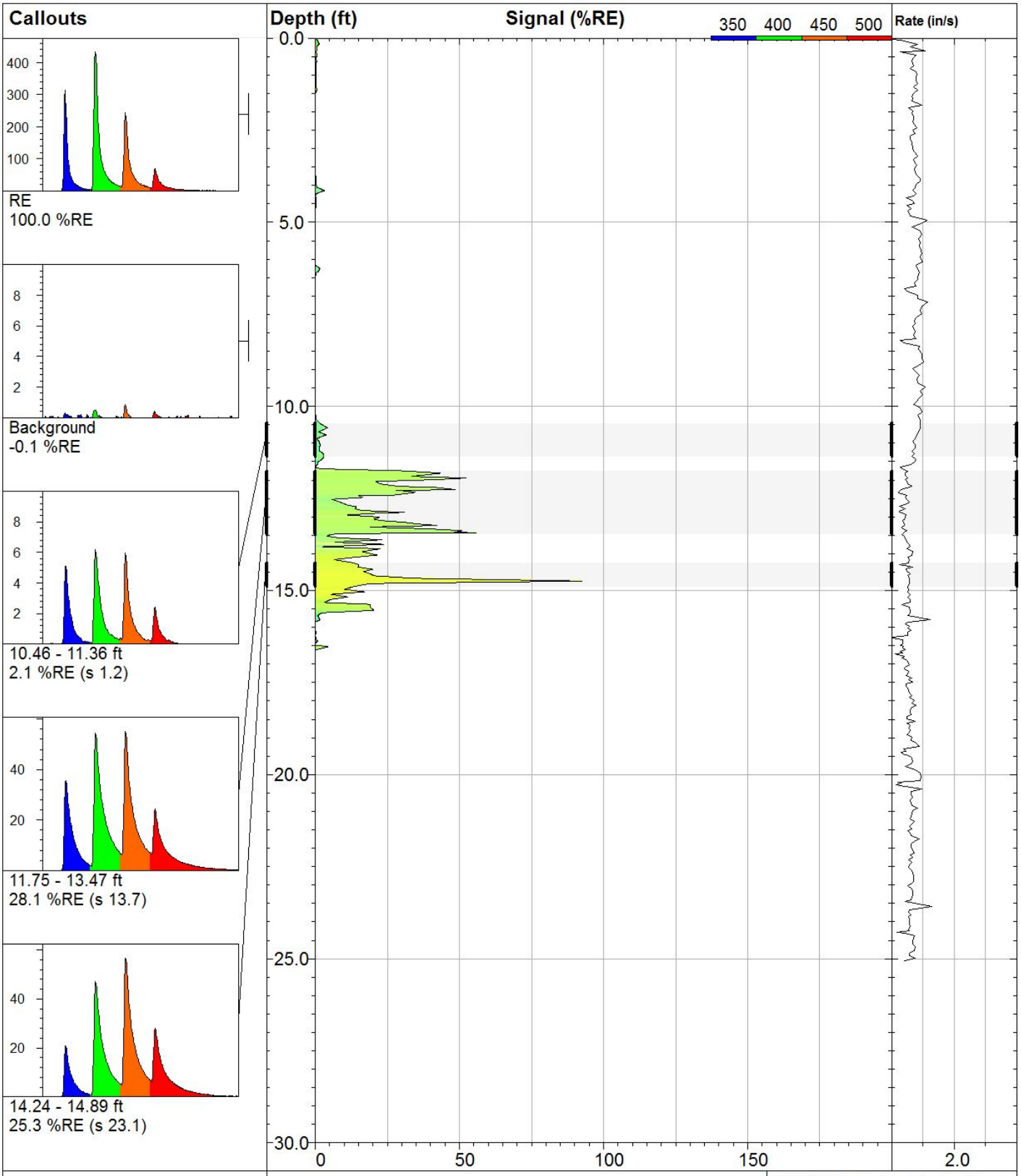

Bear Environmental

www.bearenviro.com

LIF-11

UVOST By Dakota
www.DakotaTechnologies.com

Site: **AHTD Job #100705**	*Y Coord.(Lat-N) / System:* **Unavailable / NA**	*Final depth:* **25.05 ft**
Client / Job: **The Southern Co /**	*X Coord.(Lng-E) / Fix:* **Unavailable / NA**	*Max signal:* **92.8 %RE @ 14.74 ft**
Operator / Unit: **KVDV / UVOST1434**	*Elevation:* **Unavailable**	*Date & Time:* **2015-07-21 16:21 EDT**

APPENDIX D

WASTE DISPOSAL DOCUMENTATION

THE Southern Co. NLR, INC.

No. 3635

1201 Cypress Street
North Little Rock, AR 72114
(501) 376-6333

OFF SPECIFICATION PRODUCT MANIFEST

GENERATOR INFORMATION

Business Name: AHTD Job # 100705

Address: 100 Division Street Telephone: 501. 376.6333
Blytheville, AR 72315

General Description of Waste: Decontamination Water

Total Quantity (Gallon): 8 Drums [ ] Bulk [X] WCF=

I certify that the waste materials removed from the above premises contains no hazardous materials.

Generator Representative (Print): N. Scott Kemph

7-22-15
Date Serviced

T-Scott Kemph
Generator Representative Signature

TRANSPORTATION INFORMATION

Name: T-Scott Kemph Telephone: 501-376-6333

To be held at The Southern Company of NLR, for pickup and recycling by the company named below.

7-22-15
Date Serviced

N. Scott Kemph
Generator Representative Signature

RECYCLING FACILITY

Name: Hydrocarbon Recovery Services, Inc. Telephone: 903-874-1188

Address: 2124 East Highway 31 City/State/Zip: Corsicana, TX 75110

EPA ID: TXD988059291 STATE ID: 20095 USEPA TRANSPORTER ID: TXR 00078094

I certify that I have received into this facility the above listed waste.

Site Operator (Print)

Date Received

Site Operator Signature

THE Southern Co. NLR, INC.

Additional Site Assessment Report

AHTD JOB #100705
100 North Division
Blytheville, Arkansas 72315
Facility ID # 47000222 and ADEQ LUST # 47-0040

Prepared for:

Arkansas State Highway and Transportation Department - ROW
10324 I-30, Room 705
Little Rock, Arkansas 72209

Prepared by:

T. Scott Kemph, P.G.
Project Manager

STATE OF ARKANSAS
TSK
NO. 1788
T. SCOTT KEMPH
REGISTERED PROFESSIONAL GEOLOGIST
5-4-16

Reviewed by:

Ben R. Reynolds, P.E.
Environmental Engineer

May 4, 2016

1201 CYPRESS STREET
NORTH LITTLE ROCK, AR 72114
(501) 376-6333
(501 376-8715 FAX
800-482-5493

MEMBER PEI PETROLEUM EQUIPMENT INSTITUTE

7621 BALL ROAD
FORT SMITH, AR 72908
(479) 648-1601
(479) 646-1066 FAX
800-643-2156

THE Southern Co. NLR, INC.

May 4, 2016

Mr. David Frazier, P.G.
Arkansas Department of Environmental Quality
Regulated Storage Tank Division
5301 Northshore Drive
North Little Rock, AR 72118-5317

RE: Additional Site Assessment Report
AHTD JOB #100705
100 North Division
Blytheville, Arkansas 72315
Facility ID # 47000222 and ADEQ LUST # 47-0040

Dear Mr. Frazier:

Enclosed is one (1) paper copy with an electronic copy attached to the back cover of the Site Assessment report for the above-referenced facility. This document has been prepared in response to the Department of Environmental Quality's June 26, 2015, approving assessment activities of the above-referenced facility. Should you have any questions or require additional information, please do not hesitate to call us (501)-376-6333.

Sincerely,
On Behalf of The Southern Co. of NLR, Inc.

T. Scott Kemph

T. Scott Kemph, P.G.
Project Manager

ecc: Mr. Joel Clark, AHTD (w/ enclosure delivered via email)
Mr. Nate Williams, AHTD (w/ enclosure delivered via email)
Mr. Rick Stanley, AHTD (w/ enclosure delivered via email)
Mr. Matt Modelevsky, Snell, Langley, Culpepper, Williams & Mullally (w/ enclosure delivered via email)

1201 CYPRESS STREET
NORTH LITTLE ROCK, AR 72114
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Appendix E: Analytical Reports, Chain-of-Custody Documents and Relative Percent Difference

1.0 INTRODUCTION

In a letter dated June 26, 2015, the Arkansas Department of Environmental Quality (ADEQ) approved a work plan for site assessment at ADEQ Facility ID # 47000222 located at 100 North Division Street in Blytheville, Arkansas. The Southern Company of NLR, Inc. (SOCO), on behalf of our client, the Arkansas Highway and Transportation Department (AHTD), is presenting the assessment methods employed and the data obtained during the implementation of the site assessment work plan.

1.1 LUST Facility Chronology

The following chronology of events is presented for ADEQ LUST File # 47-0040.

- February 1 and 2, 2012 - Notice of Suspected Release communicated to Mr. Clark Baker ADEQ inspector. Contaminated soils discovered during voluntary UST closure.
- February 10, 2012 - Release confirmed by analytical results emailed to Mr. Clark Baker.
- May 22 and 23, 2012 - SOCO excavated contaminated soil (432.34 tons), transported to Mississippi County landfill and re-sampled confirmation sample locations.
- May 31, 2012 – Closure Report submitted by SOCO to ADEQ.
- June 8, 2012, - ADEQ LUST 47-0040 referred to ADEQ technical branch.
- June 12, 2012 – Request for Trust Fund Eligibility sent to ADEQ.
- July 12, 2012 - ADEQ Preliminary Assessment completed.
- July 17, 2012 - ADEQ issued request for Site Assessment Work Plan & Cost Estimate
- October 25, 2012 – Scoping Meeting with ADEQ Case Manager, SOCO personnel and AHTD personnel.
- February 4, 2013 - ADEQ established Trust Fund eligibility for ADEQ LUST 47-0040.
- April 4, 2013 - Site Assessment Work Plan & Cost Estimate submitted to ADEQ for ADEQ LUST 47-0040.
- May 1, 2013 – Approval of Site Assessment Work plan and Cost Estimate
- June 2, 2014 – Third Party Access Agreement Signature obtained.
- October 10, 2014 - Change Order No. 1 submitted to ADEQ.
- October 13, 2014 – Change Order No. 1 approved by ADEQ.
- November 10, 2014 – December 21, 2014 – Field Work
- January 13, 2015 – Site Assessment Report submitted by SOCO to ADEQ.
- March 13, 2015 - ADEQ requested an Additional Site Assessment Work Plan and Cost Estimate in correspondence to the responsible party.
- April 16, 2015 – AHTD, SOCO and ADEQ meet for work scope meeting. SOCO emailed proposed work scope to ADEQ.
- April 27, 2015 – ADEQ concurred with work scope proposed on April 16, 2015.
- May 28, 2015 - SOCO submitted Additional Site Assessment Work Plan and Cost Estimate to ADEQ.
- June 26, 2015 – Approval of Additional Site Assessment Work plan and Cost Estimate
- July 21, 2015 – SOCO implemented the Laser Induced Florescence portion of the field work.
- July 31, 2015 – Mrs. Onisca McCaig Vanoven called AHTD to request cessation of additional site assessment activities.
- August 20, 2015 – It was decided to cease additional site assessment activities until the offsite access issue was resolved with Mrs. Onisca McCaig Vanoven.

- December 21, 2015 – ADEQ case manager (Mr. Rodger Payne, P.E.) called to inquire on the progress of the additional site assessment work plan implementation. SOCO informs ADEQ of Mrs. Onisca McCaig Vanoven request for cessation of assessment activities. It was agreed upon to submit what LIF data has been generated to date and submit to ADEQ.
- December 29, 2015 - SOCO submitted the LIF survey of the Additional Site Assessment to ADEQ.
- December 30, 2015 through January 8, 2016 SOCO and AHTD personnel discussed re-initiation of additional site assessment activities as per the June 26, 2015 ADEQ approved work plan.
- January 29, 2016 – February 17, 2016 – Field Work
- April 14, 2016 – Monitor Well Gauging Event.
- April 18, 2016 - SOCO confirms light non-aqueous phase liquid (LNAPL) occurrence in monitor well MW-8.
- May 4, 2016 - SOCO submits Additional Site Assessment to AHTD.

1.2 Facility Description

The project site is located at 100 North Division Street in Blytheville, Arkansas as delineated on the Vicinity Map provided as Figure 1, Appendix A. The project site is vacant and is part of a road expansion/widening project (AHTD Job # 100705) performed by the Arkansas Highway and Transportation Department. A driven restaurant borders the facility to the north. North Main Street (Arkansas State Highway 18) borders the project site to the south. The site is bordered by North Division Street (U.S. Highway 161) to the west. Ms. Onisca McCaig Vanoven owns the residential property immediately to the east of the project site. The Site Plan for the facility is provided as Figure 2, Appendix A.

1.3 Physical and Geological Setting

According to the Arkansas Geologic Commission's Geologic Map (Arkansas Geologic Commission, 1979), the project site is situated in the Mississippi Embayment Geologic province. The project site is underlain by the Quaternary alluvium deposits in the Mississippi Delta region which contains the uppermost aquifer in the region. The alluvium is comprised of the unconsolidated alluvial deposits formed by the Mississippi River and its tributaries. These deposits typically consist of unconsolidated clay, silt, sand, and gravel-sized particles. The alluvium was deposited by small streams, overbank deposits of major streams, and older meander deposits of major streams (McFarland, 2004).

1.4 Soil Characteristics

According to United States Department of Agriculture Soil Survey of Mississippi County, the soil series at the project site is the Hayti Soil Series. These soils consist of deep, poorly drained, slowly permeable soils formed in alluvium. These soils formed on the flood plain of the Mississippi River (USDA, 1971). A review of the previous assessment and the contractor's closure report indicates approximately six (6) to seven (7) feet of silty clay (CL) which transitioned into a silt (ML) in the areas of the former underground storage tank basin (SOCO, 2012 and 2015).

1.5 Hydrogeology

The Mississippi River Valley Alluvial Aquifer (MRVAA) is comprised of the unconsolidated alluvial deposits formed by the Mississippi River and its tributaries. These deposits typically consist of

unconsolidated clay, silt, sand, and gravel-sized particles. The aquifer is commonly overlain by a confining clay cap unit. Ground water generally flows to the southwest with an average hydraulic gradient of 1.7 feet per mile. In terms of water use and areal extent, this alluvial aquifer is the most important aquifer in the region and provides large quantities of water for irrigation and public supply (Arkansas State Water Plan, 1988).

Schrader (2008) shows the potentiometric surface of the MRVAA at approximately 233 feet above mean sea level (msl), approximately 33 feet below the site surface. Flow direction is generally toward the west-southwest. During drilling, saturated soil conditions were observed in soil cores from 14.0 to 25.0 feet below ground surface (bgs).

2.0 SITE DESCRIPTION

2.1 Location and Topography

Figure 1, Appendix A, Topographic Map depicts the site location and area topography. Surface elevation at the site is approximately 266 feet above mean sea level. The surface in the area of investigation is predominantly flat. Surface drainage from the asphalted areas flows via a sheet flow pattern into the stormwater drain located on the southwest corner of the facility. Appendix B contains photographs of the facility and surrounding area taken during additional site assessment activities.

2.2 Underground Utilities in the Area of Investigation

Underground utilities at the facility and surrounding area were delineated using the Arkansas One Call system (160202-0075). The approximate locations are depicted on the Site Plan presented as Figure 2, Appendix A. Underground utilities located in the area of investigation include municipal water which runs on the southern and western property boundaries, paralleling North Division and Main Streets, sanitary sewer and natural gas located along the northern property boundary. Overhead electric lines are located north of the area of investigation. Overhead traffic control is located along the southwestern corner of the area of investigation.

3.0 TASK 2: FIELD INVESTIGATION

3.1 Investigation of Soil Conditions

The investigation strategy used during the subsurface investigation was to drill soil borings for the purposes of identifying dissolved phase contaminants and light non-aqueous phase liquid (LNAPL) distribution in the subsurface underlying the facility. With the exception of drilling four (4) of the five (5) monitor wells approved by the ADEQ case manager, the subsurface investigation proceeded without any deviations from the work plan. Appendix B contains photographs of the facility and surrounding area taken during the site assessment activities.

Hollow-stem augers were used to drill the four (4) soil borings to approximately 25.0 feet below ground surface (bgs); three of the soil borings were drilled on the subject property, and one (1) soil boring was drilled on the adjoining residential property. Additionally, three (3) vapor wells were installed along the residential property located to the east of the project site in order to investigate the environmental quality of the adjoining residential property.

Drilling and sampling of the soil borings was accomplished using 4.25 inch inside diameter hollow stem augers employing a 2.25 inch outside diameter continuous sampler. Continuous soil samples were collected through hollow-stem augers using the 5-foot continuous sampler. Sampling tools were decontaminated between uses using a soapy water solution and rinsed in potable water. The continuous soil core from each 5.0 foot interval was logged by the field geologist using ASTM 2488, Practice for Description and Identification of Soils Visual/Manual Method using the Unified Soil Classification (ASTM, 2009). Soil boring logs are presented in Appendix C.

Field screening for head space readings was conducted with a calibrated MiniRae 3000 photo ionization detector (PID) instrument. Prior to mobilization to the project site and on a daily basis, the PID instrument was calibrated using a 100-ppm isobutylene calibration gas. Calibration records are included in Appendix B.

Equal volumes, for each one (1) foot interval of soil, were removed from the continuous soil cores and immediately placed in the sealed bags and laboratory supplied sample containers. The soil in the sealed bags was lightly manipulated to break up the soil mass. Representative portions of each one (1) foot interval were collected for total organic vapor measurements. The sealed bags were allowed to stand, unopened, at ambient air temperatures for a period of approximately five (5) minutes. The PID probe was then carefully inserted through the bag and the accumulated volatile organics vapor was measured with the maximum headspace value recorded for that specific interval on the boring log. The one (1) foot soil sample interval, archived in the laboratory supplied sample container, which exhibited the highest headspace reading, was selected for the laboratory analyses described in Section 3.6. Chain-of-Custody record was established using time/date and provenance information from each sample container submitted for laboratory analysis.

3.2 Investigation of Groundwater Conditions

At the completion of soil sampling, the four (4) borings were converted into groundwater monitoring wells. Monitoring well construction included installing a flush-threaded, 2-inch diameter PVC well material was placed in the boring. A five-foot riser was installed in all monitoring wells. Screens were 0.010-inch machine slotted. Screen lengths were variable depending upon final boring depth. A 0.5-foot long sump section was placed below the screen in each installation. Filter pack media was 20-40 grade environmental quality silica sand placed to approximately 1.0 foot above the tops of the screens. The sand pack was constructed slowly through the augers to avoid bridging of the filter media. The annular seal was formed with coated bentonite pellets placed from the top of the filter pack to approximately 0.5 feet bgs. The pellets were hydrated with potable water as they were placed in the annular space to allow proper sealing. Flush-mount well covers with concrete aprons were constructed at the ground surface.

Monitoring wells were developed using the over pumping method (RCRA TEGD, 1986) to evacuate the wells until the water produced was visibly clear and silt was removed from the well sumps. All development water was containerized in DOT-approved 55-gallon drums and transported under manifest to the SOCO holding facility for recycling by FCC Environmental, Inc.'s hydrocarbon recovery services. SOCO provided previously used drums for this purpose. Development water was stored in DOT-approved 55-gallon drums and transported under manifest for recycling as described in section 5.0.

3.3 Groundwater Sample Collection

Groundwater samples were collected from the four (4) recently installed monitoring wells as well as, the fifteen (15) previously installed monitoring wells. A disposable polyethylene bailer was used to sample the three (3) angled monitor wells, as well as, monitor wells which exhibited significant LNAPL occurrence. Monitor well purging and groundwater sample collection of the remaining vertical wells was performed on wells using a QED® brand Sample Pro bladder pump. Purging was conducted in general accordance with the methods described in *Low-Flow (Minimal Drawdown) Groundwater Sampling Procedures* (USEPA, 1996). The intent of the described procedure is to produce groundwater samples that are representative of the mobile load of contaminants present in the aquifer. Low-flow refers to the rate at which water is transferred from the pore spaces of the aquifer to the well in the immediate vicinity of the pump intake. The pump's flow rate is established such that stress (or drawdown) is minimized and representative samples can be collected by avoiding mixing of overlying stagnant waters in the well casings.

Given below are the general purging and sampling procedures that were used.

1) The purge rate was set at approximately 1 liter per minute (0.26 gallon per minute). Draw-down in the well was monitored with a decontaminated oil/water interface probe as purge operations proceed. The purge rate was adjusted, as needed, to limit the amount of draw-down in the well.

2) Purge water was pumped through a Horiba U-53-2 flow cell. All purge water was containerized for recycling as described in Section 5.0.

3) Water quality indicator parameters were used to determine when groundwater representative of the formation is entering the well. The Horiba U-53-2 flow cell was equipped with probes for measurement of pH, temperature, conductivity, oxidation-reduction potential, and dissolved oxygen. Measurements were conducted at intervals of three to five minutes and the readings were considered stable when three consecutive readings were within the following ranges:
   - dissolved oxygen (+/- 0.2 mg/L);
   - conductivity (+/- 0.020 mS/cm);
   - temperature (+/- 3%);
   - pH (+/- 0.2 units); and
   - oxidation/reduction potential (+/- 20 millivolts).

4) Water quality stabilization parameter values were recorded for inclusion in the assessment report and are presented in Appendix D.

The pump discharge was reduced until the flow rate was approximately 0.1 liters per minute. Reduction of the flow rate for sampling reduces the potential for loss of entrained volatile organic compounds by minimizing aeration, bubble formation, and turbulent filling of sample containers. The bladder pump discharge tubing was disconnected from the flow-through cell and samples were then transferred to laboratory-supplied sample containers.

Groundwater samples were collected from each of the fifteen monitoring wells. Two (2) blind duplicate samples (monitor wells MW-7 and MW-8) were collected and submitted for analysis as a quality assurance check on analytical precision. Each container was labeled with the appropriate information, preserved (as required), and stored on ice. Each sample was logged on a Chain-of-Custody form to track the movement and handling of the samples.

3.4 Groundwater Gauging

Monitoring wells were gauged for the presence of LNAPL and to determine the elevation of groundwater. The wells were allowed to stand open allow the fluid level to equalize with atmospheric pressure. A decontaminated oil/water interface probe was used to measure for the presence of LNAPL fluids and groundwater in each monitoring well. Measurements were recorded to the nearest 0.01 feet and were referenced to surveyed top-of-casing elevations. Groundwater elevation data was used to prepare potentiometric surface maps. Reference top of casing (TOC) elevations for the nineteen (19) monitor wells are listed in Figure 2, Appendix A. Groundwater gauging data is presented as a spreadsheet in Appendix A.

3.5 Site Survey

Arkansas Surveying & Consulting provided an update to the site plan survey of the area of investigation on April 12, 2016. The purpose of the survey was to provide horizontal and vertical control of drilling locations, surface features, and utility locations in the area of investigation. Horizontal control for the survey was referenced to the State Plane Coordinate System for the north zone of Arkansas. Vertical control was referenced to mean sea level using the North American Datum of 1983.

3.6 Environmental Sample Analytical Methods

Soil and groundwater samples were analyzed for benzene, toluene, ethylbenzene, and total xylenes (BTEX), methyl-tertiary butyl ether (MTBE), and naphthalene per United States Environmental Protection Agency (USEPA) Method 8021B and for total petroleum hydrocarbons (TPH) in the gasoline range (GRO) and the diesel range (DRO) per USEPA Method 8015. Analytical reports and Chain-of-Custody documents for this project are provided in Appendix D.

Given below are field quality assurance measures that were implemented and documented during the investigation:

- The field instrument (Mini Rae 3000) was calibrated daily using manufacture's recommended span gas. Calibration logs are included in Appendix B.
- Soil sample collection equipment was decontaminated using non-phosphate soap and potable water prior to each use.
- Sample collection personnel used disposable nitrile gloves for each soil sample interval to limit the possibility of inadvertent sample cross contamination.
- A new pair of disposable nitrile gloves were used for each groundwater sample collected to limit the possibility of inadvertent sample cross contamination.
- Each container was labeled with the appropriate information, preserved (as required), and stored on ice.
- Strict chain-of-custody procedures were employed at all times to track the movement and handling of the samples. Samples were transported to Arkansas Analytical, Inc. (AAI), located in Little Rock, AR.
- A duplicate samples were obtained and analyzed as quality assurance check on analytical precision. Calculated relative percent differences for the duplicate samples (MW-7 and MW-8) analytes are all below 20%. The spreadsheet documenting the calculations is included in Appendix E.
- Laboratory Quality Control Reports for the trip blank are provided in Appendix E.

4.0 OBSERVATIONS

4.1 Physical Description of Subsurface Materials and Groundwater Occurrence

The native materials encountered in the first twenty-five (25) feet below the subject site are non-homogeneous alluvial deposits. Soils at this location are primarily clays, sandy clays, and sands. Dark browns and dark grayish brown silty clays were common on the first twelve feet in areas that were not backfilled during fuel system removal activities. Saturated grayish brown sands and dark grayish brown sands were present from 14.0 to 25.0 feet below ground surface (bgs). Varying amounts of clay and/or silt was present throughout the sandy intervals.

Soil/rock color is based upon the Munsell Soil Color Chart (1975) and soil classification is based upon ASTM International's ASTM 2488, Practice for Description and Identification of Soils Visual/Manual method using the Unified Soil Classification (ASTM 2487). The boring logs and monitoring well construction diagrams are provided as Appendix C.

Appendix A contains groundwater elevation data were collected from the nineteen (19) nineteen monitoring wells. The gauging dates were July 22, 2015, February 18, 2016 and April 14, 2016. An interpretation of the potentiometric surface for the February 18, 2016 gauging event is presented as Figure 3, Appendix A. The groundwater gradient observed on February 18, 2016 is calculated at 0.0005 ft/ft in the study area and appears to be following a west-southwest direction. Please note that data from angled wells MW-10, MW-14, MW-15 were not used in the interpretation of groundwater flow direction.

4.2 Petroleum Impact to Soils

Hydrocarbon contamination, in both the gasoline range and diesel range organics was encountered at this site. The reported concentrations for all analytes at each boring location are summarized in Table 1 below.

TABLE 1
SUMMARY OF CHEMICAL ANALYSIS FOR SOIL
AHTD JOB #100705
100 North Division, Blytheville, Arkansas 72315
Facility ID # 47000222 and ADEQ LUST # 47-0040
All Results Reported in mg/kg

Soil Boring No. & Depth	TPH-DRO	TPH-GRO	Benzene	Toluene	Ethylbenzene	Total Xylenes	Naphthalene	MTBE
B-16@11'	59.6	4.62	<0.100	<0.100	<0.100	<0.300	<0.300	<0.100
B-16@17'	98.7	2.36	<0.100	<0.100	<0.100	<0.300	<0.300	<0.100
B-17@17'	105	724	4.52	36.2	23.7	124	6.19	<0.390*
B-18@12'	<10.0	6.69	<0.100	<0.100	<0.100	<0.300	<0.300	<0.100
B-19@15'	35.8	560	2.88	15.1	13.1	55.5	5.95	<0.960*

* EDL=Result was non-detect at an elevated detection limit

Figures 3, is a site map showing the reported concentrations and sample depths of GRO, DRO, and benzene constituents in the soil samples submitted for laboratory analysis. Given below are brief descriptions of the results in terms of number of positive detections and concentrations reported.

- Benzene was detected in soil sample B-17@17'. Benzene concentrations ranged from <0.100 mg/Kg to 4.52 mg/Kg. The highest Benzene concentration (4.52 mg/Kg) was observed at soil boring B-17 at 17 feet bgs.
- GRO was detected in all four (4) soil locations. The highest GRO concentration (724 mg/Kg) was observed at B-17 at 17 feet bgs.
- DRO was detected in three (3) of the four (4) soil boring locations. The highest DRO concentration (105 mg/Kg) was observed at B-17 at 17 feet bgs.

Figure 4 in Appendix A illustrates the GRO, DRO, and benzene distribution in soils.

4.3 Petroleum Impact to Groundwater

Table 2 presented below lists the reported concentrations of dissolved phase petroleum compounds in groundwater:

TABLE 2
SUMMARY OF CHEMICAL ANALYSIS FOR GROUNDWATER
AHTD JOB #100705
100 North Division, Blytheville, Arkansas 72315
Facility ID # 47000222 and ADEQ LUST # 47-0040
All Results Reported in mg/L

Monitor Well Number	Benzene	Toluene	Ethyl-benzene	Total m,p & o Xylenes	DRO	GRO	MTBE	Naphthalene
MW-1	18.6	53.6	5.56	37.5	25.5	245	<0.430*	2.96
MW-2	2.08	3.62	0.362	1.90	4.17	19.3	<0.025*	<0.150*
MW-3	21.6	40.9	3.16	18.81	32.7	166	<0.215*	<0.129*
MW-4	1.32	6.78	1.02	4.44	4.61	28.3	<0.025*	0.168
MW-5	19.1	15.9	2.40	14.01	14.6	94.4	<0.215*	<1.29*
MW-6	11.4	23.8	1.79	9.47	10.9	97.0	<0.215*	<1.29*
MW-7	2.16	10.1	1.27	5.31	7.66	41.2	<0.050*	<0.300*
MW-8	0.206	0.350	0.486	0.635	3.22	8.57	<0.010*	0.084
MW-9	0.016	0.065	0.010	0.066	< 0.500	3.45	<0.005	<0.030*
MW-10	0.004	0.005	< 0.005	<0.015	< 0.500	0.440	<0.005	<0.015
MW-11	0.024	0.106	0.019	0.116	< 0.500	0.605	<0.005	<0.015
MW-12	30.6	42.6	2.79	17.77	11.8	180	<0.215*	<1.29*
MW-13	23.6	49.8	4.16	26.36	19.2	204	<0.215*	<1.29*
MW-14	0.017	0.005	<0.005	<0.015	<0.500	0.839	<0.005	<0.015
MW-15	1.46	0.893	0.931	3.065	5.28	15.1	<0.010*	0.129
MW-16	6.18	15.8	3.05	16.51	13.8	73.4	<0.050*	0.398
MW-17	4.94	17.0	3.16	16.99	11.8	76.8	<0.100*	<0.600*
MW-18	0.554	1.81	0.960	4.64	8.60	19.8	<0.025*	0.180
MW-19	7.48	12.5	2.19	11.3	13.8	63.2	<0.050*	0.301
Duplicate (MW-8)	0.205	0.348	0.483	0.633	NA	8.52	<0.010*	0.080
Duplicate (MW-7)	2.19	9.33	1.35	5.46	NA	39.7	<0.050*	0.336

* EDL=Result was non-detect at an elevated detection limit NA=Not Analyzed

Given below are brief descriptions of the results in terms of number of positive detections and concentrations reported.

- Benzene was detected in groundwater from all nineteen (19) monitor wells. Benzene concentrations ranged from 0.004 mg/L (MW-10) to 30.6 mg/L (MW-12).

- GRO was detected in groundwater from all nineteen (19) monitor wells. Concentrations ranged from 0.839 mg/L (MW-10) to 204 mg/L observed in MW-13.

- DRO was detected in fourteen (14) of the nineteen (19) monitor well locations. The highest DRO concentration (32.7 mg/L) was observed at MW-3. Monitor wells MW-1, MW-6, MW-16 and MW-19 also exhibited high concentrations of DRO.

Figures 5-7, Appendix A, depict the chemicals of concern (Benzene, TPH-GRO, and TPH-DRO) for groundwater in the area of investigation.

4.3 Soil Vapor

Three (3) soil vapor wells were installed along the eastern property boundary shared with the residential property. The soil vapor wells were installed according to the June 26 2015 ADEQ approved work plan. Analytical results from the three soil vapor wells (VW-1, VW-2, and VW-3) installed on the adjacent residential property are reported in the Table 3 below:

Table 3
SUMMARY OF CHEMICAL ANALYSIS FOR SELECTED SOIL VAPOR ANALYTES
AHTD JOB #100705
100 North Division, Blytheville, Arkansas 72315
Facility ID # 47000222 and ADEQ LUST # 47-0040
All results reported in $\mu g/m^3$
(micrograms per cubic meter)

Sample ID	**VW-1**	**VW-2**	**VW-3**	**Duplicate (VW-1)**	ASTM E1739 RBSLs – indoor/outdoor air screening levels for inhalation exposure-residential exposure Cancer risk=$1x10^{-6}$	EPA Regional Screening Levels November 2015 (Residential Air)
TO-15 Analytes						
Benzene	0.73	<0.69	0.43	<0.55	0.294	0.36
Ethylbenzene	< 1.5	<1.9	<1.1	< 1.5	1,040	1.1
Toluene	3.6	4.4	3.8	2.3	417	5,200
m & p-Xylene	4.2	5.8	3.7	4.0	7,300	200
o-xylene	2.6	3.0	1.9	2.5	7,300	100
Naphthalene	6.3	8.9	3.7	6.1	14.6	0.083
Helium(Tracer Gas)	< 3.6	< 3.6	< 3.6	< 3.6	NA	NA

NA=Not Applicable

As indicated by the previous table, hydrocarbon constituents were reported above analytical detection limits. Benzene vapor wells VW-1, and VW-3 exceeded the ASTM Risk Based Screening Level (RBSL) for inhalation for a residential exposure and EPA Regional Screening level for Residential Air.

USEPA Regional Screening levels for Residential Air were exceeded for Naphthalene for all three (3) vapor well samples. Calculated relative percent differences for the duplicate sample of VW-2 analytes are all below 20%. The spreadsheet documenting the calculations is included in Appendix E

4.4 LNAPL Distribution

Measurable accumulations of light non-aqueous phase liquid (LNAPL) has been observed in five (5) of the recently installed monitor wells (MW-1, MW-3, MW-4, MW-5, and MW-6). On April 14, 2016, LNAPL was discovered in monitor well MW-8 for the first time. This observation was confirmed on April 18, 2016 by use of a polyethylene bailer. Please see site investigation photographs for a visual comparison of the LNAPL occurrence photographed on April 18, 2016. The data and visual observations suggests the occurrence of more than one release on the property; the former underground storage tank area and product piping/island areas are potential point sources of LNAPL distribution in the area of investigation. Figure 8 depicts the LNAPL occurrence in monitor wells (marked in red) and provides an interpretation of the horizontal delineation of LNAPL extent.

5.0 WASTE MANAGEMENT

Investigative derived drilling waste (drill cuttings), excess soil samples, and investigative derived solid waste was drummed in 55 gallon DOT-approved drums and transported to Waste Management's Two Pine Landfill, an ADEQ permitted landfill facility, for disposal. Soil disposal was performed on March 8, 2016. The disposal manifest is included in Appendix D.

Decontamination fluids, monitor well development water, and monitor well purge water were containerized in DOT-approved 55-gallon drums. Approximately 85 gallons of fluids were transported by SOCO personnel to SOCO's facility for recycling by Agricultural Services Incorporated. Wastewater disposal documentation is included in Appendix D.

6.0 FINDINGS AND CONCLUSIONS

On behalf of AHTD, SOCO has completed additional site assessment activities at the AHTD Job #100705 facility (ADEQ Facility ID 47000222). The work consisted of subsurface drilling and sampling of four (4) soil borings, the installation of four (4) groundwater monitor wells, the installation three (3) vapor wells, the sampling and analysis of the soil vapor, soil, groundwater and the fluid measurements of monitor wells at the facility. The monitor and vapor wells were sampled and analyzed to determine the degree of hydrocarbon impact to the subsurface in the area of investigation.

The native materials encountered in the first twenty-five feet below the subject site are non-homogeneous alluvial deposits. Dark browns and dark grayish brown silty clays were common on the first twelve feet. Saturated grayish brown sands and dark grayish brown sands were present from 14.0 to 25.0 feet below ground surface (bgs). Varying amounts of clay and/or silt was present throughout the sandy intervals. Most occurrences of sand were accompanied by strong petroleum odor, saturated conditions, and at some locations, petroleum sheen.

Multiple petroleum releases of gasoline and diesel fuel have produced subsurface impact to soils and groundwater at this site. Fuel released from former fuel system has penetrated the fine-grained clay sediments that dominate the upper twelve feet of the alluvial deposits. After the fuel breached the upper clay layer, the fuel entered the more permeable sands until groundwater was encountered. The LNAPL then spread laterally in the area of the fuel system and product dispensing areas.

LNAPL discovered in monitor well MW-8 on April 14, 2016, appears to be of a different color than previously encountered LNAPL in the area of investigation, suggesting a different source from the former fuel system removed from the subject property in February of 2012.

7.0 RECOMMENDATIONS

Based on the information obtained during the performance of the work scope for the assessment, SOCO offers the following recommendations:

- SOCO recommends free product recovery to the maximum extent practicable as per 40 CFR 280.64 for monitor wells which exhibit LNAPL occurrence.
- Monitoring of LNAPL occurrence is also recommended in order to further understand groundwater gradient and relationship between changing groundwater elevations and LNAPL smear zone.
- With the discovery of LNAPL in monitor MW-8 on April 14, 2016, additional assessment is warranted as per 40 CFR 280.65; to include areas to the north and northeast of monitor MW-8.

8.0 LIMITATIONS

This report is an instrument of service of The Southern Company NLR, Inc. (SOCO). The subsurface investigation report was prepared for and is intended for the exclusive use of AHTD and it's assigns and for review by the governing regulatory authority – the Arkansas Department of Environmental Quality. Any party other than AHTD without the express written permission of SOCO may not rely upon the report's contents. The findings and conclusions presented in this report are based on observations made as a result of the drilling four (4) soil borings, the installation of four (4) groundwater monitor wells, the installation three (3) vapor wells, the sampling and analysis of the soil vapor, soil, groundwater and the fluid measurements of monitor wells at the facility. This information has been used as the basis for our conclusions.

The report's findings are based on conditions that existed at the project site on January 29, 2016 through April 18, 2016 and should not be relied upon to precisely represent subsurface conditions at any other time. The conclusions included in this report are based on: SOCO's observation of existing site conditions; our interpretation of site history and site usage information; and the results of a limited program of subsurface exploration, sample screening, and analytical testing. The concentration of contaminants SOCO measured may not be representative of conditions between locations sampled.

Be aware that conditions may change at any sampled or un-sampled location as a function of time in response to natural conditions, chemical reactions, and/or other events. Conclusions about site conditions under no circumstances comprise a warranty that conditions in all areas within the site and beneath structures are of the same quality as those sampled. Recognize, too, that contamination might exist in forms not indicated by the assessment SOCO conducted.

The scope of service SOCO implemented was based, in part of rules and regulations that SOCO understood to be current or expected at the time SOCO developed its contract with AHTD. Changes in regulations, interpretations and/or enforcement policies may occur at any time and such changes could affect the extent of remediation required. Any additional information about this site that becomes available should be provided to SOCO for its review, so SOCO can modify its recommendations as necessary.

9.0 REFERENCES CITED

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The Southern Company, NLR, Inc., Contractor's Closure Report, AHTD Job #100705, 100 North Division, North Little Rock, AR, May 31, 2012.

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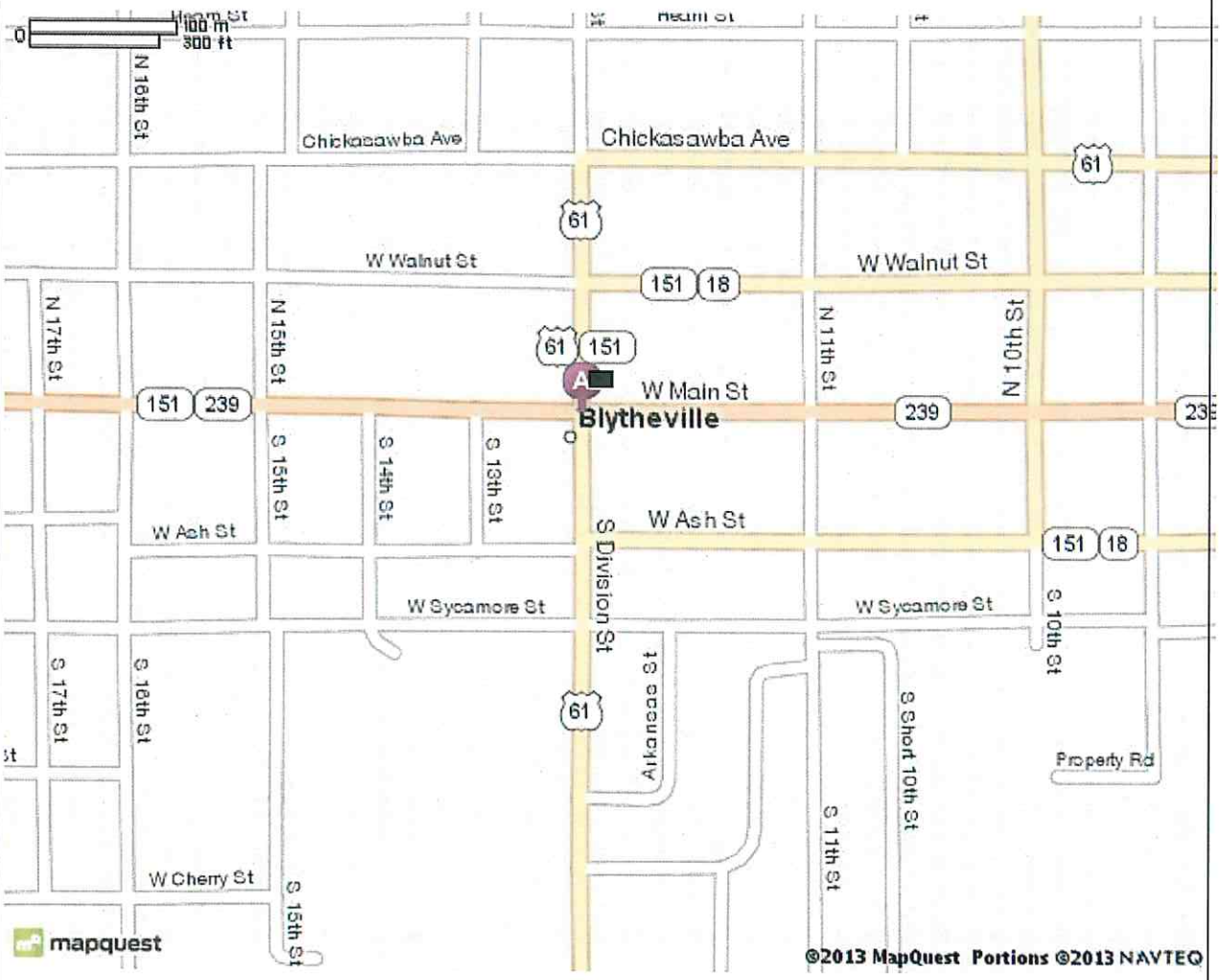
Appendix A

Figures and Groundwater Gauging Data



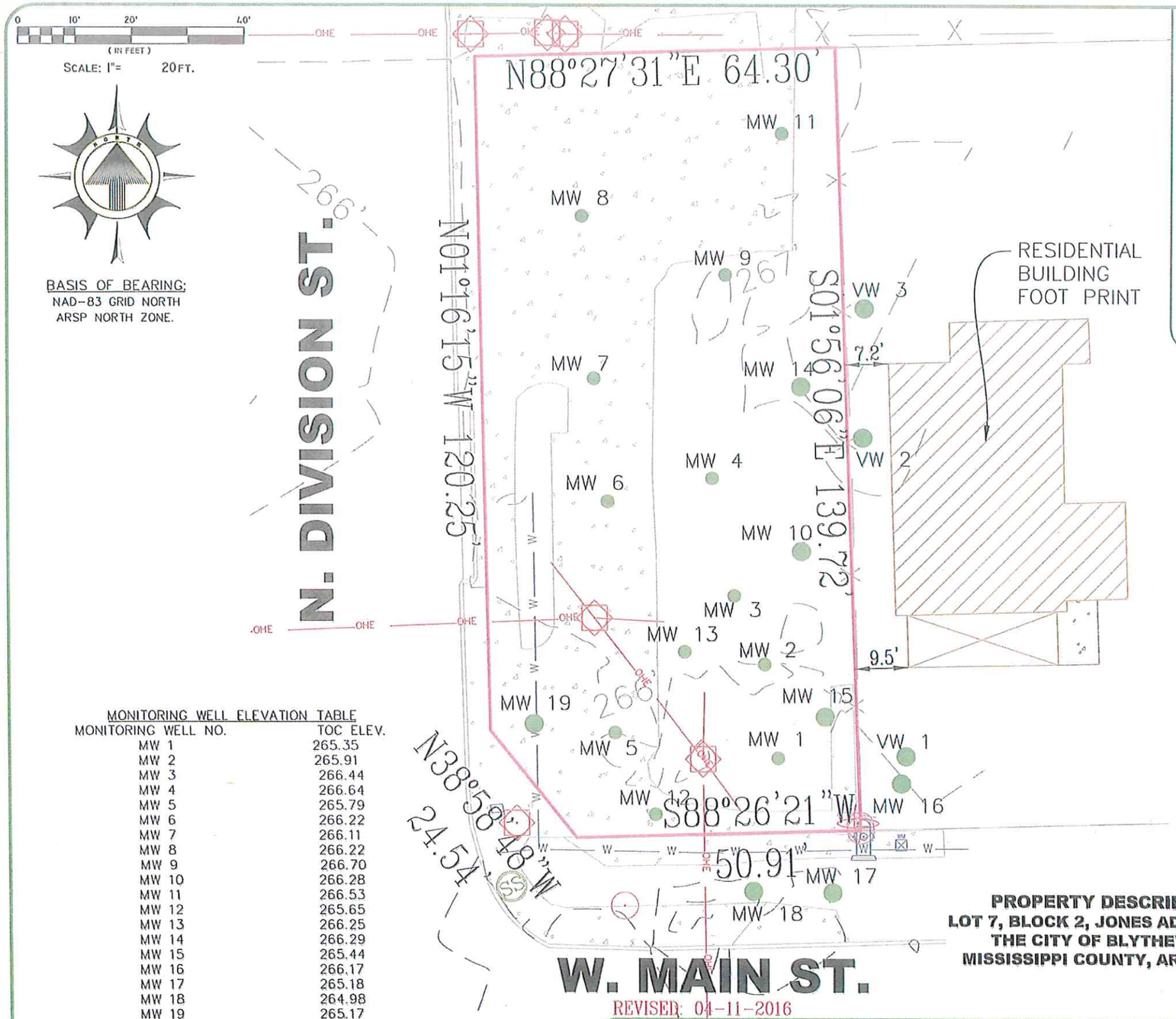
No Scale Implied

SoCo NLR	Vicinity Map AHTD JOB #100705 100 North Division Blytheville, Arkansas 72315 Facility ID # 47000222 ADEQ LUST 47-0040	

Figure 1

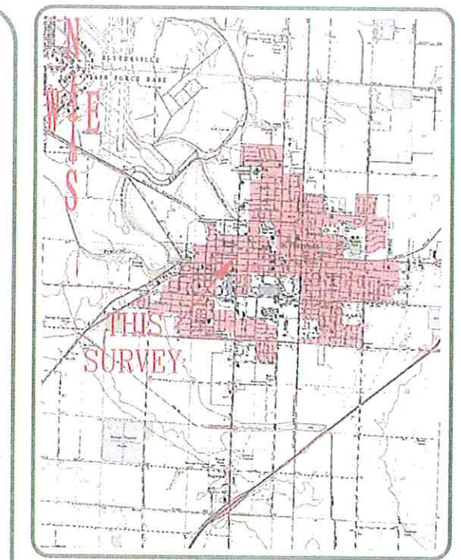
0 10' 20' 40'
(IN FEET)
SCALE: 1"= 20FT.

BASIS OF BEARING:
NAD-83 GRID NORTH
ARSP NORTH ZONE.



LEGEND

POWER POLE
LIGHT POLE
SIGN
WATER VALVE
WATER METER
SANITARY SEWER MAN-HOLE
TELEPHONE PEDESTAL
FIRE HYDRANT
GAS METER
DROP INLET GRATE
HANDICAP PARKING
COMPUTED POINTS
CONCRETE — CONC.
GUY WIRE ANCHOR — G.W.A.
POINT OF BEGINNING — P.O.B.
ELEVATION — ELEV.



SITE LOCATION MAP (NO SCALE)

NOTES

SURVEY BEARINGS ARE BASED ON GRID NORTH AR STATE PLANE NORTH ZONE DETERMINE BY GPS

THE BEARINGS SHOWN ON THIS PLAT ARE ASSUMED AND ARE TO BE USED TO DEFINE THE GENERAL DIRECTION AND TRUE ANGLES AT INTERSECTION OF PROPERTY AND LAND LINES.

TRACT IS SUBJECT TO EASEMENTS, RESTRICTIVE COVENANTS, SUBDIVISION RESTRICTIONS, AND PLANNING AND ZONING REGULATIONS OF RECORD, IF ANY, AND IS SUBJECT TO SUCH FACTS AS AN ACCURATE AND CURRENT TITLE SEARCH MAY DISCLOSE.

NO STATEMENT IS MADE AS TO THE EXISTENCE OR LOCATION, EXCEPT WHERE SHOWN OF ANY PROPERTY CORNER MONUMENTS.

NO STATEMENT IS MADE CONCERNING SUBSURFACE CONDITIONS.

CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL MEASUREMENTS PRIOR TO BEGINNING CONSTRUCTION. (IF APPLICABLE).

SURVEY VALID ONLY IF PRINT HAS ORIGINAL SEAL AND SIGNATURE OF SURVEYOR IN RED PRESENT ON IT.

UTILITIES NOT FIELD VERIFIED. NO OTHER STATEMENT IS MADE AS TO UTILITY EXISTENCE OR LOCATION.

I CERTIFY THAT THE ABOVE DESCRIBED PROPERTY HAS BEEN SURVEYED, CORNER MONUMENTS HAVE BEEN ESTABLISHED IN ACCORDANCE WITH EXISTING MONUMENTATION IN THE AREA AND IMPROVEMENTS IF ANY ARE AS SHOWN HEREON.

DECLARATION IS MADE TO ORIGINAL PURCHASER OF THE SURVEY. IT IS NOT TRANSFERABLE TO ADDITIONAL INSTITUTIONS OR SUBSEQUENT OWNERS.

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CERTIFICATE OF AUTHORIZATION
ARKANSAS SURVEYING AND CONSULTING INC.
NO. 1462
ARKANSAS - SURVEYOR

REGISTERED
STATE OF ARKANSAS
NO. 1467
SIGNATURE
4-11-16
MARION SCOTT FOSTER
PROFESSIONAL SURVEYOR

MONITORING WELL ELEVATION TABLE

MONITORING WELL NO.	TOC ELEV.
MW 1	265.35
MW 2	265.91
MW 3	266.44
MW 4	266.64
MW 5	265.79
MW 6	266.22
MW 7	266.11
MW 8	266.22
MW 9	266.70
MW 10	266.28
MW 11	266.53
MW 12	265.65
MW 13	266.25
MW 14	266.29
MW 15	265.44
MW 16	266.17
MW 17	265.18
MW 18	264.98
MW 19	265.17
VW 1	266.38
VW 2	266.97
VW 3	267.15

PROPERTY DESCRIPTION
LOT 7, BLOCK 2, JONES ADDITION TO THE CITY OF BLYTHEVILLE, MISSISSIPPI COUNTY, ARKANSAS.

REVISED: 04-11-2016

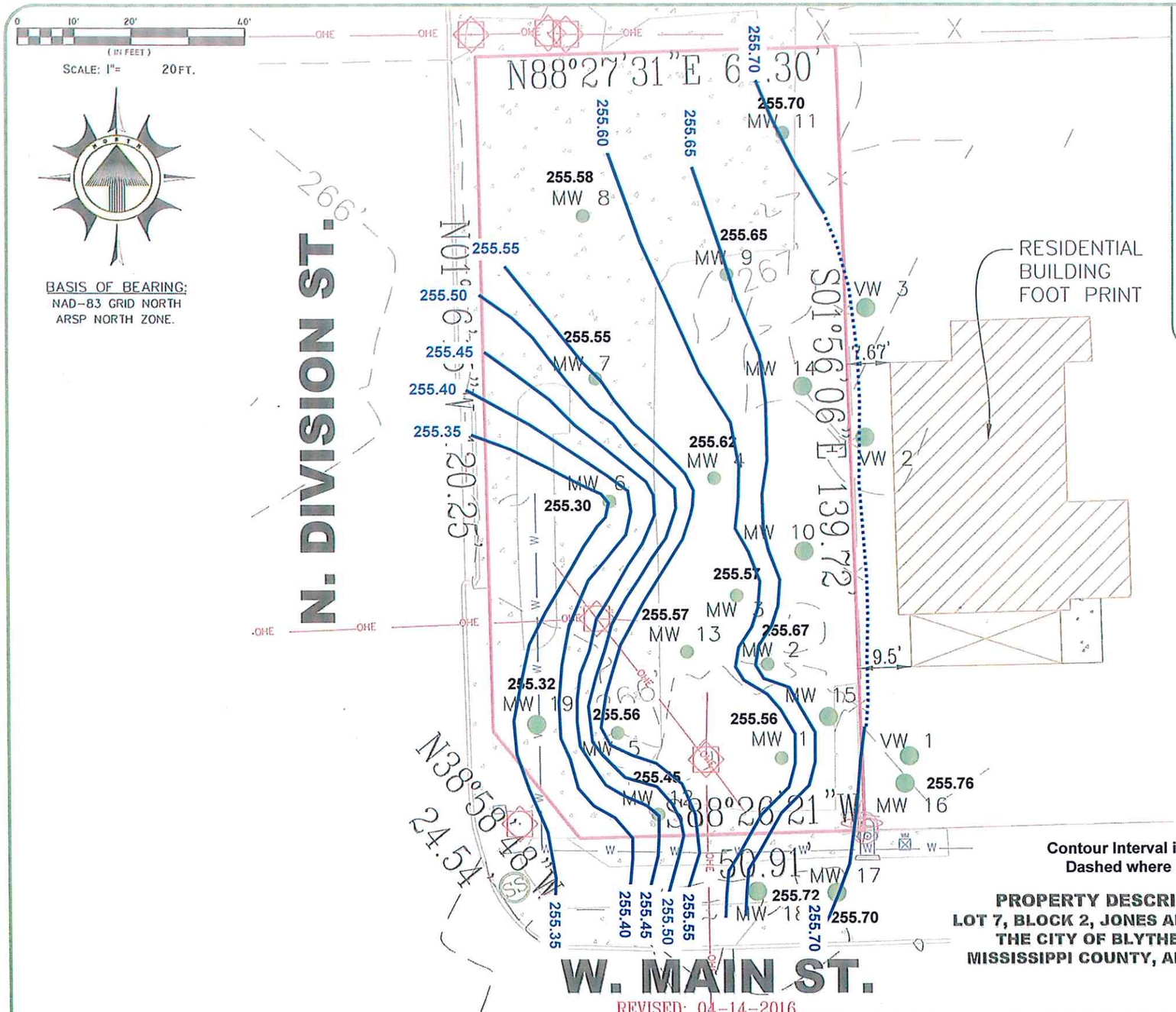
DATE: 12-04-2014
SCALE: 1"= 20'
DRAWN BY: MSF/KST
CHECKED BY: MSF
FILE NAME: AHTD Job 100705

ARKANSAS SURVEYING & CONSULTING
ASC ©
MALVERN AR OFFICE 304-2723
1926 SALEM ROAD
BENTON, ARKANSAS 72019
TELE. (501) 794-4500
FAX. (501) 794-4501
E-MAIL:survey_man_jr@hotmail.com

THE SOUTHERN CO., NLR, INC
100 N DIVISION, BLYTHEVILLE, AR
TOPOGRAPHIC SURVEY

Figure 2. Site Plan

Server\d\Land Projects 2004\JONES ADDITION\dwg\AHTD Job 100705.dwg



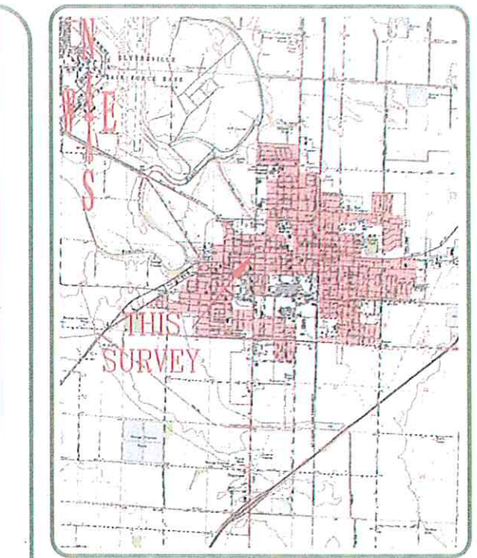
Contour Interval is 0.05 feet
Dashed where Inferred

PROPERTY DESCRIPTION
LOT 7, BLOCK 2, JONES ADDITION TO THE CITY OF BLYTHEVILLE, MISSISSIPPI COUNTY, ARKANSAS.

REVISED: 04-14-2016

LEGEND

POWER POLE	
LIGHT POLE	
SIGN	
WATER VALVE	
WATER METER	
SANITARY SEWER MAN-HOLE	
TELEPHONE PEDESTAL	
FIRE HYDRANT	
GAS METER	
DROP INLET GRATE	
HANDICAP PARKING	
COMPUTED POINTS	
CONCRETE	CONC.
GUY WIRE ANCHOR	G.W.A.
POINT OF BEGINNING	P.O.B.
ELEVATION	ELEV.



SITE LOCATION MAP (NO SCALE)

NOTES

SURVEY BEARINGS ARE BASED ON GRID NORTH AR STATE PLANE NORTH ZONE DETERMINE BY GPS

THE BEARINGS SHOWN ON THIS PLAT ARE ASSUMED AND ARE TO BE USED TO DEFINE THE GENERAL DIRECTION AND TRUE ANGLES AT INTERSECTION OF PROPERTY AND LAND LINES.

TRACT IS SUBJECT TO EASEMENTS, RESTRICTIVE COVENANTS, SUBDIVISION RESTRICTIONS, AND PLANNING AND ZONING REGULATIONS OF RECORD, IF ANY, AND IS SUBJECT TO SUCH FACTS AS AN ACCURATE AND CURRENT TITLE SEARCH MAY DISCLOSE.

NO STATEMENT IS MADE AS TO THE EXISTENCE OR LOCATION, EXCEPT WHERE SHOWN OF ANY PROPERTY CORNER MONUMENTS.

NO STATEMENT IS MADE CONCERNING SUBSURFACE CONDITIONS.

CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL MEASUREMENTS PRIOR TO BEGINNING CONSTRUCTION. (IF APPLICABLE).

SURVEY VALID ONLY IF PRINT HAS ORIGINAL SEAL AND SIGNATURE OF SURVEYOR IN RED PRESENT ON IT.

UTILITIES NOT FIELD VERIFIED. NO OTHER STATEMENT IS MADE AS TO UTILITY EXISTENCE OR LOCATION.

I CERTIFY THAT THE ABOVE DESCRIBED PROPERTY HAS BEEN SURVEYED, CORNER MONUMENTS HAVE BEEN ESTABLISHED IN ACCORDANCE WITH EXISTING MONUMENTATION IN THE AREA AND IMPROVEMENTS IF ANY ARE AS SHOWN HEREON.

DECLARATION IS MADE TO ORIGINAL PURCHASER OF THE SURVEY. IT IS NOT TRANSFERABLE TO ADDITIONAL INSTITUTIONS OR SUBSEQUENT OWNERS.

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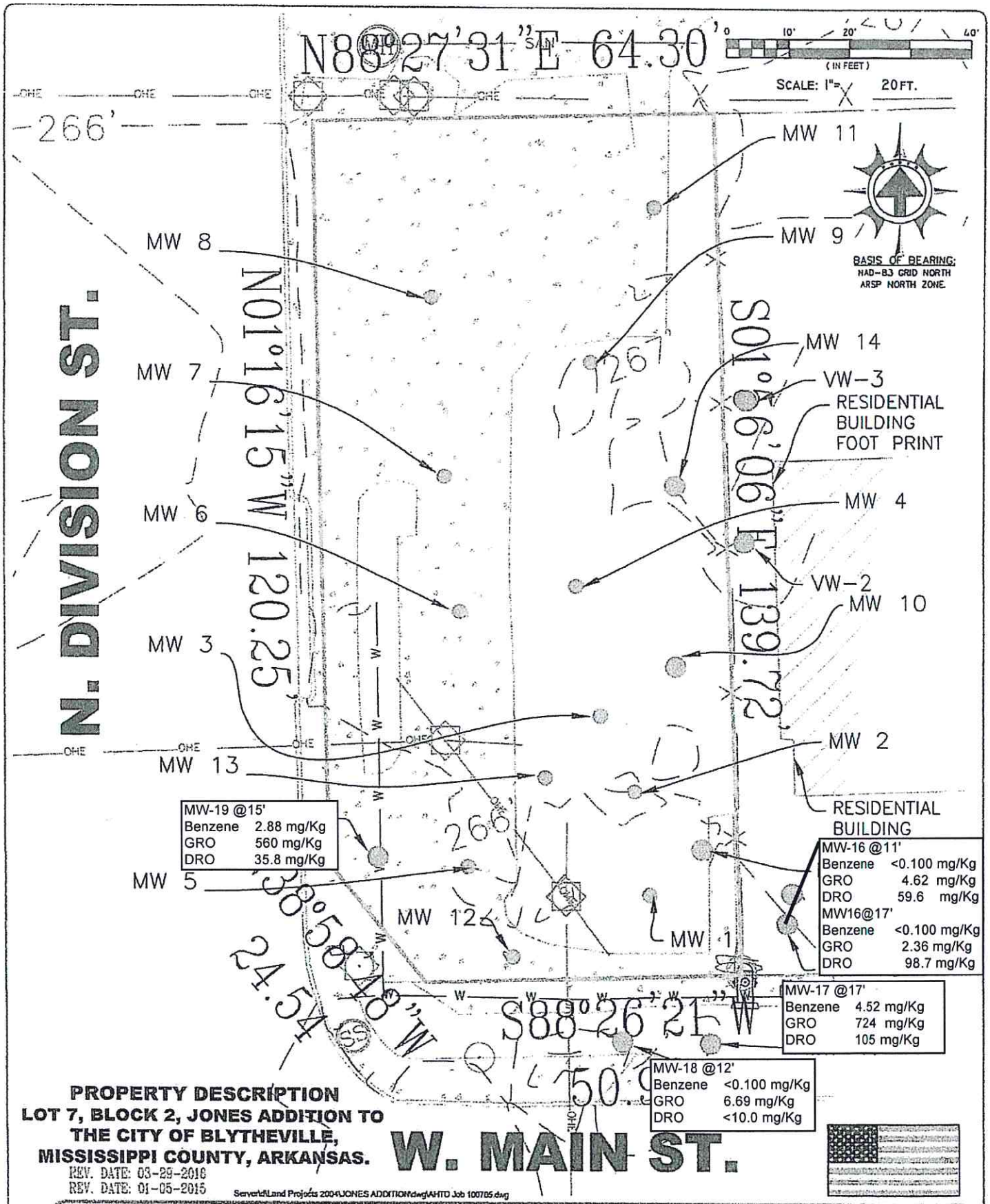
DATE: 12-04-2014	
SCALE: 1"= 20'	
DRAWN BY: MSF/KST	
CHECKED BY: MSF	
FILE NAME: AHTD Job 100705	

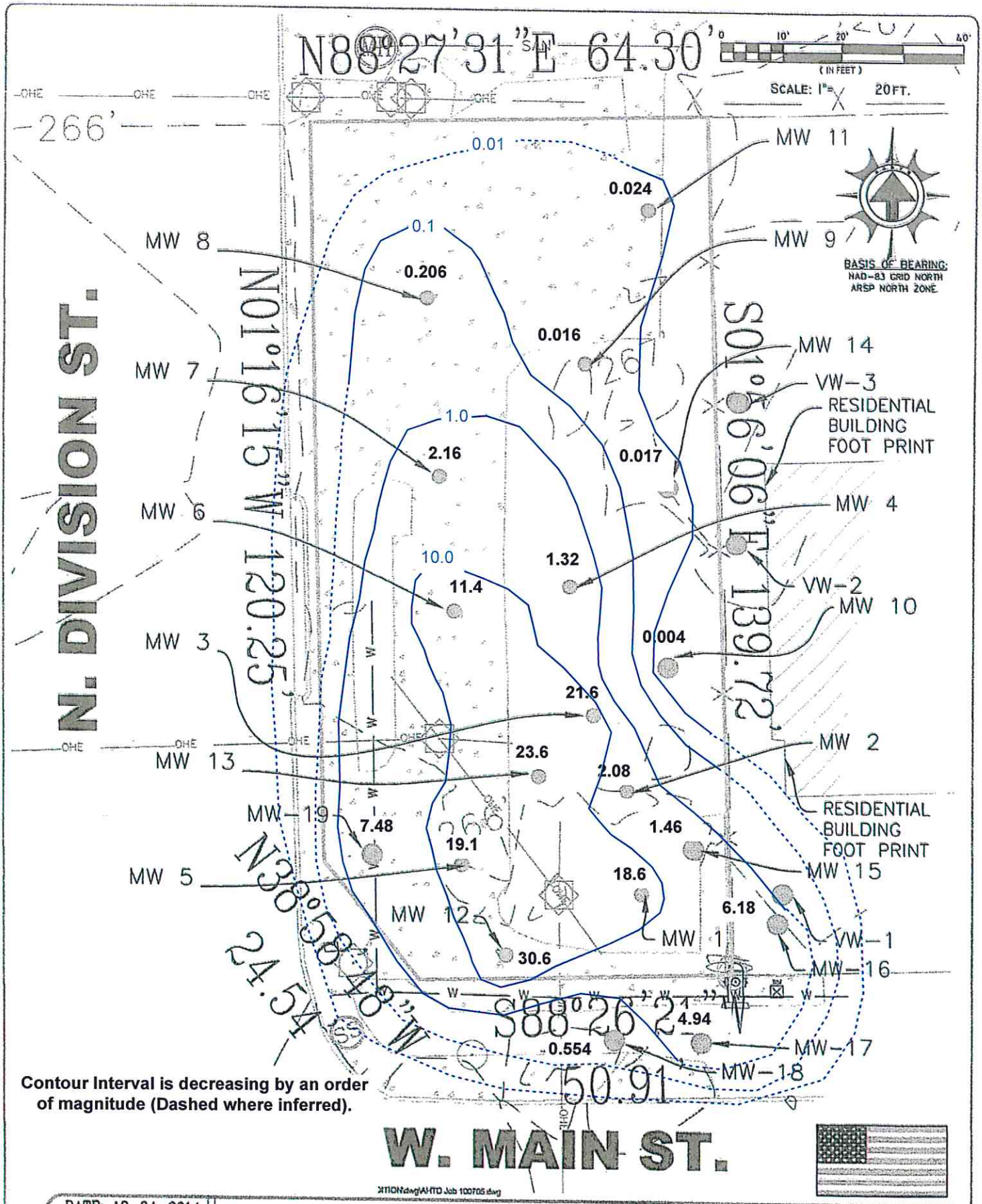
ARKANSAS SURVEYING & CONSULTING
ASC
1926 SALEM ROAD
BENTON, ARKANSAS 72019
TELE. (501) 794-4500
FAX. (501) 794-4501
E-MAIL:survey_man_jr@hotmail.com
MALVERN AR OFFICE 304-2723

THE SOUTHERN CO., NLR, INC
100 N DIVISION, BLYTHEVILLE, AR
TOPOGRAPHIC SURVEY

Figure 3. Potentiometric Surface Map

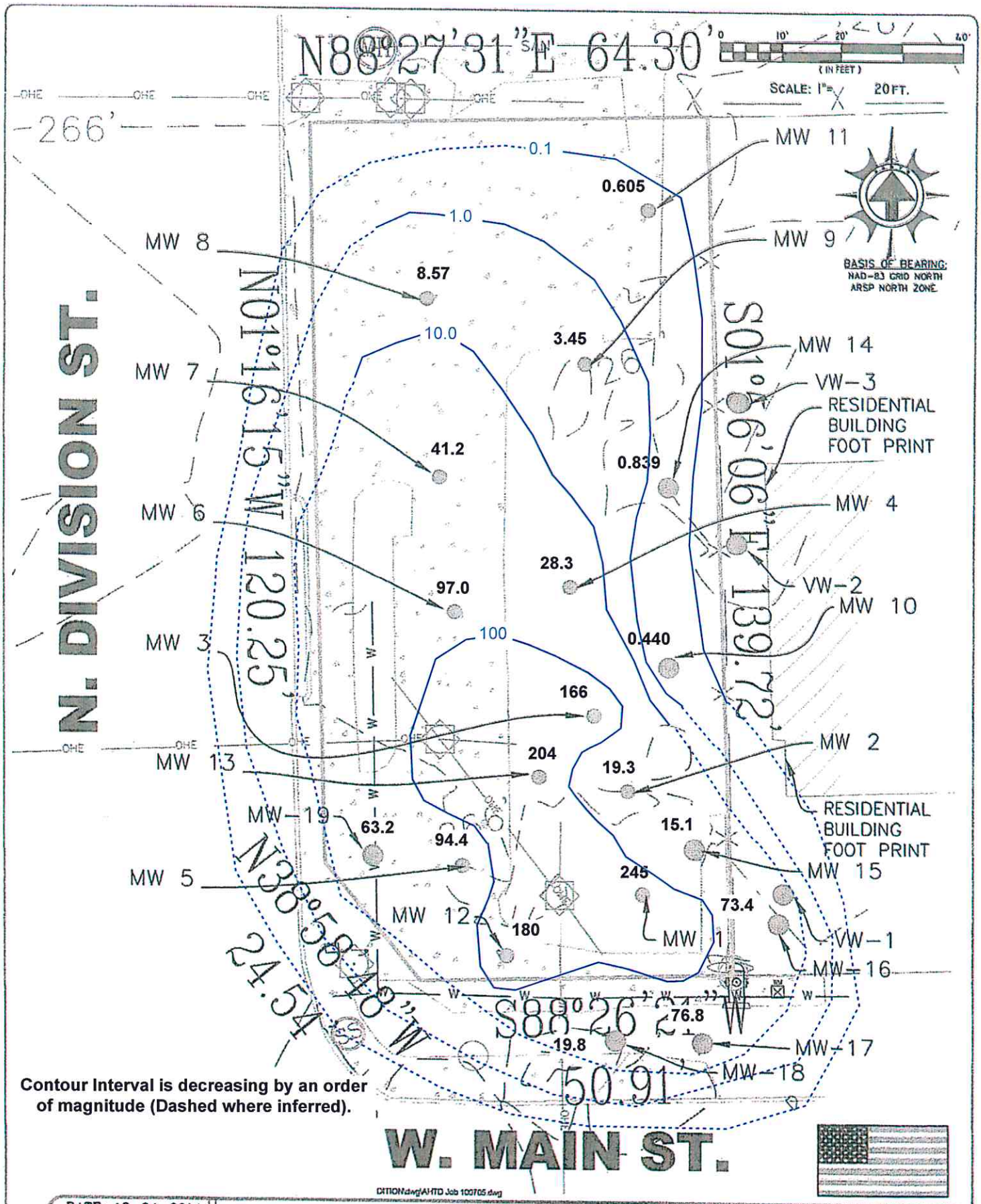
Server\d\Land Projects 2004\JONES ADDITION\dwg\AHTD Job 100705.dwg


N88°27'31"E 64.30'
SCALE: 1"= 20 FT.
(IN FEET)
BASIS OF BEARING:
NAD-83 GRID NORTH
ARSP NORTH ZONE
MW 11
MW 9
MW 8
MW 7
MW 6
MW 3
MW 13
MW 14
VW-3
RESIDENTIAL BUILDING FOOT PRINT
MW 4
VW-2
MW 10
MW 2
RESIDENTIAL BUILDING
MW 5
MW 12
MW 1
N01°16'15"W 120.25'
S01°16'06"E 139.72'
N. DIVISION ST.
W. MAIN ST.
S88°26'21"W
MW-19 @15'
Benzene 2.88 mg/Kg
GRO 560 mg/Kg
DRO 35.8 mg/Kg
MW-16 @11'
Benzene <0.100 mg/Kg
GRO 4.62 mg/Kg
DRO 59.6 mg/Kg
MW16@17'
Benzene <0.100 mg/Kg
GRO 2.36 mg/Kg
DRO 98.7 mg/Kg
MW-17 @17'
Benzene 4.52 mg/Kg
GRO 724 mg/Kg
DRO 105 mg/Kg
MW-18 @12'
Benzene <0.100 mg/Kg
GRO 6.69 mg/Kg
DRO <10.0 mg/Kg
PROPERTY DESCRIPTION
LOT 7, BLOCK 2, JONES ADDITION TO THE CITY OF BLYTHEVILLE, MISSISSIPPI COUNTY, ARKANSAS.
REV. DATE: 03-29-2016
REV. DATE: 01-05-2015
Server4\Land Projects 2004\JONES ADDITION.dwg\AHTD Job 100705.dwg
DATE: 12-04-2014
SCALE: 1"= 20'
DRAWN BY: MSF/KST
CHECKED BY: MSF
FILE NAME: AHTD Job 100705
ARKANSAS SURVEYING & CONSULTING
ASC
1526 SALEM ROAD
BENTON, ARKANSAS 72019
TELE. (501) 794-4500
FAX. (501) 794-4501
E-MAIL: survey_man_jr@hotmail.com
MALVERN AR OFFICE 304-2723
THE SOUTHERN CO., NLR, INC
100 N DIVISION, BLYTHEVILLE, AR
Figure 4
Petroleum Constituents in Soil



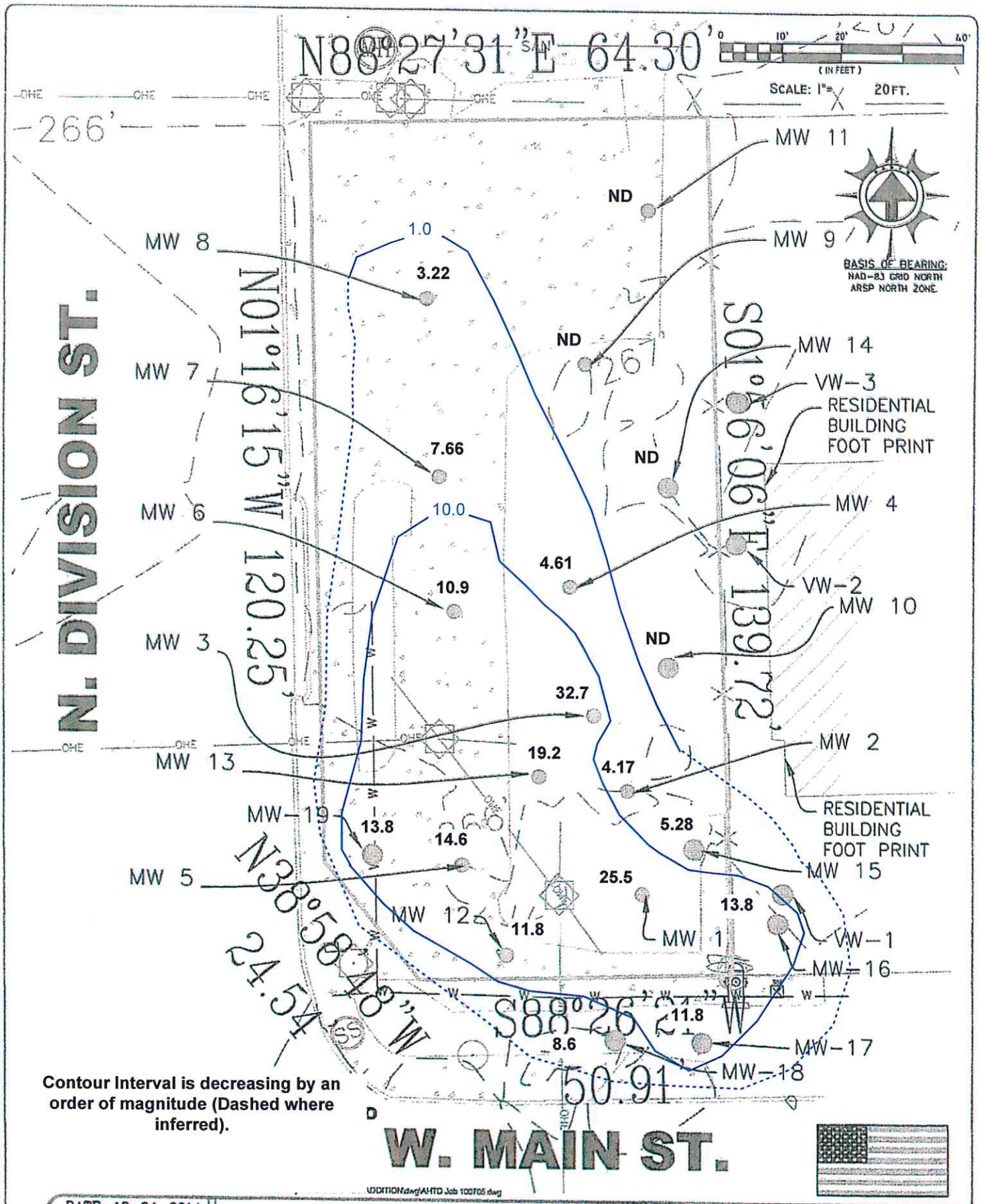
Contour Interval is decreasing by an order of magnitude (Dashed where inferred).

DATE: 12-04-2014 SCALE: 1"= 20' DRAWN BY: MSF/KST CHECKED BY: MSF FILE NAME: AHTD Job 100705	ARKANSAS SURVEYING & CONSULTING 1926 SALEM ROAD BENTON, ARKANSAS 72019 TELE. (501) 794-4500 FAX. (501) 794-4501 E-MAIL: survey_man_jr@hotmail.com HALVERN AR OFFICE 304-2723	THE SOUTHERN CO., NLR, INC 100 N DIVISION, BLYTHEVILLE, AR Figure 5 Benzene Concentration in Groundwater



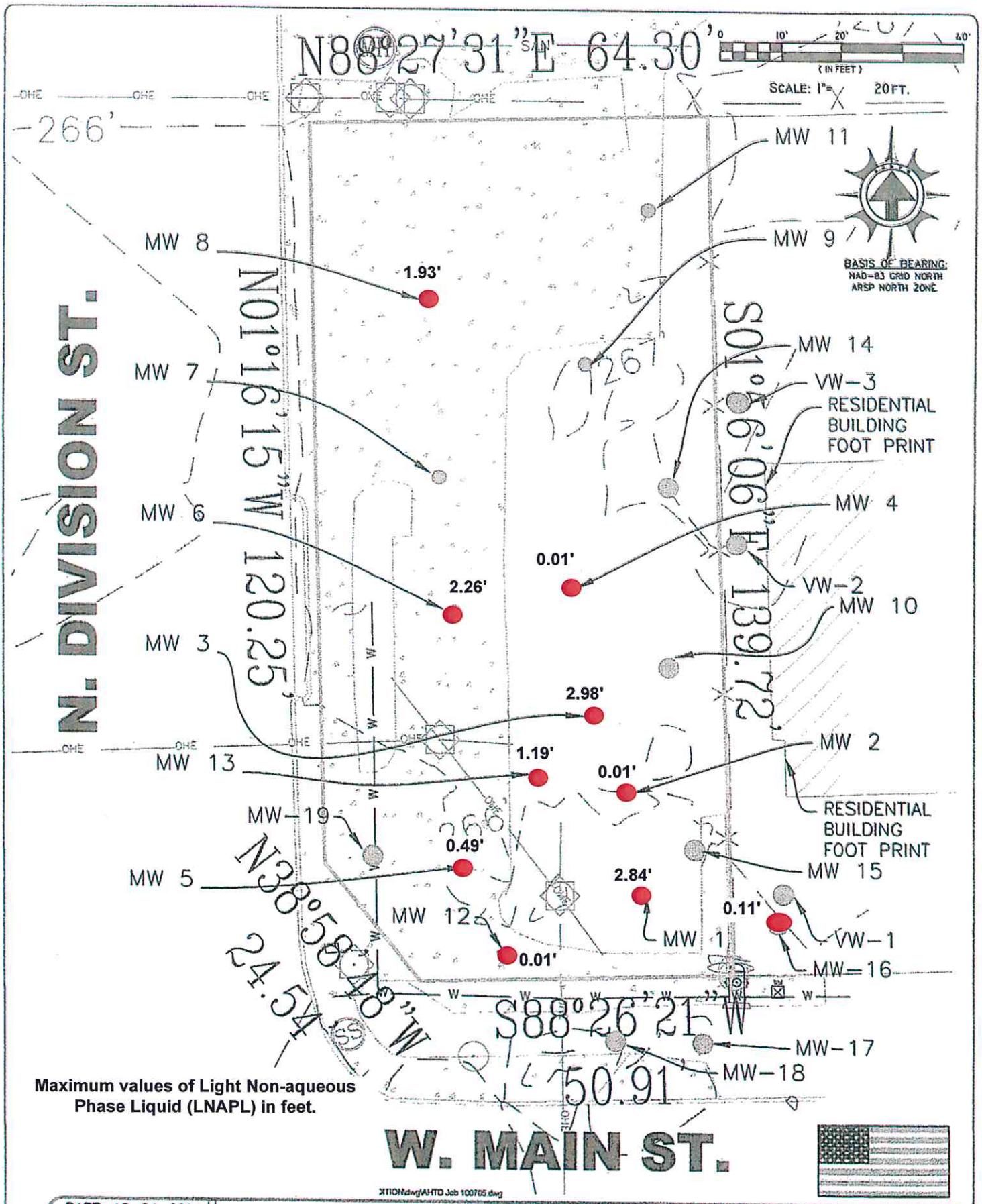
Contour Interval is decreasing by an order of magnitude (Dashed where inferred).

DATE: 12-04-2014 SCALE: 1"= 20' DRAWN BY: MSF/KST CHECKED BY: MSF FILE NAME: AHTD Job 100705	ARKANSAS SURVEYING & CONSULTING 1926 SALEM ROAD BENTON, ARKANSAS 72019 TELE. (501) 794-4500 FAX. (501) 794-4501 E-MAIL: survey_man_jr@hotmail.com HALVERN AR OFFICE 304-2723	THE SOUTHERN CO., NLR, INC 100 N DIVISION, BLYTHEVILLE, AR Figure 6. TPH - GRO Concentrations in Groundwater



Contour Interval is decreasing by an order of magnitude (Dashed where inferred).

DATE: 12-04-2014 SCALE: 1"= 20' DRAWN BY: MSF/KST CHECKED BY: MSF FILE NAME: AHTD Job 100705	ARKANSAS SURVEYING & CONSULTING 1926 SALEM ROAD BENTON, ARKANSAS 72019 TELE. (501) 794-4500 FAX. (501) 794-4501 E-MAIL: survey_man_jr@hotmail.com HALVERN AR OFFICE 204-2723	THE SOUTHERN CO., NLR, INC 100 N DIVISION, BLYTHEVILLE, AR Figure 7. TPH - DRO Concentrations in Groundwater



Maximum values of Light Non-aqueous Phase Liquid (LNAPL) in feet.

DATE: 12-04-2014 SCALE: 1"= 20' DRAWN BY: MSF/KST CHECKED BY: MSF FILE NAME: AHTD Job 100705	ARKANSAS SURVEYING & CONSULTING 1926 SALEM ROAD BENTON, ARKANSAS 72019 TELE. (501) 794-4500 FAX. (501) 794-4501 E-MAIL: survey_man_jr@hotmail.com HALVERN AR OFFICE 304-2723	THE SOUTHERN CO., NLR, INC 100 N DIVISION, BLYTHEVILLE, AR Figure 8. Maximum LNAPL Occurrence

TABLE 1
Monitor Well Gauging
AHTD JOB #100705
ADEQ LUST 47-0040

Well ID	Date Gauged	Top of Casing Elevation (ft.)	Total Depth (ft.)	Depth to PSH (ft.)	Depth to Water (ft.)	PSH Thickness (ft.)	Groundwater Elevation (ft.)	Adjusted Groundwater Elevation (ft.)
MW-1	11/24/14	265.35	25.00	12.45	12.52	0.07	252.83	252.88
MW-1	12/21/14	265.35	25.00	11.98	12.39	0.41	252.96	253.27
MW-1	07/22/15	265.35	25.00	11.04	13.01	1.97	252.34	253.83
MW-1	02/16/16	265.35	25.00	9.09	11.93	2.84	253.42	255.56
MW-1	04/14/16	265.35	25.00	7.44	10.18	2.74	255.17	257.24
Well ID	Date Gauged	Top of Casing Elevation (ft.)	Total Depth (ft.)	Depth to PSH (ft.)	Depth to Water (ft.)	PSH Thickness (ft.)	Groundwater Elevation (ft.)	Adjusted Groundwater Elevation (ft.)
MW-2	11/24/14	265.91	25.00	ND	12.99	0.00	252.92	252.92
MW-2	12/21/14	265.91	25.00	ND	12.60	0.00	253.31	253.31
MW-2	07/22/15	265.91	25.00	ND	12.11	0.00	253.80	253.80
MW-2	02/16/16	265.91	25.00	10.24	10.25	0.01	255.66	255.67
MW-2	04/14/16	265.91	25.00	Covered	by	telephone	poles	
	Date Gauged	Top of Casing Elevation (ft.)	Total Depth (ft.)	Depth to PSH (ft.)	Depth to Water (ft.)	PSH Thickness (ft.)	Groundwater Elevation (ft.)	Adjusted Groundwater Elevation (ft.)
MW-3	11/24/14	266.44	25.00	ND	13.51	0.00	252.93	252.93
MW-3	12/21/14	266.44	25.00	13.06	13.32	0.26	253.12	253.32
MW-3	07/22/15	266.44	25.00	ND	12.41	0.00	254.03	254.03
MW-3	02/16/16	266.44	25.00	10.22	12.89	2.67	253.55	255.57
MW-3	04/14/16	266.44	25.00	8.46	11.44	2.98	255.00	257.25
Well ID	Date Gauged	Top of Casing Elevation	Total Depth (ft.)	Depth to PSH (ft.)	Depth to Water	PSH Thickness (ft.)	Groundwater Elevation (ft.)	Groundwater Elevation (ft.)
MW-4	11/24/14	266.64	25.00	ND	13.74	0.00	252.90	252.90
MW-4	12/21/14	266.64	25.00	13.35	13.36	0.01	253.28	253.29
MW-4	07/22/15	266.64	25.00	ND	12.75	0.00	253.89	253.89
MW-4	02/16/16	266.64	25.00	ND	11.02	0.00	255.62	255.62
MW-4	04/14/16	266.64	25.00	ND	9.33	0.00	257.31	257.31
Well ID	Date Gauged	Top of Casing Elevation (ft.)	Total Depth (ft.)	Depth to PSH (ft.)	Depth to Water (ft.)	PSH Thickness (ft.)	Groundwater Elevation (ft.)	Adjusted Groundwater Elevation (ft.)
MW-5	11/24/14	265.79	25.00	12.88	12.89	0.01	252.90	252.91
MW-5	12/21/14	265.79	25.00	12.44	12.67	0.23	253.12	253.29
MW-5	07/22/15	265.79	25.00	ND	12.40	0.00	253.39	253.39
MW-5	02/16/16	265.79	25.00	10.11	10.60	0.49	255.19	255.56
MW-5	04/14/16	265.79	25.00	8.40	8.52	0.12	257.27	257.36
Well ID	Date Gauged	Top of Casing Elevation (ft.)	Total Depth (ft.)	Depth to PSH (ft.)	Depth to Water (ft.)	PSH Thickness (ft.)	Groundwater Elevation (ft.)	Adjusted Groundwater Elevation (ft.)
MW-6	11/24/14	266.22	25.00	ND	13.31	0.00	252.91	252.91
MW-6	12/21/14	266.22	25.00	12.91	12.97	0.06	253.25	253.30
MW-6	07/22/15	266.22	25.00	ND	12.18	0.00	254.04	254.04
MW-6	02/16/16	266.22	25.00	10.63	11.82	1.19	254.40	255.30
MW-6	04/14/16	266.22	25.00	8.40	10.66	2.26	255.56	257.27
Well ID	Date Gauged	Top of Casing Elevation (ft.)	Total Depth (ft.)	Depth to PSH (ft.)	Depth to Water (ft.)	PSH Thickness (ft.)	Groundwater Elevation (ft.)	Adjusted Groundwater Elevation (ft.)
MW-7	11/24/14	266.11	25.00	ND	13.27	0.00	252.84	252.84
MW-7	12/21/14	266.11	25.00	ND	12.87	0.00	253.24	253.24
MW-7	07/22/15	266.11	25.00	ND	12.40	0.00	253.71	253.71
MW-7	02/16/16	266.11	25.00	ND	10.56	0.00	255.55	255.55
MW-7	04/14/16	266.11	25.00	ND	8.96	0.00	257.15	257.15
Well ID	Date Gauged	Top of Casing Elevation (ft.)	Total Depth (ft.)	Depth to PSH (ft.)	Depth to Water (ft.)	PSH Thickness (ft.)	Groundwater Elevation (ft.)	Adjusted Groundwater Elevation (ft.)
MW-8	11/24/14	266.22	25.00	ND	13.32	0.00	252.90	252.90
MW-8	12/21/14	266.22	25.00	ND	12.92	0.00	253.30	253.30
MW-8	07/22/15	266.22	25.00	ND	12.44	0.00	253.78	253.78
MW-8	02/16/16	266.22	25.00	ND	10.64	0.00	255.58	255.58
MW-8	04/16/16	266.22	25.00	8.46	10.39	1.93	255.83	257.29

Adj. GW Elev.=(TOC Elev. - Depth to GW) + (0.755 x PSH Thickness)
ND - not detected
NM - not measured

* Groundwater level adjusted for angled well

TABLE 1
Monitor Well Gauging
AHTD JOB #100705
ADEQ LUST 47-0040

Well ID	Date Gauged	Top of Casing Elevation (ft.)	Total Depth (ft.)	Depth to PSH (ft.)	Depth to Water (ft.)	PSH Thickness (ft.)	Groundwater Elevation (ft.)	Adjusted Groundwater Elevation (ft.)
MW-9	11/24/14	266.70	25.00	ND	13.75	0.00	252.95	252.95
MW-9	12/21/14	266.70	25.00	ND	13.35	0.00	253.35	253.35
MW-9	07/22/15	266.70	25.00	ND	12.95	0.00	253.75	253.75
MW-9	02/16/16	266.70	25.00	ND	11.05	0.00	255.65	255.65
MW-9	04/14/16	266.70	25.00	ND	9.39	0.00	257.31	257.31
Well ID	Date Gauged	Top of Casing Elevation (ft.)	Total Depth (ft.)	Depth to PSH (ft.)	Depth to Water (ft.)	PSH Thickness (ft.)	Groundwater Elevation (ft.)	Adjusted Groundwater Elevation (ft.)
MW-10*	11/24/14	266.28	25.00	ND	17.84	0.00	248.44	248.44
MW-10*	12/21/14	266.28	25.00	ND	17.25	0.00	249.03	249.03
MW-10*	07/22/15	266.28	25.00	ND	16.53	0.00	249.75	249.75
MW-10*	02/16/16	266.28	25.00	ND	14.00	0.00	252.28	252.28
MW-10*	04/14/16	266.28	25.00	ND	12.30	0.00	253.98	253.98
Well ID	Date Gauged	Top of Casing Elevation (ft.)	Total Depth (ft.)	Depth to PSH (ft.)	Depth to Water (ft.)	PSH Thickness (ft.)	Groundwater Elevation (ft.)	Adjusted Groundwater Elevation (ft.)
MW-11	11/24/14	266.53	25.00	ND	13.54	0.00	252.99	252.99
MW-11	12/21/14	266.53	25.00	ND	13.15	0.00	253.38	253.38
MW-11	07/22/15	266.53	25.00	ND	12.69	0.00	253.84	253.84
MW-11	02/16/16	266.53	25.00	ND	10.83	0.00	255.70	255.70
MW-11	04/14/16	266.53	25.00	covered	by	soil	and	concrete
Well ID	Date Gauged	Top of Casing Elevation (ft.)	Total Depth (ft.)	Depth to PSH (ft.)	Depth to Water (ft.)	PSH Thickness (ft.)	Groundwater Elevation (ft.)	Adjusted Groundwater Elevation (ft.)
MW-12	11/24/14	265.65	25.00	ND	12.73	0	252.92	252.92
MW-12	12/21/14	265.65	25.00	ND	12.34	0	253.31	253.31
MW-12	07/22/15	265.65	25.00	11.84	11.85	0.01	253.80	253.81
MW-12	02/16/16	265.65	25.00	ND	10.2	0.00	255.45	255.45
MW-12	04/14/16	265.65	25.00	ND	8.58	0.00	257.07	257.07
Well ID	Date Gauged	Top of Casing Elevation (ft.)	Total Depth (ft.)	Depth to PSH (ft.)	Depth to Water (ft.)	PSH Thickness (ft.)	Groundwater Elevation (ft.)	Adjusted Groundwater Elevation (ft.)
MW-13	11/24/14	266.25	25.00	ND	13.36	0	252.89	252.89
MW-13	12/21/14	266.25	25.00	ND	12.97	0	253.28	253.28
MW-13	07/22/15	266.25	25.00	12.22	13.41	1.19	252.84	253.74
MW-13	02/16/16	266.25	25.00	10.49	11.25	0.76	255.00	255.57
MW-13	04/14/16	266.25	25.00	9.34	10.16	0.82	256.09	256.71
Well ID	Date Gauged	Top of Casing Elevation (ft.)	Total Depth (ft.)	Depth to PSH (ft.)	Depth to Water (ft.)	PSH Thickness (ft.)	Groundwater Elevation (ft.)	Adjusted Groundwater Elevation (ft.)
MW-14*	11/24/14	266.29	25.00	ND	18.16	0	248.13	248.13
MW-14*	12/21/14	266.29	25.00	ND	17.55	0	248.74	248.74
MW-14*	07/22/15	266.29	25.00	ND	16.34	0.00	249.95	249.95
MW-14*	02/16/16	266.29	25.00	ND	14.24	0.00	252.05	252.05
MW-14*	04/14/16	266.29	25.00	ND	14.65	0.00	251.64	251.64
Well ID	Date Gauged	Top of Casing Elevation (ft.)	Total Depth (ft.)	Depth to PSH (ft.)	Depth to Water (ft.)	PSH Thickness (ft.)	Groundwater Elevation (ft.)	Adjusted Groundwater Elevation (ft.)
MW-15*	11/24/14	265.44	25.00	ND	16.84	0	248.60	248.60
MW-15*	12/21/14	265.44	25.00	ND	16.31	0	249.13	249.13
MW-15*	07/22/15	265.44	25.00	ND	16.34	0	249.10	249.10
MW-15*	02/16/16	265.44	25.00	ND	14.74	0	250.70	250.70
MW-15*	04/14/16	265.44	25.00	Covered	by	soil		
Well ID	Date Gauged	Top of Casing Elevation (ft.)	Total Depth (ft.)	Depth to PSH (ft.)	Depth to Water (ft.)	PSH Thickness (ft.)	Groundwater Elevation (ft.)	Adjusted Groundwater Elevation (ft.)
MW-16	02/16/16	266.16	25.00	ND	10.4	0	255.76	255.76
MW-16	04/14/16	266.16	25.00	8.45	8.56	0.11	257.60	257.68

Adj. GW Elev.=(TOC Elev. - Depth to GW) + (0.755 x PSH Thickness)
ND - not detected
NM - not measured

* Groundwater level adjusted for angled well

TABLE 1
Monitor Well Gauging
AHTD JOB #100705
ADEQ LUST 47-0040

Well ID	Date Gauged	Top of Casing Elevation (ft.)	Total Depth (ft.)	Depth to PSH (ft.)	Depth to Water (ft.)	PSH Thickness (ft.)	Groundwater Elevation (ft.)	Adjusted Groundwater Elevation (ft.)
MW-17	02/16/16	265.18	25.00	ND	9.48	0	255.70	255.70
MW-17	04/14/16	265.18	25.00	ND	7.83	0	257.35	257.35
Well ID	Date Gauged	Top of Casing Elevation (ft.)	Total Depth (ft.)	Depth to PSH (ft.)	Depth to Water (ft.)	PSH Thickness (ft.)	Groundwater Elevation (ft.)	Adjusted Groundwater Elevation (ft.)
MW-18	02/16/16	264.98	25.00	ND	9.26	0	255.72	255.72
MW-18	04/14/16	264.98	25.00	ND	7.65	0	257.33	257.33
Well ID	Date Gauged	Top of Casing Elevation (ft.)	Total Depth (ft.)	Depth to PSH (ft.)	Depth to Water (ft.)	PSH Thickness (ft.)	Groundwater Elevation (ft.)	Adjusted Groundwater Elevation (ft.)
MW-19	02/16/16	265.17	25.00	ND	9.85	0	255.32	255.32
MW-19	04/14/16	265.17	25.00	ND	9.88	0	255.29	255.29

Adj. GW Elev.=(TOC Elev. - Depth to GW) + (0.755 x PSH Thickness)
ND - not detected
NM - not measured

* Groundwater level adjusted for angled well

Appendix B

Appendix B: Investigation Photographs, Calibration Log, Access Agreements, Compliance Agreements and Daily Reports

Figure 1 This photograph depicts The Southern Company, NLR, Inc. employee Mr. Leonard Cole installing vapor well VW-1 in Mrs. Onisca McCaig Vanoven's front yard on January 29, 2016.

Figure 2 This photograph depicts Anderson Engineering Consultants, Inc. drilling monitor well MW-16 in Mrs. Onisca McCaig Vanoven's front yard on February 8, 2016.

Figure 3 This photograph depicts the amount of construction soil covering previously installed monitor wells on February 8, 2016. The location of monitor well MW-18 is depicted by the drill rig pictured in the background of the photograph.

Figure 4 This photograph depicts Anderson Engineering Consultants, Inc. drill crew drilling monitor well MW-18 on February 8, 2016.

Figure 5 This photograph depicts Anderson Engineering Consultants, Inc. drill crew drilling monitor well MW-19 on February 9, 2016.

Figure 6 This photograph depicts the vapor sampling of vapor well VW-1 on February 9, 2016.

Figure 7 This photograph depicts the low flow groundwater sampling of monitor well MW-4 on February 16, 2016.

Figure 8 This photograph depicts the amount of LNAPL accumulation encountered in monitor well MW-3 on February 16, 2016.

Figure 9 This photograph depicts amber colored LNAPL occurring on groundwater in monitor well MW-8 on April 18, 2016.

Figure 10 This photograph depicts weathered LNAPL accumulation encountered on monitor well MW-3 on April 18, 2016. The bailer with LNAPL from monitor well MW-8 is depicted in the background of the photograph for color comparison purposes.

PHOTO-IONIZATION DETECTOR FIELD CALIBRATION SHEET

SOCO TECHNICIAN: Scott Kemph DATE: February 8, 2016 and February 9, 2016

WEATHER: Cold with Snow Flurries

PROJECT NAME: AHTD Job #100705 PROJECT NUMBER: 6522

PROJECT LOCATION: 100 Division Street
Blytheville, Arkansas 72315

PID MODEL	Minnie Rae 3000
PID SERIAL NUMBER	592-901488
CALIBRATION SPAN GAS	Isobutylene
CALIBRATION STANDARD (IN PPM)	100

F I D F I E L D C A L I B R A T I O N D A T A

CALIBRATION TIME	FIELD CALIBRATION SETTING (IN PPM)	SOCO TECHNICIAN INITIALS
2/8/16 0630	99.8	TSK
2/9/16 0608	99.6	TSK

GENERAL REMARKS:

SOCO TECHNICIAN SIGNATURE: N. Scott DATE: 2-10-16

\\SOLITSBS01\USERS\SCOTTK\MY DOCUMENTS\PROJECTS\AHTD\BLYETHEVILLE, 2012\ADDITIONAL SITE ASSESSMENT\IMPLEMENTATION\2.10.2016_PID CALIBRATION.DOCX

Eco-Rental Solutions

Calibration Certificate

rev 8/9/11

Work Order No.: SE-028530
Date of Service: 02/09/16

Unit Under Test: Horiba U-53-2, 2 meter cable PH/ORP/Cond/Temp/DO/Turb

Asset No.: FA01022 Technician: Tom Kortkamp Initials:
Serial No: YK98PMGW/WP4T644W

TEST	Specification	Result
Standard Calibration	Pass/Fail	PASS

TEST STANDARDS USED:

DESCRIPTION	LOT No./EXPIRATION DATE	QUANTITY
AutoCal Solution for Horiba U-22/52	Lot No. C581344 Exp. 09/16	1
pH 4.00 Standard Solution	Lot No.5GE740 Exp. 05/30/17	1
pH 7.00 Standard Solution	Lot No. 5GI488 Exp. 09/17	1
Horiba 100NTU Standard		1
ORP Standard Solution	Lot No. 14L100053 Exp. 11/16	1
Sodium Sulfite/ Zero DO Standard	Lot No. C365810 Exp. 11/08/18	1

TEST EQUIPMENT USED:

DESCRIPTION	ASSET NO.	SERIAL NO.	DATE OF LAST CAL	DATE CAL DUE

Test Equipment and standards are traceable to National standards.

Safety Plan Compliance

I T Scott Kemph have received a copy of the Health and Safety Plan (the plan) for the project. I have reviewed the plan, understand the plan, and agree to comply with all of it's provisions. I understand that I could be prohibited from working on the project for violating and of ht health and safety requirements specified in the plan.

Signed T. Scott Kemph Date 2-8-16

Printed Name T-Scott Kemph

Company SOCO

Safety Plan Compliance

I Dominic Tarena have received a copy of the Health and Safety Plan (the plan) for the project. I have reviewed the plan, understand the plan, and agree to comply with all of it's provisions. I understand that I could be prohibited from working on the project for violating and of ht health and safety requirements specified in the plan.

Signed _____ Date 2-8-16

Printed Name Dominic Tarena

Company AECI

Safety Plan Compliance

I Brandon Atkinson have received a copy of the Health and Safety Plan (the plan) for the project. I have reviewed the plan, understand the plan, and agree to comply with all of it's provisions. I understand that I could be prohibited from working on the project for violating and of ht health and safety requirements specified in the plan.

Signed Brandon Date 2/8/16

Printed Name Brandon Atkinson

Company Anderson

ACCESS AGREEMENT

CONSENT FOR RIGHT OF ENTRY TO PERFORM ASSESSMENT OR REMEDIATION, OR BOTH, ACTIVITIES AT 100 North Division Street, Blytheville, Arkansas 72315

Case for which access is required: LUST # 47-0040, ADEQ Facility ID#47000222, AFIN# 47-00686.

I, Onisca McCaig, owner of the property located at 1140 W. Main, Blytheville, Arkansas, do hereby GRANT RIGHT OF ACCESS to the Arkansas Department of Environmental Quality (ADEQ), its contractors and subcontractors, agents, employees, authorized representatives (who may include state or local agencies and officials), the right to enter and have access upon the described property to do all things necessary or expedient to protect the environment, public health, and safety for the general welfare and to remediate releases to the environment, and for the following purposes:

> Entry to perform site assessment, investigation, and remediation pursuant to the authority prescribed to it under Arkansas Pollution Control & Ecology Commission Regulation No. 12; A.C.A. § 8-7-801, *et seq.*; and A.C.A. § 8-4-101, *et seq.*

I give this consent to enter upon the above-described property for the length of time necessary to complete the assessment, investigation, or remediation necessary to protect human health and the environment and to remediate releases to the environment subject to my continued ownership and use of the property.

ONISCA McCAIG VANOVEN
Typed or Printed Name of Property Owner

Onisca McCaig VanOven
Signature of Property Owner

State of Arkansas
County of Pulaski

On this the 2 day of June, 2014, before me, Rick Stanley, the undersigned notary, personally appeared, Onisca McCaig Vanoven, known to me (or satisfactorily proven) to be the person whose name(s) is/are subscribed to the within instrument and acknowledged that he/she/they executed the same for the purposes therein contained.

In witness whereof I hereunto set my hand and official seal.

Notary Public

My Commission expires: 5/7/22

OFFICIAL SEAL - #12387667
RICK STANLEY
NOTARY PUBLIC-ARKANSAS
PULASKI COUNTY
MY COMMISSION EXPIRES: 05-07-22

ACCESS AGREEMENT

CONSENT FOR RIGHT OF ENTRY TO PERFORM ASSESSMENT OR REMEDIATION, OR BOTH, ACTIVITIES AT 100 North Division Street, Blytheville, Arkansas 72315.

Case for which access is required: LUST # 47-0040, ADEQ Facility ID#47000222, AFIN # 47-00686.

JRM4, LLC, owner of the property located at, 100 North Division Street, Blytheville, Arkansas do hereby GRANT RIGHT OF ACCESS to the Arkansas Department of Environmental Quality (ADEQ), its contractors and subcontractors, agents, employees, authorized representatives (who may include state or local agencies and officials), the right to enter and have access upon the described property to do all things necessary or expedient to protect the environment, public health, and safety for the general welfare and to remediate releases to the environment, and for the following purposes:

> Entry to perform site assessment, investigation, and remediation pursuant to the authority prescribed to it under Arkansas Pollution Control & Ecology Commission Regulation No. 12; A.C.A. § 8-7-801, *et seq.*; and A.C.A. § 8-4-101, *et seq.*

I give this consent to enter upon the above-described property for the length of time necessary to complete the assessment, investigation, or remediation necessary to protect human health and the environment and to remediate releases to the environment subject to my continued ownership and use of the property.

Jackie R. McClure
Typed or Printed Name of Property Owner

Signature of Property Owner

State of Arkansas
County of Craighead
On this the 14 day of March, 20 13, before me, Lynette Murphy, the undersigned notary, personally appeared, Jackie R. McClure, known to me (or satisfactorily proven) to be the person whose name(s) is/are subscribed to the within instrument and acknowledged that he/she/they executed the same for the purposes therein contained.

In witness whereof I hereunto set my hand and official seal.

OFFICIAL SEAL - #12388128
LYNETTE MURPHY
NOTARY PUBLIC-ARKANSAS
CRAIGHEAD COUNTY
MY COMMISSION EXPIRES: 05-24-22

Notary Public

My Commission expires: _____

AHTD Job # 100705 1-29-16

0900 Arrive job site w/ L. Cole begin installing vapor wells.

1130 complete vapor well installation. site clean up.

1200 Depart site.

N. Scott

1-29-16

AHTD Job # 100705 2-8-16

1100 Arrive jobsite; tailgate safety meeting w/ AECT Drill crew. Begin drilling B-16/MW-16 located in Ms. Onisca McCraig's yard.

1410 Complete drilling/installation of B-16/MW-16.

1445 Setup start drilling B-17/MW-17

1555 Complete drilling B-17/MW-17

1600 Site Clean up

1710 Depart Site

A. Scott

2-8-16

AHTD Job 100705 2-9-16

0715 Arrive jobsite setup to vapor sample VW-1

0745 AECI drill crew arrives to drill B-19 / MW-19

0800 Setup to drill B-19 / MW-19

0825 Begin vapor sample collection VW-1 and Duplicate

0858 Start drilling B-19 / MW-19

0925 Finish Vapor Sampling VW-1 + Dup.

0958 Begin vapor sampling of VW-2,

1035 Complete drilling B-19 start installing monitor well

1056 Finish vapor sampling VW-2

1106 Begin vapor sampling VW-3.

1206 Complete vapor sampling VW-3

1215 Site clean up.

1230 Depart site AECI drill crew performing site clean up operations

N. Doett

2-9-16

Well #	F.P.L.	W.L.	
1	9.09	11.93	
2	10.24	10.25	
3	10.22	12.89	
4		11.02	
5	10.11	10.60	
6	10.63	11.82	
7		10.56	
8		10.64	
9		11.05	
10		17.10	* Angle well
11		10.83	
12		10.20	
13	10.49	11.25	
14		17.39	* Angle Well
15		18.00	* Angle well
16		10.40	
17		9.48	
18		9.25	
19		9.85	

AMTD Job 100705 2-16-16

0900 Arrive job site setup to sample MW-8 (low flow) Start gauging wells

0923 Begin sampling MW-8

0946 Sample MW-8 w/ Duplicate 1

1011 Begin sampling MW-7

1030 Sample MW-7 / Duplicate 2

1048 Begin sampling MW-6.

1118 Sample MW-8.

1135 Begin sampling MW-11

1205 Sample MW-13 w/ bailer due to free product.

1208 Sample MW-11.

1217 Begin sampling MW-9

1218 Sample MW-1 w/ Bailer due to free product.

1228 Sample MW-2 w/ bailer due to free product.

1240 Sample MW-9

1245 Sample MW-15 w/ bailer due to angle well.

1257 Start low flow sampling MW-4

1310 Sample MW-4

1315 Sample MW-14 w/ bailer due to angle well

Please see Next Page

AHTD 100705 2-16-16

1353 Start sampling MW-19
1400 Sample MW-19
1430 Sample MW-3 w/ bailer due to free product.
1454 Start low flow sampling MW-18.
1508 Sample MW-18.
1515 Decon equipment site clean up.
1600 Depart site

N. Scott
2-16-16

AHTD Job 100705 2-17-16

0745 Arrive site setup to low flow sample

0804 Start low flow sampling MW-17.

0836 sample MW-17.

0848 Sample MW-5 w/bailer due to freeproduct

0907 Start low flow sampling MW-16

0908 sample MW-12 w/ bailer due to access issues.

0930 Sample MW-16.

0935 Site Clean up

1000 Depart site

N. Scott [illegible]
2-17-16

MW #	FPL	WL
1	7.44	10.18
2	covered by telephone pole	
3	8.46	11.44
4		9.33
5	8.40	8.52
6	8.40	10.66
7		8.96
8	8.46	10.39
9		9.39
10		12.00* Angle well
11	covered by soil + concrete	
12		8.58
13	9.34	10.16
14		14.65* Angle well
15	covered by soil	
16	8.45	8.56
17		7.83
18		7.65
19		9.85

AHTD Job 100705 4-14-16

0830 Arrive job site begin gauging wells.

1035 Complete well gauging site clean up

1045 Depart site

N. Scott

4-14-16

AHTD Job 100705 4-18-16

0818 Arrive site to confirm LNAPL occurrence in MW-8 with bailers.

0915 site cleanup
Depart site

N. Scott
4-18-16

Appendix C

Unified Soil Classification, Soil Boring Logs and Monitor Well Construction Details

THE Southern Co. NLR, INC.

UNIFIED SOIL CLASSIFICATION (ASTM D-2487-98)

MATERIAL TYPES	CRITERIA FOR ASSIGNING SOIL GROUP NAMES			GROUP SYMBOL	SOIL GROUP NAMES & LEGEND
COARSE-GRAINED SOILS >50% RETAINED ON NO. 200 SIEVE	GRAVELS >50% OF COARSE FRACTION RETAINED ON NO 4. SIEVE	CLEAN GRAVELS <5% FINES	Cu>4 AND 1<Cc<3	GW	WELL-GRADED GRAVEL
			Cu>4 AND 1>Cc>3	GP	POORLY-GRADED GRAVEL
		GRAVELS WITH FINES >12% FINES	FINES CLASSIFY AS ML OR CL	GM	SILTY GRAVEL
			FINES CLASSIFY AS CL OR CH	GC	CLAYEY GRAVEL
	SANDS >50% OF COARSE FRACTION PASSES ON NO 4. SIEVE	CLEAN SANDS <5% FINES	Cu>6 AND 1<Cc<3	SW	WELL-GRADED SAND
			Cu>6 AND 1>Cc>3	SP	POORLY-GRADED SAND
		SANDS AND FINES >12% FINES	FINES CLASSIFY AS ML OR CL	SM	SILTY SAND
			FINES CLASSIFY AS CL OR CH	SC	CLAYEY SAND
FINE-GRAINED SOILS >50% PASSES NO. 200 SIEVE	SILTS AND CLAYS LIQUID LIMIT<50	INORGANIC	PI>7 AND PLOTS>"A" LINE	CL	LEAN CLAY
			PI>4 AND PLOTS<"A" LINE	ML	SILT
		ORGANIC	LL (oven dried)/LL (not dried)<0.75	OL	ORGANIC CLAY OR SILT
	SILTS AND CLAYS LIQUID LIMIT>50	INORGANIC	PI PLOTS >"A" LINE	CH	FAT CLAY
			PI PLOTS <"A" LINE	MH	ELASTIC SILT
		ORGANIC	LL (oven dried)/LL (not dried)<0.75	OH	ORGANIC CLAY OR SILT
HIGHLY ORGANIC SOILS		PRIMARILY ORGANIC MATTER, DARK IN COLOR, AND ORGANIC ODOR		PT	PEAT

OTHER MATERIAL SYMBOLS

- Poorly Graded Sand with Clay
- Clayey Sand
- Sandy Silt
- Low to High Plasticity Clay
- Poorly Graded Gravelly Sand
- Topsoil
- Well Graded Gravel with Clay
- Well Graded Gravel with Silt
- Sand
- Silt
- Well Graded Gravelly Sand
- Gravelly Silt
- Asphalt
- Boulders and Cobble

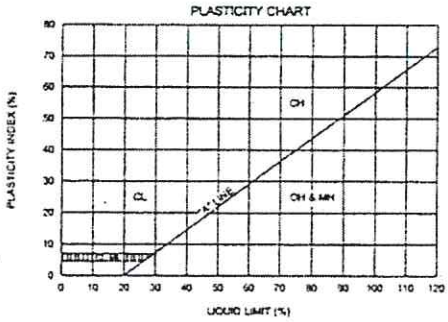
SAMPLE TYPES

- Split Spoon
- Shelby Tube
- Rock Core
- Grab Sample

ADDITIONAL TESTS

CA	-	CHEMICAL ANALYSIS (CORROSIVITY)	(200)	-	(WITH % PASSING NO. 200 SIEVE
CD	-	CONSOLIDATED DRAINED TRIAXIAL			
CN	-	CONSOLIDATION	SW	-	SWELL TEST
CU	-	CONSOLIDATED UNDRAINED TRIAXIAL	TC	-	CYCLIC TRIAXIAL
DS	-	DIRECT SHEAR	TV	-	TORVANE SHEAR
PP	-	POCKET PENETROMETER (TSF)	UC	-	UNCONFINED COMPRESSION
(3.0)	-	(WITH SHEAR STRENGTH IN KSF)	(1.5)	-	(WITH SHEAR STRENGTH IN KSF)
RV	-	R-VALUE			
SA	-	SIEVE ANALYSIS: % PASSING #200 SIEVE	UU	-	UNCONSOLIDATED UNDRAINED TRIAXIAL
	-	WATER LEVEL (WITH DATE OF) MEASUREMENT	WA	-	WASH ANALYSIS
			(200%)	-	(WITH % PASSING NO. 200 SIEVE)

PLASTICITY CHART



PENETRATION RESISTANCE
(RECORDED AS BLOWS / 0.5 FT)

SAND & GRAVEL		SILT & CLAY		
RELATIVE DENSITY	BLOWS/FOOT*	CONSISTENCY	BLOWS/FOOT*	COMPRESSIVE STRENGTH (TSF)
VERY LOOSE	0 - 4	VERY SOFT	0 - 2	0 - 0.25
LOOSE	4 - 10	SOFT	2 - 4	0.25 - 0.50
MEDIUM DENSE	10 - 30	FIRM	4 - 8	0.50 - 1.0
DENSE	30 - 50	STIFF	8 - 15	1.0 - 2.0
VERY DENSE	OVER 50	VERY STIFF	15 - 30	2.0 - 4.0
		HARD	OVER 30	OVER 4.0

* NUMBER OF BLOWS OF 140 LB HAMMER FALLING 30 INCHES TO DRIVE A 2 INCH O.D. (1-3/8 INCH I.D.) SPLIT-BARREL SAMPLER THE LAST 12 INCHES OF AN 18-INCH DRIVE (ASTM-1586 STANDARD PENETRATION TEST).

NT US LAB.GPJ 9/28/05

1201 CYPRESS STREET
NORTH LITTLE ROCK, AR 72114
(501) 376-6333
(501) 376-8715 FAX
800-482-5493

MEMBER PEI

7621 BALL ROAD
FORT SMITH, AR 72908
(479) 646-1601
(479) 646-1066 FAX
800-643-2156

AHTD 100705

100 N. Division
Blytheville, AR 72315

Soil Boring Log

B-16/MW-16

Date Started:	02/08/16 1100	Surface Elev (ft):	--
Date Completed:	02/08/16 1410	Total Depth (ft bgs):	25
ADEQ Facility ID:	47000222	First Water (ft bgs):	15
ADEQ LUST/LAST File:	47-0040	TOC Elev (ft):	266.16
Logged by:	S. Kemph	GW Elev (ft):	
Project Number:	6522		
Drilling Company:	AECI		
Driller:			
Sample Method:	Continuous		
Borehole Diameter:	8.25 Inches		

Lithology	Unified Soil Classification	Depth	Description	Sample	Headspace (ppm)	GRO (mg/Kg)	DRO (mg/Kg)	Benzene (mg/Kg)
	CL	1	Dark Yellowish brown (10YR 5/4) silty clay (CL), moist.		0			
		2			0			
	CL	3	Dark Yellowish brown (10YR 5/4) silty clay (CL), moist.		0			
		4			0			
	CL	5	Dark grayish brown (10YR4/2) silty clay (CL), moist.		0			
		6			0			
	CH	7	Yellowish brown (10YR 5/4) fat clay (CH), moist.		0			
		8			0			
	CH	9	Dark grayish brown (10YR4/2) fat clay (CH), moist.		73.4			
		10			1145			
	CL	11	Dark grayish brown (10YR4/2) silty clay (CL), moist.	B-16 @ 11'	1927	4.62	59.6	< 0.100
		12			1295			
	CH	13	Dark grayish brown (10YR4/2) silty clay (CL), moist.		269.1			
	CH	14	Dark grayish brown (10YR4/2) fat clay (CH), moist.		318.3			
		15			903.1			
	SP	16	Dark grayish brown (10YR4/2) sand (SP), wet.		1580			
		17		B-16 @ 17'	1708	2.36	98.7	< 0.100
	SP	18	Dark grayish brown (10YR4/2) sand (SP), wet.		1373			
		19			1704			
	SP	20	Dark grayish brown (10YR4/2) sand (SP), wet.		1600			
		21			ns			
	SP	22	Dark grayish brown (10YR4/2) sand (SP), wet.		ns			
		23			ns			
	SP	24	Dark grayish brown (10YR4/2) sand (SP), wet.		ns			
		25			ns			
			BOH @ 25' in sand (SP)					

Well Completion Diagram

Notes:
4.5 Bags sand, 1 Bucket grout. Headspace 976.1 ppm. 5' of riser, 20' screen. Located in Mrs. Onisca McCraig Van Owens front yard.
ns = No Sample. Lithology below 20' is inferred from previous investigation.

AHTD 100705

100 N. Division
Blytheville, AR 72315

Soil Boring Log

B-17/MW-17

Date Started:	02/08/16 1445	Surface Elev (ft):	--
Date Completed:	02/08/16 1555	Total Depth (ft bgs):	25
ADEQ Facility ID:	47000222	First Water (ft bgs):	14
ADEQ LUST/LAST File:	47-0040	TOC Elev (ft):	265.18
Logged by:	S. Kemph	GW Elev (ft):	
Project Number:	6522		
Drilling Company:	AECI		
Driller:			
Sample Method:	Continuous		
Borehole Diameter:	8.25 Inches		

Lithology	Unified Soil Classification	Depth	Description	Sample	Headspace (ppm)	GRO (mg/Kg)	DRO (mg/Kg)	Benzene (mg/Kg)	Well Completion Diagram
	CL	1	Brown (10YR 5/3) silty clay (CL), moist.		1.1				
		2			8.4				
	CL	3	Brown (10YR 5/3) silty clay (CL), moist.		8.1				
		4			9.0				
	CL	5	Dark brown (10YR 3/3) silty clay (CL), moist.		13.0				
		6			19.1				
	CH	7	Dark yellowish brown (10YR 4/4) silty clay (CL), moist.		121.6				
		8			185.7				
	CH	9	Dark yellowish brown (10YR 4/4) silty clay (CL), moist.		46.1				
		10			57.5				
	CL	11	Dark grayish brown (10YR4/2) silty clay (CL), moist.		121.8				
		12			164.1				
	CL	13	Dark grayish brown (10YR4/2) silty clay (CL), moist.		282.5				
	CH	14	Dark grayish brown (10YR4/2) fat clay (CH), moist.		309.1				
	CH	15	As above, becoming sandy.		318.1				
	SP	16	Dark grayish brown (10YR4/2) sand (SP), wet.		691.1				
		17		B17 @ 17'	1085	724	105	4.52	
	SP	18	Dark grayish brown (10YR4/2) sand (SP), wet.		871.8				
		19			861.1				
	SP	20	Dark grayish brown (10YR4/2) sand (SP), wet.		422.1				
		21			621.6				
	SP	22	Dark grayish brown (10YR4/2) sand (SP), wet.		328.1				
		23			252.4				
	SP	24	Dark grayish brown (10YR4/2) sand (SP), wet.		278.1				
		25			286.5				
			BOH @ 25' in sand (SP)						

Notes:
4.5 Bags sand. Headspace 292.5 ppm
5' riser, 20' screen

AHTD 100705

100 N. Division
Blytheville, AR 72315

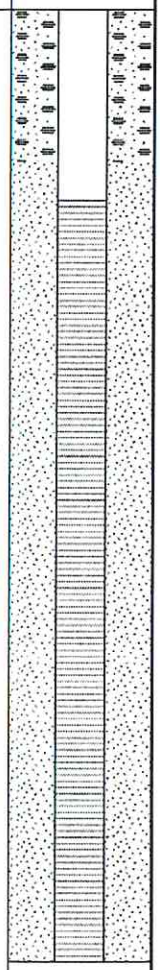
Soil Boring Log

B-18/MW-18

Date Started:	02/08/16 1600
Date Completed:	02/08/16 1815
Surface Elev (ft):	--
Total Depth (ft bgs):	25
First Water (ft bgs):	15
TOC Elev (ft):	264.98
GW Elev (ft):	
ADEQ Facility ID:	47000222
ADEQ LUST/LAST File:	47-0040
Logged by:	S. Kemph
Project Number:	6522
Drilling Company:	AECI
Driller:	
Sample Method:	Continuous
Borehole Diameter:	8.25 Inches

Lithology	Unified Soil Classification	Depth	Description	Sample	Headspace (ppm)	GRO (mg/Kg)	DRO (mg/Kg)	Benzene (mg/Kg)
	CL	1	Dark grayish brown (10YR5/4) silty clay (CL), moist.		1.6			
	CL	2	Dark yellowish brown (10YR 3/4) silty clay (CL), moist.		1.9			
		3			7.8			
	CL	4	Dark yellowish brown (10YR 3/4) silty clay (CL), moist.		20.1			
		5			118.1			
	CL	6	Dark grayish brown (10YR5/4) silty clay (CL), moist.		276.7			
		7			282.9			
	CH	8	Dark grayish brown (10YR5/4) fat clay (CH), moist.		295.1			
		9			388.7			
	CH	10	Dark grayish brown (10YR4/2) fat clay (CH), moist.		390.1			
	CL	11	Dark grayish brown (10YR4/2) silty clay (CL), moist.		392.6			
		12		B-18 @ 12'	731.8	6.69	< 10.0	< 0.100
	CH	13	Dark grayish brown (10YR4/2) silty clay (CL), moist.		602.1			
	CH	14	Dark grayish brown (10YR4/2) fat clay (CH), moist.		621.8			
	SP	15	Dark grayish brown (10YR4/2) sand (SP), moist.		728.1			
	SP	16	Dark grayish brown (10YR4/2) sand (SP), wet.		598.2			
		17			601.2			
	SP	18	Dark grayish brown (10YR4/2) sand (SP), wet.		301.9			
		19			407.9			
	SP	20	Dark grayish brown (10YR4/2) sand (SP), wet.		670.9			
		21			421.8			
	SP	22	Dark grayish brown (10YR4/2) sand (SP), wet.		420.1			
		23			421.2			
	SP	24	Dark grayish brown (10YR4/2) sand (SP), wet.		428.1			
		25			464.5			
			BOH @ 25' in sand (SP)					

Well Completion Diagram



Notes:
5 Bags sand, 1 Bucket grout. Headspace 391.8 ppm.
5' riser, 20' screen.

AHTD 100705

100 N. Division
Blytheville, AR 72315

Soil Boring Log

B-19/MW-19

Date Started:	02/09/16 0858
Date Completed:	02/09/16 1035
Surface Elev (ft):	--
Total Depth (ft bgs):	25
First Water (ft bgs):	14
TOC Elev (ft):	265.17
GW Elev (ft):	
ADEQ Facility ID:	47000222
ADEQ LUST/LAST File:	47-0040
Logged by:	S. Kemph
Project Number:	6522
Drilling Company:	AECI
Driller:	
Sample Method:	Continuous
Borehole Diameter:	8.25 Inches

Lithology	Unified Soil Classification	Depth	Description	Sample	Headspace (ppm)	GRO (mg/Kg)	DRO (mg/Kg)	Benzene (mg/Kg)	Well Completion Diagram
	CL	1	4" concrete, 6"SB-2, then dark grayish brown (10YR 5/4) silty clay (CL), moist.		10.1				
	CL	2	Dark grayish brown (10YR5/4) silty clay (CL), moist.		48.9				
		3			62.1				
	CL	4	Dark grayish brown (10YR5/4) silty clay (CL), moist.		45.7				
		5			57.8				
	CL	6	Dark brown (10YR3/3) silty clay (CL), moist.		52.2				
		7			69.1				
	CH	8	Dark grayish brown (10YR5/4) fat clay (CH), moist.		82.7				
		9			126.8				
	CH	10	Dark grayish brown (10YR4/2) fat clay (CH), moist.		192.1				
		11			624.8				
	CL	12	Dark grayish brown (10YR4/2) silty clay (CL), moist.		704.1				
		13			711.2				
	CH	14	Dark grayish brown (10YR4/2) silty clay (CL), moist.		818.6				
		15		B-19 @ 15'	918.4	560	35.8	2.88	
	SP	16	Dark grayish brown (10YR4/2) sand (SP), wet.		128.1				
		17			489.2				
	SP	18	Dark grayish brown (10YR4/2) sand (SP), wet.		491.7				
		19			524.6				
	SP	20	Dark grayish brown (10YR4/2) sand (SP), wet.		624.1				
		21			426.7				
	SP	22	Dark grayish brown (10YR4/2) sand (SP), wet.		431.8				
		23			318.7				
	SP	24	Dark grayish brown (10YR4/2) sand (SP), wet.		326.1				
		25			338.9				
			BOH @ 25' in sand (SP)						

Notes:
4.5 Bags sand, 1 Bucket grout. Headspace 682.5 ppm.
5' riser, 20' screen.

Appendix D

Waste Disposal Documentation and Groundwater Sampling Logs

CWMI

Please print or type.

NON HAZARDOUS WASTE MANIFEST

1. Generator ID Number
2. Page 1 of
3. Emergency Response Phone
4. **WM - 115148**

5. Generator's Name and Mailing Address
AHTD-ROW
100 North Division
Blytheville AR 72315
Generator's Phone: 501-376-0333

Generator's Site Address (if different than mailing address)
AHTD-ROW
100 North Division
Blytheville, AR 72315

6. Transporter 1 Company Name
Waste Management The Sellers Co NRL
U.S. EPA ID Number

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
Two Pine Landfill
100 Two Pine Drive
North Little Rock AR 72117
Facility's Phone: (501) 982-7336
U.S. EPA ID Number

9a. HM	9b. U.S. DOT Description (Including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste No.
	1. Excluded UST contaminated soil	001	CM			NH
	2.		3			
	3.					
	4.					

14. Special Handling Instructions and Additional Information
No special handling instructions
Profile 995633AR

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable and national governmental regulations and is (are) not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law.

Generator's/Offeror's Printed/Typed Name: T. Scott Kempk
Signature: T. Scott Kempk
Month 03 Day 04 Year 16

Transporter Acknowledgement of Receipt of Materials

16. Transporter 1 Printed/Typed Name: Leonard
Signature
Month Day Year

17. Transporter 2 Printed/Typed Name
Signature
Month Day Year

18. Discrepancy Comments

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest ReferenceNumber:

19. Management Method Codes

1.	2.	3.	4.

20. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: L Davis
Signature: L Davis
Month 3 Day 4 Year 16

GENERATOR

TRANSPORTER

DESIGNATED FACILITY

No. 001229

THE Southern Co. NLR, INC.

1201 North Cypress Street
North Little Rock, AR 72114
(501) 376-6333

7621 Ball Road
Fort Smith, AR 72908
(479) 648-1601

OFF SPECIFICATION PRODUCT MANIFEST

GENERATOR INFORMATION

Business Name AHTD Job # 100705 (ADEQ LUST 47-0040

Address 100 North Division Telephone NA

Blytheville, AR 72315

General Description of Waste Monitor well purge water and Decontamination Water

Total Quantity (Gallon) 85 Drums [X] Bulk [ ] WCF=

I certify that the waste materials removed from the above premises contains no hazardous materials.

Generator Representative (Print) T. Scott Kemph

2-17-16
Date Serviced

T-Scott Kemph
Generator Representative Signature

TRANSPORTATION INFORMATION

Name Leonard Cole Telephone

To be held at The Southern Company of NLR, Inc. for pickup and recycling by the company named below.

2-18-16
Date Serviced

Generator Representative Signature

RECYCLING FACILITY

Name Agricultural Services, Inc. Telephone 903-832-4790

Address 7600 Alumax Drive City/State/Zip Texarkana, TX 75501

EPA ID TXR000042556 TCEQ ID A85851 U.S. Dot ID 672352

I certify that I have received into this facility the above listed waste.

Site Operator (Print)

Date Received

Site Operator Signature

GROUNDWATER SAMPLING LOG

SITE NAME: AHTD Job # 100705	SITE LOCATION: 100 North Division Street, Blytheville, Arkansas 72315	
WELL NO: #4	SAMPLE ID:	DATE: 2-16-16

PURGING DATA

WELL DIAMETER (inches):	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH TO WATER (feet):	PURGE PUMP TYPE OR BAILER:

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT:	PURGING ENDED AT:	TOTAL VOLUME PURGED (gallons):

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	~~TURBIDITY (NTUs)~~ ORP	COLOR (describe)	ODOR (describe)
PM 12:57					5.31	16.07	488	7.98	29		
PM 1300					5.42	16.94	505	8.09	-17		
13.03					5.38	16.98	513	8.25	-36		
13.06					5.40	17.19	517	8.23	-71		
13.10					5.42	17.18	516	8.28	-84		
13:13					5.44	17.20	516	8.25	-93		

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION:	SAMPLER(S) SIGNATURE(S):	SAMPLING INITIATED AT:	SAMPLING ENDED AT:
PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE:	FIELD-FILTERED: Y N Filtration Equipment Type:	FILTER SIZE: ____ µm

FIELD DECONTAMINATION: PUMP Y N TUBING Y N (replaced) DUPLICATE: Y N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **PE** = Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: February 12, 2009

GROUNDWATER SAMPLING LOG

SITE NAME: AHTD Job # 100705	SITE LOCATION: 100 North Division Street, Blytheville, Arkansas 72315
WELL NO: #6	SAMPLE ID: / DATE: 2-16-16

PURGING DATA

WELL DIAMETER (inches):	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH TO WATER (feet):	PURGE PUMP TYPE OR BAILER:

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT:	PURGING ENDED AT:	TOTAL VOLUME PURGED (gallons):

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	~~TURBIDITY (NTUs)~~ ORP	COLOR (describe)	ODOR (describe)
10:48					4.97	16.25	628	9.26	15		
10:52					5.08	17.08	618	9.31	-10		
10:55					5.15	17.11	615	9.45	-38		
10:58					5.28	17.15	615	9.51	-46		
11:02					5.30	17.27	613	9.38	-52		
11:05					5.19	14.43	612	9.39	-58		
11:08					5.29	17.47	612	9.38	-62		

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION:	SAMPLER(S) SIGNATURE(S):	SAMPLING INITIATED AT:	SAMPLING ENDED AT:
PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE:	FIELD-FILTERED: Y N / Filtration Equipment Type:	FILTER SIZE: ____ µm

FIELD DECONTAMINATION: PUMP Y N TUBING Y N (replaced) DUPLICATE: Y N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **PE** = Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: February 12, 2009

GROUNDWATER SAMPLING LOG

SITE NAME: AHTD Job # 100705	SITE LOCATION: 100 North Division Street, Blytheville, Arkansas 72315
WELL NO: #7	SAMPLE ID:
DATE: 2-16-16	

PURGING DATA

WELL DIAMETER (inches):	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH TO WATER (feet):	PURGE PUMP TYPE OR BAILER:

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT:	PURGING ENDED AT:	TOTAL VOLUME PURGED (gallons):

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	~~TURBIDITY (NTUs)~~ ORP	COLOR (describe)	ODOR (describe)
10:11					5.41	17.75	6.30	9.49	-59		
10:19					5.30	17.31	623	9.70	-96		
10:22					5.04	17.27	623	9.80	-93		
10:24					4.99	17.49	625	9.62	-99		
10:29					4.91	17.35	633	9.71	-104		

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION:	SAMPLER(S) SIGNATURE(S):	SAMPLING INITIATED AT:	SAMPLING ENDED AT:
PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE:	FIELD FILTERED: Y N Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y N	TUBING Y N (replaced)	DUPLICATE: Y N	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **PE** = Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: February 12, 2009

GROUNDWATER SAMPLING LOG

SITE NAME: AHTD Job # 100705	SITE LOCATION: 100 North Division Street, Blytheville, Arkansas 72315
WELL NO: # 8	SAMPLE ID: / DATE: 3-16-16

PURGING DATA

WELL DIAMETER (inches):	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH TO WATER (feet):	PURGE PUMP TYPE OR BAILER:

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT:	PURGING ENDED AT:	TOTAL VOLUME PURGED (gallons):

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	ORP ~~TURBIDITY (NTUs)~~	COLOR (describe)	ODOR (describe)
9:23					5.09	12.89	192	8.97	1.0		
9:28					5.08	16.38	.865	8.99	33		
9:32					4.83	17.76	859	10.04	-46		
9:36					4.86	17.87	857	10.25	-76		
9:38					5.00	17.91	856	10:24	-86		
9:41					5.01	17.80	855	10:33	-91		
9:44					4.97	17.83	854	10:32	-95		
9:46					4.79	17.88	855	10:25	-95		

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016
PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION:	SAMPLER(S) SIGNATURE(S):	SAMPLING INITIATED AT:	SAMPLING ENDED AT:
PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE:	FIELD-FILTERED: Y N Filtration Equipment Type:	FILTER SIZE: ____ µm

FIELD DECONTAMINATION: PUMP Y N TUBING Y N (replaced) DUPLICATE: Y N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **PE** = Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: February 12, 2009

GROUNDWATER SAMPLING LOG

SITE NAME: AHTD Job # 100705		SITE LOCATION: 100 North Division Street, Blytheville, Arkansas 72315
WELL NO: #9	SAMPLE ID:	DATE: 2-16-16

PURGING DATA

WELL DIAMETER (inches):	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH TO WATER (feet):	PURGE PUMP TYPE OR BAILER:

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT:	PURGING ENDED AT:	TOTAL VOLUME PURGED (gallons):

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	~~TURBIDITY (NTUs)~~ ORP	COLOR (describe)	ODOR (describe)
12.17					4.96	16.40	560	7.96	54		
12.20					5.24	17.21	578	8.29	-34		
12.25					5.30	17.28	578	8.37	-50		
12.27					5.34	17.28	577	8.43	-65		
12.30					5.36	17.32	576	8.49	-75		
12:34					5.36	17.38	574	8.35	-87		
12.37					5.34	17.41	572	8.44	-94		

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION:	SAMPLER(S) SIGNATURE(S):	SAMPLING INITIATED AT:	SAMPLING ENDED AT:
PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE:	FIELD-FILTERED: Y N Filtration Equipment Type:	FILTER SIZE: _____ µm

FIELD DECONTAMINATION: PUMP Y N TUBING Y N (replaced) DUPLICATE: Y N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **PE** = Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: February 12, 2009

GROUNDWATER SAMPLING LOG

SITE NAME: AHTD Job # 100705	SITE LOCATION: 100 North Division Street, Blytheville, Arkansas 72315	
WELL NO: #11	SAMPLE ID:	DATE: 2-16-16

PURGING DATA

WELL DIAMETER (inches):	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH TO WATER (feet):	PURGE PUMP TYPE OR BAILER:

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT:	PURGING ENDED AT:	TOTAL VOLUME PURGED (gallons):

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	~~TURBIDITY (NTUs)~~ ORP	COLOR (describe)	ODOR (describe)
11:35					5.34	18:85	612	8.21	26		
11:38					5.34	16.69	620	8.37	-1		
11:43					5.34	16.72	6:18	8.73	-25		
11:46					5.31	17.06	6.17	8.74	-32		
11:50					5.33	17-05	6.18	8.72	-31		
11:55					5.31	17-13	615	8.87	-51		
11:58					5.19	17.16	614	8.81	-55		
12:01					5.20	17:18	613	8.76	-57		

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION:	SAMPLER(S) SIGNATURE(S):	SAMPLING INITIATED AT:	SAMPLING ENDED AT:
PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE:	FIELD-FILTERED: Y N Filtration Equipment Type:	FILTER SIZE: ____ µm

FIELD DECONTAMINATION: PUMP Y N TUBING Y N (replaced) DUPLICATE: Y N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **PE** = Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: February 12, 2009

GROUNDWATER SAMPLING LOG

SITE NAME: AHTD Job # 100705	SITE LOCATION: 100 North Division Street, Blytheville, Arkansas 72315	
WELL NO: #16	SAMPLE ID:	DATE: 2-17-16

PURGING DATA

WELL DIAMETER (inches):	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH TO WATER (feet):	PURGE PUMP TYPE OR BAILER:

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT:	PURGING ENDED AT:	TOTAL VOLUME PURGED (gallons):

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	~~TURBIDITY (NTUs)~~ ORP	COLOR (describe)	ODOR (describe)
9:07					5.01	14.00	582	9.65	24		
9:10					5.02	14.38	574	9.86	18		
9:13					5.03	14.73	577	9.92	15		
9:16					5.00	14.57	556	10.17	11		
9:20					4.87	14.83	543	10.04	12		
9:24					4.75	14.92	569	9.96	12		
9:27					4.73	14.93	688	9.85	8		
9:30					4.75	14.90	573	10.01	4		

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION:	SAMPLER(S) SIGNATURE(S):	SAMPLING INITIATED AT:	SAMPLING ENDED AT:
PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE:	FIELD-FILTERED: Y N Filtration Equipment Type:	FILTER SIZE: ____ µm

FIELD DECONTAMINATION: PUMP Y N TUBING Y N (replaced) DUPLICATE: Y N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **PE** = Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: February 12, 2009

GROUNDWATER SAMPLING LOG

SITE NAME: AHTD Job # 100705	SITE LOCATION: 100 North Division Street, Blytheville, Arkansas 72315	
WELL NO: # 17	SAMPLE ID:	DATE: 2-17-16

PURGING DATA

WELL DIAMETER (inches):	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH TO WATER (feet):	PURGE PUMP TYPE OR BAILER:

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT:	PURGING ENDED AT:	TOTAL VOLUME PURGED (gallons):

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	~~TURBIDITY (NTUs)~~ ORP	COLOR (describe)	ODOR (describe)
8:04					4.80	15.85	2.70	10.01	95		
8:07					5.00	16.95	2.69	10.31	60		
8:12					4.97	17.61	2.67	10.79	24		
8:15					4.97	17.47	2.61	10.97	4		
8:18					5.00	17.71	2.55	10.75	-15		
8:21					5.01	17.79	2.54	10.71	-21		
8:26					5.04	17.82	2.53	10.58	-34		
8:30					5.06	17.92	2.51	10.52	-43		
8:34					5.08	17.99	2.50	10.49	-51		

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION:	SAMPLER(S) SIGNATURE(S):	SAMPLING INITIATED AT:	SAMPLING ENDED AT:
PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE:	FIELD-FILTERED: Y N Filtration Equipment Type:	FILTER SIZE: ____ µm

FIELD DECONTAMINATION: PUMP Y N TUBING Y N (replaced) DUPLICATE: Y N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **PE** = Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: February 12, 2009

GROUNDWATER SAMPLING LOG

SITE NAME: AHTD Job # 100705	SITE LOCATION: 100 North Division Street, Blytheville, Arkansas 72315	
WELL NO: #18	SAMPLE ID:	DATE:

PURGING DATA

WELL DIAMETER (inches):	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH TO WATER (feet):	PURGE PUMP TYPE OR BAILER:

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable) = (feet – feet) X gallons/foot = gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable) = gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT:	PURGING ENDED AT:	TOTAL VOLUME PURGED (gallons):

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	ORP ~~TURBIDITY (NTUs)~~	COLOR (describe)	ODOR (describe)
14:54					5.65	17.01	5.87	7.08	61		
14:57					5.78	17.64	5.93	7.27	24		
15:00					5.68	17.84	5.90	7.72	-12		
15:05					5.53	17.87	5.87	7.79	-38		
15:10					5.47	17.84	5.87	7.95	-53		
15:14					5.44	17.85	5.85	7.92	-66		

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016
PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION:	SAMPLER(S) SIGNATURE(S):	SAMPLING INITIATED AT:	SAMPLING ENDED AT:
PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE:	FIELD-FILTERED: Y N Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y N	TUBING Y N (replaced)	DUPLICATE: Y N	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			

REMARKS:

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: February 12, 2009

GROUNDWATER SAMPLING LOG

SITE NAME: AHTD Job # 100705	SITE LOCATION: 100 North Division Street, Blytheville, Arkansas 72315	
WELL NO: #19	SAMPLE ID:	DATE: 2-16-16

PURGING DATA

WELL DIAMETER (inches):	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH TO WATER (feet):	PURGE PUMP TYPE OR BAILER:

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (feet – feet) X gallons/foot = gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT:	PURGING ENDED AT:	TOTAL VOLUME PURGED (gallons):

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	ORP ~~TURBIDITY (NTUs)~~	COLOR (describe)	ODOR (describe)
13:53					5.50	17.47	665	7.92	55		
13:55					5.42	17.59	694	8.35	26		
13:58					5.30	17.53	702	8.55	14		
14:01					5.29	17.79	703	8.53	2		

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016
PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION:	SAMPLER(S) SIGNATURE(S):	SAMPLING INITIATED AT:	SAMPLING ENDED AT:
PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE:	FIELD-FILTERED: Y N Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y N	TUBING Y N (replaced)	DUPLICATE: Y N	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **PE** = Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Revision Date: February 12, 2009

Appendix E

Relative Percent Differences, Analytical Reports and Chain-of-Custody Documents

AHTD JOB #100705
100 North Division
Blytheville, Arkansas 72315
Facility ID # 47000222 and ADEQ LUST # 47-0040

Relative Percent Difference	Monitoring Well	Sample Date	Benzene	Toluene	Ethyl- Benzene	Total Xylene	MTBE	TPH-DRO	TPH-GRO	Napthalene
			mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
	MW-8	2/16/2016	0.206	0.350	0.486	0.635	0.000	NA	8.570	0.084
	Duplicate of MW-8	2/16/2016	0.205	0.348	0.483	0.633	0.000	NA	8.520	0.080
Relative Percent Difference			0.5	0.6	0.6	0.3	NA	NA	0.6	4.9

Monitoring Well	Sample Date	Benzene	Toluene	Ethyl- Benzene	Total Xylene	MTBE	TPH-DRO	TPH-GRO	Napthalene
		mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
MW-7	2/16/2016	2.160	10.100	1.270	5.310	0.000	NA	41.200	0.000
Duplicate of MW-7	2/16/2016	2.190	9.330	1.350	5.460	0.000	NA	39.700	0.336
Relative Percent Difference		1.4	7.9	6.1	2.8	NA	NA	3.7	200.0

Relative Percent Difference	Vapor Well	Sample Date	Benzene	Toluene	m& p xylene	o-xylene	Naphthalene
			$\mu g/m^3$	$\mu g/m^3$	$\mu g/m^3$	$\mu g/m^3$	$\mu g/m^3$
	VW-1	2/9/2016	0.730	3.600	4.200	2.600	6.300
	Duplicate of VW-1	2/9/2016	0.000	2.300	4.000	2.500	6.100
Relative Percent Difference			200.0	44.1	4.9	3.9	3.2

NA= Not Applicable or Not Analyzed

Arkansas Analytical Inc.

8100 National Dr. - Little Rock, AR 72209
501-455-3233 Fax 501-455-6118

16 February 2016

Scott Kemph
Southern Co. NLR Inc.
1201 Cypress
North Little Rock, AR 72114

Project: ASA ADEQ 47000222

Project Number: February 2016

SDG Number: 1602115

Enclosed are the results of analyses for samples received by the laboratory on 09-Feb-16 15:25. If you have any questions concerning this report, please feel free to contact me.

Sample Receipt Information:

Custody Seals	✔
Containers Correct	✔
COC/Labels Agree	✔
Received On Ice	✔
Temperature on Receipt	2.0°C

Sincerely,

Norma James / Teresa Coins

Norma James and/or Teresa Coins
Technical Director and/or QA Officer

This document is intended only for the use of the person(s) to whom it is expressly addressed. This document may contain information that is confidential and legally privileged. If you are not the intended recipient, you are notified that any disclosure, distribution, or copying of this document is strictly prohibited. If you have received this document in error, please destroy.

16 February 2016

Scott Kemph
Southern Co. NLR Inc.
1201 Cypress
North Little Rock, AR 72114
Project: ASA ADEQ 47000222

Project Number: February 2016
Date Received: 09-Feb-16 15:25

CASE NARRATIVE

Sample Delivery Group – 1602115

One *OR* more of the qualifiers described below may appear in this report.

ANALYTICAL QUALIFIERS:

Qualifier	Description
EDL	Result was non-detect at an elevated detection limit due to one or more of the following: Sample Matrix, Sample Dilution, or Limited Sample Volume.
EX	Result exceeds DAILY MAXIMUM and/or MONTHLY AVERAGE.
EX2	The result exceeds the TCLP limit.
J	At client request, J-Values are reported. J-Values are considered "estimated" results as they are below the limit of quantitation yet above the method detection limit (MDL).
N	Insufficient sample volume received as required by the method.
T40	The ambient temperature exceeded 23 +/- 2 ^{o}C during the TCLP rotation process.

This report must be reproduced in its entirety.

16 February 2016

Scott Kemph
Southern Co. NLR Inc.
1201 Cypress
North Little Rock, AR 72114
Project: ASA ADEQ 47000222

Project Number: February 2016
Date Received: 09-Feb-16 15:25

ANALYTICAL RESULTS

Lab Number:	**1602115-01**
Sample Name:	**B-16 @ 11'**
Date/Time Collected:	**2/8/16 12:38**
Sample Matrix:	**Soil**

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Benzene	mg/kg	< 0.100		2/12/16 15:42	A602170	8021B, Rev 2 1996
Methyl t-Butyl Ether	mg/kg	< 0.100		2/12/16 15:42	A602170	8021B, Rev 2 1996
Toluene	mg/kg	< 0.100		2/12/16 15:42	A602170	8021B, Rev 2 1996
Ethylbenzene	mg/kg	< 0.100		2/12/16 15:42	A602170	8021B, Rev 2 1996
Naphthalene	mg/kg	< 0.300		2/12/16 15:42	A602170	8021B, Rev 2 1996
m,p-Xylene	mg/kg	< 0.200		2/12/16 15:42	A602170	8021B, Rev 2 1996
o-Xylene	mg/kg	< 0.100		2/12/16 15:42	A602170	8021B, Rev 2 1996
Fluorobenzene [surr]	%	94.0		2/12/16 15:42	A602170	8021B, Rev 2 1996
4-Bromochlorobenzene [surr]	%	101		2/12/16 15:42	A602170	8021B, Rev 2 1996

TPH-DRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-DRO	mg/kg	**59.6**		2/13/16 1:15	A602183	8015D, Rev 4 2003 (Mod)
o-Terphenyl [surr]	%	97.7		2/13/16 1:15	A602183	8015D, Rev 4 2003 (Mod)

TPH-GRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-GRO	mg/kg	**4.62**		2/12/16 15:42	A602170	8015D, Rev 4 2003 (Mod)
Fluorobenzene [surr]	%	94.0		2/12/16 15:42	A602170	8015D, Rev 4 2003 (Mod)
4-Bromochlorobenzene [surr]	%	101		2/12/16 15:42	A602170	8015D, Rev 4 2003 (Mod)

This report must be reproduced in its entirety.

16 February 2016

Scott Kemph
Southern Co. NLR Inc.
1201 Cypress
North Little Rock, AR 72114
Project: ASA ADEQ 47000222

Project Number: February 2016
Date Received: 09-Feb-16 15:25

ANALYTICAL RESULTS

Lab Number: **1602115-02**
Sample Name: **B-16 @ 17'**
Date/Time Collected: **2/8/16 12:58**
Sample Matrix: **Soil**

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Benzene	mg/kg	< 0.100		2/12/16 16:09	A602170	8021B, Rev 2 1996
Methyl t-Butyl Ether	mg/kg	< 0.100		2/12/16 16:09	A602170	8021B, Rev 2 1996
Toluene	mg/kg	< 0.100		2/12/16 16:09	A602170	8021B, Rev 2 1996
Ethylbenzene	mg/kg	< 0.100		2/12/16 16:09	A602170	8021B, Rev 2 1996
Naphthalene	mg/kg	< 0.300		2/12/16 16:09	A602170	8021B, Rev 2 1996
m,p-Xylene	mg/kg	< 0.200		2/12/16 16:09	A602170	8021B, Rev 2 1996
o-Xylene	mg/kg	< 0.100		2/12/16 16:09	A602170	8021B, Rev 2 1996
Fluorobenzene [surr]	%	94.2		2/12/16 16:09	A602170	8021B, Rev 2 1996
4-Bromochlorobenzene [surr]	%	102		2/12/16 16:09	A602170	8021B, Rev 2 1996

TPH-DRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-DRO	mg/kg	**98.7**		2/13/16 1:55	A602183	8015D, Rev 4 2003 (Mod)
o-Terphenyl [surr]	%	106		2/13/16 1:55	A602183	8015D, Rev 4 2003 (Mod)

TPH-GRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-GRO	mg/kg	**2.36**		2/12/16 16:09	A602170	8015D, Rev 4 2003 (Mod)
Fluorobenzene [surr]	%	94.2		2/12/16 16:09	A602170	8015D, Rev 4 2003 (Mod)
4-Bromochlorobenzene [surr]	%	102		2/12/16 16:09	A602170	8015D, Rev 4 2003 (Mod)

ANALYTICAL RESULTS

Lab Number: **1602115-03**
Sample Name: **B-17 @ 17'**
Date/Time Collected: **2/8/16 15:18**
Sample Matrix: **Soil**

TPH-DRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-DRO	mg/kg	**105**		2/13/16 2:36	A602183	8015D, Rev 4 2003 (Mod)
o-Terphenyl [surr]	%	76.5		2/13/16 2:36	A602183	8015D, Rev 4 2003 (Mod)

This report must be reproduced in its entirety.

16 February 2016

Scott Kemph
Southern Co. NLR Inc.
1201 Cypress
North Little Rock, AR 72114
Project: ASA ADEQ 47000222

Project Number: February 2016
Date Received: 09-Feb-16 15:25

ANALYTICAL RESULTS

Lab Number: **1602115-03RE2**
Sample Name: **B-17 @ 17'**
Date/Time Collected: **2/8/16 15:18**
Sample Matrix: **Soil**

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Benzene	mg/kg	**4.52**		2/15/16 19:29	A602170	8021B, Rev 2 1996
Methyl t-Butyl Ether	mg/kg	< 0.390	EDL	2/15/16 19:29	A602170	8021B, Rev 2 1996
Toluene	mg/kg	**36.2**		2/15/16 19:29	A602170	8021B, Rev 2 1996
Ethylbenzene	mg/kg	**23.7**		2/15/16 19:29	A602170	8021B, Rev 2 1996
Naphthalene	mg/kg	**6.19**		2/15/16 19:29	A602170	8021B, Rev 2 1996
m,p-Xylene	mg/kg	**93.5**		2/15/16 19:29	A602170	8021B, Rev 2 1996
o-Xylene	mg/kg	**30.5**		2/15/16 19:29	A602170	8021B, Rev 2 1996
Fluorobenzene [surr]	%	91.3		2/15/16 19:29	A602170	8021B, Rev 2 1996
4-Bromochlorobenzene [surr]	%	101		2/15/16 19:29	A602170	8021B, Rev 2 1996

TPH-GRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-GRO	mg/kg	**724**		2/15/16 19:29	A602170	8015D, Rev 4 2003 (Mod)
Fluorobenzene [surr]	%	91.3		2/15/16 19:29	A602170	8015D, Rev 4 2003 (Mod)
4-Bromochlorobenzene [surr]	%	101		2/15/16 19:29	A602170	8015D, Rev 4 2003 (Mod)

ANALYTICAL RESULTS

Lab Number: **1602115-04**
Sample Name: **B-18 @ 12'**
Date/Time Collected: **2/8/16 16:45**
Sample Matrix: **Soil**

TPH-DRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-DRO	mg/kg	< 10.0		2/13/16 3:16	A602183	8015D, Rev 4 2003 (Mod)
o-Terphenyl [surr]	%	69.6		2/13/16 3:16	A602183	8015D, Rev 4 2003 (Mod)

This report must be reproduced in its entirety.

16 February 2016

Scott Kemph
Southern Co. NLR Inc.
1201 Cypress
North Little Rock, AR 72114
Project: ASA ADEQ 47000222

Project Number: February 2016
Date Received: 09-Feb-16 15:25

ANALYTICAL RESULTS

Lab Number: **1602115-04RE2**
Sample Name: **B-18 @ 12'**
Date/Time Collected: **2/8/16 16:45**
Sample Matrix: **Soil**

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Benzene	mg/kg	< 0.100		2/15/16 19:56	A602170	8021B, Rev 2 1996
Methyl t-Butyl Ether	mg/kg	< 0.100		2/15/16 19:56	A602170	8021B, Rev 2 1996
Toluene	mg/kg	< 0.100		2/15/16 19:56	A602170	8021B, Rev 2 1996
Ethylbenzene	mg/kg	< 0.100		2/15/16 19:56	A602170	8021B, Rev 2 1996
Naphthalene	mg/kg	< 0.300		2/15/16 19:56	A602170	8021B, Rev 2 1996
m,p-Xylene	mg/kg	< 0.200		2/15/16 19:56	A602170	8021B, Rev 2 1996
o-Xylene	mg/kg	< 0.100		2/15/16 19:56	A602170	8021B, Rev 2 1996
Fluorobenzene [surr]	%	94.2		2/15/16 19:56	A602170	8021B, Rev 2 1996
4-Bromochlorobenzene [surr]	%	104		2/15/16 19:56	A602170	8021B, Rev 2 1996

TPH-GRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-GRO	mg/kg	**6.69**		2/15/16 19:56	A602170	8015D, Rev 4 2003 (Mod)
Fluorobenzene [surr]	%	94.2		2/15/16 19:56	A602170	8015D, Rev 4 2003 (Mod)
4-Bromochlorobenzene [surr]	%	104		2/15/16 19:56	A602170	8015D, Rev 4 2003 (Mod)

ANALYTICAL RESULTS

Lab Number: **1602115-05**
Sample Name: **B-19 @ 15'**
Date/Time Collected: **2/9/16 9:35**
Sample Matrix: **Soil**

TPH-DRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-DRO	mg/kg	**35.8**		2/13/16 3:57	A602183	8015D, Rev 4 2003 (Mod)
o-Terphenyl [surr]	%	96.9		2/13/16 3:57	A602183	8015D, Rev 4 2003 (Mod)

This report must be reproduced in its entirety.

16 February 2016

Scott Kemph
Southern Co. NLR Inc.
1201 Cypress
North Little Rock, AR 72114
Project: ASA ADEQ 47000222

Project Number: February 2016
Date Received: 09-Feb-16 15:25

ANALYTICAL RESULTS

Lab Number:	**1602115-05RE2**
Sample Name:	**B-19 @ 15'**
Date/Time Collected:	**2/9/16 9:35**
Sample Matrix:	**Soil**

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Benzene	mg/kg	**2.88**		2/15/16 13:23	A602170	8021B, Rev 2 1996
Methyl t-Butyl Ether	mg/kg	< 0.960	EDL	2/15/16 13:23	A602170	8021B, Rev 2 1996
Toluene	mg/kg	**15.1**		2/15/16 13:23	A602170	8021B, Rev 2 1996
Ethylbenzene	mg/kg	**13.1**		2/15/16 13:23	A602170	8021B, Rev 2 1996
Naphthalene	mg/kg	**5.95**		2/15/16 13:23	A602170	8021B, Rev 2 1996
m,p-Xylene	mg/kg	**43.2**		2/15/16 13:23	A602170	8021B, Rev 2 1996
o-Xylene	mg/kg	**12.3**		2/15/16 13:23	A602170	8021B, Rev 2 1996
Fluorobenzene [surr]	%	92.6		2/15/16 13:23	A602170	8021B, Rev 2 1996
4-Bromochlorobenzene [surr]	%	100		2/15/16 13:23	A602170	8021B, Rev 2 1996

TPH-GRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-GRO	mg/kg	**560**		2/15/16 13:23	A602170	8015D, Rev 4 2003 (Mod)
Fluorobenzene [surr]	%	92.6		2/15/16 13:23	A602170	8015D, Rev 4 2003 (Mod)
4-Bromochlorobenzene [surr]	%	100		2/15/16 13:23	A602170	8015D, Rev 4 2003 (Mod)

QUALITY CONTROL RESULTS

8021B Analytes -- Batch: A602170 (Soil)
Prepared: 12-Feb-16 12:39 By: AT -- Analyzed: 15-Feb-16 17:14 By: tt

Analyte	BLK	LCS / LCSD		MS / MSD		Dup	RPD	Qualifiers
Benzene	<0.100 mg/kg	101%	NA	98.3%	100%		2.12%	
Ethylbenzene	<0.100 mg/kg	106%	NA	105%	108%		3.06%	
m,p-Xylene	<0.200 mg/kg	107%	NA	105%	108%		3.00%	
Methyl t-Butyl Ether	<0.100 mg/kg	95.3%	NA	94.0%	97.2%		3.33%	
Naphthalene	<0.300 mg/kg	99.9%	NA	94.2%	96.2%		2.01%	
o-Xylene	<0.100 mg/kg	105%	NA	104%	107%		2.88%	
Toluene	<0.100 mg/kg	113%	NA	107%	110%		2.07%	
TPH-GRO	<2.00 mg/kg	112%	NA	100%	102%		1.88%	
4-Bromochlorobenzene [surr]	105 %	101%	NA	101%	101%		NA	
Fluorobenzene [surr]	92.0 %	97.2%	NA	98.2%	97.9%		NA	

TPH-DRO by 8015D -- Batch: A602183 (Soil)
Prepared: 12-Feb-16 12:19 By: MB -- Analyzed: 12-Feb-16 17:00 By: MB

Analyte	BLK	LCS / LCSD		MS / MSD		Dup	RPD	Qualifiers
TPH-DRO	<10.0 mg/kg	80.2%	NA	78.5%	80.7%		2.69%	
o-Terphenyl [surr]	82.6 %	115%	NA	94.2%	96.9%		NA	

QUALIFIER(S)

*EDL: Elevated Detection Limit Due to one or more of the following: Sample Matrix, Sample Dilution, or Limited Sample Volume

This report must be reproduced in its entirety.

16 February 2016

Scott Kemph
Southern Co. NLR Inc.
1201 Cypress
North Little Rock, AR 72114
Project: ASA ADEQ 47000222

Project Number: February 2016
Date Received: 09-Feb-16 15:25

All Analysis performed according to EPA approved methodology when available:
SW 846, Revised December, 1996; EPA 600/4-79-020, Revised March, 1983; Standard Methods.
Instrument calibration and quality control samples performed at or above frequency specified in analytical method.

Reviewed by: Norma James / Teresa Coins

Norma James and/or Teresa Coins
Technical Director and/or QA Officer

This report must be reproduced in its entirety.

Arkansas Analytical Inc.
11701 Interstate 30, Bldg. 1, Ste. 115
Little Rock, AR 72209
PHONE: 501-455-3233
FAX: 501-455-6118

CHAIN OF CUSTODY RECORD

CLIENT INFORMATION	Project Description	Turnaround Time	Preservation Codes:	
Southern Co. NLR Inc.	ASA ADEQ 47000222	1 Day (100%)	1. Cool, 4 Degrees Centigrade	4. Thiosulfate for Dechlorination
1201 Cypress	PO 60294	2 Day (50%)	2. Sulfuric Acid (H_2SO_4), pH < 2	5. Hydrochloric Acid(HCl)
North Little Rock, AR 72114	Reporting Information	3 Day (25%)	3. Nitric Acid (HNO_3), pH < 2	6. Sodium Hydroxide (NaOH), pH > 12
	Telephone: 501-376-6333	5 Day (Routine)		
Attn: Scott Kemph	Fax: 501-376-8715	Preservative Code:		
	Email: skemph@thesoco.com	Bottle Type:		

Sampler(s) Signature: N. Scott Kemph

Sampler(s) Printed: T. Scott Kemph

Field Number	SAMPLE COLLECTION Date/s	Time/s	Grab	Comp	Number of Bottles	Sample Matrix	SAMPLE IDENTIFICATION/ DESCRIPTION	8021B - BTEX, MTBE, Naphthalene	8015D - TPH-GRO	8015D - TPH-DRO	Arkansas Analytical Work Order Number: 1602115
B-16@11'	2.8.16	1238	X		1	S	Soil sample @ 11 foot bgs	X	X	X	01
B-16@17'	2.8.16	1258	X		1	S	Soil sample @ 17 foot bgs	X	X	X	02
B-17@17	2.8.16	1518	X		1	S	Soil Sample @ 17 foot bgs	X	X	X	03
B-18@12	2.8.16	1645	X		1	S	Soil sample @ 12 foot bgs	X	X	X	04
B-19@15	2.9.16	0935	X		1	S	Soil sample @ 15 foot bgs	X	X	X	05

1. Relinquished by: (Signature)	Date/Time	2. Received by: (Signature)
N. Scott Kemph	2-9-16 325 pm	
3. Relinquished by: (Signature)	Date/Time	4. Received by lab: (Signature)
		Sydney James

SAMPLE CONDITION UPON RECEIPT IN LAB

1. CUSTODY SEALS: ✓ Yes ___ No
2. CONTAINERS CORRECT: ___ Yes ___ No
3. COC/LABELS AGREE: ___ Yes ___ No
4. RECEIVED ON ICE: ✓ Yes ___ No
5. TEMPERATURE ON RECEIPT: 2°C
6. TEMPERATURE GUN ID: IHH #2

FOR COMPLETION BY LAB ONLY

REMARKS / SAMPLE COMMENTS

PO 60294

Please email results to skemph@thesoco.com

8015 D TPH-DRO

8015 D TPH-GRO

8021B MTBE, Benzene, Toluene, Ethylbenzene, Xylene, and Napthalene

Arkansas Analytical Inc.

8100 National Dr. - Little Rock, AR 72209
501-455-3233 Fax 501-455-6118

24 February 2016

Scott Kemph
Southern Co. NLR Inc.
1201 Cypress
North Little Rock, AR 72114

Project: ASA ADEQ 47000222

Project Number: February 2016

SDG Number: 1602237

Enclosed are the results of analyses for samples received by the laboratory on 17-Feb-16 14:13. If you have any questions concerning this report, please feel free to contact me.

Sample Receipt Information:

Custody Seals	✔
Containers Correct	✔
COC/Labels Agree	✔
Received On Ice	✔
Temperature on Receipt	2.0°C

Sincerely,

Norma James / Teresa Coins

Norma James and/or Teresa Coins
Technical Director and/or QA Officer

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24 February 2016

Scott Kemph
Southern Co. NLR Inc.
1201 Cypress
North Little Rock, AR 72114
Project: ASA ADEQ 47000222

Project Number: February 2016
Date Received: 17-Feb-16 14:13

CASE NARRATIVE

Sample Delivery Group – 1602237

One *OR* more of the qualifiers described below may appear in this report.

ANALYTICAL QUALIFIERS:

Qualifier	Description
EDL	Result was non-detect at an elevated detection limit due to one or more of the following: Sample Matrix, Sample Dilution, or Limited Sample Volume.
EX	Result exceeds DAILY MAXIMUM and/or MONTHLY AVERAGE.
EX2	The result exceeds the TCLP limit.
J	At client request, J-Values are reported. J-Values are considered "estimated" results as they are below the limit of quantitation yet above the method detection limit (MDL).
N	Insufficient sample volume received as required by the method.
T40	The ambient temperature exceeded 23 +/- 2 ^{o}C during the TCLP rotation process.

This report must be reproduced in its entirety.

24 February 2016

Scott Kemph
Southern Co. NLR Inc.
1201 Cypress
North Little Rock, AR 72114
Project: ASA ADEQ 47000222

Project Number: February 2016
Date Received: 17-Feb-16 14:13

ANALYTICAL RESULTS

Lab Number: **1602237-01**
Sample Name: **MW-1**
Date/Time Collected: **2/16/16 12:18**
Sample Matrix: **Water**

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Benzene	mg/L	**18.6**		2/18/16 13:10	A602241	8021B, Rev 2 1996
Methyl t-Butyl Ether	mg/L	< 0.430	EDL	2/18/16 13:10	A602241	8021B, Rev 2 1996
Toluene	mg/L	**53.6**		2/18/16 13:10	A602241	8021B, Rev 2 1996
Ethylbenzene	mg/L	**5.56**		2/18/16 13:10	A602241	8021B, Rev 2 1996
Naphthalene	mg/L	**2.96**		2/18/16 13:10	A602241	8021B, Rev 2 1996
m,p-Xylene	mg/L	**25.3**		2/18/16 13:10	A602241	8021B, Rev 2 1996
o-Xylene	mg/L	**12.2**		2/18/16 13:10	A602241	8021B, Rev 2 1996
Fluorobenzene [surr]	%	95.4		2/18/16 13:10	A602241	8021B, Rev 2 1996
4-Bromochlorobenzene [surr]	%	99.4		2/18/16 13:10	A602241	8021B, Rev 2 1996

TPH-DRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-DRO	mg/L	**25.5**		2/23/16 16:36	A602295	8015D, Rev 4 2003 (Mod)
o-Terphenyl [surr]	%	78.8		2/23/16 16:36	A602295	8015D, Rev 4 2003 (Mod)

TPH-GRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-GRO	mg/L	**245**		2/18/16 13:10	A602241	8015D, Rev 4 2003 (Mod)
Fluorobenzene [surr]	%	95.4		2/18/16 13:10	A602241	8015D, Rev 4 2003 (Mod)
4-Bromochlorobenzene [surr]	%	99.4		2/18/16 13:10	A602241	8015D, Rev 4 2003 (Mod)

ANALYTICAL RESULTS

Lab Number: **1602237-02**
Sample Name: **MW-2**
Date/Time Collected: **2/16/16 12:28**
Sample Matrix: **Water**

TPH-DRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-DRO	mg/L	**4.17**		2/22/16 19:06	A602295	8015D, Rev 4 2003 (Mod)
o-Terphenyl [surr]	%	84.2		2/22/16 19:06	A602295	8015D, Rev 4 2003 (Mod)

This report must be reproduced in its entirety.

24 February 2016

Scott Kemph
Southern Co. NLR Inc.
1201 Cypress
North Little Rock, AR 72114
Project: ASA ADEQ 47000222

Project Number: February 2016
Date Received: 17-Feb-16 14:13

ANALYTICAL RESULTS

Lab Number: 1602237-02RE1
Sample Name: MW-2
Date/Time Collected: 2/16/16 12:28
Sample Matrix: Water

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Benzene	mg/L	**2.08**		2/18/16 23:37	A602241	8021B, Rev 2 1996
Methyl t-Butyl Ether	mg/L	< 0.025	EDL	2/18/16 23:37	A602241	8021B, Rev 2 1996
Toluene	mg/L	**3.62**		2/18/16 23:37	A602241	8021B, Rev 2 1996
Ethylbenzene	mg/L	**0.362**		2/18/16 23:37	A602241	8021B, Rev 2 1996
Naphthalene	mg/L	< 0.150	EDL	2/18/16 23:37	A602241	8021B, Rev 2 1996
m,p-Xylene	mg/L	**1.46**		2/18/16 23:37	A602241	8021B, Rev 2 1996
o-Xylene	mg/L	**0.440**		2/18/16 23:37	A602241	8021B, Rev 2 1996
Fluorobenzene [surr]	%	97.8		2/18/16 23:37	A602241	8021B, Rev 2 1996
4-Bromochlorobenzene [surr]	%	97.0		2/18/16 23:37	A602241	8021B, Rev 2 1996

TPH-GRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-GRO	mg/L	**19.3**		2/18/16 23:37	A602241	8015D, Rev 4 2003 (Mod)
Fluorobenzene [surr]	%	97.8		2/18/16 23:37	A602241	8015D, Rev 4 2003 (Mod)
4-Bromochlorobenzene [surr]	%	97.0		2/18/16 23:37	A602241	8015D, Rev 4 2003 (Mod)

ANALYTICAL RESULTS

Lab Number: 1602237-03
Sample Name: MW-3
Date/Time Collected: 2/16/16 14:30
Sample Matrix: Water

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Benzene	mg/L	**21.6**		2/18/16 14:04	A602241	8021B, Rev 2 1996
Methyl t-Butyl Ether	mg/L	< 0.215	EDL	2/18/16 14:04	A602241	8021B, Rev 2 1996
Toluene	mg/L	**40.9**		2/18/16 14:04	A602241	8021B, Rev 2 1996
Ethylbenzene	mg/L	**3.16**		2/18/16 14:04	A602241	8021B, Rev 2 1996
Naphthalene	mg/L	< 1.29	EDL	2/18/16 14:04	A602241	8021B, Rev 2 1996
m,p-Xylene	mg/L	**13.1**		2/18/16 14:04	A602241	8021B, Rev 2 1996
o-Xylene	mg/L	**5.71**		2/18/16 14:04	A602241	8021B, Rev 2 1996
Fluorobenzene [surr]	%	96.9		2/18/16 14:04	A602241	8021B, Rev 2 1996
4-Bromochlorobenzene [surr]	%	101		2/18/16 14:04	A602241	8021B, Rev 2 1996

TPH-DRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-DRO	mg/L	**32.7**		2/22/16 19:45	A602295	8015D, Rev 4 2003 (Mod)
o-Terphenyl [surr]	%	88.4		2/22/16 19:45	A602295	8015D, Rev 4 2003 (Mod)

TPH-GRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-GRO	mg/L	**166**		2/18/16 14:04	A602241	8015D, Rev 4 2003 (Mod)
Fluorobenzene [surr]	%	96.9		2/18/16 14:04	A602241	8015D, Rev 4 2003 (Mod)
4-Bromochlorobenzene [surr]	%	101		2/18/16 14:04	A602241	8015D, Rev 4 2003 (Mod)

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Southern Co. NLR Inc.
1201 Cypress
North Little Rock, AR 72114
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ANALYTICAL RESULTS

Lab Number: **1602237-04**
Sample Name: **MW-4**
Date/Time Collected: **2/16/16 13:10**
Sample Matrix: **Water**

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Benzene	mg/L	**1.32**		2/18/16 14:31	A602241	8021B, Rev 2 1996
Toluene	mg/L	**6.78**		2/18/16 14:31	A602241	8021B, Rev 2 1996
Ethylbenzene	mg/L	**1.02**		2/18/16 14:31	A602241	8021B, Rev 2 1996
m,p-Xylene	mg/L	**3.29**		2/18/16 14:31	A602241	8021B, Rev 2 1996
o-Xylene	mg/L	**1.15**		2/18/16 14:31	A602241	8021B, Rev 2 1996
Fluorobenzene [surr]	%	96.1		2/18/16 14:31	A602241	8021B, Rev 2 1996
4-Bromochlorobenzene [surr]	%	101		2/18/16 14:31	A602241	8021B, Rev 2 1996

TPH-DRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-DRO	mg/L	**4.61**		2/22/16 20:23	A602295	8015D, Rev 4 2003 (Mod)
o-Terphenyl [surr]	%	109		2/22/16 20:23	A602295	8015D, Rev 4 2003 (Mod)

TPH-GRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-GRO	mg/L	**28.3**		2/18/16 14:31	A602241	8015D, Rev 4 2003 (Mod)
Fluorobenzene [surr]	%	96.1		2/18/16 14:31	A602241	8015D, Rev 4 2003 (Mod)
4-Bromochlorobenzene [surr]	%	101		2/18/16 14:31	A602241	8015D, Rev 4 2003 (Mod)

ANALYTICAL RESULTS

Lab Number: **1602237-04RE1**
Sample Name: **MW-4**
Date/Time Collected: **2/16/16 13:10**
Sample Matrix: **Water**

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Methyl t-Butyl Ether	mg/L	< 0.025	EDL	2/19/16 0:04	A602241	8021B, Rev 2 1996
Naphthalene	mg/L	**0.168**		2/19/16 0:04	A602241	8021B, Rev 2 1996
Fluorobenzene [surr]	%	97.5		2/19/16 0:04	A602241	8021B, Rev 2 1996
4-Bromochlorobenzene [surr]	%	98.2		2/19/16 0:04	A602241	8021B, Rev 2 1996

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1201 Cypress
North Little Rock, AR 72114
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ANALYTICAL RESULTS

Lab Number:	**1602237-05**
Sample Name:	**MW-5**
Date/Time Collected:	**2/17/16 8:48**
Sample Matrix:	**Water**

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Benzene	mg/L	**19.1**		2/18/16 14:57	A602241	8021B, Rev 2 1996
Methyl t-Butyl Ether	mg/L	< 0.215	EDL	2/18/16 14:57	A602241	8021B, Rev 2 1996
Toluene	mg/L	**15.9**		2/18/16 14:57	A602241	8021B, Rev 2 1996
Ethylbenzene	mg/L	**2.40**		2/18/16 14:57	A602241	8021B, Rev 2 1996
Naphthalene	mg/L	< 1.29	EDL	2/18/16 14:57	A602241	8021B, Rev 2 1996
m,p-Xylene	mg/L	**10.0**		2/18/16 14:57	A602241	8021B, Rev 2 1996
o-Xylene	mg/L	**4.01**		2/18/16 14:57	A602241	8021B, Rev 2 1996
Fluorobenzene [surr]	%	96.7		2/18/16 14:57	A602241	8021B, Rev 2 1996
4-Bromochlorobenzene [surr]	%	99.0		2/18/16 14:57	A602241	8021B, Rev 2 1996

TPH-DRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-DRO	mg/L	**14.6**		2/22/16 21:02	A602295	8015D, Rev 4 2003 (Mod)
o-Terphenyl [surr]	%	107		2/22/16 21:02	A602295	8015D, Rev 4 2003 (Mod)

TPH-GRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-GRO	mg/L	**94.4**		2/18/16 14:57	A602241	8015D, Rev 4 2003 (Mod)
Fluorobenzene [surr]	%	96.7		2/18/16 14:57	A602241	8015D, Rev 4 2003 (Mod)
4-Bromochlorobenzene [surr]	%	99.0		2/18/16 14:57	A602241	8015D, Rev 4 2003 (Mod)

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1201 Cypress
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ANALYTICAL RESULTS

Lab Number: **1602237-06**
Sample Name: **MW-6**
Date/Time Collected: **2/16/16 11:18**
Sample Matrix: **Water**

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Benzene	mg/L	**11.4**		2/18/16 15:24	A602241	8021B, Rev 2 1996
Methyl t-Butyl Ether	mg/L	< 0.215	EDL	2/18/16 15:24	A602241	8021B, Rev 2 1996
Toluene	mg/L	**23.8**		2/18/16 15:24	A602241	8021B, Rev 2 1996
Ethylbenzene	mg/L	**1.79**		2/18/16 15:24	A602241	8021B, Rev 2 1996
Naphthalene	mg/L	< 1.29	EDL	2/18/16 15:24	A602241	8021B, Rev 2 1996
m,p-Xylene	mg/L	**6.66**		2/18/16 15:24	A602241	8021B, Rev 2 1996
o-Xylene	mg/L	**2.81**		2/18/16 15:24	A602241	8021B, Rev 2 1996
Fluorobenzene [surr]	%	95.7		2/18/16 15:24	A602241	8021B, Rev 2 1996
4-Bromochlorobenzene [surr]	%	99.4		2/18/16 15:24	A602241	8021B, Rev 2 1996

TPH-DRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-DRO	mg/L	**10.9**		2/22/16 21:41	A602295	8015D, Rev 4 2003 (Mod)
o-Terphenyl [surr]	%	114		2/22/16 21:41	A602295	8015D, Rev 4 2003 (Mod)

TPH-GRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-GRO	mg/L	**97.0**		2/18/16 15:24	A602241	8015D, Rev 4 2003 (Mod)
Fluorobenzene [surr]	%	95.7		2/18/16 15:24	A602241	8015D, Rev 4 2003 (Mod)
4-Bromochlorobenzene [surr]	%	99.4		2/18/16 15:24	A602241	8015D, Rev 4 2003 (Mod)

ANALYTICAL RESULTS

Lab Number: **1602237-07**
Sample Name: **MW-7**
Date/Time Collected: **2/16/16 10:30**
Sample Matrix: **Water**

TPH-DRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-DRO	mg/L	**7.66**		2/22/16 22:20	A602295	8015D, Rev 4 2003 (Mod)
o-Terphenyl [surr]	%	100		2/22/16 22:20	A602295	8015D, Rev 4 2003 (Mod)

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ANALYTICAL RESULTS

Lab Number: **1602237-07RE1**
Sample Name: **MW-7**
Date/Time Collected: **2/16/16 10:30**
Sample Matrix: **Water**

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Benzene	mg/L	**2.16**		2/19/16 0:31	A602241	8021B, Rev 2 1996
Toluene	mg/L	**10.1**		2/19/16 0:31	A602241	8021B, Rev 2 1996
Ethylbenzene	mg/L	**1.27**		2/19/16 0:31	A602241	8021B, Rev 2 1996
m,p-Xylene	mg/L	**3.93**		2/19/16 0:31	A602241	8021B, Rev 2 1996
o-Xylene	mg/L	**1.38**		2/19/16 0:31	A602241	8021B, Rev 2 1996
Fluorobenzene [surr]	%	95.4		2/19/16 0:31	A602241	8021B, Rev 2 1996
4-Bromochlorobenzene [surr]	%	97.8		2/19/16 0:31	A602241	8021B, Rev 2 1996

TPH-GRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-GRO	mg/L	**41.2**		2/19/16 0:31	A602241	8015D, Rev 4 2003 (Mod)
Fluorobenzene [surr]	%	95.4		2/19/16 0:31	A602241	8015D, Rev 4 2003 (Mod)
4-Bromochlorobenzene [surr]	%	97.9		2/19/16 0:31	A602241	8015D, Rev 4 2003 (Mod)

ANALYTICAL RESULTS

Lab Number: **1602237-07RE2**
Sample Name: **MW-7**
Date/Time Collected: **2/16/16 10:30**
Sample Matrix: **Water**

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Methyl t-Butyl Ether	mg/L	< 0.050	EDL	2/19/16 0:57	A602241	8021B, Rev 2 1996
Naphthalene	mg/L	< 0.300	EDL	2/19/16 0:57	A602241	8021B, Rev 2 1996
Fluorobenzene [surr]	%	97.2		2/19/16 0:57	A602241	8021B, Rev 2 1996
4-Bromochlorobenzene [surr]	%	97.6		2/19/16 0:57	A602241	8021B, Rev 2 1996

ANALYTICAL RESULTS

Lab Number: **1602237-08**
Sample Name: **MW-8**
Date/Time Collected: **2/16/16 9:48**
Sample Matrix: **Water**

TPH-DRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-DRO	mg/L	**3.22**		2/22/16 22:59	A602295	8015D, Rev 4 2003 (Mod)
o-Terphenyl [surr]	%	106		2/22/16 22:59	A602295	8015D, Rev 4 2003 (Mod)

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1201 Cypress
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ANALYTICAL RESULTS

Lab Number: **1602237-08RE1**
Sample Name: **MW-8**
Date/Time Collected: **2/16/16 9:48**
Sample Matrix: **Water**

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Benzene	mg/L	**0.206**		2/19/16 1:24	A602241	8021B, Rev 2 1996
Methyl t-Butyl Ether	mg/L	< 0.010	EDL	2/19/16 1:24	A602241	8021B, Rev 2 1996
Toluene	mg/L	**0.350**		2/19/16 1:24	A602241	8021B, Rev 2 1996
Ethylbenzene	mg/L	**0.486**		2/19/16 1:24	A602241	8021B, Rev 2 1996
Naphthalene	mg/L	**0.084**		2/19/16 1:24	A602241	8021B, Rev 2 1996
m,p-Xylene	mg/L	**0.590**		2/19/16 1:24	A602241	8021B, Rev 2 1996
o-Xylene	mg/L	**0.045**		2/19/16 1:24	A602241	8021B, Rev 2 1996
Fluorobenzene [surr]	%	95.0		2/19/16 1:24	A602241	8021B, Rev 2 1996
4-Bromochlorobenzene [surr]	%	96.6		2/19/16 1:24	A602241	8021B, Rev 2 1996

TPH-GRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-GRO	mg/L	**8.57**		2/19/16 1:24	A602241	8015D, Rev 4 2003 (Mod)
Fluorobenzene [surr]	%	95.0		2/19/16 1:24	A602241	8015D, Rev 4 2003 (Mod)
4-Bromochlorobenzene [surr]	%	96.7		2/19/16 1:24	A602241	8015D, Rev 4 2003 (Mod)

ANALYTICAL RESULTS

Lab Number: **1602237-09**
Sample Name: **MW-9**
Date/Time Collected: **2/16/16 12:40**
Sample Matrix: **Water**

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Benzene	mg/L	**0.016**		2/18/16 16:44	A602241	8021B, Rev 2 1996
Methyl t-Butyl Ether	mg/L	< 0.005		2/18/16 16:44	A602241	8021B, Rev 2 1996
Toluene	mg/L	**0.065**		2/18/16 16:44	A602241	8021B, Rev 2 1996
Ethylbenzene	mg/L	**0.010**		2/18/16 16:44	A602241	8021B, Rev 2 1996
Naphthalene	mg/L	< 0.030	EDL	2/18/16 16:44	A602241	8021B, Rev 2 1996
m,p-Xylene	mg/L	**0.047**		2/18/16 16:44	A602241	8021B, Rev 2 1996
o-Xylene	mg/L	**0.019**		2/18/16 16:44	A602241	8021B, Rev 2 1996
Fluorobenzene [surr]	%	95.4		2/18/16 16:44	A602241	8021B, Rev 2 1996
4-Bromochlorobenzene [surr]	%	97.6		2/18/16 16:44	A602241	8021B, Rev 2 1996

TPH-DRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-DRO	mg/L	< 0.500		2/22/16 23:37	A602295	8015D, Rev 4 2003 (Mod)
o-Terphenyl [surr]	%	99.5		2/22/16 23:37	A602295	8015D, Rev 4 2003 (Mod)

TPH-GRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-GRO	mg/L	**3.45**		2/18/16 16:44	A602241	8015D, Rev 4 2003 (Mod)
Fluorobenzene [surr]	%	95.4		2/18/16 16:44	A602241	8015D, Rev 4 2003 (Mod)
4-Bromochlorobenzene [surr]	%	97.6		2/18/16 16:44	A602241	8015D, Rev 4 2003 (Mod)

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1201 Cypress
North Little Rock, AR 72114
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ANALYTICAL RESULTS

Lab Number: **1602237-10**
Sample Name: **MW-10**
Date/Time Collected: **2/16/16 13:00**
Sample Matrix: **Water**

TPH-DRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-DRO	mg/L	< 0.500		2/23/16 0:16	A602295	8015D, Rev 4 2003 (Mod)
o-Terphenyl [surr]	%	103		2/23/16 0:16	A602295	8015D, Rev 4 2003 (Mod)

ANALYTICAL RESULTS

Lab Number: **1602237-10RE1**
Sample Name: **MW-10**
Date/Time Collected: **2/16/16 13:00**
Sample Matrix: **Water**

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Benzene	mg/L	**0.004**		2/19/16 1:51	A602241	8021B, Rev 2 1996
Methyl t-Butyl Ether	mg/L	< 0.005		2/19/16 1:51	A602241	8021B, Rev 2 1996
Toluene	mg/L	**0.005**		2/19/16 1:51	A602241	8021B, Rev 2 1996
Ethylbenzene	mg/L	< 0.005		2/19/16 1:51	A602241	8021B, Rev 2 1996
Naphthalene	mg/L	< 0.015		2/19/16 1:51	A602241	8021B, Rev 2 1996
m,p-Xylene	mg/L	< 0.010		2/19/16 1:51	A602241	8021B, Rev 2 1996
o-Xylene	mg/L	< 0.005		2/19/16 1:51	A602241	8021B, Rev 2 1996
Fluorobenzene [surr]	%	91.4		2/19/16 1:51	A602241	8021B, Rev 2 1996
4-Bromochlorobenzene [surr]	%	97.2		2/19/16 1:51	A602241	8021B, Rev 2 1996

TPH-GRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-GRO	mg/L	**0.440**		2/19/16 1:51	A602241	8015D, Rev 4 2003 (Mod)
Fluorobenzene [surr]	%	91.4		2/19/16 1:51	A602241	8015D, Rev 4 2003 (Mod)
4-Bromochlorobenzene [surr]	%	97.2		2/19/16 1:51	A602241	8015D, Rev 4 2003 (Mod)

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1201 Cypress
North Little Rock, AR 72114
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ANALYTICAL RESULTS

Lab Number: **1602237-11**
Sample Name: **MW-11**
Date/Time Collected: **2/16/16 12:08**
Sample Matrix: **Water**

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Benzene	mg/L	**0.024**		2/18/16 17:37	A602241	8021B, Rev 2 1996
Methyl t-Butyl Ether	mg/L	< 0.005		2/18/16 17:37	A602241	8021B, Rev 2 1996
Ethylbenzene	mg/L	**0.019**		2/18/16 17:37	A602241	8021B, Rev 2 1996
Naphthalene	mg/L	< 0.015		2/18/16 17:37	A602241	8021B, Rev 2 1996
m,p-Xylene	mg/L	**0.078**		2/18/16 17:37	A602241	8021B, Rev 2 1996
o-Xylene	mg/L	**0.038**		2/18/16 17:37	A602241	8021B, Rev 2 1996
Fluorobenzene [surr]	%	95.3		2/18/16 17:37	A602241	8021B, Rev 2 1996
4-Bromochlorobenzene [surr]	%	96.4		2/18/16 17:37	A602241	8021B, Rev 2 1996

TPH-DRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-DRO	mg/L	< 0.500		2/23/16 10:45	A602295	8015D, Rev 4 2003 (Mod)
o-Terphenyl [surr]	%	110		2/23/16 10:45	A602295	8015D, Rev 4 2003 (Mod)

TPH-GRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-GRO	mg/L	**0.605**		2/18/16 17:37	A602241	8015D, Rev 4 2003 (Mod)
Fluorobenzene [surr]	%	95.3		2/18/16 17:37	A602241	8015D, Rev 4 2003 (Mod)
4-Bromochlorobenzene [surr]	%	96.4		2/18/16 17:37	A602241	8015D, Rev 4 2003 (Mod)

ANALYTICAL RESULTS

Lab Number: **1602237-11RE1**
Sample Name: **MW-11**
Date/Time Collected: **2/16/16 12:08**
Sample Matrix: **Water**

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Toluene	mg/L	**0.106**		2/19/16 2:17	A602241	8021B, Rev 2 1996
Fluorobenzene [surr]	%	93.6		2/19/16 2:17	A602241	8021B, Rev 2 1996
4-Bromochlorobenzene [surr]	%	97.3		2/19/16 2:17	A602241	8021B, Rev 2 1996

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Southern Co. NLR Inc.
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Project: ASA ADEQ 47000222

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ANALYTICAL RESULTS

Lab Number: **1602237-12**
Sample Name: **MW-12**
Date/Time Collected: **2/17/16 9:08**
Sample Matrix: **Water**

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Benzene	mg/L	**30.6**		2/18/16 18:04	A602242	8021B, Rev 2 1996
Toluene	mg/L	**42.6**		2/18/16 18:04	A602242	8021B, Rev 2 1996
Fluorobenzene [surr]	%	96.0		2/18/16 18:04	A602242	8021B, Rev 2 1996
4-Bromochlorobenzene [surr]	%	97.5		2/18/16 18:04	A602242	8021B, Rev 2 1996

TPH-DRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-DRO	mg/L	**11.8**		2/23/16 11:24	A602295	8015D, Rev 4 2003 (Mod)
o-Terphenyl [surr]	%	105		2/23/16 11:24	A602295	8015D, Rev 4 2003 (Mod)

TPH-GRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-GRO	mg/L	**180**		2/18/16 18:04	A602242	8015D, Rev 4 2003 (Mod)
Fluorobenzene [surr]	%	96.0		2/18/16 18:04	A602242	8015D, Rev 4 2003 (Mod)
4-Bromochlorobenzene [surr]	%	97.5		2/18/16 18:04	A602242	8015D, Rev 4 2003 (Mod)

ANALYTICAL RESULTS

Lab Number: **1602237-12RE1**
Sample Name: **MW-12**
Date/Time Collected: **2/17/16 9:08**
Sample Matrix: **Water**

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Methyl t-Butyl Ether	mg/L	< 0.215	EDL	2/19/16 2:44	A602242	8021B, Rev 2 1996
Ethylbenzene	mg/L	**2.79**		2/19/16 2:44	A602242	8021B, Rev 2 1996
Naphthalene	mg/L	< 1.29	EDL	2/19/16 2:44	A602242	8021B, Rev 2 1996
m,p-Xylene	mg/L	**12.2**		2/19/16 2:44	A602242	8021B, Rev 2 1996
o-Xylene	mg/L	**5.57**		2/19/16 2:44	A602242	8021B, Rev 2 1996
Fluorobenzene [surr]	%	98.2		2/19/16 2:44	A602242	8021B, Rev 2 1996
4-Bromochlorobenzene [surr]	%	98.0		2/19/16 2:44	A602242	8021B, Rev 2 1996

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Southern Co. NLR Inc.
1201 Cypress
North Little Rock, AR 72114
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ANALYTICAL RESULTS

Lab Number: **1602237-13**
Sample Name: **MW-13**
Date/Time Collected: **2/16/16 12:05**
Sample Matrix: **Water**

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Methyl t-Butyl Ether	mg/L	< 0.215	EDL	2/18/16 18:31	A602242	8021B, Rev 2 1996
Ethylbenzene	mg/L	**4.16**		2/18/16 18:31	A602242	8021B, Rev 2 1996
Naphthalene	mg/L	< 1.29	EDL	2/18/16 18:31	A602242	8021B, Rev 2 1996
Fluorobenzene [surr]	%	97.2		2/18/16 18:31	A602242	8021B, Rev 2 1996
4-Bromochlorobenzene [surr]	%	98.6		2/18/16 18:31	A602242	8021B, Rev 2 1996

TPH-DRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-DRO	mg/L	**19.2**		2/23/16 12:03	A602295	8015D, Rev 4 2003 (Mod)
o-Terphenyl [surr]	%	108		2/23/16 12:03	A602295	8015D, Rev 4 2003 (Mod)

ANALYTICAL RESULTS

Lab Number: **1602237-13RE1**
Sample Name: **MW-13**
Date/Time Collected: **2/16/16 12:05**
Sample Matrix: **Water**

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Benzene	mg/L	**23.6**		2/19/16 3:11	A602242	8021B, Rev 2 1996
Toluene	mg/L	**49.8**		2/19/16 3:11	A602242	8021B, Rev 2 1996
m,p-Xylene	mg/L	**18.5**		2/19/16 3:11	A602242	8021B, Rev 2 1996
o-Xylene	mg/L	**7.86**		2/19/16 3:11	A602242	8021B, Rev 2 1996
Fluorobenzene [surr]	%	95.7		2/19/16 3:11	A602242	8021B, Rev 2 1996
4-Bromochlorobenzene [surr]	%	97.2		2/19/16 3:11	A602242	8021B, Rev 2 1996

TPH-GRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-GRO	mg/L	**204**		2/19/16 3:11	A602242	8015D, Rev 4 2003 (Mod)
Fluorobenzene [surr]	%	95.7		2/19/16 3:11	A602242	8015D, Rev 4 2003 (Mod)
4-Bromochlorobenzene [surr]	%	97.3		2/19/16 3:11	A602242	8015D, Rev 4 2003 (Mod)

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North Little Rock, AR 72114
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ANALYTICAL RESULTS

Lab Number: **1602237-14**
Sample Name: **MW-14**
Date/Time Collected: **2/16/16 13:15**
Sample Matrix: **Water**

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Benzene	mg/L	**0.017**		2/18/16 18:57	A602242	8021B, Rev 2 1996
Methyl t-Butyl Ether	mg/L	< 0.005		2/18/16 18:57	A602242	8021B, Rev 2 1996
Toluene	mg/L	**0.005**		2/18/16 18:57	A602242	8021B, Rev 2 1996
Ethylbenzene	mg/L	< 0.005		2/18/16 18:57	A602242	8021B, Rev 2 1996
Naphthalene	mg/L	< 0.015		2/18/16 18:57	A602242	8021B, Rev 2 1996
m,p-Xylene	mg/L	< 0.010		2/18/16 18:57	A602242	8021B, Rev 2 1996
o-Xylene	mg/L	< 0.005		2/18/16 18:57	A602242	8021B, Rev 2 1996
Fluorobenzene [surr]	%	95.4		2/18/16 18:57	A602242	8021B, Rev 2 1996
4-Bromochlorobenzene [surr]	%	99.9		2/18/16 18:57	A602242	8021B, Rev 2 1996

TPH-DRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-DRO	mg/L	< 0.500		2/23/16 12:42	A602295	8015D, Rev 4 2003 (Mod)
o-Terphenyl [surr]	%	109		2/23/16 12:42	A602295	8015D, Rev 4 2003 (Mod)

TPH-GRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-GRO	mg/L	**0.839**		2/18/16 18:57	A602242	8015D, Rev 4 2003 (Mod)
Fluorobenzene [surr]	%	95.4		2/18/16 18:57	A602242	8015D, Rev 4 2003 (Mod)
4-Bromochlorobenzene [surr]	%	99.9		2/18/16 18:57	A602242	8015D, Rev 4 2003 (Mod)

ANALYTICAL RESULTS

Lab Number: **1602237-15**
Sample Name: **MW-15**
Date/Time Collected: **2/16/16 12:45**
Sample Matrix: **Water**

TPH-DRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-DRO	mg/L	**5.28**		2/23/16 13:21	A602295	8015D, Rev 4 2003 (Mod)
o-Terphenyl [surr]	%	103		2/23/16 13:21	A602295	8015D, Rev 4 2003 (Mod)

ANALYTICAL RESULTS

Lab Number: **1602237-15RE1**
Sample Name: **MW-15**
Date/Time Collected: **2/16/16 12:45**
Sample Matrix: **Water**

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
m,p-Xylene	mg/L	**2.56**		2/19/16 3:37	A602242	8021B, Rev 2 1996
Fluorobenzene [surr]	%	96.0		2/19/16 3:37	A602242	8021B, Rev 2 1996
4-Bromochlorobenzene [surr]	%	97.1		2/19/16 3:37	A602242	8021B, Rev 2 1996

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ANALYTICAL RESULTS

Lab Number: **1602237-15RE2**
Sample Name: **MW-15**
Date/Time Collected: **2/16/16 12:45**
Sample Matrix: **Water**

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Benzene	mg/L	**1.46**		2/19/16 4:04	A602242	8021B, Rev 2 1996
Methyl t-Butyl Ether	mg/L	< 0.010	EDL	2/19/16 4:04	A602242	8021B, Rev 2 1996
Toluene	mg/L	**0.893**		2/19/16 4:04	A602242	8021B, Rev 2 1996
Ethylbenzene	mg/L	**0.931**		2/19/16 4:04	A602242	8021B, Rev 2 1996
Naphthalene	mg/L	**0.129**		2/19/16 4:04	A602242	8021B, Rev 2 1996
o-Xylene	mg/L	**0.505**		2/19/16 4:04	A602242	8021B, Rev 2 1996
Fluorobenzene [surr]	%	95.3		2/19/16 4:04	A602242	8021B, Rev 2 1996
4-Bromochlorobenzene [surr]	%	97.3		2/19/16 4:04	A602242	8021B, Rev 2 1996

TPH-GRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-GRO	mg/L	**15.1**		2/19/16 4:04	A602242	8015D, Rev 4 2003 (Mod)
Fluorobenzene [surr]	%	95.3		2/19/16 4:04	A602242	8015D, Rev 4 2003 (Mod)
4-Bromochlorobenzene [surr]	%	97.3		2/19/16 4:04	A602242	8015D, Rev 4 2003 (Mod)

ANALYTICAL RESULTS

Lab Number: **1602237-16**
Sample Name: **MW-16**
Date/Time Collected: **2/17/16 9:30**
Sample Matrix: **Water**

TPH-DRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-DRO	mg/L	**13.8**		2/23/16 14:00	A602295	8015D, Rev 4 2003 (Mod)
o-Terphenyl [surr]	%	97.2		2/23/16 14:00	A602295	8015D, Rev 4 2003 (Mod)

ANALYTICAL RESULTS

Lab Number: **1602237-16RE1**
Sample Name: **MW-16**
Date/Time Collected: **2/17/16 9:30**
Sample Matrix: **Water**

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Toluene	mg/L	**15.8**		2/19/16 4:31	A602242	8021B, Rev 2 1996
Fluorobenzene [surr]	%	95.2		2/19/16 4:31	A602242	8021B, Rev 2 1996
4-Bromochlorobenzene [surr]	%	97.2		2/19/16 4:31	A602242	8021B, Rev 2 1996

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ANALYTICAL RESULTS

Lab Number: 1602237-16RE2
Sample Name: MW-16
Date/Time Collected: 2/17/16 9:30
Sample Matrix: Water

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Benzene	mg/L	**6.18**		2/19/16 4:57	A602242	8021B, Rev 2 1996
Methyl t-Butyl Ether	mg/L	< 0.050	EDL	2/19/16 4:57	A602242	8021B, Rev 2 1996
Ethylbenzene	mg/L	**3.05**		2/19/16 4:57	A602242	8021B, Rev 2 1996
Naphthalene	mg/L	**0.398**		2/19/16 4:57	A602242	8021B, Rev 2 1996
m,p-Xylene	mg/L	**11.7**		2/19/16 4:57	A602242	8021B, Rev 2 1996
o-Xylene	mg/L	**4.81**		2/19/16 4:57	A602242	8021B, Rev 2 1996
Fluorobenzene [surr]	%	99.4		2/19/16 4:57	A602242	8021B, Rev 2 1996
4-Bromochlorobenzene [surr]	%	96.8		2/19/16 4:57	A602242	8021B, Rev 2 1996

TPH-GRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-GRO	mg/L	**73.4**		2/19/16 4:57	A602242	8015D, Rev 4 2003 (Mod)
Fluorobenzene [surr]	%	99.4		2/19/16 4:57	A602242	8015D, Rev 4 2003 (Mod)
4-Bromochlorobenzene [surr]	%	96.8		2/19/16 4:57	A602242	8015D, Rev 4 2003 (Mod)

ANALYTICAL RESULTS

Lab Number: 1602237-17
Sample Name: MW-17
Date/Time Collected: 2/17/16 8:38
Sample Matrix: Water

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Benzene	mg/L	**4.94**		2/18/16 20:18	A602242	8021B, Rev 2 1996
Methyl t-Butyl Ether	mg/L	< 0.100	EDL	2/18/16 20:18	A602242	8021B, Rev 2 1996
Toluene	mg/L	**17.0**		2/18/16 20:18	A602242	8021B, Rev 2 1996
Ethylbenzene	mg/L	**3.16**		2/18/16 20:18	A602242	8021B, Rev 2 1996
Naphthalene	mg/L	< 0.600	EDL	2/18/16 20:18	A602242	8021B, Rev 2 1996
m,p-Xylene	mg/L	**12.1**		2/18/16 20:18	A602242	8021B, Rev 2 1996
o-Xylene	mg/L	**4.89**		2/18/16 20:18	A602242	8021B, Rev 2 1996
Fluorobenzene [surr]	%	95.0		2/18/16 20:18	A602242	8021B, Rev 2 1996
4-Bromochlorobenzene [surr]	%	98.7		2/18/16 20:18	A602242	8021B, Rev 2 1996

TPH-DRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-DRO	mg/L	**11.8**		2/23/16 14:39	A602295	8015D, Rev 4 2003 (Mod)
o-Terphenyl [surr]	%	98.7		2/23/16 14:39	A602295	8015D, Rev 4 2003 (Mod)

TPH-GRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-GRO	mg/L	**76.8**		2/18/16 20:18	A602242	8015D, Rev 4 2003 (Mod)
Fluorobenzene [surr]	%	95.0		2/18/16 20:18	A602242	8015D, Rev 4 2003 (Mod)
4-Bromochlorobenzene [surr]	%	98.7		2/18/16 20:18	A602242	8015D, Rev 4 2003 (Mod)

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ANALYTICAL RESULTS

Lab Number: **1602237-18**
Sample Name: **MW-18**
Date/Time Collected: **2/16/16 15:08**
Sample Matrix: **Water**

TPH-DRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-DRO	mg/L	**8.60**		2/23/16 15:18	A602295	8015D, Rev 4 2003 (Mod)
o-Terphenyl [surr]	%	85.0		2/23/16 15:18	A602295	8015D, Rev 4 2003 (Mod)

ANALYTICAL RESULTS

Lab Number: **1602237-18RE1**
Sample Name: **MW-18**
Date/Time Collected: **2/16/16 15:08**
Sample Matrix: **Water**

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Benzene	mg/L	**0.554**		2/19/16 5:24	A602242	8021B, Rev 2 1996
Methyl t-Butyl Ether	mg/L	< 0.025	EDL	2/19/16 5:24	A602242	8021B, Rev 2 1996
Toluene	mg/L	**1.81**		2/19/16 5:24	A602242	8021B, Rev 2 1996
Ethylbenzene	mg/L	**0.960**		2/19/16 5:24	A602242	8021B, Rev 2 1996
Naphthalene	mg/L	**0.180**		2/19/16 5:24	A602242	8021B, Rev 2 1996
m,p-Xylene	mg/L	**3.56**		2/19/16 5:24	A602242	8021B, Rev 2 1996
o-Xylene	mg/L	**1.08**		2/19/16 5:24	A602242	8021B, Rev 2 1996
Fluorobenzene [surr]	%	95.0		2/19/16 5:24	A602242	8021B, Rev 2 1996
4-Bromochlorobenzene [surr]	%	96.9		2/19/16 5:24	A602242	8021B, Rev 2 1996

TPH-GRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-GRO	mg/L	**19.8**		2/19/16 5:24	A602242	8015D, Rev 4 2003 (Mod)
Fluorobenzene [surr]	%	95.0		2/19/16 5:24	A602242	8015D, Rev 4 2003 (Mod)
4-Bromochlorobenzene [surr]	%	96.9		2/19/16 5:24	A602242	8015D, Rev 4 2003 (Mod)

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ANALYTICAL RESULTS

Lab Number:	**1602237-19**
Sample Name:	**MW-19**
Date/Time Collected:	**2/16/16 14:00**
Sample Matrix:	**Water**

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Benzene	mg/L	**7.48**		2/18/16 21:11	A602242	8021B, Rev 2 1996
Toluene	mg/L	**12.5**		2/18/16 21:11	A602242	8021B, Rev 2 1996
Ethylbenzene	mg/L	**2.19**		2/18/16 21:11	A602242	8021B, Rev 2 1996
m,p-Xylene	mg/L	**8.15**		2/18/16 21:11	A602242	8021B, Rev 2 1996
o-Xylene	mg/L	**3.15**		2/18/16 21:11	A602242	8021B, Rev 2 1996
Fluorobenzene [surr]	%	97.5		2/18/16 21:11	A602242	8021B, Rev 2 1996
4-Bromochlorobenzene [surr]	%	99.0		2/18/16 21:11	A602242	8021B, Rev 2 1996

TPH-DRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-DRO	mg/L	**13.8**		2/23/16 15:57	A602295	8015D, Rev 4 2003 (Mod)
o-Terphenyl [surr]	%	77.6		2/23/16 15:57	A602295	8015D, Rev 4 2003 (Mod)

TPH-GRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-GRO	mg/L	**63.2**		2/18/16 21:11	A602242	8015D, Rev 4 2003 (Mod)
Fluorobenzene [surr]	%	97.5		2/18/16 21:11	A602242	8015D, Rev 4 2003 (Mod)
4-Bromochlorobenzene [surr]	%	99.0		2/18/16 21:11	A602242	8015D, Rev 4 2003 (Mod)

ANALYTICAL RESULTS

Lab Number:	**1602237-19RE1**
Sample Name:	**MW-19**
Date/Time Collected:	**2/16/16 14:00**
Sample Matrix:	**Water**

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Methyl t-Butyl Ether	mg/L	< 0.050	EDL	2/19/16 5:51	A602242	8021B, Rev 2 1996
Naphthalene	mg/L	**0.301**		2/19/16 5:51	A602242	8021B, Rev 2 1996
Fluorobenzene [surr]	%	100		2/19/16 5:51	A602242	8021B, Rev 2 1996
4-Bromochlorobenzene [surr]	%	97.3		2/19/16 5:51	A602242	8021B, Rev 2 1996

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ANALYTICAL RESULTS

Lab Number: 1602237-20RE1
Sample Name: Duplicate 1
Date/Time Collected: 2/16/16 0:00
Sample Matrix: Water

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Benzene	mg/L	**0.205**		2/19/16 6:17	A602242	8021B, Rev 2 1996
Methyl t-Butyl Ether	mg/L	< 0.010	EDL	2/19/16 6:17	A602242	8021B, Rev 2 1996
Toluene	mg/L	**0.348**		2/19/16 6:17	A602242	8021B, Rev 2 1996
Ethylbenzene	mg/L	**0.483**		2/19/16 6:17	A602242	8021B, Rev 2 1996
Naphthalene	mg/L	**0.080**		2/19/16 6:17	A602242	8021B, Rev 2 1996
m,p-Xylene	mg/L	**0.588**		2/19/16 6:17	A602242	8021B, Rev 2 1996
o-Xylene	mg/L	**0.045**		2/19/16 6:17	A602242	8021B, Rev 2 1996
Fluorobenzene [surr]	%	94.7		2/19/16 6:17	A602242	8021B, Rev 2 1996
4-Bromochlorobenzene [surr]	%	96.5		2/19/16 6:17	A602242	8021B, Rev 2 1996

TPH-GRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-GRO	mg/L	**8.52**		2/19/16 6:17	A602242	8015D, Rev 4 2003 (Mod)
Fluorobenzene [surr]	%	94.7		2/19/16 6:17	A602242	8015D, Rev 4 2003 (Mod)
4-Bromochlorobenzene [surr]	%	96.5		2/19/16 6:17	A602242	8015D, Rev 4 2003 (Mod)

ANALYTICAL RESULTS

Lab Number: 1602237-21
Sample Name: Duplicate 2
Date/Time Collected: 2/16/16 0:00
Sample Matrix: Water

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Benzene	mg/L	**2.19**		2/18/16 23:11	A602242	8021B, Rev 2 1996
Methyl t-Butyl Ether	mg/L	< 0.050	EDL	2/18/16 23:11	A602242	8021B, Rev 2 1996
Toluene	mg/L	**9.33**		2/18/16 23:11	A602242	8021B, Rev 2 1996
Ethylbenzene	mg/L	**1.35**		2/18/16 23:11	A602242	8021B, Rev 2 1996
Naphthalene	mg/L	**0.336**		2/18/16 23:11	A602242	8021B, Rev 2 1996
m,p-Xylene	mg/L	**4.01**		2/18/16 23:11	A602242	8021B, Rev 2 1996
o-Xylene	mg/L	**1.45**		2/18/16 23:11	A602242	8021B, Rev 2 1996
Fluorobenzene [surr]	%	96.8		2/18/16 23:11	A602242	8021B, Rev 2 1996
4-Bromochlorobenzene [surr]	%	97.4		2/18/16 23:11	A602242	8021B, Rev 2 1996

TPH-GRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-GRO	mg/L	**39.7**		2/18/16 23:11	A602242	8015D, Rev 4 2003 (Mod)
Fluorobenzene [surr]	%	96.8		2/18/16 23:11	A602242	8015D, Rev 4 2003 (Mod)
4-Bromochlorobenzene [surr]	%	97.4		2/18/16 23:11	A602242	8015D, Rev 4 2003 (Mod)

This report must be reproduced in its entirety.

24 February 2016

Scott Kemph
Southern Co. NLR Inc.
1201 Cypress
North Little Rock, AR 72114
Project: ASA ADEQ 47000222

Project Number: February 2016
Date Received: 17-Feb-16 14:13

ANALYTICAL RESULTS

Lab Number:	**1602237-22**
Sample Name:	**Trip Blank**
Date/Time Collected:	**2/17/16 14:13**
Sample Matrix:	**Water**

8021B Analytes	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Benzene	mg/L	< 0.001		2/18/16 12:43	A602242	8021B, Rev 2 1996
Methyl t-Butyl Ether	mg/L	< 0.005		2/18/16 12:43	A602242	8021B, Rev 2 1996
Toluene	mg/L	< 0.005		2/18/16 12:43	A602242	8021B, Rev 2 1996
Ethylbenzene	mg/L	< 0.005		2/18/16 12:43	A602242	8021B, Rev 2 1996
Naphthalene	mg/L	< 0.015		2/18/16 12:43	A602242	8021B, Rev 2 1996
m,p-Xylene	mg/L	< 0.010		2/18/16 12:43	A602242	8021B, Rev 2 1996
o-Xylene	mg/L	< 0.005		2/18/16 12:43	A602242	8021B, Rev 2 1996
Fluorobenzene [surr]	%	91.4		2/18/16 12:43	A602242	8021B, Rev 2 1996
4-Bromochlorobenzene [surr]	%	103		2/18/16 12:43	A602242	8021B, Rev 2 1996

TPH-GRO by 8015D	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
TPH-GRO	mg/L	< 0.100		2/18/16 12:43	A602242	8015D, Rev 4 2003 (Mod)
Fluorobenzene [surr]	%	91.4		2/18/16 12:43	A602242	8015D, Rev 4 2003 (Mod)
4-Bromochlorobenzene [surr]	%	103		2/18/16 12:43	A602242	8015D, Rev 4 2003 (Mod)

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24 February 2016

Scott Kemph
Southern Co. NLR Inc.
1201 Cypress
North Little Rock, AR 72114
Project: ASA ADEQ 47000222

Project Number: February 2016
Date Received: 17-Feb-16 14:13

QUALITY CONTROL RESULTS

8021B Analytes -- Batch: A602241 (Water)
Prepared: 18-Feb-16 10:00 By: AT -- Analyzed: 19-Feb-16 18:13 By: tt

Analyte	BLK	LCS / LCSD			MS / MSD			Dup	RPD	Qualifiers
Benzene	<0.001 mg/L	97.1%	/	NA	101%	/	101%		0.139%	
Ethylbenzene	<0.005 mg/L	104%	/	NA	103%	/	102%		0.137%	
m,p-Xylene	<0.010 mg/L	103%	/	NA	102%	/	102%		0.346%	
Methyl t-Butyl Ether	<0.005 mg/L	86.4%	/	NA	92.4%	/	92.5%		0.0924%	
Naphthalene	<0.015 mg/L	90.3%	/	NA	96.6%	/	94.9%		1.78%	
o-Xylene	<0.005 mg/L	102%	/	NA	99.7%	/	99.4%		0.200%	
Toluene	<0.005 mg/L	109%	/	NA	111%	/	110%		0.707%	
TPH-GRO	<0.100 mg/L	103%	/	NA	101%	/	98.2%		2.20%	
4-Bromochlorobenzene [surr]	101 %	99.2%	/	NA	102%	/	102%		NA	
Fluorobenzene [surr]	91.1 %	95.5%	/	NA	96.2%	/	95.9%		NA	

8021B Analytes -- Batch: A602242 (Water)
Prepared: 18-Feb-16 10:00 By: AT -- Analyzed: 19-Feb-16 19:07 By: tt

Analyte	BLK	LCS / LCSD			MS / MSD			Dup	RPD	Qualifiers
Benzene	<0.001 mg/L	99.0%	/	NA	97.0%	/	96.0%		0.947%	
Ethylbenzene	<0.005 mg/L	103%	/	NA	99.9%	/	99.0%		0.865%	
m,p-Xylene	<0.010 mg/L	103%	/	NA	99.2%	/	98.2%		0.999%	
Methyl t-Butyl Ether	<0.005 mg/L	96.9%	/	NA	83.4%	/	82.6%		0.921%	
Naphthalene	<0.015 mg/L	99.3%	/	NA	92.8%	/	93.5%		0.793%	
o-Xylene	<0.005 mg/L	101%	/	NA	96.1%	/	95.4%		0.809%	
Toluene	<0.005 mg/L	109%	/	NA	103%	/	102%		1.17%	
TPH-GRO	<0.100 mg/L	103%	/	NA	109%	/	109%		0.0402%	
4-Bromochlorobenzene [surr]	102 %	102%	/	NA	102%	/	102%		NA	
Fluorobenzene [surr]	91.1 %	95.8%	/	NA	94.1%	/	94.0%		NA	

TPH-DRO by 8015D -- Batch: A602295 (Water)
Prepared: 22-Feb-16 12:52 By: MB -- Analyzed: 22-Feb-16 17:09 By: mb

Analyte	BLK	LCS / LCSD			MS / MSD			Dup	RPD	Qualifiers
TPH-DRO	<0.500 mg/L	97.5%	/	NA	90.8%	/	67.2%		29.9%	
o-Terphenyl [surr]	101 %	109%	/	NA	138%	/	99.3%		NA	

QUALIFIER(S)

*EDL: Elevated Detection Limit Due to one or more of the following: Sample Matrix, Sample Dilution, or Limited Sample Volume

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24 February 2016

Scott Kemph
Southern Co. NLR Inc.
1201 Cypress
North Little Rock, AR 72114
Project: ASA ADEQ 47000222

Project Number: February 2016
Date Received: 17-Feb-16 14:13

All Analysis performed according to EPA approved methodology when available:
SW 846, Revised December, 1996; EPA 600/4-79-020, Revised March, 1983; Standard Methods.
Instrument calibration and quality control samples performed at or above frequency specified in analytical method.

Reviewed by: Norma James / Teresa Coins

Norma James and/or Teresa Coins
Technical Director and/or QA Officer

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Arkansas Analytical Inc.
11701 Interstate 30, Bldg. 1, Ste. 115
Little Rock, AR 72209
PHONE: 501-455-3233
FAX: 501-455-6118

CHAIN OF CUSTODY RECORD

CLIENT INFORMATION	Project Description	Turnaround Time	Preservation Codes:	
Southern Co. NLR Inc.	ASA ADEQ 47000222	1 Day (100%)	1. Cool, 4 Degrees Centigrade	4. Thiosulfate for Dechlorination
1201 Cypress	PO 60294	2 Day (50%)	2. Sulfuric Acid (H_2SO_4), pH < 2	5. Hydrochloric Acid(HCl)
North Little Rock, AR 72114	Reporting Information	3 Day (25%)	3. Nitric Acid (HNO_3), pH < 2	6. Sodium Hydroxide (NaOH), pH > 12
	Telephone: 501-376-6333	5 Day (Routine)		
Attn: Scott Kemph	Fax: 501-376-8715			
	Email: skemph@thesoco.com			

Sampler(s) Signature: T. Scott Kemph

Sampler(s) Printed: T. Scott Kemph

Field Number	SAMPLE COLLECTION Date/s	Time/s	Grab	Comp	Number of Bottles	Sample Matrix	SAMPLE IDENTIFICATION/ DESCRIPTION	8021B - BTEX, MTBE, Naphthalene	8015D - TPH-GRO	8015D - TPH-DRO							Arkansas Analytical Work Order Number: 1602237
							TEST PARAMETERS										Bottle Type Code
							Preservative Code:	1	1								G = Glass; P = Plastic
							Bottle Type:										V = Septum; A = Amber
MW-1	2-16-16	1218	X		4	W	water sample MW-1	X	X	X							01
MW-2	2-16-16	1228	X		4	W	water sample MW-2	X	X	X							02
MW-3	2-16-16	1430	X		4	W	water sample MW-3	X	X	X							03
MW-4	2-16-16	1310	X		4	W	water sample MW-4	X	X	X							04
MW-5	2-17-16	0848	X		4	W	water sample MW-5	X	X	X							05
MW-6	2-16-16	1118	X		4	W	water sample MW-6	X	X	X							06
MW-7	2-16-16	1030	X		4	W	water sample MW-7	X	X	X							07
MW-8	2-16-16	0948	X		4	W	water sample MW-8	X	X	X							08
MW-9	2-16-16	1240	X		4	W	water sample MW-9	X	X	X							09
MW-10	2-16-16	1300	X		4	W	water sample MW-10	X	X	X							10

1. Relinquished by: (Signature)	Date/Time	2. Received by: (Signature)
T. Scott Kemph	2:13 2-17-16	
3. Relinquished by: (Signature)	Date/Time	4. Received by lab: (Signature)
		Amanda Pribush

SAMPLE CONDITION UPON RECEIPT IN LAB

1. CUSTODY SEALS: ✓ Yes ___ No
2. CONTAINERS CORRECT: ✓ Yes ___ No
3. COC/LABELS AGREE: ✓ Yes ___ No
4. RECEIVED ON ICE: ✓ Yes ___ No
5. TEMPERATURE ON RECEIPT: 2°C
6. TEMPERATURE GUN ID: HHT#2

FOR COMPLETION BY LAB ONLY

REMARKS / SAMPLE COMMENTS

PO 60294

Please email results to skemph@thesoco.com

8015 D TPH-DRO

8015 D TPH-GRO

8021B MTBE, Benzene, Toluene, Ethylbenzene, Xylene, and Napthalene

Revision 2
2/14/14

Arkansas Analytical Inc.
11701 Interstate 30, Bldg. 1, Ste. 115
Little Rock, AR 72209
PHONE: 501-455-3233
FAX: 501-455-6118

CHAIN OF CUSTODY RECORD

CLIENT INFORMATION	Project Description	Turnaround Time
Southern Co. NLR Inc.	ASA ADEQ 47000222	1 Day (100%)
1201 Cypress	PO 60294	2 Day (50%)
North Little Rock, AR 72114	Reporting Information	3 Day (25%)
	Telephone: 501-376-6333	5 Day (Routine)
Attn: Scott Kemph	Fax: 501-376-8715	Preservative Code:
	Email: skemph@thesoco.com	Bottle Type:

Preservation Codes:

1. Cool, 4 Degrees Centigrade
2. Sulfuric Acid (H_2SO_4), pH < 2
3. Nitric Acid (HNO_3), pH < 2
4. Thiosulfate for Dechlorination
5. Hydrochloric Acid(HCl)
6. Sodium Hydroxide (NaOH), pH > 12

Sampler(s) Signature: N. Scott Kemp

Sampler(s) Printed: T. Scott Kemph

Field Number	SAMPLE COLLECTION Date/s	Time/s	Grab	Comp	Number of Bottles	Sample Matrix	SAMPLE IDENTIFICATION/ DESCRIPTION	8021B - BTEX, MTBE, Naphthalene	8015D - TPH-GRO	8015D - TPH-DRO							Arkansas Analytical Work Order Number: 16002237
Preservative Code								1	1								
Bottle Type																	
MW-11	2-16-16	1208	X		4	W	water sample mw-11	X	X	X							11
MW-12	2-17-16	0908	X		4	W	water sample mw-12	X	X	X							12
MW-13	2-16-16	1205	X		4	W	water sample mw-13	X	X	X							13
MW-14	2-16-16	1315	X		4	W	water sample mw-14	X	X	X							14
MW-15	2-16-16	1245	X		4	W	water sample mw-15	X	X	X							15
MW-16	2-17-16	0930	X		4	W	water sample mw-16	X	X	X							16
MW-17	2-17-16	0838	X		4	W	water sample mw-17	X	X	X							17
MW-18	2-16-16	1508	X		4	W	water sample mw-18	X	X	X							18
MW-19	2-16-16	1400	X		4	W	water sample mw-19	X	X	X							19
Duplicate 1	2-16-16	—	X		~~4~~ 3	W	Duplicate water 1	X	X	X	Delete TPH-DRO						20
Duplicate 2	2-16-16	—	X		~~4~~ 3	W	Duplicate water 2	X	X	X	Delete TPH-DRO						21

1. Relinquished by: (Signature)	Date/Time	2. Received by: (Signature)
N. Scott Kemp	2:13 2-17-16	
3. Relinquished by: (Signature)	**Date/Time**	**4. Received by lab: (Signature)**
		Amanda Jordan

SAMPLE CONDITION UPON RECEIPT IN LAB

1. CUSTODY SEALS: ✓ Yes ___ No
2. CONTAINERS CORRECT: ___ Yes ___ No
3. COC/LABELS AGREE: ___ Yes ___ No
4. RECEIVED ON ICE: ___ Yes ___ No
5. TEMPERATURE ON RECEIPT: 2°C
6. TEMPERATURE GUN ID: HHT#2

FOR COMPLETION BY LAB ONLY

REMARKS / SAMPLE COMMENTS

PO 60294

Please email results to skemph@thesoco.com

8015 D TPH-DRO

8015 D TPH-GRO

8021B MTBE, Benzene, Toluene, Ethylbenzene, Xylene, and Napthalene

*Trip Blank added — #22
2-17-16, 1413
added per containers received - 2/17/16 (8)

Revision 2
2/14/14

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

February 22, 2016

Scott Kemph
The Southern Company
1201 Cypress North
North Little Rock, AR 72114

RE: Project: 6522 AHTD Job#100705
Pace Project No.: 10338289

Dear Scott Kemph:
Enclosed are the analytical results for sample(s) received by the laboratory on February 11, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Scott Unze
scott.unze@pacelabs.com
Project Manager

Enclosures

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Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

CERTIFICATIONS

Project: 6522 AHTD Job#100705
Pace Project No.: 10338289

Minnesota Certification IDs

1700 Elm Street SE Suite 200, Minneapolis, MN 55414
525 N 8th Street, Salina, KS 67401
A2LA Certification #: 2926.01
Alaska Certification #: UST-078
Alaska Certification #MN00064
Alabama Certification #40770
Arizona Certification #: AZ-0014
Arkansas Certification #: 88-0680
California Certification #: 01155CA
Colorado Certification #Pace
Connecticut Certification #: PH-0256
EPA Region 8 Certification #: 8TMS-L
Florida/NELAP Certification #: E87605
Guam Certification #:14-008r
Georgia Certification #: 959
Georgia EPD #: Pace
Idaho Certification #: MN00064
Hawaii Certification #MN00064
Illinois Certification #: 200011
Indiana Certification#C-MN-01
Iowa Certification #: 368
Kansas Certification #: E-10167
Kentucky Dept of Envi. Protection - DW #90062
Kentucky Dept of Envi. Protection - WW #:90062
Louisiana DEQ Certification #: 3086
Louisiana DHH #: LA140001
Maine Certification #: 2013011
Maryland Certification #: 322
Michigan DEPH Certification #: 9909
Minnesota Certification #: 027-053-137
Mississippi Certification #: Pace
Montana Certification #: MT0092
Nevada Certification #: MN_00064
Nebraska Certification #: Pace
New Jersey Certification #: MN-002
New York Certification #: 11647
North Carolina Certification #: 530
North Carolina State Public Health #: 27700
North Dakota Certification #: R-036
Ohio EPA #: 4150
Ohio VAP Certification #: CL101
Oklahoma Certification #: 9507
Oregon Certification #: MN200001
Oregon Certification #: MN300001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification
Saipan (CNMI) #:MP0003
South Carolina #:74003001
Texas Certification #: T104704192
Tennessee Certification #: 02818
Utah Certification #: MN000642013-4
Virginia DGS Certification #: 251
Virginia/VELAP Certification #: Pace
Washington Certification #: C486
West Virginia Certification #: 382
West Virginia DHHR #:9952C
Wisconsin Certification #: 999407970

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1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

SAMPLE SUMMARY

Project: 6522 AHTD Job#100705
Pace Project No.: 10338289

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10338289001	**VW-1**	Air	02/09/16 08:25	02/11/16 10:00
10338289002	**Duplicate**	Air	02/09/16 08:25	02/11/16 10:00
10338289003	**VW-2**	Air	02/09/16 09:58	02/11/16 10:00
10338289004	**VW-3**	Air	02/09/16 11:06	02/11/16 10:00

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Minneapolis, MN 55414
(612)607-1700

SAMPLE ANALYTE COUNT

Project: 6522 AHTD Job#100705
Pace Project No.: 10338289

Lab ID	Sample ID	Method	Analysts	Analytes Reported
10338289001	**VW-1**	Method 3C Gases	MLS	1
		TO-15	DR1	61
10338289002	**Duplicate**	Method 3C Gases	MLS	1
		TO-15	DR1	61
10338289003	**VW-2**	Method 3C Gases	MLS	1
		TO-15	DR1	61
10338289004	**VW-3**	Method 3C Gases	MLS	1
		TO-15	MJL	61

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Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: 6522 AHTD Job#100705
Pace Project No.: 10338289

Sample: VW-1 **Lab ID: 10338289001** Collected: 02/09/16 08:25 Received: 02/11/16 10:00 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Method 3C AIR - Fixed Gases	Analytical Method: Method 3C Gases							
Helium	ND	%	3.6	1		02/17/16 11:26	7440-59-7	
TO15 MSV AIR	Analytical Method: TO-15							
Acetone	ND	ug/m3	4.1	1.68		02/17/16 23:45	67-64-1	
Benzene	**0.73**	ug/m3	0.55	1.68		02/17/16 23:45	71-43-2	
Benzyl chloride	ND	ug/m3	1.8	1.68		02/17/16 23:45	100-44-7	
Bromodichloromethane	ND	ug/m3	2.3	1.68		02/17/16 23:45	75-27-4	
Bromoform	ND	ug/m3	17.7	1.68		02/17/16 23:45	75-25-2	
Bromomethane	ND	ug/m3	1.3	1.68		02/17/16 23:45	74-83-9	
1,3-Butadiene	ND	ug/m3	0.76	1.68		02/17/16 23:45	106-99-0	
2-Butanone (MEK)	ND	ug/m3	5.0	1.68		02/17/16 23:45	78-93-3	
Carbon disulfide	ND	ug/m3	1.1	1.68		02/17/16 23:45	75-15-0	
Carbon tetrachloride	ND	ug/m3	1.1	1.68		02/17/16 23:45	56-23-5	
Chlorobenzene	ND	ug/m3	1.6	1.68		02/17/16 23:45	108-90-7	
Chloroethane	ND	ug/m3	0.91	1.68		02/17/16 23:45	75-00-3	
Chloroform	ND	ug/m3	0.83	1.68		02/17/16 23:45	67-66-3	
Chloromethane	ND	ug/m3	0.71	1.68		02/17/16 23:45	74-87-3	
Cyclohexane	**450**	ug/m3	23.5	33.6		02/18/16 20:26	110-82-7	
Dibromochloromethane	ND	ug/m3	2.9	1.68		02/17/16 23:45	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/m3	2.6	1.68		02/17/16 23:45	106-93-4	
1,2-Dichlorobenzene	ND	ug/m3	2.0	1.68		02/17/16 23:45	95-50-1	
1,3-Dichlorobenzene	ND	ug/m3	2.0	1.68		02/17/16 23:45	541-73-1	
1,4-Dichlorobenzene	ND	ug/m3	2.0	1.68		02/17/16 23:45	106-46-7	
Dichlorodifluoromethane	**2.8**	ug/m3	1.7	1.68		02/17/16 23:45	75-71-8	
1,1-Dichloroethane	ND	ug/m3	1.4	1.68		02/17/16 23:45	75-34-3	
1,2-Dichloroethane	ND	ug/m3	0.69	1.68		02/17/16 23:45	107-06-2	
1,1-Dichloroethene	ND	ug/m3	1.4	1.68		02/17/16 23:45	75-35-4	
cis-1,2-Dichloroethene	ND	ug/m3	1.4	1.68		02/17/16 23:45	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	1.4	1.68		02/17/16 23:45	156-60-5	
1,2-Dichloropropane	ND	ug/m3	1.6	1.68		02/17/16 23:45	78-87-5	
cis-1,3-Dichloropropene	ND	ug/m3	1.5	1.68		02/17/16 23:45	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/m3	1.5	1.68		02/17/16 23:45	10061-02-6	
Dichlorotetrafluoroethane	ND	ug/m3	2.4	1.68		02/17/16 23:45	76-14-2	
Ethanol	ND	ug/m3	1.6	1.68		02/17/16 23:45	64-17-5	
Ethyl acetate	ND	ug/m3	1.2	1.68		02/17/16 23:45	141-78-6	
Ethylbenzene	ND	ug/m3	1.5	1.68		02/17/16 23:45	100-41-4	
4-Ethyltoluene	ND	ug/m3	1.7	1.68		02/17/16 23:45	622-96-8	
n-Heptane	**208**	ug/m3	1.4	1.68		02/17/16 23:45	142-82-5	
Hexachloro-1,3-butadiene	ND	ug/m3	3.7	1.68		02/17/16 23:45	87-68-3	
n-Hexane	**713**	ug/m3	24.2	33.6		02/18/16 20:26	110-54-3	
2-Hexanone	ND	ug/m3	7.0	1.68		02/17/16 23:45	591-78-6	
Methylene Chloride	**23.8**	ug/m3	5.9	1.68		02/17/16 23:45	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/m3	7.0	1.68		02/17/16 23:45	108-10-1	
Methyl-tert-butyl ether	ND	ug/m3	6.2	1.68		02/17/16 23:45	1634-04-4	
Naphthalene	**6.3**	ug/m3	4.5	1.68		02/17/16 23:45	91-20-3	
2-Propanol	ND	ug/m3	4.2	1.68		02/17/16 23:45	67-63-0	
Propylene	ND	ug/m3	0.59	1.68		02/17/16 23:45	115-07-1	

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ANALYTICAL RESULTS

Project: 6522 AHTD Job#100705
Pace Project No.: 10338289

Sample: VW-1 **Lab ID: 10338289001** Collected: 02/09/16 08:25 Received: 02/11/16 10:00 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15							
Styrene	ND	ug/m3	1.5	1.68		02/17/16 23:45	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/m3	1.2	1.68		02/17/16 23:45	79-34-5	
Tetrachloroethene	ND	ug/m3	1.2	1.68		02/17/16 23:45	127-18-4	
Tetrahydrofuran	ND	ug/m3	1.0	1.68		02/17/16 23:45	109-99-9	
Toluene	**3.6**	ug/m3	1.3	1.68		02/17/16 23:45	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/m3	6.3	1.68		02/17/16 23:45	120-82-1	
1,1,1-Trichloroethane	ND	ug/m3	1.9	1.68		02/17/16 23:45	71-55-6	
1,1,2-Trichloroethane	ND	ug/m3	0.92	1.68		02/17/16 23:45	79-00-5	
Trichloroethene	ND	ug/m3	0.92	1.68		02/17/16 23:45	79-01-6	
Trichlorofluoromethane	ND	ug/m3	1.9	1.68		02/17/16 23:45	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/m3	2.7	1.68		02/17/16 23:45	76-13-1	
1,2,4-Trimethylbenzene	**5.1**	ug/m3	1.7	1.68		02/17/16 23:45	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/m3	1.7	1.68		02/17/16 23:45	108-67-8	
Vinyl acetate	ND	ug/m3	1.2	1.68		02/17/16 23:45	108-05-4	
Vinyl chloride	ND	ug/m3	0.44	1.68		02/17/16 23:45	75-01-4	
m&p-Xylene	**4.2**	ug/m3	3.0	1.68		02/17/16 23:45	179601-23-1	
o-Xylene	**2.6**	ug/m3	1.5	1.68		02/17/16 23:45	95-47-6	

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ANALYTICAL RESULTS

Project: 6522 AHTD Job#100705
Pace Project No.: 10338289

Sample: Duplicate **Lab ID: 10338289002** Collected: 02/09/16 08:25 Received: 02/11/16 10:00 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Method 3C AIR - Fixed Gases	Analytical Method: Method 3C Gases							
Helium	ND	%	3.6	1		02/17/16 11:36	7440-59-7	
TO15 MSV AIR	Analytical Method: TO-15							
Acetone	ND	ug/m3	4.1	1.68		02/18/16 00:12	67-64-1	
Benzene	ND	ug/m3	0.55	1.68		02/18/16 00:12	71-43-2	
Benzyl chloride	ND	ug/m3	1.8	1.68		02/18/16 00:12	100-44-7	
Bromodichloromethane	ND	ug/m3	2.3	1.68		02/18/16 00:12	75-27-4	
Bromoform	ND	ug/m3	17.7	1.68		02/18/16 00:12	75-25-2	
Bromomethane	ND	ug/m3	1.3	1.68		02/18/16 00:12	74-83-9	
1,3-Butadiene	ND	ug/m3	0.76	1.68		02/18/16 00:12	106-99-0	
2-Butanone (MEK)	ND	ug/m3	5.0	1.68		02/18/16 00:12	78-93-3	
Carbon disulfide	ND	ug/m3	1.1	1.68		02/18/16 00:12	75-15-0	
Carbon tetrachloride	ND	ug/m3	1.1	1.68		02/18/16 00:12	56-23-5	
Chlorobenzene	ND	ug/m3	1.6	1.68		02/18/16 00:12	108-90-7	
Chloroethane	ND	ug/m3	0.91	1.68		02/18/16 00:12	75-00-3	
Chloroform	ND	ug/m3	0.83	1.68		02/18/16 00:12	67-66-3	
Chloromethane	ND	ug/m3	0.71	1.68		02/18/16 00:12	74-87-3	
Cyclohexane	**486**	ug/m3	23.5	33.6		02/19/16 17:56	110-82-7	
Dibromochloromethane	ND	ug/m3	2.9	1.68		02/18/16 00:12	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/m3	2.6	1.68		02/18/16 00:12	106-93-4	
1,2-Dichlorobenzene	ND	ug/m3	2.0	1.68		02/18/16 00:12	95-50-1	
1,3-Dichlorobenzene	ND	ug/m3	2.0	1.68		02/18/16 00:12	541-73-1	
1,4-Dichlorobenzene	ND	ug/m3	2.0	1.68		02/18/16 00:12	106-46-7	
Dichlorodifluoromethane	**2.7**	ug/m3	1.7	1.68		02/18/16 00:12	75-71-8	
1,1-Dichloroethane	ND	ug/m3	1.4	1.68		02/18/16 00:12	75-34-3	
1,2-Dichloroethane	ND	ug/m3	0.69	1.68		02/18/16 00:12	107-06-2	
1,1-Dichloroethene	ND	ug/m3	1.4	1.68		02/18/16 00:12	75-35-4	
cis-1,2-Dichloroethene	ND	ug/m3	1.4	1.68		02/18/16 00:12	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	1.4	1.68		02/18/16 00:12	156-60-5	
1,2-Dichloropropane	ND	ug/m3	1.6	1.68		02/18/16 00:12	78-87-5	
cis-1,3-Dichloropropene	ND	ug/m3	1.5	1.68		02/18/16 00:12	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/m3	1.5	1.68		02/18/16 00:12	10061-02-6	
Dichlorotetrafluoroethane	ND	ug/m3	2.4	1.68		02/18/16 00:12	76-14-2	
Ethanol	ND	ug/m3	1.6	1.68		02/18/16 00:12	64-17-5	
Ethyl acetate	ND	ug/m3	1.2	1.68		02/18/16 00:12	141-78-6	
Ethylbenzene	ND	ug/m3	1.5	1.68		02/18/16 00:12	100-41-4	
4-Ethyltoluene	ND	ug/m3	1.7	1.68		02/18/16 00:12	622-96-8	
n-Heptane	**209**	ug/m3	1.4	1.68		02/18/16 00:12	142-82-5	
Hexachloro-1,3-butadiene	ND	ug/m3	3.7	1.68		02/18/16 00:12	87-68-3	
n-Hexane	**671**	ug/m3	24.2	33.6		02/19/16 17:56	110-54-3	
2-Hexanone	ND	ug/m3	7.0	1.68		02/18/16 00:12	591-78-6	
Methylene Chloride	ND	ug/m3	5.9	1.68		02/18/16 00:12	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/m3	7.0	1.68		02/18/16 00:12	108-10-1	
Methyl-tert-butyl ether	ND	ug/m3	6.2	1.68		02/18/16 00:12	1634-04-4	
Naphthalene	**6.1**	ug/m3	4.5	1.68		02/18/16 00:12	91-20-3	
2-Propanol	ND	ug/m3	4.2	1.68		02/18/16 00:12	67-63-0	
Propylene	ND	ug/m3	0.59	1.68		02/18/16 00:12	115-07-1	

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ANALYTICAL RESULTS

Project: 6522 AHTD Job#100705
Pace Project No.: 10338289

Sample: Duplicate **Lab ID: 10338289002** Collected: 02/09/16 08:25 Received: 02/11/16 10:00 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15							
Styrene	ND	ug/m3	1.5	1.68		02/18/16 00:12	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/m3	1.2	1.68		02/18/16 00:12	79-34-5	
Tetrachloroethene	ND	ug/m3	1.2	1.68		02/18/16 00:12	127-18-4	
Tetrahydrofuran	ND	ug/m3	1.0	1.68		02/18/16 00:12	109-99-9	
Toluene	**2.3**	ug/m3	1.3	1.68		02/18/16 00:12	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/m3	6.3	1.68		02/18/16 00:12	120-82-1	
1,1,1-Trichloroethane	ND	ug/m3	1.9	1.68		02/18/16 00:12	71-55-6	
1,1,2-Trichloroethane	ND	ug/m3	0.92	1.68		02/18/16 00:12	79-00-5	
Trichloroethene	ND	ug/m3	0.92	1.68		02/18/16 00:12	79-01-6	
Trichlorofluoromethane	ND	ug/m3	1.9	1.68		02/18/16 00:12	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/m3	2.7	1.68		02/18/16 00:12	76-13-1	
1,2,4-Trimethylbenzene	**4.9**	ug/m3	1.7	1.68		02/18/16 00:12	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/m3	1.7	1.68		02/18/16 00:12	108-67-8	
Vinyl acetate	ND	ug/m3	1.2	1.68		02/18/16 00:12	108-05-4	
Vinyl chloride	ND	ug/m3	0.44	1.68		02/18/16 00:12	75-01-4	
m&p-Xylene	**4.0**	ug/m3	3.0	1.68		02/18/16 00:12	179601-23-1	
o-Xylene	**2.5**	ug/m3	1.5	1.68		02/18/16 00:12	95-47-6	

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ANALYTICAL RESULTS

Project: 6522 AHTD Job#100705
Pace Project No.: 10338289

Sample: VW-2 **Lab ID: 10338289003** Collected: 02/09/16 09:58 Received: 02/11/16 10:00 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Method 3C AIR - Fixed Gases	Analytical Method: Method 3C Gases							
Helium	ND	%	3.6	1		02/17/16 11:48	7440-59-7	
TO15 MSV AIR	Analytical Method: TO-15							
Acetone	**6.3**	ug/m3	5.1	2.12		02/18/16 00:40	67-64-1	
Benzene	ND	ug/m3	0.69	2.12		02/18/16 00:40	71-43-2	
Benzyl chloride	ND	ug/m3	2.2	2.12		02/18/16 00:40	100-44-7	
Bromodichloromethane	ND	ug/m3	2.9	2.12		02/18/16 00:40	75-27-4	
Bromoform	ND	ug/m3	22.3	2.12		02/18/16 00:40	75-25-2	
Bromomethane	ND	ug/m3	1.7	2.12		02/18/16 00:40	74-83-9	
1,3-Butadiene	ND	ug/m3	0.95	2.12		02/18/16 00:40	106-99-0	
2-Butanone (MEK)	ND	ug/m3	6.4	2.12		02/18/16 00:40	78-93-3	
Carbon disulfide	**3.2**	ug/m3	1.3	2.12		02/18/16 00:40	75-15-0	
Carbon tetrachloride	ND	ug/m3	1.4	2.12		02/18/16 00:40	56-23-5	
Chlorobenzene	ND	ug/m3	2.0	2.12		02/18/16 00:40	108-90-7	
Chloroethane	ND	ug/m3	1.1	2.12		02/18/16 00:40	75-00-3	
Chloroform	**18.2**	ug/m3	1.1	2.12		02/18/16 00:40	67-66-3	
Chloromethane	**0.96**	ug/m3	0.89	2.12		02/18/16 00:40	74-87-3	
Cyclohexane	**14.8**	ug/m3	1.5	2.12		02/18/16 00:40	110-82-7	
Dibromochloromethane	ND	ug/m3	3.7	2.12		02/18/16 00:40	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/m3	3.3	2.12		02/18/16 00:40	106-93-4	
1,2-Dichlorobenzene	ND	ug/m3	2.6	2.12		02/18/16 00:40	95-50-1	
1,3-Dichlorobenzene	ND	ug/m3	2.6	2.12		02/18/16 00:40	541-73-1	
1,4-Dichlorobenzene	ND	ug/m3	2.6	2.12		02/18/16 00:40	106-46-7	
Dichlorodifluoromethane	**2.7**	ug/m3	2.1	2.12		02/18/16 00:40	75-71-8	
1,1-Dichloroethane	ND	ug/m3	1.7	2.12		02/18/16 00:40	75-34-3	
1,2-Dichloroethane	ND	ug/m3	0.87	2.12		02/18/16 00:40	107-06-2	
1,1-Dichloroethene	ND	ug/m3	1.7	2.12		02/18/16 00:40	75-35-4	
cis-1,2-Dichloroethene	ND	ug/m3	1.7	2.12		02/18/16 00:40	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	1.7	2.12		02/18/16 00:40	156-60-5	
1,2-Dichloropropane	ND	ug/m3	2.0	2.12		02/18/16 00:40	78-87-5	
cis-1,3-Dichloropropene	ND	ug/m3	2.0	2.12		02/18/16 00:40	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/m3	2.0	2.12		02/18/16 00:40	10061-02-6	
Dichlorotetrafluoroethane	ND	ug/m3	3.0	2.12		02/18/16 00:40	76-14-2	
Ethanol	**2.1**	ug/m3	2.0	2.12		02/18/16 00:40	64-17-5	
Ethyl acetate	ND	ug/m3	1.5	2.12		02/18/16 00:40	141-78-6	
Ethylbenzene	ND	ug/m3	1.9	2.12		02/18/16 00:40	100-41-4	
4-Ethyltoluene	**2.1**	ug/m3	2.1	2.12		02/18/16 00:40	622-96-8	
n-Heptane	**11.4**	ug/m3	1.8	2.12		02/18/16 00:40	142-82-5	
Hexachloro-1,3-butadiene	**12.6**	ug/m3	4.7	2.12		02/18/16 00:40	87-68-3	
n-Hexane	**18.3**	ug/m3	1.5	2.12		02/18/16 00:40	110-54-3	
2-Hexanone	ND	ug/m3	8.8	2.12		02/18/16 00:40	591-78-6	
Methylene Chloride	ND	ug/m3	7.5	2.12		02/18/16 00:40	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/m3	8.8	2.12		02/18/16 00:40	108-10-1	
Methyl-tert-butyl ether	ND	ug/m3	7.8	2.12		02/18/16 00:40	1634-04-4	
Naphthalene	**8.9**	ug/m3	5.6	2.12		02/18/16 00:40	91-20-3	
2-Propanol	ND	ug/m3	5.3	2.12		02/18/16 00:40	67-63-0	
Propylene	**4.4**	ug/m3	0.74	2.12		02/18/16 00:40	115-07-1	

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ANALYTICAL RESULTS

Project: 6522 AHTD Job#100705
Pace Project No.: 10338289

Sample: VW-2 **Lab ID: 10338289003** Collected: 02/09/16 09:58 Received: 02/11/16 10:00 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15							
Styrene	ND	ug/m3	1.8	2.12		02/18/16 00:40	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/m3	1.5	2.12		02/18/16 00:40	79-34-5	
Tetrachloroethene	ND	ug/m3	1.5	2.12		02/18/16 00:40	127-18-4	
Tetrahydrofuran	ND	ug/m3	1.3	2.12		02/18/16 00:40	109-99-9	
Toluene	**4.4**	ug/m3	1.6	2.12		02/18/16 00:40	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/m3	8.0	2.12		02/18/16 00:40	120-82-1	
1,1,1-Trichloroethane	ND	ug/m3	2.4	2.12		02/18/16 00:40	71-55-6	
1,1,2-Trichloroethane	ND	ug/m3	1.2	2.12		02/18/16 00:40	79-00-5	
Trichloroethene	ND	ug/m3	1.2	2.12		02/18/16 00:40	79-01-6	
Trichlorofluoromethane	ND	ug/m3	2.4	2.12		02/18/16 00:40	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/m3	3.4	2.12		02/18/16 00:40	76-13-1	
1,2,4-Trimethylbenzene	**7.4**	ug/m3	2.1	2.12		02/18/16 00:40	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/m3	2.1	2.12		02/18/16 00:40	108-67-8	
Vinyl acetate	ND	ug/m3	1.5	2.12		02/18/16 00:40	108-05-4	
Vinyl chloride	ND	ug/m3	0.55	2.12		02/18/16 00:40	75-01-4	
m&p-Xylene	**5.8**	ug/m3	3.8	2.12		02/18/16 00:40	179601-23-1	
o-Xylene	**3.0**	ug/m3	1.9	2.12		02/18/16 00:40	95-47-6	

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ANALYTICAL RESULTS

Project: 6522 AHTD Job#100705
Pace Project No.: 10338289

Sample: VW-3 **Lab ID: 10338289004** Collected: 02/09/16 11:06 Received: 02/11/16 10:00 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Method 3C AIR - Fixed Gases	Analytical Method: Method 3C Gases							
Helium	ND	%	3.6	1		02/17/16 12:07	7440-59-7	
TO15 MSV AIR	Analytical Method: TO-15							
Acetone	**6.9**	ug/m3	3.0	1.26		02/19/16 18:53	67-64-1	
Benzene	**0.43**	ug/m3	0.41	1.26		02/19/16 18:53	71-43-2	
Benzyl chloride	ND	ug/m3	3.3	1.26		02/19/16 18:53	100-44-7	
Bromodichloromethane	ND	ug/m3	1.7	1.26		02/19/16 18:53	75-27-4	
Bromoform	ND	ug/m3	2.6	1.26		02/19/16 18:53	75-25-2	
Bromomethane	ND	ug/m3	1.0	1.26		02/19/16 18:53	74-83-9	
1,3-Butadiene	ND	ug/m3	0.57	1.26		02/19/16 18:53	106-99-0	
2-Butanone (MEK)	ND	ug/m3	3.8	1.26		02/19/16 18:53	78-93-3	
Carbon disulfide	**1.7**	ug/m3	0.79	1.26		02/19/16 18:53	75-15-0	
Carbon tetrachloride	ND	ug/m3	0.81	1.26		02/19/16 18:53	56-23-5	
Chlorobenzene	ND	ug/m3	1.2	1.26		02/19/16 18:53	108-90-7	
Chloroethane	ND	ug/m3	0.68	1.26		02/19/16 18:53	75-00-3	
Chloroform	**1.2**	ug/m3	0.62	1.26		02/19/16 18:53	67-66-3	
Chloromethane	ND	ug/m3	0.53	1.26		02/19/16 18:53	74-87-3	
Cyclohexane	**2.1**	ug/m3	0.88	1.26		02/19/16 18:53	110-82-7	
Dibromochloromethane	ND	ug/m3	2.2	1.26		02/19/16 18:53	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/m3	2.0	1.26		02/19/16 18:53	106-93-4	
1,2-Dichlorobenzene	ND	ug/m3	1.5	1.26		02/19/16 18:53	95-50-1	
1,3-Dichlorobenzene	ND	ug/m3	1.5	1.26		02/19/16 18:53	541-73-1	
1,4-Dichlorobenzene	ND	ug/m3	1.5	1.26		02/19/16 18:53	106-46-7	
Dichlorodifluoromethane	**2.2**	ug/m3	1.3	1.26		02/19/16 18:53	75-71-8	
1,1-Dichloroethane	ND	ug/m3	1.0	1.26		02/19/16 18:53	75-34-3	
1,2-Dichloroethane	ND	ug/m3	0.52	1.26		02/19/16 18:53	107-06-2	
1,1-Dichloroethene	ND	ug/m3	1.0	1.26		02/19/16 18:53	75-35-4	
cis-1,2-Dichloroethene	ND	ug/m3	1.0	1.26		02/19/16 18:53	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	1.0	1.26		02/19/16 18:53	156-60-5	
1,2-Dichloropropane	ND	ug/m3	1.2	1.26		02/19/16 18:53	78-87-5	
cis-1,3-Dichloropropene	ND	ug/m3	1.2	1.26		02/19/16 18:53	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/m3	1.2	1.26		02/19/16 18:53	10061-02-6	
Dichlorotetrafluoroethane	ND	ug/m3	1.8	1.26		02/19/16 18:53	76-14-2	
Ethanol	**1.7**	ug/m3	1.2	1.26		02/19/16 18:53	64-17-5	
Ethyl acetate	ND	ug/m3	0.92	1.26		02/19/16 18:53	141-78-6	
Ethylbenzene	ND	ug/m3	1.1	1.26		02/19/16 18:53	100-41-4	
4-Ethyltoluene	**1.6**	ug/m3	1.3	1.26		02/19/16 18:53	622-96-8	
n-Heptane	**2.0**	ug/m3	1.0	1.26		02/19/16 18:53	142-82-5	
Hexachloro-1,3-butadiene	ND	ug/m3	2.8	1.26		02/19/16 18:53	87-68-3	
n-Hexane	**3.4**	ug/m3	0.91	1.26		02/19/16 18:53	110-54-3	
2-Hexanone	ND	ug/m3	5.2	1.26		02/19/16 18:53	591-78-6	
Methylene Chloride	ND	ug/m3	4.4	1.26		02/19/16 18:53	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/m3	5.2	1.26		02/19/16 18:53	108-10-1	
Methyl-tert-butyl ether	ND	ug/m3	4.6	1.26		02/19/16 18:53	1634-04-4	
Naphthalene	**3.7**	ug/m3	3.4	1.26		02/19/16 18:53	91-20-3	
2-Propanol	ND	ug/m3	3.2	1.26		02/19/16 18:53	67-63-0	
Propylene	**2.1**	ug/m3	0.44	1.26		02/19/16 18:53	115-07-1	

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ANALYTICAL RESULTS

Project: 6522 AHTD Job#100705
Pace Project No.: 10338289

Sample: VW-3 **Lab ID: 10338289004** Collected: 02/09/16 11:06 Received: 02/11/16 10:00 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15							
Styrene	ND	ug/m3	1.1	1.26		02/19/16 18:53	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/m3	0.88	1.26		02/19/16 18:53	79-34-5	
Tetrachloroethene	ND	ug/m3	0.87	1.26		02/19/16 18:53	127-18-4	
Tetrahydrofuran	**0.79**	ug/m3	0.76	1.26		02/19/16 18:53	109-99-9	
Toluene	**3.8**	ug/m3	0.97	1.26		02/19/16 18:53	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/m3	4.8	1.26		02/19/16 18:53	120-82-1	
1,1,1-Trichloroethane	ND	ug/m3	1.4	1.26		02/19/16 18:53	71-55-6	
1,1,2-Trichloroethane	ND	ug/m3	0.69	1.26		02/19/16 18:53	79-00-5	
Trichloroethene	ND	ug/m3	0.69	1.26		02/19/16 18:53	79-01-6	
Trichlorofluoromethane	**1.5**	ug/m3	1.4	1.26		02/19/16 18:53	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/m3	2.0	1.26		02/19/16 18:53	76-13-1	
1,2,4-Trimethylbenzene	**5.1**	ug/m3	1.3	1.26		02/19/16 18:53	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/m3	1.3	1.26		02/19/16 18:53	108-67-8	
Vinyl acetate	**1.2**	ug/m3	0.90	1.26		02/19/16 18:53	108-05-4	
Vinyl chloride	ND	ug/m3	0.33	1.26		02/19/16 18:53	75-01-4	
m&p-Xylene	**3.7**	ug/m3	2.2	1.26		02/19/16 18:53	179601-23-1	
o-Xylene	**1.9**	ug/m3	1.1	1.26		02/19/16 18:53	95-47-6	

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QUALITY CONTROL DATA

Project: 6522 AHTD Job#100705
Pace Project No.: 10338289

QC Batch: AIR/25245 | Analysis Method: Method 3C Gases
QC Batch Method: Method 3C Gases | Analysis Description: METHOD 3C AIR - FIXED GASES
Associated Lab Samples: 10338289001, 10338289002, 10338289003, 10338289004

METHOD BLANK: 2193399 | Matrix: Air
Associated Lab Samples: 10338289001, 10338289002, 10338289003, 10338289004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Helium	%	ND	3.6	02/17/16 10:28	

LABORATORY CONTROL SAMPLE & LCSD: 2193400 2193401

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Helium	%	18	21.1	20.2	117	112	70-130	4	30	

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QUALITY CONTROL DATA

Project: 6522 AHTD Job#100705
Pace Project No.: 10338289

QC Batch: AIR/25246 Analysis Method: TO-15
QC Batch Method: TO-15 Analysis Description: TO15 MSV AIR Low Level
Associated Lab Samples: 10338289001, 10338289002, 10338289003

METHOD BLANK: 2193629 Matrix: Air
Associated Lab Samples: 10338289001, 10338289002, 10338289003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/m3	ND	1.1	02/17/16 14:05	
1,1,2,2-Tetrachloroethane	ug/m3	ND	0.70	02/17/16 14:05	
1,1,2-Trichloroethane	ug/m3	ND	0.55	02/17/16 14:05	
1,1,2-Trichlorotrifluoroethane	ug/m3	ND	1.6	02/17/16 14:05	
1,1-Dichloroethane	ug/m3	ND	0.82	02/17/16 14:05	
1,1-Dichloroethene	ug/m3	ND	0.81	02/17/16 14:05	
1,2,4-Trichlorobenzene	ug/m3	ND	3.8	02/17/16 14:05	
1,2,4-Trimethylbenzene	ug/m3	ND	1.0	02/17/16 14:05	
1,2-Dibromoethane (EDB)	ug/m3	ND	1.6	02/17/16 14:05	
1,2-Dichlorobenzene	ug/m3	ND	1.2	02/17/16 14:05	
1,2-Dichloroethane	ug/m3	ND	0.41	02/17/16 14:05	
1,2-Dichloropropane	ug/m3	ND	0.94	02/17/16 14:05	
1,3,5-Trimethylbenzene	ug/m3	ND	1.0	02/17/16 14:05	
1,3-Butadiene	ug/m3	ND	0.45	02/17/16 14:05	
1,3-Dichlorobenzene	ug/m3	ND	1.2	02/17/16 14:05	
1,4-Dichlorobenzene	ug/m3	ND	1.2	02/17/16 14:05	
2-Butanone (MEK)	ug/m3	ND	3.0	02/17/16 14:05	
2-Hexanone	ug/m3	ND	4.2	02/17/16 14:05	
2-Propanol	ug/m3	ND	2.5	02/17/16 14:05	
4-Ethyltoluene	ug/m3	ND	1.0	02/17/16 14:05	
4-Methyl-2-pentanone (MIBK)	ug/m3	ND	4.2	02/17/16 14:05	
Acetone	ug/m3	ND	2.4	02/17/16 14:05	
Benzene	ug/m3	ND	0.32	02/17/16 14:05	
Benzyl chloride	ug/m3	ND	1.0	02/17/16 14:05	
Bromodichloromethane	ug/m3	ND	1.4	02/17/16 14:05	
Bromoform	ug/m3	ND	10.5	02/17/16 14:05	
Bromomethane	ug/m3	ND	0.79	02/17/16 14:05	
Carbon disulfide	ug/m3	ND	0.63	02/17/16 14:05	
Carbon tetrachloride	ug/m3	ND	0.64	02/17/16 14:05	
Chlorobenzene	ug/m3	ND	0.94	02/17/16 14:05	
Chloroethane	ug/m3	ND	0.54	02/17/16 14:05	
Chloroform	ug/m3	ND	0.50	02/17/16 14:05	
Chloromethane	ug/m3	ND	0.42	02/17/16 14:05	
cis-1,2-Dichloroethene	ug/m3	ND	0.81	02/17/16 14:05	
cis-1,3-Dichloropropene	ug/m3	ND	0.92	02/17/16 14:05	
Cyclohexane	ug/m3	ND	0.70	02/17/16 14:05	
Dibromochloromethane	ug/m3	ND	1.7	02/17/16 14:05	
Dichlorodifluoromethane	ug/m3	ND	1.0	02/17/16 14:05	
Dichlorotetrafluoroethane	ug/m3	ND	1.4	02/17/16 14:05	
Ethanol	ug/m3	ND	0.96	02/17/16 14:05	
Ethyl acetate	ug/m3	ND	0.73	02/17/16 14:05	

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QUALITY CONTROL DATA

Project: 6522 AHTD Job#100705
Pace Project No.: 10338289

METHOD BLANK: 2193629 Matrix: Air
Associated Lab Samples: 10338289001, 10338289002, 10338289003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Ethylbenzene	ug/m3	ND	0.88	02/17/16 14:05	
Hexachloro-1,3-butadiene	ug/m3	ND	2.2	02/17/16 14:05	
m&p-Xylene	ug/m3	ND	1.8	02/17/16 14:05	
Methyl-tert-butyl ether	ug/m3	ND	3.7	02/17/16 14:05	
Methylene Chloride	ug/m3	ND	3.5	02/17/16 14:05	
n-Heptane	ug/m3	ND	0.83	02/17/16 14:05	
n-Hexane	ug/m3	ND	0.72	02/17/16 14:05	
Naphthalene	ug/m3	ND	2.7	02/17/16 14:05	
o-Xylene	ug/m3	ND	0.88	02/17/16 14:05	
Propylene	ug/m3	ND	0.35	02/17/16 14:05	
Styrene	ug/m3	ND	0.87	02/17/16 14:05	
Tetrachloroethene	ug/m3	ND	0.69	02/17/16 14:05	
Tetrahydrofuran	ug/m3	ND	0.60	02/17/16 14:05	
Toluene	ug/m3	ND	0.77	02/17/16 14:05	
trans-1,2-Dichloroethene	ug/m3	ND	0.81	02/17/16 14:05	
trans-1,3-Dichloropropene	ug/m3	ND	0.92	02/17/16 14:05	
Trichloroethene	ug/m3	ND	0.55	02/17/16 14:05	
Trichlorofluoromethane	ug/m3	ND	1.1	02/17/16 14:05	
Vinyl acetate	ug/m3	ND	0.72	02/17/16 14:05	
Vinyl chloride	ug/m3	ND	0.26	02/17/16 14:05	

LABORATORY CONTROL SAMPLE: 2193630

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/m3	57.7	48.0	83	60-143	
1,1,2,2-Tetrachloroethane	ug/m3	74	67.2	91	49-150	
1,1,2-Trichloroethane	ug/m3	58.8	47.2	80	57-149	
1,1,2-Trichlorotrifluoroethane	ug/m3	81.8	73.7	90	66-131	
1,1-Dichloroethane	ug/m3	43.2	36.2	84	62-139	
1,1-Dichloroethene	ug/m3	42.3	36.2	86	62-135	
1,2,4-Trichlorobenzene	ug/m3	73.9	75.6	102	55-146	
1,2,4-Trimethylbenzene	ug/m3	51.5	50.4	98	57-143	
1,2-Dibromoethane (EDB)	ug/m3	82.8	74.5	90	63-150	
1,2-Dichlorobenzene	ug/m3	62.9	64.9	103	57-141	
1,2-Dichloroethane	ug/m3	43.6	35.7	82	61-144	
1,2-Dichloropropane	ug/m3	50.2	41.5	83	63-144	
1,3,5-Trimethylbenzene	ug/m3	51.5	48.6	94	54-147	
1,3-Butadiene	ug/m3	23.2	20.5	89	61-140	
1,3-Dichlorobenzene	ug/m3	63.6	63.8	100	51-150	
1,4-Dichlorobenzene	ug/m3	61.7	62.1	101	57-143	
2-Butanone (MEK)	ug/m3	32.1	27.9	87	66-144	
2-Hexanone	ug/m3	45	43.4	97	63-147	
2-Propanol	ug/m3	25.7	23.7	92	54-146	
4-Ethyltoluene	ug/m3	49.5	48.6	98	56-150	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 6522 AHTD Job#100705
Pace Project No.: 10338289

LABORATORY CONTROL SAMPLE: 2193630

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
4-Methyl-2-pentanone (MIBK)	ug/m3	43.7	42.2	96	58-150	
Acetone	ug/m3	24.9	23.8	96	46-140	
Benzene	ug/m3	34.4	29.0	84	62-141	
Benzyl chloride	ug/m3	54.7	44.2	81	66-138	
Bromodichloromethane	ug/m3	71.5	61.1	85	58-149	
Bromoform	ug/m3	113	108	95	61-150	
Bromomethane	ug/m3	38.3	32.7	85	58-136	
Carbon disulfide	ug/m3	33.2	28.2	85	59-135	
Carbon tetrachloride	ug/m3	67.1	57.0	85	60-149	
Chlorobenzene	ug/m3	50.1	43.7	87	60-150	
Chloroethane	ug/m3	26	24.6	94	61-136	
Chloroform	ug/m3	51.6	43.4	84	65-138	
Chloromethane	ug/m3	21	18.3	87	62-133	
cis-1,2-Dichloroethene	ug/m3	43.5	36.7	84	65-139	
cis-1,3-Dichloropropene	ug/m3	51.7	43.7	85	61-149	
Cyclohexane	ug/m3	36.7	31.4	85	64-134	
Dibromochloromethane	ug/m3	97	84.1	87	59-150	
Dichlorodifluoromethane	ug/m3	50.3	43.8	87	63-134	
Dichlorotetrafluoroethane	ug/m3	69.6	62.2	89	62-134	
Ethanol	ug/m3	20.3	19.1	94	50-144	
Ethyl acetate	ug/m3	38.1	31.8	83	55-146	
Ethylbenzene	ug/m3	47.2	41.4	88	59-149	
Hexachloro-1,3-butadiene	ug/m3	108	105	97	42-150	
m&p-Xylene	ug/m3	47.7	43.2	91	59-146	
Methyl-tert-butyl ether	ug/m3	38.5	34.6	90	64-135	
Methylene Chloride	ug/m3	38.8	32.3	83	64-128	
n-Heptane	ug/m3	44.2	36.0	81	64-140	
n-Hexane	ug/m3	37.6	26.6	71	50-138	
Naphthalene	ug/m3	55.9	39.5	71	46-146	
o-Xylene	ug/m3	46.8	41.0	88	54-149	
Propylene	ug/m3	18.9	15.5	82	58-135	
Styrene	ug/m3	45.5	42.3	93	54-150	
Tetrachloroethene	ug/m3	72.4	63.7	88	60-142	
Tetrahydrofuran	ug/m3	32.7	27.4	84	56-143	
Toluene	ug/m3	41	32.6	79	61-138	
trans-1,2-Dichloroethene	ug/m3	41.1	37.3	91	67-137	
trans-1,3-Dichloropropene	ug/m3	51.7	42.7	83	59-145	
Trichloroethene	ug/m3	57.4	49.3	86	60-144	
Trichlorofluoromethane	ug/m3	58.2	48.8	84	59-134	
Vinyl acetate	ug/m3	39.7	29.3	74	55-143	
Vinyl chloride	ug/m3	26.5	23.1	87	63-135	

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QUALITY CONTROL DATA

Project: 6522 AHTD Job#100705
Pace Project No.: 10338289

SAMPLE DUPLICATE: 2194253

Parameter	Units	10337978007 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1-Trichloroethane	ug/m3	ND	ND		25	
1,1,2,2-Tetrachloroethane	ug/m3	ND	ND		25	
1,1,2-Trichloroethane	ug/m3	ND	ND		25	
1,1,2-Trichlorotrifluoroethane	ug/m3	ND	ND		25	
1,1-Dichloroethane	ug/m3	ND	ND		25	
1,1-Dichloroethene	ug/m3	ND	ND		25	
1,2,4-Trichlorobenzene	ug/m3	ND	ND		25	
1,2,4-Trimethylbenzene	ug/m3	2.8	2.6	9	25	
1,2-Dibromoethane (EDB)	ug/m3	ND	ND		25	
1,2-Dichlorobenzene	ug/m3	ND	ND		25	
1,2-Dichloroethane	ug/m3	ND	ND		25	
1,2-Dichloropropane	ug/m3	ND	ND		25	
1,3,5-Trimethylbenzene	ug/m3	ND	.92J		25	
1,3-Butadiene	ug/m3	ND	ND		25	
1,3-Dichlorobenzene	ug/m3	ND	ND		25	
1,4-Dichlorobenzene	ug/m3	ND	ND		25	
2-Butanone (MEK)	ug/m3	9.9	8.3	18	25	
2-Hexanone	ug/m3	ND	ND		25	
2-Propanol	ug/m3	5.4	4.8	13	25	
4-Ethyltoluene	ug/m3	ND	1.3J		25	
4-Methyl-2-pentanone (MIBK)	ug/m3	ND	ND		25	
Acetone	ug/m3	35.2	37.1	5	25	
Benzene	ug/m3	0.91	0.91	0	25	
Benzyl chloride	ug/m3	ND	ND		25	
Bromodichloromethane	ug/m3	ND	ND		25	
Bromoform	ug/m3	ND	ND		25	
Bromomethane	ug/m3	ND	ND		25	
Carbon disulfide	ug/m3	ND	ND		25	
Carbon tetrachloride	ug/m3	ND	ND		25	
Chlorobenzene	ug/m3	ND	ND		25	
Chloroethane	ug/m3	ND	ND		25	
Chloroform	ug/m3	ND	ND		25	
Chloromethane	ug/m3	2.4	1.2	68	25	R1
cis-1,2-Dichloroethene	ug/m3	ND	ND		25	
cis-1,3-Dichloropropene	ug/m3	ND	ND		25	
Cyclohexane	ug/m3	3.1	2.8	10	25	
Dibromochloromethane	ug/m3	ND	ND		25	
Dichlorodifluoromethane	ug/m3	2.1	2.8	31	25	R1
Dichlorotetrafluoroethane	ug/m3	ND	ND		25	
Ethanol	ug/m3	52.4	44.9	15	25	
Ethyl acetate	ug/m3	ND	ND		25	
Ethylbenzene	ug/m3	ND	.71J		25	
Hexachloro-1,3-butadiene	ug/m3	ND	ND		25	
m&p-Xylene	ug/m3	ND	2.5J		25	
Methyl-tert-butyl ether	ug/m3	ND	ND		25	
Methylene Chloride	ug/m3	280	264	6	25	
n-Heptane	ug/m3	ND	ND		25	

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QUALITY CONTROL DATA

Project: 6522 AHTD Job#100705
Pace Project No.: 10338289

SAMPLE DUPLICATE: 2194253

Parameter	Units	10337978007 Result	Dup Result	RPD	Max RPD	Qualifiers
n-Hexane	ug/m3	54.1	50.8	6	25	
Naphthalene	ug/m3	ND	ND		25	
o-Xylene	ug/m3	ND	.83J		25	
Propylene	ug/m3	ND	ND		25	
Styrene	ug/m3	ND	ND		25	
Tetrachloroethene	ug/m3	ND	ND		25	
Tetrahydrofuran	ug/m3	ND	ND		25	
Toluene	ug/m3	85.0	77.5	9	25	
trans-1,2-Dichloroethene	ug/m3	ND	ND		25	
trans-1,3-Dichloropropene	ug/m3	ND	ND		25	
Trichloroethene	ug/m3	4.7	4.2	10	25	
Trichlorofluoromethane	ug/m3	1.9	1.8	3	25	
Vinyl acetate	ug/m3	ND	ND		25	
Vinyl chloride	ug/m3	ND	ND		25	

SAMPLE DUPLICATE: 2194254

Parameter	Units	10338437004 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1-Trichloroethane	ug/m3	ND	ND		25	
1,1,2,2-Tetrachloroethane	ug/m3	ND	ND		25	
1,1,2-Trichloroethane	ug/m3	ND	ND		25	
1,1,2-Trichlorotrifluoroethane	ug/m3	ND	ND		25	
1,1-Dichloroethane	ug/m3	ND	ND		25	
1,1-Dichloroethene	ug/m3	ND	ND		25	
1,2,4-Trichlorobenzene	ug/m3	ND	ND		25	
1,2,4-Trimethylbenzene	ug/m3	ND	ND		25	
1,2-Dibromoethane (EDB)	ug/m3	ND	ND		25	
1,2-Dichlorobenzene	ug/m3	ND	ND		25	
1,2-Dichloroethane	ug/m3	ND	ND		25	
1,2-Dichloropropane	ug/m3	ND	ND		25	
1,3,5-Trimethylbenzene	ug/m3	ND	ND		25	
1,3-Butadiene	ug/m3	ND	ND		25	
1,3-Dichlorobenzene	ug/m3	ND	ND		25	
1,4-Dichlorobenzene	ug/m3	ND	ND		25	
2-Butanone (MEK)	ug/m3	ND	ND		25	
2-Hexanone	ug/m3	ND	ND		25	
2-Propanol	ug/m3	ND	2.1J		25	
4-Ethyltoluene	ug/m3	ND	ND		25	
4-Methyl-2-pentanone (MIBK)	ug/m3	ND	ND		25	
Acetone	ug/m3	4.5	4.1	8	25	
Benzene	ug/m3	0.56	0.59	5	25	
Benzyl chloride	ug/m3	ND	ND		25	
Bromodichloromethane	ug/m3	ND	ND		25	
Bromoform	ug/m3	ND	ND		25	
Bromomethane	ug/m3	ND	ND		25	

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QUALITY CONTROL DATA

Project: 6522 AHTD Job#100705
Pace Project No.: 10338289

SAMPLE DUPLICATE: 2194254

Parameter	Units	10338437004 Result	Dup Result	RPD	Max RPD	Qualifiers
Carbon disulfide	ug/m3	ND	ND		25	
Carbon tetrachloride	ug/m3	ND	ND		25	
Chlorobenzene	ug/m3	ND	ND		25	
Chloroethane	ug/m3	ND	ND		25	
Chloroform	ug/m3	ND	ND		25	
Chloromethane	ug/m3	0.75	0.79	5	25	
cis-1,2-Dichloroethene	ug/m3	ND	ND		25	
cis-1,3-Dichloropropene	ug/m3	ND	ND		25	
Cyclohexane	ug/m3	ND	ND		25	
Dibromochloromethane	ug/m3	ND	ND		25	
Dichlorodifluoromethane	ug/m3	1.7	2.5	40	25	R1
Dichlorotetrafluoroethane	ug/m3	ND	ND		25	
Ethanol	ug/m3	8.0	7.2	10	25	
Ethyl acetate	ug/m3	ND	ND		25	
Ethylbenzene	ug/m3	ND	ND		25	
Hexachloro-1,3-butadiene	ug/m3	ND	ND		25	
m&p-Xylene	ug/m3	ND	ND		25	
Methyl-tert-butyl ether	ug/m3	ND	ND		25	
Methylene Chloride	ug/m3	ND	.89J		25	
n-Heptane	ug/m3	ND	ND		25	
n-Hexane	ug/m3	ND	.59J		25	
Naphthalene	ug/m3	ND	ND		25	
o-Xylene	ug/m3	ND	ND		25	
Propylene	ug/m3	ND	ND		25	
Styrene	ug/m3	ND	ND		25	
Tetrachloroethene	ug/m3	ND	ND		25	
Tetrahydrofuran	ug/m3	ND	ND		25	
Toluene	ug/m3	2.5	2.2	14	25	
trans-1,2-Dichloroethene	ug/m3	ND	ND		25	
trans-1,3-Dichloropropene	ug/m3	ND	ND		25	
Trichloroethene	ug/m3	ND	ND		25	
Trichlorofluoromethane	ug/m3	ND	1.4J		25	
Vinyl acetate	ug/m3	ND	ND		25	
Vinyl chloride	ug/m3	ND	ND		25	

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QUALITY CONTROL DATA

Project: 6522 AHTD Job#100705
Pace Project No.: 10338289

QC Batch: AIR/25264
QC Batch Method: TO-15
Analysis Method: TO-15
Analysis Description: TO15 MSV AIR Low Level
Associated Lab Samples: 10338289004

METHOD BLANK: 2194994
Matrix: Air
Associated Lab Samples: 10338289004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/m3	ND	1.1	02/19/16 16:48	
1,1,2,2-Tetrachloroethane	ug/m3	ND	0.70	02/19/16 16:48	
1,1,2-Trichloroethane	ug/m3	ND	0.55	02/19/16 16:48	
1,1,2-Trichlorotrifluoroethane	ug/m3	ND	1.6	02/19/16 16:48	
1,1-Dichloroethane	ug/m3	ND	0.82	02/19/16 16:48	
1,1-Dichloroethene	ug/m3	ND	0.81	02/19/16 16:48	
1,2,4-Trichlorobenzene	ug/m3	ND	3.8	02/19/16 16:48	
1,2,4-Trimethylbenzene	ug/m3	ND	1.0	02/19/16 16:48	
1,2-Dibromoethane (EDB)	ug/m3	ND	1.6	02/19/16 16:48	
1,2-Dichlorobenzene	ug/m3	ND	1.2	02/19/16 16:48	
1,2-Dichloroethane	ug/m3	ND	0.41	02/19/16 16:48	
1,2-Dichloropropane	ug/m3	ND	0.94	02/19/16 16:48	
1,3,5-Trimethylbenzene	ug/m3	ND	1.0	02/19/16 16:48	
1,3-Butadiene	ug/m3	ND	0.45	02/19/16 16:48	
1,3-Dichlorobenzene	ug/m3	ND	1.2	02/19/16 16:48	
1,4-Dichlorobenzene	ug/m3	ND	1.2	02/19/16 16:48	
2-Butanone (MEK)	ug/m3	ND	3.0	02/19/16 16:48	
2-Hexanone	ug/m3	ND	4.2	02/19/16 16:48	
2-Propanol	ug/m3	ND	2.5	02/19/16 16:48	
4-Ethyltoluene	ug/m3	ND	1.0	02/19/16 16:48	
4-Methyl-2-pentanone (MIBK)	ug/m3	ND	4.2	02/19/16 16:48	
Acetone	ug/m3	ND	2.4	02/19/16 16:48	
Benzene	ug/m3	ND	0.32	02/19/16 16:48	
Benzyl chloride	ug/m3	ND	2.6	02/19/16 16:48	
Bromodichloromethane	ug/m3	ND	1.4	02/19/16 16:48	
Bromoform	ug/m3	ND	2.1	02/19/16 16:48	
Bromomethane	ug/m3	ND	0.79	02/19/16 16:48	
Carbon disulfide	ug/m3	ND	0.63	02/19/16 16:48	
Carbon tetrachloride	ug/m3	ND	0.64	02/19/16 16:48	
Chlorobenzene	ug/m3	ND	0.94	02/19/16 16:48	
Chloroethane	ug/m3	ND	0.54	02/19/16 16:48	
Chloroform	ug/m3	ND	0.50	02/19/16 16:48	
Chloromethane	ug/m3	ND	0.42	02/19/16 16:48	
cis-1,2-Dichloroethene	ug/m3	ND	0.81	02/19/16 16:48	
cis-1,3-Dichloropropene	ug/m3	ND	0.92	02/19/16 16:48	
Cyclohexane	ug/m3	ND	0.70	02/19/16 16:48	
Dibromochloromethane	ug/m3	ND	1.7	02/19/16 16:48	
Dichlorodifluoromethane	ug/m3	ND	1.0	02/19/16 16:48	
Dichlorotetrafluoroethane	ug/m3	ND	1.4	02/19/16 16:48	
Ethanol	ug/m3	ND	0.96	02/19/16 16:48	
Ethyl acetate	ug/m3	ND	0.73	02/19/16 16:48	

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QUALITY CONTROL DATA

Project: 6522 AHTD Job#100705
Pace Project No.: 10338289

METHOD BLANK: 2194994 Matrix: Air
Associated Lab Samples: 10338289004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Ethylbenzene	ug/m3	ND	0.88	02/19/16 16:48	
Hexachloro-1,3-butadiene	ug/m3	ND	2.2	02/19/16 16:48	
m&p-Xylene	ug/m3	ND	1.8	02/19/16 16:48	
Methyl-tert-butyl ether	ug/m3	ND	3.7	02/19/16 16:48	
Methylene Chloride	ug/m3	ND	3.5	02/19/16 16:48	
n-Heptane	ug/m3	ND	0.83	02/19/16 16:48	
n-Hexane	ug/m3	ND	0.72	02/19/16 16:48	
Naphthalene	ug/m3	ND	2.7	02/19/16 16:48	
o-Xylene	ug/m3	ND	0.88	02/19/16 16:48	
Propylene	ug/m3	ND	0.35	02/19/16 16:48	
Styrene	ug/m3	ND	0.87	02/19/16 16:48	
Tetrachloroethene	ug/m3	ND	0.69	02/19/16 16:48	
Tetrahydrofuran	ug/m3	ND	0.60	02/19/16 16:48	
Toluene	ug/m3	ND	0.77	02/19/16 16:48	
trans-1,2-Dichloroethene	ug/m3	ND	0.81	02/19/16 16:48	
trans-1,3-Dichloropropene	ug/m3	ND	0.92	02/19/16 16:48	
Trichloroethene	ug/m3	ND	0.55	02/19/16 16:48	
Trichlorofluoromethane	ug/m3	ND	1.1	02/19/16 16:48	
Vinyl acetate	ug/m3	ND	0.72	02/19/16 16:48	
Vinyl chloride	ug/m3	ND	0.26	02/19/16 16:48	

LABORATORY CONTROL SAMPLE: 2194995

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/m3	55.5	52.1	94	60-143	
1,1,2,2-Tetrachloroethane	ug/m3	69.8	72.5	104	49-150	
1,1,2-Trichloroethane	ug/m3	55.5	49.9	90	57-149	
1,1,2-Trichlorotrifluoroethane	ug/m3	77.9	81.0	104	66-131	
1,1-Dichloroethane	ug/m3	41.2	42.0	102	62-139	
1,1-Dichloroethene	ug/m3	40.3	40.1	99	62-135	
1,2,4-Trichlorobenzene	ug/m3	75.5	76.6	101	55-146	
1,2,4-Trimethylbenzene	ug/m3	50	54.9	110	57-143	
1,2-Dibromoethane (EDB)	ug/m3	78.1	76.5	98	63-150	
1,2-Dichlorobenzene	ug/m3	61.2	71.9	118	57-141	
1,2-Dichloroethane	ug/m3	41.2	38.8	94	61-144	
1,2-Dichloropropane	ug/m3	47	45.8	97	63-144	
1,3,5-Trimethylbenzene	ug/m3	50	52.9	106	54-147	
1,3-Butadiene	ug/m3	22.5	23.5	104	61-140	
1,3-Dichlorobenzene	ug/m3	61.2	71.7	117	51-150	
1,4-Dichlorobenzene	ug/m3	61.2	69.7	114	57-143	
2-Butanone (MEK)	ug/m3	30	31.7	106	66-144	
2-Hexanone	ug/m3	41.7	48.5	116	63-147	
2-Propanol	ug/m3	25	26.1	104	54-146	
4-Ethyltoluene	ug/m3	50	53.6	107	56-150	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 6522 AHTD Job#100705
Pace Project No.: 10338289

LABORATORY CONTROL SAMPLE: 2194995

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
4-Methyl-2-pentanone (MIBK)	ug/m3	41.7	43.5	104	58-150	
Acetone	ug/m3	24.2	21.3	88	46-140	
Benzene	ug/m3	32.5	30.7	95	62-141	
Benzyl chloride	ug/m3	52.5	49.5	94	66-138	
Bromodichloromethane	ug/m3	68.2	63.6	93	58-149	
Bromoform	ug/m3	105	116	111	61-150	
Bromomethane	ug/m3	39.5	37.4	95	58-136	
Carbon disulfide	ug/m3	31.7	31.8	101	59-135	
Carbon tetrachloride	ug/m3	64	58.2	91	60-149	
Chlorobenzene	ug/m3	46.8	45.3	97	60-150	
Chloroethane	ug/m3	26.8	28.1	105	61-136	
Chloroform	ug/m3	49.7	48.1	97	65-138	
Chloromethane	ug/m3	21	19.2	91	62-133	
cis-1,2-Dichloroethene	ug/m3	40.3	41.0	102	65-139	
cis-1,3-Dichloropropene	ug/m3	46.2	45.8	99	61-149	
Cyclohexane	ug/m3	35	34.1	97	64-134	
Dibromochloromethane	ug/m3	86.6	88.4	102	59-150	
Dichlorodifluoromethane	ug/m3	50.3	44.6	89	63-134	
Dichlorotetrafluoroethane	ug/m3	71.1	63.4	89	62-134	
Ethanol	ug/m3	19.2	18.6	97	50-144	
Ethyl acetate	ug/m3	36.6	36.0	98	55-146	
Ethylbenzene	ug/m3	44.2	42.8	97	59-149	
Hexachloro-1,3-butadiene	ug/m3	108	119	110	42-150	
m&p-Xylene	ug/m3	44.2	44.9	102	59-146	
Methyl-tert-butyl ether	ug/m3	36.7	38.5	105	64-135	
Methylene Chloride	ug/m3	35.3	37.1	105	64-128	
n-Heptane	ug/m3	41.7	40.0	96	64-140	
n-Hexane	ug/m3	35.8	30.5	85	50-138	
Naphthalene	ug/m3	53.3	57.5	108	46-146	
o-Xylene	ug/m3	44.2	44.0	100	54-149	
Propylene	ug/m3	17.5	15.8	90	58-135	
Styrene	ug/m3	43.3	46.0	106	54-150	
Tetrachloroethene	ug/m3	69	67.2	97	60-142	
Tetrahydrofuran	ug/m3	30	30.3	101	56-143	
Toluene	ug/m3	38.3	33.8	88	61-138	
trans-1,2-Dichloroethene	ug/m3	40.3	40.9	101	67-137	
trans-1,3-Dichloropropene	ug/m3	46.2	45.8	99	59-145	
Trichloroethene	ug/m3	54.6	51.7	95	60-144	
Trichlorofluoromethane	ug/m3	57.1	52.3	92	59-134	
Vinyl acetate	ug/m3	35.8	35.1	98	55-143	
Vinyl chloride	ug/m3	26	25.6	99	63-135	

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QUALITY CONTROL DATA

Project: 6522 AHTD Job#100705
Pace Project No.: 10338289

SAMPLE DUPLICATE: 2195832

Parameter	Units	10338529004 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1-Trichloroethane	ug/m3	ND	ND		25	
1,1,2,2-Tetrachloroethane	ug/m3	ND	ND		25	
1,1,2-Trichloroethane	ug/m3	ND	ND		25	
1,1,2-Trichlorotrifluoroethane	ug/m3	ND	ND		25	
1,1-Dichloroethane	ug/m3	ND	ND		25	
1,1-Dichloroethene	ug/m3	ND	ND		25	
1,2,4-Trichlorobenzene	ug/m3	ND	ND		25	
1,2,4-Trimethylbenzene	ug/m3	ND	ND		25	
1,2-Dibromoethane (EDB)	ug/m3	ND	ND		25	
1,2-Dichlorobenzene	ug/m3	ND	ND		25	
1,2-Dichloroethane	ug/m3	ND	ND		25	
1,2-Dichloropropane	ug/m3	ND	ND		25	
1,3,5-Trimethylbenzene	ug/m3	ND	ND		25	
1,3-Butadiene	ug/m3	ND	ND		25	
1,3-Dichlorobenzene	ug/m3	ND	ND		25	
1,4-Dichlorobenzene	ug/m3	ND	ND		25	
2-Butanone (MEK)	ug/m3	ND	1J		25	
2-Hexanone	ug/m3	ND	ND		25	
2-Propanol	ug/m3	ND	.8J		25	
4-Ethyltoluene	ug/m3	ND	ND		25	
4-Methyl-2-pentanone (MIBK)	ug/m3	ND	ND		25	
Acetone	ug/m3	5.6	5.9	6	25	
Benzene	ug/m3	0.60	0.64	6	25	
Benzyl chloride	ug/m3	ND	ND		25	
Bromodichloromethane	ug/m3	ND	ND		25	
Bromoform	ug/m3	ND	ND		25	
Bromomethane	ug/m3	ND	ND		25	
Carbon disulfide	ug/m3	ND	ND		25	
Carbon tetrachloride	ug/m3	ND	ND		25	
Chlorobenzene	ug/m3	ND	ND		25	
Chloroethane	ug/m3	ND	ND		25	
Chloroform	ug/m3	ND	ND		25	
Chloromethane	ug/m3	0.81	0.85	4	25	
cis-1,2-Dichloroethene	ug/m3	ND	ND		25	
cis-1,3-Dichloropropene	ug/m3	ND	ND		25	
Cyclohexane	ug/m3	ND	ND		25	
Dibromochloromethane	ug/m3	ND	ND		25	
Dichlorodifluoromethane	ug/m3	2.2	2.6	15	25	
Dichlorotetrafluoroethane	ug/m3	ND	ND		25	
Ethanol	ug/m3	4.1	3.9	4	25	
Ethyl acetate	ug/m3	ND	ND		25	
Ethylbenzene	ug/m3	ND	ND		25	
Hexachloro-1,3-butadiene	ug/m3	ND	ND		25	
m&p-Xylene	ug/m3	ND	ND		25	
Methyl-tert-butyl ether	ug/m3	ND	ND		25	
Methylene Chloride	ug/m3	ND	4.8		25	
n-Heptane	ug/m3	ND	ND		25	

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QUALITY CONTROL DATA

Project: 6522 AHTD Job#100705
Pace Project No.: 10338289

SAMPLE DUPLICATE: 2195832

Parameter	Units	10338529004 Result	Dup Result	RPD	Max RPD	Qualifiers
n-Hexane	ug/m3	1.1	1.1	1	25	
Naphthalene	ug/m3	ND	1.6J		25	
o-Xylene	ug/m3	ND	ND		25	
Propylene	ug/m3	ND	ND		25	
Styrene	ug/m3	ND	ND		25	
Tetrachloroethene	ug/m3	ND	ND		25	
Tetrahydrofuran	ug/m3	ND	ND		25	
Toluene	ug/m3	1.6	1.7	6	25	
trans-1,2-Dichloroethene	ug/m3	ND	ND		25	
trans-1,3-Dichloropropene	ug/m3	ND	ND		25	
Trichloroethene	ug/m3	ND	ND		25	
Trichlorofluoromethane	ug/m3	ND	1.2J		25	
Vinyl acetate	ug/m3	ND	ND		25	
Vinyl chloride	ug/m3	ND	ND		25	

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QUALIFIERS

Project: 6522 AHTD Job#100705
Pace Project No.: 10338289

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

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TNI - The NELAC Institute.

ANALYTE QUALIFIERS

R1 RPD value was outside control limits.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 6522 AHTD Job#100705
Pace Project No.: 10338289

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10338289001	**VW-1**	Method 3C Gases	AIR/25245		
10338289002	**Duplicate**	Method 3C Gases	AIR/25245		
10338289003	**VW-2**	Method 3C Gases	AIR/25245		
10338289004	**VW-3**	Method 3C Gases	AIR/25245		
10338289001	**VW-1**	TO-15	AIR/25246		
10338289002	**Duplicate**	TO-15	AIR/25246		
10338289003	**VW-2**	TO-15	AIR/25246		
10338289004	**VW-3**	TO-15	AIR/25264		

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10338289

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www.pacelabs.com

AIR: CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

23782

Page: 1 of 1

Section A Required Client Information:

Company: The Southern Co., NLR, Inc
Address: 1201 Cypress St. N. Little Rock AR 72114
Email To: SKemph@thesco.com
Phone: 501.376.6338 Fax: 501.376.8715
Requested Due Date/TAT: Normal

Section B Required Project Information:

Report To: Scott Kemph
Copy To: SKemph@thesco.com
Purchase Order No.: 60293
Project Name: AHTD Job #100705
Project Number: 6522

Section C Invoice Information:

Attention: Scott Kemph
Company Name: The Southern Company, NLR Inc
Address: 1201 Cypress, NLR, AR 72114
Pace Quote Reference: 1023021
Pace Project Manager/Sales Rep: Stephen Mitchell
Pace Profile #: 1023021

Program: X UST ☐ Superfund ☐ Emissions ☐ Clean Air Act ☐ Voluntary Clean Up ☐ Dry Clean ☐ RCRA ☐ Other____

Location of Sampling by State: AR

Reporting Units: ug/m³ X mg/m³ ___ PPBV ___ PPMV ___ Other ___

Report Level II.___ III.___ IV.___ Other____

Section D Required Client Information

AIR SAMPLE ID
Sample IDs MUST BE UNIQUE

Valid Media Codes

MEDIA	CODE
Tedlar Bag	TB
1 Liter Summa Can	1LC
6 Liter Summa Can	6LC
Low Volume Puff	LVP
High Volume Puff	HVP
Other	PM10

ITEM #	AIR SAMPLE ID	MEDIA CODE	PID Reading (Client only)	COLLECTED COMPOSITE START END/GRAB DATE	TIME	COMPOSITE - DATE	TIME	Canister Pressure (Initial Field - psig)	Canister Pressure (Final Field - psig)	Summa Can Number	Flow Control Number	PM10	3C- Fixed Gas (%)	TO-3	TO-3M (Methane)	TO-4 (PCBs)	TO-13 (PAH)	TO-14	TO-15	TO15 Short List*	Helium	Pace Lab ID
1	VW-1	6LC		2.9.16	0825			28	5	21107	FC0934							X		X		001
2	Duplicate	6LC		2.9.16	0825			28	5	21113	FC0934							X		X		002
3	VW-2	6LC		2.9.16	0958			28	11	08558	FC0520							X		X		003
4	VW-3	6LC		2.9.16	1106			28	0	21177	FC0418							X		X		004
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						

Comments:

Pace Analytical media
Order # 1023021

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
T. Scott Kemph	2-9-16	1330	[illegible] pace	2/11/16	1000

SAMPLE CONDITIONS

Temp in °C	Received on Ice Y/N	Custody Sealed Cooler Y/N	Samples Intact Y/N

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: T Scott Kemph
SIGNATURE of SAMPLER: T. Scott Kemph DATE Signed (MM / DD / YY): 2-9-16

ORIGINAL

Pace Analytical	Document Name: Air Sample Condition Upon Receipt	Document Revised: 29June2015 Page 1 of 1
	Document No.: F-MN-A-106-rev.10	Issuing Authority: Pace Minnesota Quality Office

Air Sample Condition Upon Receipt

Client Name: The Southern Co

Project #: WO#: 10338289

10338289

Courier: [X] Fed Ex [ ] UPS [ ] Speedee [ ] Client [ ] Commercial [ ] Pace [ ] Other:

Tracking Number: 6637 5034 8751

Custody Seal on Cooler/Box Present? [ ] Yes [X] No **Seals Intact?** [ ] Yes [X] No

Optional: Proj. Due Date: Proj. Name:

Packing Material: [ ] Bubble Wrap [ ] Bubble Bags [X] Foam [ ] None [ ] Tin Can [ ] Other: **Temp Blank rec:** [ ] Yes [X] No

Temp. (TO17 and TO13 samples only) (°C): AMB **Corrected Temp (°C):** — **Thermom. Used:** [ ] B88A912167504 [ ] B88A9132521491 [ ] 72337080 [ ] 80512447

Temp should be above freezing to 6°C **Correction Factor:** ~ **Date & Initials of Person Examining Contents:** MB 2/11/16

Type of ice Received [ ] Blue [ ] Wet [X] None

Comments:

Chain of Custody Present?	[X] Yes	[ ] No	[ ] N/A	1.
Chain of Custody Filled Out?	[X] Yes	[ ] No	[ ] N/A	2.
Chain of Custody Relinquished?	[X] Yes	[ ] No	[ ] N/A	3.
Sampler Name and/or Signature on COC?	[X] Yes	[ ] No	[ ] N/A	4.
Samples Arrived within Hold Time?	[X] Yes	[ ] No	[ ] N/A	5.
Short Hold Time Analysis (<72 hr)?	[ ] Yes	[X] No	[ ] N/A	6.
Rush Turn Around Time Requested?	[ ] Yes	[X] No	[ ] N/A	7.
Sufficient Volume?	[X] Yes	[ ] No	[ ] N/A	8.
Correct Containers Used?	[X] Yes	[ ] No	[ ] N/A	9.
-Pace Containers Used?	[X] Yes	[ ] No	[ ] N/A	
Containers Intact?	[X] Yes	[ ] No	[ ] N/A	10.
Media: Air Can Airbag Filter TDT Passive				11.
Sample Labels Match COC?	[ ] Yes	[ ] No	[ ] N/A	12.

Samples Received:

Canisters			Canisters		
Sample Number	Can ID	Flow Controller ID	Sample Number	Can ID	Flow Controller ID
VW-1	PACE 2107	FC 0934	> Tritium		
Duplicate	PACE 2113	FC 0934			
VW-2	PACE 0858	FC 0520			
VW-3	PACE 2177	FC 0918			

CLIENT NOTIFICATION/RESOLUTION **Field Data Required?** [ ] Yes [ ] No

Person Contacted: Date/Time:

Comments/Resolution:

Project Manager Review: Q **Date:** 02/11/16

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

THE Southern Co. NLR, INC.

Additional Site Assessment Report

AHTD JOB #100705
100 North Division
Blytheville, Arkansas 72315
Facility ID # 47000222 and ADEQ LUST # 47-0040

Prepared for:

Arkansas State Highway and Transportation Department - ROW
10324 I-30, Room 705
Little Rock, Arkansas 72209

Prepared by:

T. Scott Kemph, P.G.
Project Manager

STATE OF ARKANSAS
TSK
NO. 1788
T. SCOTT KEMPH
REGISTERED PROFESSIONAL GEOLOGIST

7-7-16

Reviewed by:

Oriana Thompson, M.S.
Environmental Department Manager

DRAFT

July 7, 2016

1201 CYPRESS STREET
NORTH LITTLE ROCK, AR 72114
(501) 376-6333
(501 376-8715 FAX
800-482-5493

MEMBER PEI PETROLEUM EQUIPMENT INSTITUTE

7621 BALL ROAD
FORT SMITH, AR 72908
(479) 648-1601
(479) 646-1066 FAX
800-643-2156

THE Southern Co. NLR, INC.

Mr. David T. Frazier, P.G.
Geologist Supervisor
Arkansas Department of Environmental Quality (ADEQ), Office of Land Resources
Petroleum Tanks Program, Technical Branch
5301 Northshore Drive
North Little Rock, AR 72118

July 7, 2016

RE: Vapor Sampling Addendum to the Additional Site Assessment Report
AHTD JOB #100705
100 North Division
Blytheville, Arkansas 72315
Facility ID # 47000222 and ADEQ LUST # 47-0040

DRAFT

Dear Mr. Frazier:

As per your July 1, 2016 email request, please find enclosed one (1) paper copy and an electronic copy of the Vapor Sampling Addendum to the Additional Site Assessment report for the above-referenced facility. The attached document has been prepared in response to ADEQ's June 26, 2015, approval of the May 28, 2015 Additional Site Assessment Work Plan and Cost Estimate. A thorough review of the actual language approved by ADEQ has been performed prior to submittal of this addendum. Only the requested items approved by ADEQ in the May 28, 2015 work plan have been provided in this addendum to the Additional Site Assessment Report. Should you have any questions or require additional information, please do not hesitate to contact me at (501)-376-6333 or via email at skemph@thesoco.com.

Respectfully Submitted,
On Behalf of The Southern Co. of NLR, Inc.

T. Scott Kemph

T. Scott Kemph, P.G.
Project Manager

Attachments: Soil Vapor Investigation with Attachments

ecc: Messrs. Joel Clark, Rick Stanley and Mr. Nate Williams, AHTD (via email)
Mr. Matt Modelevsky, Snell, Langley, Culpepper, Williams & Mullally (via email)

1201 CYPRESS STREET
NORTH LITTLE ROCK, AR 72114
(501) 376-6333
(501 376-8715 FAX
800-482-5493

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7621 BALL ROAD
FORT SMITH, AR 72908
(479) 648-1601
(479) 646-1066 FAX
800-643-2156

DRAFT

Soil Vapor Investigation

Attachment 1, to this Vapor Sampling Addendum to the Additional Site Assessment Report depicts the location of the three (3) vapor wells installed on the neighboring residential property on January 29, 2016. Attachment 2 is the as built schematic diagram for the soil vapor wells; VW-1, VW-2, and VW-3.

The three (3) soil borings were installed by The Southern Company, NLR, Inc personnel, Mr. T. Scott Kemph, P.G., and Mr. Leonard Cole, to approximately 3.0 foot using a hand operated posthole digger. Approximately twelve (12) inches of 10-20 grade inert silica sand was placed in each boring to bring the depth to approximately twenty four (24) inches below ground surface (bgs). A twenty four (24)-inch long section of 4-inch diameter poly vinyl chloride (PVC) pipe was placed within each borehole. The lower fourteen (14) inches of the PVC was 0.010-inch machine slotted well screen with no bottom cap or sump. The upper ten (10) inches was riser pipe with no slots. A 10-20 grade inert silica sand was gravity placed to within approximately ½ inch above the screened portion of the pipe. A 6-inch layer of granular bentonite was placed above the sand and lightly hydrated with potable water. The bentonite was allowed to swell and seal the PVC pipe in place prior to completing the vapor well.

Each vapor well was completed by placing a Portland cement and powdered bentonite grout mixture to within approximately ½ inch of the top of the PVC pipe. The exterior portion of the pipe in contact with the grout mixture was slightly roughened with steel wool to increase the bonding between the grout and the PVC pipe. A flush-mount well cover or man way was inserted through the wet grout and into the underlying bentonite seal such that a seal was formed both inside and outside of the flush mount's casing. The lip of the flush mount well cover was sealed with factory installed rubber gasket. The grout was allowed to thoroughly cure before the soil vapor samples were collected. Each vapor well was sealed using an expandable J-Plug and the well cover was bolted down using factory bolts. The vapor wells remained sealed from January 29, 2016 to February 9, 2016.

Prior to vapor sampling, an expandable steel J-Plug with a rubber packer was drilled, tapped, and fitted with a Teflon tape wrapped stainless steel hose barb to construct a vacuum tight sampling J-plug for insertion into each vapor well. Vapor sampling of vapor wells VW-1, VW-2, and V-3 was performed on February 9, 2016. At the level of the annular sand pack, the interior of the PVC pipe was fitted with an expandable plug J-Plug. A ¼ inch diameter Teflon tube was attached to the inner side of the sampling port and extended down the middle of the vapor well the structure. A stainless steel sampling "T" and stainless steel Swagelok® fittings were used for all connections during vapor the sampling events of VW-1, VW-2, VW-3, and duplicate of VW-1. The total length of tubing did not exceed twenty (24) inches for any of the three (3) vapor wells. Total volume of the vapor well, annulus, and sampling train is calculated to be approximately 8153.48 cm^3 or 8.15348 $Liters^3$ as depicted on Attachment 2.

Each sampling train was purged using an Eagle RKI catalytic combustion instrument at the connection to the Summa Canister fitting until the part per million reading stabilized for each vapor well sampling event within the helium shroud or for at least a period of ten (10) minutes time had elapsed. The Eagle RKI catalytic combustion instrument has a pump flow rate of approximately 2.0 SCFH (0.9439 liters/minute source http://rkiinstruments.com/pdf/eagle.pdf.)

A Rubbermaid® 35-Gallon (140-Quart) Roughneck Latching Tote, gray in color, was placed on top of each vapor well prior to the start of each vapor sampling event. The tote or helium shroud was constructed with a hole for the Teflon® tubing to enter the shroud directly over flush mount well cover. An additional hole was cut in the sidewall of the helium shroud for the helium injection port. This port was sealed with two steel washers and a rubber "O" ring gasket threaded onto the helium injection hose to make vapor tight seal on the side wall of the helium shroud. The photograph below depicts the helium shroud on top of vapor well VW-1 with helium being injected into the shroud at a constant rate via a regulator at approximately 5 psi while the one (1) hour vapor sample was collected via the 6-liter Summa canisters (VW-1 and Duplicate VW-1) located within the helium enriched atmosphere of the helium shroud:

The remaining vapor wells VW-2, and VW-3 were sampled in a similar fashion. All four (4) Summa canisters were labeled with the sampling information and analytical requirements, logged on a chain of custody form and shipped to Pace Analytical Services, Inc. located in Minneapolis, Minnesota for laboratory analysis. Vapor samples were analyzed for benzene, toluene, ethylene, xylenes (BTEX) and naphthalene using United States Environmental Protection Agency (USEPA) Method TO-15. Helium (tracer gas) analysis was performed according to ASTM 1946D. The Pace Analytical Services, Inc. report is included as Attachments 3 through 30. The BTEX, naphthalene and helium analytical results from the three soil vapor wells (VW-1, VW-2, VW-3 and duplicate of VW-1) are reported in Table 1 on the next page:

DRAFT

Table 1
SUMMARY OF CHEMICAL ANALYSIS FOR SELECTED SOIL VAPOR ANALYTES
AHTD JOB #100705
100 North Division, Blytheville, Arkansas 72315
Facility ID # 47000222 and ADEQ LUST # 47-0040
USEPA Method TO-15 results reported in µg/m^3(micrograms per cubic meter)

Sample ID	VW-1	VW-2	VW-3	Duplicate (VW-1)	ASTM E1739 RBSLs – indoor/outdoor air screening levels for inhalation exposure-residential exposure Cancer risk=1x10^{-6}	USEPA Regional Screening Levels May 2016 * (Residential Air)
TO-15 Analytes						
Benzene	0.73	<0.69	0.43	<0.55	0.294	0.36
Ethylbenzene	< 1.5	<1.9	<1.1	< 1.5	1,040	1.1
Toluene	3.6	4.4	3.8	2.3	417	5,200
m & p-Xylene	4.2	5.8	3.7	4.0	7,300	200
o-xylene	2.6	3.0	1.9	2.5	7,300	100
Naphthalene	6.3	8.9	3.7	6.1	14.6	0.083
Helium(Tracer Gas) Expressed as a %	< 3.6%	< 3.6%	< 3.6%	< 3.6%	NA	NA

NA=Not Applicable *Source=https://semspub.epa.gov/work/03/2229071.pdf

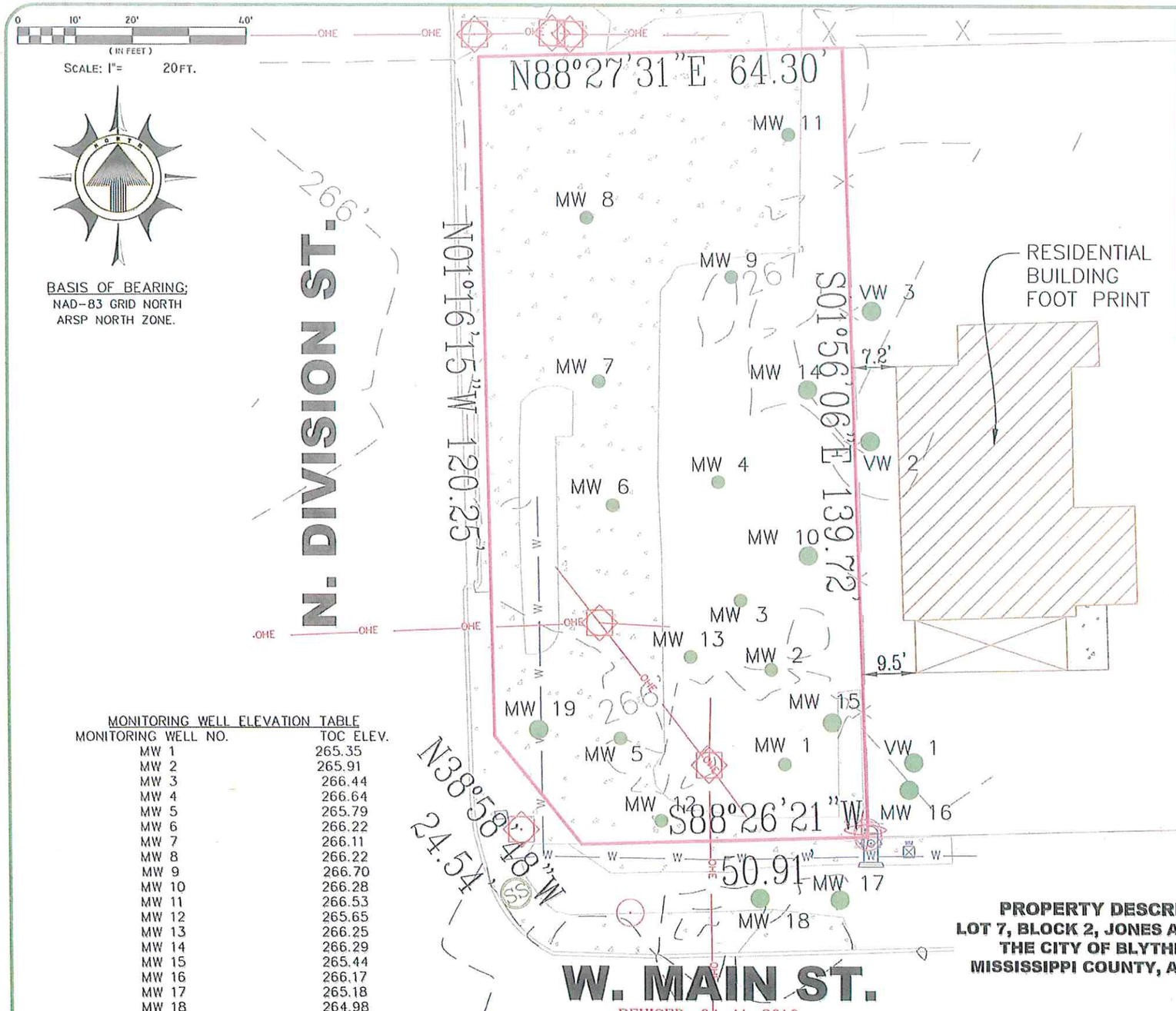
As indicated by the previous table, hydrocarbon constituents were reported above analytical detection limits. Benzene vapor wells VW-1, and VW-3 exceeded the ASTM Risk Based Screening Level (RBSL) (ASTM, 2015) for inhalation for a residential exposure and USEPA Regional Screening level for Residential Air.

USEPA Regional Screening levels for Residential Air were exceeded for naphthalene for all three (3) vapor well samples. Calculated relative percent differences for the duplicate sample of VW-1 using a spreadsheet documenting the calculations are included as Attachment 31. Helium tracer gas was not detected in any of the vapor samples at concentrations greater than 3.6% total volume of the 6 liter Summa Canister volume.

References

ASTM E1739-95(2015), Standard Guide for Risk-Based Corrective Action Applied at Petroleum Release Sites, ASTM International, West Conshohocken, PA, 2015, www.astm.org, Page 22.

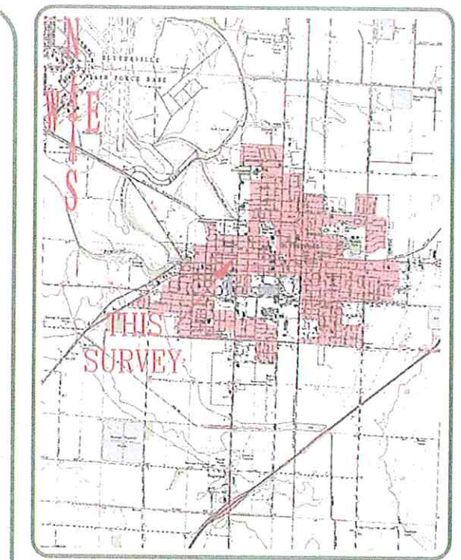
Attachments



REVISED: 04-11-2016

LEGEND

POWER POLE	
LIGHT POLE	
SIGN	
WATER VALVE	
WATER METER	
SANITARY SEWER MAN-HOLE	
TELEPHONE PEDESTAL	
FIRE HYDRANT	
GAS METER	
DROP INLET GRATE	
HANDICAP PARKING	
COMPUTED POINTS	
CONCRETE	CONC.
GUY WIRE ANCHOR	G.W.A.
POINT OF BEGINNING	P.O.B.
ELEVATION	ELEV.



SITE LOCATION MAP (NO SCALE)

NOTES

SURVEY BEARINGS ARE BASED ON GRID NORTH AR STATE PLANE NORTH ZONE DETERMINE BY GPS

THE BEARINGS SHOWN ON THIS PLAT ARE ASSUMED AND ARE TO BE USED TO DEFINE THE GENERAL DIRECTION AND TRUE ANGLES AT INTERSECTION OF PROPERTY AND LAND LINES.

TRACT IS SUBJECT TO EASEMENTS, RESTRICTIVE COVENANTS, SUBDIVISION RESTRICTIONS, AND PLANNING AND ZONING REGULATIONS OF RECORD, IF ANY, AND IS SUBJECT TO SUCH FACTS AS AN ACCURATE AND CURRENT TITLE SEARCH MAY DISCLOSE.

NO STATEMENT IS MADE AS TO THE EXISTENCE OR LOCATION, EXCEPT WHERE SHOWN OF ANY PROPERTY CORNER MONUMENTS.

NO STATEMENT IS MADE CONCERNING SUBSURFACE CONDITIONS.

CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL MEASUREMENTS PRIOR TO BEGINNING CONSTRUCTION. (IF APPLICABLE).

SURVEY VALID ONLY IF PRINT HAS ORIGINAL SEAL AND SIGNATURE OF SURVEYOR IN RED PRESENT ON IT.

UTILITIES NOT FIELD VERIFIED. NO OTHER STATEMENT IS MADE AS TO UTILITY EXISTENCE OR LOCATION.

I CERTIFY THAT THE ABOVE DESCRIBED PROPERTY HAS BEEN SURVEYED, CORNER MONUMENTS HAVE BEEN ESTABLISHED IN ACCORDANCE WITH EXISTING MONUMENTATION IN THE AREA AND IMPROVEMENTS IF ANY ARE AS SHOWN HEREON.

DECLARATION IS MADE TO ORIGINAL PURCHASER OF THE SURVEY. IT IS NOT TRANSFERABLE TO ADDITIONAL INSTITUTIONS OR SUBSEQUENT OWNERS.

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CERTIFICATE OF AUTHORIZATION
ARKANSAS SURVEYING AND CONSULTING INC.
NO. 1462
ARKANSAS - SURVEYOR

REGISTERED
STATE OF ARKANSAS
NO. 1467
SIGNATURE
4-11-16
MARION SCOTT FOSTER
PROFESSIONAL SURVEYOR

MONITORING WELL ELEVATION TABLE

MONITORING WELL NO.	TOC ELEV.
MW 1	265.35
MW 2	265.91
MW 3	266.44
MW 4	266.64
MW 5	265.79
MW 6	266.22
MW 7	266.11
MW 8	266.22
MW 9	266.70
MW 10	266.28
MW 11	266.53
MW 12	265.65
MW 13	266.25
MW 14	266.29
MW 15	265.44
MW 16	266.17
MW 17	265.18
MW 18	264.98
MW 19	265.17
VW 1	266.38
VW 2	266.97
VW 3	267.15

PROPERTY DESCRIPTION
LOT 7, BLOCK 2, JONES ADDITION TO THE CITY OF BLYTHEVILLE, MISSISSIPPI COUNTY, ARKANSAS.

DATE: 12-04-2014	ARKANSAS SURVEYING & CONSULTING
SCALE: 1"= 20'	1926 SALEM ROAD
DRAWN BY: MSF/KST	BENTON, ARKANSAS 72019
CHECKED BY: MSF	TELE. (501) 794-4500
FILE NAME: AHTD Job 100705	FAX. (501) 794-4501
	MALVERN AR OFFICE 304-2723 — E-MAIL:survey_man_jr@hotmail.com

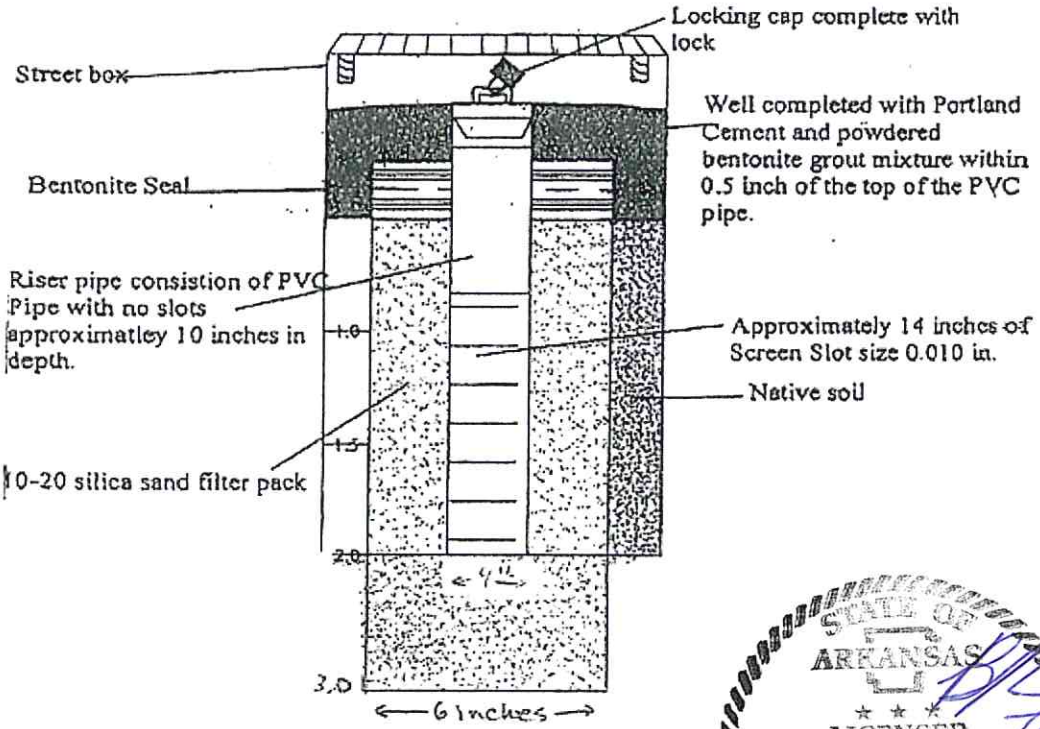
THE SOUTHERN CO., NLR, INC
100 N DIVISION, BLYTHEVILLE, AR
TOPOGRAPHIC SURVEY

Figure 2. Site Plan

Server\d\Land Projects 2004\JONES ADDITION\dwg\AHTD Job 100705.dwg

Attachment 1

Vapor Wells VW-1 through VW-3
AHTD Job 107005 / ADEQ LUST 47-0040



AHTD Job 107005 / ADEQ LUST 47-0040					
Vapor Well Volume					
Dimensions	Imperial			Metric	
Hole Diameter	in	6.00		cm	15.24
Hole Depth	in	36.00		cm	91.44
Porosity	ratio	30%		ratio	30%
Well Pipe I.D.	in	4.03		cm	10.23
Well Pipe O.D.	in	4.50		cm	11.43
Well Depth	in	24.00		cm	60.96
Tubing I.D.	in	0.25		cm	0.64
Tubing Length	in	24.00		cm	60.96
Volumes	Unit	Value		Unit	Value
Pipe Volume =	cu.in.	305.53		cm^3	5006.68
Annular Vapor Volume	cu.in.	190.85		cm^3	3127.50
Tube Volume	cu.in.	1.18		cm^3	19.31
Total Vapor Volume	**cu.in.**	**497.56**		**cm^3**	**8153.48**

Pipe Volume = Pi x (Well Pipe I.D./2)^2 x Well Pipe Depth

Annular Vapor Volume = [(Pi x (Hole Diameter/2)^2 x Hole Depth)-(Pi x (Well Pipe O.D./2)^2 x Well Pipe Depth)] x Porosity

Tube Volume = Pi x (Tube I.D./2)^2 x Tube Length

Attachment 2

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

February 22, 2016

Scott Kemph
The Southern Company
1201 Cypress North
North Little Rock, AR 72114

RE: Project: 6522 AHTD Job#100705
Pace Project No.: 10338289

Dear Scott Kemph:
Enclosed are the analytical results for sample(s) received by the laboratory on February 11, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Scott Unze
scott.unze@pacelabs.com
Project Manager

Enclosures

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

Attachment 3

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

CERTIFICATIONS

Project: 6522 AHTD Job#100705
Pace Project No.: 10338289

Minnesota Certification IDs

1700 Elm Street SE Suite 200, Minneapolis, MN 55414
525 N 8th Street, Salina, KS 67401
A2LA Certification #: 2926.01
Alaska Certification #: UST-078
Alaska Certification #MN00064
Alabama Certification #40770
Arizona Certification #: AZ-0014
Arkansas Certification #: 88-0680
California Certification #: 01155CA
Colorado Certification #Pace
Connecticut Certification #: PH-0256
EPA Region 8 Certification #: 8TMS-L
Florida/NELAP Certification #: E87605
Guam Certification #:14-008r
Georgia Certification #: 959
Georgia EPD #: Pace
Idaho Certification #: MN00064
Hawaii Certification #MN00064
Illinois Certification #: 200011
Indiana Certification#C-MN-01
Iowa Certification #: 368
Kansas Certification #: E-10167
Kentucky Dept of Envi. Protection - DW #90062
Kentucky Dept of Envi. Protection - WW #:90062
Louisiana DEQ Certification #: 3086
Louisiana DHH #: LA140001
Maine Certification #: 2013011
Maryland Certification #: 322
Michigan DEPH Certification #: 9909
Minnesota Certification #: 027-053-137
Mississippi Certification #: Pace
Montana Certification #: MT0092
Nevada Certification #: MN_00064
Nebraska Certification #: Pace
New Jersey Certification #: MN-002
New York Certification #: 11647
North Carolina Certification #: 530
North Carolina State Public Health #: 27700
North Dakota Certification #: R-036
Ohio EPA #: 4150
Ohio VAP Certification #: CL101
Oklahoma Certification #: 9507
Oregon Certification #: MN200001
Oregon Certification #: MN300001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification
Saipan (CNMI) #:MP0003
South Carolina #:74003001
Texas Certification #: T104704192
Tennessee Certification #: 02818
Utah Certification #: MN000642013-4
Virginia DGS Certification #: 251
Virginia/VELAP Certification #: Pace
Washington Certification #: C486
West Virginia Certification #: 382
West Virginia DHHR #:9952C
Wisconsin Certification #: 999407970

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Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

SAMPLE SUMMARY

Project: 6522 AHTD Job#100705
Pace Project No.: 10338289

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10338289001	**VW-1**	Air	02/09/16 08:25	02/11/16 10:00
10338289002	**Duplicate**	Air	02/09/16 08:25	02/11/16 10:00
10338289003	**VW-2**	Air	02/09/16 09:58	02/11/16 10:00
10338289004	**VW-3**	Air	02/09/16 11:06	02/11/16 10:00

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SAMPLE ANALYTE COUNT

Project: 6522 AHTD Job#100705
Pace Project No.: 10338289

Lab ID	Sample ID	Method	Analysts	Analytes Reported
10338289001	**VW-1**	Method 3C Gases	MLS	1
		TO-15	DR1	61
10338289002	**Duplicate**	Method 3C Gases	MLS	1
		TO-15	DR1	61
10338289003	**VW-2**	Method 3C Gases	MLS	1
		TO-15	DR1	61
10338289004	**VW-3**	Method 3C Gases	MLS	1
		TO-15	MJL	61

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ANALYTICAL RESULTS

Project: 6522 AHTD Job#100705
Pace Project No.: 10338289

Sample: VW-1 **Lab ID: 10338289001** Collected: 02/09/16 08:25 Received: 02/11/16 10:00 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Method 3C AIR - Fixed Gases	Analytical Method: Method 3C Gases							
Helium	ND	%	3.6	1		02/17/16 11:26	7440-59-7	
TO15 MSV AIR	Analytical Method: TO-15							
Acetone	ND	ug/m3	4.1	1.68		02/17/16 23:45	67-64-1	
Benzene	**0.73**	ug/m3	0.55	1.68		02/17/16 23:45	71-43-2	
Benzyl chloride	ND	ug/m3	1.8	1.68		02/17/16 23:45	100-44-7	
Bromodichloromethane	ND	ug/m3	2.3	1.68		02/17/16 23:45	75-27-4	
Bromoform	ND	ug/m3	17.7	1.68		02/17/16 23:45	75-25-2	
Bromomethane	ND	ug/m3	1.3	1.68		02/17/16 23:45	74-83-9	
1,3-Butadiene	ND	ug/m3	0.76	1.68		02/17/16 23:45	106-99-0	
2-Butanone (MEK)	ND	ug/m3	5.0	1.68		02/17/16 23:45	78-93-3	
Carbon disulfide	ND	ug/m3	1.1	1.68		02/17/16 23:45	75-15-0	
Carbon tetrachloride	ND	ug/m3	1.1	1.68		02/17/16 23:45	56-23-5	
Chlorobenzene	ND	ug/m3	1.6	1.68		02/17/16 23:45	108-90-7	
Chloroethane	ND	ug/m3	0.91	1.68		02/17/16 23:45	75-00-3	
Chloroform	ND	ug/m3	0.83	1.68		02/17/16 23:45	67-66-3	
Chloromethane	ND	ug/m3	0.71	1.68		02/17/16 23:45	74-87-3	
Cyclohexane	**450**	ug/m3	23.5	33.6		02/18/16 20:26	110-82-7	
Dibromochloromethane	ND	ug/m3	2.9	1.68		02/17/16 23:45	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/m3	2.6	1.68		02/17/16 23:45	106-93-4	
1,2-Dichlorobenzene	ND	ug/m3	2.0	1.68		02/17/16 23:45	95-50-1	
1,3-Dichlorobenzene	ND	ug/m3	2.0	1.68		02/17/16 23:45	541-73-1	
1,4-Dichlorobenzene	ND	ug/m3	2.0	1.68		02/17/16 23:45	106-46-7	
Dichlorodifluoromethane	**2.8**	ug/m3	1.7	1.68		02/17/16 23:45	75-71-8	
1,1-Dichloroethane	ND	ug/m3	1.4	1.68		02/17/16 23:45	75-34-3	
1,2-Dichloroethane	ND	ug/m3	0.69	1.68		02/17/16 23:45	107-06-2	
1,1-Dichloroethene	ND	ug/m3	1.4	1.68		02/17/16 23:45	75-35-4	
cis-1,2-Dichloroethene	ND	ug/m3	1.4	1.68		02/17/16 23:45	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	1.4	1.68		02/17/16 23:45	156-60-5	
1,2-Dichloropropane	ND	ug/m3	1.6	1.68		02/17/16 23:45	78-87-5	
cis-1,3-Dichloropropene	ND	ug/m3	1.5	1.68		02/17/16 23:45	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/m3	1.5	1.68		02/17/16 23:45	10061-02-6	
Dichlorotetrafluoroethane	ND	ug/m3	2.4	1.68		02/17/16 23:45	76-14-2	
Ethanol	ND	ug/m3	1.6	1.68		02/17/16 23:45	64-17-5	
Ethyl acetate	ND	ug/m3	1.2	1.68		02/17/16 23:45	141-78-6	
Ethylbenzene	ND	ug/m3	1.5	1.68		02/17/16 23:45	100-41-4	
4-Ethyltoluene	ND	ug/m3	1.7	1.68		02/17/16 23:45	622-96-8	
n-Heptane	**208**	ug/m3	1.4	1.68		02/17/16 23:45	142-82-5	
Hexachloro-1,3-butadiene	ND	ug/m3	3.7	1.68		02/17/16 23:45	87-68-3	
n-Hexane	**713**	ug/m3	24.2	33.6		02/18/16 20:26	110-54-3	
2-Hexanone	ND	ug/m3	7.0	1.68		02/17/16 23:45	591-78-6	
Methylene Chloride	**23.8**	ug/m3	5.9	1.68		02/17/16 23:45	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/m3	7.0	1.68		02/17/16 23:45	108-10-1	
Methyl-tert-butyl ether	ND	ug/m3	6.2	1.68		02/17/16 23:45	1634-04-4	
Naphthalene	**6.3**	ug/m3	4.5	1.68		02/17/16 23:45	91-20-3	
2-Propanol	ND	ug/m3	4.2	1.68		02/17/16 23:45	67-63-0	
Propylene	ND	ug/m3	0.59	1.68		02/17/16 23:45	115-07-1	

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ANALYTICAL RESULTS

Project: 6522 AHTD Job#100705
Pace Project No.: 10338289

Sample: VW-1 **Lab ID: 10338289001** Collected: 02/09/16 08:25 Received: 02/11/16 10:00 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15							
Styrene	ND	ug/m3	1.5	1.68		02/17/16 23:45	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/m3	1.2	1.68		02/17/16 23:45	79-34-5	
Tetrachloroethene	ND	ug/m3	1.2	1.68		02/17/16 23:45	127-18-4	
Tetrahydrofuran	ND	ug/m3	1.0	1.68		02/17/16 23:45	109-99-9	
Toluene	**3.6**	ug/m3	1.3	1.68		02/17/16 23:45	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/m3	6.3	1.68		02/17/16 23:45	120-82-1	
1,1,1-Trichloroethane	ND	ug/m3	1.9	1.68		02/17/16 23:45	71-55-6	
1,1,2-Trichloroethane	ND	ug/m3	0.92	1.68		02/17/16 23:45	79-00-5	
Trichloroethene	ND	ug/m3	0.92	1.68		02/17/16 23:45	79-01-6	
Trichlorofluoromethane	ND	ug/m3	1.9	1.68		02/17/16 23:45	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/m3	2.7	1.68		02/17/16 23:45	76-13-1	
1,2,4-Trimethylbenzene	**5.1**	ug/m3	1.7	1.68		02/17/16 23:45	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/m3	1.7	1.68		02/17/16 23:45	108-67-8	
Vinyl acetate	ND	ug/m3	1.2	1.68		02/17/16 23:45	108-05-4	
Vinyl chloride	ND	ug/m3	0.44	1.68		02/17/16 23:45	75-01-4	
m&p-Xylene	**4.2**	ug/m3	3.0	1.68		02/17/16 23:45	179601-23-1	
o-Xylene	**2.6**	ug/m3	1.5	1.68		02/17/16 23:45	95-47-6	

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ANALYTICAL RESULTS

Project: 6522 AHTD Job#100705
Pace Project No.: 10338289

Sample: Duplicate **Lab ID: 10338289002** Collected: 02/09/16 08:25 Received: 02/11/16 10:00 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Method 3C AIR - Fixed Gases	Analytical Method: Method 3C Gases							
Helium	ND	%	3.6	1		02/17/16 11:36	7440-59-7	
TO15 MSV AIR	Analytical Method: TO-15							
Acetone	ND	ug/m3	4.1	1.68		02/18/16 00:12	67-64-1	
Benzene	ND	ug/m3	0.55	1.68		02/18/16 00:12	71-43-2	
Benzyl chloride	ND	ug/m3	1.8	1.68		02/18/16 00:12	100-44-7	
Bromodichloromethane	ND	ug/m3	2.3	1.68		02/18/16 00:12	75-27-4	
Bromoform	ND	ug/m3	17.7	1.68		02/18/16 00:12	75-25-2	
Bromomethane	ND	ug/m3	1.3	1.68		02/18/16 00:12	74-83-9	
1,3-Butadiene	ND	ug/m3	0.76	1.68		02/18/16 00:12	106-99-0	
2-Butanone (MEK)	ND	ug/m3	5.0	1.68		02/18/16 00:12	78-93-3	
Carbon disulfide	ND	ug/m3	1.1	1.68		02/18/16 00:12	75-15-0	
Carbon tetrachloride	ND	ug/m3	1.1	1.68		02/18/16 00:12	56-23-5	
Chlorobenzene	ND	ug/m3	1.6	1.68		02/18/16 00:12	108-90-7	
Chloroethane	ND	ug/m3	0.91	1.68		02/18/16 00:12	75-00-3	
Chloroform	ND	ug/m3	0.83	1.68		02/18/16 00:12	67-66-3	
Chloromethane	ND	ug/m3	0.71	1.68		02/18/16 00:12	74-87-3	
Cyclohexane	**486**	ug/m3	23.5	33.6		02/19/16 17:56	110-82-7	
Dibromochloromethane	ND	ug/m3	2.9	1.68		02/18/16 00:12	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/m3	2.6	1.68		02/18/16 00:12	106-93-4	
1,2-Dichlorobenzene	ND	ug/m3	2.0	1.68		02/18/16 00:12	95-50-1	
1,3-Dichlorobenzene	ND	ug/m3	2.0	1.68		02/18/16 00:12	541-73-1	
1,4-Dichlorobenzene	ND	ug/m3	2.0	1.68		02/18/16 00:12	106-46-7	
Dichlorodifluoromethane	**2.7**	ug/m3	1.7	1.68		02/18/16 00:12	75-71-8	
1,1-Dichloroethane	ND	ug/m3	1.4	1.68		02/18/16 00:12	75-34-3	
1,2-Dichloroethane	ND	ug/m3	0.69	1.68		02/18/16 00:12	107-06-2	
1,1-Dichloroethene	ND	ug/m3	1.4	1.68		02/18/16 00:12	75-35-4	
cis-1,2-Dichloroethene	ND	ug/m3	1.4	1.68		02/18/16 00:12	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	1.4	1.68		02/18/16 00:12	156-60-5	
1,2-Dichloropropane	ND	ug/m3	1.6	1.68		02/18/16 00:12	78-87-5	
cis-1,3-Dichloropropene	ND	ug/m3	1.5	1.68		02/18/16 00:12	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/m3	1.5	1.68		02/18/16 00:12	10061-02-6	
Dichlorotetrafluoroethane	ND	ug/m3	2.4	1.68		02/18/16 00:12	76-14-2	
Ethanol	ND	ug/m3	1.6	1.68		02/18/16 00:12	64-17-5	
Ethyl acetate	ND	ug/m3	1.2	1.68		02/18/16 00:12	141-78-6	
Ethylbenzene	ND	ug/m3	1.5	1.68		02/18/16 00:12	100-41-4	
4-Ethyltoluene	ND	ug/m3	1.7	1.68		02/18/16 00:12	622-96-8	
n-Heptane	**209**	ug/m3	1.4	1.68		02/18/16 00:12	142-82-5	
Hexachloro-1,3-butadiene	ND	ug/m3	3.7	1.68		02/18/16 00:12	87-68-3	
n-Hexane	**671**	ug/m3	24.2	33.6		02/19/16 17:56	110-54-3	
2-Hexanone	ND	ug/m3	7.0	1.68		02/18/16 00:12	591-78-6	
Methylene Chloride	ND	ug/m3	5.9	1.68		02/18/16 00:12	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/m3	7.0	1.68		02/18/16 00:12	108-10-1	
Methyl-tert-butyl ether	ND	ug/m3	6.2	1.68		02/18/16 00:12	1634-04-4	
Naphthalene	**6.1**	ug/m3	4.5	1.68		02/18/16 00:12	91-20-3	
2-Propanol	ND	ug/m3	4.2	1.68		02/18/16 00:12	67-63-0	
Propylene	ND	ug/m3	0.59	1.68		02/18/16 00:12	115-07-1	

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ANALYTICAL RESULTS

Project: 6522 AHTD Job#100705
Pace Project No.: 10338289

Sample: Duplicate **Lab ID: 10338289002** Collected: 02/09/16 08:25 Received: 02/11/16 10:00 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15							
Styrene	ND	ug/m3	1.5	1.68		02/18/16 00:12	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/m3	1.2	1.68		02/18/16 00:12	79-34-5	
Tetrachloroethene	ND	ug/m3	1.2	1.68		02/18/16 00:12	127-18-4	
Tetrahydrofuran	ND	ug/m3	1.0	1.68		02/18/16 00:12	109-99-9	
Toluene	**2.3**	ug/m3	1.3	1.68		02/18/16 00:12	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/m3	6.3	1.68		02/18/16 00:12	120-82-1	
1,1,1-Trichloroethane	ND	ug/m3	1.9	1.68		02/18/16 00:12	71-55-6	
1,1,2-Trichloroethane	ND	ug/m3	0.92	1.68		02/18/16 00:12	79-00-5	
Trichloroethene	ND	ug/m3	0.92	1.68		02/18/16 00:12	79-01-6	
Trichlorofluoromethane	ND	ug/m3	1.9	1.68		02/18/16 00:12	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/m3	2.7	1.68		02/18/16 00:12	76-13-1	
1,2,4-Trimethylbenzene	**4.9**	ug/m3	1.7	1.68		02/18/16 00:12	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/m3	1.7	1.68		02/18/16 00:12	108-67-8	
Vinyl acetate	ND	ug/m3	1.2	1.68		02/18/16 00:12	108-05-4	
Vinyl chloride	ND	ug/m3	0.44	1.68		02/18/16 00:12	75-01-4	
m&p-Xylene	**4.0**	ug/m3	3.0	1.68		02/18/16 00:12	179601-23-1	
o-Xylene	**2.5**	ug/m3	1.5	1.68		02/18/16 00:12	95-47-6	

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ANALYTICAL RESULTS

Project: 6522 AHTD Job#100705
Pace Project No.: 10338289

Sample: VW-2 **Lab ID: 10338289003** Collected: 02/09/16 09:58 Received: 02/11/16 10:00 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Method 3C AIR - Fixed Gases	Analytical Method: Method 3C Gases							
Helium	ND	%	3.6	1		02/17/16 11:48	7440-59-7	
TO15 MSV AIR	Analytical Method: TO-15							
Acetone	**6.3**	ug/m3	5.1	2.12		02/18/16 00:40	67-64-1	
Benzene	ND	ug/m3	0.69	2.12		02/18/16 00:40	71-43-2	
Benzyl chloride	ND	ug/m3	2.2	2.12		02/18/16 00:40	100-44-7	
Bromodichloromethane	ND	ug/m3	2.9	2.12		02/18/16 00:40	75-27-4	
Bromoform	ND	ug/m3	22.3	2.12		02/18/16 00:40	75-25-2	
Bromomethane	ND	ug/m3	1.7	2.12		02/18/16 00:40	74-83-9	
1,3-Butadiene	ND	ug/m3	0.95	2.12		02/18/16 00:40	106-99-0	
2-Butanone (MEK)	ND	ug/m3	6.4	2.12		02/18/16 00:40	78-93-3	
Carbon disulfide	**3.2**	ug/m3	1.3	2.12		02/18/16 00:40	75-15-0	
Carbon tetrachloride	ND	ug/m3	1.4	2.12		02/18/16 00:40	56-23-5	
Chlorobenzene	ND	ug/m3	2.0	2.12		02/18/16 00:40	108-90-7	
Chloroethane	ND	ug/m3	1.1	2.12		02/18/16 00:40	75-00-3	
Chloroform	**18.2**	ug/m3	1.1	2.12		02/18/16 00:40	67-66-3	
Chloromethane	**0.96**	ug/m3	0.89	2.12		02/18/16 00:40	74-87-3	
Cyclohexane	**14.8**	ug/m3	1.5	2.12		02/18/16 00:40	110-82-7	
Dibromochloromethane	ND	ug/m3	3.7	2.12		02/18/16 00:40	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/m3	3.3	2.12		02/18/16 00:40	106-93-4	
1,2-Dichlorobenzene	ND	ug/m3	2.6	2.12		02/18/16 00:40	95-50-1	
1,3-Dichlorobenzene	ND	ug/m3	2.6	2.12		02/18/16 00:40	541-73-1	
1,4-Dichlorobenzene	ND	ug/m3	2.6	2.12		02/18/16 00:40	106-46-7	
Dichlorodifluoromethane	**2.7**	ug/m3	2.1	2.12		02/18/16 00:40	75-71-8	
1,1-Dichloroethane	ND	ug/m3	1.7	2.12		02/18/16 00:40	75-34-3	
1,2-Dichloroethane	ND	ug/m3	0.87	2.12		02/18/16 00:40	107-06-2	
1,1-Dichloroethene	ND	ug/m3	1.7	2.12		02/18/16 00:40	75-35-4	
cis-1,2-Dichloroethene	ND	ug/m3	1.7	2.12		02/18/16 00:40	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	1.7	2.12		02/18/16 00:40	156-60-5	
1,2-Dichloropropane	ND	ug/m3	2.0	2.12		02/18/16 00:40	78-87-5	
cis-1,3-Dichloropropene	ND	ug/m3	2.0	2.12		02/18/16 00:40	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/m3	2.0	2.12		02/18/16 00:40	10061-02-6	
Dichlorotetrafluoroethane	ND	ug/m3	3.0	2.12		02/18/16 00:40	76-14-2	
Ethanol	**2.1**	ug/m3	2.0	2.12		02/18/16 00:40	64-17-5	
Ethyl acetate	ND	ug/m3	1.5	2.12		02/18/16 00:40	141-78-6	
Ethylbenzene	ND	ug/m3	1.9	2.12		02/18/16 00:40	100-41-4	
4-Ethyltoluene	**2.1**	ug/m3	2.1	2.12		02/18/16 00:40	622-96-8	
n-Heptane	**11.4**	ug/m3	1.8	2.12		02/18/16 00:40	142-82-5	
Hexachloro-1,3-butadiene	**12.6**	ug/m3	4.7	2.12		02/18/16 00:40	87-68-3	
n-Hexane	**18.3**	ug/m3	1.5	2.12		02/18/16 00:40	110-54-3	
2-Hexanone	ND	ug/m3	8.8	2.12		02/18/16 00:40	591-78-6	
Methylene Chloride	ND	ug/m3	7.5	2.12		02/18/16 00:40	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/m3	8.8	2.12		02/18/16 00:40	108-10-1	
Methyl-tert-butyl ether	ND	ug/m3	7.8	2.12		02/18/16 00:40	1634-04-4	
Naphthalene	**8.9**	ug/m3	5.6	2.12		02/18/16 00:40	91-20-3	
2-Propanol	ND	ug/m3	5.3	2.12		02/18/16 00:40	67-63-0	
Propylene	**4.4**	ug/m3	0.74	2.12		02/18/16 00:40	115-07-1	

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ANALYTICAL RESULTS

Project: 6522 AHTD Job#100705
Pace Project No.: 10338289

Sample: VW-2 **Lab ID: 10338289003** Collected: 02/09/16 09:58 Received: 02/11/16 10:00 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15							
Styrene	ND	ug/m3	1.8	2.12		02/18/16 00:40	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/m3	1.5	2.12		02/18/16 00:40	79-34-5	
Tetrachloroethene	ND	ug/m3	1.5	2.12		02/18/16 00:40	127-18-4	
Tetrahydrofuran	ND	ug/m3	1.3	2.12		02/18/16 00:40	109-99-9	
Toluene	**4.4**	ug/m3	1.6	2.12		02/18/16 00:40	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/m3	8.0	2.12		02/18/16 00:40	120-82-1	
1,1,1-Trichloroethane	ND	ug/m3	2.4	2.12		02/18/16 00:40	71-55-6	
1,1,2-Trichloroethane	ND	ug/m3	1.2	2.12		02/18/16 00:40	79-00-5	
Trichloroethene	ND	ug/m3	1.2	2.12		02/18/16 00:40	79-01-6	
Trichlorofluoromethane	ND	ug/m3	2.4	2.12		02/18/16 00:40	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/m3	3.4	2.12		02/18/16 00:40	76-13-1	
1,2,4-Trimethylbenzene	**7.4**	ug/m3	2.1	2.12		02/18/16 00:40	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/m3	2.1	2.12		02/18/16 00:40	108-67-8	
Vinyl acetate	ND	ug/m3	1.5	2.12		02/18/16 00:40	108-05-4	
Vinyl chloride	ND	ug/m3	0.55	2.12		02/18/16 00:40	75-01-4	
m&p-Xylene	**5.8**	ug/m3	3.8	2.12		02/18/16 00:40	179601-23-1	
o-Xylene	**3.0**	ug/m3	1.9	2.12		02/18/16 00:40	95-47-6	

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ANALYTICAL RESULTS

Project: 6522 AHTD Job#100705
Pace Project No.: 10338289

Sample: VW-3 **Lab ID: 10338289004** Collected: 02/09/16 11:06 Received: 02/11/16 10:00 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Method 3C AIR - Fixed Gases	Analytical Method: Method 3C Gases							
Helium	ND	%	3.6	1		02/17/16 12:07	7440-59-7	
TO15 MSV AIR	Analytical Method: TO-15							
Acetone	**6.9**	ug/m3	3.0	1.26		02/19/16 18:53	67-64-1	
Benzene	**0.43**	ug/m3	0.41	1.26		02/19/16 18:53	71-43-2	
Benzyl chloride	ND	ug/m3	3.3	1.26		02/19/16 18:53	100-44-7	
Bromodichloromethane	ND	ug/m3	1.7	1.26		02/19/16 18:53	75-27-4	
Bromoform	ND	ug/m3	2.6	1.26		02/19/16 18:53	75-25-2	
Bromomethane	ND	ug/m3	1.0	1.26		02/19/16 18:53	74-83-9	
1,3-Butadiene	ND	ug/m3	0.57	1.26		02/19/16 18:53	106-99-0	
2-Butanone (MEK)	ND	ug/m3	3.8	1.26		02/19/16 18:53	78-93-3	
Carbon disulfide	**1.7**	ug/m3	0.79	1.26		02/19/16 18:53	75-15-0	
Carbon tetrachloride	ND	ug/m3	0.81	1.26		02/19/16 18:53	56-23-5	
Chlorobenzene	ND	ug/m3	1.2	1.26		02/19/16 18:53	108-90-7	
Chloroethane	ND	ug/m3	0.68	1.26		02/19/16 18:53	75-00-3	
Chloroform	**1.2**	ug/m3	0.62	1.26		02/19/16 18:53	67-66-3	
Chloromethane	ND	ug/m3	0.53	1.26		02/19/16 18:53	74-87-3	
Cyclohexane	**2.1**	ug/m3	0.88	1.26		02/19/16 18:53	110-82-7	
Dibromochloromethane	ND	ug/m3	2.2	1.26		02/19/16 18:53	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/m3	2.0	1.26		02/19/16 18:53	106-93-4	
1,2-Dichlorobenzene	ND	ug/m3	1.5	1.26		02/19/16 18:53	95-50-1	
1,3-Dichlorobenzene	ND	ug/m3	1.5	1.26		02/19/16 18:53	541-73-1	
1,4-Dichlorobenzene	ND	ug/m3	1.5	1.26		02/19/16 18:53	106-46-7	
Dichlorodifluoromethane	**2.2**	ug/m3	1.3	1.26		02/19/16 18:53	75-71-8	
1,1-Dichloroethane	ND	ug/m3	1.0	1.26		02/19/16 18:53	75-34-3	
1,2-Dichloroethane	ND	ug/m3	0.52	1.26		02/19/16 18:53	107-06-2	
1,1-Dichloroethene	ND	ug/m3	1.0	1.26		02/19/16 18:53	75-35-4	
cis-1,2-Dichloroethene	ND	ug/m3	1.0	1.26		02/19/16 18:53	156-59-2	
trans-1,2-Dichloroethene	ND	ug/m3	1.0	1.26		02/19/16 18:53	156-60-5	
1,2-Dichloropropane	ND	ug/m3	1.2	1.26		02/19/16 18:53	78-87-5	
cis-1,3-Dichloropropene	ND	ug/m3	1.2	1.26		02/19/16 18:53	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/m3	1.2	1.26		02/19/16 18:53	10061-02-6	
Dichlorotetrafluoroethane	ND	ug/m3	1.8	1.26		02/19/16 18:53	76-14-2	
Ethanol	**1.7**	ug/m3	1.2	1.26		02/19/16 18:53	64-17-5	
Ethyl acetate	ND	ug/m3	0.92	1.26		02/19/16 18:53	141-78-6	
Ethylbenzene	ND	ug/m3	1.1	1.26		02/19/16 18:53	100-41-4	
4-Ethyltoluene	**1.6**	ug/m3	1.3	1.26		02/19/16 18:53	622-96-8	
n-Heptane	**2.0**	ug/m3	1.0	1.26		02/19/16 18:53	142-82-5	
Hexachloro-1,3-butadiene	ND	ug/m3	2.8	1.26		02/19/16 18:53	87-68-3	
n-Hexane	**3.4**	ug/m3	0.91	1.26		02/19/16 18:53	110-54-3	
2-Hexanone	ND	ug/m3	5.2	1.26		02/19/16 18:53	591-78-6	
Methylene Chloride	ND	ug/m3	4.4	1.26		02/19/16 18:53	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/m3	5.2	1.26		02/19/16 18:53	108-10-1	
Methyl-tert-butyl ether	ND	ug/m3	4.6	1.26		02/19/16 18:53	1634-04-4	
Naphthalene	**3.7**	ug/m3	3.4	1.26		02/19/16 18:53	91-20-3	
2-Propanol	ND	ug/m3	3.2	1.26		02/19/16 18:53	67-63-0	
Propylene	**2.1**	ug/m3	0.44	1.26		02/19/16 18:53	115-07-1	

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ANALYTICAL RESULTS

Project: 6522 AHTD Job#100705
Pace Project No.: 10338289

Sample: VW-3 **Lab ID: 10338289004** Collected: 02/09/16 11:06 Received: 02/11/16 10:00 Matrix: Air

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
TO15 MSV AIR	Analytical Method: TO-15							
Styrene	ND	ug/m3	1.1	1.26		02/19/16 18:53	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/m3	0.88	1.26		02/19/16 18:53	79-34-5	
Tetrachloroethene	ND	ug/m3	0.87	1.26		02/19/16 18:53	127-18-4	
Tetrahydrofuran	**0.79**	ug/m3	0.76	1.26		02/19/16 18:53	109-99-9	
Toluene	**3.8**	ug/m3	0.97	1.26		02/19/16 18:53	108-88-3	
1,2,4-Trichlorobenzene	ND	ug/m3	4.8	1.26		02/19/16 18:53	120-82-1	
1,1,1-Trichloroethane	ND	ug/m3	1.4	1.26		02/19/16 18:53	71-55-6	
1,1,2-Trichloroethane	ND	ug/m3	0.69	1.26		02/19/16 18:53	79-00-5	
Trichloroethene	ND	ug/m3	0.69	1.26		02/19/16 18:53	79-01-6	
Trichlorofluoromethane	**1.5**	ug/m3	1.4	1.26		02/19/16 18:53	75-69-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/m3	2.0	1.26		02/19/16 18:53	76-13-1	
1,2,4-Trimethylbenzene	**5.1**	ug/m3	1.3	1.26		02/19/16 18:53	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/m3	1.3	1.26		02/19/16 18:53	108-67-8	
Vinyl acetate	**1.2**	ug/m3	0.90	1.26		02/19/16 18:53	108-05-4	
Vinyl chloride	ND	ug/m3	0.33	1.26		02/19/16 18:53	75-01-4	
m&p-Xylene	**3.7**	ug/m3	2.2	1.26		02/19/16 18:53	179601-23-1	
o-Xylene	**1.9**	ug/m3	1.1	1.26		02/19/16 18:53	95-47-6	

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QUALITY CONTROL DATA

Project: 6522 AHTD Job#100705
Pace Project No.: 10338289

QC Batch: AIR/25245 | Analysis Method: Method 3C Gases
QC Batch Method: Method 3C Gases | Analysis Description: METHOD 3C AIR - FIXED GASES
Associated Lab Samples: 10338289001, 10338289002, 10338289003, 10338289004

METHOD BLANK: 2193399 | Matrix: Air
Associated Lab Samples: 10338289001, 10338289002, 10338289003, 10338289004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Helium	%	ND	3.6	02/17/16 10:28	

LABORATORY CONTROL SAMPLE & LCSD: 2193400 2193401

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Helium	%	18	21.1	20.2	117	112	70-130	4	30	

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QUALITY CONTROL DATA

Project: 6522 AHTD Job#100705
Pace Project No.: 10338289

QC Batch: AIR/25246 Analysis Method: TO-15
QC Batch Method: TO-15 Analysis Description: TO15 MSV AIR Low Level
Associated Lab Samples: 10338289001, 10338289002, 10338289003

METHOD BLANK: 2193629 Matrix: Air
Associated Lab Samples: 10338289001, 10338289002, 10338289003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/m3	ND	1.1	02/17/16 14:05	
1,1,2,2-Tetrachloroethane	ug/m3	ND	0.70	02/17/16 14:05	
1,1,2-Trichloroethane	ug/m3	ND	0.55	02/17/16 14:05	
1,1,2-Trichlorotrifluoroethane	ug/m3	ND	1.6	02/17/16 14:05	
1,1-Dichloroethane	ug/m3	ND	0.82	02/17/16 14:05	
1,1-Dichloroethene	ug/m3	ND	0.81	02/17/16 14:05	
1,2,4-Trichlorobenzene	ug/m3	ND	3.8	02/17/16 14:05	
1,2,4-Trimethylbenzene	ug/m3	ND	1.0	02/17/16 14:05	
1,2-Dibromoethane (EDB)	ug/m3	ND	1.6	02/17/16 14:05	
1,2-Dichlorobenzene	ug/m3	ND	1.2	02/17/16 14:05	
1,2-Dichloroethane	ug/m3	ND	0.41	02/17/16 14:05	
1,2-Dichloropropane	ug/m3	ND	0.94	02/17/16 14:05	
1,3,5-Trimethylbenzene	ug/m3	ND	1.0	02/17/16 14:05	
1,3-Butadiene	ug/m3	ND	0.45	02/17/16 14:05	
1,3-Dichlorobenzene	ug/m3	ND	1.2	02/17/16 14:05	
1,4-Dichlorobenzene	ug/m3	ND	1.2	02/17/16 14:05	
2-Butanone (MEK)	ug/m3	ND	3.0	02/17/16 14:05	
2-Hexanone	ug/m3	ND	4.2	02/17/16 14:05	
2-Propanol	ug/m3	ND	2.5	02/17/16 14:05	
4-Ethyltoluene	ug/m3	ND	1.0	02/17/16 14:05	
4-Methyl-2-pentanone (MIBK)	ug/m3	ND	4.2	02/17/16 14:05	
Acetone	ug/m3	ND	2.4	02/17/16 14:05	
Benzene	ug/m3	ND	0.32	02/17/16 14:05	
Benzyl chloride	ug/m3	ND	1.0	02/17/16 14:05	
Bromodichloromethane	ug/m3	ND	1.4	02/17/16 14:05	
Bromoform	ug/m3	ND	10.5	02/17/16 14:05	
Bromomethane	ug/m3	ND	0.79	02/17/16 14:05	
Carbon disulfide	ug/m3	ND	0.63	02/17/16 14:05	
Carbon tetrachloride	ug/m3	ND	0.64	02/17/16 14:05	
Chlorobenzene	ug/m3	ND	0.94	02/17/16 14:05	
Chloroethane	ug/m3	ND	0.54	02/17/16 14:05	
Chloroform	ug/m3	ND	0.50	02/17/16 14:05	
Chloromethane	ug/m3	ND	0.42	02/17/16 14:05	
cis-1,2-Dichloroethene	ug/m3	ND	0.81	02/17/16 14:05	
cis-1,3-Dichloropropene	ug/m3	ND	0.92	02/17/16 14:05	
Cyclohexane	ug/m3	ND	0.70	02/17/16 14:05	
Dibromochloromethane	ug/m3	ND	1.7	02/17/16 14:05	
Dichlorodifluoromethane	ug/m3	ND	1.0	02/17/16 14:05	
Dichlorotetrafluoroethane	ug/m3	ND	1.4	02/17/16 14:05	
Ethanol	ug/m3	ND	0.96	02/17/16 14:05	
Ethyl acetate	ug/m3	ND	0.73	02/17/16 14:05	

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QUALITY CONTROL DATA

Project: 6522 AHTD Job#100705
Pace Project No.: 10338289

METHOD BLANK: 2193629 Matrix: Air
Associated Lab Samples: 10338289001, 10338289002, 10338289003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Ethylbenzene	ug/m3	ND	0.88	02/17/16 14:05	
Hexachloro-1,3-butadiene	ug/m3	ND	2.2	02/17/16 14:05	
m&p-Xylene	ug/m3	ND	1.8	02/17/16 14:05	
Methyl-tert-butyl ether	ug/m3	ND	3.7	02/17/16 14:05	
Methylene Chloride	ug/m3	ND	3.5	02/17/16 14:05	
n-Heptane	ug/m3	ND	0.83	02/17/16 14:05	
n-Hexane	ug/m3	ND	0.72	02/17/16 14:05	
Naphthalene	ug/m3	ND	2.7	02/17/16 14:05	
o-Xylene	ug/m3	ND	0.88	02/17/16 14:05	
Propylene	ug/m3	ND	0.35	02/17/16 14:05	
Styrene	ug/m3	ND	0.87	02/17/16 14:05	
Tetrachloroethene	ug/m3	ND	0.69	02/17/16 14:05	
Tetrahydrofuran	ug/m3	ND	0.60	02/17/16 14:05	
Toluene	ug/m3	ND	0.77	02/17/16 14:05	
trans-1,2-Dichloroethene	ug/m3	ND	0.81	02/17/16 14:05	
trans-1,3-Dichloropropene	ug/m3	ND	0.92	02/17/16 14:05	
Trichloroethene	ug/m3	ND	0.55	02/17/16 14:05	
Trichlorofluoromethane	ug/m3	ND	1.1	02/17/16 14:05	
Vinyl acetate	ug/m3	ND	0.72	02/17/16 14:05	
Vinyl chloride	ug/m3	ND	0.26	02/17/16 14:05	

LABORATORY CONTROL SAMPLE: 2193630

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/m3	57.7	48.0	83	60-143	
1,1,2,2-Tetrachloroethane	ug/m3	74	67.2	91	49-150	
1,1,2-Trichloroethane	ug/m3	58.8	47.2	80	57-149	
1,1,2-Trichlorotrifluoroethane	ug/m3	81.8	73.7	90	66-131	
1,1-Dichloroethane	ug/m3	43.2	36.2	84	62-139	
1,1-Dichloroethene	ug/m3	42.3	36.2	86	62-135	
1,2,4-Trichlorobenzene	ug/m3	73.9	75.6	102	55-146	
1,2,4-Trimethylbenzene	ug/m3	51.5	50.4	98	57-143	
1,2-Dibromoethane (EDB)	ug/m3	82.8	74.5	90	63-150	
1,2-Dichlorobenzene	ug/m3	62.9	64.9	103	57-141	
1,2-Dichloroethane	ug/m3	43.6	35.7	82	61-144	
1,2-Dichloropropane	ug/m3	50.2	41.5	83	63-144	
1,3,5-Trimethylbenzene	ug/m3	51.5	48.6	94	54-147	
1,3-Butadiene	ug/m3	23.2	20.5	89	61-140	
1,3-Dichlorobenzene	ug/m3	63.6	63.8	100	51-150	
1,4-Dichlorobenzene	ug/m3	61.7	62.1	101	57-143	
2-Butanone (MEK)	ug/m3	32.1	27.9	87	66-144	
2-Hexanone	ug/m3	45	43.4	97	63-147	
2-Propanol	ug/m3	25.7	23.7	92	54-146	
4-Ethyltoluene	ug/m3	49.5	48.6	98	56-150	

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REPORT OF LABORATORY ANALYSIS

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Attachment 17

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QUALITY CONTROL DATA

Project: 6522 AHTD Job#100705
Pace Project No.: 10338289

LABORATORY CONTROL SAMPLE: 2193630

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
4-Methyl-2-pentanone (MIBK)	ug/m3	43.7	42.2	96	58-150	
Acetone	ug/m3	24.9	23.8	96	46-140	
Benzene	ug/m3	34.4	29.0	84	62-141	
Benzyl chloride	ug/m3	54.7	44.2	81	66-138	
Bromodichloromethane	ug/m3	71.5	61.1	85	58-149	
Bromoform	ug/m3	113	108	95	61-150	
Bromomethane	ug/m3	38.3	32.7	85	58-136	
Carbon disulfide	ug/m3	33.2	28.2	85	59-135	
Carbon tetrachloride	ug/m3	67.1	57.0	85	60-149	
Chlorobenzene	ug/m3	50.1	43.7	87	60-150	
Chloroethane	ug/m3	26	24.6	94	61-136	
Chloroform	ug/m3	51.6	43.4	84	65-138	
Chloromethane	ug/m3	21	18.3	87	62-133	
cis-1,2-Dichloroethene	ug/m3	43.5	36.7	84	65-139	
cis-1,3-Dichloropropene	ug/m3	51.7	43.7	85	61-149	
Cyclohexane	ug/m3	36.7	31.4	85	64-134	
Dibromochloromethane	ug/m3	97	84.1	87	59-150	
Dichlorodifluoromethane	ug/m3	50.3	43.8	87	63-134	
Dichlorotetrafluoroethane	ug/m3	69.6	62.2	89	62-134	
Ethanol	ug/m3	20.3	19.1	94	50-144	
Ethyl acetate	ug/m3	38.1	31.8	83	55-146	
Ethylbenzene	ug/m3	47.2	41.4	88	59-149	
Hexachloro-1,3-butadiene	ug/m3	108	105	97	42-150	
m&p-Xylene	ug/m3	47.7	43.2	91	59-146	
Methyl-tert-butyl ether	ug/m3	38.5	34.6	90	64-135	
Methylene Chloride	ug/m3	38.8	32.3	83	64-128	
n-Heptane	ug/m3	44.2	36.0	81	64-140	
n-Hexane	ug/m3	37.6	26.6	71	50-138	
Naphthalene	ug/m3	55.9	39.5	71	46-146	
o-Xylene	ug/m3	46.8	41.0	88	54-149	
Propylene	ug/m3	18.9	15.5	82	58-135	
Styrene	ug/m3	45.5	42.3	93	54-150	
Tetrachloroethene	ug/m3	72.4	63.7	88	60-142	
Tetrahydrofuran	ug/m3	32.7	27.4	84	56-143	
Toluene	ug/m3	41	32.6	79	61-138	
trans-1,2-Dichloroethene	ug/m3	41.1	37.3	91	67-137	
trans-1,3-Dichloropropene	ug/m3	51.7	42.7	83	59-145	
Trichloroethene	ug/m3	57.4	49.3	86	60-144	
Trichlorofluoromethane	ug/m3	58.2	48.8	84	59-134	
Vinyl acetate	ug/m3	39.7	29.3	74	55-143	
Vinyl chloride	ug/m3	26.5	23.1	87	63-135	

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QUALITY CONTROL DATA

Project: 6522 AHTD Job#100705
Pace Project No.: 10338289

SAMPLE DUPLICATE: 2194253

Parameter	Units	10337978007 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1-Trichloroethane	ug/m3	ND	ND		25	
1,1,2,2-Tetrachloroethane	ug/m3	ND	ND		25	
1,1,2-Trichloroethane	ug/m3	ND	ND		25	
1,1,2-Trichlorotrifluoroethane	ug/m3	ND	ND		25	
1,1-Dichloroethane	ug/m3	ND	ND		25	
1,1-Dichloroethene	ug/m3	ND	ND		25	
1,2,4-Trichlorobenzene	ug/m3	ND	ND		25	
1,2,4-Trimethylbenzene	ug/m3	2.8	2.6	9	25	
1,2-Dibromoethane (EDB)	ug/m3	ND	ND		25	
1,2-Dichlorobenzene	ug/m3	ND	ND		25	
1,2-Dichloroethane	ug/m3	ND	ND		25	
1,2-Dichloropropane	ug/m3	ND	ND		25	
1,3,5-Trimethylbenzene	ug/m3	ND	.92J		25	
1,3-Butadiene	ug/m3	ND	ND		25	
1,3-Dichlorobenzene	ug/m3	ND	ND		25	
1,4-Dichlorobenzene	ug/m3	ND	ND		25	
2-Butanone (MEK)	ug/m3	9.9	8.3	18	25	
2-Hexanone	ug/m3	ND	ND		25	
2-Propanol	ug/m3	5.4	4.8	13	25	
4-Ethyltoluene	ug/m3	ND	1.3J		25	
4-Methyl-2-pentanone (MIBK)	ug/m3	ND	ND		25	
Acetone	ug/m3	35.2	37.1	5	25	
Benzene	ug/m3	0.91	0.91	0	25	
Benzyl chloride	ug/m3	ND	ND		25	
Bromodichloromethane	ug/m3	ND	ND		25	
Bromoform	ug/m3	ND	ND		25	
Bromomethane	ug/m3	ND	ND		25	
Carbon disulfide	ug/m3	ND	ND		25	
Carbon tetrachloride	ug/m3	ND	ND		25	
Chlorobenzene	ug/m3	ND	ND		25	
Chloroethane	ug/m3	ND	ND		25	
Chloroform	ug/m3	ND	ND		25	
Chloromethane	ug/m3	2.4	1.2	68	25	R1
cis-1,2-Dichloroethene	ug/m3	ND	ND		25	
cis-1,3-Dichloropropene	ug/m3	ND	ND		25	
Cyclohexane	ug/m3	3.1	2.8	10	25	
Dibromochloromethane	ug/m3	ND	ND		25	
Dichlorodifluoromethane	ug/m3	2.1	2.8	31	25	R1
Dichlorotetrafluoroethane	ug/m3	ND	ND		25	
Ethanol	ug/m3	52.4	44.9	15	25	
Ethyl acetate	ug/m3	ND	ND		25	
Ethylbenzene	ug/m3	ND	.71J		25	
Hexachloro-1,3-butadiene	ug/m3	ND	ND		25	
m&p-Xylene	ug/m3	ND	2.5J		25	
Methyl-tert-butyl ether	ug/m3	ND	ND		25	
Methylene Chloride	ug/m3	280	264	6	25	
n-Heptane	ug/m3	ND	ND		25	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 6522 AHTD Job#100705
Pace Project No.: 10338289

SAMPLE DUPLICATE: 2194253

Parameter	Units	10337978007 Result	Dup Result	RPD	Max RPD	Qualifiers
n-Hexane	ug/m3	54.1	50.8	6	25	
Naphthalene	ug/m3	ND	ND		25	
o-Xylene	ug/m3	ND	.83J		25	
Propylene	ug/m3	ND	ND		25	
Styrene	ug/m3	ND	ND		25	
Tetrachloroethene	ug/m3	ND	ND		25	
Tetrahydrofuran	ug/m3	ND	ND		25	
Toluene	ug/m3	85.0	77.5	9	25	
trans-1,2-Dichloroethene	ug/m3	ND	ND		25	
trans-1,3-Dichloropropene	ug/m3	ND	ND		25	
Trichloroethene	ug/m3	4.7	4.2	10	25	
Trichlorofluoromethane	ug/m3	1.9	1.8	3	25	
Vinyl acetate	ug/m3	ND	ND		25	
Vinyl chloride	ug/m3	ND	ND		25	

SAMPLE DUPLICATE: 2194254

Parameter	Units	10338437004 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1-Trichloroethane	ug/m3	ND	ND		25	
1,1,2,2-Tetrachloroethane	ug/m3	ND	ND		25	
1,1,2-Trichloroethane	ug/m3	ND	ND		25	
1,1,2-Trichlorotrifluoroethane	ug/m3	ND	ND		25	
1,1-Dichloroethane	ug/m3	ND	ND		25	
1,1-Dichloroethene	ug/m3	ND	ND		25	
1,2,4-Trichlorobenzene	ug/m3	ND	ND		25	
1,2,4-Trimethylbenzene	ug/m3	ND	ND		25	
1,2-Dibromoethane (EDB)	ug/m3	ND	ND		25	
1,2-Dichlorobenzene	ug/m3	ND	ND		25	
1,2-Dichloroethane	ug/m3	ND	ND		25	
1,2-Dichloropropane	ug/m3	ND	ND		25	
1,3,5-Trimethylbenzene	ug/m3	ND	ND		25	
1,3-Butadiene	ug/m3	ND	ND		25	
1,3-Dichlorobenzene	ug/m3	ND	ND		25	
1,4-Dichlorobenzene	ug/m3	ND	ND		25	
2-Butanone (MEK)	ug/m3	ND	ND		25	
2-Hexanone	ug/m3	ND	ND		25	
2-Propanol	ug/m3	ND	2.1J		25	
4-Ethyltoluene	ug/m3	ND	ND		25	
4-Methyl-2-pentanone (MIBK)	ug/m3	ND	ND		25	
Acetone	ug/m3	4.5	4.1	8	25	
Benzene	ug/m3	0.56	0.59	5	25	
Benzyl chloride	ug/m3	ND	ND		25	
Bromodichloromethane	ug/m3	ND	ND		25	
Bromoform	ug/m3	ND	ND		25	
Bromomethane	ug/m3	ND	ND		25	

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QUALITY CONTROL DATA

Project: 6522 AHTD Job#100705
Pace Project No.: 10338289

SAMPLE DUPLICATE: 2194254

Parameter	Units	10338437004 Result	Dup Result	RPD	Max RPD	Qualifiers
Carbon disulfide	ug/m3	ND	ND		25	
Carbon tetrachloride	ug/m3	ND	ND		25	
Chlorobenzene	ug/m3	ND	ND		25	
Chloroethane	ug/m3	ND	ND		25	
Chloroform	ug/m3	ND	ND		25	
Chloromethane	ug/m3	0.75	0.79	5	25	
cis-1,2-Dichloroethene	ug/m3	ND	ND		25	
cis-1,3-Dichloropropene	ug/m3	ND	ND		25	
Cyclohexane	ug/m3	ND	ND		25	
Dibromochloromethane	ug/m3	ND	ND		25	
Dichlorodifluoromethane	ug/m3	1.7	2.5	40	25	R1
Dichlorotetrafluoroethane	ug/m3	ND	ND		25	
Ethanol	ug/m3	8.0	7.2	10	25	
Ethyl acetate	ug/m3	ND	ND		25	
Ethylbenzene	ug/m3	ND	ND		25	
Hexachloro-1,3-butadiene	ug/m3	ND	ND		25	
m&p-Xylene	ug/m3	ND	ND		25	
Methyl-tert-butyl ether	ug/m3	ND	ND		25	
Methylene Chloride	ug/m3	ND	.89J		25	
n-Heptane	ug/m3	ND	ND		25	
n-Hexane	ug/m3	ND	.59J		25	
Naphthalene	ug/m3	ND	ND		25	
o-Xylene	ug/m3	ND	ND		25	
Propylene	ug/m3	ND	ND		25	
Styrene	ug/m3	ND	ND		25	
Tetrachloroethene	ug/m3	ND	ND		25	
Tetrahydrofuran	ug/m3	ND	ND		25	
Toluene	ug/m3	2.5	2.2	14	25	
trans-1,2-Dichloroethene	ug/m3	ND	ND		25	
trans-1,3-Dichloropropene	ug/m3	ND	ND		25	
Trichloroethene	ug/m3	ND	ND		25	
Trichlorofluoromethane	ug/m3	ND	1.4J		25	
Vinyl acetate	ug/m3	ND	ND		25	
Vinyl chloride	ug/m3	ND	ND		25	

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QUALITY CONTROL DATA

Project: 6522 AHTD Job#100705
Pace Project No.: 10338289

QC Batch: AIR/25264
QC Batch Method: TO-15
Analysis Method: TO-15
Analysis Description: TO15 MSV AIR Low Level
Associated Lab Samples: 10338289004

METHOD BLANK: 2194994
Matrix: Air
Associated Lab Samples: 10338289004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/m3	ND	1.1	02/19/16 16:48	
1,1,2,2-Tetrachloroethane	ug/m3	ND	0.70	02/19/16 16:48	
1,1,2-Trichloroethane	ug/m3	ND	0.55	02/19/16 16:48	
1,1,2-Trichlorotrifluoroethane	ug/m3	ND	1.6	02/19/16 16:48	
1,1-Dichloroethane	ug/m3	ND	0.82	02/19/16 16:48	
1,1-Dichloroethene	ug/m3	ND	0.81	02/19/16 16:48	
1,2,4-Trichlorobenzene	ug/m3	ND	3.8	02/19/16 16:48	
1,2,4-Trimethylbenzene	ug/m3	ND	1.0	02/19/16 16:48	
1,2-Dibromoethane (EDB)	ug/m3	ND	1.6	02/19/16 16:48	
1,2-Dichlorobenzene	ug/m3	ND	1.2	02/19/16 16:48	
1,2-Dichloroethane	ug/m3	ND	0.41	02/19/16 16:48	
1,2-Dichloropropane	ug/m3	ND	0.94	02/19/16 16:48	
1,3,5-Trimethylbenzene	ug/m3	ND	1.0	02/19/16 16:48	
1,3-Butadiene	ug/m3	ND	0.45	02/19/16 16:48	
1,3-Dichlorobenzene	ug/m3	ND	1.2	02/19/16 16:48	
1,4-Dichlorobenzene	ug/m3	ND	1.2	02/19/16 16:48	
2-Butanone (MEK)	ug/m3	ND	3.0	02/19/16 16:48	
2-Hexanone	ug/m3	ND	4.2	02/19/16 16:48	
2-Propanol	ug/m3	ND	2.5	02/19/16 16:48	
4-Ethyltoluene	ug/m3	ND	1.0	02/19/16 16:48	
4-Methyl-2-pentanone (MIBK)	ug/m3	ND	4.2	02/19/16 16:48	
Acetone	ug/m3	ND	2.4	02/19/16 16:48	
Benzene	ug/m3	ND	0.32	02/19/16 16:48	
Benzyl chloride	ug/m3	ND	2.6	02/19/16 16:48	
Bromodichloromethane	ug/m3	ND	1.4	02/19/16 16:48	
Bromoform	ug/m3	ND	2.1	02/19/16 16:48	
Bromomethane	ug/m3	ND	0.79	02/19/16 16:48	
Carbon disulfide	ug/m3	ND	0.63	02/19/16 16:48	
Carbon tetrachloride	ug/m3	ND	0.64	02/19/16 16:48	
Chlorobenzene	ug/m3	ND	0.94	02/19/16 16:48	
Chloroethane	ug/m3	ND	0.54	02/19/16 16:48	
Chloroform	ug/m3	ND	0.50	02/19/16 16:48	
Chloromethane	ug/m3	ND	0.42	02/19/16 16:48	
cis-1,2-Dichloroethene	ug/m3	ND	0.81	02/19/16 16:48	
cis-1,3-Dichloropropene	ug/m3	ND	0.92	02/19/16 16:48	
Cyclohexane	ug/m3	ND	0.70	02/19/16 16:48	
Dibromochloromethane	ug/m3	ND	1.7	02/19/16 16:48	
Dichlorodifluoromethane	ug/m3	ND	1.0	02/19/16 16:48	
Dichlorotetrafluoroethane	ug/m3	ND	1.4	02/19/16 16:48	
Ethanol	ug/m3	ND	0.96	02/19/16 16:48	
Ethyl acetate	ug/m3	ND	0.73	02/19/16 16:48	

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QUALITY CONTROL DATA

Project: 6522 AHTD Job#100705
Pace Project No.: 10338289

METHOD BLANK: 2194994 Matrix: Air
Associated Lab Samples: 10338289004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Ethylbenzene	ug/m3	ND	0.88	02/19/16 16:48	
Hexachloro-1,3-butadiene	ug/m3	ND	2.2	02/19/16 16:48	
m&p-Xylene	ug/m3	ND	1.8	02/19/16 16:48	
Methyl-tert-butyl ether	ug/m3	ND	3.7	02/19/16 16:48	
Methylene Chloride	ug/m3	ND	3.5	02/19/16 16:48	
n-Heptane	ug/m3	ND	0.83	02/19/16 16:48	
n-Hexane	ug/m3	ND	0.72	02/19/16 16:48	
Naphthalene	ug/m3	ND	2.7	02/19/16 16:48	
o-Xylene	ug/m3	ND	0.88	02/19/16 16:48	
Propylene	ug/m3	ND	0.35	02/19/16 16:48	
Styrene	ug/m3	ND	0.87	02/19/16 16:48	
Tetrachloroethene	ug/m3	ND	0.69	02/19/16 16:48	
Tetrahydrofuran	ug/m3	ND	0.60	02/19/16 16:48	
Toluene	ug/m3	ND	0.77	02/19/16 16:48	
trans-1,2-Dichloroethene	ug/m3	ND	0.81	02/19/16 16:48	
trans-1,3-Dichloropropene	ug/m3	ND	0.92	02/19/16 16:48	
Trichloroethene	ug/m3	ND	0.55	02/19/16 16:48	
Trichlorofluoromethane	ug/m3	ND	1.1	02/19/16 16:48	
Vinyl acetate	ug/m3	ND	0.72	02/19/16 16:48	
Vinyl chloride	ug/m3	ND	0.26	02/19/16 16:48	

LABORATORY CONTROL SAMPLE: 2194995

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/m3	55.5	52.1	94	60-143	
1,1,2,2-Tetrachloroethane	ug/m3	69.8	72.5	104	49-150	
1,1,2-Trichloroethane	ug/m3	55.5	49.9	90	57-149	
1,1,2-Trichlorotrifluoroethane	ug/m3	77.9	81.0	104	66-131	
1,1-Dichloroethane	ug/m3	41.2	42.0	102	62-139	
1,1-Dichloroethene	ug/m3	40.3	40.1	99	62-135	
1,2,4-Trichlorobenzene	ug/m3	75.5	76.6	101	55-146	
1,2,4-Trimethylbenzene	ug/m3	50	54.9	110	57-143	
1,2-Dibromoethane (EDB)	ug/m3	78.1	76.5	98	63-150	
1,2-Dichlorobenzene	ug/m3	61.2	71.9	118	57-141	
1,2-Dichloroethane	ug/m3	41.2	38.8	94	61-144	
1,2-Dichloropropane	ug/m3	47	45.8	97	63-144	
1,3,5-Trimethylbenzene	ug/m3	50	52.9	106	54-147	
1,3-Butadiene	ug/m3	22.5	23.5	104	61-140	
1,3-Dichlorobenzene	ug/m3	61.2	71.7	117	51-150	
1,4-Dichlorobenzene	ug/m3	61.2	69.7	114	57-143	
2-Butanone (MEK)	ug/m3	30	31.7	106	66-144	
2-Hexanone	ug/m3	41.7	48.5	116	63-147	
2-Propanol	ug/m3	25	26.1	104	54-146	
4-Ethyltoluene	ug/m3	50	53.6	107	56-150	

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QUALITY CONTROL DATA

Project: 6522 AHTD Job#100705
Pace Project No.: 10338289

LABORATORY CONTROL SAMPLE: 2194995

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
4-Methyl-2-pentanone (MIBK)	ug/m3	41.7	43.5	104	58-150	
Acetone	ug/m3	24.2	21.3	88	46-140	
Benzene	ug/m3	32.5	30.7	95	62-141	
Benzyl chloride	ug/m3	52.5	49.5	94	66-138	
Bromodichloromethane	ug/m3	68.2	63.6	93	58-149	
Bromoform	ug/m3	105	116	111	61-150	
Bromomethane	ug/m3	39.5	37.4	95	58-136	
Carbon disulfide	ug/m3	31.7	31.8	101	59-135	
Carbon tetrachloride	ug/m3	64	58.2	91	60-149	
Chlorobenzene	ug/m3	46.8	45.3	97	60-150	
Chloroethane	ug/m3	26.8	28.1	105	61-136	
Chloroform	ug/m3	49.7	48.1	97	65-138	
Chloromethane	ug/m3	21	19.2	91	62-133	
cis-1,2-Dichloroethene	ug/m3	40.3	41.0	102	65-139	
cis-1,3-Dichloropropene	ug/m3	46.2	45.8	99	61-149	
Cyclohexane	ug/m3	35	34.1	97	64-134	
Dibromochloromethane	ug/m3	86.6	88.4	102	59-150	
Dichlorodifluoromethane	ug/m3	50.3	44.6	89	63-134	
Dichlorotetrafluoroethane	ug/m3	71.1	63.4	89	62-134	
Ethanol	ug/m3	19.2	18.6	97	50-144	
Ethyl acetate	ug/m3	36.6	36.0	98	55-146	
Ethylbenzene	ug/m3	44.2	42.8	97	59-149	
Hexachloro-1,3-butadiene	ug/m3	108	119	110	42-150	
m&p-Xylene	ug/m3	44.2	44.9	102	59-146	
Methyl-tert-butyl ether	ug/m3	36.7	38.5	105	64-135	
Methylene Chloride	ug/m3	35.3	37.1	105	64-128	
n-Heptane	ug/m3	41.7	40.0	96	64-140	
n-Hexane	ug/m3	35.8	30.5	85	50-138	
Naphthalene	ug/m3	53.3	57.5	108	46-146	
o-Xylene	ug/m3	44.2	44.0	100	54-149	
Propylene	ug/m3	17.5	15.8	90	58-135	
Styrene	ug/m3	43.3	46.0	106	54-150	
Tetrachloroethene	ug/m3	69	67.2	97	60-142	
Tetrahydrofuran	ug/m3	30	30.3	101	56-143	
Toluene	ug/m3	38.3	33.8	88	61-138	
trans-1,2-Dichloroethene	ug/m3	40.3	40.9	101	67-137	
trans-1,3-Dichloropropene	ug/m3	46.2	45.8	99	59-145	
Trichloroethene	ug/m3	54.6	51.7	95	60-144	
Trichlorofluoromethane	ug/m3	57.1	52.3	92	59-134	
Vinyl acetate	ug/m3	35.8	35.1	98	55-143	
Vinyl chloride	ug/m3	26	25.6	99	63-135	

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QUALITY CONTROL DATA

Project: 6522 AHTD Job#100705
Pace Project No.: 10338289

SAMPLE DUPLICATE: 2195832

Parameter	Units	10338529004 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1-Trichloroethane	ug/m3	ND	ND		25	
1,1,2,2-Tetrachloroethane	ug/m3	ND	ND		25	
1,1,2-Trichloroethane	ug/m3	ND	ND		25	
1,1,2-Trichlorotrifluoroethane	ug/m3	ND	ND		25	
1,1-Dichloroethane	ug/m3	ND	ND		25	
1,1-Dichloroethene	ug/m3	ND	ND		25	
1,2,4-Trichlorobenzene	ug/m3	ND	ND		25	
1,2,4-Trimethylbenzene	ug/m3	ND	ND		25	
1,2-Dibromoethane (EDB)	ug/m3	ND	ND		25	
1,2-Dichlorobenzene	ug/m3	ND	ND		25	
1,2-Dichloroethane	ug/m3	ND	ND		25	
1,2-Dichloropropane	ug/m3	ND	ND		25	
1,3,5-Trimethylbenzene	ug/m3	ND	ND		25	
1,3-Butadiene	ug/m3	ND	ND		25	
1,3-Dichlorobenzene	ug/m3	ND	ND		25	
1,4-Dichlorobenzene	ug/m3	ND	ND		25	
2-Butanone (MEK)	ug/m3	ND	1J		25	
2-Hexanone	ug/m3	ND	ND		25	
2-Propanol	ug/m3	ND	.8J		25	
4-Ethyltoluene	ug/m3	ND	ND		25	
4-Methyl-2-pentanone (MIBK)	ug/m3	ND	ND		25	
Acetone	ug/m3	5.6	5.9	6	25	
Benzene	ug/m3	0.60	0.64	6	25	
Benzyl chloride	ug/m3	ND	ND		25	
Bromodichloromethane	ug/m3	ND	ND		25	
Bromoform	ug/m3	ND	ND		25	
Bromomethane	ug/m3	ND	ND		25	
Carbon disulfide	ug/m3	ND	ND		25	
Carbon tetrachloride	ug/m3	ND	ND		25	
Chlorobenzene	ug/m3	ND	ND		25	
Chloroethane	ug/m3	ND	ND		25	
Chloroform	ug/m3	ND	ND		25	
Chloromethane	ug/m3	0.81	0.85	4	25	
cis-1,2-Dichloroethene	ug/m3	ND	ND		25	
cis-1,3-Dichloropropene	ug/m3	ND	ND		25	
Cyclohexane	ug/m3	ND	ND		25	
Dibromochloromethane	ug/m3	ND	ND		25	
Dichlorodifluoromethane	ug/m3	2.2	2.6	15	25	
Dichlorotetrafluoroethane	ug/m3	ND	ND		25	
Ethanol	ug/m3	4.1	3.9	4	25	
Ethyl acetate	ug/m3	ND	ND		25	
Ethylbenzene	ug/m3	ND	ND		25	
Hexachloro-1,3-butadiene	ug/m3	ND	ND		25	
m&p-Xylene	ug/m3	ND	ND		25	
Methyl-tert-butyl ether	ug/m3	ND	ND		25	
Methylene Chloride	ug/m3	ND	4.8		25	
n-Heptane	ug/m3	ND	ND		25	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: 6522 AHTD Job#100705
Pace Project No.: 10338289

SAMPLE DUPLICATE: 2195832

Parameter	Units	10338529004 Result	Dup Result	RPD	Max RPD	Qualifiers
n-Hexane	ug/m3	1.1	1.1	1	25	
Naphthalene	ug/m3	ND	1.6J		25	
o-Xylene	ug/m3	ND	ND		25	
Propylene	ug/m3	ND	ND		25	
Styrene	ug/m3	ND	ND		25	
Tetrachloroethene	ug/m3	ND	ND		25	
Tetrahydrofuran	ug/m3	ND	ND		25	
Toluene	ug/m3	1.6	1.7	6	25	
trans-1,2-Dichloroethene	ug/m3	ND	ND		25	
trans-1,3-Dichloropropene	ug/m3	ND	ND		25	
Trichloroethene	ug/m3	ND	ND		25	
Trichlorofluoromethane	ug/m3	ND	1.2J		25	
Vinyl acetate	ug/m3	ND	ND		25	
Vinyl chloride	ug/m3	ND	ND		25	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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Minneapolis, MN 55414
(612)607-1700

QUALIFIERS

Project: 6522 AHTD Job#100705
Pace Project No.: 10338289

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

R1 RPD value was outside control limits.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 6522 AHTD Job#100705
Pace Project No.: 10338289

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10338289001	**VW-1**	Method 3C Gases	AIR/25245		
10338289002	**Duplicate**	Method 3C Gases	AIR/25245		
10338289003	**VW-2**	Method 3C Gases	AIR/25245		
10338289004	**VW-3**	Method 3C Gases	AIR/25245		
10338289001	**VW-1**	TO-15	AIR/25246		
10338289002	**Duplicate**	TO-15	AIR/25246		
10338289003	**VW-2**	TO-15	AIR/25246		
10338289004	**VW-3**	TO-15	AIR/25264		

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10338289

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www.pacelabs.com

AIR: CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

23782

Page: 1 of 1

Section A Required Client Information:

Company: The Southern Co., NLR, Inc
Address: 1201 Cypress St. N. Little Rock AR 72114
Email To: SKemph@thesco.com
Phone: 501.376.6338 Fax: 501.376.8715
Requested Due Date/TAT: Normal

Section B Required Project Information:

Report To: Scott Kemph
Copy To: SKemph@thesco.com
Purchase Order No.: 60293
Project Name: AHTD Job #100705
Project Number: 6522

Section C Invoice Information:

Attention: Scott Kemph
Company Name: The Southern Company, NLR Inc
Address: 1201 Cypress, NLR, AR 72114
Pace Quote Reference: 1023021
Pace Project Manager/Sales Rep: Stephen Mitchell
Pace Profile #: 1023021

Program: X UST ☐ Superfund ☐ Emissions ☐ Clean Air Act ☐ Voluntary Clean Up ☐ Dry Clean ☐ RCRA ☐ Other____

Location of Sampling by State: AR

Reporting Units: ug/m³ X mg/m³ ___ PPBV ___ PPMV ___ Other ___

Report Level II.___ III.___ IV.___ Other____

Section D Required Client Information

AIR SAMPLE ID
Sample IDs MUST BE UNIQUE

Valid Media Codes

MEDIA	CODE
Tedlar Bag	TB
1 Liter Summa Can	1LC
6 Liter Summa Can	6LC
Low Volume Puff	LVP
High Volume Puff	HVP
Other	PM10

ITEM #	Sample ID	MEDIA CODE	PID Reading (Client only)	COLLECTED COMPOSITE START END/GRAB DATE	TIME	COMPOSITE - DATE	TIME	Canister Pressure (Initial Field - psig)	Canister Pressure (Final Field - psig)	Summa Can Number	Flow Control Number	PM10	3C- Fixed Gas (%)	TO-3	TO-3M (Methane)	TO-4 (PCBs)	TO-13 (PAH)	TO-14	TO-15	TO15 Short List*	Helium	Pace Lab ID
1	VW-1	6LC		2.9.16	0825			28	5	2107	FC0934							X		X		001
2	Duplicate	6LC		2.9.16	0825			28	5	2113	FC0934							X		X		002
3	VW-2	6LC		2.9.16	0958			28	11	0858	FC0520							X		X		003
4	VW-3	6LC		2.9.16	1106			28	0	2177	FC0418							X		X		004
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						

Comments:

Pace Analytical media Order # 1023021

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
T. Scott Kemph	2-9-16	1330	[illegible] pace	2/11/16	1000

SAMPLE CONDITIONS

Temp in °C	Y/N	Y/N	Y/N
Received on Ice	Y/N	Y/N	Y/N
Custody Sealed Cooler	Y/N	Y/N	Y/N
Samples Intact	Y/N	Y/N	Y/N

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: T Scott Kemph

SIGNATURE of SAMPLER: T. Scott Kemph DATE Signed (MM / DD / YY): 2-9-16

ORIGINAL

Pace Analytical	Document Name: Air Sample Condition Upon Receipt	Document Revised: 29June2015 Page 1 of 1
	Document No.: F-MN-A-106-rev.10	Issuing Authority: Pace Minnesota Quality Office

Air Sample Condition Upon Receipt

Client Name: The Southern Co

Project #: WO#: 10338289

10338289

Courier: [X] Fed Ex [ ] UPS [ ] Speedee [ ] Client [ ] Commercial [ ] Pace [ ] Other:

Tracking Number: 6637 5034 8751

Custody Seal on Cooler/Box Present? [ ] Yes [X] No **Seals Intact?** [ ] Yes [X] No

Optional: Proj. Due Date: Proj. Name:

Packing Material: [ ] Bubble Wrap [ ] Bubble Bags [X] Foam [ ] None [ ] Tin Can [ ] Other: **Temp Blank rec:** [ ] Yes [X] No

Temp. (TO17 and TO13 samples only) (°C): AMB **Corrected Temp (°C):** — **Thermom. Used:** [ ] B88A912167504 [ ] B88A9132521491 [ ] 72337080 [ ] 80512447

Temp should be above freezing to 6°C **Correction Factor:** ~ **Date & Initials of Person Examining Contents:** MB 2/11/16

Type of ice Received [ ] Blue [ ] Wet [X] None

				Comments:
Chain of Custody Present?	[X] Yes	[ ] No	[ ] N/A	1.
Chain of Custody Filled Out?	[X] Yes	[ ] No	[ ] N/A	2.
Chain of Custody Relinquished?	[X] Yes	[ ] No	[ ] N/A	3.
Sampler Name and/or Signature on COC?	[X] Yes	[ ] No	[ ] N/A	4.
Samples Arrived within Hold Time?	[X] Yes	[ ] No	[ ] N/A	5.
Short Hold Time Analysis (<72 hr)?	[ ] Yes	[X] No	[ ] N/A	6.
Rush Turn Around Time Requested?	[ ] Yes	[X] No	[ ] N/A	7.
Sufficient Volume?	[X] Yes	[ ] No	[ ] N/A	8.
Correct Containers Used?	[X] Yes	[ ] No	[ ] N/A	9.
-Pace Containers Used?	[X] Yes	[ ] No	[ ] N/A	
Containers Intact?	[X] Yes	[ ] No	[ ] N/A	10.
Media: Air Can Airbag Filter TDT Passive				11.
Sample Labels Match COC?	[ ] Yes	[ ] No	[ ] N/A	12.

Samples Received:

Canisters			Canisters		
Sample Number	Can ID	Flow Controller ID	Sample Number	Can ID	Flow Controller ID
VW-1	PACE 2107	FC 0934	> Tritium		
Duplicate	PACE 2113	FC 0934			
VW-2	PACE 0858	FC 0520			
VW-3	PACE 2177	FC 0418			

CLIENT NOTIFICATION/RESOLUTION **Field Data Required?** [ ] Yes [ ] No

Person Contacted: Date/Time:

Comments/Resolution:

Project Manager Review: @ **Date:** 02/11/16

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Attachment 30

AHTD JOB #100705
100 North Division
Blytheville, Arkansas 72315
Facility ID # 47000222 and ADEQ LUST # 47-0040

Relative Percent Difference	Monitoring Well	Sample Date	Benzene	Toluene	Ethyl- Benzene	Total Xylene	MTBE	TPH-DRO	TPH-GRO	Napthalene
			mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
	MW-8	2/16/2016	0.206	0.350	0.486	0.635	0.000	NA	8.570	0.084
	Duplicate of MW-8	2/16/2016	0.205	0.348	0.483	0.633	0.000	NA	8.520	0.080
Relative Percent Difference			0.5	0.6	0.6	0.3	NA	NA	0.6	4.9

Monitoring Well	Sample Date	Benzene	Toluene	Ethyl- Benzene	Total Xylene	MTBE	TPH-DRO	TPH-GRO	Napthalene
		mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
MW-7	2/16/2016	2.160	10.100	1.270	5.310	0.000	NA	41.200	0.000
Duplicate of MW-7	2/16/2016	2.190	9.330	1.350	5.460	0.000	NA	39.700	0.336
Relative Percent Difference		1.4	7.9	6.1	2.8	NA	NA	3.7	200.0

Relative Percent Difference	Vapor Well	Sample Date	Benzene	Toluene	m& p xylene	o-xylene	Naphthalene
			$\mu g/m^3$	$\mu g/m^3$	$\mu g/m^3$	$\mu g/m^3$	$\mu g/m^3$
	VW-1	2/9/2016	0.730	3.600	4.200	2.600	6.300
	Duplicate of VW-1	2/9/2016	0.000	2.300	4.000	2.500	6.100
Relative Percent Difference			200.0	44.1	4.9	3.9	3.2

NA= Not Applicable or Not Analyzed

Attachment 31

100705

RIGHT OF WAY SIGNS AND SYMBOLS

- SECTION CORNER
- QUARTER CORNER
- QUARTER QUARTER CORNER
- SECTION CENTER
- STATE LINE OR CITY LIMITS
- COUNTY LINE
- TOWNSHIP LINE
- QUARTER SECTION LINE
- PROPERTY LINE
- EXISTING R/W LINE
- PROPOSED R/W LINE
- EXISTING CONTROL OF ACCESS
- PROPOSED CONTROL OF ACCESS
- PROPOSED R/W & CONTROL OF ACCESS
- EXISTING R/W DIMENSION
- PROPOSED R/W DIMENSION
- TEMPORARY & PERMANENT EASEMENT LINE
- EXISTING BRIDGE OR SEPARATION STRUCTURE
- PROPOSED BRIDGE OR SEPARATION STRUCTURE
- EXISTING CULVERT
- RAILROAD
- PAVED ROADS
- GRAVEL ROAD
- DRIVEWAY
- FENCE
- CONSTRUCTION LIMITS
- LEVEE
- TRAIL
- RESIDENTIAL & COMMERCIAL BUILDING
- HEDGE ROW
- SMALL STREAM
- LARGE STREAM
- POND OR LAKE
- TELEPHONE POLES
- POWER POLES
- TRANSMISSION LINES
- TREES
- DECIDUOUS WOODS
- EVERGREEN WOODS
- SET AHTD R/W MONUMENT
- TEMPORARY EASEMENT POINT
- PERMANENT EASEMENT POINT
- EXISTING R/W POINT
- PROPERTY LINE POINT
- FOUND MONUMENT
- SURVEY CALCULATED POINT

STATE OF ARKANSAS
STATE HIGHWAY COMMISSION

RIGHT OF WAY MAP
HWY. 18 IMPROVEMENTS
(BLYTHEVILLE) (PHASE I) (S)

MISSISSIPPI COUNTY
ROUTE 18 SECTION 7
JOB 100705

LAYOUT
NOT TO SCALE

STA. 144+90.00 BEGIN EXCEPTION CONST.
JOB 100740

BEGIN CONST. JOB 100705

STA. 159+30.00 END EXCEPTION CONST.
JOB 100740

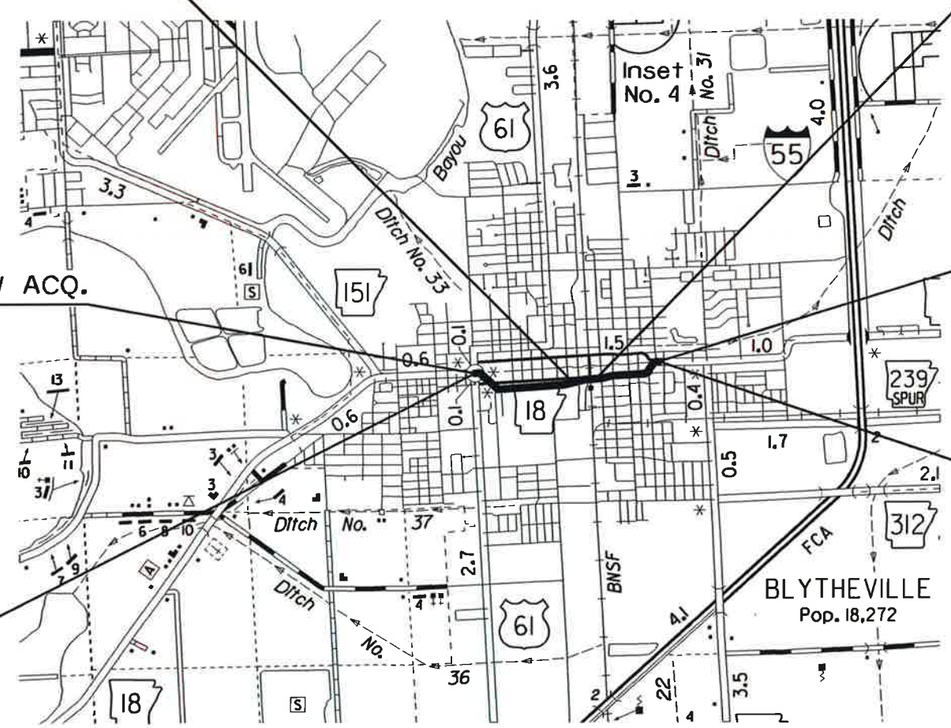
END CONST. JOB 100705

STA. 178+06.46 END R/W ACQ.
JOB 100705

STA. 108+74.13 - BEGIN R/W ACQ.
JOB 100705

STA. 177+86.00 END CONST.
JOB 100740

STA. 109+89.00 - BEGIN CONST.
JOB 100740



06/2010

SITE LOCATION

T-15-N; R-11-E

STA.109+89.00 BEGIN CONST.
JOB 100740

CLYDE ROBINSON ADDITION BLOCK 1

RES.= 18,348 Sq.Ft.±

U.S. HWY. 61

RES.= 6,847 Sq.Ft.±
SEE INSET "A" SHEET 12A FOR (TDE) INFO.

REPLAT OF JONES ADDITION BLOCK 2

CONST.℄
Δ = 55°20'39" RT.
D = 22°55'06"
T = 131.10'
L = 241.48'
R = 250.00'

EXIST ROW

CONST. LIMITS

PC 110+82.53

PT 112+13.63

8XR
NO RES.
SEE INSET "B" SHEET 12A FOR (TDE) INFO.

STATE HWY. 18

110+00

4E-1 TCE

5E-1 TCE

6X

7X

8X

RES.= 5,915 Sq.Ft.±

RES.= 11,643 Sq.Ft.±

RES.= 11,524 Sq.Ft.±

JAMES ADDITION BLOCK A

BEARINGS ARE GRID BASED ON GPS

P.O.C. NE COR.

P.O.C. NW COR.

P.O.C. SW COR.

PT 113+24.02

REDG. STATE HWY. 18

6XR
NO RES.
SEE INSET "B" SHEET 12A FOR (TDE) INFO.

7XE-1
TCE
SEE INSET "B" SHEET 12A FOR (TDE) INFO.

MILLER-GREENLEE ADDITION BLOCK 1

STA.109+89.00 BEGIN CONST.
JOB 100740

NO.	DATE	DESCRIPTION	BY	CK'D
4	8-2-11	Added Bearing & Dist.(TCE) 4E-1	JT	DH
3	4-19-11	Added Tr.6XR & Deleted (TCE) 6XE-1	RS	FR
2	4-4-11	Deleted (TCE) 7XE-1 & added Tr.'s 7XR & 8XR	JT	FR
1	8-31-10	REV. ATA & RES. on Tr.2X	JT	FR

DATE: 7/2010 REVISIONS
DESIGNED: J.TYLER REVIEWED: F.RIPPOND

HIGHWAY 18 IMPROVEMENTS
(BLYTHEVILLE) (PHASE I) (S)
ARKANSAS STATE HIGHWAY COMMISSION
RIGHT OF WAY MAP
JOB 100705 MISSISSIPPI COUNTY

50 25 0 25 50 100

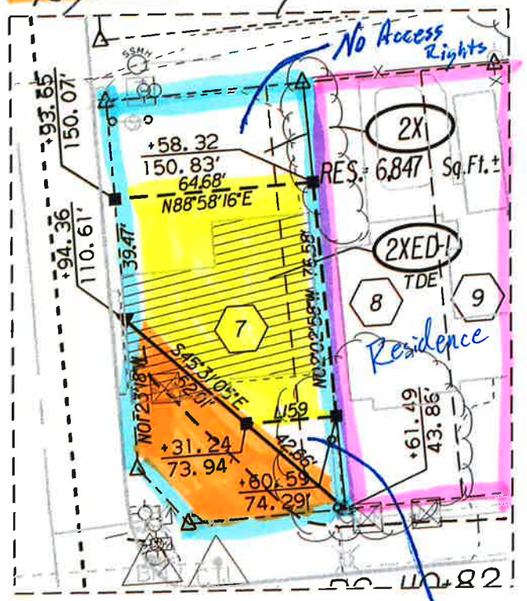
Original Property Boundary

Adjacent Property

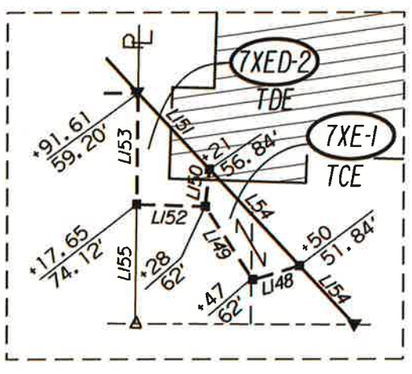
TDE Area - Expires at Completion of Job 100705

Right of Way

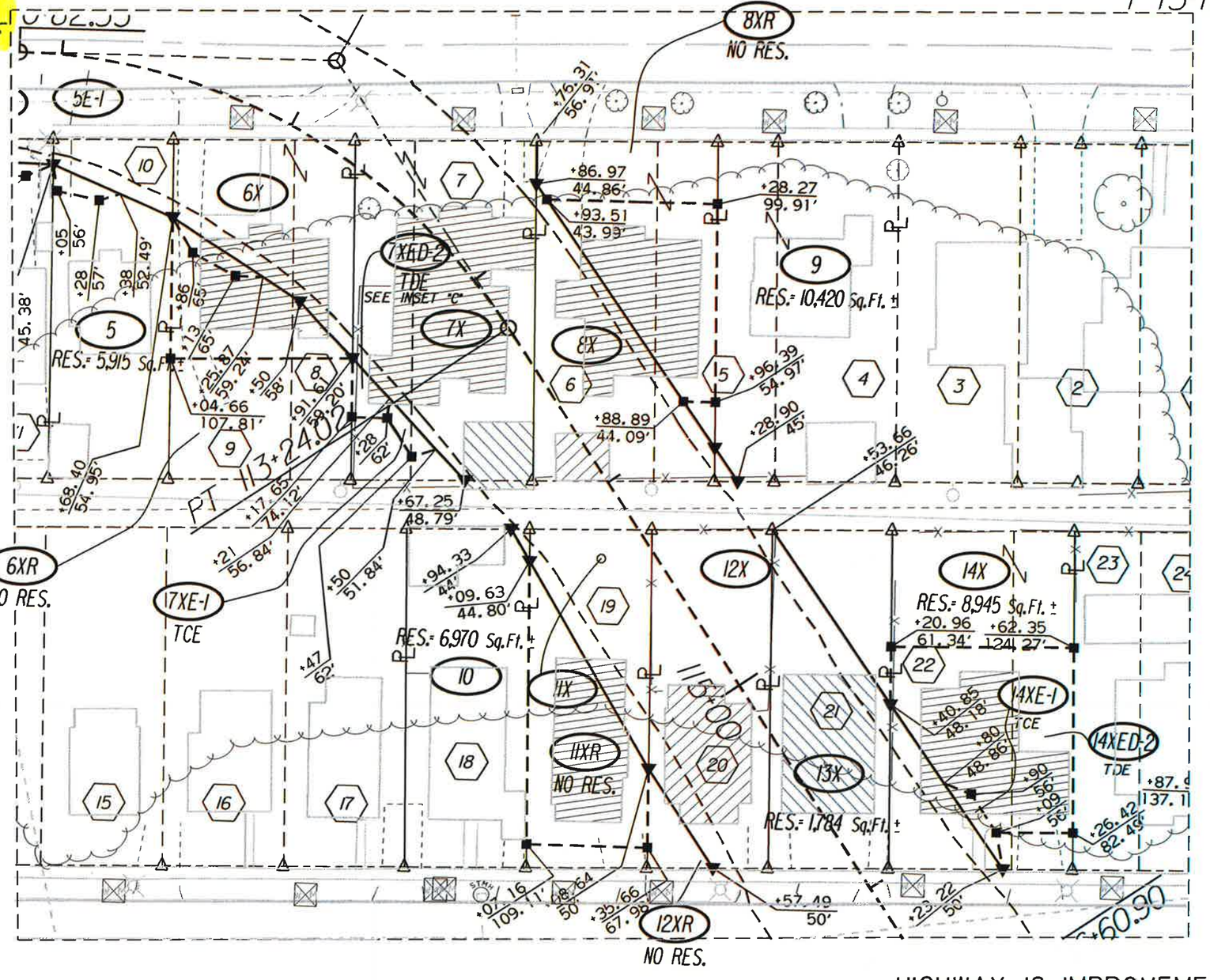
T-15-N; R-11-E



INSET "A"



INSET "C"



INSET "B"

NO.	DATE	DESCRIPTION	BY	CK'D
8	8-2-11	Added Bearing & Dist.(TDE) 2XED-1	JT	DH
7	5-25-11	Deleted Tr.7XR, Added (TCE) 7XE-1 & (TDE) 7XED-2	RS	FR
6	4-19-11	Deleted (TCE) 6XE-1 & (TDE) 6XED-2 & added Tr.6XR	RS	FR
5	4-8-11	Added Tr. 12XR	JT	FR
4	4-4-11	Deleted (TCE) 7XE-1, (TDE) 7XED-2, & 8XED-1 & added Tr.'s 7XR & 8XR	JT	FR
3	3-11-11	Added Tr.11XR & Deleted TDE 11XE-1	JT	FR
2	9-14-10	Added Residual Tr.9	JT	FR
1	8-31-10	REV. AT A Tr.2X & (TDE) 2XED-1	JT	FR

DATE: 7/2010 REVISIONS

DESIGNED: J.TYLER REVIEWED: F.RIPPOND

HIGHWAY 18 IMPROVEMENTS
(BLYTHEVILLE) (PHASE I) (S)
ARKANSAS STATE HIGHWAY COMMISSION
RIGHT OF WAY MAP
JOB 100705 MISSISSIPPI COUNTY

50 25 0 25 50 100