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Unicorn Management Consultants, LLC

April 1, 2010
Refer to OP-2510

Mr. David Locey
Project Manager
New York State Department of Environmental Conservation, Region 9
270 Michigan Avenue
Buffalo, New York 14203-2999

Subject: Groundwater Monitoring Report; Closure Year 13 (2009); Annual Sampling
Union Road Site, Erie County, Cheektowaga, NY
Inactive Hazardous Waste Disposal Site No. 915128

Dear Mr. Locey:

On behalf of American Premier Underwriters, Inc., Unicorn Management Consultants, LLC (UMC) hereby submits the Groundwater Monitoring Report for the Annual Sampling of Closure Year 13 (2009) for the subject site.

Also enclosed is the completed NYSDEC Institutional and Engineering Controls Certification Form for 2009.

If you have any questions regarding this report, please call me at 203-205-9000, ext. 13.

Sincerely,
Unicorn Management Consultants, LLC

Kerry M. Hanlon, LEP, P.G.
Project Manager
Union Road Remediation Project

Enclosures

cc: M. Doster: Regional Director, NYSDEC, Region 9
J. Crua: Project Manager, Bureau of Environmental Exposure Investigation
M. Cioffi
L. Lackner
J. Periconi

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Unicorn Management Consultants, LLC

ANNUAL GROUNDWATER MONITORING REPORT
CLOSURE YEAR 13 (2009)

UNION ROAD SITE
TOWN OF CHEEKTOWAGA
ERIE COUNTY, NEW YORK
(SITE REGISTRY NO. 9-15-128)

Prepared for:

AMERICAN PREMIER UNDERWRITERS, INC.
(FORMERLY THE PENN CENTRAL CORPORATION)
ONE EAST FOURTH STREET
CINCINNATI, OHIO 45202

Prepared by:

UNICORN MANAGEMENT CONSULTANTS, LLC
52 FEDERAL ROAD, SUITE 2C
DANBURY, CT 06810

March 31, 2010

Document Authorization Form

Annual Groundwater Monitoring Report
Closure Year 13 (2009)

Union Road Site
Town of Cheektowaga
Erie County, New York
(Site Registry No. 9-15-128)

Prepared for:

American Premier Underwriters, Inc.
(Formerly The Penn Central Corporation)
One East Fourth Street
Cincinnati, Ohio 45202

Prepared by:

UNICORN MANAGEMENT CONSULTANTS, LLC
52 FEDERAL ROAD, SUITE 2C
DANBURY, CT 06810

March 31, 2010

AUTHORIZATIONS:

Kerry M. Hanlon, LEP, PG.
Director of Operations

3/31/10
Date

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1. INTRODUCTION

This Groundwater Monitoring Report has been prepared by Unicorn Management Consultants, LLC (UMC) on behalf of American Premier Underwriters, Inc. The purpose of this document is to demonstrate compliance with Section 12.4.1 of the Union Road Site Remedial Design Report (Design Report), approved by the NYSDEC in May, 1995. Section 12.4.1 of the Design Report discusses the Groundwater Monitoring Plan (GMP). The GMP consists of these elements:

- Installation of groundwater monitoring wells inside and outside the slurry wall around the landfill closure;
- Collection and analyses of groundwater samples; and
- Determination of groundwater elevations.

Please note that pursuant to letter dated October 18, 2001, from Blank Rome Comisky and McCauley, LLP (APU's legal counsel), effective October 19, 2001, APU designated UMC as their environmental consultants.

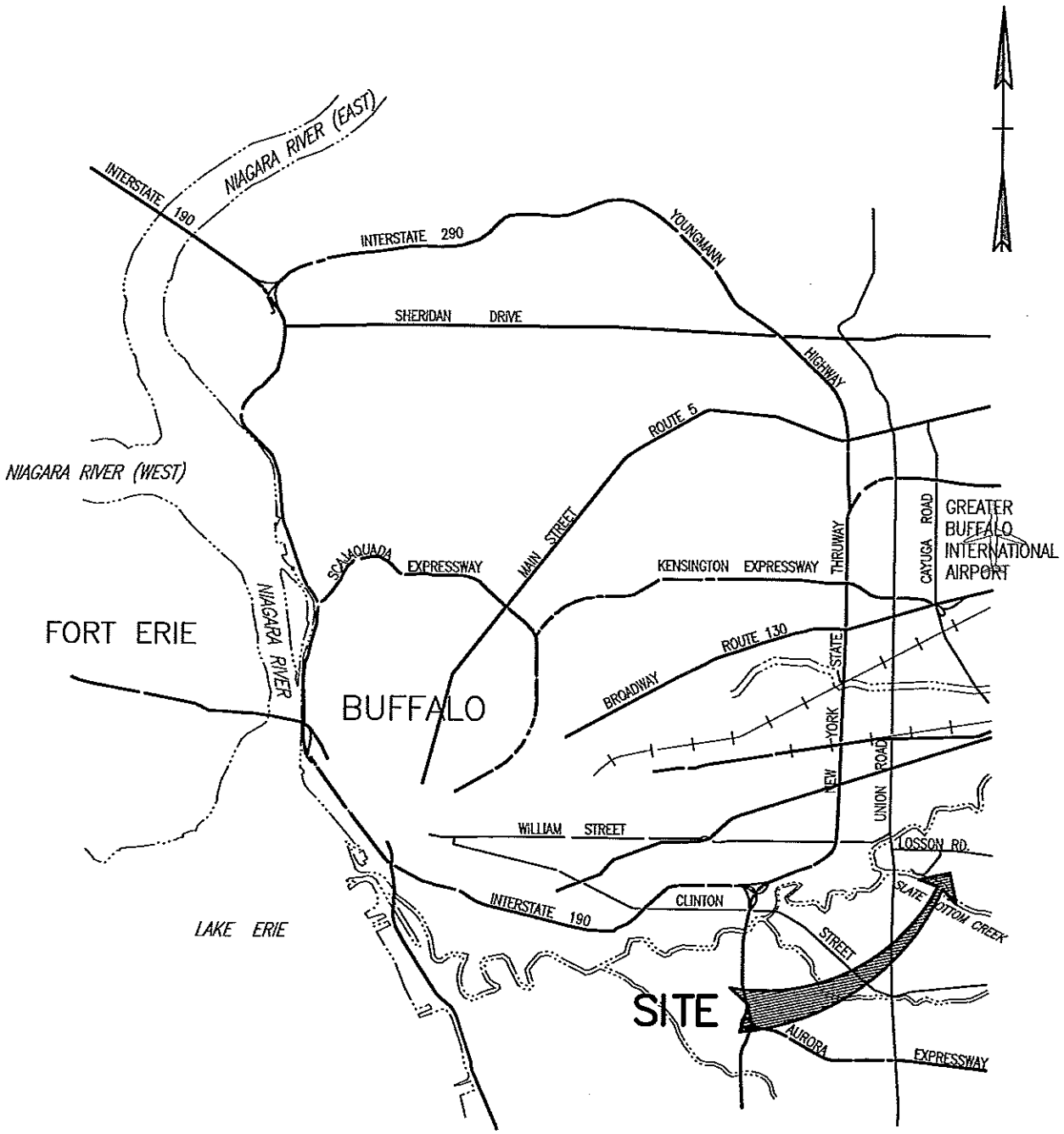
The Union Road site ("the Site") is a Class 2 Site as defined by the New York State Department of Environmental Conservation (NYSDEC). The Site registry number is 915128. The Site is located at 333 Losson Road in Cheektowaga, New York (see Figure 1-1). A Record of Decision (ROD) for the Site was signed on March 9, 1992. Order on Consent Index No. B9-0148-92-03 was signed by The Penn Central Corporation (currently, American Premier Underwriters, Inc.) and the New York State Department of Environmental Conservation (NYSDEC); the effective date of the Order is April 12, 1994. Appendix "B" of the Order is the Final Remedial Action Work Plan (the "Work Plan"), dated June 18, 1993.

As required in Section 4.2 of the Work Plan, the design documents, including the Union Road Site Remedial Design Report, were submitted in May 1995 to the NYSDEC and were subsequently approved. After approval, work commenced and the landfill closure was completed in December 1996. Figure 1-2 illustrates a plan view of the Site closure.

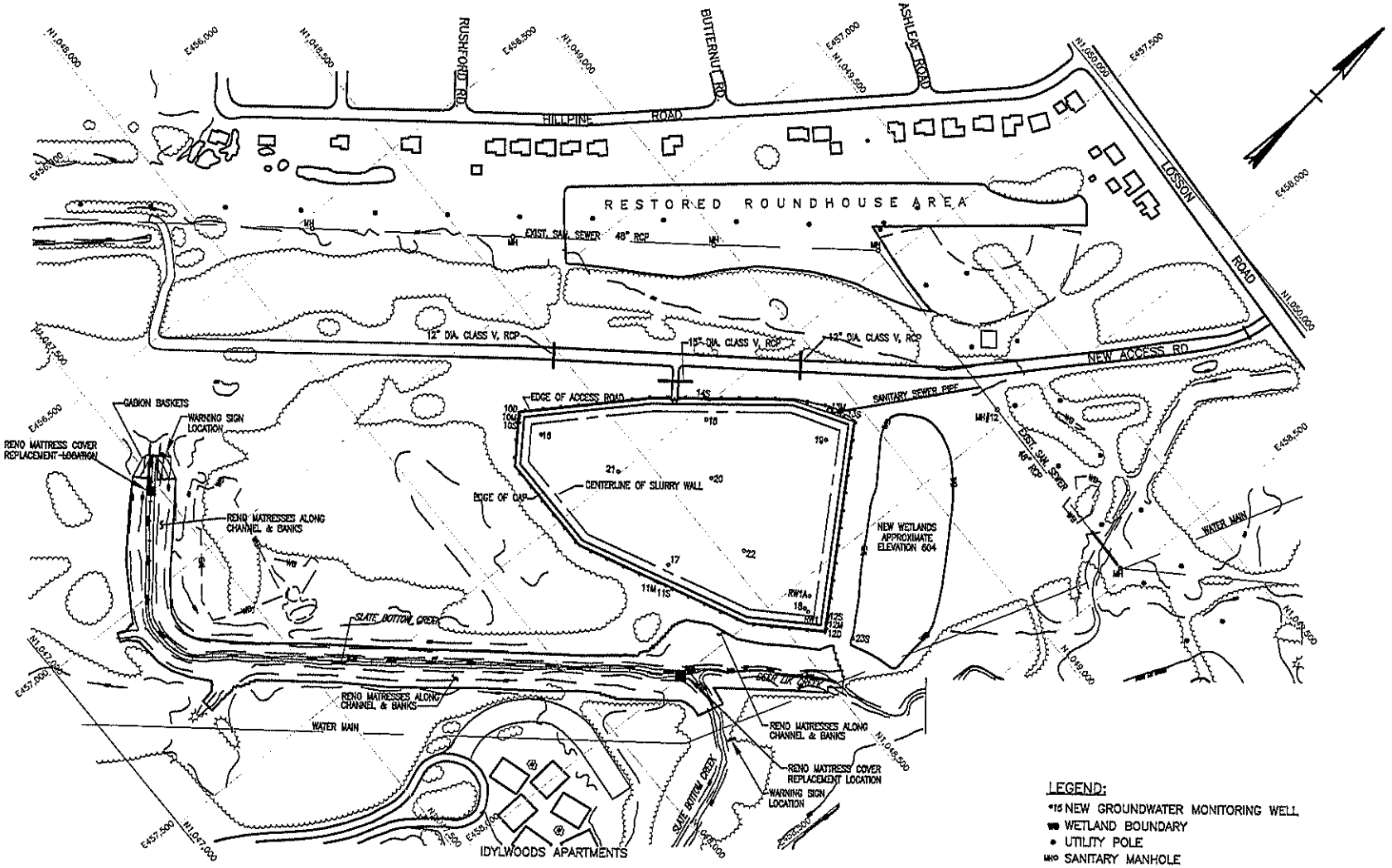
The GMP, Inspection and Operation and Maintenance activities for the Site went into effect following the landfill closure. This report presents and summarizes the groundwater monitoring data for the Annual Monitoring of Closure Year 13 (2009). This is the Seventeenth sampling event since the landfill closure (December 1997).

The purpose of GMP is as follows:

- Monitor the groundwater gradient of the three hydrogeologic units in and around the closure area; and
- Evaluate the groundwater quality to assess the effectiveness of the remedial action performed in accordance with 1995 Design Report.



REVISION NO.				
NO.	DATE	PROJECT	UNION ROAD SITE TOWN OF CHEEKTOWAGA, NEW YORK	Unicorn Management Consultants, LLC 52 FEDERAL ROAD DANBURY, CT (203) 205-9000
		DRAWING	LOCATION MAP	PROJECT # 2011-200 FILENAME: UNION_RD SCALE: 1" ~ 2mi DATE: 1/16/02 BY: AD CK: FIGURE # 1-1



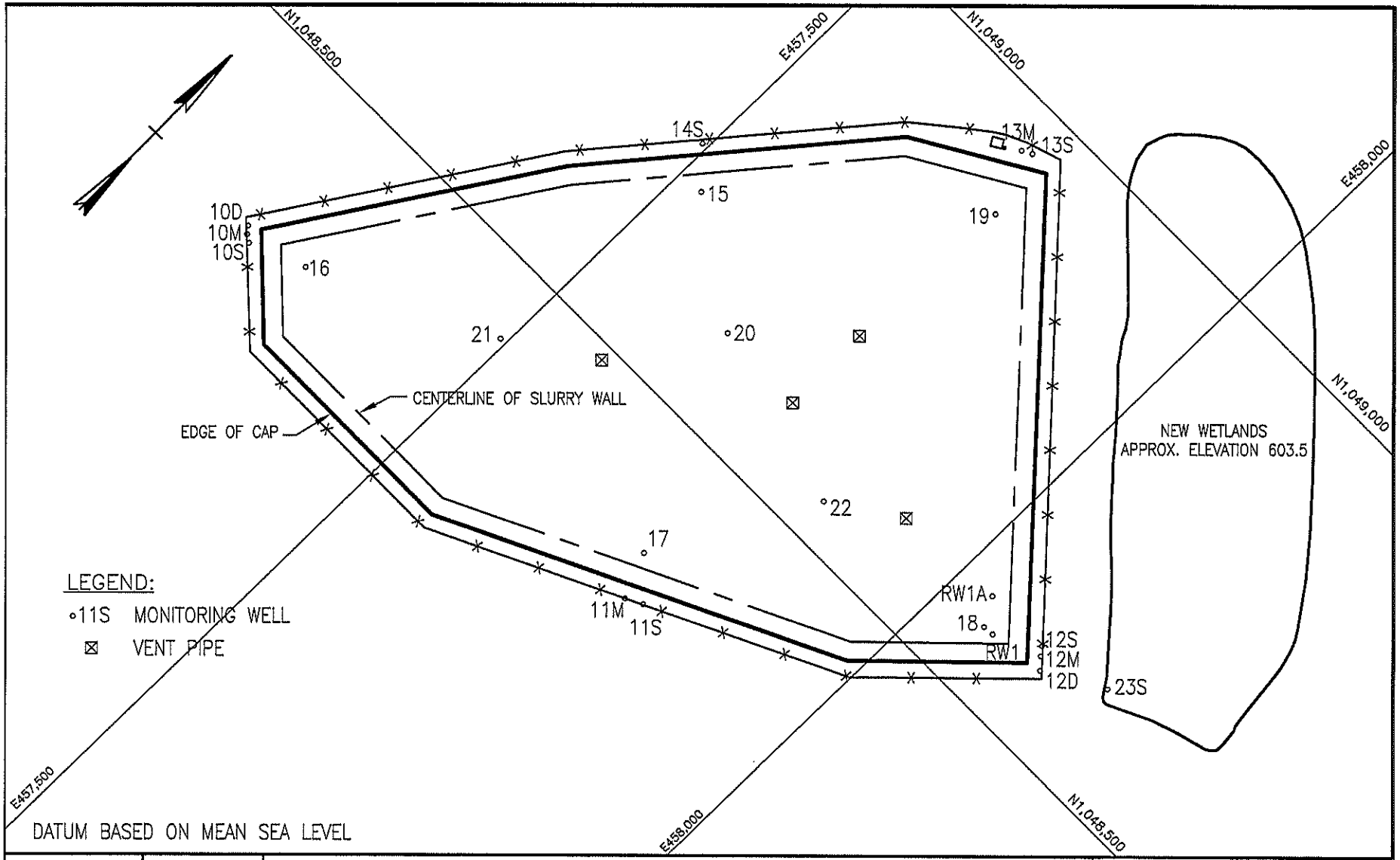
REVISIONS		PROJECT	UNION ROAD SITE TOWN OF CHEEKTOWAGA, NEW YORK	Unicorn Management Consultants, LLC 52 FEDERAL ROAD DANBURY, CT (203) 205-9000	PROJECT #: 2011-200
NO.	DATE				FILENAME: 2045100B
		DRAWING	SITE LOCATION		SCALE: 1" =400' DATE: 8/23/06
					BY: AD CK:
					FIGURE # 1-2

2. WELL INSTALLATION

As proposed in the GMP, five well clusters were installed along the outside perimeter of the slurry wall. These exterior wells are identified as MW-10S-M-D, MW-11S-M, MW-12S-M-D, MW-13S-M, and MW-14S. Adjacent to these wells, along the inside perimeter of the slurry wall, five shallow wells identified as MW-15, MW-16, MW-17, MW-18, and MW-19 were installed.

Three additional shallow wells (not originally proposed) were also installed. These wells (MW-20, MW-21, and MW-22) were installed in the center of the landfill to monitor the elevation of groundwater inside the landfill closure. Proposed well MW-20S adjacent to the outfall of the new wetland was installed; however, the identification of this well was changed from MW-20S to MW-23S. As discussed in the Groundwater Monitoring Report for the Second Quarter 1997, the original Monitoring Well 14S (MW-14S) was decommissioned and the replacement was reinstalled nine (9) feet southwest (along the fence line). The MW-14S replacement was installed, surveyed and developed on August 19, 1997. Well designations and locations are shown on Figure 2-1.

Installation of monitoring wells proceeded according to Section 02170 of the Technical Specifications. Installation of the interior wells occurred from February 19-23, 1996. Installation of the exterior wells took place from December 10, 1996 through January 6, 1997 and August 19, 1997. Copies of the Boring Logs and Well Construction Drawings are included as Appendix A.



REVISIONS NO.	DATE

PROJECT: UNION ROAD SITE
TOWN OF CHEEKTOWAGA, NEW YORK

DRAWING: GROUNDWATER MONITORING WELL LOCATIONS

Unicorn Management Consultants, LLC
52 FEDERAL ROAD
DANBURY, CT
(203) 205-9000

PROJECT #: 2011-200
FILENAME: 2011200B
SCALE: 1" =150'
DATE: 1/15/02
BY: AD
CK:
FIGURE # 2-1

3. GROUNDWATER SAMPLING AND ANALYSES

The purpose of groundwater sampling and analyses is to assess the effectiveness of the remedial action by evaluating the groundwater quality.

According to the GMP, groundwater samples will be collected from the outside perimeter monitoring wells by the following schedule:

- Quarterly the first year (1997);
- Semi-annually the second year (1998); and
- Annually (during the dry season) thereafter.

The parameters and applicable methods for the analyses are as follows:

- Total petroleum hydrocarbons (TPH) by EPA Method 1664*;
- Volatile organic compounds (VOCs) by EPA Method 8260;
- Semi-volatile organic compounds (SVOCs) by EPA Method 8270; and
- Soluble metals (lead and arsenic) by EPA Method 6010B, respectively.

The sampling frequency, analytical parameters, and/or sampling of specific wells will be modified based on the results of previous sampling events (since the landfill closure) and with written approval from the NYSDEC.

To evaluate the immediate effects of remedial activities on the groundwater around the landfill closure, the results of this sampling event are compared to results gathered from previous investigation reports performed by Dvirka and Bartilucci prior to the landfill closure. The data from the reports dated June, 1991 and August, 1991 are summarized in Table 3-1. Comparison between the averages prior to closure with post closure in the shallow wells shows significant decreases in all of the contaminants analyzed. To determine the continued effectiveness of the containment system, future sampling will be compared to the pre-closure concentrations.

Groundwater sampling for the annual monitoring event of 2009 was conducted on September 14, 2009. Table 3-2 summarizes the water depth measurements and well purging operations completed on the wells along the outside perimeter of the slurry wall during the annual sampling event. Analysis was performed by Columbia Analytical Services of Rochester, New York. Tables 3-3 through 3-8 present the analytical results from this sampling event.

*EPA Method 1664 has replaced EPA Method 418.1 because of the concerns and availability of Freon.

TABLE 3-1
UNION ROAD GROUNDWATER MONITORING REPORT
YEAR 13 (2009)

PRE-CONSTRUCTION SAMPLING OF SHALLOW WELLS
(JUNE - AUGUST, 1991)

(Concentrations in ug/L)

	MW-4S	MW-4S	MW-5S	MW-6S	MW-6S	
ANALYTE	**PHASE I**	**PHASE II**	**PHASE I**	**PHASE I**	**PHASE II**	**AVERAGE**
SVOC's (Base Neutrals)	17	16	120	290	100	109
Total VOC's	ND	5.9	ND	42	3	10
TPH	4,400	1,800	2,200	5,800	ND	2,840
Soluble Arsenic	34.8	35.5	14.7	27.1	5.7	24
Soluble Lead	10,100	8,090	4,450	3,560	367	5,313

ND- analyte not detected

File:Tables
Sheet: PREV

Printed: 3/15/2010

Prepared by: KMH
Date: 3/15/10
Checked by: GPK
Date: 3/15/10

TABLE 3-2
UNION ROAD
GROUNDWATER MONITORING REPORT

UMC

September 14, 2009
WELL PURGING SUMMARY

Well Number	(1) Riser Elev. (Feet)	Orginal Bottom Elev. (Feet)	Depth to Water (Feet)	Water Elev. (Feet)	Water Height in Well (Feet)	Water Volume in Well (Gallons)	Water Removed from Well (Gallons)	Notes
10S	623.09	599.9	9.52	613.57	13.67	2.2	7.0	
10M	622.50	589.6	11.84	610.66	21.06	3.4	10.0	
10D	622.02	574.1	16.20	605.82	31.72	5.1	8.5	Purged to nearly dry -Slow Recovery
11S	622.74	597.1	15.26	607.48	10.38	1.7	5.0	
11M	622.86	578.4	21.80	601.06	22.66	3.6	10.0	
12S	622.62	595.8	20.22	602.40	6.60	1.1	3.25	Purged to nearly dry -Slow Recovery
12M	622.97	578.8	22.46	600.51	21.71	3.5	11.0	
12D	621.18	557.8	19.96	601.22	43.42	7.0	21.0	
13S	622.96	599.1	12.32	610.64	11.54	1.8	6.0	
13M	621.66	585.8	12.30	609.36	23.56	3.8	12.0	
14S[(2)]	621.61	602.1	10.80	610.81	8.71	1.4	4.0	

(1) Elevations were surveyed by Douglas C. Meyers P.L.S., P.C. on March 17, 1997
(2) Reinstalled, developed and resurveyed on August 19, 1997
All Elevations are referenced to Mean Sea Level
All wells are two (2) inches in diameter
Well development was performed on 1/16/1997

Prepared by: KMH
Date: 3/17/10
Checked by: EPK
Date: 3-18-10

TABLE 3-3
UNION ROAD
ANNUAL GROUNDWATER MONITORING 2009

UMC

SHALLOW WELL SVOCs

	ANALYTICAL RESULTS (ug/L)					Detection Limit
ANALYTE	MW-10S	MW-11S	MW-12S	MW-13S	MW-14S	
Dilution	1.00	1.00	1.00	1.00	1.00	
acenapthene	ND	ND	ND	ND	ND	10.0
acenapthylene	ND	ND	ND	ND	ND	10.0
anthracene	ND	ND	ND	ND	ND	10.0
benzo(a)anthracene	ND	ND	ND	ND	ND	10.0
benzo(a)pyrene	ND	ND	ND	ND	ND	10.0
benzo(b)fluoranthene	ND	ND	ND	ND	ND	10.0
benzo(g,h,i)perylene	ND	ND	ND	ND	ND	10.0
benzo(k)fluoranthene	ND	ND	ND	ND	ND	10.0
benzyl alcohol	ND	ND	ND	ND	ND	10.0
butly benzyl phthalate	ND	ND	ND	ND	ND	10.0
di-n-butlyphthalate	ND	ND	ND	ND	ND	10.0
carbazole	ND	ND	ND	ND	ND	10.0
indeno(1,2,3-cd)pyrene	ND	ND	ND	ND	ND	10.0
4-chloroaniline	ND	ND	ND	ND	ND	10.0
bis(-2-chloroethoxy)methane	ND	ND	ND	ND	ND	10.0
bis(2-chloroethyl)ether	ND	ND	ND	ND	ND	10.0
2-chloronapthalene	ND	ND	ND	ND	ND	10.0
2-chlorophenol	ND	ND	ND	ND	ND	10.0
2,2'-oxybis(1-chloropropane)	ND	ND	ND	ND	ND	10.0
chrysene	ND	ND	ND	ND	ND	10.0
dibenzo(a,h)anthracene	ND	ND	ND	ND	ND	10.0
dibenzofuran	ND	ND	ND	ND	ND	10.0
1,2-dichlorobenzene	ND	ND	ND	ND	ND	10.0
1,3-dichlorobenzene	ND	ND	ND	ND	ND	10.0
1,4-dichlorobenzene	ND	ND	ND	ND	ND	10.0
3,3'-dichlorobenzidine	ND	ND	ND	ND	ND	10.0
2,4-dichlorophenol	ND	ND	ND	ND	ND	10.0
diethylphthalate	ND	ND	ND	ND	ND	10.0
dimethyl phthalate	ND	ND	ND	ND	ND	10.0
2,4-dimethlyphenol	ND	ND	ND	ND	ND	10.0
2,4-dinitrophenol	ND	ND	ND	ND	ND	50.0
2,4-dinitrotoluene	ND	ND	ND	ND	ND	10.0
2,6-dinitrotoluene	ND	ND	ND	ND	ND	10.0
bis(2-ethylhexyl)phthalate	ND	ND	ND	ND	ND	10.0
fluoranthene	ND	ND	ND	ND	ND	10.0
fluorene	ND	ND	ND	ND	ND	10.0
hexachlorobenzene	ND	ND	ND	ND	ND	10.0
hexachlorobutadiene	ND	ND	ND	ND	ND	10.0
hexachlorocyclopentadiene	ND	ND	ND	ND	ND	10.0
hexachloroethane	ND	ND	ND	ND	ND	10.0
isophorone	ND	ND	ND	ND	ND	10.0

Prepared by: KMH
Date: 3/17/10
Checked by: GPK
Date: 3-18-10

TABLE 3-3
UNION ROAD
ANNUAL GROUNDWATER MONITORING 2009

SHALLOW WELL SVOCs

UMC

2-methlynapthalene	ND	ND	ND	ND	ND	10.0
4,6-dinitro-2-methylphenol	ND	ND	ND	ND	ND	50.0
4-chloro-3-methlyphenol	ND	ND	ND	ND	ND	10.0
2-methylphenol	ND	ND	ND	ND	ND	10.0
3+4-methylphenol	ND	ND	ND	ND	ND	10.0
napthalene	ND	ND	ND	ND	ND	10.0
2-nitroaniline	ND	ND	ND	ND	ND	50.0
3-nitroaniline	ND	ND	ND	ND	ND	50.0
4-nitroaniline	ND	ND	ND	ND	ND	50.0
nitrobenzene	ND	ND	ND	ND	ND	10.0
2-nitrophenol	ND	ND	ND	ND	ND	10.0
4-nitrophenol	ND	ND	ND	ND	ND	50.0
n-nitrosodimethylamine	ND	ND	ND	ND	ND	10.0
n-nitrosodiphenylamine	ND	ND	ND	ND	ND	10.0
di-n-octyl phthalate	ND	ND	ND	ND	ND	10.0
pentachlorophenol	ND	ND	ND	ND	ND	50.0
phenanthrene	ND	ND	ND	ND	ND	10.0
phenol	ND	ND	ND	ND	ND	10.0
4-bromophenyl-phenylether	ND	ND	ND	ND	ND	10.0
4-chlorophenyl-phenylether	ND	ND	ND	ND	ND	10.0
n-nitroso-di-n-propylamine	ND	ND	ND	ND	ND	10.0
pyrene	ND	ND	ND	ND	ND	10.0
1,2,4-trichlorobenzene	ND	ND	ND	ND	ND	10.0
2,4,5-trichlorophenol	ND	ND	ND	ND	ND	10.0
2,4,6-trichlorophenol	ND	ND	ND	ND	ND	10.0
TOTALS	ND	ND	ND	ND	ND	

Average Outside Landfill (MW 10S - 14S)		ND
Average Inside Landfill (Table 3-1)		109

ND - Not Detected, above the laboratory detection limit

Prepared by: KMH
Date: 3/15/10
Checked by: GPK
Date: 3-18-10

TABLE 3-4
UNION ROAD
ANNUAL GROUNDWATER MONITORING 2009

SHALLOW WELL VOCs, TPH, and METALs

UMC

ANALYTE	ANALYTICAL RESULTS (ug/L)					Detection Limit
	MW-10S	MW-11S	MW-12S	MW-13S	MW-14S	
Dilution	1.00	1.00	1.00	1.00	1.00	
acetone	ND	ND	ND	ND	ND	20
benzene	ND	ND	ND	ND	ND	5.0
bromodichloromethane	ND	ND	ND	ND	ND	5.0
bromoform	ND	ND	ND	ND	ND	5.0
bromomethane	ND	ND	ND	ND	ND	5.0
2-butanone (MEK)	ND	ND	ND	ND	ND	10
carbon disulfide	ND	ND	ND	ND	ND	10
carbon tetrachloride	ND	ND	ND	ND	ND	5.0
chlorobenzene	ND	ND	ND	ND	ND	5.0
chloroethane	ND	ND	ND	ND	ND	5.0
chloroform	ND	ND	ND	ND	ND	5.0
chloromethane	ND	ND	ND	ND	ND	5.0
dibromochloromethane	ND	ND	ND	ND	ND	5.0
1,1-dichloroethane	ND	ND	ND	ND	ND	5.0
1,2-dichloroethane	ND	ND	ND	ND	ND	5.0
1,1-dichloroethene	ND	ND	ND	ND	ND	5.0
cis-1,2-dichloroethene	ND	ND	ND	ND	ND	5.0
trans-1,2-dichloroethene	ND	ND	ND	ND	ND	5.0
1,2-dichloropropane	ND	ND	ND	ND	ND	5.0
cis-1,3-dichloropropene	ND	ND	ND	ND	ND	5.0
trans-1,3-dichloropropene	ND	ND	ND	ND	ND	5.0
ethlybenzene	ND	ND	ND	ND	ND	5.0
2-hexanone	ND	ND	ND	ND	ND	10
methylene chloride	ND	ND	ND	ND	ND	5.0
4-methyl-2-pentanone (MIBK)	ND	ND	ND	ND	ND	10
styrene	ND	ND	ND	ND	ND	5.0
1,1,2,2-tetrachloroethane	ND	ND	ND	ND	ND	5.0
tetrachloroethene	ND	ND	ND	ND	ND	5.0
toluene	ND	ND	ND	ND	ND	5.0
1,1,1-trichloroethane	ND	ND	ND	ND	ND	5.0
1,1,2-trichloroethane	ND	ND	ND	ND	ND	5.0
trichloroethene	ND	ND	ND	ND	ND	5.0
vinyl chloride	ND	ND	ND	ND	ND	5.0
m+p xylene	ND	ND	ND	ND	ND	5.0
o-xylene	ND	ND	ND	ND	ND	5.0
TOTAL VOC'S	ND	ND	ND	ND	ND	
TPH	ND	ND	ND	ND	ND	1,000
SOLUBLE ARSENIC	ND	ND	ND	ND	ND	10.0
SOLUBLE LEAD	ND	ND	ND	ND	ND	5.00

Average Outside Landfill (MW 10S - 14S)	Average Inside Landfill (Table 3-1)
ND	10
0.0	2,840
0.0	24
0.0	5,313

ND - Not Detected, above the laboratory detection limit

Prepared by: KMH
Date: 3/17/10
Checked by: GPK
Date: 3-18-10

TABLE 3-5
UNION ROAD
ANNUAL GROUNDWATER MONITORING 2009

UMC

MEDIUM WELL SVOCs

ANALYTE	ANALYTICAL RESULTS (ug/L)				Detection Limit
	MW-10M	MW-11M	MW-12M	MW-13M	
Dilution	1.00	1.00	1.00	1.00	
acenapthene	ND	ND	ND	ND	10.0
acenapthylene	ND	ND	ND	ND	10.0
anthracene	ND	ND	ND	ND	10.0
benzo(a)anthracene	ND	ND	ND	ND	10.0
benzo(a)pyrene	ND	ND	ND	ND	10.0
benzo(b)fluoranthene	ND	ND	ND	ND	10.0
benzo(g,h,i)perylene	ND	ND	ND	ND	10.0
benzo(k)fluoranthene	ND	ND	ND	ND	10.0
benzyl alcohol	ND	ND	ND	ND	10.0
butly benzyl phthalate	ND	ND	ND	ND	10.0
di-n-butlyphthalate	ND	ND	ND	ND	10.0
carbazole	ND	ND	ND	ND	10.0
indeno(1,2,3-cd)pyrene	ND	ND	ND	ND	10.0
4-chloroaniline	ND	ND	ND	ND	10.0
bis(-2-chloroethoxy)methane	ND	ND	ND	ND	10.0
bis(2-chloroethyl)ether	ND	ND	ND	ND	10.0
2-chloronapthalene	ND	ND	ND	ND	10.0
2-chlorophenol	ND	ND	ND	ND	10.0
2,2'-oxybis(1-chloropropane)	ND	ND	ND	ND	10.0
chrysene	ND	ND	ND	ND	10.0
dibenzo(a,h)anthracene	ND	ND	ND	ND	10.0
dibenzofuran	ND	ND	ND	ND	10.0
1,2-dichlorobenzene	ND	ND	ND	ND	10.0
1,3-dichlorobenzene	ND	ND	ND	ND	10.0
1,4-dichlorobenzene	ND	ND	ND	ND	10.0
3,3'-dichlorobenzidine	ND	ND	ND	ND	10.0
2,4-dichlorophenol	ND	ND	ND	ND	10
diethylphthalate	ND	ND	ND	ND	10.0
dimethyl phthalate	ND	ND	ND	ND	10.0
2,4-dimethlyphenol	ND	ND	ND	ND	10
2,4-dinitrophenol	ND	ND	ND	ND	50
2,4-dinitrotoluene	ND	ND	ND	ND	10.0
2,6-dinitrotoluene	ND	ND	ND	ND	10.0
bis(2-ethylhexyl)phthalate	ND	ND	ND	ND	10.0
fluoranthene	ND	ND	ND	ND	10.0
fluorene	ND	ND	ND	ND	10.0
hexachlorobenzene	ND	ND	ND	ND	10.0
hexachlorobutadiene	ND	ND	ND	ND	10.0
hexachlorocyclopentadiene	ND	ND	ND	ND	10.0
hexachloroethane	ND	ND	ND	ND	10.0
isophorone	ND	ND	ND	ND	10.0
2-methlynapthalene	ND	ND	ND	ND	10

Prepared by: KMH
Date: 3/17/10
Checked by: GPK
Date: 3-18-10

TABLE 3-5
UNION ROAD
ANNUAL GROUNDWATER MONITORING 2009

UMC

MEDIUM WELL SVOCs

2-methylphenol	ND	ND	ND	ND	10
4,6-dinitro-2-methylphenol	ND	ND	ND	ND	50
4-chloro-3-methlyphenol	ND	ND	ND	ND	10
3+4-methylphenol	ND	ND	ND	ND	10
napthalene	ND	ND	ND	ND	10.0
2-nitroaniline	ND	ND	ND	ND	50.0
3-nitroaniline	ND	ND	ND	ND	50.0
4-nitroaniline	ND	ND	ND	ND	50.0
nitrobenzene	ND	ND	ND	ND	10.0
2-nitrophenol	ND	ND	ND	ND	10
4-nitrophenol	ND	ND	ND	ND	50
n-nitrosodimethylamine	ND	ND	ND	ND	10.0
n-nitrosodiphenylamine	ND	ND	ND	ND	10.0
di-n-octyl phthalate	ND	ND	ND	ND	10.0
pentachlorophenol	ND	ND	ND	ND	50
phenanthrene	ND	ND	ND	ND	10.0
phenol	ND	ND	ND	ND	10
4-bromophenyl-phenylether	ND	ND	ND	ND	10.0
4-chlorophenyl-phenylether	ND	ND	ND	ND	10.0
n-nitroso-di-n-propylamine	ND	ND	ND	ND	10.0
pyrene	ND	ND	ND	ND	10.0
1,2,4-trichlorobenzene	ND	ND	ND	ND	10.0
2,4,5-trichlorophenol	ND	ND	ND	ND	10
2,4,6-trichlorophenol	ND	ND	ND	ND	10
TOTALS	ND	ND	ND	ND	

Prepared by: KMH
Date: 3/17/10
Checked by: GPK
Date: 3-18-10

TABLE 3-6
UNION ROAD
ANNUAL GROUNDWATER MONITORNG 2009

UMC

MEDIUM WELL VOCs, TPH, and METALs

ANALYTE	ANALYTICAL RESULTS (ug/L)				Detection Limit
	MW-10M	MW-11M	MW-12M	MW-13M	
Dilution	1.00	1.00	1.00	1.00	
acetone	ND	ND	ND	ND	20
benzene	ND	ND	ND	ND	5.0
bromodichloromethane	ND	ND	ND	ND	5.0
bromoform	ND	ND	ND	ND	5.0
bromomethane	ND	ND	ND	ND	5.0
2-butanone (MEK)	ND	ND	ND	ND	10
carbon disulfide	ND	ND	ND	ND	10
carbon tetrachloride	ND	ND	ND	ND	5.0
chlorobenzene	ND	ND	ND	ND	5.0
chloroethane	ND	ND	ND	ND	5.0
chloroform	ND	ND	ND	ND	5.0
chloromethane	ND	ND	ND	ND	5.0
dibromochloromethane	ND	ND	ND	ND	5.0
1,1-dichloroethane	ND	ND	ND	ND	5.0
1,2-dichloroethane	ND	ND	ND	ND	5.0
1,1-dichloroethene	ND	ND	ND	ND	5.0
cis-1,2-dichloroethene	ND	ND	ND	ND	5.0
trans-1,2-dichloroethene	ND	ND	ND	ND	5.0
1,2-dichloropropane	ND	ND	ND	ND	5.0
cis-1,3-dichloropropene	ND	ND	ND	ND	5.0
trans-1,3-dichloropropene	ND	ND	ND	ND	5.0
ethlybenzene	ND	ND	ND	ND	5.0
2-hexanone	ND	ND	ND	ND	10
methylene chloride	ND	ND	ND	ND	5.0
4-methyl-2-pentanone (MIBK)	ND	ND	ND	ND	10
styrene	ND	ND	ND	ND	5.0
1,1,2,2-tetrachloroethane	ND	ND	ND	ND	5.0
tetrachloroethene	ND	ND	ND	ND	5.0
toluene	ND	ND	ND	ND	5.0
1,1,1-trichloroethane	ND	ND	ND	ND	5.0
1,1,2-trichloroethane	ND	ND	ND	ND	5.0
trichloroethene	ND	ND	ND	ND	5.0
vinyl chloride	ND	ND	ND	ND	5.0
m+p xylene	ND	ND	ND	ND	5.0
o-xylene	ND	ND	ND	ND	5.0
TOTAL VOC'S	ND	ND	ND	ND	
TPH	ND	ND	ND	ND	1,000
SOLUBLE ARSENIC	ND	ND	ND	ND	10.0
SOLUBLE LEAD	ND	ND	ND	ND	5.00

ND - Not Detected, above the laboratory detection limit

Prepared by: KMH
Date: 3/17/10
Checked by: GK
Date: 3-18-10

TABLE 3-7
UNION ROAD
ANNUAL GROUNDWATER MONITORING 2009

UMC

DEEP WELL SVOCs

ANALYTE	ANALYTICAL RESULTS (ug/L)		Detection Limit
	MW-10D	MW-12D	
Dilution	1.00	1.00	
acenapthene	ND	ND	10.0
acenapthylene	ND	ND	10.0
anthracene	ND	ND	10.0
benzo(a)anthracene	ND	ND	10.0
benzo(a)pyrene	ND	ND	10.0
benzo(b)fluoranthene	ND	ND	10.0
benzo(g,h,i)perylene	ND	ND	10.0
benzo(k)fluoranthene	ND	ND	10.0
benzyl alcohol	ND	ND	10.0
butly benzyl phthalate	ND	ND	10.0
di-n-butlyphthalate	ND	ND	10.0
carbazole	ND	ND	10.0
indeno(1,2,3-cd)pyrene	ND	ND	10.0
4-chloroaniline	ND	ND	10.0
bis(-2-chloroethoxy)methane	ND	ND	10.0
bis(2-chloroethyl)ether	ND	ND	10.0
2-chloronapthalene	ND	ND	10.0
2-chlorophenol	ND	ND	10.0
2,2'-oxybis(1-chloropropane)	ND	ND	10.0
chrysene	ND	ND	10.0
dibenzo(a,h)anthracene	ND	ND	10.0
dibenzofuran	ND	ND	10.0
1,2-dichlorobenzene	ND	ND	10.0
1,3-dichlorobenzene	ND	ND	10.0
1,4-dichlorobenzene	ND	ND	10.0
3,3'-dichlorobenzidine	ND	ND	10.0
2,4-dichlorophenol	ND	ND	10.0
diethylphthalate	ND	ND	10.0
dimethyl phthalate	ND	ND	10.0
2,4-dimethlyphenol	ND	ND	10.0
2,4-dinitrophenol	ND	ND	50.0
2,4-dinitrotoluene	ND	ND	10.0
2,6-dinitrotoluene	ND	ND	10.0
bis(2-ethylhexyl)phthalate	ND	ND	10.0
fluoranthene	ND	ND	10.0
fluorene	ND	ND	10.0
hexachlorobenzene	ND	ND	10.0

Prepared by: KMH
Date: 3/17/10
Checked by: GPK
Date: 3-18-10

TABLE 3-7
UNION ROAD
ANNUAL GROUNDWATER MONITORING 2009

UMC

DEEP WELL SVOCs

hexachlorobutadiene	ND	ND	10.0
hexachlorocyclopentadiene	ND	ND	10.0
hexachloroethane	ND	ND	10.0
isophorone	ND	ND	10.0
2-methlynapthalene	ND	ND	10.0
2-methylphenol	ND	ND	10.0
4,6-dinitro-2-methylphenol	ND	ND	50.0
4-chloro-3-methlyphenol	ND	ND	10.0
3+4-methylphenol	ND	ND	10.0
napthalene	ND	ND	10.0
2-nitroaniline	ND	ND	50.0
3-nitroaniline	ND	ND	50.0
4-nitroaniline	ND	ND	50.0
nitrobenzene	ND	ND	10.0
2-nitrophenol	ND	ND	10.0
4-nitrophenol	ND	ND	50.0
n-nitrosodimethylamine	ND	ND	10.0
n-nitrosodiphenylamine	ND	ND	10.0
di-n-octyl phthalate	ND	ND	10.0
pentachlorophenol	ND	ND	50.0
phenanthrene	ND	ND	10.0
phenol	ND	ND	10.0
4-bromophenyl-phenylether	ND	ND	10.0
4-chlorophenyl-phenylether	ND	ND	10.0
n-nitroso-di-n-propylamine	ND	ND	10.0
pyrene	ND	ND	10.0
1,2,4-trichlorobenzene	ND	ND	10.0
2,4,5-trichlorophenol	ND	ND	10.0
2,4,6-trichlorophenol	ND	ND	10.0
TOTALS	ND	ND	

ND - Not Detected, above the laboratory detection limit

Prepared by: KMH
Date: 3/17/10
Checked by: GK
Date: 3-18-10

TABLE 3-8
UNION ROAD
ANNUAL GROUNDWATER MONITORING 2009

UMC

DEEP WELL VOCs, TPH, and METALs

ANALYTE	ANALYTICAL RESULTS (ug/L)		Detection Limit
	MW-10D	MW-12D	
Dilution	1.00	1.00	
acetone	ND	ND	20
benzene	ND	ND	5.0
bromodichloromethane	ND	ND	5.0
bromoform	ND	ND	5.0
bromomethane	ND	ND	5.0
2-butanone (MEK)	ND	ND	10
carbon disulfide	ND	ND	10
carbon tetrachloride	ND	ND	5.0
chlorobenzene	ND	ND	5.0
chloroethane	ND	ND	5.0
chloroform	ND	ND	5.0
chloromethane	ND	ND	5.0
dibromochloromethane	ND	ND	5.0
1,1-dichloroethane	ND	ND	5.0
1,2-dichloroethane	ND	ND	5.0
1,1-dichloroethene	ND	ND	5.0
cis-1,2-dichloroethene	ND	ND	5.0
trans-1,2-dichloroethene	ND	ND	5.0
1,2-dichloropropane	ND	ND	5.0
cis-1,3-dichloropropene	ND	ND	5.0
trans-1,3-dichloropropene	ND	ND	5.0
ethlybenzene	ND	ND	5.0
2-hexanone	ND	ND	10
methylene chloride	ND	ND	5.0
4-methyl-2-pentanone (MIBK)	ND	ND	10
styrene	ND	ND	5.0
1,1,2,2-tetrachloroethane	ND	ND	5.0
tetrachloroethene	ND	ND	5.0
toluene	ND	ND	5.0
1,1,1-trichloroethane	ND	ND	5.0
1,1,2-trichloroethane	ND	ND	5.0
trichloroethene	ND	ND	5.0
vinyl chloride	ND	ND	5.0
m+p xylene	ND	ND	5.0
o-xylene	ND	ND	5.0
TOTAL VOC'S	ND	ND	
TPH	ND	ND	1,000
SOLUBLE ARSENIC	ND	ND	10.0
SOLUBLE LEAD	ND	ND	5.00

ND - Not Detected, above the laboratory detection limit

4. GROUNDWATER ELEVATION MONITORING

The purpose of Groundwater Elevation Monitoring is to determine the groundwater gradient of the three hydrogeologic units in and around the closure area. The three hydrogeologic units (layers) are:

1) The overburden layer (shallow), which is above the clay layer;
2) The till layer (medium), which is beneath the clay layer; and
3) Bedrock (deep), which is beneath the till layer.

As stated in the NYSDEC approved Design Report, the frequency of groundwater elevation measurements are as follows:

- Monthly for the first six months after closure (Jan – June 1997);
- Quarterly thereafter until the end of year two (July 1997 – December 1998); and
- Annually (during the dry season) thereafter.

As stated previously, the sampling frequency, sampling parameters, and/or sampling of specific wells will be modified based on the results of previous sampling events (since the landfill closure) and with written approval from the NYSDEC.

The objective for collecting groundwater elevation measurements is to gain knowledge of the groundwater flows and hydraulic gradients in and around the closure. This information is used to generate groundwater flow maps and demonstrate an inward gradient of groundwater around the closure.

On September 19, 2007, UMC measured the depth to groundwater in the monitoring wells. Table 4-1 summarizes the results of these measurements. The data from Table 4-1 were used to create Figures 4-1 through 4-3, which depict groundwater elevations and presumed flow directions in the three hydrogeologic units. Figure 4-1 shows an inward gradient of shallow (overburden) groundwater across the slurry wall and towards the dewatering trench within the closure.

Figures 4-2 and 4-3 depict groundwater flow in the medium and deep units. Flow is generally toward the southeast and east respectfully and has not been affected by the placement of the landfill closure.

Prepared by: KMH
Date: 3/15/10
Checked by: GPL
Date: 3-15-10

TABLE 4-1
UNION ROAD
GROUNDWATER MONITORING REPORT

UMC

GROUNDWATER WELL MEASUREMENTS
September 14, 2009

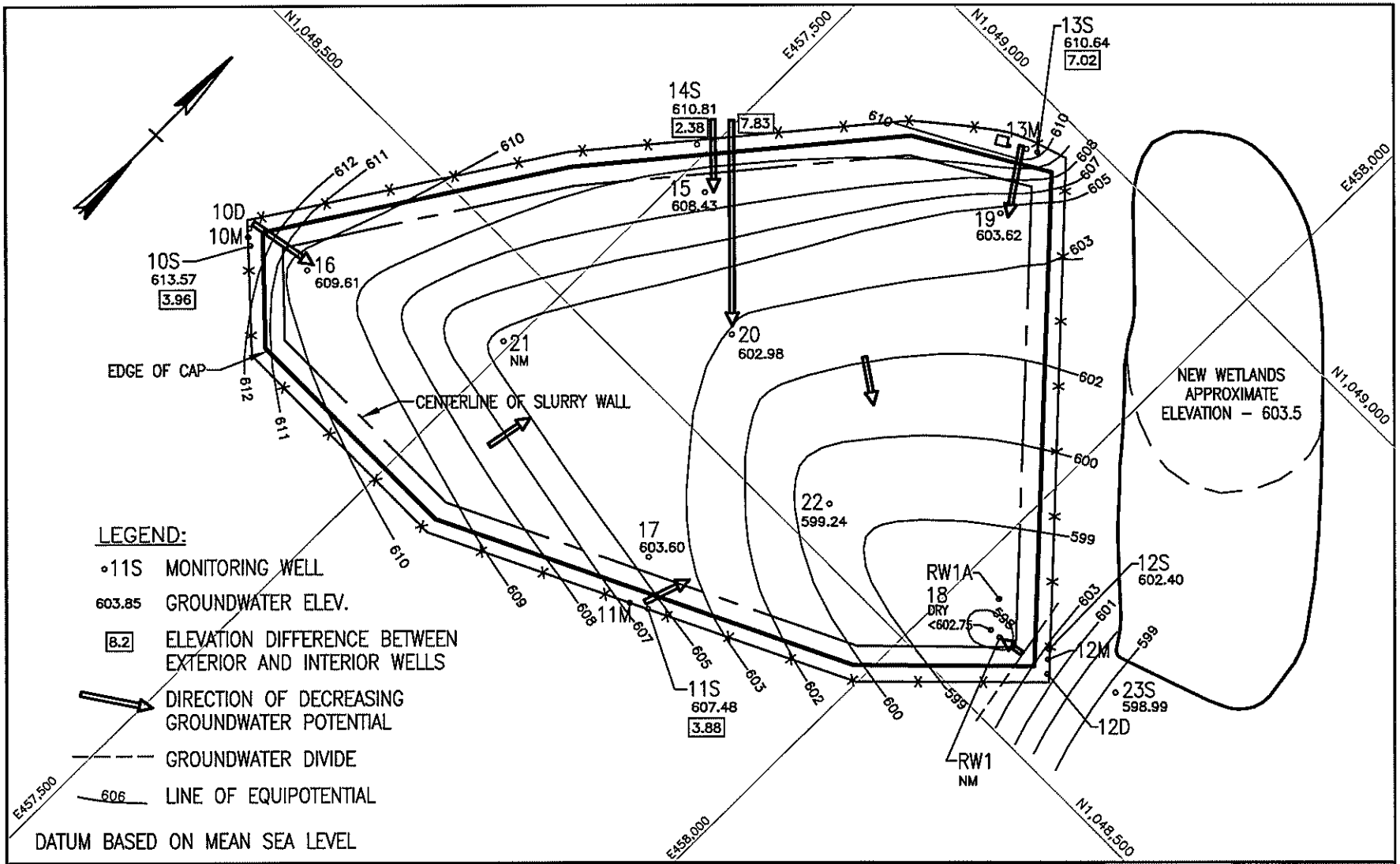
Well Number	Riser Elev.[1] (Feet)	Depth to Water (Feet)	Water Elev. (Feet)
10S	623.09	9.52	613.57
10M	622.50	11.84	610.66
10D	622.02	16.20	605.82
11S	622.74	15.26	607.48
11M	622.86	21.80	601.06
12S	622.62	20.22	602.40
12M	622.97	22.46	600.51
12D	621.18	19.96	601.22
13S	622.96	12.32	610.64
13M	621.66	12.30	609.36
14S [2]	621.61	10.80	610.81
15	624.67	16.24	608.43
16	624.51	14.90	609.61
17	624.44	20.84	603.60
18 [3]	624.67	>21.92	<602.75
19	625.08	21.46	603.62
20 [4]	631.98	29.00	602.98
21	629.25	NM/NR	
22 [4]	629.24	30.00	599.24
23S	607.45	8.46	598.99
RW1 [5]	623.76	NM/NR	

[1] Elevations were surveyed by Douglas C. Meyers P.L.S., P.C. on March 17, 1997.
[2] MW-14S was reinstalled and resurveyed on August 19, 1997.
[3] MW-18 is dry; measuring tape stopped without indicating water.
[4] Depth measured to free product.
[5] Groundwater measurement was not taken in RW1. The assumed elevation is at the pump inlet (598.76).

NM/NR: Not Measure/Not Recorded

MW-20 and MW-22 have free product on water surface; therefore water level measurement conservatively assumed as the top of the oil layer (Because of the less dense oil, the actual water elevation would be lower).

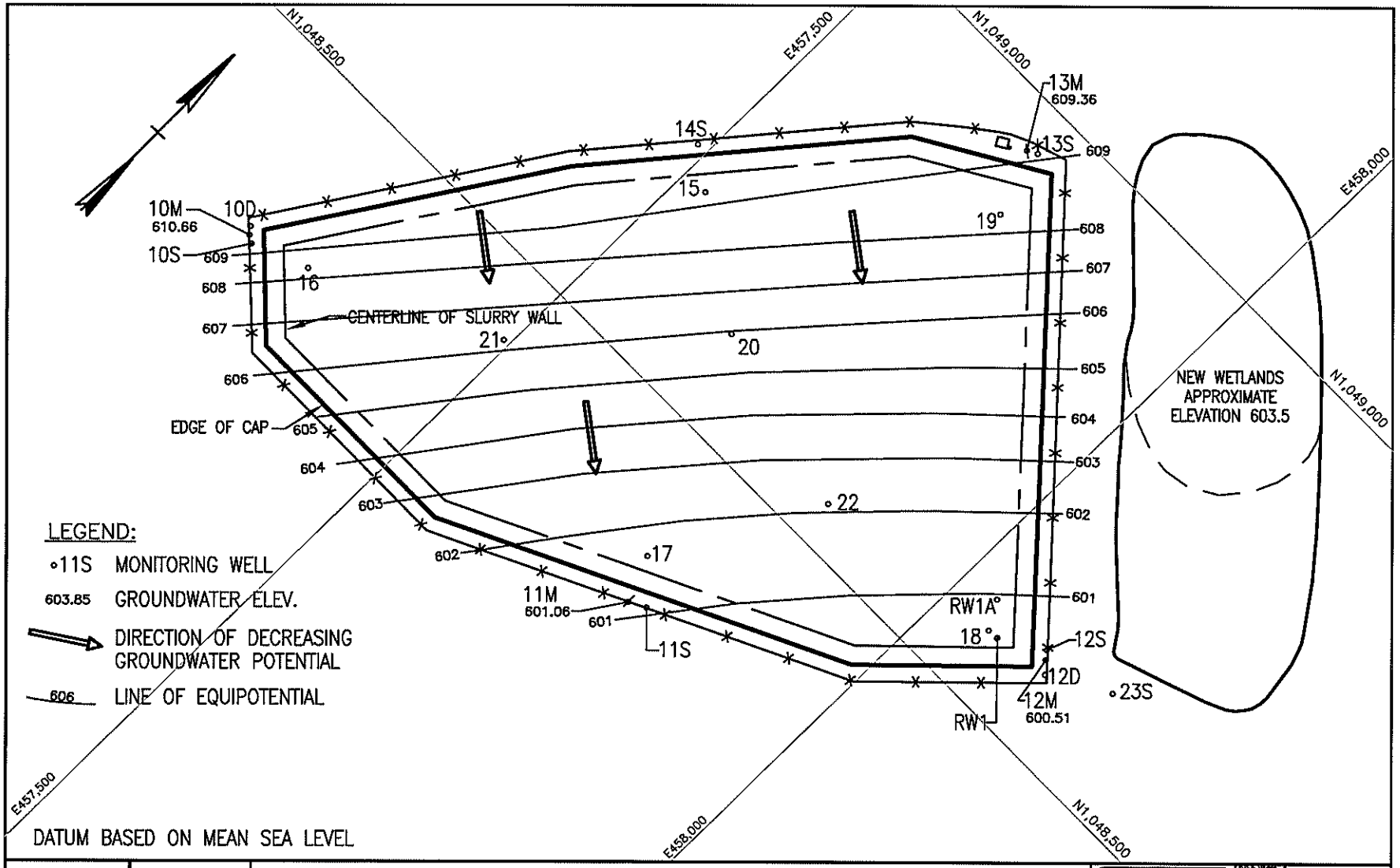
All Elevations are referenced to Mean Sea Level



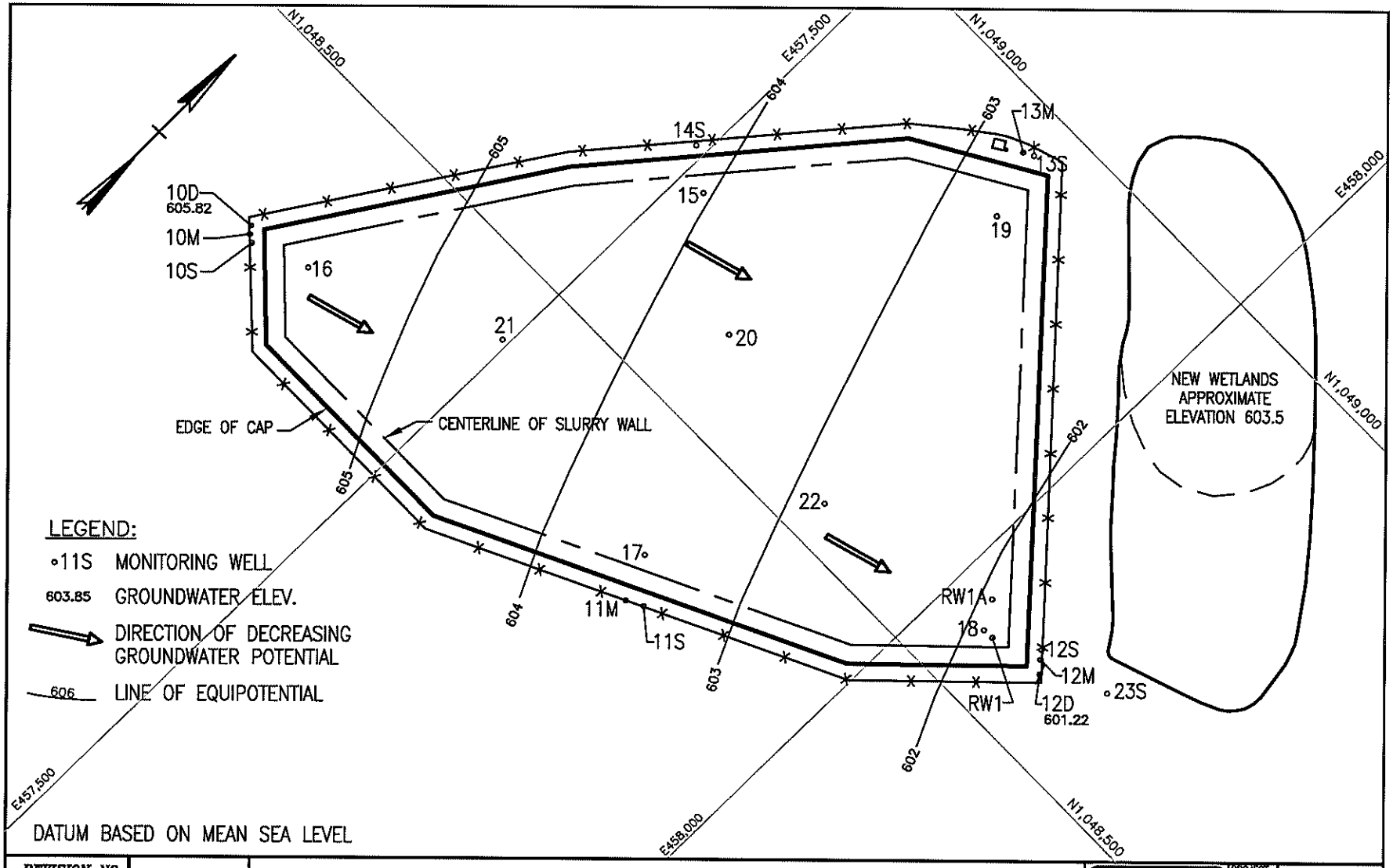
REVISION NO.		PROJECT	UNION ROAD SITE TOWN OF CHEEKTOWAGA, NEW YORK
NO.	DATE		
		DRAWING	SHALLOW GROUNDWATER FLOW MAP SEPTEMBER 14, 2009

Unicorn Management Consultants, LLC
52 FEDERAL ROAD
DANBURY, CT
(203) 205-9000

PROJECT # 2011
FILENAME: GWContour_S
SCALE: 1" = 150' DATE: 3/15/09
BY: GPK CK:
FIGURE # 4-1



REVISION NO.		PROJECT	UNION ROAD SITE TOWN OF CHEEKTOWAGA, NEW YORK	Unicorn Management Consultants, LLC 52 FEDERAL ROAD DANBURY, CT (203) 205-9000	PROJECT # 2011
NO.	DATE				FILENAME: GWContour_M
		DRAWING	MEDIUM WELL GROUNDWATER FLOW MAP SEPTEMBER 14, 2009		SCALE: 1" = 150' DATE: 3/15/10
					BY: CPK CK:
					FIGURE # 4-2



REVISION NO.		PROJECT	UNION ROAD SITE TOWN OF CHEEKTOWAGA, NEW YORK	Unicorn Management Consultants, LLC 52 FEDERAL ROAD DANBURY, CT (203) 205-9000	PROJECT # 2011
NO.	DATE				FILENAME: GWContour_D
		DRAWING	BEDROCK GROUNDWATER FLOW MAP SEPTEMBER 14, 2009		SCALE: 1" = 150' DATE: 3/15/10
					BY: CPK CK:
					FIGURE # 4-3

5. CONCLUSION

5.1 SITE INSPECTION AND MAINTENANCE

As part of the annual groundwater sampling event conducted on September 14, 2009, UMC walked the site and documented its observations. Following is a summary of the inspection and maintenance activities that have occurred this year:

Roundhouse Area: The area is well vegetated and stabilized. It is also noted that numerous property owners adjacent to this area are maintaining it with the rest of their properties. No action is needed.

Landfill Closure: There is no signs of erosion, no areas of distressed vegetation, and no evidence of any outbreak of any substance (slurry wall material or oil) on the landfill. Erie County Water Company was notified that a small quantity of contaminated soil is located northeast of the new wetland area and beneath the existing water pipe. UMC has an account with Dig Safely New York so when someone needs to dig in the area and calls Dig Safely, UMC will be notified. Except for periodic grass cutting, annual groundwater monitoring, and quarterly groundwater discharge monitoring required by the Erie County Sewer Authority, no action is needed.

A woodchuck eradication program was implemented during 2009. Woodchuck burrows were noted at several locations on the cap and around the pump control building. Although small amounts of gravel noted at the surface indicated that the burrows went as deep as the drainage layer, it is unlikely that the impervious section of the cap was breached because the gravel collapses on itself and therefore discourages deeper burrowing by the wood chucks once it is encountered. UMC engaged the services of a licensed nuisance wildlife control company to capture resident wood chucks from within the fenced area. About 13 wood chucks were captured and removed. The burrows were backfilled and the surface reseeded.

Wetland Restoration: The wetlands north of the landfill closure, which was created during the remediation activities has continued to reestablish itself. The wetlands has completely revegetated itself and wildlife (e.g., ducks, geese and deer) have returned to the area. No action is needed.

Stream Restoration: A letter to the Town of Cheektowaga (Town) was sent by APU's Legal Counsel on October 7, 2005. This letter informs the Town that it must notify the NYSDEC (David Locey or Martin Doster at 716-851-7220) prior to any activity in those creeks where the reno mattresses are located (see Figure 1-2).

The reno matresses installed in 1995/1996 and repaired in 2006 on the creek channel has stabilized and vegetation has established itself through the reno mattresses. There is some sediment accumulation within the creek channels, but at some locations the reno mattress wire mesh was visible at the base of the channel. The gabion basket wing-walls are stable. No other action is needed.

Downstream Area: Though some of the trees planted in this area have died, there are no signs of erosion in this area. Grass has established itself in this area. No action is needed.

UMC will continue to inspect and repair all closure areas to ensure that the closure remains intact and successful.

5.2 GROUNDWATER QUALITY

The groundwater quality within the exterior wells and the groundwater elevation measurements during the annual monitoring event of 2009 demonstrate that remedial activities at the Union Road Site are successful. The groundwater quality outside the landfill closure is better than groundwater quality in the interior of the closure.

The groundwater elevation measurements indicate that an inward gradient of shallow groundwater flow has been established across the slurry wall. This inward gradient in combination with the groundwater quality outside the closure demonstrates that the contamination is contained within the slurry wall.

No TPH, Arsenic, Lead, VOC, or SVOCs were detected in the any of the monitoring wells during this annual sampling event.

Though Monitoring wells MW-11S and MW-14S did not exhibited detectable concentrations of TPH this monitoring period, detectable concentrations of TPH have existed in both MW-11S and MW-14S since their construction in 1997. As discussed in previous monitoring reports, the contamination appears to be isolated and stabilized within those areas of the site (northwest and south sides) and there are inward groundwater gradient into the landfill closure at MW-11S and MW-14S areas.

Though arsenic has been detected in several wells over the duration of the groundwater monitoring activities, during this sample event, arsenic was not detected in any of the wells.

UMC will continue to monitor and evaluate the groundwater surrounding the landfill in accordance with the GMP.

APPENDIX A

BORING LOGS AND WELL CONSTRUCTION DRAWINGS

TEST BORING LOG

BORING NO. 10-S

PROJECT NO. NAME Union Road - 2035-200 | LOCATION Buffalo NY

DRILLING CONTRACTOR/DRILLER Maxim

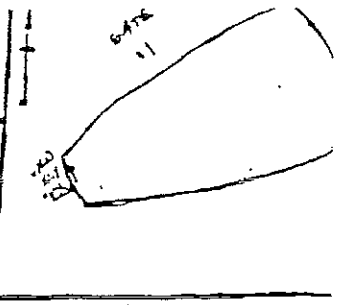
GEOLOGIST. OFFICE John J Zacher JR

DRILLING EQUIPMENT. METHOD HSA | SIZE TYPE OF BIT 6" HSA | SAMPLING METHOD Split Spoon | START. FINISH

WELL INSTALLED? YES ☒ NO ☐ | CASING MAT./DIA. Stainless Steel / 2" | SCREEN: TYPE Slot MAT. Stainless LENGTH 10' DIA. 2" SLOT SIZE .02

ELEVATION OF: GROUND SURFACE TOP OF WELL CASING TOP & BOTTOM SCREEN GW SURFACE DATE (FT. ABOVE M.S.L.)

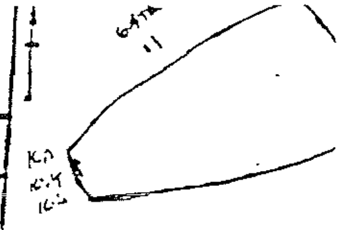
REMARKS: Hole to 21', Samples to 20'



DEPTH (FT)	SAMPLE NO. AND TYPE	RECOVERY (FT)	PENETRATION RESISTANCE BLOWS/FT	LOG OF TEST BORING — DESCRIPTION	REMARKS	WELL CONST.	GRAPHIC LITHOLOGY
				Sampling Starts At 4' B.G.			
5	4 4 6 8	21"	6 6 8 10	Blk to Tan/Grey Clay w/ little Angular Rocks to 1/2"	Stiff, Dry		
	6 8 4	21"	6 15 20 15	0-3" Black to Tan/Grey Clay some Rocks to 3/4" 3-15" Cinders w/some Rocks. - Dry	Stiff Dry		
				15-21" Brown/Tan Clay some Sand, Little Silt Trace Rocks	Cohesive Little H2O		
10	10 10	24"	8 9 10 10	Tan/Lt Brown Clay	Stiff, Little H2O		
	10 12	12"	2 3 4 3	Tan/Lt Brown Clay	Med Stiff some H2O		
	12 14	16"	2 3 3 4	Tan/Lt Brown Clay - Trace Silts	Med Stiff some H2O		
15	14 16	20"	2 2 3 4	Grey to Lt Brown Clay some Little Rounded Rocks	Med Stiff some H2O		
	16 18	15"	2 3 4 5	Tan to Lt Brown Clay	Med Stiff some H2O		
	18 20	20"	2 3 3 5	Grey/Tan Brown Clay Trace Organics.	Med Stiff some H2O		
				End Boring 21' BGS - ~~20'~~			

Proportions Used: Trace = 0-10%, Little = 10-20%, Some = 20-35%, And = 35-50%

Sampling Abbreviations: SS = Split Spoon, ST = Shelby Tube, CSC = Continuous Soil Core



TEST BORING LOG

BORING NO.	10-M
PROJECT NO., NAME	UNION ROAD - 2035 - 200
LOCATION	BUFFALO NY
DRILLING CONTRACTOR/DRILLER	MAXIM
GEOLOGIST, OFFICE	JOHN J ZACHER JR
DRILLING EQUIPMENT, METHOD	HSA
SIZE/TYPE OF BIT	6" HSA
SAMPLING METHOD	SPLIT SPOON
START, FINISH DATE	1/3/97
WELL INSTALLED?	YES ☒ NO ☐
CASING MAT./DIA.	STAINLESS STEEL / 2"
SCREEN: TYPE	SLOT
MAT.	STAINLESS
LENGTH	10'
DIA.	2"
SLOT SIZE	0.02
ELEVATION OF: (FT. ABOVE M.S.L.)	GROUND SURFACE / TOP OF WELL CASING / TOP & BOTTOM SCREEN / GW SURFACE / DATE
REMARKS:	

LOG OF TEST BORING

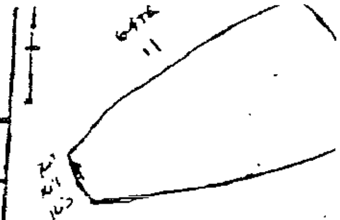
SAMPLING STARTS 4' BG.

DEPTH (FT)	SAMPLE NO. AND TYPE	RECOVERY (FT)	PENETRATION RESISTANCE BLOWS/6 FT	DESCRIPTION	REMARKS	WELL CONST.	GRAPHIC LOG
4–6		20"	6 6 8 8	BLK TO TAN/GREY CLAY W/LITTLE ROCKS TO 1/4"	STIFF, DAMP		
6–8		22"	6 8 10 12	0-7" BLACK W/TAN/GREY CLAY SOME ROCKS 7-14" CINDERS 14-22" BROWN TAN CLAY LITTLE ROCKS	STIFF DAMP DRY MED STIFF, LITTLE H2O		Cement Grout
8–10		24"	7 8 9 8	TAN/LT BROWN CLAY	STIFF, LITTLE H2O		
10–12		15"	4 3 4 5	TAN/LT BROWN CLAY	MED STIFF SOME H2O		
12–14		15"	3 4 3 5	TAN/LT BROWN CLAY	MED STIFF SOME H2O		
14–16		20"	3 4 4 4	TAN/LT BROWN CLAY, LITTLE GREY LITTLE ROUND ROCKS	MED STIFF SOME H2O		
16–18		19"	3 3 4 4	TAN TO LT BROWN CLAY	MED STIFF SOME H2O		Ben
18–20		20"	3 3 3 4	GREYISH BROWN CLAY, SOME ORGANICS	MED STIFF SOME H2O		Sand

Proportions Used: Trace = 0-10%, Little = 10-20%, Some = 20-35%, And = 35-50%

Sampling Abbreviations: SS = Split Spoon, ST = Shelby Tube, CSC = Continuous Soil Core

TEST BORING LOG



BORING NO.	10 M
PROJECT NO., NAME	UNION ROAD · 2035 · 200
LOCATION	BUFFALO NY
DRILLING CONTRACTOR/DRILLER	MAXIM
GEOLOGIST, OFFICE	JOHN J ZACHER JR.
DRILLING EQUIPMENT, METHOD	HSA
SIZE/TYPE OF BIT	6" HSA
SAMPLING METHOD	SPLIT SPOON
START, FINISH DATE	1/3/97
WELL INSTALLED?	YES ☒ NO ☐
CASING MAT./DIA.	STAINLESS STEEL / 2"
SCREEN: TYPE	SLOT
MAT.	STAINLESS
LENGTH	10'
DIA.	2"
SLOT SIZE	0.02
ELEVATION OF: (FT. ABOVE M.S.L.)	GROUND SURFACE / TOP OF WELL CASING / TOP & BOTTOM SCREEN / GW SURFACE / DATE
REMARKS:	

LOG OF TEST BORING

DEPTH (FT)	SAMPLE NO. AND TYPE	RECOVERY (FT)	PENETRATION RESISTANCE BLOWS/6"	DESCRIPTION	REMARKS
20–22		21	1, 3, 2, 8	DARK GREY w/ ~~SOME~~ LITTLE ORGANICS	MED STIFF, SOME H2O
22–24		21	4, 5, 4, 9	GREY w/ SOME BROWN CLAYS	MED STIFF, LITTLE H2O
24–26		20	2, 3, 3, 3	GREY CLAY	SOFT, WET
26–28		21	1, 2, 2, 10	TOP 14" GREY CLAY BOT 7" GREY/LT BROWN CLAY, SOME ROCK FRAGS, LITTLE SAND	SOFT WET WET, NOT COHESIVE
28–30		17"	12, 8, 4, 2	LT BROWN SILTS w/SOME SAND 0-6" LT BROWN/TAN CLAY, SOME ROCKS 1/2-1" w/ 17"	WET, LOOSE SOFT-WET

BOB @ 31' Bgl

Proportions Used: Trace = 0-10%, Little = 10-20%, Some = 20-35%, And = 35-50%

Sampling Abbreviations: SS = Split Spoon, ST = Shelby Tube, CSC = Continuous Soil Core

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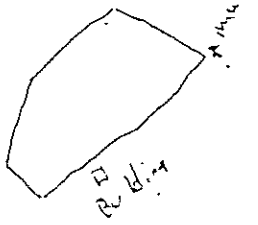
TEST BORING LOG



BORING NO. MW-10D

PROJECT NO., NAME: Union Road | LOCATION: Buffalo NY

DRILLING CONTRACTOR/DRILLER: Maxim (Dick Miller, Ron Brown)

GEOLOGIST, OFFICE: James Dunn

DRILLING EQUIPMENT, METHOD	SIZE, TYPE OF BIT	SAMPLING METHOD	START, FINISH DATE
Air Rotary / HSA	8¼" HSA / 7⅞"	Split Spoon	12/10 - 12/17/86

WELL INSTALLED?	CASING MAT./DIA.	SCREEN: TYPE	MAT.	LENGTH	DIA.	SLOT SIZE
YES ☒ NO ☐	Stainless / 2"	slot	stainless	10'	2"	.020

ELEVATION OF: GROUND SURFACE | TOP OF WELL CASING | TOP & BOTTOM SCREEN | GW SURFACE | DATE (FT. ABOVE M.S.L.)

REMARKS:

DEPTH (FT)	SAMPLE NO. AND TYPE	RECOVERY (FT)	PENETRATION RESISTANCE BLOWS/FT	DESCRIPTION	REMARKS	WELL CONST.	GRAPHIC LITHOLOGY
				Sampling started @ 4' BG.			
5		21"	5 6 8 10	~~Blk to tan/Grey clay w/ Trace angular~~ Fragmented Rock upto 1" in size	~~Stiff~~, Damp		
		22"	7 30 18 11	Top 8" Blk, tan/Grey Clay w/ Trace angular Fragmented Rock next 6" 1" in size Blk Cinder like material w/ ~~Some~~ w/ angular Fragmented Rock's Bottom 6" Brown/Tan Sand/Silty Clay w/ 10%-20% Rx Frag. 2"	Stiff, Damp Dry Not Cohesive, little H_2O		
10		24"	7 8 10 9	Tan to Lt Brown clay, No Rocks	m. stiffness w/ some H_2O		
		16"	2 2 3 3	Tan to lt Brown clay w/o Rocks	m. Stiffness w/ some H_2O		
15		15"	1 3 3 5	tan to lt Brown Clay w/o Rocks Possibly Some Silts	m. stiffness w/ Some H_2O		
		20"	2 2 3 4	Grey to lt Brown Mottled clay w/ trace rounded Rocks, ¼ - ½" diameter.	m. stiffness w/ Some H_2O		
		18"	1 3 4 6	Tan to lt Brown Clay w/o Rxs	m. stiffness w/ Some H_2O		
		21"	2 2 3 4	Grayish/Brown/Blk clay w/ 10-20% organics	m. stiffness w/ some H_2O		

Proportions Used: Trace = 0-10%, Little = 10-20%, Some = 20-35%, And = 35-50%

Sampling Abbreviations: SS = Split Spoon, ST = Shelby Tube, CSC = Continuous Soil Core

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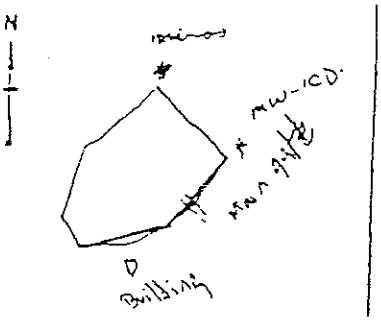
C 01 /

TEST BORING LOG



BORING NO. MW- 1D

PROJECT NO., NAME: Union Road 2035-200

LOCATION: Buffalo NY

DRILLING CONTRACTOR/DRILLER: Maxim (Dick Miller, Ron Brown)

GEOLOGIST, OFFICE: James Dean

DRILLING EQUIPMENT, METHOD: HSA / Air Rotary

SIZE, TYPE OF BIT: HSA 8 1/4" / 7 7/8"

SAMPLING METHOD: Split SPOON

START, FINISH DATE:

WELL INSTALLED? YES ☑ NO ☐

CASING MAT., DIA.: Stainless Steel 2"

SCREEN: TYPE SLOT MAT. Stainless LENGTH 10' DIA. 2" SLOT SIZE .02C

ELEVATION OF: GROUND SURFACE TOP OF WELL CASING TOP & BOTTOM SCREEN GW SURFACE DATE
(FT. ABOVE M.S.L.)

REMARKS:

DEPTH (FT)	SAMPLE NO. AND TYPE	RECOVERY (FT)	PENETRATION RESISTANCE BLOWS/FT	LOG OF TEST BORING DESCRIPTION	REMARKS	WELL CONST.	GRAPHIC LITHOLOGY LOG
	20-22'	21"	1 3 5 8	Greyish/Blk/Drk Grey clays w/ Traces organics	M. stiffness w/ Some H_2O		
	22-24'	20"	3 5 8 9	Grey + Brown Clays	M. stiffness w/ Trace H_2O		
	24-26'	0"	2 2 3 2	The inside of the spoon was V. wet, No Basket.			
	26-28'	22"	1 1 3 17	Top 16" Grey clays mid 4" Grey clays, w/ trace organics Bottom 2" Grey/Lt Brown/ clays w/ some Frag. Rks, Sands	soft wet soft wet Not cohesive wet		
	30-32	17"	3 3 3 3	Lt Brown/Tan clays w/ silts 20% Rock Frags. 1/4" - 2"	Sof wet		
	28-30'	18"	6 2 2	Top 3" Sands w/ Lt Brown/Tan silts + clays Bottom 15" Lt Brown/Tan Clays w/ silts, 20% Rock Fragments 1/4" - 2" in size	Not Cohesive Wet Soft Wet		
	32-34'	4"	2 3"/50	Lt Brown/Tan clays w/ silts, 20% Rx2 Frags 1/4"-2" in size	Soft Wet		
				Bed Rock.			
				@ 38' BG Bottom of Protectiv casing.	Bottem of The Protective Casing		

Proportions Used: Trace = 0-10%, Little = 10-20%, Some = 20-35%, And = 35-50%

SS = Split Spoon, CSC = Continuous Soil Core

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TEST BORING LOG

BORING NO. MW-10D

PROJECT NO.. NAME Union Road 2035-200

LOCATION Buffalo NY

DRILLING CONTRACTOR/ DRILLER Maxim

GEOLOGIST, OFFICE James Doan

DRILLING EQUIPMENT, METHOD HSA

SIZE, TYPE OF BIT

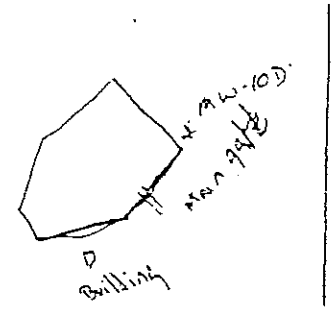
SAMPLING METHOD Split SPOON

START, FINISH DATE

WELL INSTALLED? YES ☑ NO ☐ | CASING MAT./DIA. Stainless Steel/2" | SCREEN: TYPE SLOT MAT. Stainless LENGTH 10' DIA. 2" SLOT SIZE .020

ELEVATION OF: (FT. ABOVE M.S.L.) GROUND SURFACE | TOP OF WELL CASING | TOP & BOTTOM SCREEN | GW SURFACE | DATE

REMARKS:

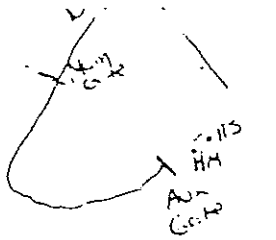


DEPTH (FT)	SAMPLE NO. AND TYPE	RECOVERY (FT)	PENETRATION RESISTANCE BLOWS/FT	DESCRIPTION	REMARKS	WELL CONST.	GRAPHIC LITHOLOGY
5				@ 45 the water bearing zone The hole has collapsed The Rock isn't very consolidated	B.O.B 45.5' BG		
10							
15							

Proportions Used: Trace = 0-10%, Little = 10-20%, Some = 20-35%, And = 35-50%

ST - Shelby Tube, CSC = Continuous Soil Core

TEST BORING LOG



BORING NO. MW-115

PROJECT NO. NAME Niagara 2025-200 | LOCATION Buffalo NY

DRILLING CONTRACTOR/DRILLER MANN

GEOLOGIST. OFFICE JOHN J ZACHER JR

DRILLING EQUIPMENT. METHOD HSA | SIZE TYPE OF BIT 6" HSA | SAMPLING METHOD SPLIT SPOON | START. FINISH DAT 11/2/17

WELL INSTALLED? YES ☑ NO ☐ | CASING MAT./DIA. STAINLESS STEEL 2" | SCREEN: TYPE SLOT MAT. STAINLESS LENGTH 10' DIA. 2" SLOT SIZE 0.010 | DATE

ELEVATION OF: GROUND SURFACE TOP OF WELL CASING TOP & BOTTOM SCREEN GW SURFACE (FT. ABOVE M.S.L.)

REMARKS:

DEPTH (FT)	SAMPLE NO. AND TYPE	RECOVERY (FT)	PENETRATION RESISTANCE BLOWS/FT-0.5FT	LOG OF TEST BORING DESCRIPTION	REMARKS	WELL CONST.	GRAPHIC LITHOLOGY
				SAMPLING STARTED AT 4' B.G.			
4'			10	BROWN/DRK BROWN SILTS & CLAYS	STIFF		
		15"	9	TRACE RX FRAGMENTS < 1/8"	DRY - LITTLE TO H2O		
5			10				Conc
6'			10				
6'			4	BROWN/DRK BROWN SILTS AND CLAYS	STIFF		
		15"	9	NO RXS	LITTLE TO NO H2O		
			12				
8'			11	FILL			
8'			12	BROWN/DRK BROWN CLAYS	STIFF		
		10"	12	TRACE RX FRAGS	LITTLE TO NO H2O		Brick
			12	FILL			
10'			12				
10			4	TOP 9" DRK BROWN CLAYS W/SOME ORGANICS	STIFF - LITTLE H2O		
10'			6	BOTTOM 4" - GREY SILTS/CLAYS AND ORGANICS	SOFT/STIFF - LITTLE H2O MED		
		13"	6				
12'			8				Sand
12'			8	GREY CLAYS LITTLE ORGANICS	MEDIUM STIFFNESS SOME H2O		
			9				
		20"	10				
14'			13				
14'			9	TOP 6" GREY CLAYS, LITTLE ORGANICS	MED STIFFNESS W/SOME H2O		Bent
15		15"	11				
			10	BOTTOM 12" - REDDISH BROWN CLAY NO RXS ORGANICS	STIFF - LITTLE TO NO H2O		
16'			13				
16'			19	REDDISH BROWN CLAYS W/GREY LAYERS	STIFF - LITTLE TO NO H2O		
		21"	28	GREY LAYERS MAY BE EVIDENCE OF VARVED CLAYS			
			22				
18'			5				
18'			5	REDDISH BROWN CLAYS W/GREY LAYERS	M. STIFFNESS		
		12"	21	GREY LAYERS MAY BE EVIDENCE OF VARVED CLAYS	DAMP		
20'			4				

Proportions Used: Trace = 0-10%, Little = 10-20%, Some = 20-35%, And = 35-50%

Sampling Abbreviations: SS = Split Spoon, ST = Shelby Tube, CSC = Continuous Soil Core

TEST BORING LOG

BORING NO. MW-11S

PROJECT NO., NAME: Union Road - 2035-200

LOCATION: Buffalo NY

DRILLING CONTRACTOR/DRILLER: Maxim

GEOLOGIST, OFFICE: John J Zacher Jr

DRILLING EQUIPMENT, METHOD: HSA

SIZE, TYPE OF BIT: 6" HSA

SAMPLING METHOD: Split Spoon

START, FINISH DATE: 1/2/97

WELL INSTALLED? YES ☒ NO ☐

CASING MAT./DIA.: SS / 2"

SCREEN: TYPE Slot MAT. Stainless LENGTH 10' DIA. 2" SLOT SIZE 0.020

ELEVATION OF: (FT. ABOVE M.S.L.) GROUND SURFACE | TOP OF WELL CASING | TOP & BOTTOM SCREEN | GW SURFACE | DATE

REMARKS:

LOG OF TEST BORING

DEPTH (FT)	SAMPLE NO. AND TYPE	RECOVERY (FT)	PENETRATION RESISTANCE BLOWS/FT	DESCRIPTION	REMARKS	WELL CONST.	GRAPHIC LITHOLOGY LOG
20	20	24"	3 5 6 5	Brown / Dark Brown Clays, no Rks.	Stiff Little - No H_2O		
22	22 22	23"	2 4 5 4	Brown w/ some Grey Clays	Stiff Trace H_2O		
	24	-		BoB @ 24' Bgl			
5							
10							
15							

Proportions Used: Trace = 0-10%, Little = 10-20%, Some = 20-35%, And = 35-50%

Sampling Abbreviations: SS = Split Spoon, ST = Shelby Tube, CSC = Continuous Soil Core

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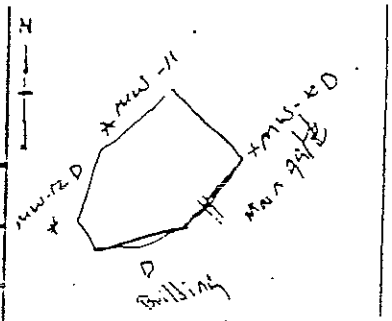
TEST BORING LOG



BORING NO. MW-11M

PROJECT NO.. NAME Union Road 2035-200

LOCATION Buffalo NY

DRILLING CONTRACTOR/DRILLER Maxim

GEOLOGIST, OFFICE James Dean

DRILLING EQUIPMENT. METHOD HSA

SIZE. TYPE OF BIT

SAMPLING METHOD Split SPOON

START. FINISH DATE 12/18 - 12/19/96

WELL INSTALLED? YES ☒ NO ☐

CASING MAT./DIA. Stainless Steel/2"

SCREEN: TYPE SLOT MAT. Stainless LENGTH 10' DIA. 2" SLOT SIZE .02C

ELEVATION OF: GROUND SURFACE TOP OF WELL CASING TOP & BOTTOM SCREEN GW SURFACE DATE
(FT. ABOVE M.S.L.)

REMARKS:

DEPTH (FT)	SAMPLE NO. AND TYPE	RECOVERY (FT)	PENETRATION RESISTANCE BLOWS/FT	LOG OF TEST BORING DESCRIPTION	REMARKS	WELL CONST.	GRAPHIC LITHOLOGY
				Sampling started @ 4' BG			
4'			10				
5			8	Brown/DRK Brown silts + clays w/ Trace amounts of Rx Fragments. less than ½"	Stiff little to No H_2O		
6'		14"	10				
6'			10		Stiff		
			8	Brown/Drk Brown silts + clays, w/o Rxs	little to No H_2O		
		13"	12				
8'			12	Most likely Fill			
8'			14		Stiff		
		4"		~~Bro~~ Drk Brown clays w/ Trace amounts of Rx frags.	little to No H_2O		
10'				most likely Fill			
10					Stiff		
10'			3	Top 8" Drk Brown clays w/ some Organics	little to No H_2O		
		10"	5		~~little to No H_2O~~		
12'			7	Bottom 2" Grey silts + clays w/ some Organics	soft w/ some H_2O		
12'			9	Top 4" discarded looked as if they fell into hole			
			5				
		18"	18		m. stiffness		
			15	Bottom 14" Grey clays w/ some organics + Trace ashes or soot.	some H_2O		
14'			7		Stiff		
14'			11	Reddish Brown clay ? w/ No Rxs or organics	little to No H_2O		
15		19"	11				
16'			20				
16'			19		Stiff		
		24"	25	Reddish Brown clays w/ Grey layers evidence of	little to No H_2O		
			18	The grey layers may be varbed clays.			
18'			20		m. Stiffness		
18'			3	Reddish Brown clays w/ Grey layers			
			3		Dama		
20			5	The Grey layers may be evedence of varbed clays			

Proportions Used: Trace = 0-10%, Little = 10-20%, Some = 20-35%, And = 35-50%

Continuous Soil Core

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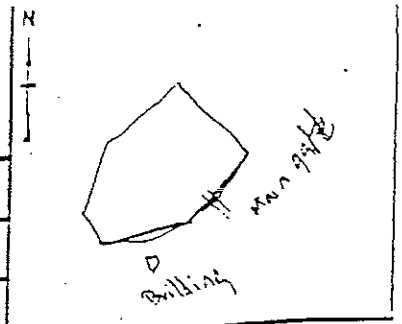
TEST BORING LOG



BORING NO. MW-11M

PROJECT NO., NAME: Union Road 2035-200

LOCATION: Buffalo NY

DRILLING CONTRACTOR/DRILLER: Maxim

GEOLOGIST, OFFICE: James Doan

DRILLING EQUIPMENT, METHOD: HSA

SIZE, TYPE OF BIT:

SAMPLING METHOD: Split Spoon

START, FINISH DATE:

WELL INSTALLED? YES ☒ NO ☐

CASING MAT./DIA.: Stainless Steel 2"

SCREEN: TYPE SLOT MAT. Stainless LENGTH 10' DIA. 2" SLOT SIZE .020

ELEVATION OF: (FT. ABOVE M.S.L.) GROUND SURFACE TOP OF WELL CASING TOP & BOTTOM SCREEN GW SURFACE DATE

REMARKS:

DEPTH (FT)	SAMPLE NO. AND TYPE	RECOVERY (FT)	PENETRATION RESISTANCE BLOWS/FT	LOG OF TEST BORING DESCRIPTION	REMARKS	WELL CONST.	GRAPHIC LITHOLOGY
20'		24"	3 3 3 6	- Reddish brown varbed clays w/ Red, Grey, and dark Brown layers.	Soft Wet		
22'							
22'		12"	3 3 2 4	Reddish/Brown clays	Soft Wet		
24'							
24'		18"	1 1 3 3	Reddish Brown (Fleshy Color) clays 1/4" - 1/2" Rx frags. w/ rounded edges.	Soft Wet		
26'							
26'		18	3 4 3 6	Reddish Brown (Fleshy Color) clays 1/4" - 2" Rx frags w/ rounded edges.	Soft Wet		
28'							
28'		13"	2 2 2 2	Reddish Brown (Fleshy Color) clays + 40%-50% Rock fragments w/ some rounded edges	Soft Wet		
30'							
30'		4"	5 6 7 8	- Mostly Rocks ~~70%~~ w/ some Reddish Brown (Fleshy color) clays	Soft Wet		
32'							
32'		14"	3 3 3 3	- Reddish Brown (Flesh color) clays & silts - Some sands 20-30% rock mostly sm. to med pebbles 1/4" - 1"	Soft Wet		
34'							
34'		13"	1 8 15 22	Reddish Brown/Grey Silts & clays 40% Rocks & Sands	The sample Ranged from Soft → Hard Wet Soft → Hard		
36'							
36		5"	24 50/2"	Reddish Brown/Grey silts, clays, Sands & Rocks.	Wet		
35							
				Bed Rock @ 39' BG			

Proportions Used: Trace = 0-10%, Little = 10-20%, Some = 20-35%, And = 35-50%

ST - Shelby Tube, CSC = Continuous Soil Core

TEST BORING LOG

BORING NO.	17-S
PROJECT NO., NAME	Unionroad - 2035-200
LOCATION	Buffalo NY
DRILLING CONTRACTOR/DRILLER	Mahm
GEOLOGIST, OFFICE	John J Zacher Jr.
DRILLING EQUIPMENT, METHOD	HSA
SIZE/TYPE OF BIT	6" [illegible] 4" HSA
SAMPLING METHOD	Split Spoon
START, FINISH DATE	1-2-97
WELL INSTALLED?	YES ☒ NO ☐
CASING MAT./DIA.	Stainless Steel / 2"
SCREEN: TYPE	Slot
MAT.	Stainless
LENGTH	10'
DIA.	2"
SLOT SIZE	0.020

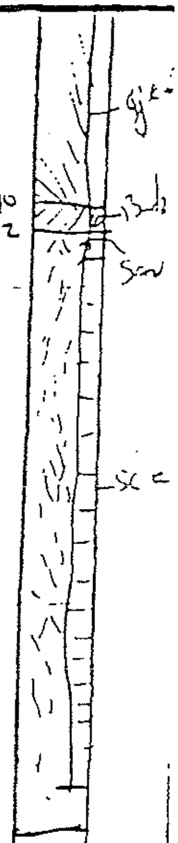
ELEVATION OF: (FT. ABOVE M.S.L.) GROUND SURFACE | TOP OF WELL CASING | TOP & BOTTOM SCREEN | GW SURFACE | DATE

REMARKS:

LOG OF TEST BORING

DEPTH (FT)	SAMPLE NO. AND TYPE	RECOVERY (FT)	PENETRATION RESISTANCE BLOWS/FT	DESCRIPTION	REMARKS
				Sampling start at 15' BG	
15'–17		21"	6 8 9 9	Brown clays - Fill	Stiff - little [illegible] H_2O
17–19		24"	7 4 4 5	Brown clays Fill	Stiff - trace H_2O
19–21		23	6 6 7 8	Brown to dark brown clays	Stiff little H_2O
21–23		24"	4 5 5 5	Brown to tan clay w/ little grey	Stiff some to little H_2O
23–25'		24"	5 6 5 4	Brown & grey clay 0-12 12-24	Stiff / moist
				BoB 25'	

WELL CONST. / GRAPHIC LOG



Proportions Used: Trace = 0-10%, Little = 10-20%, Some = 20-35%, And = 35-50%

Sampling Abbreviations: SS = Split Spoon, ST = Shelby Tube, CSC = Continuous Soil Core

TEST BORING LOG

BORING NO. 12-M	
PROJECT NO., NAME (Woodlawn - 2035-200)	LOCATION BUFFALO NY
DRILLING CONTRACTOR/DRILLER MANN	
GEOLOGIST, OFFICE JOHN J ZACHER JR.	

DRILLING EQUIPMENT, METHOD HSA	SIZE, TYPE OF BIT 6" ~~4 1/4~~ 8" HSA	SAMPLING METHOD SPLIT SPOON	START, FINISH DA 12/31/96

WELL INSTALLED? YES ☒ NO ☐	CASING MAT./DIA. STAINLESS STEEL / 2"	SCREEN: TYPE SLOT	MAT. STAINLESS	LENGTH 10'	DIA. 2"	SLOT SIZE 0.020

ELEVATION OF: (FT. ABOVE M.S.L.) GROUND SURFACE	TOP OF WELL CASING	TOP & BOTTOM SCREEN	GW SURFACE	DATE

REMARKS: NO SAMPLES 0-20', FILL MATERIAL, CUTTINGS BROWN DRY SAMPLE 40-42 - NO RECOVERY refusal 42.5'

DEPTH (FT)	SAMPLE NO. AND TYPE	RECOVERY (FT)	PENETRATION RESISTANCE BLOWS/FT	DESCRIPTION	REMARKS
20			9		
22		22"	5	BROWN TO DARK BROWN CLAYS	STIFF - LITTLE TO NO H_2O
22			4	BROWN TO TAN CLAY SOME GREY	STIFF SOME TO TRACE H_2O
24		24"	4		
24			4		
25			2	GREY TO RED BROWN CLAY, TRACE ROCKS	SOFT, MOIST
26		24"	1		
26			4	RED BROWN CLAY	STIFF, LITTLE H_2O
28		19"	7		
28			8		
28			2	LT BROWN/TAN CLAY, TRACE SILTS, LITTLE ROCKS (1/4")	SOFT, DAMP
30		18	4		
30			2		
30			2	LT BROWN/TAN CLAY, LITTLE GREY, LITTLE ROCKS (1/8-1/4)	SOFT DAMP
32		16	3		
32			4	TOP 12" - LT BROWN/TAN CLAY - SOME GREYS, LITTLE ROCKS	SOFT DAMP, SOME H_2O
32		18	3		
34			5	BOT 6" - GREY CLAY AND SAND, NO COHESIVE STRENGTH	WET
34			12		
34			10	GREY CLAY AND SAND	NO STRENGTH, WET
35			1		
36		24"	2		
36			2		
36			1	GREY CLAY AND SAND 0-15"	NO STRENGTH WET
38		20"	1		
38			1	15-20" - GREY CLAY AND ROCKS 1/4-1/2"	WET
38			1		
38			7	MOSTLY ROCK - WISPS GREY/TAN CLAY	WET, STIFF
NO		6"	50/3"		

LOG OF TEST BORING

WELL CONST.

GRAPHIC LOG

Proportions Used: Trace = 0-10%, Little = 10-20%, Some = 20-35%, And = 35-50%

Sampling Abbreviations: SS = Split Spoon, ST = Shelby Tube, CSC = Continuous Soil Core

Weather Bad Rain

BOB - 42.5

44 SHELTER ROCK ROAD
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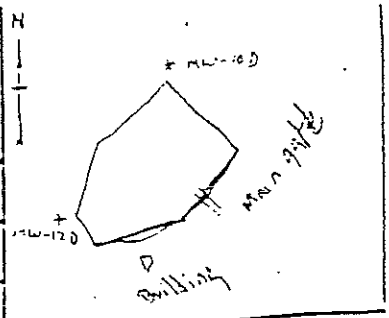
TEST BORING LOG



BORING NO. MW-12D

LOCATION Buffalo NY

PROJECT NO.. NAME Union Road 2035-200

DRILLING CONTRACTOR/DRILLER Maxim (Ron Brown, Dick Miller)

GEOLOGIST, OFFICE James Doan

DRILLING EQUIPMENT, METHOD HSA / Air Rotary

SIZE, TYPE OF BIT 8¼" HSA / 7⅞" Air/5⅞" Split Spoon

SAMPLING METHOD

START, FINISH DATE 12/12-12/16/96

WELL INSTALLED? YES ☑ NO ☐

CASING MAT./DIA. Stainless Steel/2"

SCREEN: TYPE SLOT MAT. Stainless LENGTH 10' DIA. 2" SLOT SIZE .020

ELEVATION OF: (FT. ABOVE M.S.L.) GROUND SURFACE TOP OF WELL CASING TOP & BOTTOM SCREEN GW SURFACE DATE

REMARKS:

DEPTH (FT)	SAMPLE NO. AND TYPE	RECOVERY (FT)	PENETRATION RESISTANCE BLOWS/FT	LOG OF TEST BORING DESCRIPTION	REMARKS	WELL CONST.	GRAPHIC LITHOLOG
				No samples taken until 20' BG. The material is all Fill untill then.			
5							
				Grout Seal			
10							
15							

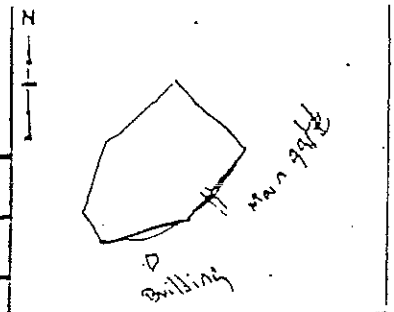
Little = 10-20%, Some = 20-35%, And = 35-50%

Continuous Soil Core

DANBURY, CT 06810
(203) 796-5279

201

TEST BORING LOG



BORING NO. MW-12D

PROJECT NO.. NAME: Union Road 2035-200

LOCATION: Buffalo NY

DRILLING CONTRACTOR/ DRILLER: Maxim

GEOLOGIST. OFFICE: James Doan

DRILLING EQUIPMENT. METHOD: HSA

SIZE. TYPE OF BIT:

SAMPLING METHOD: Split Spoon

START. FINISH DATE:

WELL INSTALLED? YES ☑ NO ☐

CASING MAT./DIA.: Stainless Steel/2"

SCREEN: TYPE SLOT MAT. Stainless LENGTH 10' DIA. 2" SLOT SIZE .020

ELEVATION OF: (FT. ABOVE M.S.L.) GROUND SURFACE TOP OF WELL CASING TOP & BOTTOM SCREEN GW SURFACE DATE

REMARKS:

DEPTH (FT)	SAMPLE NO. AND TYPE	RECOVERY (FT)	PENETRATION RESISTANCE BLOWS/FT	LOG OF TEST BORING — DESCRIPTION	REMARKS	WELL CONST.	GRAPHIC LITHOLOGY
20'		24"	3 5 6 8	Brown to Drk Brown Clays, No Rxs	Stiff little to No H_2O		
22'							
22'		24"	3 5 4 4	Brown/Tan/w/ some Greys	Stiff w/ trace H_2O		
24'					Soft Damp		
24'		24"	1 1 1 1	Greyish/ Red Brown Clays, Trace Rx Fragments Y8" - Y4"			
26'					Stiff		
26'		17"	4 6 14 20	Top 6" Red Brown Clay, No Rxs Bottom 11" lt Brown/Tan (Fleshy color) Clays, Trace silts some Rx Fragments	Soft w/ Some H_2O		
28'					Soft		
28'		15"	1 4 2 3	lt Brown/Tan (Fleshy color) clays, Trace silts + some rock fragments Y8" - Y4"	Some H_2O		
30'					Soft		
D'		14"	1 1 3 4	lt Brown/Tan (Flesh color) clays, Trace silts + some Rock fragments	Some H_2O		
32'					Soft, Damp		
32'		24"	1 8 16 50	Top 12" lt Brown/Tan, w/ some Grey clays some Rx fragments. Bottom 1" Grey 1sh lt Brown/Tan (Flesh Colo) clays + silts Bottom 11" Grey 50% Sands No Rxs	No Cohesive Strength Wet to Damp		
34'							
				Sample skipped the augers into hard unconsolidated Rocks			
37'		5"/6"	5"	lt Brown/Tan/Grey Clays w/ silts + Angular Rock Fragments 40-50% Y8" - 1"	Soft Wet		
39'							

Proportions Used: Trace = 0-10%, Little = 10-20%, Some = 20-35%, And = 35-50%

SS = Split Spoon, CSC = Continuous Soil Core

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SOT 5

TEST BORING LOG

BORING NO. MW-12D

PROJECT NO.. NAME Union Road 2035-200

LOCATION Buffalo NY

DRILLING CONTRACTOR/ DRILLER Maxim

GEOLOGIST, OFFICE James Doan

DRILLING EQUIPMENT. METHOD HSA

SIZE. TYPE OF BIT

SAMPLING METHOD Split SPOON

START. FINISH DATE

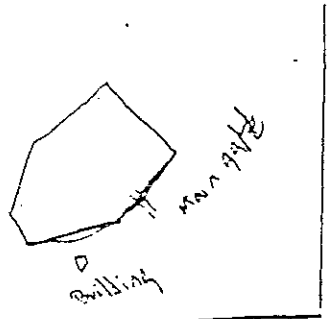
WELL INSTALLED? YES ☒ NO ☐

CASING MAT./ DIA. Stainless Steel / 2"

SCREEN: TYPE SLOT MAT. Stainless LENGTH 10' DIA. 2" SLOT SIZE .020

ELEVATION OF: GROUND SURFACE TOP OF WELL CASING TOP & BOTTOM SCREEN GW SURFACE DATE
(FT. ABOVE M.S.L.)

REMARKS:



DEPTH (FT)	SAMPLE NO. AND TYPE	RECOVERY (FT)	PENETRATION RESISTANCE BLOWS/FT	DESCRIPTION	REMARKS	WELL CONST.	GRAPHIC LITHOLOGY
40-42'	2'	50/2"		Mostly RX ¼"-2" in size w/ a matrix of lt Brown/Tan/Grey Clays & silts -Bed Rock @ -41' BG	Wet Stiff		
					Cement Boot		
5				Bottom of Protective casing @ 46' BG	Bentonite seal		
				Stainless Steal Riser			
10				Stainless Steal Screen			
15				Sand			
				Bottom of hole 61.5' BG			

Proportions Used: Trace = 0-10%, Little = 10-20%, Some = 20-35%, And = 35-50%

Type CSC = Continuous Soil Core

61.5'

TEST BORING LOG

BORING NO. MW-135

PROJECT NO. NAME: UNION ROAD 2035-200

LOCATION: BUFFALO NY

DRILLING CONTRACTOR/DRILLER: MAXIM

GEOLOGIST, OFFICE: JOHN J ZACHER JR

DRILLING EQUIPMENT, METHOD: HSA

SIZE/TYPE OF BIT: 6" HSA

SAMPLING METHOD: SPLIT SPOON

START, FINISH DATE: 12/20/96.

WELL INSTALLED? YES ☒ NO ☐

CASING MAT./DIA.: STAINLESS STEEL/2"

SCREEN: TYPE SLOT MAT. STAINLESS LENGTH 10' DIA. 2" SLOT SIZE 0.02C.

ELEVATION OF: (FT. ABOVE M.S.L.) GROUND SURFACE TOP OF WELL CASING TOP & BOTTOM SCREEN GW SURFACE DATE

REMARKS: BORING TO 21', last 1' NOT SPLIT SPOONED Well ~~RISER~~ RISER AT 20.5' B.G.

DEPTH (FT)	SAMPLE NO. AND TYPE	RECOVERY (FT)	PENETRATION RESISTANCE BLOWS/FT	LOG OF TEST BORING DESCRIPTION	REMARKS	WELL CONST.	GRAPHIC LITHOLOGIC LOG
				SAMPLING STARTED AT 4' B.G.			
5	4	14"	15	DARK BROWN CLAYS NO ROCKS SOME CINDERS	STIFF LITTLE NO H2O		
	6'		12				
	6	12	12	DARK BROWN CLAYS SOME CINDERS	STIFF TRACE H2O		
	8'		10				
10	8'	10"	12	5' → DARK BROWN CLAYS, LITTLE CINDERS	STIFF, LITTLE H2O		
	10'		13	8.5' - BLACK SAND/CINDERS WET NATIVE	WET		
	10		15	TOP 3" - BLACK SAND CINDERS	DRY		
		11'	10	BOTTOM 3" - WOOD LOG CREOSOTE SIX 2			
	12		7				
	12	16"	8	BLACK SAND / CINDERS.	WET		
	14		7				
15	14	12"	7	BLACK SAND/CINDERS SOME BRICK AND WOOD	WET		
	16		6				
	16	7"	5	BLACK SAND CINDERS W/SOME RED CLAY	DAMP		
	18		4				
	18	21"	3	TOP 6" BLACK CINDERS	WET		
			5	6"-15" RED CLAY, NO ROCKS	MEDSTIFF SOME H2O.		
	20		8				

BOB 21'

Proportions Used: Trace = 0-10%. Little = 10-20%. Some = 20-35%. And = 35-50%

Sampling Abbreviations: SS = Split Spoon, ST = Shelby Tube, CSC = Continuous Soil Core

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TEST BORING LOG

BORING NO. MW-13M

PROJECT NO., NAME: Union Road 2025-200

LOCATION: Buffalo NY

DRILLING CONTRACTOR/DRILLER: Maxim

GEOLOGIST, OFFICE: James Doan

DRILLING EQUIPMENT, METHOD: HSA

SIZE, TYPE OF BIT:

SAMPLING METHOD: Split Spoon

START, FINISH DATE: 12/19/96

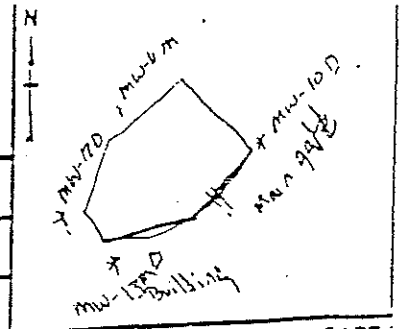
WELL INSTALLED? YES ☒ NO ☐

CASING MAT./DIA.: Stainless Steel 2"

SCREEN: TYPE SLOT MAT. Stainless LENGTH 10' DIA. 2" SLOT SIZE .020

ELEVATION OF: GROUND SURFACE TOP OF WELL CASING TOP & BOTTOM SCREEN GW SURFACE DATE
(FT. ABOVE M.S.L.)

REMARKS:



DEPTH (FT)	SAMPLE NO. AND TYPE	RECOVERY (FT)	PENETRATION RESISTANCE BLOWS/FT	DESCRIPTION	REMARKS	WELL CONST.	GRAPHIC LITHOLOGY
5	5'	12"	18 12 8 17	-Drk Brown clays w/o RKS	Stiff little to No H2O		
	7'						
10	10'	8"	15 14 11 5	Blk sands + Oshes or cinders - Not a native material	No Cohesive strength DRY		
	12'						
	12'	11"	7 9 14 5	Top 9" Blk sand + ashes or cinder some organics Bottom 2" Wood, Hobby from a RR tie.	No Cohesive strength DRY		
	14'				Damp		
15	14'	5"	50/5"	Top 2" Blk ash w/ some ~~as~~ organics Next 1" Brick (Red Bottom 2" Wood			
	16'						
	16'	3"	50/3"	Wood Next Sample will be 19'-21'			
	18'						
	19'	3"	50/3"	Wood			

Proportions Used: Trace = 0-10%, Little = 10-20%, Some = 20-35%, And = 35-60%

CSC = Continuous Soil Core

44 SHELTER ROCK ROAD
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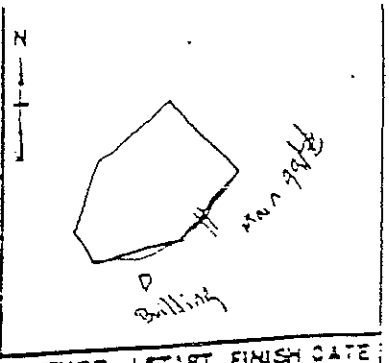
2 of 2

TEST BORING LOG



BORING NO. MW-13M

PROJECT NO.. NAME Union Road 2035-200

LOCATION Buffalo NY

DRILLING CONTRACTOR/ DRILLER Maxim

GEOLOGIST, OFFICE James Dean

DRILLING EQUIPMENT. METHOD HSA

SIZE TYPE OF BIT

SAMPLING METHOD Split Spoon

START. FINISH DATE

WELL INSTALLED? YES ☑ NO ☐

CASING MAT./DIA. Stainless Steel/2"

SCREEN: TYPE SLOT MAT. Stainless LENGTH 10' DIA. 2" SLOT SIZE .020

ELEVATION OF: GROUND SURFACE TOP OF WELL CASING TOP & BOTTOM SCREEN GW SURFACE DATE
(FT. ABOVE M.S.L.)

REMARKS:

DEPTH (FT)	SAMPLE NO. AND TYPE	RECOVERY (FT)	PENETRATION RESISTANCE BLOWS/FT	LOG OF TEST BORING DESCRIPTION	REMARKS	WELL CONST.	GRAPHIC LITHOLOGY
	24'		7				
			5	Top 5" Wood	Stiff → soft		
5		24"	5	Bottom 19" Greyish red clays, No Rocks	little to No H_2O		
	26'		5	~~reddish Grey clays w/ some rocks~~			
10	30'			Top 2" Wood – maybe from a plug in Bottom of auger			
		12"		Bottom 10" Reddish/Grey Clays w/ some Rx Frag Pebbles	Soft Wet.		
	32'		2	There wasn't a basket in the spoon.			
	32	0"	5				
			8				
	34		6				
	34'				Bottom of Boring		
15		0"	50/10"	Bed Rock			
	36'						

Little = 10–20%, Some = 20–35%, And = 35–50%

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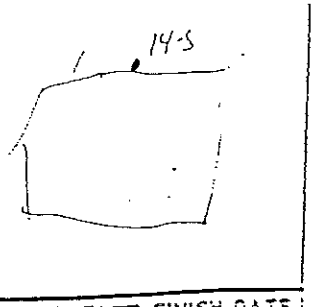
TEST BORING LOG



BORING NO. 14-S

PROJECT NO.. NAME: UNION ROAD | LOCATION: Buffalo NY

DRILLING CONTRACTOR/DRILLER: Maxim Technologies

GEOLOGIST, OFFICE: Mark Cambria NES Danbury, Ct

DRILLING EQUIPMENT, METHOD: HSA | SIZE, TYPE OF BIT: 6" HSA | SAMPLING METHOD: AF | START, FINISH DATE: 8/19/97

WELL INSTALLED? YES ☑ NO ☐ | CASING MAT./DIA.: Steel 4" | SCREEN: TYPE: Slotted MAT.: Stainless Steel LENGTH: 10 DIA.: 2" SLOT SIZE: 020

ELEVATION OF: (FT. ABOVE M.S.L.) GROUND SURFACE | TOP OF WELL CASING | TOP & BOTTOM SCREEN | GW SURFACE | DATE: 8/19/97

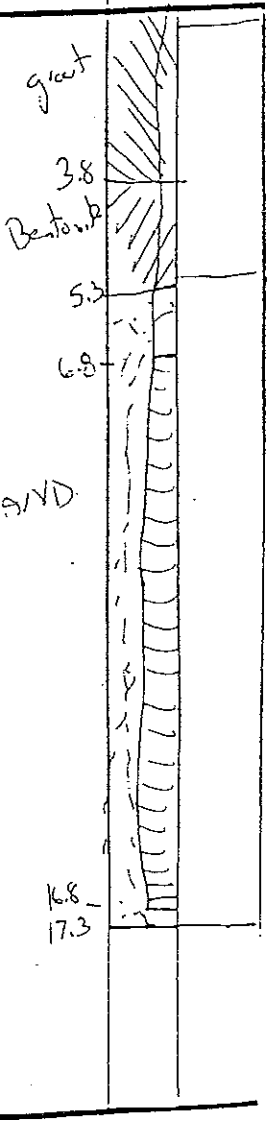
REMARKS: Replaced Previous 14-S well.

LOG OF TEST BORING

DEPTH (FT)	SAMPLE NO. AND TYPE	RECOVERY (FT)	PENETRATION RESISTANCE BLOWS/FT	DESCRIPTION	REMARKS
				Topsoil	
				Fill - Reddish brown Sandy Clay	
5					
				Reddish Brown Clay	
10					
15				End of Boring	

See 14-S - Previous

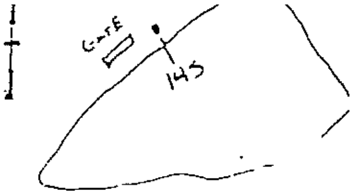
WELL CONST. / GRAPHIC LITHO LOG



Proportions Used: Trace = 0-10%, Little = 10-20%, Some = 20-35%, And = 35-50%

Sampling Abbreviations: SS = Split Spoon, ST = Shelby Tube, CSC = Continuous Soil Core

TEST BORING LOG



BORING NO. 14-S

PROJECT NO., NAME Union Road 2035-200

LOCATION Buffalo NY

DRILLING CONTRACTOR/DRILLER Marin

GEOLOGIST, OFFICE John J. Zacher Jr

DRILLING EQUIPMENT, METHOD HSA | **SIZE/TYPE OF BIT** 6" HSA | **SAMPLING METHOD** Split Spoon | **START, FINISH DATE** 12-30-96

WELL INSTALLED? YES ☒ NO ☐ | **CASING MAT./DIA.** Stainless Steel/2" | **SCREEN:** TYPE Slot MAT. Stainless LENGTH 10' DIA. 2" SLOT SIZE 0.020

ELEVATION OF: (FT. ABOVE M.S.L.) GROUND SURFACE | TOP OF WELL CASING | TOP & BOTTOM SCREEN | GW SURFACE | DATE

REMARKS:

LOG OF TEST BORING

Sampling starts at 4' B.G.

Abandon 8/19/97

DEPTH (FT)	SAMPLE NO. AND TYPE	RECOVERY (FT)	PENETRATION RESISTANCE BLOWS/FT	DESCRIPTION	REMARKS	WELL CONST.	GRAPHIC LOG
4'–6'		20"	7, 14, 17, 12	Top 1" - wood; 1-11" - Brown clay w/little gravel; 11-17" Cinders; 17-20" Brown clay w/some organic	Stiff, dry; Dry; Stiff, dry		
6'–8'		19"	19, 14, 17, 23	0-7" - Fill - cinders, stones, brick. 7-19" - Brown clay w/ ~~some~~ grey varbing	Stiff, trace H_2O		
8'–10'		22"	5, 7, 8, 10	0-7" Brown clay w/little roots (1/4") 7-22" Red/Brown clay	Stiff, little/no H_2O; Stiff, little/no H_2O		
10'–12'		22"	16, 12, 13, 14	Red/Brown clay, trace organics (roots)	Stiff - little/no H_2O		
12'–14'		24"	5, 7, 8, 10	Red/Brown clay - some grey varbing	Stiff little/no H_2O; last 4" - some H_2O		
14'–16'		24"	3, 5, 5, 4	Red/Brown clay some grey varbing	Stiff/little H_2O		15
16'–18'		24"	12, 13, 15, 13	Red/Brown clay w/some grey	Stiff - little H_2O		-Bent; 17
18'–20'		24"	0, 3, 5, 7	0-4" mix brown/grey clay; 4-24" Grey sandy clay (40-50%)	Red stiff some H_2O; Soft, wet		19

Proportions Used: Trace = 0-10%, Little = 10-20%, Some = 20-35%, And = 35-50%

Sampling Abbreviations: SS = Split Spoon, ST = Shelby Tube, CSC = Continuous Soil Core

TEST BORING LOG

BORING NO. 145

PROJECT NO., NAME | LOCATION

DRILLING CONTRACTOR/DRILLER

GEOLOGIST, OFFICE

DRILLING EQUIPMENT, METHOD | SIZE, TYPE OF BIT | SAMPLING METHOD | START, FINISH DA

WELL INSTALLED? YES ☐ NO ☐ | CASING MAT./DIA. | SCREEN: TYPE MAT. LENGTH DIA. SLOT SIZE

ELEVATION OF: (FT. ABOVE M.S.L.) GROUND SURFACE | TOP OF WELL CASING | TOP & BOTTOM SCREEN | GW SURFACE | DATE

REMARKS:

DEPTH (FT)	SAMPLE NO. AND TYPE	RECOVERY (FT)	PENETRATION RESISTANCE BLOWS/FT	LOG OF TEST BORING: DESCRIPTION	REMARKS	WELL CONST.	GRAPHIC LITHOLOGIC
20'			6 9	GREY CLAY	SOFT, WET		
22'		18"	8 7				
22			weight of rod	GREY CLAY	VERY SOFT, WET		
24		8"					
24			0	GREY CLAY	SOFT, WET		
25		18"	0 3				
26			2				
26			2	GREY CLAY	SOFT		
		24"	3 3		SATURATED		
28			3		SATURATED, SOFT		
28			0	G-B GREY CLAY			
		26"	0 1				
30			4	~28' GREY CLAY, SOME ROCKS BOB	VERY WET - DRY		
30							
15							

Proportions Used: Trace = 0-10%, Little = 10-20%, Some = 20-35%, And = 35-50%

Sampling Abbreviations: SS = Split Spoon, ST = Shelby Tube, CSC = Continuous Soil Core

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TEST BORING LOG

BORING NO.	MW-15
PROJECT NO., NAME	UNION ROAD
LOCATION	ON LANDFILL CAP
DRILLING CONTRACTOR/DRILLER	MAXIM-EMPIRE · P. JENCE
GEOLOGIST, OFFICE	HANLON / SZWAKA DANBURY
DRILLING EQUIPMENT, METHOD	855 BUA HSA
SIZE/TYPE OF BIT	6.25" H.S.A
SAMPLING METHOD	SS
START, FINISH DATE	2/20/96
WELL INSTALLED?	YES ☒ NO ☐
CASING MAT., DIA.	SS 2"
SCREEN: TYPE	MAT. SS LENGTH 10' DIA. 2" SLOT SIZE 0.10
ELEVATION OF: (FT. ABOVE M.S.L.) GROUND SURFACE	618.8
TOP OF WELL CASING	620.0'
TOP & BOTTOM SCREEN	610'-600'
GW SURFACE	NA
DATE	2/20
REMARKS:	ELEVATION AND DEPTHS RELATIVE TO PRECAP SURFACE

LOG OF TEST BORING

DEPTH (FT)	SAMPLE NO. AND TYPE	RECOVERY (FT)	PENETRATION RESISTANCE BLOWS/FT	DESCRIPTION	REMARKS	WELL CONST.	GRAPHIC LITHOLOG
0–2		2'	26/6	Brush graded clay silt & gravel. Trace organic. TAN/BROWN. Hard/firm. Moist (frozen) + little 1/4" gravel.			
2–4		1'	13/4	TAN/BROWN CLAY, FIRM. NO COARSE MATERIALS FISSURING.			
4–6		1.5'	27/6	COARSE FILL MAT'L COARSE. BLACK SAND & GRAVEL W/ TRACE FINES. TAN. 1" SUBANGULAR ROCK FRAG. TAN FIRM SILTY CLAY. NO COARSE MAT'L	Grout →		
6–8		1.5'	11/6	GREY/GREEN CLAY. NO COARSE MATERIAL, SOFT. TRACE SILT	Fine sand?		
8–10		1.8'	9/6	SAME BUT BLACK. SILTY CLAY. TRACE GRAVEL SAME BUT GREEN/GREY, SILTY CLAY.	Consol. 6"? →		
10–12		2'	5/6	GREEN/GREY SILT. SOME CLAY. soft.			
12–14		1.5'	6/6	SAME			
14–16		1.5'	4/6	SAME			
16–18		2'	4	SAME			
				EOB 19.0'			

Proportions Used: Trace = 0-10%, Little = 10-20%, Some = 20-35%, And = 35-50%
Sampling Abbreviations: SS = Split Spoon, ST = Shelby Tube, CSC = Continuous Soil Core

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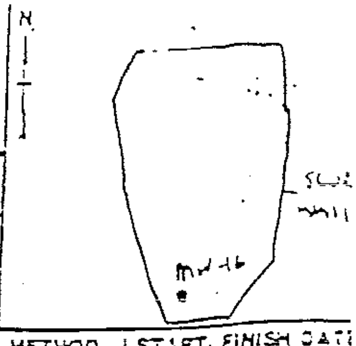
TEST BORING LOG



BORING NO. MW-16			
PROJECT NO., NAME: UNION ROAD	LOCATION: CAP INTERIOR		
DRILLING CONTRACTOR/DRILLER: MAXIM / EMPIRE BENCE			
GEOLOGIST/OFFICE: HANSON / SZUMSKA Danbury			
DRILLING EQUIPMENT, METHOD: CME 650 HSA	SIZE/TYPE OF BIT: 6 1/4"	SAMPLING METHOD: SS	START/FINISH DATE: 2/21/96
WELL INSTALLED? YES ☑ NO ☐	CASING MAT./DIA.: 2" SS	SCREEN: TYPE 0.020 MAT. SS LENGTH 10 DIA. 2"	SLOT SIZE 0.020

ELEVATION OF: (FT. ABOVE M.S.L.) GROUND SURFACE ~~618.8~~ 618.9; TOP OF WELL CASING 620.10; TOP & BOTTOM SCREEN ~~618.8~~ 610.0 - 600.0; GW SURFACE NA; DATE 2/21/96

REMARKS: ALL ELEVATIONS AND DEPTHS RELATIVE TO PRE-CAP GRADE

LOG OF TEST BORING

DEPTH (FT)	SAMPLE NO. AND TYPE	RECOVERY (FT)	PENETRATION RESISTANCE BLOWS/FT	DESCRIPTION	REMARKS
0–2'		2.0'	35	Hard Brown Clay, 10% Gravel	Frozen
2'–4'		1.5'	20	Upper 12" Same; Bottom 6" CINDERS	DRY
4'–6'		1.0'	8/ft	SAME	DRY
6'–8'		9"	12/ft	TAN SAND, FINE, SUBANGULAR ROCK FRAGS. WELL GRADED; 1" of BLACK CINDER FILL	
8'–10'		2'	5/ft	TAN SAND, NO ORGANIC MATERIAL; SOFT TAN/BROWN CLAY, NO ORGANIC MATERIAL. SLIGHT Fe STAINING; SAME but gray/green	
10'–12'		1.5'	5/ft	SAME w/ TRACE ORGANICS.	
12'–14'		1.5'	5/ft	SAME	
14'–16'		1.5'	4/ft	SAME w/ SOME (20%) ROCK FRAGS, TO 1/4", ANGULAR, IN BOTTOM 6"	
16'–18'		1.5'	12/ft	SAME.	MOIST

EOB 19.0'

WELL CONST. / GRAPHIC LITHO LOG: GROUT → (approx. 4'); FINE SAND → (approx. 7'); COARSE SAND → (approx. 18')

Proportions Used: Trace = 0-10%, Little = 10-20%, Some = 20-35%, And = 35-50%

Sampling Abbreviations: SS = Split Spoon, ST = Shelby Tube, CSC = Continuous Soil Core

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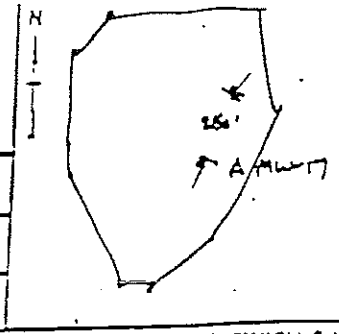
TEST BORING LOG



BORING NO. MW-17	
PROJECT NO., NAME: Union Road	LOCATION: Landfill Cap
DRILLING CONTRACTOR/DRILLER: Marin-Environ / P. Bence	
GEOLOGIST, OFFICE: M. Sbrana / Danbury	
DRILLING EQUIPMENT, METHOD	SIZE, TYPE OF BIT: 6.25" HSA
SAMPLING METHOD: 2" SS	START, FINISH DATE: 2/22/96
WELL INSTALLED? YES ☒ NO ☐	CASING MAT./DIA.: 2" SS
SCREEN: TYPE	MAT.: SS
LENGTH: 10'	DIA.: 2
SLOT SIZE: 20	
ELEVATION OF: (FT. ABOVE M.S.L.) GROUND SURFACE	TOP OF WELL CASING
TOP & BOTTOM SCREEN	GW SURFACE DATE
REMARKS:	

LOG OF TEST BORING

DEPTH (FT)	SAMPLE NO. AND TYPE	RECOVERY (FT)	PENETRATION RESISTANCE BLOWS/FT	DESCRIPTION	REMARKS
2'		1.25'	20/ft	TAN/BROWN CLAY. FROZEN. NO COARSE MATERIAL	FROZEN
		.25'	42/4"	2' BLACK/DARK RED SILTY SAND. GRAVEL PRESENT. FE STAINING. 4'	WET
4'		1.0'	11/ft	TAN/BROWN CLAY SOFT. NO COARSE MATERIAL, FE STAINING	DRY
5				5' BROWN/BLACK CLAY. TRACE ORGANICS. FE STAINING. ROOT FRAGS.	
6'		1.25'	24/ft	6.5' BLACK CLAY. 30% ORGANICS (WOOD), TRACE COARSE MATERIAL (GRAVEL, GRAVEL). 6.8'	
8'		1.5'	11/ft	8' SOFT BROWN CLAY. FE STAINING. NO COARSE MATL. TRACE BLACK CINDER FILL MATL.	
10		0.5'	11/ft	SAME	
12'		0	7/ft	NO RECOVERY	WET
14'		0	8/ft	15 NO RECOVERY	
16		0.8'	11/ft	SAME. NO FILL MATL. TRACE BOULDERS / ANGULAR GRAVEL.	
18		1.5	14/ft	18.5' GRAY/BROWN CLAY W/ BLACK STAINING. TRACE ORGANICS (WOOD) NO COARSE MATL. FE STAINING (SLIGHT)	

WELL CONST. / GRAPHIC LITHOLOGY

Proportions Used: Trace = 0-10%, Little = 10-20%, Some = 20-35%, And = 35-50%

Sampling Abbreviations: SS = Split Spoon, ST = Shelby Tube, CSC = Continuous Soil Core

DANBURY, CT 06810
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TEST BORING LOG

BORING NO. MW-17				
PROJECT NO., NAME: [illegible] ROAD		LOCATION: LANDFILL CAP		
DRILLING CONTRACTOR/DRILLER: [illegible] EMPIRE D. [illegible]				
GEOLOGIST, OFFICE: M. [illegible] - DANBURY				
DRILLING EQUIPMENT, METHOD: 858 HSA		SIZE/TYPE OF BIT: 6.25" HSA	SAMPLING METHOD: 2" SS	START, FINISH DATE: 2/22/96
WELL INSTALLED? YES ☑ NO ☐	CASING MAT./DIA.: 2" SS	SCREEN: TYPE MAT. SS	LENGTH 10' DIA. 2"	SLOT SIZE 20
ELEVATION OF: (FT. ABOVE M.S.L.)	GROUND SURFACE: 619.1	TOP OF WELL CASING: 620'	TOP & BOTTOM SCREEN: 605'-595'	GW SURFACE: ~605' DATE: 2/22
REMARKS: Elevations & depths relative to pre-cap tops.				

LOG OF TEST BORING

DEPTH (FT)	SAMPLE NO. AND TYPE	RECOVERY (FT)	PENETRATION RESISTANCE BLOWS/FT	DESCRIPTION	REMARKS
20–22'		2'	14/ft.	(SAME) [illegible] w/ black staining. Trace organics, no [illegible] mat'l. [illegible] staining	WET ↓
22–24'		1.5'	15/ft	23.0' Black silt & sand. black organic mat'l.	
				EOB 24.0'	

Proportions Used: Trace = 0-10%, Little = 10-20%, Some = 20-35%, And = 35-50%

Sampling Abbreviations: SS = Split Spoon, ST = Shelby Tube, CSC = Continuous Soil Core

A DIVISION OF TIES
44 SHELTER ROCK ROAD
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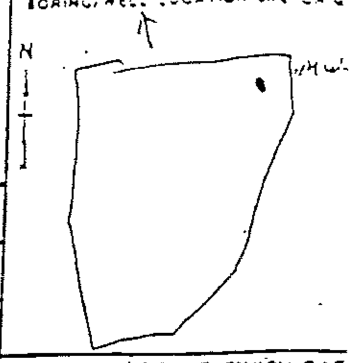
TEST BORING LOG

BORING/WELL LOCATION SKETCH



BORING NO.	MW-8
PROJECT NO., NAME	Union Road
LOCATION	Cap Interior
DRILLING CONTRACTOR/DRILLER	Maxim Empire Phil Bence
GEOLOGIST, OFFICE	Hanlon/Schwartz, Danbury
DRILLING EQUIPMENT, METHOD	CME 850
SIZE, TYPE OF BIT	4 1/4" HSA
SAMPLING METHOD	SS
START, FINISH DATE	2/10/96
WELL INSTALLED?	YES ☒ NO ☐
CASING MAT./DIA.	SS 2"
SCREEN: TYPE	MAT. SS LENGTH 10' DIA. 2" SLOT SIZE 0.20
ELEVATION OF: (FT. ABOVE M.S.L.) GROUND SURFACE	619.1
TOP OF WELL CASING	620.0
TOP & BOTTOM SCREEN	605.0 - 595.0
GW SURFACE	NA
DATE	2/10/96
REMARKS:	ELEVATIONS AND DEPTHS RELATIVE TO PRE-CAP SURFACE

LOG OF TEST BORING

DEPTH (FT)	SAMPLE NO. AND TYPE	RECOVERY (FT)	PENETRATION RESISTANCE BLOWS/FT	DESCRIPTION	REMARKS	WELL CONST.	GRAPHIC LITHO LOG
		2'	32/FT	Tan clay, hard, no coarse, dry	(Frozen)		
		1'	10/FT	Tan clay, ~~Stiff~~ Firm, no coarse, dry			
5		1'	12/FT	Tan/gray clay, firm, no coarse, dry	grout →		
		2'	15/FT	Brown clay, ~~Stiff~~ Firm, no coarse, dry Fe staining			
		1'	12/FT	Same			
10		1.5'	24/FT	Same w/ trace organics + silt bottom 6"			
		1.5'	27/FT	Same w/ trace rock frags (angular, gneiss)	Fine sand →		
15		1.5'	20/FT	Same (silt closer to 10%)			
		2'	35/FT	Same	Coarse sand →		
		1.5	4/FT	Same but soft + moist			

Proportions Used: Trace = 0-10%, Little = 10-20%, Some = 20-35%, And = 35-50%

Sampling Abbreviations: SS = Split Spoon, ST = Shelby Tube, CSC = Continuous Soil Core

44 SHELTER ROCK ROAD
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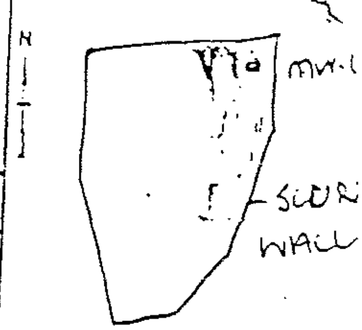
TEST BORING LOG

BORING/WELL LOCATION SKETCH MAP



BORING NO.	MW-18
PROJECT NO., NAME	UNION ROAD
LOCATION	INSIDE CAP AREA
DRILLING CONTRACTOR/DRILLER	MAXIM/EMPIRE P. BENKE
GEOLOGIST, OFFICE	HANDEX/SEWARD DANARZI
DRILLING EQUIPMENT, METHOD	CME 850 HSA
SIZE, TYPE OF BIT	6 1/4 HSA
SAMPLING METHOD	SS
START, FINISH DATE	2/19/96
WELL INSTALLED?	YES X NO ☐
CASING MAT./DIA.	SS 2"
SCREEN: TYPE	
MAT.	SS
LENGTH	10'
DIA.	2"
SLOT SIZE	0.02

ELEVATION OF: (FT. ABOVE M.S.L.)	GROUND SURFACE	TOP OF WELL CASING	TOP & BOTTOM SCREEN	GW SURFACE	DATE
	619.1	620.0	605.0 - 595.0	NA	2/19/96

REMARKS: ELEVATIONS AND DEPTHS RELATIVE TO PRE-CAP SURFACE

LOG OF TEST BORING

DEPTH (FT)	SAMPLE NO. AND TYPE	RECOVERY (FT)	PENETRATION RESISTANCE BLOWS/FT	DESCRIPTION	REMARKS	WELL CONST.	GRAPHIC LITHO LOG
20'	1/	1'	9/FT	Same, Trace Black Shale Chips	Coarse sand →		
	2/	2'	3/FT	Brown Sand, Clay, 20% organic Very Soft Trace Rock Frags Bottom 6" Very Soft Wet Brown Clay trace Rock fragments angular largest ~1"			
25							
				EOB 24.5'			
10							
15							

Proportions Used: Trace = 0-10%, Little = 10-20%, Some = 20-35%, And = 35-50%

Sampling Abbreviations: SS = Split Spoon, ST = Shelby Tube, CSC = Continuous Soil Core

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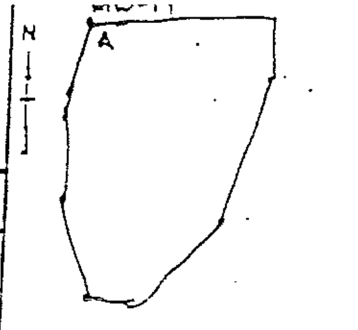
TEST BORING LOG



BORING NO.	MW-19
PROJECT NO., NAME	Union Road
LOCATION	Landfill Cap
DRILLING CONTRACTOR/DRILLER	Maine-Empire, P. Benle
GEOLOGIST, OFFICE	[illegible], Danbury
DRILLING EQUIPMENT, METHOD	B58 HSA
SIZE, TYPE OF BIT	6.25" HSA
SAMPLING METHOD	2" S.S.
START, FINISH DATE	2/22/96
WELL INSTALLED?	YES ☒ NO ☐
CASING MAT./DIA.	2" SS
SCREEN: TYPE	MAT. SS, LENGTH 10', DIA. 2", SLOT SIZE 20

ELEVATION OF: (FT. ABOVE M.S.L.)	GROUND SURFACE	TOP OF WELL CASING	TOP & BOTTOM SCREEN	GW SURFACE	DATE
	618.5'	617.5'	605' - 595'	unk.	2/22/96

REMARKS: Elevation & depth relative to pre-cap surface

LOG OF TEST BORING

DEPTH (FT)	SAMPLE NO. AND TYPE	RECOVERY (FT)	PENETRATION RESISTANCE BLOWS/FT	DESCRIPTION	REMARKS	WELL CONST.	GRAPHIC LITHO LOG
0–2'		1.25	18/ft	Well-graded sand, silt & gravel, tan/brown, frozen/firm	Frozen		
2'–4'		1.0'	12/ft	2' Firm brown/tan clay & silt, Fe staining, no coarse mat'l.	dry		
4'–6'		1.5	15/ft	Same			
6'–8'		1.5'	26/ft	7.0' Same with trace 1/4" gravel (rounded), v. hard	dry		
8'–10		0.5'	62/ft	8.0 Tan, dry, hard, clay & silt, Fe staining. Trace gravel. Pocket sample black [illegible] mat'l & staining	Fine Sand		
10–12'		1.75'	24/ft	11 Black, firm, dry clay. Trace organics. [illegible]; 12' [illegible] mat'l. [illegible]			
12'–14		1.0'	14/ft	Black, wet, silt & sand, some gravel. [illegible]. Trace organics	wet	Coarse Sand	
14–16		1.0'	10/ft	Same. Slight [illegible] odor, Brick, [illegible]			
16'–18'		1.0'	6/ft	16' Soft, wet, gray/gray clay, black mottling from organics. Trace organic mat'l. Fe staining. No coarse mat'l.			
18'–20'		1.25'	11/ft	18.5' Same as [illegible] tan/brown clay, silty streaks, no coarse mat'l. Fe staining, firm.	E.O.B @ 20'		

Proportions Used: Trace = 0-10%, Little = 10-20%, Some = 20-35%, And = 35-50%

Sampling Abbreviations: SS = Split Spoon, ST = Shelby Tube, CSC = Continuous Soil Core

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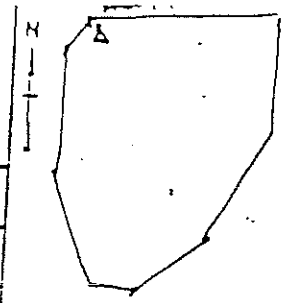
TEST BORING LOG



BORING NO. MW-19				
PROJECT NO., NAME: UNION ROAD	LOCATION: LANDFILL CAP			
DRILLING CONTRACTOR/DRILLER: MAXIM - LIMITED, P. BENCE				
GEOLOGIST, OFFICE: S&W/H&, DANBURY				
DRILLING EQUIPMENT, METHOD: 3 SB HSA	SIZE/TYPE OF BIT: 6.25" HSA	SAMPLING METHOD: 2" SS.	START, FINISH DATE: 2/23/96	
WELL INSTALLED? YES ☒ NO ☐	CASING MAT./DIA.: 2" SS	SCREEN: TYPE	MAT. SS	LENGTH 10' DIA. 2" SLOT SIZE 20
ELEVATION OF: (FT. ABOVE M.S.L.)	GROUND SURFACE: 618.5'	TOP OF WELL CASING: 617.5	TOP & BOTTOM SCREEN: 605'-595'	GW SURFACE: DRY	DATE: 2/23/96
REMARKS: ELEVATIONS & DEPTHS RELATIVE TO TOP OF CAP ELEV.				

DEPTH (FT)	SAMPLE NO. AND TYPE	RECOVERY (FT)	PENETRATION RESISTANCE BLOWS/FT	LOG OF TEST BORING: DESCRIPTION	REMARKS	WELL CONST.	GRAPHIC LITHOLOGY
				← 20' E.O.B. →			
5							
10							
15							

Proportions Used: Trace = 0-10%, Little = 10-20%, Some = 20-35%, And = 35-50%

Sampling Abbreviations: SS = Split Spoon, ST = Shelby Tube, CSC = Continuous Soil Core

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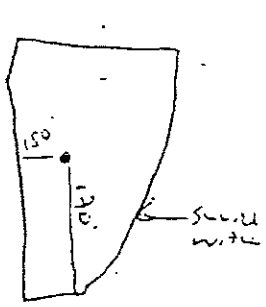
TEST BORING LOG



BORING NO.	MW-20
PROJECT NO., NAME	UNION RD
LOCATION	INTERIM CAP
DRILLING CONTRACTOR/DRILLER	MAXIM/EMPIRE BENCE/BOITNOTT
GEOLOGIST, OFFICE	HANSON/SUMMA DANBURY
DRILLING EQUIPMENT, METHOD	CME 850 HSA
SIZE, TYPE OF BIT	6¼"
SAMPLING METHOD	SS
START, FINISH DATE	2/2/96
WELL INSTALLED?	YES ☒ NO ☐
CASING MAT./DIA.	SS 7"
SCREEN: TYPE / MAT. / LENGTH / DIA. / SLOT SIZE	SS 10' 7" 0.20
ELEVATION OF: (FT. ABOVE M.S.L.) GROUND SURFACE	624.6
TOP OF WELL CASING	627.0
TOP & BOTTOM SCREEN	607.0 – 597.0
GW SURFACE	NA
DATE	2/11/96

REMARKS: ELEVATION AND DEPTHS RELATIVE TO PRE-CAP SURFACE

DEPTH (FT)	SAMPLE NO. AND TYPE	RECOVERY (FT)	PENETRATION RESISTANCE BLOWS/FT	LOG OF TEST BORING — DESCRIPTION	REMARKS
		1.5	8	Brown Clay; NO CORSE, FROZEN, BOTTOM 4" Black w/15% ORGANICS	FROZEN
		1.0	26	FIRM Brown Clay trace organics trace silt	moist
5		1.5	19	Same Bottom 12" Black fine granular material w/charcoal odor, 10% organics 10% "Fiber Board"	moist
		2'	14	Black Firm Clay 10% organics TRACE ½" Rock Frags	moist
10		1.5	24	Bottom 4" Firm tan Clay, NO coarse	
		5"	16	First 6" Same w/organics (1st Gray soft clay) Next 6" Red Sand w/Black Cinders some Clay Next 6" WHITE cindery ash w/30% wood	moist
		05'	6	soft tan Clay, No coarse	wet
15		2	8	Fine Black Fine Sand Trace red fine sand	DRY moist
		1.5	3	Same Trace organics	WET
		1.0	3	Brown CLAY + SAND w/Black String, Strong Petroleum ODOR, Sheening, 20% Rock Frags upto 0.5"	WET

WELL CONST. / GRAPHIC LITHOLOG: fine sand; coarse sand

Proportions Used: Trace = 0-10%, Little = 10-20%, Some = 20-35%, And = 35-50%

Sampling Abbreviations: SS = Split Spoon, ST = Shelby Tube, CSC = Continuous Soil Core

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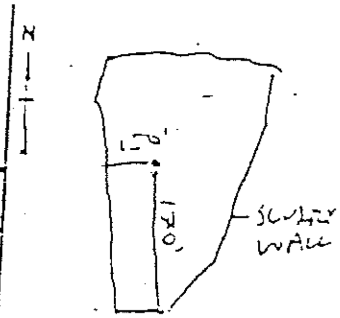
TEST BORING LOG



BORING NO. MW-20	
PROJECT NO., NAME: UNION ROAD	LOCATION: INTERIOR OF CAP
DRILLING CONTRACTOR/DRILLER: MAXIM / EMRIE BENCE	
GEOLOGIST, OFFICE: HANLON/SWAIM DANBURY	

DRILLING EQUIPMENT, METHOD	SIZE, TYPE OF BIT	SAMPLING METHOD	START, FINISH DAT
CME 850 HSA	6 1/4"	SS	2/21/96

WELL INSTALLED?	CASING MAT./DIA.	SCREEN: TYPE	MAT.	LENGTH	DIA.	SLOT SIZE
YES ☒ NO ☐	SS 2"		SS	10'	2"	0.20

ELEVATION OF: (FT. ABOVE M.S.L.)	GROUND SURFACE	TOP OF WELL CASING	TOP & BOTTOM SCREEN	GW SURFACE	DATE
	~~627.6~~ 624.6	627.0	607.0 - 597.0	NA	2/21/96

REMARKS: ELEVATIONS AND DEPTHS RELATIVE TO PRE-CAP GRADE

LOG OF TEST BORING

DEPTH (FT)	SAMPLE NO. AND TYPE	RECOVERY (FT)	PENETRATION RESISTANCE BLOWS/FT	DESCRIPTION	REMARKS
20		0	3	? NO RECOVERY	
		2.0'	8	Same w/rks up to 1.5" grades into finer material w/30% organics	
				Bottom 3" Black clay, no coarse, trace organics	
25			7	Gray/Green clay, trace 1/8" rock frags. No odor, No petroleum	
			6	Same no rock frags	coarse sand
				EOB 29.0'	
30					
15					

Proportions Used: Trace = 0-10%, Little = 10-20%, Some = 20-35%, And = 35-50%

Sampling Abbreviations: SS = Split Spoon, ST = Shelby Tube, CSC = Continuous Soil Core

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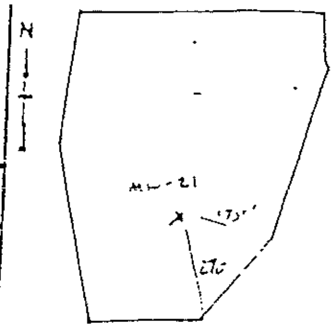
TEST BORING LOG



BORING NO.	MW-21
PROJECT NO., NAME	Union Road
LOCATION	Landfill cap
DRILLING CONTRACTOR/DRILLER	Maxim-Empire
GEOLOGIST, OFFICE	Szwaja / Harding Danbury
DRILLING EQUIPMENT, METHOD	B53 HSA
SIZE, TYPE OF BIT	6.25" HSA
SAMPLING METHOD	2" SS
START, FINISH DATE	2/22/96
WELL INSTALLED?	YES ☒ NO ☐
CASING MAT./DIA.	2" SS
SCREEN: TYPE	
MAT.	S.S.
LENGTH	10'
DIA.	2"
SLOT SIZE	20
ELEVATION OF: (FT. ABOVE M.S.L.) GROUND SURFACE	623.9
TOP OF WELL CASING	625'
TOP & BOTTOM SCREEN	595'-605'
GW SURFACE	NK
DATE	2/22/96

REMARKS: All elevations & depths relative to pre-cap grade

LOG OF TEST BORING

DEPTH (FT)	SAMPLE NO. AND TYPE	RECOVERY (FT)	PENETRATION RESISTANCE BLOWS/6"	DESCRIPTION	REMARKS
0–2'		2'	41/36	Brown frozen clay. Black clay and cinders. Cinder fill material. Trace organics. Frozen/very hard.	Frozen
2'–4'		1.25'	UNK	Same	Autohammer on SS blown. Use manual 140# hammer.
4'–6'		1.25'	9/36	Same w/ gray/black clay. Fe^{+} staining. 10-15% organics. Black coal cinders present.	Dry
6'–8'		1'	50/36	→ Light tan, dry, sand & gravel. No fines. Angular 3/4. → Black & dark red cinder fill material. Dry. Trace fines. Rock frags. 1", angular. → Maroon silt & sand. Poorly graded. Dry.	
8'–10'		1'	7/36	Same w/ minor gravel (1/4") rock & brick frags. Rounded. Black silt & fine sand. Trace organics. Dry.	
10'–12'		1.25'	9/36	Poorly graded red sand. No coarse material. Dry. Fe^{+} stained	
12'–14'		0'	15/36		
14'–16'		1'	5/36	Same	
16'–18'		0.5'	7/36	Red silt & sand. With gravels & fill mat'l.	Moist
18'–20'			4/ft	Same	

Proportions Used: Trace = 0-10%, Little = 10-20%, Some = 20-35%, And = 35-50%

Sampling Abbreviations: SS = Split Spoon, ST = Shelby Tube, CSC = Continuous Soil Core

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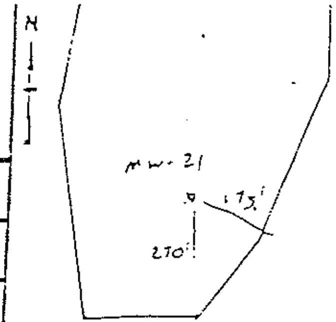
TEST BORING LOG

BORING NO.	PROJECT NO., NAME	LOCATION
MW-21	Union Road	Landfill CT



DRILLING CONTRACTOR/DRILLER: Maxim – Empire ; D. Bence

GEOLOGIST, OFFICE: M. Szuara ; Danbury

DRILLING EQUIPMENT, METHOD	SIZE, TYPE OF BIT	SAMPLING METHOD	START, FINISH DATE
B55 HSA	6.25" H.S.A.	2" SS	2/22/9_

WELL INSTALLED?	CASING MAT./DIA.	SCREEN: TYPE	MAT.	LENGTH	DIA.	SLOT SIZE
YES ☒ NO ☐	2" SS		S.S.	10'	2"	20

ELEVATION OF: (FT. ABOVE M.S.L.)	GROUND SURFACE	TOP OF WELL CASING	TOP & BOTTOM SCREEN	GW SURFACE	DATE
	623.9	625'	607'- 597'	VAL	2/22/9_

REMARKS: All Elevations & Depths relative to in-cap grade

LOG OF TEST BORING

DEPTH (FT)	SAMPLE NO. AND TYPE	RECOVERY (FT)	PENETRATION RESISTANCE BLOWS/FT	DESCRIPTION	REMARKS	WELL CONST.	GRAPHIC LITHO LOG
				Some 2" Rock Boulder SS refusing			
		0.25'	40/ft				
12				Black silt & sand, angular rock frags. Slight [illegible] odor.			
		1.0	19/ft				
24				Gray clay w/ white material			
25		1.5	11/ft				
26				EOB @ 26'			
30							
15							

Proportions Used: Trace = 0-10%, Little = 10-20%, Some = 20-35%, And = 35-50%

Sampling Abbreviations: SS = Split Spoon, ST = Shelby Tube, CSC = Continuous Soil Core

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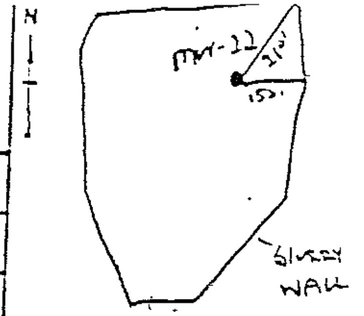
TEST BORING LOG



BORING NO.	MW-22
PROJECT NO., NAME	Union Road
LOCATION	Inside Landfill Cap
DRILLING CONTRACTOR/DRILLER	Maxim Empire, D. Benge
GEOLOGIST, OFFICE	Hanlon/Szwarla, Danbury
DRILLING EQUIPMENT, METHOD	CME 55B, HSA
SIZE, TYPE OF BIT	6.25" HSA
SAMPLING METHOD	SS
START, FINISH DATE	2/20/96
WELL INSTALLED?	YES ☒ NO ☐
CASING MAT./DIA.	2" SS
SCREEN: TYPE	10 slot
MAT.	SS
LENGTH	10'
DIA.	2"
SLOT SIZE	10

ELEVATION OF: (FT. ABOVE M.S.L.)	GROUND SURFACE	TOP OF WELL CASING	TOP & BOTTOM SCREEN	GW SURFACE	DATE
	623.4	626.40	606.0' - 596.0'	NA	2/20/96

REMARKS: ~2' [illegible] Above current surface PRE-CAP SURFACE

LOG OF TEST BORING

DEPTH (FT)	SAMPLE NO. AND TYPE	RECOVERY (FT)	PENETRATION RESISTANCE BLOWS/FT	DESCRIPTION	REMARKS
0–2		2'	13/66	TAN CLAY, WET, FIRM. Bottom 6" potting soil, black staining, 20% organic matl	
2–4		1'	5/66	SAME, NOT AS COARSE	
4–6		1.5'	12/66	SAME → RED FINE/MED. SAND, NO FINES, POORLY GRADED	
6–8		1'	10/66	SAME; CINDER FILL MATERIAL, COARSE BLACK [illegible], ROCK FRAGS TO 1/2"	
8–10		1'	5/66	SAME W/ 1/2" ROCKS [illegible]-LIKE MAT'L	
10–12		1'	4/66	SAME	
12–14		1'	5/66	SAME W/ WOOD WASTE & Fe STAINING	
14–16		1'	2/66	SAME	Fine Sand →
16–18		1'	2/66	SAME	Coarse Sand →
18–20		1'	0/66	SAME W/ BRICK FRAGS.	

Proportions Used: Trace = 0-10%, Little = 10-20%, Some = 20-35%, And = 35-50%

Sampling Abbreviations: SS = Split Spoon, ST = Shelby Tube, CSC = Continuous Soil Core

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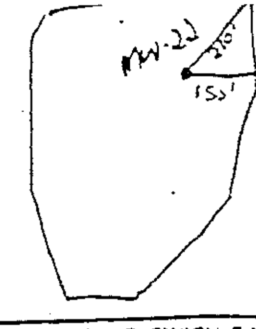
TEST BORING LOG



BORING NO. MW-22

PROJECT NO., NAME: Union Road

LOCATION: Inside Cap

DRILLING CONTRACTOR/DRILLER: Maxim - Enviro P. Benck

GEOLOGIST, OFFICE: Hanson / Sbuaya Danbury

DRILLING EQUIPMENT, METHOD: CME 855

SIZE/TYPE OF BIT: 6.25" HSA

SAMPLING METHOD: SS

START, FINISH DATE: 2/20/96

WELL INSTALLED? YES ☒ NO ☐

CASING MAT./DIA.: 2" SS

SCREEN: TYPE — MAT. SS — LENGTH 10' — DIA. 2" — SLOT SIZE 10

ELEVATION OF: (FT. ABOVE M.S.L.)

GROUND SURFACE: 623.4

TOP OF WELL CASING: 626.70

TOP & BOTTOM SCREEN: 606' 596'

GW SURFACE: NA

DATE: 2/20/96

REMARKS: PRE-CAP SURFACE

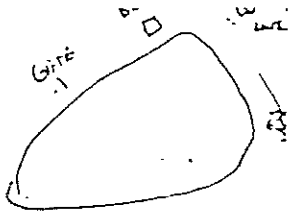
LOG OF TEST BORING

DEPTH (FT)	SAMPLE NO. AND TYPE	RECOVERY (FT)	PENETRATION RESISTANCE BLOWS/FT	DESCRIPTION	REMARKS	WELL CONST.	GRAPHIC LITHOLOG
20–22		6"	15/6"	Angular gravelly mat'l, asphalt, brick & shale, trace wood, 2" angular rock.			
22–24		6"	15/6"	Same			
24–26		1'	11/6"	Grey clay, firm, trace cinders & fine coarse mat'l.	Coarse sand 23'		
26–28		2'	9/6"	Same			
				EOB 28.0'			

Proportions Used: Trace = 0-10%, Little = 10-20%, Some = 20-35%, And = 35-50%

Sampling Abbreviations: SS = Split Spoon, ST = Shelby Tube, CSC = Continuous Soil Core

TEST BORING LOG



BORING NO. 23-S

PROJECT NO., NAME: UNION ROAD 2035-200

LOCATION: BUFFALO NY

DRILLING CONTRACTOR/DRILLER: MAXIM

GEOLOGIST, OFFICE: JOHN J ZACHER JR

DRILLING EQUIPMENT, METHOD	SIZE, TYPE OF BIT	SAMPLING METHOD	START, FINISH DA
HSA	10" HSA	SPLIT SPOON	1-6-97

WELL INSTALLED?	CASING MAT./DIA.	SCREEN: TYPE	MAT.	LENGTH	DIA.	SLOT SIZE
YES ☒ NO ☐	STAINLESS STEEL 2"	SLOT	STAINLESS	10'	2"	.02

ELEVATION OF: (FT. ABOVE M.S.L.) GROUND SURFACE | TOP OF WELL CASING | TOP & BOTTOM SCREEN | GW SURFACE | DATE

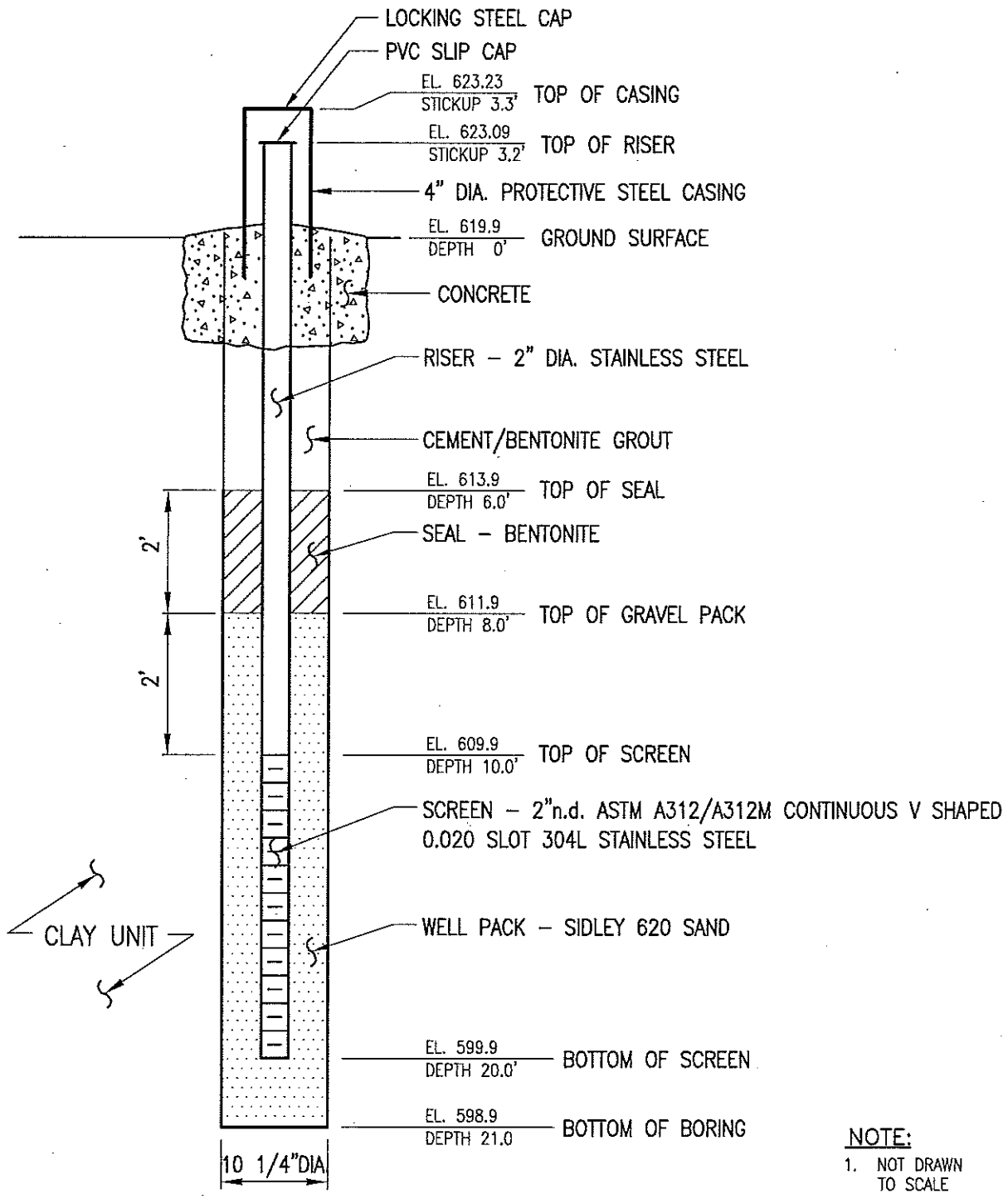
REMARKS:

DEPTH (FT)	SAMPLE NO. AND TYPE	RECOVERY (FT)	PENETRATION RESISTANCE BLOWS/FT	LOG OF TEST BORING: DESCRIPTION	REMARKS	WELL CONST.	GRAPHIC LITHOLOGY
				SAMPLING STARTS 2' BG.			
	2'	15"	4	0-4 TOPSOIL/SAND			
			3	4-15 REDBROWN CLAY	STIFF- DAMP		
	4'		7				
			9	15-18 REDBROWN CLAY, SOME GRAVEL	STIFF TRACE H2O		
	4		4	0-15 REDBROWN CLAY	STIFF, TRACE H2O		
5		21"	6				
	6'		6	15-21 SOME MOISTURE			
	6		8	0-10 REDBROWN CLAY	MEDSTIFF DAMP		
		24"	6	10-14 REDBROWN + GREY CLAY	MEDSTIFF DAMP		
	8'		4	14-24 GREY CLAY	MEDSTIFF, DAMP		
	8		2	GREY CLAY, LITTLE SAND, LITTLE RKS	SOFT, WET		
		12"	2				
	10'		2				
10	10		6	GREY CLAY, LITTLE SAND, LITTLE RKS	SOFT WET		
		17"	5				
	12'		4				
	12		2	GREY CLAY, LITTLE SAND, LITTLE RKS	SOFT WET		
		8"	3				
	14'		4				
	14		4	GREY CLAY, LITTLE SAND LITTLE RKS	SOFT, WET		
15		10"	3				
	16'		3	BOB 16'			

Proportions Used: Trace = 0-10%, Little = 10-20%, Some = 20-35%, And = 35-50%

Sampling Abbreviations: SS = Split Spoon, ST = Shelby Tube, CSC = Continuous Soil Core

MW-10S

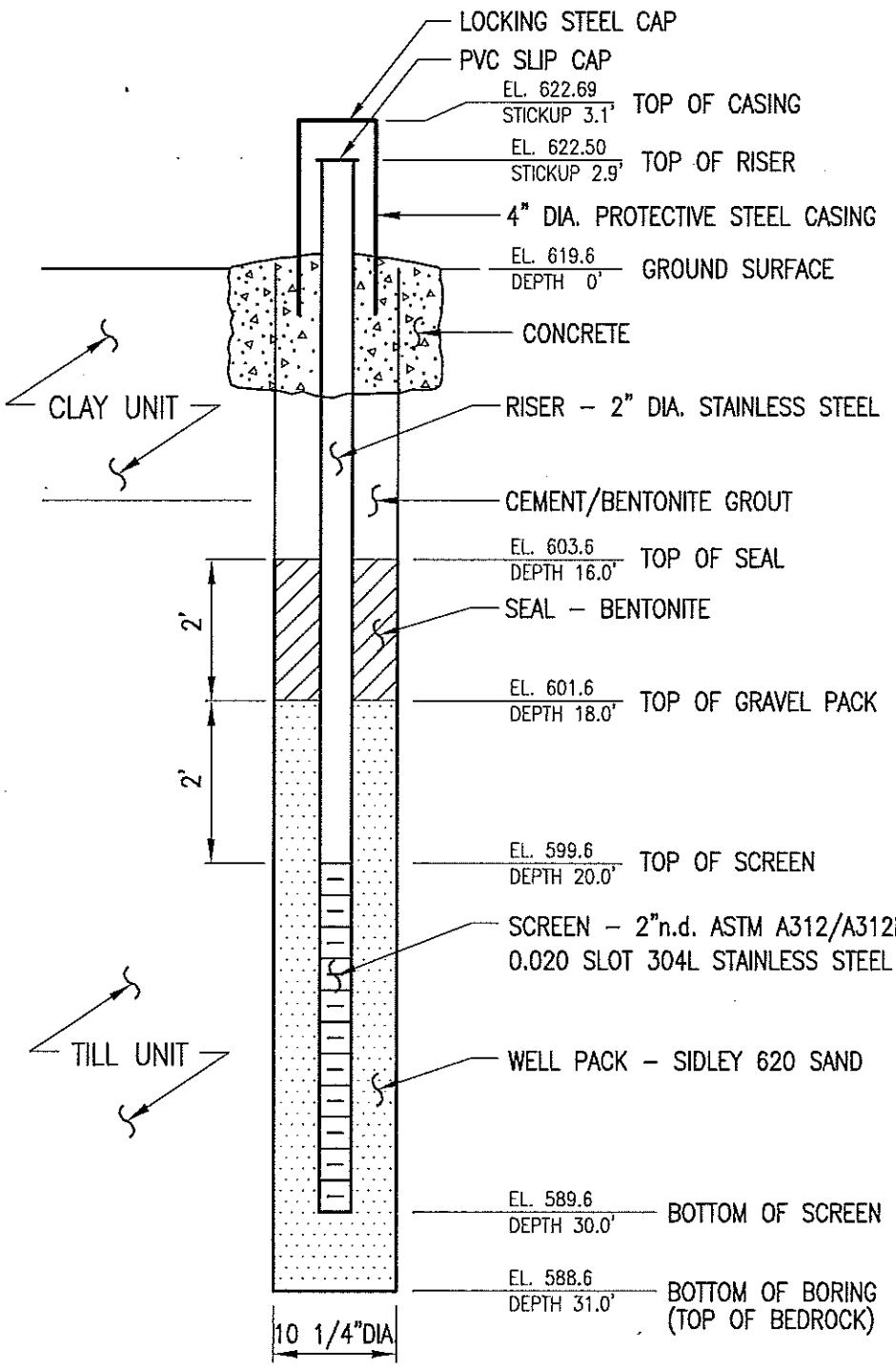


NOTE:

1. NOT DRAWN TO SCALE
2. SEE BORING LOG FOR DETAILED SOIL DESCRIPTION.

REVISION NO.		PROJECT	UNION ROAD CHEEKTOWAGA, NEW YORK	Unicorn Management Consultants, LLC 52 FEDERAL ROAD DANBURY, CT (203) 205-9000	PROJECT # 2011-200 FILENAME: 2035200A SCALE: NTS DATE: 1/15/02 BY: AD CK: FIGURE # MW-10S
NO.	DATE				
		DRAWING	SHALLOW GROUNDWATER MONITORING WELL DETAIL		

MW-10M



NOTE:

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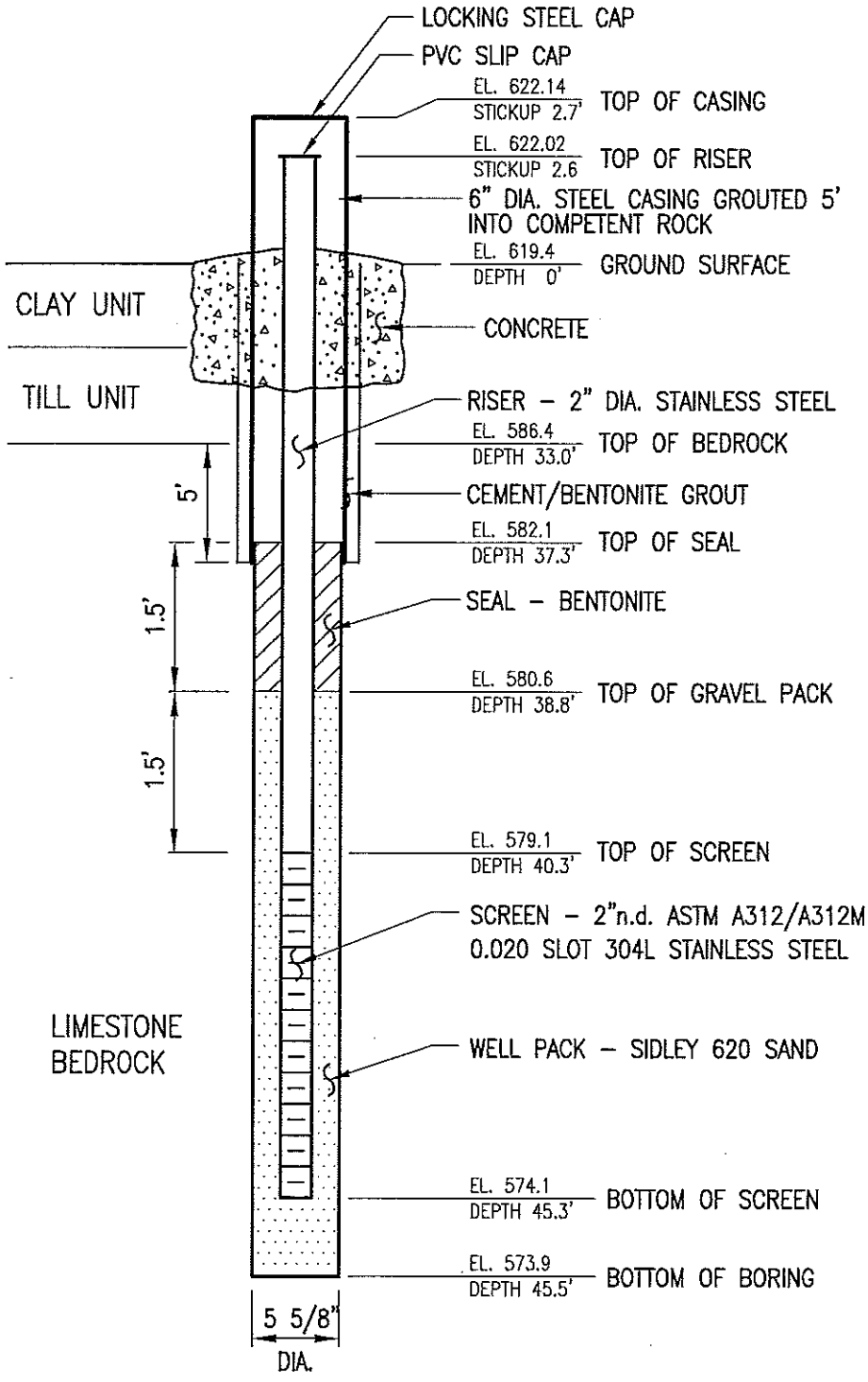
2. SEE BORING LOG FOR DETAILED SOIL DESCRIPTION.

REVISION NO.		PROJECT	UNION ROAD CHEEKTOWAGA, NEW YORK	Unicorn Management Consultants, LLC 52 FEDERAL ROAD DANBURY, CT (203) 205-9000	PROJECT # 2011-200 FILENAME: 2035200A SCALE: NTS DATE: 1/15/02 BY: AD CK:
NO.	DATE	DRAWING	MEDIUM GROUNDWATER MONITORING WELL DETAIL		FIGURE # MW-10M

MW-10D

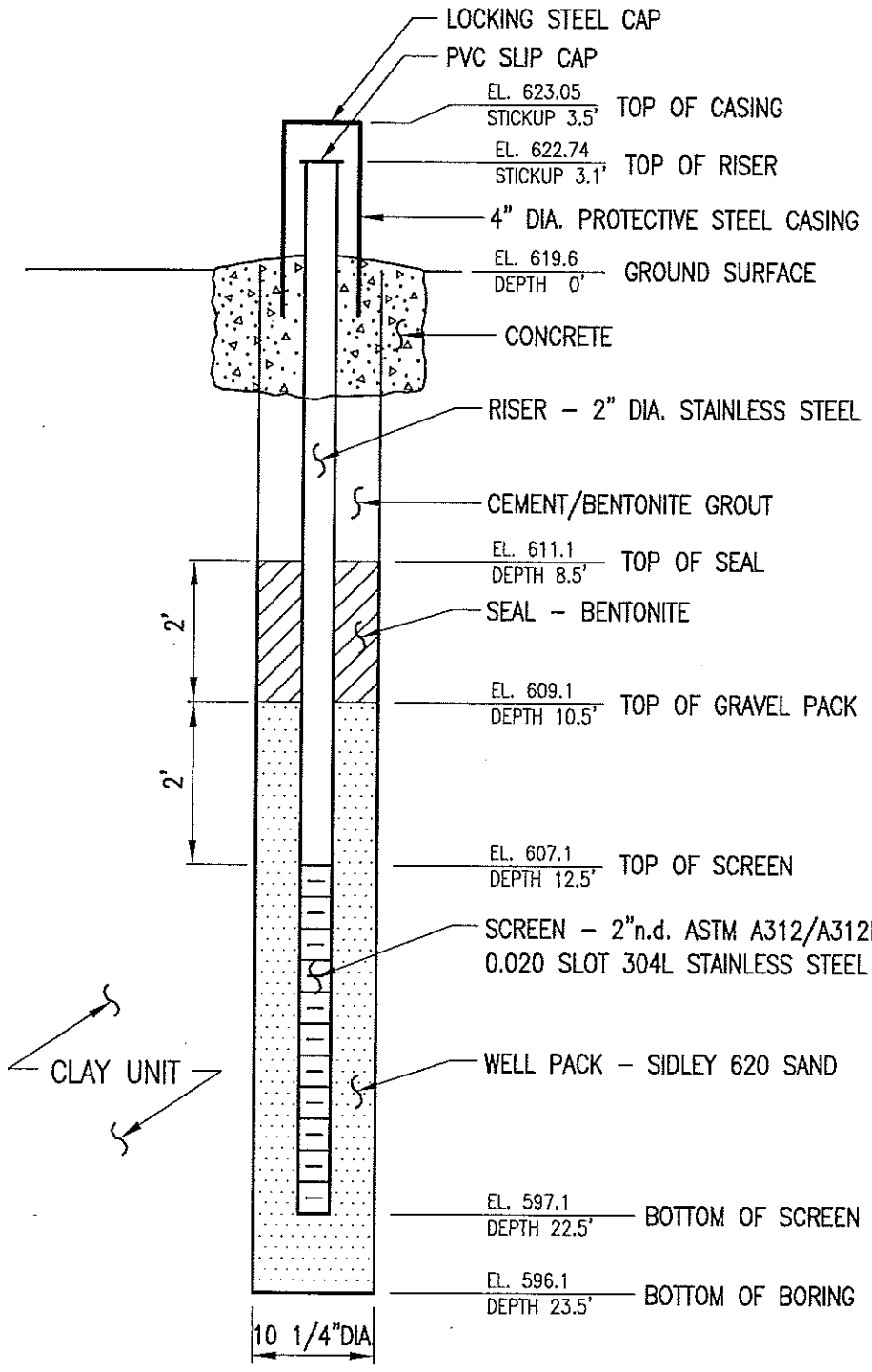


NOTE:

1. NOT DRAWN TO SCALE
2. SEE BORING LOG FOR DETAILED SOIL DESCRIPTION.

REVISION NO.		PROJECT	UNION ROAD CHEEKTOWAGA, NEW YORK	Unicorn Management Consultants, LLC 52 FEDERAL ROAD DANBURY, CT (203) 205-9000	PROJECT # 2011-200
NO.	DATE				FILENAME: 2035200A
		DRAWING	BEDROCK GROUNDWATER MONITORING WELL DETAIL		SCALE: NTS; DATE: 1/15/02; BY: AD; CK:
					FIGURE # MW-10D

MW–11S

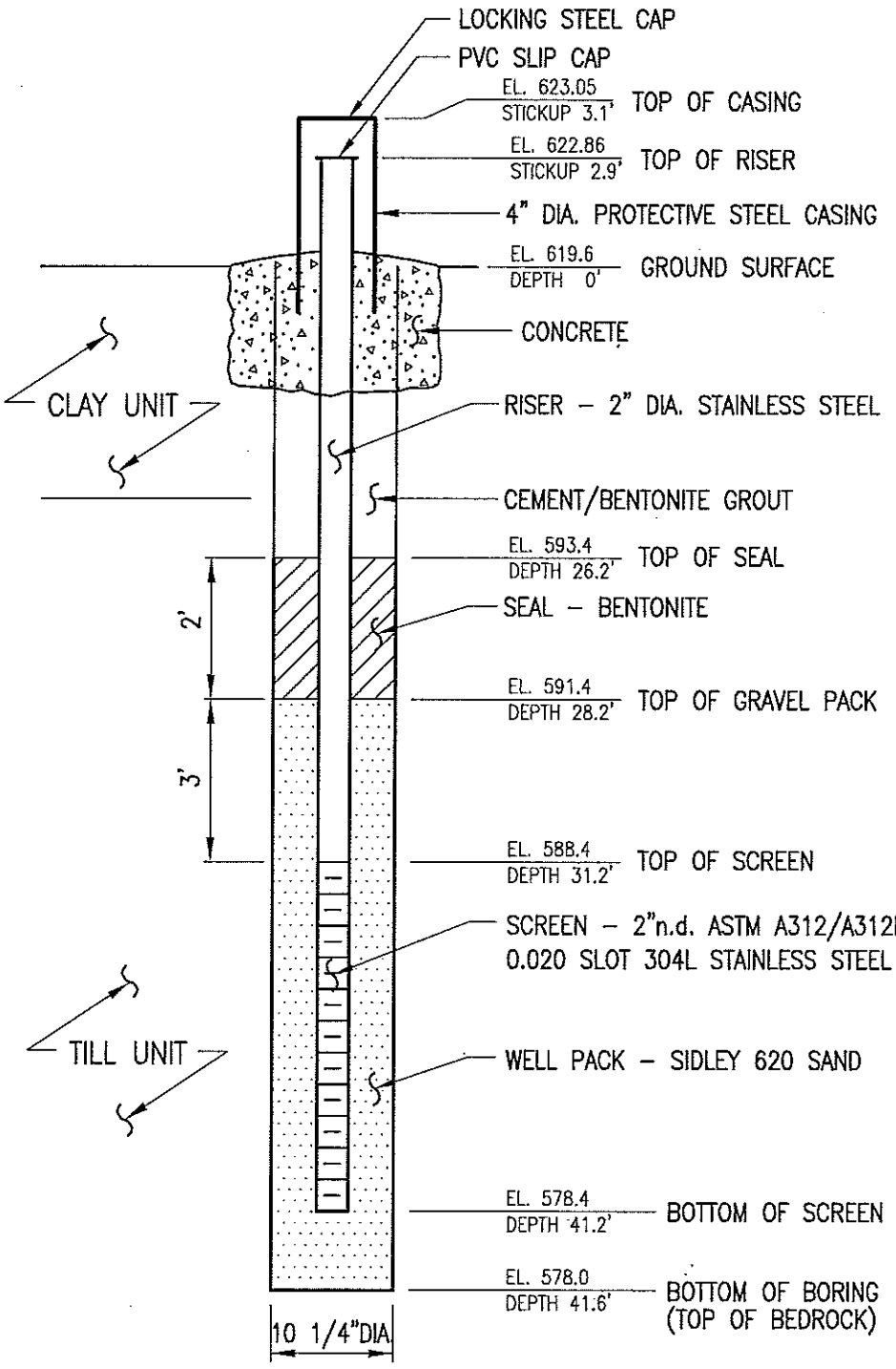


NOTE:

1. NOT DRAWN TO SCALE
2. SEE BORING LOG FOR DETAILED SOIL DESCRIPTION.

REVISION NO.		PROJECT	UNION ROAD CHEEKTOWAGA, NEW YORK	Unicorn Management Consultants, LLC 52 FEDERAL ROAD DANBURY, CT (203) 205-9000	PROJECT # 2011–200 FILENAME: 2035200A SCALE: NTS DATE: 1/15/02 BY: AD CK:
NO.	DATE	DRAWING	SHALLOW GROUNDWATER MONITORING WELL DETAIL		FIGURE # MW–11S

MW–11M

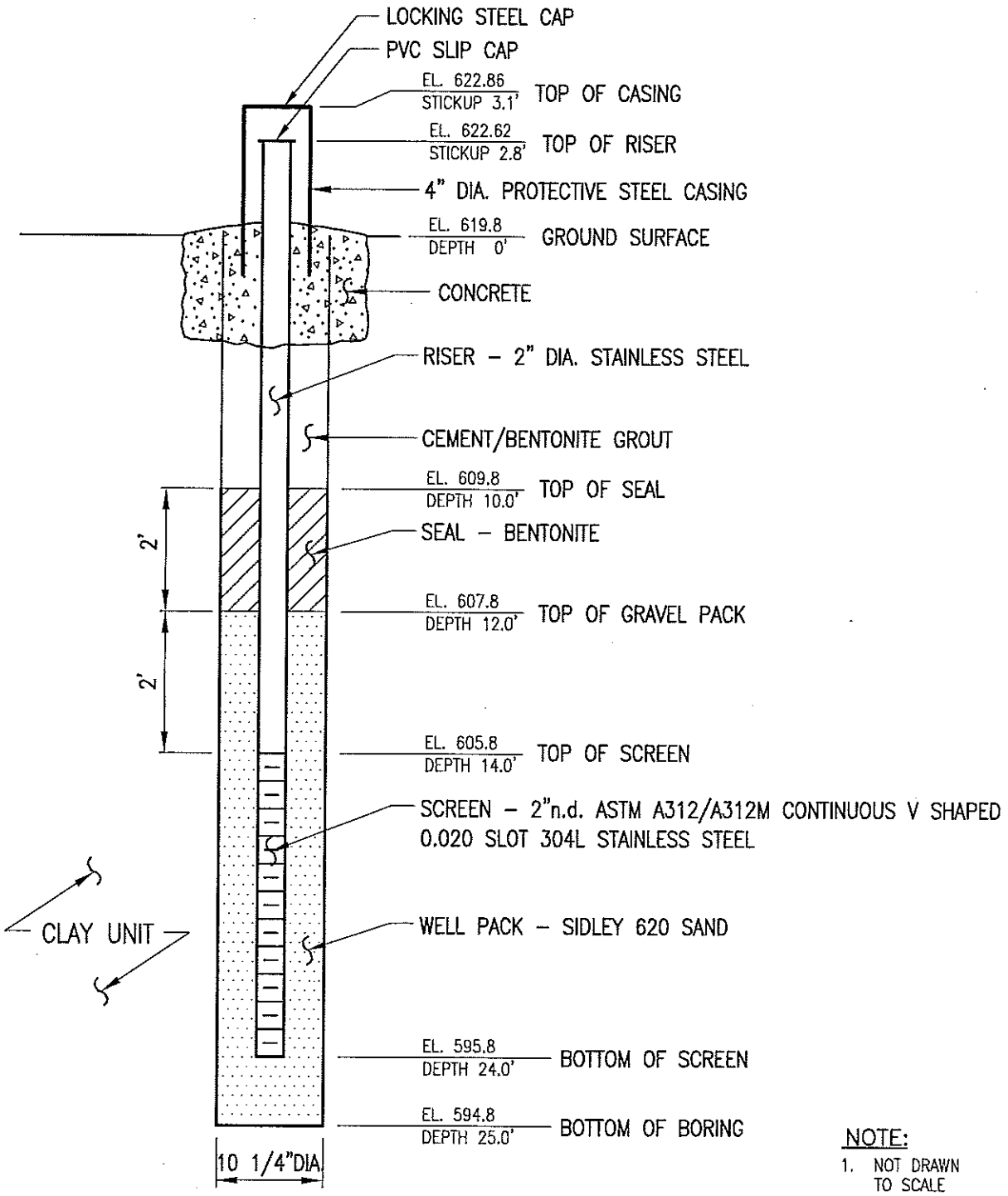


NOTE:

1. NOT DRAWN TO SCALE
2. SEE BORING LOG FOR DETAILED SOIL DESCRIPTION.

REVISION NO.		PROJECT	UNION ROAD CHEEKTOWAGA, NEW YORK	Unicorn Management Consultants, LLC 52 FEDERAL ROAD DANBURY, CT (203) 205-9000	PROJECT # 2011–200 FILENAME: 2035200A SCALE: NTS DATE: 1/15/02 BY: AD CK: FIGURE # MW–11M
NO.	DATE	DRAWING	MEDIUM GROUNDWATER MONITORING WELL DETAIL		

MW-12S

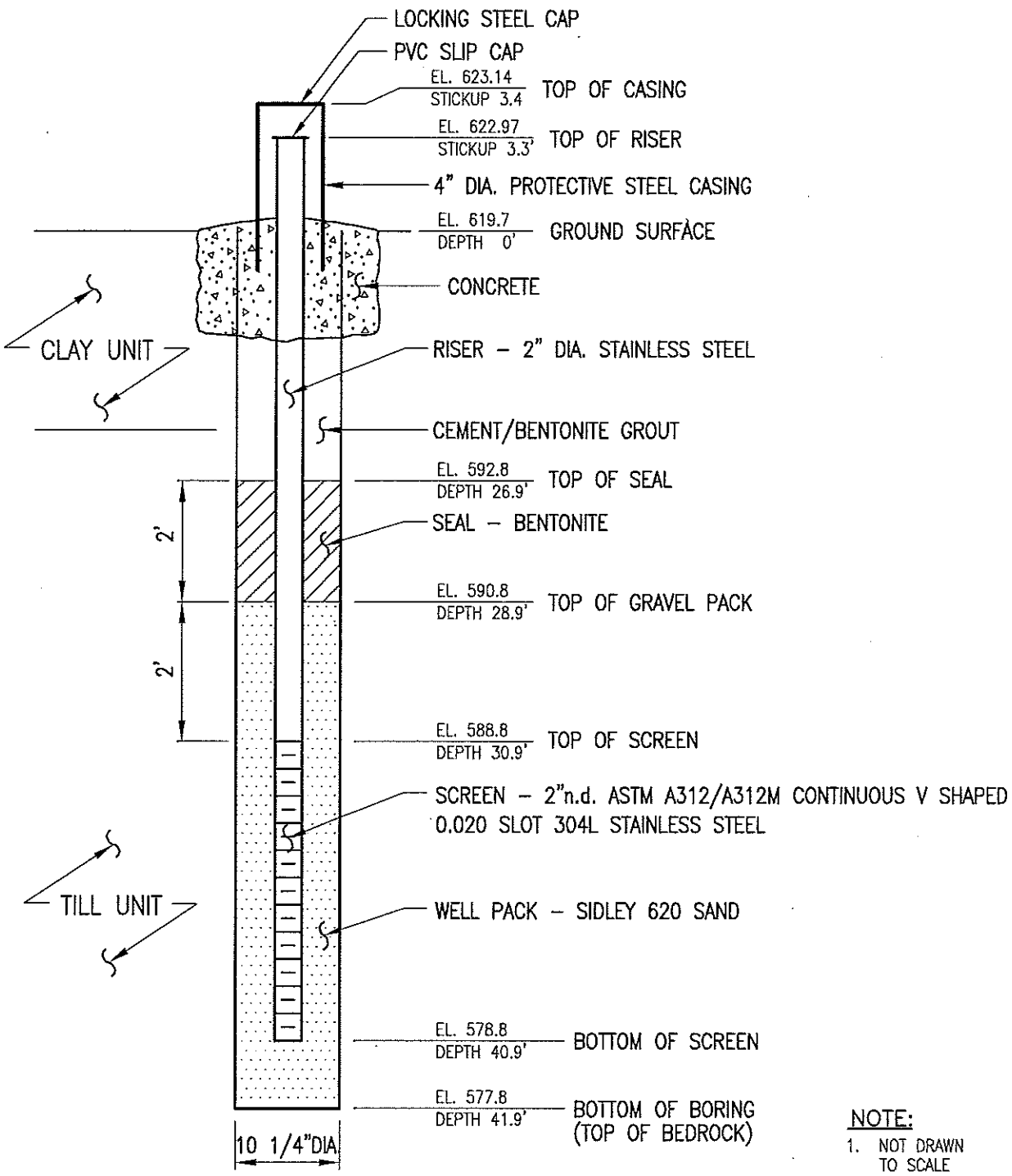


NOTE:

1. NOT DRAWN TO SCALE
2. SEE BORING LOG FOR DETAILED SOIL DESCRIPTION.

REVISION NO.		PROJECT	UNION ROAD CHEEKTOWAGA, NEW YORK	Unicorn Management Consultants, LLC 52 FEDERAL ROAD DANBURY, CT (203) 205-9000	PROJECT # 2011-200 FILENAME: 2035200A SCALE: NTS DATE: 1/15/02 BY: AD CK: FIGURE # MW-12S
NO.	DATE				
		DRAWING	SHALLOW GROUNDWATER MONITORING WELL DETAIL		

MW-12M



NOTE:

1. NOT DRAWN TO SCALE
2. SEE BORING LOG FOR DETAILED SOIL DESCRIPTION.

REVISION NO.				
NO.	DATE	PROJECT	UNION ROAD CHEEKTOWAGA, NEW YORK	
		DRAWING	MEDIUM GROUNDWATER MONITORING WELL DETAIL	

Unicorn Management Consultants, LLC
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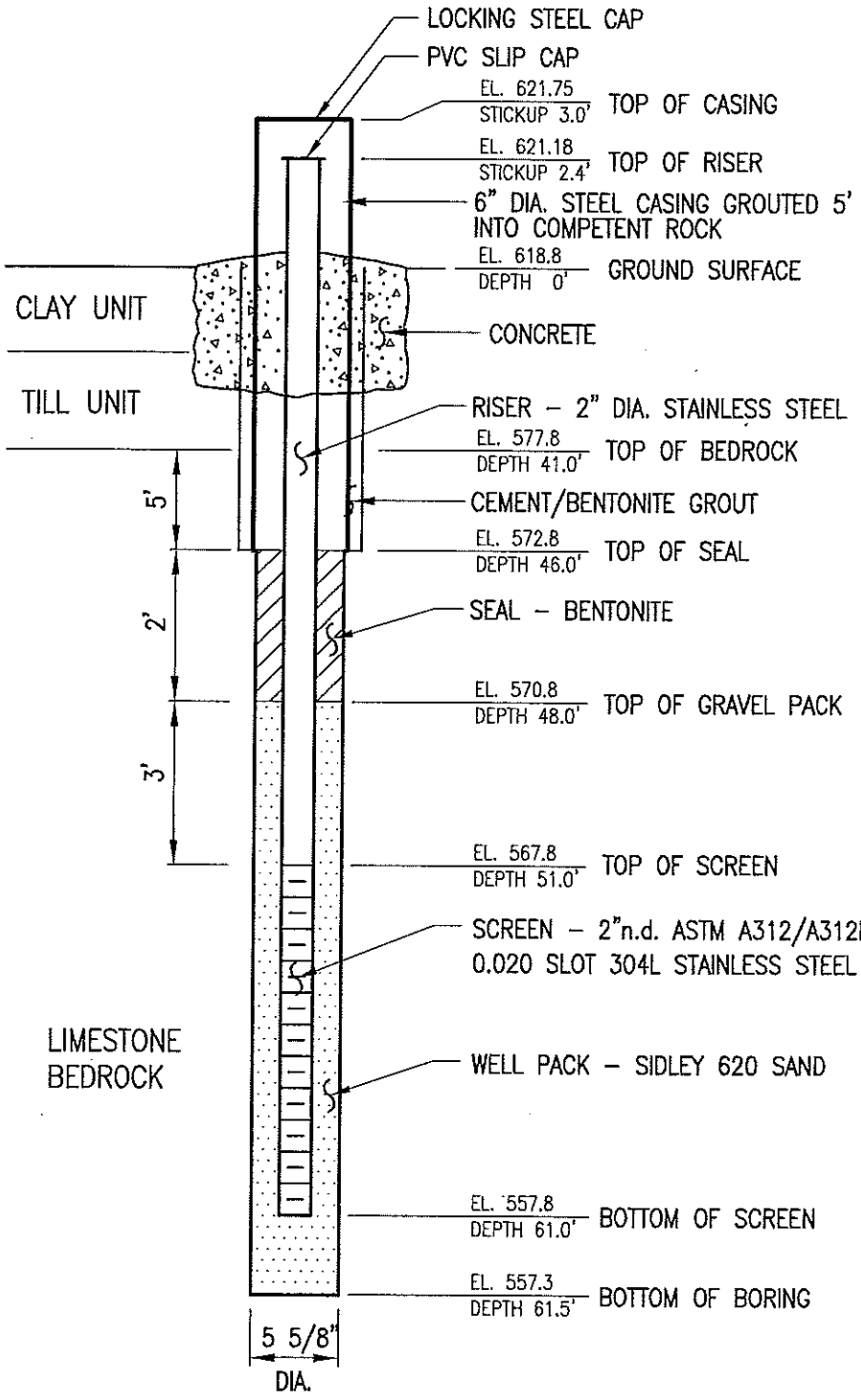
DANBURY, CT
(203) 205-9000

PROJECT # 2011-200
FILENAME: 2035200A
SCALE: NTS
DATE: 1/15/02
BY: AD
CK:
FIGURE # MW-12M

MW-12D

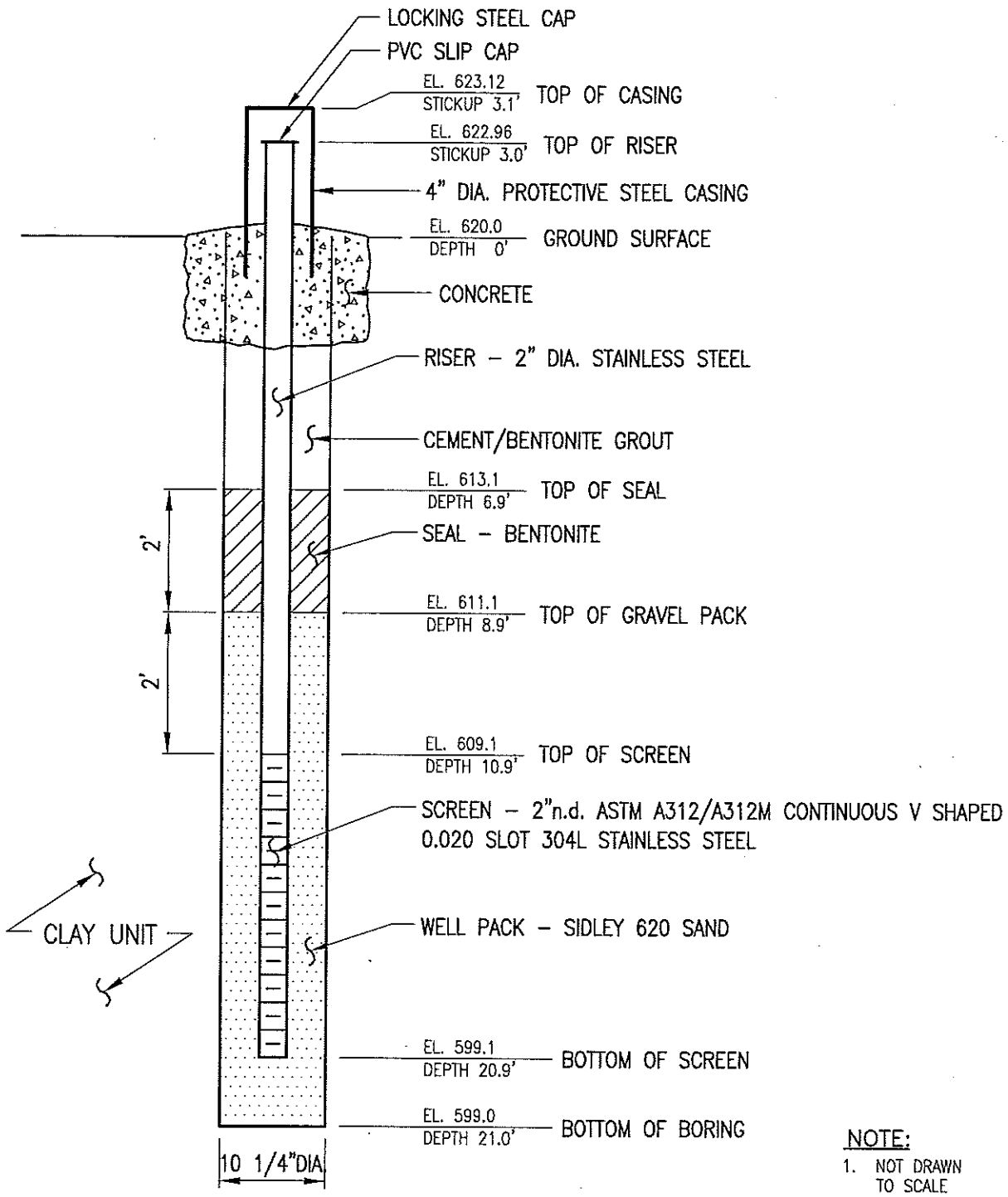


NOTE:

1. NOT DRAWN TO SCALE
2. SEE BORING LOG FOR DETAILED SOIL DESCRIPTION.

REVISION NO.		PROJECT	UNION ROAD CHEEKTOWAGA, NEW YORK	Unicorn Management Consultants, LLC 52 FEDERAL ROAD DANBURY, CT (203) 205-9000	PROJECT # 2011-200 FILENAME: 2035200A SCALE: NTS DATE: 1/15/02 BY: AD CK:
NO.	DATE	DRAWING	BEDROCK GROUNDWATER MONITORING WELL DETAIL		FIGURE # MW-12D

MW-13S

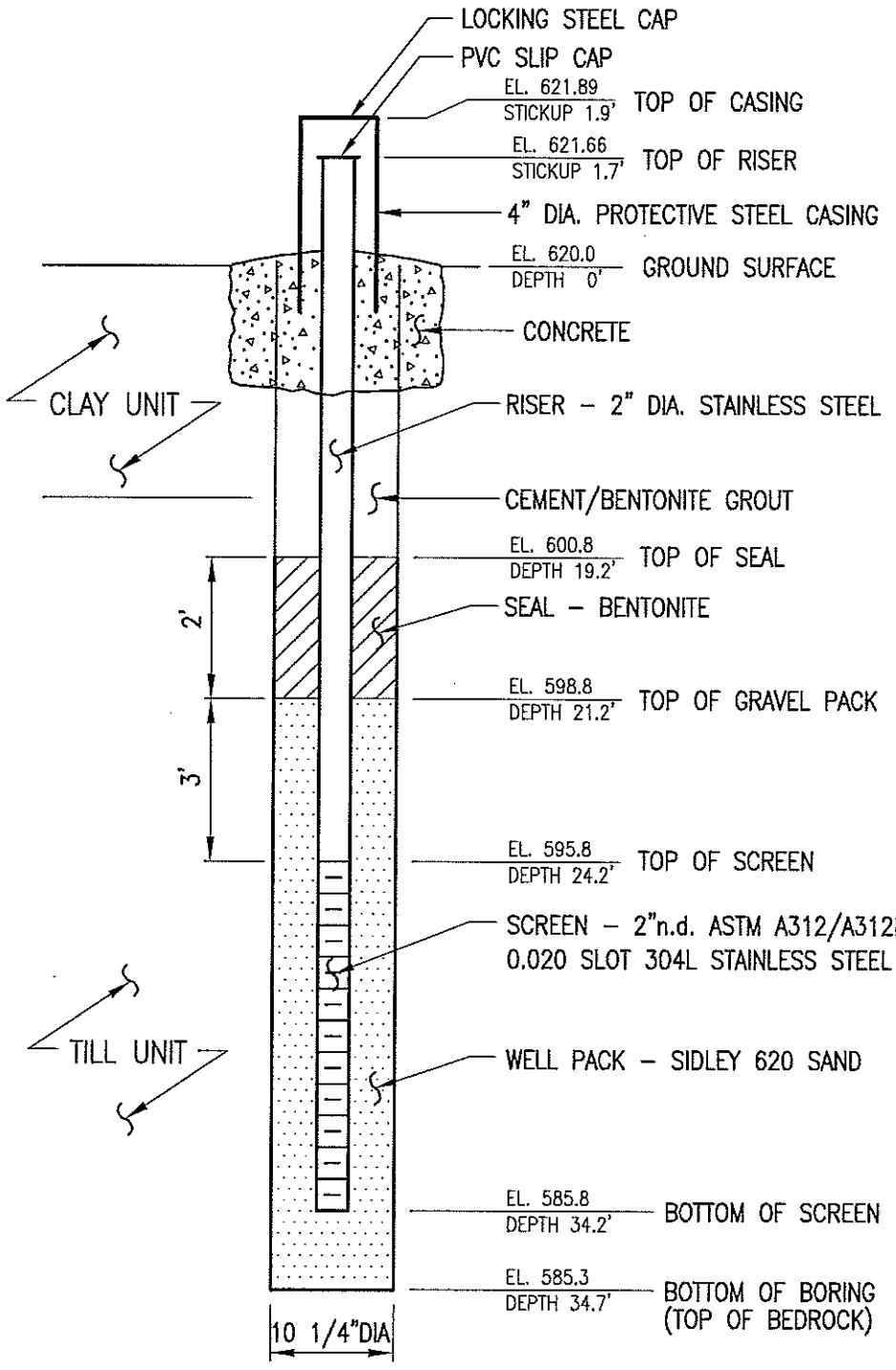


NOTE:

1. NOT DRAWN TO SCALE
2. SEE BORING LOG FOR DETAILED SOIL DESCRIPTION.

REVISION NO.					
NO.	DATE	PROJECT	UNION ROAD CHEEKTOWAGA, NEW YORK	Unicorn Management Consultants, LLC 52 FEDERAL ROAD DANBURY, CT (203) 205-9000	PROJECT # 2011-200 FILENAME: 2035200A SCALE: NTS DATE: 1/15/02 BY: AD CK: FIGURE # MW-13S
		DRAWING	SHALLOW GROUNDWATER MONITORING WELL DETAIL		

MW-13M

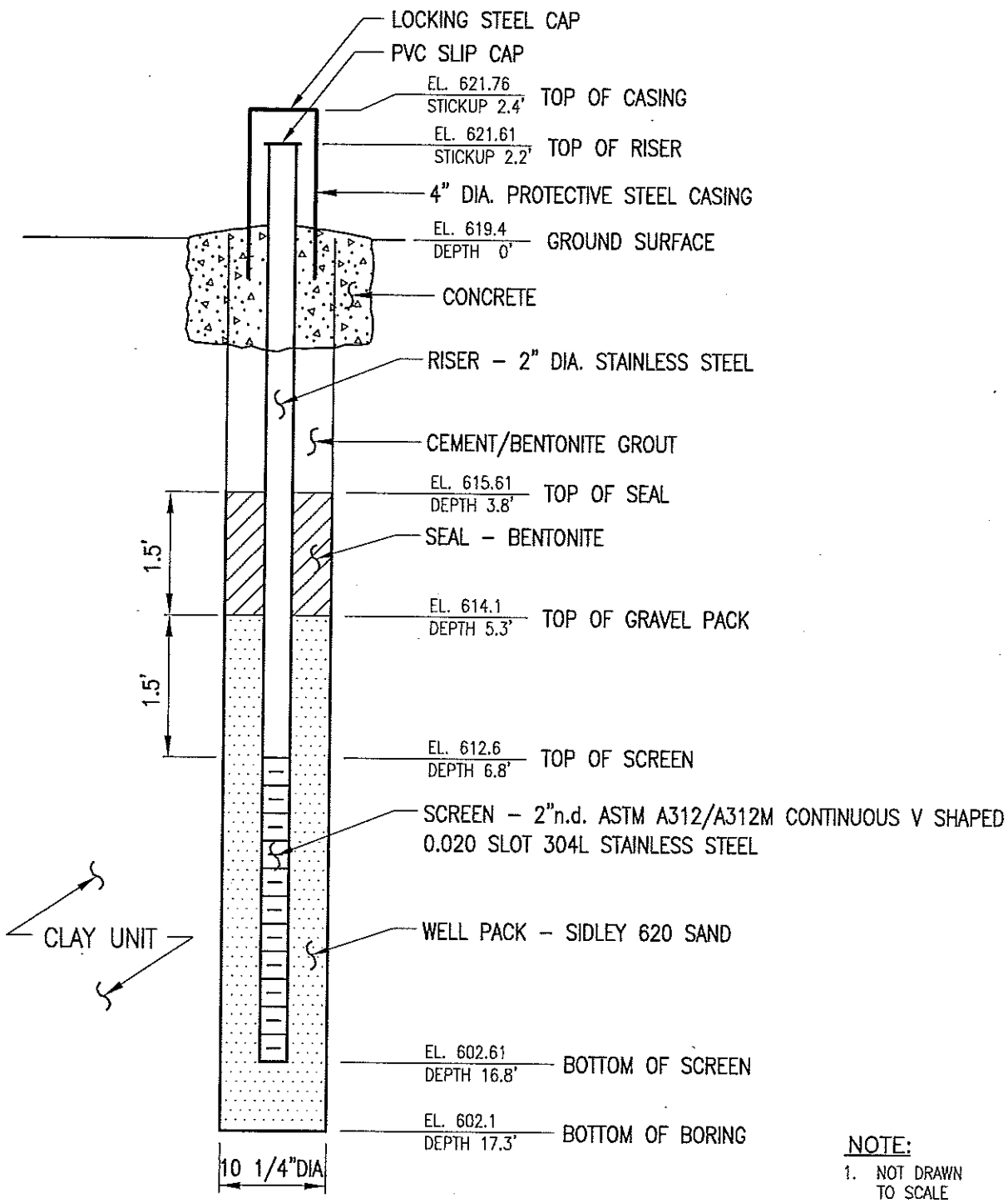


NOTE:

1. NOT DRAWN TO SCALE
2. SEE BORING LOG FOR DETAILED SOIL DESCRIPTION.

REVISION NO.		PROJECT	UNION ROAD CHEEKTOWAGA, NEW YORK	Unicorn Management Consultants, LLC 52 FEDERAL ROAD DANBURY, CT (203) 205-9000	PROJECT # 2011-200
NO.	DATE				FILENAME: 2035200A
		DRAWING	MEDIUM GROUNDWATER MONITORING WELL DETAIL		SCALE: NTS DATE: 1/15/02
					BY: AD CK:
					FIGURE # MW-13M

MW-14S



NOTE:

1. NOT DRAWN TO SCALE
2. SEE BORING LOG FOR DETAILED SOIL DESCRIPTION.

REVISION NO.				
NO.	DATE	PROJECT	UNION ROAD CHEEKTOWAGA, NEW YORK	
		DRAWING	SHALLOW GROUNDWATER MONITORING WELL DETAIL	

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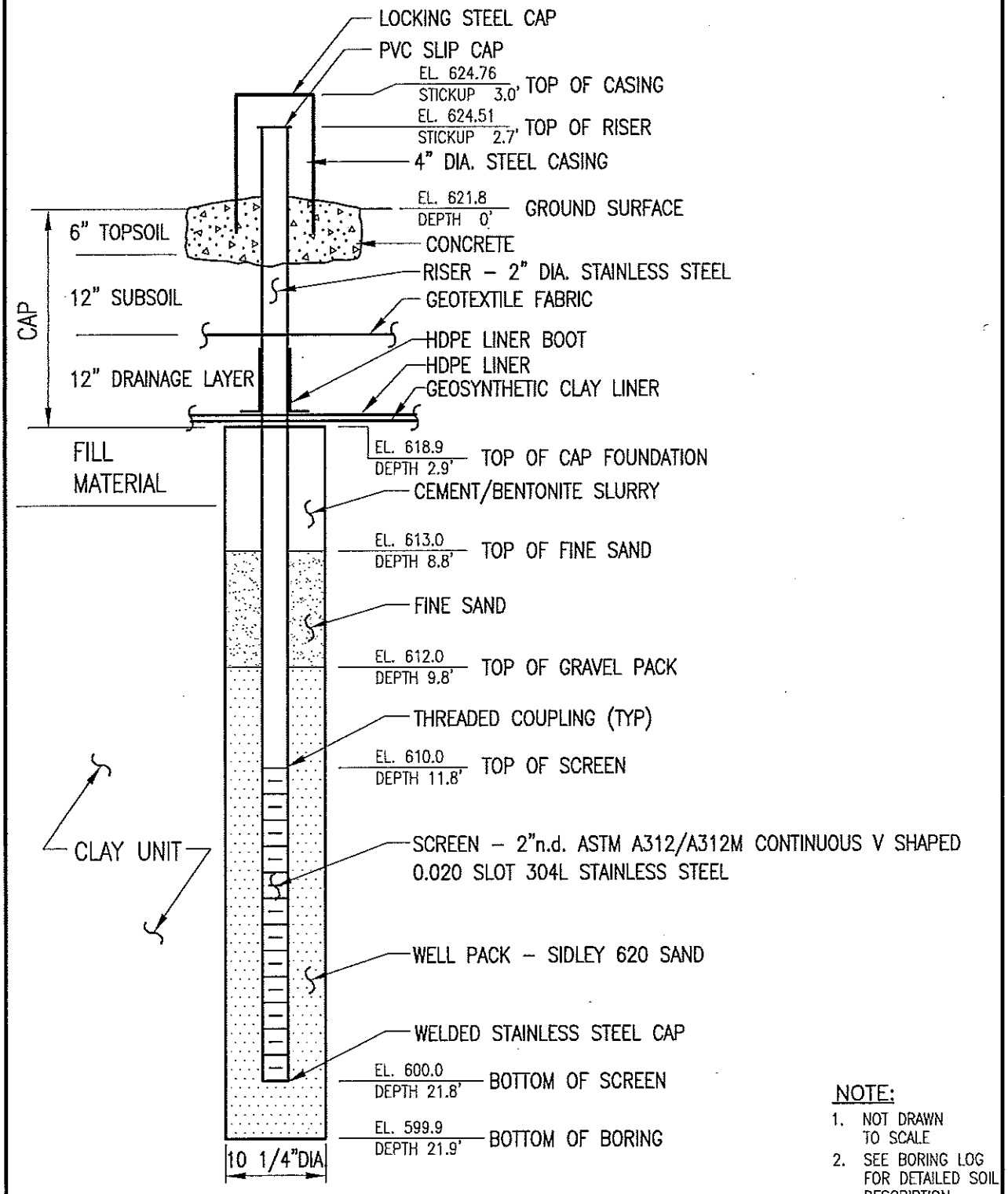
PROJECT #	2011-200
FILENAME:	2035200A
SCALE: NTS	DATE: 1/15/02
BY: AD	CK:
FIGURE #	MW-14S

MW–16



NOTE:

1. NOT DRAWN TO SCALE
2. SEE BORING LOG FOR DETAILED SOIL DESCRIPTION.

REVISION NO.				
NO.	DATE	PROJECT	UNION ROAD CHEEKTOWAGA, NEW YORK	PROJECT # 2011-200
		DRAWING	GROUNDWATER OBSERVATION WELL DETAIL	FILENAME: 2036200A SCALE: NTS DATE: 1/15/02 BY: AD CK:

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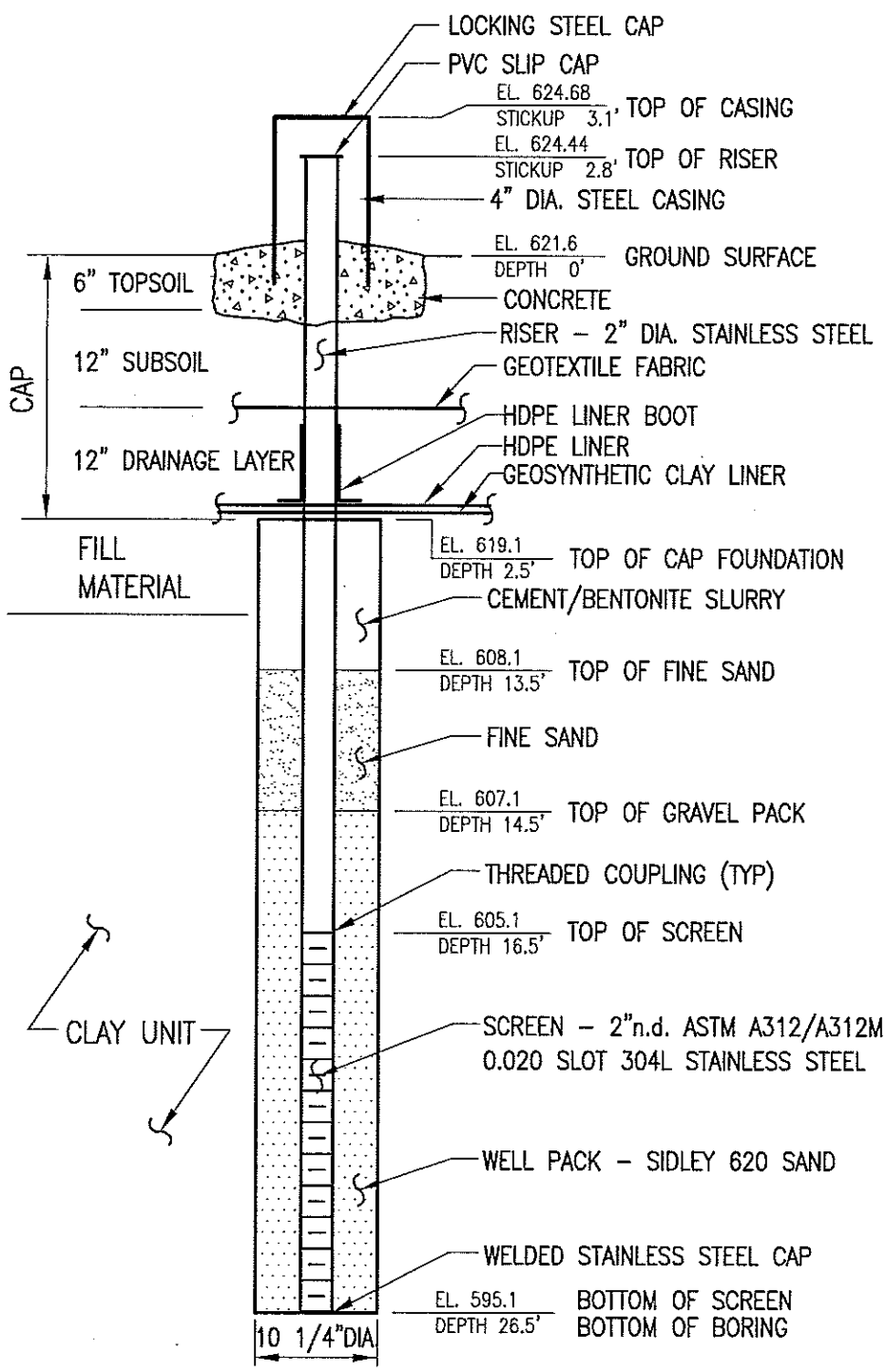
FIGURE # MW–16

MW-17

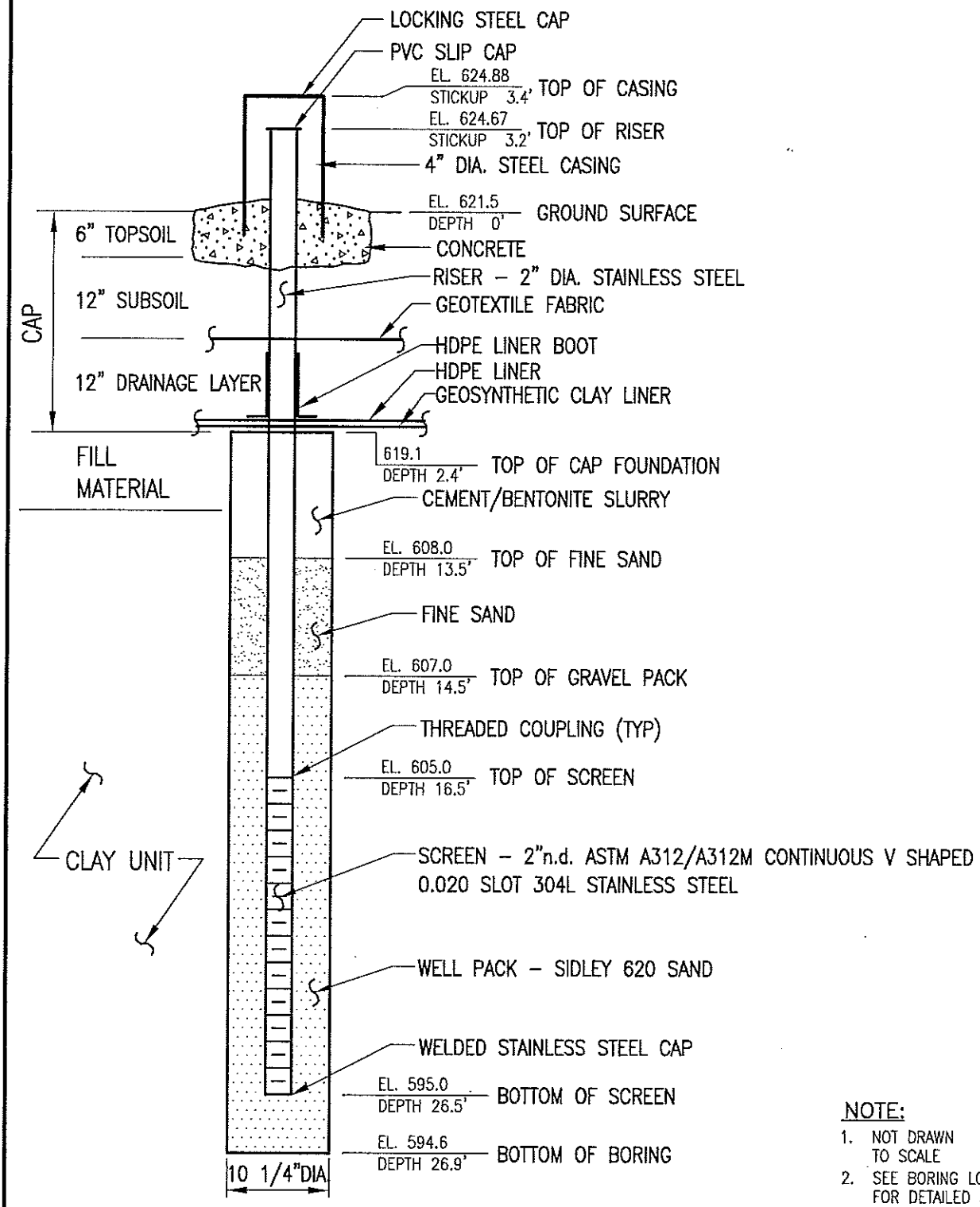


NOTE:

1. NOT DRAWN TO SCALE
2. SEE BORING LOG FOR DETAILED SOIL DESCRIPTION.

REVISION NO.					
NO.	DATE	PROJECT	UNION ROAD CHEEKTOWAGA, NEW YORK	Unicorn Management Consultants, LLC 52 FEDERAL ROAD DANBURY, CT (203) 205-9000	PROJECT # 2011-200 FILENAME: 2035200A SCALE: NTS DATE: 1/15/02 BY: AD CK: FIGURE # MW-17
		DRAWING	GROUNDWATER OBSERVATION WELL DETAIL		

MW–18

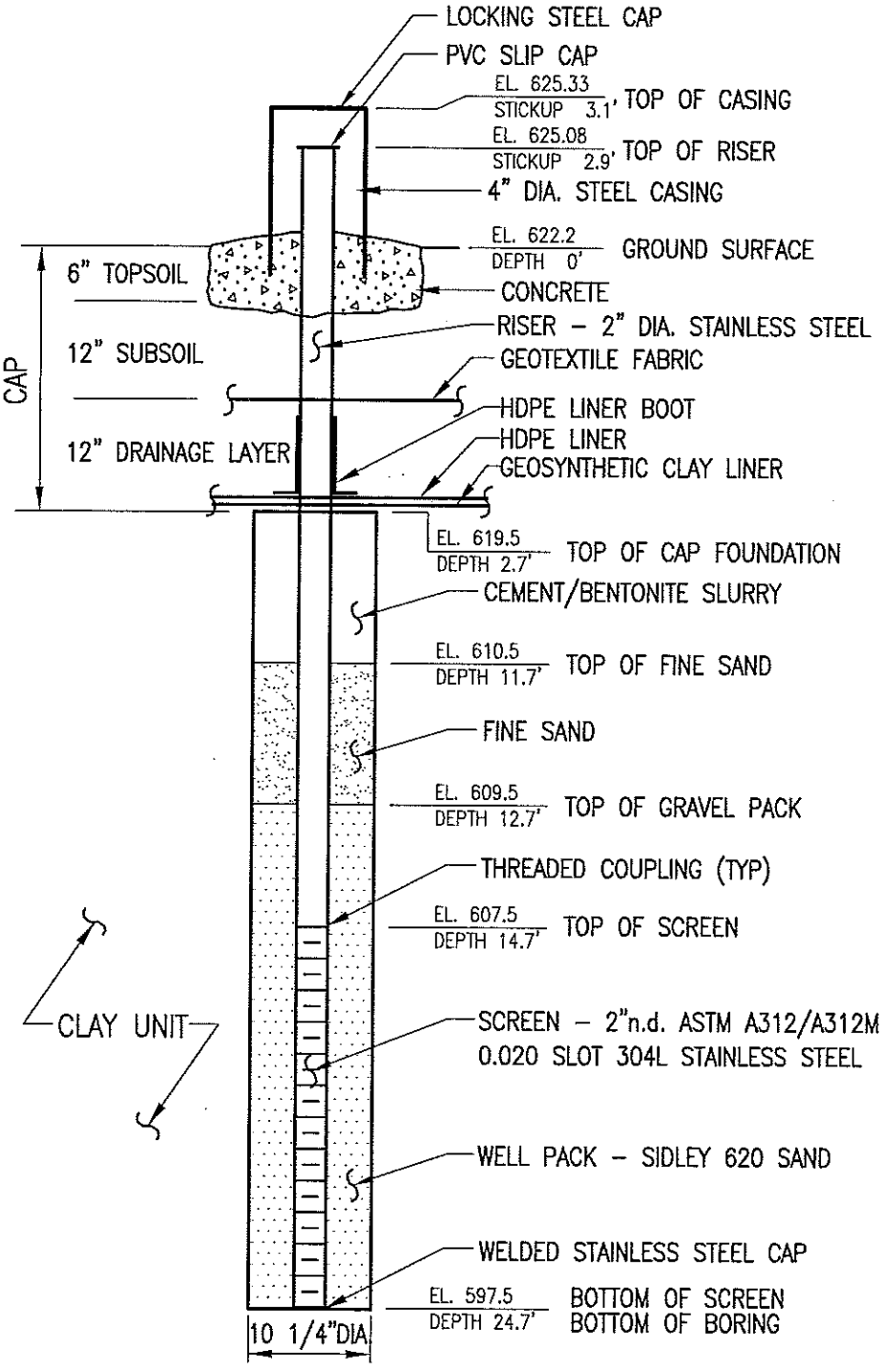


NOTE:

1. NOT DRAWN TO SCALE
2. SEE BORING LOG FOR DETAILED SOIL DESCRIPTION.

REVISION NO.		PROJECT	UNION ROAD CHEEKTOWAGA, NEW YORK	Unicorn Management Consultants, LLC 52 FEDERAL ROAD DANBURY, CT (203) 205-9000	PROJECT: 2011-200 FILENAME: 2035200A SCALE: NTS DATE: 1/15/02 BY: AD CK:
NO.	DATE	DRAWING	GROUNDWATER OBSERVATION WELL DETAIL		FIGURE # MW-18

MW–19

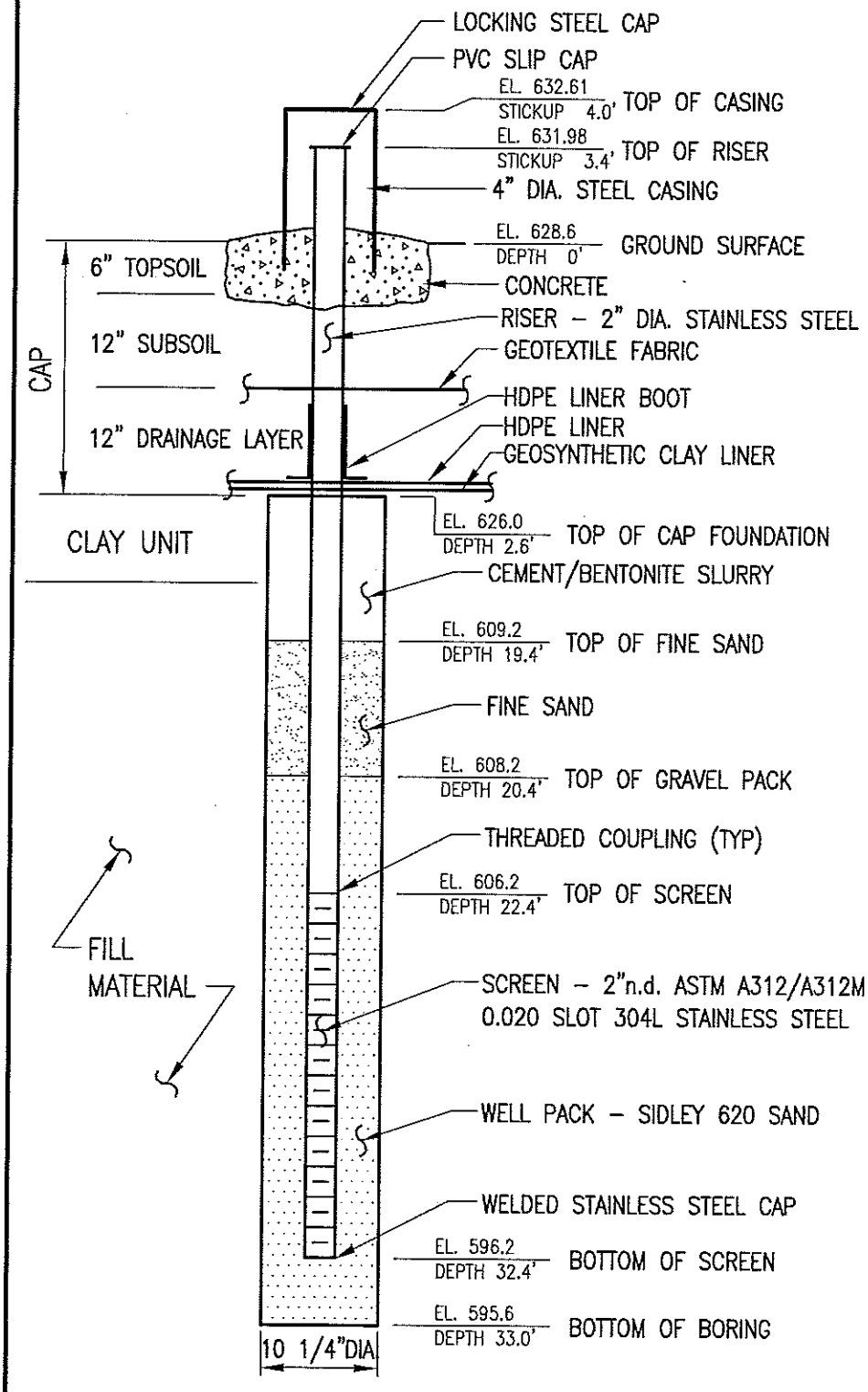


NOTE:

1. NOT DRAWN TO SCALE
2. SEE BORING LOG FOR DETAILED SOIL DESCRIPTION.

REVISION NO.		PROJECT	UNION ROAD CHEEKTOWAGA, NEW YORK	Unicorn Management Consultants, LLC 52 FEDERAL ROAD DANBURY, CT (203) 205-9000	PROJECT # 2011-200 FILENAME: 2035200A SCALE: NTS DATE: 1/15/02 BY: AD CK:
NO.	DATE				
		DRAWING	GROUNDWATER OBSERVATION WELL DETAIL		FIGURE # MW–19

MW-20



NOTE:

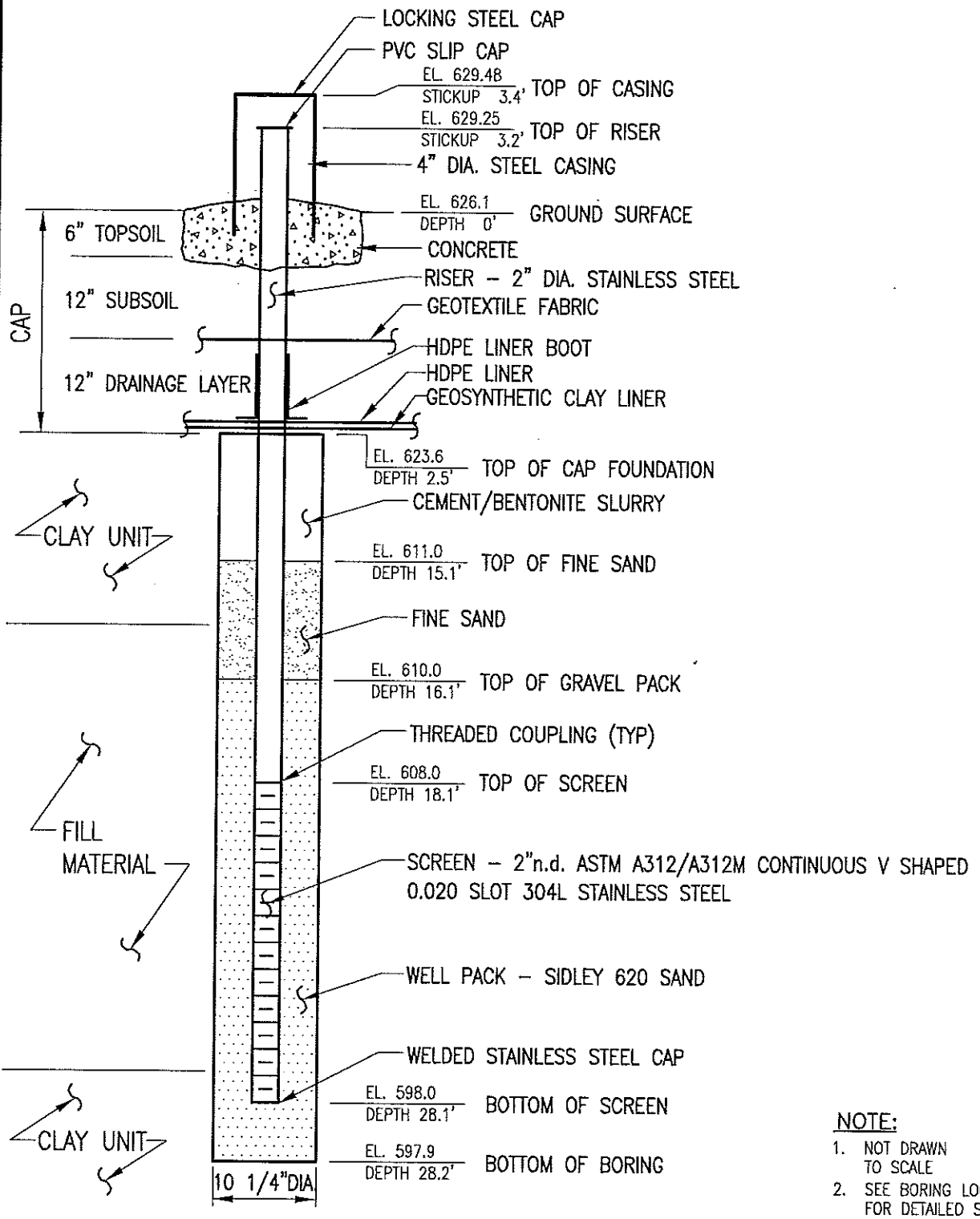
1. NOT DRAWN TO SCALE
2. SEE BORING LOG FOR DETAILED SOIL DESCRIPTION.

REVISION NO.				
NO.	DATE	PROJECT	UNION ROAD CHEEKTOWAGA, NEW YORK	
		DRAWING	GROUNDWATER OBSERVATION WELL DETAIL	

Unicorn Management Consultants, LLC
52 FEDERAL ROAD
DANBURY, CT
(203) 205-9000

PROJECT #	2011-200
FILENAME:	2035200A
SCALE:	NTS
DATE:	1/15/02
BY:	AD
CK:	
FIGURE #	MW-20

MW-21

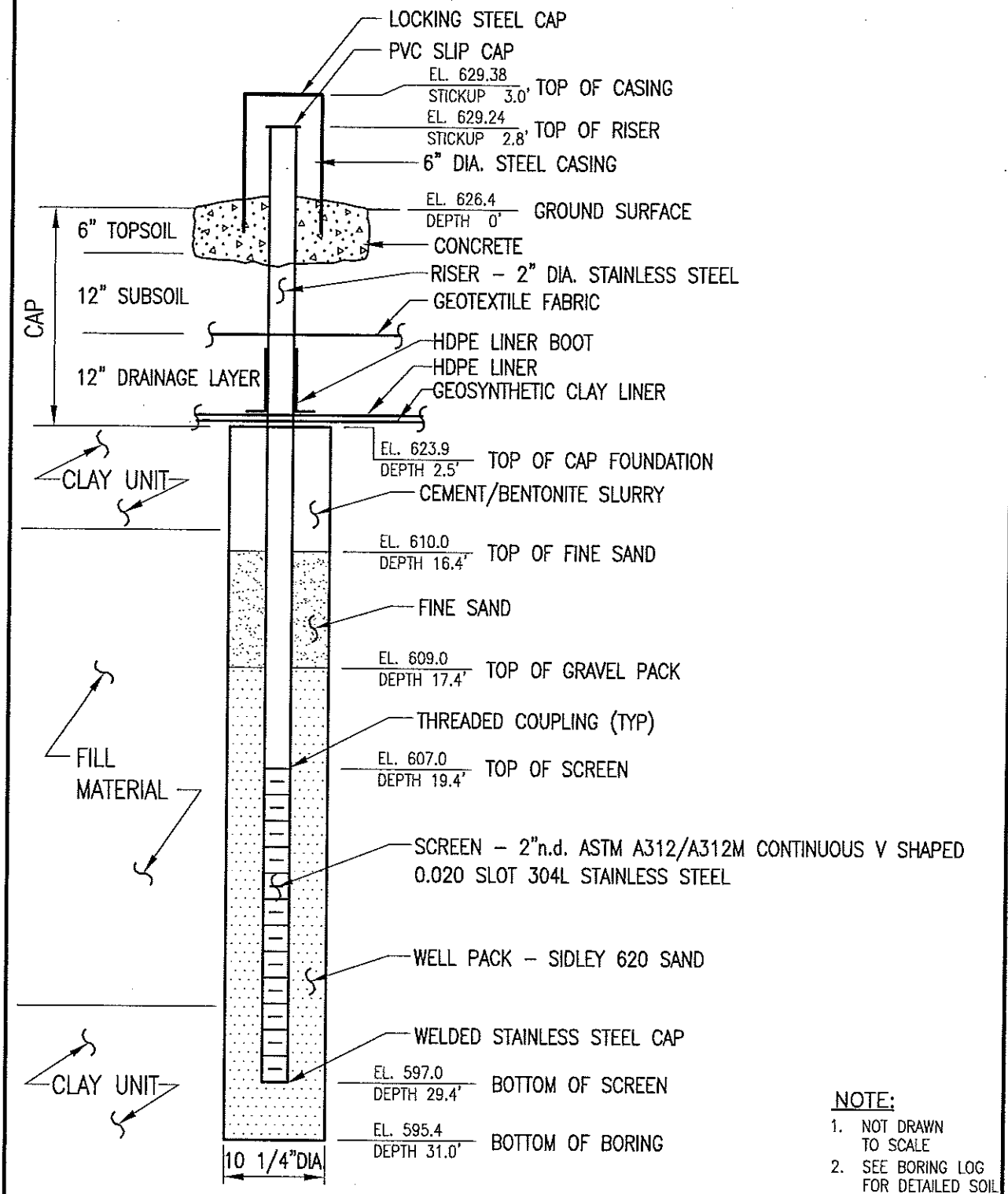


NOTE:

1. NOT DRAWN TO SCALE
2. SEE BORING LOG FOR DETAILED SOIL DESCRIPTION.

REVISION NO.		PROJECT	UNION ROAD CHEEKTOWAGA, NEW YORK	Unicorn Management Consultants, LLC 52 FEDERAL ROAD DANBURY, CT (203) 205-9000	PROJECT # 2011-200 FILENAME: 2035200A SCALE: NTS DATE: 1/15/02 BY: AD CK: FIGURE # MW-21
NO.	DATE				
		DRAWING	GROUNDWATER OBSERVATION WELL DETAIL		

MW-22

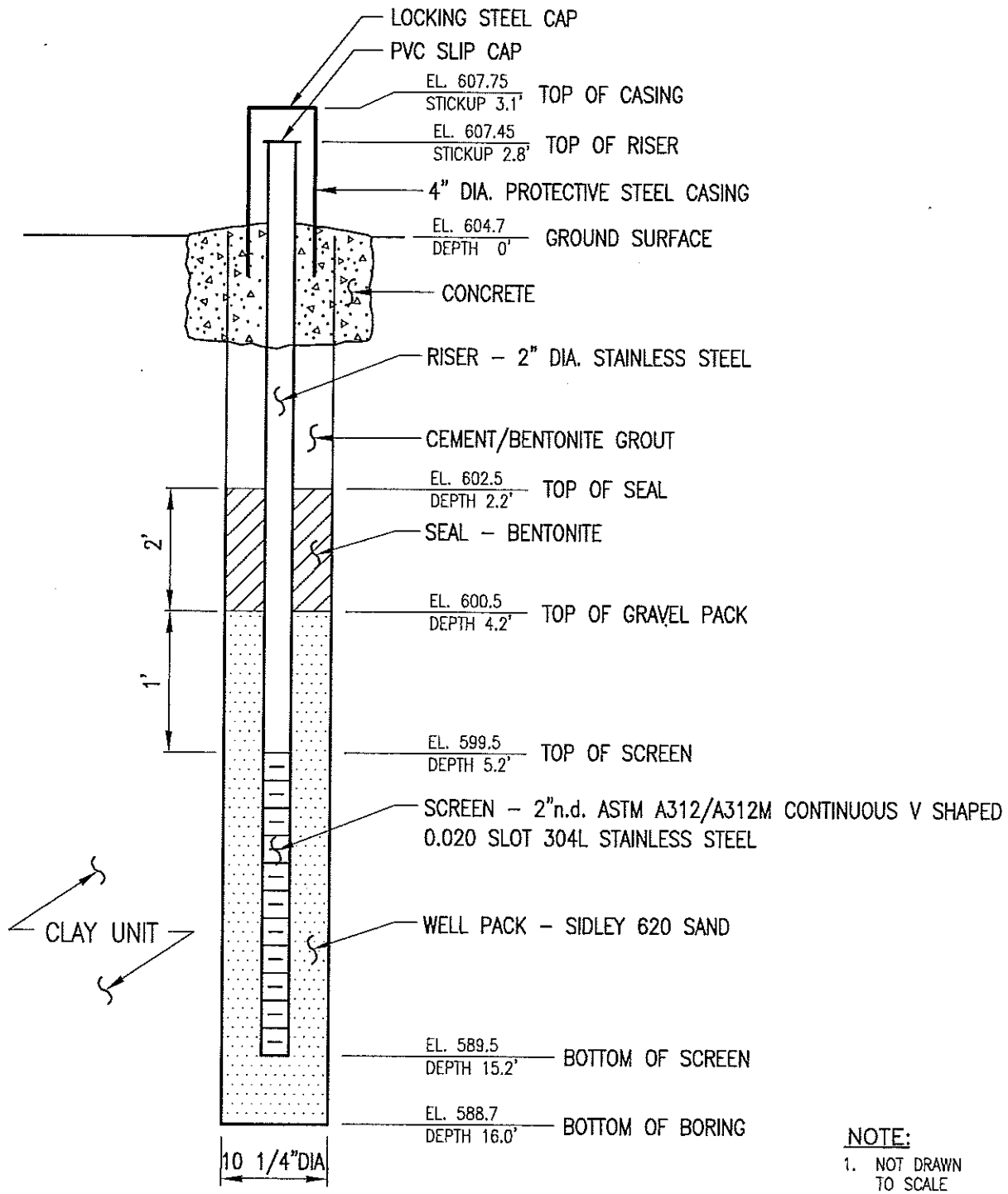


NOTE:

1. NOT DRAWN TO SCALE
2. SEE BORING LOG FOR DETAILED SOIL DESCRIPTION.

REVISION NO.		PROJECT	UNION ROAD CHEEKTOWAGA, NEW YORK	Unicorn Management Consultants, LLC 52 FEDERAL ROAD DANBURY, CT (203) 205-9000	PROJECT # 2011-200
NO.	DATE				FILENAME: 2036200A
		DRAWING	GROUNDWATER OBSERVATION WELL DETAIL		SCALE: NTS DATE: 1/15/02
					BY: AD CK:
					FIGURE # MW-22

MW-23S



NOTE:

1. NOT DRAWN TO SCALE
2. SEE BORING LOG FOR DETAILED SOIL DESCRIPTION.

REVISION NO.				
NO.	DATE			
		PROJECT	UNION ROAD CHEEKTOWAGA, NEW YORK	
		DRAWING	SHALLOW GROUNDWATER MONITORING WELL DETAIL	

Unicorn Management Consultants, LLC
52 FEDERAL ROAD
DANBURY, CT
(203) 205-9000

PROJECT #	2011-200
FILENAME:	2035200A
SCALE:	NTS
DATE:	1/15/02
BY:	AD
CK:	
FIGURE #	MW-23S

APPENDIX B

LABORATORY REPORT

Columbia Analytical Services™ 1 Mustard Street, Suite 250, Rochester, NY 14609-4925 · 585 288 5380 www.caslab.com

October 06, 2009 Service Request No: R0905245

Mr. Kerry Hanlon
Unicorn Management Consultants
52 Federal Road
Suite 2C
Danbury, CT 06810

Laboratory Results for: Union Rd #2011-100

Dear Mr. Hanlon:

Enclosed are the results of the sample(s) submitted to our laboratory on September 15, 2009. For your reference, these analyses have been assigned our service request number **R0905245**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please contact me if you have any questions. My extension is 134. You may also contact me via email at KBunker@caslab.com.

Respectfully submitted,

Columbia Analytical Services, Inc.

Karen Bunker
Project Manager

Client:	Unicorn Management Consultants	**Service Request No.:**	R0905245
Project:	Union Rd #2011	**Date Received:**	9/15/09
Sample Matrix:	Water		

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of Columbia Analytical Services, Inc. (CAS). This report contains analytical results for samples designated for Tier II data deliverables. When appropriate to the method, method blank results have been reported with each analytical test. Surrogate recoveries have been reported for all applicable organic analyses.

Sample Receipt

Eleven (11) samples were collected by the client on 9/14/09 and received for analysis at Columbia Analytical Services on 9/15/09. The samples were received unbroken at cooler temperatures of 2°, 4° and 6°C, within the 0-6°C guidelines.

Inorganics

Eleven (11) water samples were analyzed for a client specified list of Inorganics. See the attached pages for specific method numbers.

The initial and continuing calibrations criteria were met for all samples.

The Laboratory Method Blanks were free from contamination.

Site QC was not requested. All Laboratory Control Sample (LCS) recoveries were acceptable.

No other analytical or QC problems were encountered.

Volatile Organic Compounds by EPA Method 8260B

Eleven (11) water samples were analyzed for STARS List of Volatile Organics by Method 8260B from SW-846.

The initial and continuing calibrations criteria were met for all samples.

All BFB Tune requirements were met for the method.

Surrogate standard recoveries were within acceptance limits.

The Laboratory Method Blanks were free from contamination down.

Site QC was not requested. All Laboratory Control Sample (LCS) recoveries were acceptable.

The samples were found to be preserved at a pH of <2. The sample vials were checked after analysis in order to preserve the integrity of the sample. All samples were run within the method required 14 day holding time for preserved aliquots.

No other analytical or QC problems were encountered.

Approved by _____ **Date** 10/6/09

Extractable Organics

Eleven (11) water samples were analyzed for a client specified list by GCMS Method 8270C.

The initial and continuing calibrations criteria were met for all samples.

Surrogate standard recoveries were within acceptance limits on all samples. The method blank had surrogates 2,4,6-Tribromophenol, 2-Fluorobiphenyl and Nitrobenzene-d5 outside of the control limits low and have been flagged with a "*".

The Laboratory Method Blanks were free from contamination down.

Site QC was not requested. All Laboratory Control Sample (LCS) recoveries were acceptable.

No other problems were encountered during the analysis of these samples.

Approved by Patter **Date** 10/6/03

CASE NARRATIVE

This report contains analytical results for the following samples:
Service Request Number: R0905245

Lab ID	Client ID
R0905245-001	MW 10S
R0905245-002	MW 10M
R0905245-003	MW 10D
R0905245-004	MW 11M
R0905245-005	MW 11S
R0905245-006	MW 12S
R0905245-007	MW 12M
R0905245-008	MW 12D
R0905245-009	MW 13M
R0905245-010	MW 13S
R0905245-011	MW 14S

Columbia Analytical Services™

REPORT QUALIFIERS

U	Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.
J	Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Arclors).
B	Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.
E	Inorganics- Concentration is estimated due to the serial dilution was outside control limits.
E	Organics- Concentration has exceeded the calibration range for that specific analysis.
D	Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.
*	Indicates that a quality control parameter has exceeded laboratory limits.
#	Spike was diluted out.
+	Correlation coefficient for MSA is <0.995.
N	Inorganics- Matrix spike recovery was outside laboratory limits.
N	Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.
S	Concentration has been determined using Method of Standard Additions (MSA).
W	Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.
P	Pesticide/Aroclors: Concentration >40% (25% for CLP) difference between the two GC columns.
C	Confirmed by GC/MS
Q	DoD reports: indicates a pesticide/Aroclor is not confirmed (≥100% Difference between two GC columns).
X	See Case Narrative for discussion.

ACCREDITED IN ACCORDANCE WITH nelac

CAS/Rochester Lab ID # for State Certifications[1]

NELAP Accredited
Delaware Accredited
Connecticut ID # PH0556
Florida ID # E87674
Illinois ID #200047
Maine ID #NY0032
Nebraska Accredited
Navy Facilities Engineering Service Center Approved
Nevada ID # NY-00032
New Jersey ID # NY004
New York ID # 10145
New Hampshire ID # 294100 A/B
Pennsylvania ID# 68-786
Rhode Island ID # 158
West Virginia ID # 292

[1] Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to the certifications section at www.caslab.com.

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Unicorn Management Consultants	**Service Request:**	R0905245
Project:	Union Rd #2011-100	**Date Collected:**	9/14/09 1520
Sample Matrix:	Water	**Date Received:**	9/15/09
Sample Name:	MW 10S		
Lab Code:	R0905245-001	**Basis:**	NA

Oil and Grease, HEM Silica Gel Treated

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed
Oil and Grease, Nonpolar (SGT-HEM)	1664	4.7	U	mg/L	4.7	1	NA	9/24/09 07:30

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Unicorn Management Consultants	**Service Request:**	R0905245
Project:	Union Rd #2011-100	**Date Collected:**	9/14/09 1520
Sample Matrix:	Water	**Date Received:**	9/15/09
Sample Name:	MW 10S		
Lab Code:	R0905245-001	**Basis:**	NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed
Arsenic, Dissolved	6010B	0.010	U	mg/L	0.010	1	9/22/09	9/24/09 17:40
Lead, Dissolved	6010B	0.0050	U	mg/L	0.0050	1	9/22/09	9/24/09 17:40

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Unicorn Management Consultants
Project: Union Rd #2011-100
Sample Matrix: Water

Sample Name: MW 10S
Lab Code: R0905245-001

Service Request: R0905245
Date Collected: 9/14/09 1520
Date Received: 9/15/09

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Acetone	20	U	20	1	NA	9/23/09 13:48		171600	
Benzene	5.0	U	5.0	1	NA	9/23/09 13:48		171600	
Bromodichloromethane	5.0	U	5.0	1	NA	9/23/09 13:48		171600	
Bromoform	5.0	U	5.0	1	NA	9/23/09 13:48		171600	
Bromomethane	5.0	U	5.0	1	NA	9/23/09 13:48		171600	
2-Butanone (MEK)	10	U	10	1	NA	9/23/09 13:48		171600	
Carbon Disulfide	10	U	10	1	NA	9/23/09 13:48		171600	
Carbon Tetrachloride	5.0	U	5.0	1	NA	9/23/09 13:48		171600	
Chlorobenzene	5.0	U	5.0	1	NA	9/23/09 13:48		171600	
Chloroethane	5.0	U	5.0	1	NA	9/23/09 13:48		171600	
Chloroform	5.0	U	5.0	1	NA	9/23/09 13:48		171600	
Chloromethane	5.0	U	5.0	1	NA	9/23/09 13:48		171600	
Dibromochloromethane	5.0	U	5.0	1	NA	9/23/09 13:48		171600	
1,1-Dichloroethane	5.0	U	5.0	1	NA	9/23/09 13:48		171600	
1,2-Dichloroethane	5.0	U	5.0	1	NA	9/23/09 13:48		171600	
1,1-Dichloroethene	5.0	U	5.0	1	NA	9/23/09 13:48		171600	
cis-1,2-Dichloroethene	5.0	U	5.0	1	NA	9/23/09 13:48		171600	
trans-1,2-Dichloroethene	5.0	U	5.0	1	NA	9/23/09 13:48		171600	
1,2-Dichloropropane	5.0	U	5.0	1	NA	9/23/09 13:48		171600	
cis-1,3-Dichloropropene	5.0	U	5.0	1	NA	9/23/09 13:48		171600	
trans-1,3-Dichloropropene	5.0	U	5.0	1	NA	9/23/09 13:48		171600	
Ethylbenzene	5.0	U	5.0	1	NA	9/23/09 13:48		171600	
2-Hexanone	10	U	10	1	NA	9/23/09 13:48		171600	
Methylene Chloride	5.0	U	5.0	1	NA	9/23/09 13:48		171600	
4-Methyl-2-pentanone (MIBK)	10	U	10	1	NA	9/23/09 13:48		171600	
Styrene	5.0	U	5.0	1	NA	9/23/09 13:48		171600	
1,1,2,2-Tetrachloroethane	5.0	U	5.0	1	NA	9/23/09 13:48		171600	
Tetrachloroethene	5.0	U	5.0	1	NA	9/23/09 13:48		171600	
Toluene	5.0	U	5.0	1	NA	9/23/09 13:48		171600	
1,1,1-Trichloroethane	5.0	U	5.0	1	NA	9/23/09 13:48		171600	
1,1,2-Trichloroethane	5.0	U	5.0	1	NA	9/23/09 13:48		171600	
Trichloroethene	5.0	U	5.0	1	NA	9/23/09 13:48		171600	
Vinyl Chloride	5.0	U	5.0	1	NA	9/23/09 13:48		171600	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Unicorn Management Consultants	**Service Request:**	R0905245
Project:	Union Rd #2011-100	**Date Collected:**	9/14/09 1520
Sample Matrix:	Water	**Date Received:**	9/15/09
Sample Name:	MW 10S	**Units:**	µg/L
Lab Code:	R0905245-001	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
o-Xylene	5.0	U	5.0	1	NA	9/23/09 13:48		171600	
m,p-Xylenes	5.0	U	5.0	1	NA	9/23/09 13:48		171600	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
4-Bromofluorobenzene	107	85-122	9/23/09 13:48		
Toluene-d8	104	87-121	9/23/09 13:48		
Dibromofluoromethane	114	89-119	9/23/09 13:48		

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Unicorn Management Consultants
Project: Union Rd #2011-100
Sample Matrix: Water

Sample Name: MW 10S
Lab Code: R0905245-001

Service Request: R0905245
Date Collected: 9/14/09 1520
Date Received: 9/15/09

Units: µg/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270C
Prep Method: EPA 3510C

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,2,4-Trichlorobenzene	9.4	U	9.4	1	9/17/09	9/21/09 14:10	96208	171359	
1,2-Dichlorobenzene	9.4	U	9.4	1	9/17/09	9/21/09 14:10	96208	171359	
1,3-Dichlorobenzene	9.4	U	9.4	1	9/17/09	9/21/09 14:10	96208	171359	
1,4-Dichlorobenzene	9.4	U	9.4	1	9/17/09	9/21/09 14:10	96208	171359	
2,4,5-Trichlorophenol	9.4	U	9.4	1	9/17/09	9/21/09 14:10	96208	171359	
2,4,6-Trichlorophenol	9.4	U	9.4	1	9/17/09	9/21/09 14:10	96208	171359	
2,4-Dichlorophenol	9.4	U	9.4	1	9/17/09	9/21/09 14:10	96208	171359	
2,4-Dimethylphenol	9.4	U	9.4	1	9/17/09	9/21/09 14:10	96208	171359	
2,4-Dinitrophenol	47	U	47	1	9/17/09	9/21/09 14:10	96208	171359	
2,4-Dinitrotoluene	9.4	U	9.4	1	9/17/09	9/21/09 14:10	96208	171359	
2,6-Dinitrotoluene	9.4	U	9.4	1	9/17/09	9/21/09 14:10	96208	171359	
2-Chloronaphthalene	9.4	U	9.4	1	9/17/09	9/21/09 14:10	96208	171359	
2-Chlorophenol	9.4	U	9.4	1	9/17/09	9/21/09 14:10	96208	171359	
2-Methylnaphthalene	9.4	U	9.4	1	9/17/09	9/21/09 14:10	96208	171359	
2-Methylphenol	9.4	U	9.4	1	9/17/09	9/21/09 14:10	96208	171359	
2-Nitroaniline	47	U	47	1	9/17/09	9/21/09 14:10	96208	171359	
2-Nitrophenol	9.4	U	9.4	1	9/17/09	9/21/09 14:10	96208	171359	
3,3'-Dichlorobenzidine	9.4	U	9.4	1	9/17/09	9/21/09 14:10	96208	171359	
3- and 4-Methylphenol Coelution	9.4	U	9.4	1	9/17/09	9/21/09 14:10	96208	171359	
3-Nitroaniline	47	U	47	1	9/17/09	9/21/09 14:10	96208	171359	
4,6-Dinitro-2-methylphenol	47	U	47	1	9/17/09	9/21/09 14:10	96208	171359	
4-Bromophenyl Phenyl Ether	9.4	U	9.4	1	9/17/09	9/21/09 14:10	96208	171359	
4-Chloro-3-methylphenol	9.4	U	9.4	1	9/17/09	9/21/09 14:10	96208	171359	
4-Chloroaniline	9.4	U	9.4	1	9/17/09	9/21/09 14:10	96208	171359	
4-Chlorophenyl Phenyl Ether	9.4	U	9.4	1	9/17/09	9/21/09 14:10	96208	171359	
4-Nitroaniline	47	U	47	1	9/17/09	9/21/09 14:10	96208	171359	
4-Nitrophenol	47	U	47	1	9/17/09	9/21/09 14:10	96208	171359	
Acenaphthene	9.4	U	9.4	1	9/17/09	9/21/09 14:10	96208	171359	
Acenaphthylene	9.4	U	9.4	1	9/17/09	9/21/09 14:10	96208	171359	
Anthracene	9.4	U	9.4	1	9/17/09	9/21/09 14:10	96208	171359	
Benz(a)anthracene	9.4	U	9.4	1	9/17/09	9/21/09 14:10	96208	171359	
Benzo(a)pyrene	9.4	U	9.4	1	9/17/09	9/21/09 14:10	96208	171359	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Unicorn Management Consultants
Project: Union Rd #2011-100
Sample Matrix: Water

Sample Name: MW 10S
Lab Code: R0905245-001

Service Request: R0905245
Date Collected: 9/14/09 1520
Date Received: 9/15/09

Units: µg/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270C
Prep Method: EPA 3510C

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Benzo(b)fluoranthene	9.4	U	9.4	1	9/17/09	9/21/09 14:10	96208	171359	
Benzo(g,h,i)perylene	9.4	U	9.4	1	9/17/09	9/21/09 14:10	96208	171359	
Benzo(k)fluoranthene	9.4	U	9.4	1	9/17/09	9/21/09 14:10	96208	171359	
Benzyl Alcohol	9.4	U	9.4	1	9/17/09	9/21/09 14:10	96208	171359	
2,2'-Oxybis(1-chloropropane)	9.4	U	9.4	1	9/17/09	9/21/09 14:10	96208	171359	
Bis(2-chloroethoxy)methane	9.4	U	9.4	1	9/17/09	9/21/09 14:10	96208	171359	
Bis(2-chloroethyl) Ether	9.4	U	9.4	1	9/17/09	9/21/09 14:10	96208	171359	
Bis(2-ethylhexyl) Phthalate	9.4	U	9.4	1	9/17/09	9/21/09 14:10	96208	171359	
Butyl Benzyl Phthalate	9.4	U	9.4	1	9/17/09	9/21/09 14:10	96208	171359	
Carbazole	9.4	U	9.4	1	9/17/09	9/21/09 14:10	96208	171359	
Chrysene	9.4	U	9.4	1	9/17/09	9/21/09 14:10	96208	171359	
Di-n-butyl Phthalate	9.4	U	9.4	1	9/17/09	9/21/09 14:10	96208	171359	
Di-n-octyl Phthalate	9.4	U	9.4	1	9/17/09	9/21/09 14:10	96208	171359	
Dibenz(a,h)anthracene	9.4	U	9.4	1	9/17/09	9/21/09 14:10	96208	171359	
Dibenzofuran	9.4	U	9.4	1	9/17/09	9/21/09 14:10	96208	171359	
Diethyl Phthalate	9.4	U	9.4	1	9/17/09	9/21/09 14:10	96208	171359	
Dimethyl Phthalate	9.4	U	9.4	1	9/17/09	9/21/09 14:10	96208	171359	
Fluoranthene	9.4	U	9.4	1	9/17/09	9/21/09 14:10	96208	171359	
Fluorene	9.4	U	9.4	1	9/17/09	9/21/09 14:10	96208	171359	
Hexachlorobenzene	9.4	U	9.4	1	9/17/09	9/21/09 14:10	96208	171359	
Hexachlorobutadiene	9.4	U	9.4	1	9/17/09	9/21/09 14:10	96208	171359	
Hexachlorocyclopentadiene	9.4	U	9.4	1	9/17/09	9/21/09 14:10	96208	171359	
Hexachloroethane	9.4	U	9.4	1	9/17/09	9/21/09 14:10	96208	171359	
Indeno(1,2,3-cd)pyrene	9.4	U	9.4	1	9/17/09	9/21/09 14:10	96208	171359	
Isophorone	9.4	U	9.4	1	9/17/09	9/21/09 14:10	96208	171359	
N-Nitrosodi-n-propylamine	9.4	U	9.4	1	9/17/09	9/21/09 14:10	96208	171359	
N-Nitrosodimethylamine	9.4	U	9.4	1	9/17/09	9/21/09 14:10	96208	171359	
N-Nitrosodiphenylamine	9.4	U	9.4	1	9/17/09	9/21/09 14:10	96208	171359	
Naphthalene	9.4	U	9.4	1	9/17/09	9/21/09 14:10	96208	171359	
Nitrobenzene	9.4	U	9.4	1	9/17/09	9/21/09 14:10	96208	171359	
Pentachlorophenol (PCP)	47	U	47	1	9/17/09	9/21/09 14:10	96208	171359	
Phenanthrene	9.4	U	9.4	1	9/17/09	9/21/09 14:10	96208	171359	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Unicorn Management Consultants	**Service Request:**	R0905245
Project:	Union Rd #2011-100	**Date Collected:**	9/14/09 1520
Sample Matrix:	Water	**Date Received:**	9/15/09
Sample Name:	MW 10S	**Units:**	µg/L
Lab Code:	R0905245-001	**Basis:**	NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270C
Prep Method: EPA 3510C

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Phenol	9.4	U	9.4	1	9/17/09	9/21/09 14:10	96208	171359	
Pyrene	9.4	U	9.4	1	9/17/09	9/21/09 14:10	96208	171359	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
2,4,6-Tribromophenol	100	46-134	9/21/09 14:10		
2-Fluorobiphenyl	81	46-110	9/21/09 14:10		
2-Fluorophenol	49	12-84	9/21/09 14:10		
Nitrobenzene-d5	83	44-117	9/21/09 14:10		
Phenol-d6	32	10-70	9/21/09 14:10		
p-Terphenyl-d14	97	40-133	9/21/09 14:10		

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Unicorn Management Consultants	**Service Request:**	R0905245
Project:	Union Rd #2011-100	**Date Collected:**	9/14/09 1500
Sample Matrix:	Water	**Date Received:**	9/15/09
Sample Name:	MW 10M		
Lab Code:	R0905245-002	**Basis:**	NA

Oil and Grease, HEM Silica Gel Treated

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed
Oil and Grease, Nonpolar (SGT-HEM)	1664	4.8	U	mg/L	4.8	1	NA	9/24/09 07:30

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Unicorn Management Consultants	**Service Request:**	R0905245
Project:	Union Rd #2011-100	**Date Collected:**	9/14/09 1500
Sample Matrix:	Water	**Date Received:**	9/15/09
Sample Name:	MW 10M		
Lab Code:	R0905245-002	**Basis:**	NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed
Arsenic, Dissolved	6010B	0.010	U	mg/L	0.010	1	9/22/09	9/24/09 18:21
Lead, Dissolved	6010B	0.0050	U	mg/L	0.0050	1	9/22/09	9/24/09 18:21

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Unicorn Management Consultants
Project: Union Rd #2011-100
Sample Matrix: Water

Sample Name: MW 10M
Lab Code: R0905245-002

Service Request: R0905245
Date Collected: 9/14/09 1500
Date Received: 9/15/09

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Acetone	20	U	20	1	NA	9/23/09 14:17		171600	
Benzene	5.0	U	5.0	1	NA	9/23/09 14:17		171600	
Bromodichloromethane	5.0	U	5.0	1	NA	9/23/09 14:17		171600	
Bromoform	5.0	U	5.0	1	NA	9/23/09 14:17		171600	
Bromomethane	5.0	U	5.0	1	NA	9/23/09 14:17		171600	
2-Butanone (MEK)	10	U	10	1	NA	9/23/09 14:17		171600	
Carbon Disulfide	10	U	10	1	NA	9/23/09 14:17		171600	
Carbon Tetrachloride	5.0	U	5.0	1	NA	9/23/09 14:17		171600	
Chlorobenzene	5.0	U	5.0	1	NA	9/23/09 14:17		171600	
Chloroethane	5.0	U	5.0	1	NA	9/23/09 14:17		171600	
Chloroform	5.0	U	5.0	1	NA	9/23/09 14:17		171600	
Chloromethane	5.0	U	5.0	1	NA	9/23/09 14:17		171600	
Dibromochloromethane	5.0	U	5.0	1	NA	9/23/09 14:17		171600	
1,1-Dichloroethane	5.0	U	5.0	1	NA	9/23/09 14:17		171600	
1,2-Dichloroethane	5.0	U	5.0	1	NA	9/23/09 14:17		171600	
1,1-Dichloroethene	5.0	U	5.0	1	NA	9/23/09 14:17		171600	
cis-1,2-Dichloroethene	5.0	U	5.0	1	NA	9/23/09 14:17		171600	
trans-1,2-Dichloroethene	5.0	U	5.0	1	NA	9/23/09 14:17		171600	
1,2-Dichloropropane	5.0	U	5.0	1	NA	9/23/09 14:17		171600	
cis-1,3-Dichloropropene	5.0	U	5.0	1	NA	9/23/09 14:17		171600	
trans-1,3-Dichloropropene	5.0	U	5.0	1	NA	9/23/09 14:17		171600	
Ethylbenzene	5.0	U	5.0	1	NA	9/23/09 14:17		171600	
2-Hexanone	10	U	10	1	NA	9/23/09 14:17		171600	
Methylene Chloride	5.0	U	5.0	1	NA	9/23/09 14:17		171600	
4-Methyl-2-pentanone (MIBK)	10	U	10	1	NA	9/23/09 14:17		171600	
Styrene	5.0	U	5.0	1	NA	9/23/09 14:17		171600	
1,1,2,2-Tetrachloroethane	5.0	U	5.0	1	NA	9/23/09 14:17		171600	
Tetrachloroethene	5.0	U	5.0	1	NA	9/23/09 14:17		171600	
Toluene	5.0	U	5.0	1	NA	9/23/09 14:17		171600	
1,1,1-Trichloroethane	5.0	U	5.0	1	NA	9/23/09 14:17		171600	
1,1,2-Trichloroethane	5.0	U	5.0	1	NA	9/23/09 14:17		171600	
Trichloroethene	5.0	U	5.0	1	NA	9/23/09 14:17		171600	
Vinyl Chloride	5.0	U	5.0	1	NA	9/23/09 14:17		171600	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Unicorn Management Consultants	**Service Request:**	R0905245
Project:	Union Rd #2011-100	**Date Collected:**	9/14/09 1500
Sample Matrix:	Water	**Date Received:**	9/15/09
Sample Name:	MW 10M	**Units:**	µg/L
Lab Code:	R0905245-002	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
o-Xylene	5.0	U	5.0	1	NA	9/23/09 14:17		171600	
m,p-Xylenes	5.0	U	5.0	1	NA	9/23/09 14:17		171600	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
4-Bromofluorobenzene	107	85-122	9/23/09 14:17		
Toluene-d8	103	87-121	9/23/09 14:17		
Dibromofluoromethane	110	89-119	9/23/09 14:17		

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Unicorn Management Consultants	**Service Request:**	R0905245
Project:	Union Rd #2011-100	**Date Collected:**	9/14/09 1500
Sample Matrix:	Water	**Date Received:**	9/15/09
Sample Name:	MW 10M	**Units:**	µg/L
Lab Code:	R0905245-002	**Basis:**	NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270C
Prep Method: EPA 3510C

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,2,4-Trichlorobenzene	9.4	U	9.4	1	9/17/09	9/21/09 14:50	96208	171359	
1,2-Dichlorobenzene	9.4	U	9.4	1	9/17/09	9/21/09 14:50	96208	171359	
1,3-Dichlorobenzene	9.4	U	9.4	1	9/17/09	9/21/09 14:50	96208	171359	
1,4-Dichlorobenzene	9.4	U	9.4	1	9/17/09	9/21/09 14:50	96208	171359	
2,4,5-Trichlorophenol	9.4	U	9.4	1	9/17/09	9/21/09 14:50	96208	171359	
2,4,6-Trichlorophenol	9.4	U	9.4	1	9/17/09	9/21/09 14:50	96208	171359	
2,4-Dichlorophenol	9.4	U	9.4	1	9/17/09	9/21/09 14:50	96208	171359	
2,4-Dimethylphenol	9.4	U	9.4	1	9/17/09	9/21/09 14:50	96208	171359	
2,4-Dinitrophenol	47	U	47	1	9/17/09	9/21/09 14:50	96208	171359	
2,4-Dinitrotoluene	9.4	U	9.4	1	9/17/09	9/21/09 14:50	96208	171359	
2,6-Dinitrotoluene	9.4	U	9.4	1	9/17/09	9/21/09 14:50	96208	171359	
2-Chloronaphthalene	9.4	U	9.4	1	9/17/09	9/21/09 14:50	96208	171359	
2-Chlorophenol	9.4	U	9.4	1	9/17/09	9/21/09 14:50	96208	171359	
2-Methylnaphthalene	9.4	U	9.4	1	9/17/09	9/21/09 14:50	96208	171359	
2-Methylphenol	9.4	U	9.4	1	9/17/09	9/21/09 14:50	96208	171359	
2-Nitroaniline	47	U	47	1	9/17/09	9/21/09 14:50	96208	171359	
2-Nitrophenol	9.4	U	9.4	1	9/17/09	9/21/09 14:50	96208	171359	
3,3'-Dichlorobenzidine	9.4	U	9.4	1	9/17/09	9/21/09 14:50	96208	171359	
3- and 4-Methylphenol Coelution	9.4	U	9.4	1	9/17/09	9/21/09 14:50	96208	171359	
3-Nitroaniline	47	U	47	1	9/17/09	9/21/09 14:50	96208	171359	
4,6-Dinitro-2-methylphenol	47	U	47	1	9/17/09	9/21/09 14:50	96208	171359	
4-Bromophenyl Phenyl Ether	9.4	U	9.4	1	9/17/09	9/21/09 14:50	96208	171359	
4-Chloro-3-methylphenol	9.4	U	9.4	1	9/17/09	9/21/09 14:50	96208	171359	
4-Chloroaniline	9.4	U	9.4	1	9/17/09	9/21/09 14:50	96208	171359	
4-Chlorophenyl Phenyl Ether	9.4	U	9.4	1	9/17/09	9/21/09 14:50	96208	171359	
4-Nitroaniline	47	U	47	1	9/17/09	9/21/09 14:50	96208	171359	
4-Nitrophenol	47	U	47	1	9/17/09	9/21/09 14:50	96208	171359	
Acenaphthene	9.4	U	9.4	1	9/17/09	9/21/09 14:50	96208	171359	
Acenaphthylene	9.4	U	9.4	1	9/17/09	9/21/09 14:50	96208	171359	
Anthracene	9.4	U	9.4	1	9/17/09	9/21/09 14:50	96208	171359	
Benz(a)anthracene	9.4	U	9.4	1	9/17/09	9/21/09 14:50	96208	171359	
Benzo(a)pyrene	9.4	U	9.4	1	9/17/09	9/21/09 14:50	96208	171359	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Unicorn Management Consultants
Project: Union Rd #2011-100
Sample Matrix: Water

Sample Name: MW 10M
Lab Code: R0905245-002

Service Request: R0905245
Date Collected: 9/14/09 1500
Date Received: 9/15/09

Units: µg/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270C
Prep Method: EPA 3510C

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Benzo(b)fluoranthene	9.4	U	9.4	1	9/17/09	9/21/09 14:50	96208	171359	
Benzo(g,h,i)perylene	9.4	U	9.4	1	9/17/09	9/21/09 14:50	96208	171359	
Benzo(k)fluoranthene	9.4	U	9.4	1	9/17/09	9/21/09 14:50	96208	171359	
Benzyl Alcohol	9.4	U	9.4	1	9/17/09	9/21/09 14:50	96208	171359	
2,2'-Oxybis(1-chloropropane)	9.4	U	9.4	1	9/17/09	9/21/09 14:50	96208	171359	
Bis(2-chloroethoxy)methane	9.4	U	9.4	1	9/17/09	9/21/09 14:50	96208	171359	
Bis(2-chloroethyl) Ether	9.4	U	9.4	1	9/17/09	9/21/09 14:50	96208	171359	
Bis(2-ethylhexyl) Phthalate	9.4	U	9.4	1	9/17/09	9/21/09 14:50	96208	171359	
Butyl Benzyl Phthalate	9.4	U	9.4	1	9/17/09	9/21/09 14:50	96208	171359	
Carbazole	9.4	U	9.4	1	9/17/09	9/21/09 14:50	96208	171359	
Chrysene	9.4	U	9.4	1	9/17/09	9/21/09 14:50	96208	171359	
Di-n-butyl Phthalate	9.4	U	9.4	1	9/17/09	9/21/09 14:50	96208	171359	
Di-n-octyl Phthalate	9.4	U	9.4	1	9/17/09	9/21/09 14:50	96208	171359	
Dibenz(a,h)anthracene	9.4	U	9.4	1	9/17/09	9/21/09 14:50	96208	171359	
Dibenzofuran	9.4	U	9.4	1	9/17/09	9/21/09 14:50	96208	171359	
Diethyl Phthalate	9.4	U	9.4	1	9/17/09	9/21/09 14:50	96208	171359	
Dimethyl Phthalate	9.4	U	9.4	1	9/17/09	9/21/09 14:50	96208	171359	
Fluoranthene	9.4	U	9.4	1	9/17/09	9/21/09 14:50	96208	171359	
Fluorene	9.4	U	9.4	1	9/17/09	9/21/09 14:50	96208	171359	
Hexachlorobenzene	9.4	U	9.4	1	9/17/09	9/21/09 14:50	96208	171359	
Hexachlorobutadiene	9.4	U	9.4	1	9/17/09	9/21/09 14:50	96208	171359	
Hexachlorocyclopentadiene	9.4	U	9.4	1	9/17/09	9/21/09 14:50	96208	171359	
Hexachloroethane	9.4	U	9.4	1	9/17/09	9/21/09 14:50	96208	171359	
Indeno(1,2,3-cd)pyrene	9.4	U	9.4	1	9/17/09	9/21/09 14:50	96208	171359	
Isophorone	9.4	U	9.4	1	9/17/09	9/21/09 14:50	96208	171359	
N-Nitrosodi-n-propylamine	9.4	U	9.4	1	9/17/09	9/21/09 14:50	96208	171359	
N-Nitrosodimethylamine	9.4	U	9.4	1	9/17/09	9/21/09 14:50	96208	171359	
N-Nitrosodiphenylamine	9.4	U	9.4	1	9/17/09	9/21/09 14:50	96208	171359	
Naphthalene	9.4	U	9.4	1	9/17/09	9/21/09 14:50	96208	171359	
Nitrobenzene	9.4	U	9.4	1	9/17/09	9/21/09 14:50	96208	171359	
Pentachlorophenol (PCP)	47	U	47	1	9/17/09	9/21/09 14:50	96208	171359	
Phenanthrene	9.4	U	9.4	1	9/17/09	9/21/09 14:50	96208	171359	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Unicorn Management Consultants
Project: Union Rd #2011-100
Sample Matrix: Water

Sample Name: MW 10M
Lab Code: R0905245-002

Service Request: R0905245
Date Collected: 9/14/09 1500
Date Received: 9/15/09

Units: µg/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270C
Prep Method: EPA 3510C

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Phenol	9.4	U	9.4	1	9/17/09	9/21/09 14:50	96208	171359	
Pyrene	9.4	U	9.4	1	9/17/09	9/21/09 14:50	96208	171359	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
2,4,6-Tribromophenol	98	46-134	9/21/09 14:50		
2-Fluorobiphenyl	81	46-110	9/21/09 14:50		
2-Fluorophenol	47	12-84	9/21/09 14:50		
Nitrobenzene-d5	80	44-117	9/21/09 14:50		
Phenol-d6	31	10-70	9/21/09 14:50		
p-Terphenyl-d14	101	40-133	9/21/09 14:50		

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Unicorn Management Consultants	**Service Request:**	R0905245
Project:	Union Rd #2011-100	**Date Collected:**	9/14/09 0930
Sample Matrix:	Water	**Date Received:**	9/15/09
Sample Name:	MW 10D		
Lab Code:	R0905245-003	**Basis:**	NA

Oil and Grease, HEM Silica Gel Treated

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed
Oil and Grease, Nonpolar (SGT-HEM)	1664	4.7	U	mg/L	4.7	1	NA	9/24/09 07:30

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Unicorn Management Consultants	**Service Request:**	R0905245
Project:	Union Rd #2011-100	**Date Collected:**	9/14/09 0930
Sample Matrix:	Water	**Date Received:**	9/15/09
Sample Name:	MW 10D		
Lab Code:	R0905245-003	**Basis:**	NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed
Arsenic, Dissolved	6010B	0.010	U	mg/L	0.010	1	9/22/09	9/24/09 18:27
Lead, Dissolved	6010B	0.0050	U	mg/L	0.0050	1	9/22/09	9/24/09 18:27

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Unicorn Management Consultants	**Service Request:**	R0905245
Project:	Union Rd #2011-100	**Date Collected:**	9/14/09 0930
Sample Matrix:	Water	**Date Received:**	9/15/09
Sample Name:	MW 10D	**Units:**	µg/L
Lab Code:	R0905245-003	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Acetone	20	U	20	1	NA	9/23/09 14:45		171600	
Benzene	5.0	U	5.0	1	NA	9/23/09 14:45		171600	
Bromodichloromethane	5.0	U	5.0	1	NA	9/23/09 14:45		171600	
Bromoform	5.0	U	5.0	1	NA	9/23/09 14:45		171600	
Bromomethane	5.0	U	5.0	1	NA	9/23/09 14:45		171600	
2-Butanone (MEK)	10	U	10	1	NA	9/23/09 14:45		171600	
Carbon Disulfide	10	U	10	1	NA	9/23/09 14:45		171600	
Carbon Tetrachloride	5.0	U	5.0	1	NA	9/23/09 14:45		171600	
Chlorobenzene	5.0	U	5.0	1	NA	9/23/09 14:45		171600	
Chloroethane	5.0	U	5.0	1	NA	9/23/09 14:45		171600	
Chloroform	5.0	U	5.0	1	NA	9/23/09 14:45		171600	
Chloromethane	5.0	U	5.0	1	NA	9/23/09 14:45		171600	
Dibromochloromethane	5.0	U	5.0	1	NA	9/23/09 14:45		171600	
1,1-Dichloroethane	5.0	U	5.0	1	NA	9/23/09 14:45		171600	
1,2-Dichloroethane	5.0	U	5.0	1	NA	9/23/09 14:45		171600	
1,1-Dichloroethene	5.0	U	5.0	1	NA	9/23/09 14:45		171600	
cis-1,2-Dichloroethene	5.0	U	5.0	1	NA	9/23/09 14:45		171600	
trans-1,2-Dichloroethene	5.0	U	5.0	1	NA	9/23/09 14:45		171600	
1,2-Dichloropropane	5.0	U	5.0	1	NA	9/23/09 14:45		171600	
cis-1,3-Dichloropropene	5.0	U	5.0	1	NA	9/23/09 14:45		171600	
trans-1,3-Dichloropropene	5.0	U	5.0	1	NA	9/23/09 14:45		171600	
Ethylbenzene	5.0	U	5.0	1	NA	9/23/09 14:45		171600	
2-Hexanone	10	U	10	1	NA	9/23/09 14:45		171600	
Methylene Chloride	5.0	U	5.0	1	NA	9/23/09 14:45		171600	
4-Methyl-2-pentanone (MIBK)	10	U	10	1	NA	9/23/09 14:45		171600	
Styrene	5.0	U	5.0	1	NA	9/23/09 14:45		171600	
1,1,2,2-Tetrachloroethane	5.0	U	5.0	1	NA	9/23/09 14:45		171600	
Tetrachloroethene	5.0	U	5.0	1	NA	9/23/09 14:45		171600	
Toluene	5.0	U	5.0	1	NA	9/23/09 14:45		171600	
1,1,1-Trichloroethane	5.0	U	5.0	1	NA	9/23/09 14:45		171600	
1,1,2-Trichloroethane	5.0	U	5.0	1	NA	9/23/09 14:45		171600	
Trichloroethene	5.0	U	5.0	1	NA	9/23/09 14:45		171600	
Vinyl Chloride	5.0	U	5.0	1	NA	9/23/09 14:45		171600	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Unicorn Management Consultants	**Service Request:**	R0905245
Project:	Union Rd #2011-100	**Date Collected:**	9/14/09 0930
Sample Matrix:	Water	**Date Received:**	9/15/09
Sample Name:	MW 10D	**Units:**	µg/L
Lab Code:	R0905245-003	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
o-Xylene	5.0	U	5.0	1	NA	9/23/09 14:45		171600	
m,p-Xylenes	5.0	U	5.0	1	NA	9/23/09 14:45		171600	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
4-Bromofluorobenzene	105	85-122	9/23/09 14:45		
Toluene-d8	102	87-121	9/23/09 14:45		
Dibromofluoromethane	109	89-119	9/23/09 14:45		

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Unicorn Management Consultants	**Service Request:**	R0905245
Project:	Union Rd #2011-100	**Date Collected:**	9/14/09 0930
Sample Matrix:	Water	**Date Received:**	9/15/09
Sample Name:	MW 10D	**Units:**	µg/L
Lab Code:	R0905245-003	**Basis:**	NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270C
Prep Method: EPA 3510C

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,2,4-Trichlorobenzene	9.4	U	9.4	1	9/17/09	9/21/09 15:30	96208	171359	
1,2-Dichlorobenzene	9.4	U	9.4	1	9/17/09	9/21/09 15:30	96208	171359	
1,3-Dichlorobenzene	9.4	U	9.4	1	9/17/09	9/21/09 15:30	96208	171359	
1,4-Dichlorobenzene	9.4	U	9.4	1	9/17/09	9/21/09 15:30	96208	171359	
2,4,5-Trichlorophenol	9.4	U	9.4	1	9/17/09	9/21/09 15:30	96208	171359	
2,4,6-Trichlorophenol	9.4	U	9.4	1	9/17/09	9/21/09 15:30	96208	171359	
2,4-Dichlorophenol	9.4	U	9.4	1	9/17/09	9/21/09 15:30	96208	171359	
2,4-Dimethylphenol	9.4	U	9.4	1	9/17/09	9/21/09 15:30	96208	171359	
2,4-Dinitrophenol	47	U	47	1	9/17/09	9/21/09 15:30	96208	171359	
2,4-Dinitrotoluene	9.4	U	9.4	1	9/17/09	9/21/09 15:30	96208	171359	
2,6-Dinitrotoluene	9.4	U	9.4	1	9/17/09	9/21/09 15:30	96208	171359	
2-Chloronaphthalene	9.4	U	9.4	1	9/17/09	9/21/09 15:30	96208	171359	
2-Chlorophenol	9.4	U	9.4	1	9/17/09	9/21/09 15:30	96208	171359	
2-Methylnaphthalene	9.4	U	9.4	1	9/17/09	9/21/09 15:30	96208	171359	
2-Methylphenol	9.4	U	9.4	1	9/17/09	9/21/09 15:30	96208	171359	
2-Nitroaniline	47	U	47	1	9/17/09	9/21/09 15:30	96208	171359	
2-Nitrophenol	9.4	U	9.4	1	9/17/09	9/21/09 15:30	96208	171359	
3,3'-Dichlorobenzidine	9.4	U	9.4	1	9/17/09	9/21/09 15:30	96208	171359	
3- and 4-Methylphenol Coelution	9.4	U	9.4	1	9/17/09	9/21/09 15:30	96208	171359	
3-Nitroaniline	47	U	47	1	9/17/09	9/21/09 15:30	96208	171359	
4,6-Dinitro-2-methylphenol	47	U	47	1	9/17/09	9/21/09 15:30	96208	171359	
4-Bromophenyl Phenyl Ether	9.4	U	9.4	1	9/17/09	9/21/09 15:30	96208	171359	
4-Chloro-3-methylphenol	9.4	U	9.4	1	9/17/09	9/21/09 15:30	96208	171359	
4-Chloroaniline	9.4	U	9.4	1	9/17/09	9/21/09 15:30	96208	171359	
4-Chlorophenyl Phenyl Ether	9.4	U	9.4	1	9/17/09	9/21/09 15:30	96208	171359	
4-Nitroaniline	47	U	47	1	9/17/09	9/21/09 15:30	96208	171359	
4-Nitrophenol	47	U	47	1	9/17/09	9/21/09 15:30	96208	171359	
Acenaphthene	9.4	U	9.4	1	9/17/09	9/21/09 15:30	96208	171359	
Acenaphthylene	9.4	U	9.4	1	9/17/09	9/21/09 15:30	96208	171359	
Anthracene	9.4	U	9.4	1	9/17/09	9/21/09 15:30	96208	171359	
Benz(a)anthracene	9.4	U	9.4	1	9/17/09	9/21/09 15:30	96208	171359	
Benzo(a)pyrene	9.4	U	9.4	1	9/17/09	9/21/09 15:30	96208	171359	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Unicorn Management Consultants
Project: Union Rd #2011-100
Sample Matrix: Water

Service Request: R0905245
Date Collected: 9/14/09 0930
Date Received: 9/15/09

Sample Name: MW 10D
Lab Code: R0905245-003

Units: µg/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270C
Prep Method: EPA 3510C

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Benzo(b)fluoranthene	9.4	U	9.4	1	9/17/09	9/21/09 15:30	96208	171359	
Benzo(g,h,i)perylene	9.4	U	9.4	1	9/17/09	9/21/09 15:30	96208	171359	
Benzo(k)fluoranthene	9.4	U	9.4	1	9/17/09	9/21/09 15:30	96208	171359	
Benzyl Alcohol	9.4	U	9.4	1	9/17/09	9/21/09 15:30	96208	171359	
2,2'-Oxybis(1-chloropropane)	9.4	U	9.4	1	9/17/09	9/21/09 15:30	96208	171359	
Bis(2-chloroethoxy)methane	9.4	U	9.4	1	9/17/09	9/21/09 15:30	96208	171359	
Bis(2-chloroethyl) Ether	9.4	U	9.4	1	9/17/09	9/21/09 15:30	96208	171359	
Bis(2-ethylhexyl) Phthalate	9.4	U	9.4	1	9/17/09	9/21/09 15:30	96208	171359	
Butyl Benzyl Phthalate	9.4	U	9.4	1	9/17/09	9/21/09 15:30	96208	171359	
Carbazole	9.4	U	9.4	1	9/17/09	9/21/09 15:30	96208	171359	
Chrysene	9.4	U	9.4	1	9/17/09	9/21/09 15:30	96208	171359	
Di-n-butyl Phthalate	9.4	U	9.4	1	9/17/09	9/21/09 15:30	96208	171359	
Di-n-octyl Phthalate	9.4	U	9.4	1	9/17/09	9/21/09 15:30	96208	171359	
Dibenz(a,h)anthracene	9.4	U	9.4	1	9/17/09	9/21/09 15:30	96208	171359	
Dibenzofuran	9.4	U	9.4	1	9/17/09	9/21/09 15:30	96208	171359	
Diethyl Phthalate	9.4	U	9.4	1	9/17/09	9/21/09 15:30	96208	171359	
Dimethyl Phthalate	9.4	U	9.4	1	9/17/09	9/21/09 15:30	96208	171359	
Fluoranthene	9.4	U	9.4	1	9/17/09	9/21/09 15:30	96208	171359	
Fluorene	9.4	U	9.4	1	9/17/09	9/21/09 15:30	96208	171359	
Hexachlorobenzene	9.4	U	9.4	1	9/17/09	9/21/09 15:30	96208	171359	
Hexachlorobutadiene	9.4	U	9.4	1	9/17/09	9/21/09 15:30	96208	171359	
Hexachlorocyclopentadiene	9.4	U	9.4	1	9/17/09	9/21/09 15:30	96208	171359	
Hexachloroethane	9.4	U	9.4	1	9/17/09	9/21/09 15:30	96208	171359	
Indeno(1,2,3-cd)pyrene	9.4	U	9.4	1	9/17/09	9/21/09 15:30	96208	171359	
Isophorone	9.4	U	9.4	1	9/17/09	9/21/09 15:30	96208	171359	
N-Nitrosodi-n-propylamine	9.4	U	9.4	1	9/17/09	9/21/09 15:30	96208	171359	
N-Nitrosodimethylamine	9.4	U	9.4	1	9/17/09	9/21/09 15:30	96208	171359	
N-Nitrosodiphenylamine	9.4	U	9.4	1	9/17/09	9/21/09 15:30	96208	171359	
Naphthalene	9.4	U	9.4	1	9/17/09	9/21/09 15:30	96208	171359	
Nitrobenzene	9.4	U	9.4	1	9/17/09	9/21/09 15:30	96208	171359	
Pentachlorophenol (PCP)	47	U	47	1	9/17/09	9/21/09 15:30	96208	171359	
Phenanthrene	9.4	U	9.4	1	9/17/09	9/21/09 15:30	96208	171359	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Unicorn Management Consultants	**Service Request:**	R0905245
Project:	Union Rd #2011-100	**Date Collected:**	9/14/09 0930
Sample Matrix:	Water	**Date Received:**	9/15/09
Sample Name:	MW 10D	**Units:**	µg/L
Lab Code:	R0905245-003	**Basis:**	NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270C
Prep Method: EPA 3510C

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Phenol	9.4	U	9.4	1	9/17/09	9/21/09 15:30	96208	171359	
Pyrene	9.4	U	9.4	1	9/17/09	9/21/09 15:30	96208	171359	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
2,4,6-Tribromophenol	102	46-134	9/21/09 15:30		
2-Fluorobiphenyl	87	46-110	9/21/09 15:30		
2-Fluorophenol	52	12-84	9/21/09 15:30		
Nitrobenzene-d5	87	44-117	9/21/09 15:30		
Phenol-d6	35	10-70	9/21/09 15:30		
p-Terphenyl-d14	101	40-133	9/21/09 15:30		

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Unicorn Management Consultants	**Service Request:**	R0905245
Project:	Union Rd #2011-100	**Date Collected:**	9/14/09 1600
Sample Matrix:	Water	**Date Received:**	9/15/09
Sample Name:	MW 11M		
Lab Code:	R0905245-004	**Basis:**	NA

Oil and Grease, HEM Silica Gel Treated

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed
Oil and Grease, Nonpolar (SGT-HEM)	1664	4.8	U	mg/L	4.8	1	NA	9/24/09 07:30

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Unicorn Management Consultants	**Service Request:**	R0905245
Project:	Union Rd #2011-100	**Date Collected:**	9/14/09 1600
Sample Matrix:	Water	**Date Received:**	9/15/09
Sample Name:	MW 11M		
Lab Code:	R0905245-004	**Basis:**	NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed
Arsenic, Dissolved	6010B	0.010	U	mg/L	0.010	1	9/22/09	9/24/09 18:33
Lead, Dissolved	6010B	0.0050	U	mg/L	0.0050	1	9/22/09	9/24/09 18:33

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Unicorn Management Consultants	**Service Request:**	R0905245
Project:	Union Rd #2011-100	**Date Collected:**	9/14/09 1600
Sample Matrix:	Water	**Date Received:**	9/15/09
Sample Name:	MW 11M	**Units:**	µg/L
Lab Code:	R0905245-004	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Acetone	20	U	20	1	NA	9/23/09 15:13		171600	
Benzene	5.0	U	5.0	1	NA	9/23/09 15:13		171600	
Bromodichloromethane	5.0	U	5.0	1	NA	9/23/09 15:13		171600	
Bromoform	5.0	U	5.0	1	NA	9/23/09 15:13		171600	
Bromomethane	5.0	U	5.0	1	NA	9/23/09 15:13		171600	
2-Butanone (MEK)	10	U	10	1	NA	9/23/09 15:13		171600	
Carbon Disulfide	10	U	10	1	NA	9/23/09 15:13		171600	
Carbon Tetrachloride	5.0	U	5.0	1	NA	9/23/09 15:13		171600	
Chlorobenzene	5.0	U	5.0	1	NA	9/23/09 15:13		171600	
Chloroethane	5.0	U	5.0	1	NA	9/23/09 15:13		171600	
Chloroform	5.0	U	5.0	1	NA	9/23/09 15:13		171600	
Chloromethane	5.0	U	5.0	1	NA	9/23/09 15:13		171600	
Dibromochloromethane	5.0	U	5.0	1	NA	9/23/09 15:13		171600	
1,1-Dichloroethane	5.0	U	5.0	1	NA	9/23/09 15:13		171600	
1,2-Dichloroethane	5.0	U	5.0	1	NA	9/23/09 15:13		171600	
1,1-Dichloroethene	5.0	U	5.0	1	NA	9/23/09 15:13		171600	
cis-1,2-Dichloroethene	5.0	U	5.0	1	NA	9/23/09 15:13		171600	
trans-1,2-Dichloroethene	5.0	U	5.0	1	NA	9/23/09 15:13		171600	
1,2-Dichloropropane	5.0	U	5.0	1	NA	9/23/09 15:13		171600	
cis-1,3-Dichloropropene	5.0	U	5.0	1	NA	9/23/09 15:13		171600	
trans-1,3-Dichloropropene	5.0	U	5.0	1	NA	9/23/09 15:13		171600	
Ethylbenzene	5.0	U	5.0	1	NA	9/23/09 15:13		171600	
2-Hexanone	10	U	10	1	NA	9/23/09 15:13		171600	
Methylene Chloride	5.0	U	5.0	1	NA	9/23/09 15:13		171600	
4-Methyl-2-pentanone (MIBK)	10	U	10	1	NA	9/23/09 15:13		171600	
Styrene	5.0	U	5.0	1	NA	9/23/09 15:13		171600	
1,1,2,2-Tetrachloroethane	5.0	U	5.0	1	NA	9/23/09 15:13		171600	
Tetrachloroethene	5.0	U	5.0	1	NA	9/23/09 15:13		171600	
Toluene	5.0	U	5.0	1	NA	9/23/09 15:13		171600	
1,1,1-Trichloroethane	5.0	U	5.0	1	NA	9/23/09 15:13		171600	
1,1,2-Trichloroethane	5.0	U	5.0	1	NA	9/23/09 15:13		171600	
Trichloroethene	5.0	U	5.0	1	NA	9/23/09 15:13		171600	
Vinyl Chloride	5.0	U	5.0	1	NA	9/23/09 15:13		171600	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Unicorn Management Consultants	**Service Request:**	R0905245
Project:	Union Rd #2011-100	**Date Collected:**	9/14/09 1600
Sample Matrix:	Water	**Date Received:**	9/15/09
Sample Name:	MW 11M	**Units:**	µg/L
Lab Code:	R0905245-004	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
o-Xylene	5.0	U	5.0	1	NA	9/23/09 15:13		171600	
m,p-Xylenes	5.0	U	5.0	1	NA	9/23/09 15:13		171600	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
4-Bromofluorobenzene	104	85-122	9/23/09 15:13		
Toluene-d8	100	87-121	9/23/09 15:13		
Dibromofluoromethane	109	89-119	9/23/09 15:13		

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Unicorn Management Consultants
Project: Union Rd #2011-100
Sample Matrix: Water

Sample Name: MW 11M
Lab Code: R0905245-004

Service Request: R0905245
Date Collected: 9/14/09 1600
Date Received: 9/15/09

Units: µg/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270C
Prep Method: EPA 3510C

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,2,4-Trichlorobenzene	9.4	U	9.4	1	9/17/09	9/21/09 16:10	96208	171359	
1,2-Dichlorobenzene	9.4	U	9.4	1	9/17/09	9/21/09 16:10	96208	171359	
1,3-Dichlorobenzene	9.4	U	9.4	1	9/17/09	9/21/09 16:10	96208	171359	
1,4-Dichlorobenzene	9.4	U	9.4	1	9/17/09	9/21/09 16:10	96208	171359	
2,4,5-Trichlorophenol	9.4	U	9.4	1	9/17/09	9/21/09 16:10	96208	171359	
2,4,6-Trichlorophenol	9.4	U	9.4	1	9/17/09	9/21/09 16:10	96208	171359	
2,4-Dichlorophenol	9.4	U	9.4	1	9/17/09	9/21/09 16:10	96208	171359	
2,4-Dimethylphenol	9.4	U	9.4	1	9/17/09	9/21/09 16:10	96208	171359	
2,4-Dinitrophenol	47	U	47	1	9/17/09	9/21/09 16:10	96208	171359	
2,4-Dinitrotoluene	9.4	U	9.4	1	9/17/09	9/21/09 16:10	96208	171359	
2,6-Dinitrotoluene	9.4	U	9.4	1	9/17/09	9/21/09 16:10	96208	171359	
2-Chloronaphthalene	9.4	U	9.4	1	9/17/09	9/21/09 16:10	96208	171359	
2-Chlorophenol	9.4	U	9.4	1	9/17/09	9/21/09 16:10	96208	171359	
2-Methylnaphthalene	9.4	U	9.4	1	9/17/09	9/21/09 16:10	96208	171359	
2-Methylphenol	9.4	U	9.4	1	9/17/09	9/21/09 16:10	96208	171359	
2-Nitroaniline	47	U	47	1	9/17/09	9/21/09 16:10	96208	171359	
2-Nitrophenol	9.4	U	9.4	1	9/17/09	9/21/09 16:10	96208	171359	
3,3'-Dichlorobenzidine	9.4	U	9.4	1	9/17/09	9/21/09 16:10	96208	171359	
3- and 4-Methylphenol Coelution	9.4	U	9.4	1	9/17/09	9/21/09 16:10	96208	171359	
3-Nitroaniline	47	U	47	1	9/17/09	9/21/09 16:10	96208	171359	
4,6-Dinitro-2-methylphenol	47	U	47	1	9/17/09	9/21/09 16:10	96208	171359	
4-Bromophenyl Phenyl Ether	9.4	U	9.4	1	9/17/09	9/21/09 16:10	96208	171359	
4-Chloro-3-methylphenol	9.4	U	9.4	1	9/17/09	9/21/09 16:10	96208	171359	
4-Chloroaniline	9.4	U	9.4	1	9/17/09	9/21/09 16:10	96208	171359	
4-Chlorophenyl Phenyl Ether	9.4	U	9.4	1	9/17/09	9/21/09 16:10	96208	171359	
4-Nitroaniline	47	U	47	1	9/17/09	9/21/09 16:10	96208	171359	
4-Nitrophenol	47	U	47	1	9/17/09	9/21/09 16:10	96208	171359	
Acenaphthene	9.4	U	9.4	1	9/17/09	9/21/09 16:10	96208	171359	
Acenaphthylene	9.4	U	9.4	1	9/17/09	9/21/09 16:10	96208	171359	
Anthracene	9.4	U	9.4	1	9/17/09	9/21/09 16:10	96208	171359	
Benz(a)anthracene	9.4	U	9.4	1	9/17/09	9/21/09 16:10	96208	171359	
Benzo(a)pyrene	9.4	U	9.4	1	9/17/09	9/21/09 16:10	96208	171359	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Unicorn Management Consultants
Project: Union Rd #2011-100
Sample Matrix: Water

Sample Name: MW 11M
Lab Code: R0905245-004

Service Request: R0905245
Date Collected: 9/14/09 1600
Date Received: 9/15/09

Units: µg/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270C
Prep Method: EPA 3510C

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Benzo(b)fluoranthene	9.4	U	9.4	1	9/17/09	9/21/09 16:10	96208	171359	
Benzo(g,h,i)perylene	9.4	U	9.4	1	9/17/09	9/21/09 16:10	96208	171359	
Benzo(k)fluoranthene	9.4	U	9.4	1	9/17/09	9/21/09 16:10	96208	171359	
Benzyl Alcohol	9.4	U	9.4	1	9/17/09	9/21/09 16:10	96208	171359	
2,2'-Oxybis(1-chloropropane)	9.4	U	9.4	1	9/17/09	9/21/09 16:10	96208	171359	
Bis(2-chloroethoxy)methane	9.4	U	9.4	1	9/17/09	9/21/09 16:10	96208	171359	
Bis(2-chloroethyl) Ether	9.4	U	9.4	1	9/17/09	9/21/09 16:10	96208	171359	
Bis(2-ethylhexyl) Phthalate	9.4	U	9.4	1	9/17/09	9/21/09 16:10	96208	171359	
Butyl Benzyl Phthalate	9.4	U	9.4	1	9/17/09	9/21/09 16:10	96208	171359	
Carbazole	9.4	U	9.4	1	9/17/09	9/21/09 16:10	96208	171359	
Chrysene	9.4	U	9.4	1	9/17/09	9/21/09 16:10	96208	171359	
Di-n-butyl Phthalate	9.4	U	9.4	1	9/17/09	9/21/09 16:10	96208	171359	
Di-n-octyl Phthalate	9.4	U	9.4	1	9/17/09	9/21/09 16:10	96208	171359	
Dibenz(a,h)anthracene	9.4	U	9.4	1	9/17/09	9/21/09 16:10	96208	171359	
Dibenzofuran	9.4	U	9.4	1	9/17/09	9/21/09 16:10	96208	171359	
Diethyl Phthalate	9.4	U	9.4	1	9/17/09	9/21/09 16:10	96208	171359	
Dimethyl Phthalate	9.4	U	9.4	1	9/17/09	9/21/09 16:10	96208	171359	
Fluoranthene	9.4	U	9.4	1	9/17/09	9/21/09 16:10	96208	171359	
Fluorene	9.4	U	9.4	1	9/17/09	9/21/09 16:10	96208	171359	
Hexachlorobenzene	9.4	U	9.4	1	9/17/09	9/21/09 16:10	96208	171359	
Hexachlorobutadiene	9.4	U	9.4	1	9/17/09	9/21/09 16:10	96208	171359	
Hexachlorocyclopentadiene	9.4	U	9.4	1	9/17/09	9/21/09 16:10	96208	171359	
Hexachloroethane	9.4	U	9.4	1	9/17/09	9/21/09 16:10	96208	171359	
Indeno(1,2,3-cd)pyrene	9.4	U	9.4	1	9/17/09	9/21/09 16:10	96208	171359	
Isophorone	9.4	U	9.4	1	9/17/09	9/21/09 16:10	96208	171359	
N-Nitrosodi-n-propylamine	9.4	U	9.4	1	9/17/09	9/21/09 16:10	96208	171359	
N-Nitrosodimethylamine	9.4	U	9.4	1	9/17/09	9/21/09 16:10	96208	171359	
N-Nitrosodiphenylamine	9.4	U	9.4	1	9/17/09	9/21/09 16:10	96208	171359	
Naphthalene	9.4	U	9.4	1	9/17/09	9/21/09 16:10	96208	171359	
Nitrobenzene	9.4	U	9.4	1	9/17/09	9/21/09 16:10	96208	171359	
Pentachlorophenol (PCP)	47	U	47	1	9/17/09	9/21/09 16:10	96208	171359	
Phenanthrene	9.4	U	9.4	1	9/17/09	9/21/09 16:10	96208	171359	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Unicorn Management Consultants	**Service Request:**	R0905245
Project:	Union Rd #2011-100	**Date Collected:**	9/14/09 1600
Sample Matrix:	Water	**Date Received:**	9/15/09
Sample Name:	MW 11M	**Units:**	µg/L
Lab Code:	R0905245-004	**Basis:**	NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270C
Prep Method: EPA 3510C

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Phenol	9.4	U	9.4	1	9/17/09	9/21/09 16:10	96208	171359	
Pyrene	9.4	U	9.4	1	9/17/09	9/21/09 16:10	96208	171359	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
2,4,6-Tribromophenol	94	46-134	9/21/09 16:10		
2-Fluorobiphenyl	79	46-110	9/21/09 16:10		
2-Fluorophenol	48	12-84	9/21/09 16:10		
Nitrobenzene-d5	82	44-117	9/21/09 16:10		
Phenol-d6	31	10-70	9/21/09 16:10		
p-Terphenyl-d14	98	40-133	9/21/09 16:10		

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Unicorn Management Consultants	**Service Request:**	R0905245
Project:	Union Rd #2011-100	**Date Collected:**	9/14/09 1630
Sample Matrix:	Water	**Date Received:**	9/15/09
Sample Name:	MW 11S		
Lab Code:	R0905245-005	**Basis:**	NA

Oil and Grease, HEM Silica Gel Treated

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed
Oil and Grease, Nonpolar (SGT-HEM)	1664	4.8	U	mg/L	4.8	1	NA	9/24/09 07:30

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Unicorn Management Consultants	**Service Request:**	R0905245
Project:	Union Rd #2011-100	**Date Collected:**	9/14/09 1630
Sample Matrix:	Water	**Date Received:**	9/15/09
Sample Name:	MW 11S		
Lab Code:	R0905245-005	**Basis:**	NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed
Arsenic, Dissolved	6010B	0.010	U	mg/L	0.010	1	9/22/09	9/24/09 18:38
Lead, Dissolved	6010B	0.0050	U	mg/L	0.0050	1	9/22/09	9/24/09 18:38

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Unicorn Management Consultants
Project: Union Rd #2011-100
Sample Matrix: Water

Sample Name: MW 11S
Lab Code: R0905245-005

Service Request: R0905245
Date Collected: 9/14/09 1630
Date Received: 9/15/09

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Acetone	20	U	20	1	NA	9/23/09 15:42		171600	
Benzene	5.0	U	5.0	1	NA	9/23/09 15:42		171600	
Bromodichloromethane	5.0	U	5.0	1	NA	9/23/09 15:42		171600	
Bromoform	5.0	U	5.0	1	NA	9/23/09 15:42		171600	
Bromomethane	5.0	U	5.0	1	NA	9/23/09 15:42		171600	
2-Butanone (MEK)	10	U	10	1	NA	9/23/09 15:42		171600	
Carbon Disulfide	10	U	10	1	NA	9/23/09 15:42		171600	
Carbon Tetrachloride	5.0	U	5.0	1	NA	9/23/09 15:42		171600	
Chlorobenzene	5.0	U	5.0	1	NA	9/23/09 15:42		171600	
Chloroethane	5.0	U	5.0	1	NA	9/23/09 15:42		171600	
Chloroform	5.0	U	5.0	1	NA	9/23/09 15:42		171600	
Chloromethane	5.0	U	5.0	1	NA	9/23/09 15:42		171600	
Dibromochloromethane	5.0	U	5.0	1	NA	9/23/09 15:42		171600	
1,1-Dichloroethane	5.0	U	5.0	1	NA	9/23/09 15:42		171600	
1,2-Dichloroethane	5.0	U	5.0	1	NA	9/23/09 15:42		171600	
1,1-Dichloroethene	5.0	U	5.0	1	NA	9/23/09 15:42		171600	
cis-1,2-Dichloroethene	5.0	U	5.0	1	NA	9/23/09 15:42		171600	
trans-1,2-Dichloroethene	5.0	U	5.0	1	NA	9/23/09 15:42		171600	
1,2-Dichloropropane	5.0	U	5.0	1	NA	9/23/09 15:42		171600	
cis-1,3-Dichloropropene	5.0	U	5.0	1	NA	9/23/09 15:42		171600	
trans-1,3-Dichloropropene	5.0	U	5.0	1	NA	9/23/09 15:42		171600	
Ethylbenzene	5.0	U	5.0	1	NA	9/23/09 15:42		171600	
2-Hexanone	10	U	10	1	NA	9/23/09 15:42		171600	
Methylene Chloride	5.0	U	5.0	1	NA	9/23/09 15:42		171600	
4-Methyl-2-pentanone (MIBK)	10	U	10	1	NA	9/23/09 15:42		171600	
Styrene	5.0	U	5.0	1	NA	9/23/09 15:42		171600	
1,1,2,2-Tetrachloroethane	5.0	U	5.0	1	NA	9/23/09 15:42		171600	
Tetrachloroethene	5.0	U	5.0	1	NA	9/23/09 15:42		171600	
Toluene	5.0	U	5.0	1	NA	9/23/09 15:42		171600	
1,1,1-Trichloroethane	5.0	U	5.0	1	NA	9/23/09 15:42		171600	
1,1,2-Trichloroethane	5.0	U	5.0	1	NA	9/23/09 15:42		171600	
Trichloroethene	5.0	U	5.0	1	NA	9/23/09 15:42		171600	
Vinyl Chloride	5.0	U	5.0	1	NA	9/23/09 15:42		171600	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Unicorn Management Consultants	**Service Request:**	R0905245
Project:	Union Rd #2011-100	**Date Collected:**	9/14/09 1630
Sample Matrix:	Water	**Date Received:**	9/15/09
Sample Name:	MW 11S	**Units:**	µg/L
Lab Code:	R0905245-005	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
o-Xylene	5.0	U	5.0	1	NA	9/23/09 15:42		171600	
m,p-Xylenes	5.0	U	5.0	1	NA	9/23/09 15:42		171600	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
4-Bromofluorobenzene	109	85-122	9/23/09 15:42		
Toluene-d8	103	87-121	9/23/09 15:42		
Dibromofluoromethane	113	89-119	9/23/09 15:42		

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Unicorn Management Consultants
Project: Union Rd #2011-100
Sample Matrix: Water

Sample Name: MW 11S
Lab Code: R0905245-005

Service Request: R0905245
Date Collected: 9/14/09 1630
Date Received: 9/15/09

Units: µg/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270C
Prep Method: EPA 3510C

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,2,4-Trichlorobenzene	9.4	U	9.4	1	9/17/09	9/21/09 16:50	96208	171359	
1,2-Dichlorobenzene	9.4	U	9.4	1	9/17/09	9/21/09 16:50	96208	171359	
1,3-Dichlorobenzene	9.4	U	9.4	1	9/17/09	9/21/09 16:50	96208	171359	
1,4-Dichlorobenzene	9.4	U	9.4	1	9/17/09	9/21/09 16:50	96208	171359	
2,4,5-Trichlorophenol	9.4	U	9.4	1	9/17/09	9/21/09 16:50	96208	171359	
2,4,6-Trichlorophenol	9.4	U	9.4	1	9/17/09	9/21/09 16:50	96208	171359	
2,4-Dichlorophenol	9.4	U	9.4	1	9/17/09	9/21/09 16:50	96208	171359	
2,4-Dimethylphenol	9.4	U	9.4	1	9/17/09	9/21/09 16:50	96208	171359	
2,4-Dinitrophenol	47	U	47	1	9/17/09	9/21/09 16:50	96208	171359	
2,4-Dinitrotoluene	9.4	U	9.4	1	9/17/09	9/21/09 16:50	96208	171359	
2,6-Dinitrotoluene	9.4	U	9.4	1	9/17/09	9/21/09 16:50	96208	171359	
2-Chloronaphthalene	9.4	U	9.4	1	9/17/09	9/21/09 16:50	96208	171359	
2-Chlorophenol	9.4	U	9.4	1	9/17/09	9/21/09 16:50	96208	171359	
2-Methylnaphthalene	9.4	U	9.4	1	9/17/09	9/21/09 16:50	96208	171359	
2-Methylphenol	9.4	U	9.4	1	9/17/09	9/21/09 16:50	96208	171359	
2-Nitroaniline	47	U	47	1	9/17/09	9/21/09 16:50	96208	171359	
2-Nitrophenol	9.4	U	9.4	1	9/17/09	9/21/09 16:50	96208	171359	
3,3'-Dichlorobenzidine	9.4	U	9.4	1	9/17/09	9/21/09 16:50	96208	171359	
3- and 4-Methylphenol Coelution	9.4	U	9.4	1	9/17/09	9/21/09 16:50	96208	171359	
3-Nitroaniline	47	U	47	1	9/17/09	9/21/09 16:50	96208	171359	
4,6-Dinitro-2-methylphenol	47	U	47	1	9/17/09	9/21/09 16:50	96208	171359	
4-Bromophenyl Phenyl Ether	9.4	U	9.4	1	9/17/09	9/21/09 16:50	96208	171359	
4-Chloro-3-methylphenol	9.4	U	9.4	1	9/17/09	9/21/09 16:50	96208	171359	
4-Chloroaniline	9.4	U	9.4	1	9/17/09	9/21/09 16:50	96208	171359	
4-Chlorophenyl Phenyl Ether	9.4	U	9.4	1	9/17/09	9/21/09 16:50	96208	171359	
4-Nitroaniline	47	U	47	1	9/17/09	9/21/09 16:50	96208	171359	
4-Nitrophenol	47	U	47	1	9/17/09	9/21/09 16:50	96208	171359	
Acenaphthene	9.4	U	9.4	1	9/17/09	9/21/09 16:50	96208	171359	
Acenaphthylene	9.4	U	9.4	1	9/17/09	9/21/09 16:50	96208	171359	
Anthracene	9.4	U	9.4	1	9/17/09	9/21/09 16:50	96208	171359	
Benz(a)anthracene	9.4	U	9.4	1	9/17/09	9/21/09 16:50	96208	171359	
Benzo(a)pyrene	9.4	U	9.4	1	9/17/09	9/21/09 16:50	96208	171359	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Unicorn Management Consultants
Project: Union Rd #2011-100
Sample Matrix: Water

Sample Name: MW 11S
Lab Code: R0905245-005

Service Request: R0905245
Date Collected: 9/14/09 1630
Date Received: 9/15/09

Units: µg/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270C
Prep Method: EPA 3510C

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Benzo(b)fluoranthene	9.4	U	9.4	1	9/17/09	9/21/09 16:50	96208	171359	
Benzo(g,h,i)perylene	9.4	U	9.4	1	9/17/09	9/21/09 16:50	96208	171359	
Benzo(k)fluoranthene	9.4	U	9.4	1	9/17/09	9/21/09 16:50	96208	171359	
Benzyl Alcohol	9.4	U	9.4	1	9/17/09	9/21/09 16:50	96208	171359	
2,2'-Oxybis(1-chloropropane)	9.4	U	9.4	1	9/17/09	9/21/09 16:50	96208	171359	
Bis(2-chloroethoxy)methane	9.4	U	9.4	1	9/17/09	9/21/09 16:50	96208	171359	
Bis(2-chloroethyl) Ether	9.4	U	9.4	1	9/17/09	9/21/09 16:50	96208	171359	
Bis(2-ethylhexyl) Phthalate	9.4	U	9.4	1	9/17/09	9/21/09 16:50	96208	171359	
Butyl Benzyl Phthalate	9.4	U	9.4	1	9/17/09	9/21/09 16:50	96208	171359	
Carbazole	9.4	U	9.4	1	9/17/09	9/21/09 16:50	96208	171359	
Chrysene	9.4	U	9.4	1	9/17/09	9/21/09 16:50	96208	171359	
Di-n-butyl Phthalate	9.4	U	9.4	1	9/17/09	9/21/09 16:50	96208	171359	
Di-n-octyl Phthalate	9.4	U	9.4	1	9/17/09	9/21/09 16:50	96208	171359	
Dibenz(a,h)anthracene	9.4	U	9.4	1	9/17/09	9/21/09 16:50	96208	171359	
Dibenzofuran	9.4	U	9.4	1	9/17/09	9/21/09 16:50	96208	171359	
Diethyl Phthalate	9.4	U	9.4	1	9/17/09	9/21/09 16:50	96208	171359	
Dimethyl Phthalate	9.4	U	9.4	1	9/17/09	9/21/09 16:50	96208	171359	
Fluoranthene	9.4	U	9.4	1	9/17/09	9/21/09 16:50	96208	171359	
Fluorene	9.4	U	9.4	1	9/17/09	9/21/09 16:50	96208	171359	
Hexachlorobenzene	9.4	U	9.4	1	9/17/09	9/21/09 16:50	96208	171359	
Hexachlorobutadiene	9.4	U	9.4	1	9/17/09	9/21/09 16:50	96208	171359	
Hexachlorocyclopentadiene	9.4	U	9.4	1	9/17/09	9/21/09 16:50	96208	171359	
Hexachloroethane	9.4	U	9.4	1	9/17/09	9/21/09 16:50	96208	171359	
Indeno(1,2,3-cd)pyrene	9.4	U	9.4	1	9/17/09	9/21/09 16:50	96208	171359	
Isophorone	9.4	U	9.4	1	9/17/09	9/21/09 16:50	96208	171359	
N-Nitrosodi-n-propylamine	9.4	U	9.4	1	9/17/09	9/21/09 16:50	96208	171359	
N-Nitrosodimethylamine	9.4	U	9.4	1	9/17/09	9/21/09 16:50	96208	171359	
N-Nitrosodiphenylamine	9.4	U	9.4	1	9/17/09	9/21/09 16:50	96208	171359	
Naphthalene	9.4	U	9.4	1	9/17/09	9/21/09 16:50	96208	171359	
Nitrobenzene	9.4	U	9.4	1	9/17/09	9/21/09 16:50	96208	171359	
Pentachlorophenol (PCP)	47	U	47	1	9/17/09	9/21/09 16:50	96208	171359	
Phenanthrene	9.4	U	9.4	1	9/17/09	9/21/09 16:50	96208	171359	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Unicorn Management Consultants	**Service Request:**	R0905245
Project:	Union Rd #2011-100	**Date Collected:**	9/14/09 1630
Sample Matrix:	Water	**Date Received:**	9/15/09
Sample Name:	MW 11S	**Units:**	µg/L
Lab Code:	R0905245-005	**Basis:**	NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270C
Prep Method: EPA 3510C

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Phenol	9.4	U	9.4	1	9/17/09	9/21/09 16:50	96208	171359	
Pyrene	9.4	U	9.4	1	9/17/09	9/21/09 16:50	96208	171359	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
2,4,6-Tribromophenol	95	46-134	9/21/09 16:50		
2-Fluorobiphenyl	79	46-110	9/21/09 16:50		
2-Fluorophenol	47	12-84	9/21/09 16:50		
Nitrobenzene-d5	81	44-117	9/21/09 16:50		
Phenol-d6	31	10-70	9/21/09 16:50		
p-Terphenyl-d14	102	40-133	9/21/09 16:50		

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Unicorn Management Consultants	**Service Request:**	R0905245
Project:	Union Rd #2011-100	**Date Collected:**	9/14/09 1750
Sample Matrix:	Water	**Date Received:**	9/15/09
Sample Name:	MW 12S		
Lab Code:	R0905245-006	**Basis:**	NA

Oil and Grease, HEM Silica Gel Treated

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed
Oil and Grease, Nonpolar (SGT-HEM)	1664	4.8	U	mg/L	4.8	1	NA	9/24/09 07:30

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Unicorn Management Consultants	**Service Request:**	R0905245
Project:	Union Rd #2011-100	**Date Collected:**	9/14/09 1750
Sample Matrix:	Water	**Date Received:**	9/15/09
Sample Name:	MW 12S		
Lab Code:	R0905245-006	**Basis:**	NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed
Arsenic, Dissolved	6010B	0.010	U	mg/L	0.010	1	9/22/09	9/24/09 18:44
Lead, Dissolved	6010B	0.0050	U	mg/L	0.0050	1	9/22/09	9/24/09 18:44

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Unicorn Management Consultants
Project: Union Rd #2011-100
Sample Matrix: Water

Sample Name: MW 12S
Lab Code: R0905245-006

Service Request: R0905245
Date Collected: 9/14/09 1750
Date Received: 9/15/09

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Acetone	20	U	20	1	NA	9/23/09 16:10		171600	
Benzene	5.0	U	5.0	1	NA	9/23/09 16:10		171600	
Bromodichloromethane	5.0	U	5.0	1	NA	9/23/09 16:10		171600	
Bromoform	5.0	U	5.0	1	NA	9/23/09 16:10		171600	
Bromomethane	5.0	U	5.0	1	NA	9/23/09 16:10		171600	
2-Butanone (MEK)	10	U	10	1	NA	9/23/09 16:10		171600	
Carbon Disulfide	10	U	10	1	NA	9/23/09 16:10		171600	
Carbon Tetrachloride	5.0	U	5.0	1	NA	9/23/09 16:10		171600	
Chlorobenzene	5.0	U	5.0	1	NA	9/23/09 16:10		171600	
Chloroethane	5.0	U	5.0	1	NA	9/23/09 16:10		171600	
Chloroform	5.0	U	5.0	1	NA	9/23/09 16:10		171600	
Chloromethane	5.0	U	5.0	1	NA	9/23/09 16:10		171600	
Dibromochloromethane	5.0	U	5.0	1	NA	9/23/09 16:10		171600	
1,1-Dichloroethane	5.0	U	5.0	1	NA	9/23/09 16:10		171600	
1,2-Dichloroethane	5.0	U	5.0	1	NA	9/23/09 16:10		171600	
1,1-Dichloroethene	5.0	U	5.0	1	NA	9/23/09 16:10		171600	
cis-1,2-Dichloroethene	5.0	U	5.0	1	NA	9/23/09 16:10		171600	
trans-1,2-Dichloroethene	5.0	U	5.0	1	NA	9/23/09 16:10		171600	
1,2-Dichloropropane	5.0	U	5.0	1	NA	9/23/09 16:10		171600	
cis-1,3-Dichloropropene	5.0	U	5.0	1	NA	9/23/09 16:10		171600	
trans-1,3-Dichloropropene	5.0	U	5.0	1	NA	9/23/09 16:10		171600	
Ethylbenzene	5.0	U	5.0	1	NA	9/23/09 16:10		171600	
2-Hexanone	10	U	10	1	NA	9/23/09 16:10		171600	
Methylene Chloride	5.0	U	5.0	1	NA	9/23/09 16:10		171600	
4-Methyl-2-pentanone (MIBK)	10	U	10	1	NA	9/23/09 16:10		171600	
Styrene	5.0	U	5.0	1	NA	9/23/09 16:10		171600	
1,1,2,2-Tetrachloroethane	5.0	U	5.0	1	NA	9/23/09 16:10		171600	
Tetrachloroethene	5.0	U	5.0	1	NA	9/23/09 16:10		171600	
Toluene	5.0	U	5.0	1	NA	9/23/09 16:10		171600	
1,1,1-Trichloroethane	5.0	U	5.0	1	NA	9/23/09 16:10		171600	
1,1,2-Trichloroethane	5.0	U	5.0	1	NA	9/23/09 16:10		171600	
Trichloroethene	5.0	U	5.0	1	NA	9/23/09 16:10		171600	
Vinyl Chloride	5.0	U	5.0	1	NA	9/23/09 16:10		171600	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Unicorn Management Consultants	**Service Request:**	R0905245
Project:	Union Rd #2011-100	**Date Collected:**	9/14/09 1750
Sample Matrix:	Water	**Date Received:**	9/15/09
Sample Name:	MW 12S	**Units:**	µg/L
Lab Code:	R0905245-006	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
o-Xylene	5.0	U	5.0	1	NA	9/23/09 16:10		171600	
m,p-Xylenes	5.0	U	5.0	1	NA	9/23/09 16:10		171600	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
4-Bromofluorobenzene	107	85-122	9/23/09 16:10		
Toluene-d8	103	87-121	9/23/09 16:10		
Dibromofluoromethane	112	89-119	9/23/09 16:10		

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Unicorn Management Consultants
Project: Union Rd #2011-100
Sample Matrix: Water

Sample Name: MW 12S
Lab Code: R0905245-006

Service Request: R0905245
Date Collected: 9/14/09 1750
Date Received: 9/15/09

Units: µg/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270C
Prep Method: EPA 3510C

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,2,4-Trichlorobenzene	9.4	U	9.4	1	9/17/09	9/21/09 17:30	96208	171359	
1,2-Dichlorobenzene	9.4	U	9.4	1	9/17/09	9/21/09 17:30	96208	171359	
1,3-Dichlorobenzene	9.4	U	9.4	1	9/17/09	9/21/09 17:30	96208	171359	
1,4-Dichlorobenzene	9.4	U	9.4	1	9/17/09	9/21/09 17:30	96208	171359	
2,4,5-Trichlorophenol	9.4	U	9.4	1	9/17/09	9/21/09 17:30	96208	171359	
2,4,6-Trichlorophenol	9.4	U	9.4	1	9/17/09	9/21/09 17:30	96208	171359	
2,4-Dichlorophenol	9.4	U	9.4	1	9/17/09	9/21/09 17:30	96208	171359	
2,4-Dimethylphenol	9.4	U	9.4	1	9/17/09	9/21/09 17:30	96208	171359	
2,4-Dinitrophenol	47	U	47	1	9/17/09	9/21/09 17:30	96208	171359	
2,4-Dinitrotoluene	9.4	U	9.4	1	9/17/09	9/21/09 17:30	96208	171359	
2,6-Dinitrotoluene	9.4	U	9.4	1	9/17/09	9/21/09 17:30	96208	171359	
2-Chloronaphthalene	9.4	U	9.4	1	9/17/09	9/21/09 17:30	96208	171359	
2-Chlorophenol	9.4	U	9.4	1	9/17/09	9/21/09 17:30	96208	171359	
2-Methylnaphthalene	9.4	U	9.4	1	9/17/09	9/21/09 17:30	96208	171359	
2-Methylphenol	9.4	U	9.4	1	9/17/09	9/21/09 17:30	96208	171359	
2-Nitroaniline	47	U	47	1	9/17/09	9/21/09 17:30	96208	171359	
2-Nitrophenol	9.4	U	9.4	1	9/17/09	9/21/09 17:30	96208	171359	
3,3'-Dichlorobenzidine	9.4	U	9.4	1	9/17/09	9/21/09 17:30	96208	171359	
3- and 4-Methylphenol Coelution	9.4	U	9.4	1	9/17/09	9/21/09 17:30	96208	171359	
3-Nitroaniline	47	U	47	1	9/17/09	9/21/09 17:30	96208	171359	
4,6-Dinitro-2-methylphenol	47	U	47	1	9/17/09	9/21/09 17:30	96208	171359	
4-Bromophenyl Phenyl Ether	9.4	U	9.4	1	9/17/09	9/21/09 17:30	96208	171359	
4-Chloro-3-methylphenol	9.4	U	9.4	1	9/17/09	9/21/09 17:30	96208	171359	
4-Chloroaniline	9.4	U	9.4	1	9/17/09	9/21/09 17:30	96208	171359	
4-Chlorophenyl Phenyl Ether	9.4	U	9.4	1	9/17/09	9/21/09 17:30	96208	171359	
4-Nitroaniline	47	U	47	1	9/17/09	9/21/09 17:30	96208	171359	
4-Nitrophenol	47	U	47	1	9/17/09	9/21/09 17:30	96208	171359	
Acenaphthene	9.4	U	9.4	1	9/17/09	9/21/09 17:30	96208	171359	
Acenaphthylene	9.4	U	9.4	1	9/17/09	9/21/09 17:30	96208	171359	
Anthracene	9.4	U	9.4	1	9/17/09	9/21/09 17:30	96208	171359	
Benz(a)anthracene	9.4	U	9.4	1	9/17/09	9/21/09 17:30	96208	171359	
Benzo(a)pyrene	9.4	U	9.4	1	9/17/09	9/21/09 17:30	96208	171359	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Unicorn Management Consultants
Project: Union Rd #2011-100
Sample Matrix: Water

Sample Name: MW 12S
Lab Code: R0905245-006

Service Request: R0905245
Date Collected: 9/14/09 1750
Date Received: 9/15/09

Units: µg/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270C
Prep Method: EPA 3510C

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Benzo(b)fluoranthene	9.4	U	9.4	1	9/17/09	9/21/09 17:30	96208	171359	
Benzo(g,h,i)perylene	9.4	U	9.4	1	9/17/09	9/21/09 17:30	96208	171359	
Benzo(k)fluoranthene	9.4	U	9.4	1	9/17/09	9/21/09 17:30	96208	171359	
Benzyl Alcohol	9.4	U	9.4	1	9/17/09	9/21/09 17:30	96208	171359	
2,2'-Oxybis(1-chloropropane)	9.4	U	9.4	1	9/17/09	9/21/09 17:30	96208	171359	
Bis(2-chloroethoxy)methane	9.4	U	9.4	1	9/17/09	9/21/09 17:30	96208	171359	
Bis(2-chloroethyl) Ether	9.4	U	9.4	1	9/17/09	9/21/09 17:30	96208	171359	
Bis(2-ethylhexyl) Phthalate	9.4	U	9.4	1	9/17/09	9/21/09 17:30	96208	171359	
Butyl Benzyl Phthalate	9.4	U	9.4	1	9/17/09	9/21/09 17:30	96208	171359	
Carbazole	9.4	U	9.4	1	9/17/09	9/21/09 17:30	96208	171359	
Chrysene	9.4	U	9.4	1	9/17/09	9/21/09 17:30	96208	171359	
Di-n-butyl Phthalate	9.4	U	9.4	1	9/17/09	9/21/09 17:30	96208	171359	
Di-n-octyl Phthalate	9.4	U	9.4	1	9/17/09	9/21/09 17:30	96208	171359	
Dibenz(a,h)anthracene	9.4	U	9.4	1	9/17/09	9/21/09 17:30	96208	171359	
Dibenzofuran	9.4	U	9.4	1	9/17/09	9/21/09 17:30	96208	171359	
Diethyl Phthalate	9.4	U	9.4	1	9/17/09	9/21/09 17:30	96208	171359	
Dimethyl Phthalate	9.4	U	9.4	1	9/17/09	9/21/09 17:30	96208	171359	
Fluoranthene	9.4	U	9.4	1	9/17/09	9/21/09 17:30	96208	171359	
Fluorene	9.4	U	9.4	1	9/17/09	9/21/09 17:30	96208	171359	
Hexachlorobenzene	9.4	U	9.4	1	9/17/09	9/21/09 17:30	96208	171359	
Hexachlorobutadiene	9.4	U	9.4	1	9/17/09	9/21/09 17:30	96208	171359	
Hexachlorocyclopentadiene	9.4	U	9.4	1	9/17/09	9/21/09 17:30	96208	171359	
Hexachloroethane	9.4	U	9.4	1	9/17/09	9/21/09 17:30	96208	171359	
Indeno(1,2,3-cd)pyrene	9.4	U	9.4	1	9/17/09	9/21/09 17:30	96208	171359	
Isophorone	9.4	U	9.4	1	9/17/09	9/21/09 17:30	96208	171359	
N-Nitrosodi-n-propylamine	9.4	U	9.4	1	9/17/09	9/21/09 17:30	96208	171359	
N-Nitrosodimethylamine	9.4	U	9.4	1	9/17/09	9/21/09 17:30	96208	171359	
N-Nitrosodiphenylamine	9.4	U	9.4	1	9/17/09	9/21/09 17:30	96208	171359	
Naphthalene	9.4	U	9.4	1	9/17/09	9/21/09 17:30	96208	171359	
Nitrobenzene	9.4	U	9.4	1	9/17/09	9/21/09 17:30	96208	171359	
Pentachlorophenol (PCP)	47	U	47	1	9/17/09	9/21/09 17:30	96208	171359	
Phenanthrene	9.4	U	9.4	1	9/17/09	9/21/09 17:30	96208	171359	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Unicorn Management Consultants	**Service Request:**	R0905245
Project:	Union Rd #2011-100	**Date Collected:**	9/14/09 1750
Sample Matrix:	Water	**Date Received:**	9/15/09
Sample Name:	MW 12S	**Units:**	µg/L
Lab Code:	R0905245-006	**Basis:**	NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270C
Prep Method: EPA 3510C

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Phenol	9.4	U	9.4	1	9/17/09	9/21/09 17:30	96208	171359	
Pyrene	9.4	U	9.4	1	9/17/09	9/21/09 17:30	96208	171359	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
2,4,6-Tribromophenol	98	46-134	9/21/09 17:30		
2-Fluorobiphenyl	73	46-110	9/21/09 17:30		
2-Fluorophenol	49	12-84	9/21/09 17:30		
Nitrobenzene-d5	80	44-117	9/21/09 17:30		
Phenol-d6	33	10-70	9/21/09 17:30		
p-Terphenyl-d14	103	40-133	9/21/09 17:30		

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Unicorn Management Consultants	**Service Request:**	R0905245
Project:	Union Rd #2011-100	**Date Collected:**	9/14/09 1720
Sample Matrix:	Water	**Date Received:**	9/15/09
Sample Name:	MW 12M		
Lab Code:	R0905245-007	**Basis:**	NA

Oil and Grease, HEM Silica Gel Treated

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed
Oil and Grease, Nonpolar (SGT-HEM)	1664	4.7	U	mg/L	4.7	1	NA	9/24/09 07:30

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Unicorn Management Consultants	**Service Request:**	R0905245
Project:	Union Rd #2011-100	**Date Collected:**	9/14/09 1720
Sample Matrix:	Water	**Date Received:**	9/15/09
Sample Name:	MW 12M		
Lab Code:	R0905245-007	**Basis:**	NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed
Arsenic, Dissolved	6010B	0.010	U	mg/L	0.010	1	9/22/09	9/24/09 18:50
Lead, Dissolved	6010B	0.0050	U	mg/L	0.0050	1	9/22/09	9/24/09 18:50

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Unicorn Management Consultants
Project: Union Rd #2011-100
Sample Matrix: Water

Sample Name: MW 12M
Lab Code: R0905245-007

Service Request: R0905245
Date Collected: 9/14/09 1720
Date Received: 9/15/09

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Acetone	20	U	20	1	NA	9/23/09 16:38		171600	
Benzene	5.0	U	5.0	1	NA	9/23/09 16:38		171600	
Bromodichloromethane	5.0	U	5.0	1	NA	9/23/09 16:38		171600	
Bromoform	5.0	U	5.0	1	NA	9/23/09 16:38		171600	
Bromomethane	5.0	U	5.0	1	NA	9/23/09 16:38		171600	
2-Butanone (MEK)	10	U	10	1	NA	9/23/09 16:38		171600	
Carbon Disulfide	10	U	10	1	NA	9/23/09 16:38		171600	
Carbon Tetrachloride	5.0	U	5.0	1	NA	9/23/09 16:38		171600	
Chlorobenzene	5.0	U	5.0	1	NA	9/23/09 16:38		171600	
Chloroethane	5.0	U	5.0	1	NA	9/23/09 16:38		171600	
Chloroform	5.0	U	5.0	1	NA	9/23/09 16:38		171600	
Chloromethane	5.0	U	5.0	1	NA	9/23/09 16:38		171600	
Dibromochloromethane	5.0	U	5.0	1	NA	9/23/09 16:38		171600	
1,1-Dichloroethane	5.0	U	5.0	1	NA	9/23/09 16:38		171600	
1,2-Dichloroethane	5.0	U	5.0	1	NA	9/23/09 16:38		171600	
1,1-Dichloroethene	5.0	U	5.0	1	NA	9/23/09 16:38		171600	
cis-1,2-Dichloroethene	5.0	U	5.0	1	NA	9/23/09 16:38		171600	
trans-1,2-Dichloroethene	5.0	U	5.0	1	NA	9/23/09 16:38		171600	
1,2-Dichloropropane	5.0	U	5.0	1	NA	9/23/09 16:38		171600	
cis-1,3-Dichloropropene	5.0	U	5.0	1	NA	9/23/09 16:38		171600	
trans-1,3-Dichloropropene	5.0	U	5.0	1	NA	9/23/09 16:38		171600	
Ethylbenzene	5.0	U	5.0	1	NA	9/23/09 16:38		171600	
2-Hexanone	10	U	10	1	NA	9/23/09 16:38		171600	
Methylene Chloride	5.0	U	5.0	1	NA	9/23/09 16:38		171600	
4-Methyl-2-pentanone (MIBK)	10	U	10	1	NA	9/23/09 16:38		171600	
Styrene	5.0	U	5.0	1	NA	9/23/09 16:38		171600	
1,1,2,2-Tetrachloroethane	5.0	U	5.0	1	NA	9/23/09 16:38		171600	
Tetrachloroethene	5.0	U	5.0	1	NA	9/23/09 16:38		171600	
Toluene	5.0	U	5.0	1	NA	9/23/09 16:38		171600	
1,1,1-Trichloroethane	5.0	U	5.0	1	NA	9/23/09 16:38		171600	
1,1,2-Trichloroethane	5.0	U	5.0	1	NA	9/23/09 16:38		171600	
Trichloroethene	5.0	U	5.0	1	NA	9/23/09 16:38		171600	
Vinyl Chloride	5.0	U	5.0	1	NA	9/23/09 16:38		171600	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Unicorn Management Consultants	**Service Request:**	R0905245
Project:	Union Rd #2011-100	**Date Collected:**	9/14/09 1720
Sample Matrix:	Water	**Date Received:**	9/15/09
Sample Name:	MW 12M	**Units:**	µg/L
Lab Code:	R0905245-007	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
o-Xylene	5.0	U	5.0	1	NA	9/23/09 16:38		171600	
m,p-Xylenes	5.0	U	5.0	1	NA	9/23/09 16:38		171600	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
4-Bromofluorobenzene	106	85-122	9/23/09 16:38		
Toluene-d8	101	87-121	9/23/09 16:38		
Dibromofluoromethane	109	89-119	9/23/09 16:38		

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Unicorn Management Consultants
Project: Union Rd #2011-100
Sample Matrix: Water

Sample Name: MW 12M
Lab Code: R0905245-007

Service Request: R0905245
Date Collected: 9/14/09 1720
Date Received: 9/15/09

Units: µg/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270C
Prep Method: EPA 3510C

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,2,4-Trichlorobenzene	9.4	U	9.4	1	9/17/09	9/21/09 18:10	96208	171359	
1,2-Dichlorobenzene	9.4	U	9.4	1	9/17/09	9/21/09 18:10	96208	171359	
1,3-Dichlorobenzene	9.4	U	9.4	1	9/17/09	9/21/09 18:10	96208	171359	
1,4-Dichlorobenzene	9.4	U	9.4	1	9/17/09	9/21/09 18:10	96208	171359	
2,4,5-Trichlorophenol	9.4	U	9.4	1	9/17/09	9/21/09 18:10	96208	171359	
2,4,6-Trichlorophenol	9.4	U	9.4	1	9/17/09	9/21/09 18:10	96208	171359	
2,4-Dichlorophenol	9.4	U	9.4	1	9/17/09	9/21/09 18:10	96208	171359	
2,4-Dimethylphenol	9.4	U	9.4	1	9/17/09	9/21/09 18:10	96208	171359	
2,4-Dinitrophenol	47	U	47	1	9/17/09	9/21/09 18:10	96208	171359	
2,4-Dinitrotoluene	9.4	U	9.4	1	9/17/09	9/21/09 18:10	96208	171359	
2,6-Dinitrotoluene	9.4	U	9.4	1	9/17/09	9/21/09 18:10	96208	171359	
2-Chloronaphthalene	9.4	U	9.4	1	9/17/09	9/21/09 18:10	96208	171359	
2-Chlorophenol	9.4	U	9.4	1	9/17/09	9/21/09 18:10	96208	171359	
2-Methylnaphthalene	9.4	U	9.4	1	9/17/09	9/21/09 18:10	96208	171359	
2-Methylphenol	9.4	U	9.4	1	9/17/09	9/21/09 18:10	96208	171359	
2-Nitroaniline	47	U	47	1	9/17/09	9/21/09 18:10	96208	171359	
2-Nitrophenol	9.4	U	9.4	1	9/17/09	9/21/09 18:10	96208	171359	
3,3'-Dichlorobenzidine	9.4	U	9.4	1	9/17/09	9/21/09 18:10	96208	171359	
3- and 4-Methylphenol Coelution	9.4	U	9.4	1	9/17/09	9/21/09 18:10	96208	171359	
3-Nitroaniline	47	U	47	1	9/17/09	9/21/09 18:10	96208	171359	
4,6-Dinitro-2-methylphenol	47	U	47	1	9/17/09	9/21/09 18:10	96208	171359	
4-Bromophenyl Phenyl Ether	9.4	U	9.4	1	9/17/09	9/21/09 18:10	96208	171359	
4-Chloro-3-methylphenol	9.4	U	9.4	1	9/17/09	9/21/09 18:10	96208	171359	
4-Chloroaniline	9.4	U	9.4	1	9/17/09	9/21/09 18:10	96208	171359	
4-Chlorophenyl Phenyl Ether	9.4	U	9.4	1	9/17/09	9/21/09 18:10	96208	171359	
4-Nitroaniline	47	U	47	1	9/17/09	9/21/09 18:10	96208	171359	
4-Nitrophenol	47	U	47	1	9/17/09	9/21/09 18:10	96208	171359	
Acenaphthene	9.4	U	9.4	1	9/17/09	9/21/09 18:10	96208	171359	
Acenaphthylene	9.4	U	9.4	1	9/17/09	9/21/09 18:10	96208	171359	
Anthracene	9.4	U	9.4	1	9/17/09	9/21/09 18:10	96208	171359	
Benz(a)anthracene	9.4	U	9.4	1	9/17/09	9/21/09 18:10	96208	171359	
Benzo(a)pyrene	9.4	U	9.4	1	9/17/09	9/21/09 18:10	96208	171359	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Unicorn Management Consultants
Project: Union Rd #2011-100
Sample Matrix: Water

Sample Name: MW 12M
Lab Code: R0905245-007

Service Request: R0905245
Date Collected: 9/14/09 1720
Date Received: 9/15/09

Units: µg/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270C
Prep Method: EPA 3510C

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Benzo(b)fluoranthene	9.4	U	9.4	1	9/17/09	9/21/09 18:10	96208	171359	
Benzo(g,h,i)perylene	9.4	U	9.4	1	9/17/09	9/21/09 18:10	96208	171359	
Benzo(k)fluoranthene	9.4	U	9.4	1	9/17/09	9/21/09 18:10	96208	171359	
Benzyl Alcohol	9.4	U	9.4	1	9/17/09	9/21/09 18:10	96208	171359	
2,2'-Oxybis(1-chloropropane)	9.4	U	9.4	1	9/17/09	9/21/09 18:10	96208	171359	
Bis(2-chloroethoxy)methane	9.4	U	9.4	1	9/17/09	9/21/09 18:10	96208	171359	
Bis(2-chloroethyl) Ether	9.4	U	9.4	1	9/17/09	9/21/09 18:10	96208	171359	
Bis(2-ethylhexyl) Phthalate	9.4	U	9.4	1	9/17/09	9/21/09 18:10	96208	171359	
Butyl Benzyl Phthalate	9.4	U	9.4	1	9/17/09	9/21/09 18:10	96208	171359	
Carbazole	9.4	U	9.4	1	9/17/09	9/21/09 18:10	96208	171359	
Chrysene	9.4	U	9.4	1	9/17/09	9/21/09 18:10	96208	171359	
Di-n-butyl Phthalate	9.4	U	9.4	1	9/17/09	9/21/09 18:10	96208	171359	
Di-n-octyl Phthalate	9.4	U	9.4	1	9/17/09	9/21/09 18:10	96208	171359	
Dibenz(a,h)anthracene	9.4	U	9.4	1	9/17/09	9/21/09 18:10	96208	171359	
Dibenzofuran	9.4	U	9.4	1	9/17/09	9/21/09 18:10	96208	171359	
Diethyl Phthalate	9.4	U	9.4	1	9/17/09	9/21/09 18:10	96208	171359	
Dimethyl Phthalate	9.4	U	9.4	1	9/17/09	9/21/09 18:10	96208	171359	
Fluoranthene	9.4	U	9.4	1	9/17/09	9/21/09 18:10	96208	171359	
Fluorene	9.4	U	9.4	1	9/17/09	9/21/09 18:10	96208	171359	
Hexachlorobenzene	9.4	U	9.4	1	9/17/09	9/21/09 18:10	96208	171359	
Hexachlorobutadiene	9.4	U	9.4	1	9/17/09	9/21/09 18:10	96208	171359	
Hexachlorocyclopentadiene	9.4	U	9.4	1	9/17/09	9/21/09 18:10	96208	171359	
Hexachloroethane	9.4	U	9.4	1	9/17/09	9/21/09 18:10	96208	171359	
Indeno(1,2,3-cd)pyrene	9.4	U	9.4	1	9/17/09	9/21/09 18:10	96208	171359	
Isophorone	9.4	U	9.4	1	9/17/09	9/21/09 18:10	96208	171359	
N-Nitrosodi-n-propylamine	9.4	U	9.4	1	9/17/09	9/21/09 18:10	96208	171359	
N-Nitrosodimethylamine	9.4	U	9.4	1	9/17/09	9/21/09 18:10	96208	171359	
N-Nitrosodiphenylamine	9.4	U	9.4	1	9/17/09	9/21/09 18:10	96208	171359	
Naphthalene	9.4	U	9.4	1	9/17/09	9/21/09 18:10	96208	171359	
Nitrobenzene	9.4	U	9.4	1	9/17/09	9/21/09 18:10	96208	171359	
Pentachlorophenol (PCP)	47	U	47	1	9/17/09	9/21/09 18:10	96208	171359	
Phenanthrene	9.4	U	9.4	1	9/17/09	9/21/09 18:10	96208	171359	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Unicorn Management Consultants	**Service Request:**	R0905245
Project:	Union Rd #2011-100	**Date Collected:**	9/14/09 1720
Sample Matrix:	Water	**Date Received:**	9/15/09
Sample Name:	MW 12M	**Units:**	µg/L
Lab Code:	R0905245-007	**Basis:**	NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270C
Prep Method: EPA 3510C

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Phenol	9.4	U	9.4	1	9/17/09	9/21/09 18:10	96208	171359	
Pyrene	9.4	U	9.4	1	9/17/09	9/21/09 18:10	96208	171359	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
2,4,6-Tribromophenol	97	46-134	9/21/09 18:10		
2-Fluorobiphenyl	86	46-110	9/21/09 18:10		
2-Fluorophenol	47	12-84	9/21/09 18:10		
Nitrobenzene-d5	86	44-117	9/21/09 18:10		
Phenol-d6	30	10-70	9/21/09 18:10		
p-Terphenyl-d14	97	40-133	9/21/09 18:10		

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Unicorn Management Consultants	**Service Request:**	R0905245
Project:	Union Rd #2011-100	**Date Collected:**	9/14/09 1700
Sample Matrix:	Water	**Date Received:**	9/15/09
Sample Name:	MW 12D		
Lab Code:	R0905245-008	**Basis:**	NA

Oil and Grease, HEM Silica Gel Treated

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed
Oil and Grease, Nonpolar (SGT-HEM)	1664	4.7	U	mg/L	4.7	1	NA	9/24/09 07:30

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Unicorn Management Consultants	**Service Request:**	R0905245
Project:	Union Rd #2011-100	**Date Collected:**	9/14/09 1700
Sample Matrix:	Water	**Date Received:**	9/15/09
Sample Name:	MW 12D		
Lab Code:	R0905245-008	**Basis:**	NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed
Arsenic, Dissolved	6010B	0.010	U	mg/L	0.010	1	9/22/09	9/24/09 18:56
Lead, Dissolved	6010B	0.0050	U	mg/L	0.0050	1	9/22/09	9/24/09 18:56

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Unicorn Management Consultants	**Service Request:**	R0905245
Project:	Union Rd #2011-100	**Date Collected:**	9/14/09 1700
Sample Matrix:	Water	**Date Received:**	9/15/09
Sample Name:	MW 12D	**Units:**	µg/L
Lab Code:	R0905245-008	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Acetone	20	U	20	1	NA	9/23/09 17:06		171600	
Benzene	5.0	U	5.0	1	NA	9/23/09 17:06		171600	
Bromodichloromethane	5.0	U	5.0	1	NA	9/23/09 17:06		171600	
Bromoform	5.0	U	5.0	1	NA	9/23/09 17:06		171600	
Bromomethane	5.0	U	5.0	1	NA	9/23/09 17:06		171600	
2-Butanone (MEK)	10	U	10	1	NA	9/23/09 17:06		171600	
Carbon Disulfide	10	U	10	1	NA	9/23/09 17:06		171600	
Carbon Tetrachloride	5.0	U	5.0	1	NA	9/23/09 17:06		171600	
Chlorobenzene	5.0	U	5.0	1	NA	9/23/09 17:06		171600	
Chloroethane	5.0	U	5.0	1	NA	9/23/09 17:06		171600	
Chloroform	5.0	U	5.0	1	NA	9/23/09 17:06		171600	
Chloromethane	5.0	U	5.0	1	NA	9/23/09 17:06		171600	
Dibromochloromethane	5.0	U	5.0	1	NA	9/23/09 17:06		171600	
1,1-Dichloroethane	5.0	U	5.0	1	NA	9/23/09 17:06		171600	
1,2-Dichloroethane	5.0	U	5.0	1	NA	9/23/09 17:06		171600	
1,1-Dichloroethene	5.0	U	5.0	1	NA	9/23/09 17:06		171600	
cis-1,2-Dichloroethene	5.0	U	5.0	1	NA	9/23/09 17:06		171600	
trans-1,2-Dichloroethene	5.0	U	5.0	1	NA	9/23/09 17:06		171600	
1,2-Dichloropropane	5.0	U	5.0	1	NA	9/23/09 17:06		171600	
cis-1,3-Dichloropropene	5.0	U	5.0	1	NA	9/23/09 17:06		171600	
trans-1,3-Dichloropropene	5.0	U	5.0	1	NA	9/23/09 17:06		171600	
Ethylbenzene	5.0	U	5.0	1	NA	9/23/09 17:06		171600	
2-Hexanone	10	U	10	1	NA	9/23/09 17:06		171600	
Methylene Chloride	5.0	U	5.0	1	NA	9/23/09 17:06		171600	
4-Methyl-2-pentanone (MIBK)	10	U	10	1	NA	9/23/09 17:06		171600	
Styrene	5.0	U	5.0	1	NA	9/23/09 17:06		171600	
1,1,2,2-Tetrachloroethane	5.0	U	5.0	1	NA	9/23/09 17:06		171600	
Tetrachloroethene	5.0	U	5.0	1	NA	9/23/09 17:06		171600	
Toluene	5.0	U	5.0	1	NA	9/23/09 17:06		171600	
1,1,1-Trichloroethane	5.0	U	5.0	1	NA	9/23/09 17:06		171600	
1,1,2-Trichloroethane	5.0	U	5.0	1	NA	9/23/09 17:06		171600	
Trichloroethene	5.0	U	5.0	1	NA	9/23/09 17:06		171600	
Vinyl Chloride	5.0	U	5.0	1	NA	9/23/09 17:06		171600	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Unicorn Management Consultants	**Service Request:**	R0905245
Project:	Union Rd #2011-100	**Date Collected:**	9/14/09 1700
Sample Matrix:	Water	**Date Received:**	9/15/09
Sample Name:	MW 12D	**Units:**	µg/L
Lab Code:	R0905245-008	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
o-Xylene	5.0	U	5.0	1	NA	9/23/09 17:06		171600	
m,p-Xylenes	5.0	U	5.0	1	NA	9/23/09 17:06		171600	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
4-Bromofluorobenzene	106	85-122	9/23/09 17:06		
Toluene-d8	102	87-121	9/23/09 17:06		
Dibromofluoromethane	113	89-119	9/23/09 17:06		

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Unicorn Management Consultants
Project: Union Rd #2011-100
Sample Matrix: Water

Sample Name: MW 12D
Lab Code: R0905245-008

Service Request: R0905245
Date Collected: 9/14/09 1700
Date Received: 9/15/09

Units: µg/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270C
Prep Method: EPA 3510C

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,2,4-Trichlorobenzene	9.4	U	9.4	1	9/17/09	9/21/09 18:50	96208	171359	
1,2-Dichlorobenzene	9.4	U	9.4	1	9/17/09	9/21/09 18:50	96208	171359	
1,3-Dichlorobenzene	9.4	U	9.4	1	9/17/09	9/21/09 18:50	96208	171359	
1,4-Dichlorobenzene	9.4	U	9.4	1	9/17/09	9/21/09 18:50	96208	171359	
2,4,5-Trichlorophenol	9.4	U	9.4	1	9/17/09	9/21/09 18:50	96208	171359	
2,4,6-Trichlorophenol	9.4	U	9.4	1	9/17/09	9/21/09 18:50	96208	171359	
2,4-Dichlorophenol	9.4	U	9.4	1	9/17/09	9/21/09 18:50	96208	171359	
2,4-Dimethylphenol	9.4	U	9.4	1	9/17/09	9/21/09 18:50	96208	171359	
2,4-Dinitrophenol	47	U	47	1	9/17/09	9/21/09 18:50	96208	171359	
2,4-Dinitrotoluene	9.4	U	9.4	1	9/17/09	9/21/09 18:50	96208	171359	
2,6-Dinitrotoluene	9.4	U	9.4	1	9/17/09	9/21/09 18:50	96208	171359	
2-Chloronaphthalene	9.4	U	9.4	1	9/17/09	9/21/09 18:50	96208	171359	
2-Chlorophenol	9.4	U	9.4	1	9/17/09	9/21/09 18:50	96208	171359	
2-Methylnaphthalene	9.4	U	9.4	1	9/17/09	9/21/09 18:50	96208	171359	
2-Methylphenol	9.4	U	9.4	1	9/17/09	9/21/09 18:50	96208	171359	
2-Nitroaniline	47	U	47	1	9/17/09	9/21/09 18:50	96208	171359	
2-Nitrophenol	9.4	U	9.4	1	9/17/09	9/21/09 18:50	96208	171359	
3,3'-Dichlorobenzidine	9.4	U	9.4	1	9/17/09	9/21/09 18:50	96208	171359	
3- and 4-Methylphenol Coelution	9.4	U	9.4	1	9/17/09	9/21/09 18:50	96208	171359	
3-Nitroaniline	47	U	47	1	9/17/09	9/21/09 18:50	96208	171359	
4,6-Dinitro-2-methylphenol	47	U	47	1	9/17/09	9/21/09 18:50	96208	171359	
4-Bromophenyl Phenyl Ether	9.4	U	9.4	1	9/17/09	9/21/09 18:50	96208	171359	
4-Chloro-3-methylphenol	9.4	U	9.4	1	9/17/09	9/21/09 18:50	96208	171359	
4-Chloroaniline	9.4	U	9.4	1	9/17/09	9/21/09 18:50	96208	171359	
4-Chlorophenyl Phenyl Ether	9.4	U	9.4	1	9/17/09	9/21/09 18:50	96208	171359	
4-Nitroaniline	47	U	47	1	9/17/09	9/21/09 18:50	96208	171359	
4-Nitrophenol	47	U	47	1	9/17/09	9/21/09 18:50	96208	171359	
Acenaphthene	9.4	U	9.4	1	9/17/09	9/21/09 18:50	96208	171359	
Acenaphthylene	9.4	U	9.4	1	9/17/09	9/21/09 18:50	96208	171359	
Anthracene	9.4	U	9.4	1	9/17/09	9/21/09 18:50	96208	171359	
Benz(a)anthracene	9.4	U	9.4	1	9/17/09	9/21/09 18:50	96208	171359	
Benzo(a)pyrene	9.4	U	9.4	1	9/17/09	9/21/09 18:50	96208	171359	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Unicorn Management Consultants
Project: Union Rd #2011-100
Sample Matrix: Water

Sample Name: MW 12D
Lab Code: R0905245-008

Service Request: R0905245
Date Collected: 9/14/09 1700
Date Received: 9/15/09

Units: µg/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270C
Prep Method: EPA 3510C

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Benzo(b)fluoranthene	9.4	U	9.4	1	9/17/09	9/21/09 18:50	96208	171359	
Benzo(g,h,i)perylene	9.4	U	9.4	1	9/17/09	9/21/09 18:50	96208	171359	
Benzo(k)fluoranthene	9.4	U	9.4	1	9/17/09	9/21/09 18:50	96208	171359	
Benzyl Alcohol	9.4	U	9.4	1	9/17/09	9/21/09 18:50	96208	171359	
2,2'-Oxybis(1-chloropropane)	9.4	U	9.4	1	9/17/09	9/21/09 18:50	96208	171359	
Bis(2-chloroethoxy)methane	9.4	U	9.4	1	9/17/09	9/21/09 18:50	96208	171359	
Bis(2-chloroethyl) Ether	9.4	U	9.4	1	9/17/09	9/21/09 18:50	96208	171359	
Bis(2-ethylhexyl) Phthalate	9.4	U	9.4	1	9/17/09	9/21/09 18:50	96208	171359	
Butyl Benzyl Phthalate	9.4	U	9.4	1	9/17/09	9/21/09 18:50	96208	171359	
Carbazole	9.4	U	9.4	1	9/17/09	9/21/09 18:50	96208	171359	
Chrysene	9.4	U	9.4	1	9/17/09	9/21/09 18:50	96208	171359	
Di-n-butyl Phthalate	9.4	U	9.4	1	9/17/09	9/21/09 18:50	96208	171359	
Di-n-octyl Phthalate	9.4	U	9.4	1	9/17/09	9/21/09 18:50	96208	171359	
Dibenz(a,h)anthracene	9.4	U	9.4	1	9/17/09	9/21/09 18:50	96208	171359	
Dibenzofuran	9.4	U	9.4	1	9/17/09	9/21/09 18:50	96208	171359	
Diethyl Phthalate	9.4	U	9.4	1	9/17/09	9/21/09 18:50	96208	171359	
Dimethyl Phthalate	9.4	U	9.4	1	9/17/09	9/21/09 18:50	96208	171359	
Fluoranthene	9.4	U	9.4	1	9/17/09	9/21/09 18:50	96208	171359	
Fluorene	9.4	U	9.4	1	9/17/09	9/21/09 18:50	96208	171359	
Hexachlorobenzene	9.4	U	9.4	1	9/17/09	9/21/09 18:50	96208	171359	
Hexachlorobutadiene	9.4	U	9.4	1	9/17/09	9/21/09 18:50	96208	171359	
Hexachlorocyclopentadiene	9.4	U	9.4	1	9/17/09	9/21/09 18:50	96208	171359	
Hexachloroethane	9.4	U	9.4	1	9/17/09	9/21/09 18:50	96208	171359	
Indeno(1,2,3-cd)pyrene	9.4	U	9.4	1	9/17/09	9/21/09 18:50	96208	171359	
Isophorone	9.4	U	9.4	1	9/17/09	9/21/09 18:50	96208	171359	
N-Nitrosodi-n-propylamine	9.4	U	9.4	1	9/17/09	9/21/09 18:50	96208	171359	
N-Nitrosodimethylamine	9.4	U	9.4	1	9/17/09	9/21/09 18:50	96208	171359	
N-Nitrosodiphenylamine	9.4	U	9.4	1	9/17/09	9/21/09 18:50	96208	171359	
Naphthalene	9.4	U	9.4	1	9/17/09	9/21/09 18:50	96208	171359	
Nitrobenzene	9.4	U	9.4	1	9/17/09	9/21/09 18:50	96208	171359	
Pentachlorophenol (PCP)	47	U	47	1	9/17/09	9/21/09 18:50	96208	171359	
Phenanthrene	9.4	U	9.4	1	9/17/09	9/21/09 18:50	96208	171359	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Unicorn Management Consultants	**Service Request:**	R0905245
Project:	Union Rd #2011-100	**Date Collected:**	9/14/09 1700
Sample Matrix:	Water	**Date Received:**	9/15/09
Sample Name:	MW 12D	**Units:**	µg/L
Lab Code:	R0905245-008	**Basis:**	NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270C
Prep Method: EPA 3510C

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Phenol	9.4	U	9.4	1	9/17/09	9/21/09 18:50	96208	171359	
Pyrene	9.4	U	9.4	1	9/17/09	9/21/09 18:50	96208	171359	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
2,4,6-Tribromophenol	95	46-134	9/21/09 18:50		
2-Fluorobiphenyl	81	46-110	9/21/09 18:50		
2-Fluorophenol	44	12-84	9/21/09 18:50		
Nitrobenzene-d5	82	44-117	9/21/09 18:50		
Phenol-d6	27	10-70	9/21/09 18:50		
p-Terphenyl-d14	98	40-133	9/21/09 18:50		

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Unicorn Management Consultants	**Service Request:**	R0905245
Project:	Union Rd #2011-100	**Date Collected:**	9/14/09 1915
Sample Matrix:	Water	**Date Received:**	9/15/09
Sample Name:	MW 13M		
Lab Code:	R0905245-009	**Basis:**	NA

Oil and Grease, HEM Silica Gel Treated

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed
Oil and Grease, Nonpolar (SGT-HEM)	1664	4.7	U	mg/L	4.7	1	NA	9/24/09 07:30

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Unicorn Management Consultants	**Service Request:**	R0905245
Project:	Union Rd #2011-100	**Date Collected:**	9/14/09 1915
Sample Matrix:	Water	**Date Received:**	9/15/09
Sample Name:	MW 13M		
Lab Code:	R0905245-009	**Basis:**	NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed
Arsenic, Dissolved	6010B	0.010	U	mg/L	0.010	1	9/22/09	9/24/09 19:02
Lead, Dissolved	6010B	0.0050	U	mg/L	0.0050	1	9/22/09	9/24/09 19:02

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Unicorn Management Consultants	**Service Request:**	R0905245
Project:	Union Rd #2011-100	**Date Collected:**	9/14/09 1915
Sample Matrix:	Water	**Date Received:**	9/15/09
Sample Name:	MW 13M	**Units:**	µg/L
Lab Code:	R0905245-009	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Acetone	20	U	20	1	NA	9/23/09 17:35		171600	
Benzene	5.0	U	5.0	1	NA	9/23/09 17:35		171600	
Bromodichloromethane	5.0	U	5.0	1	NA	9/23/09 17:35		171600	
Bromoform	5.0	U	5.0	1	NA	9/23/09 17:35		171600	
Bromomethane	5.0	U	5.0	1	NA	9/23/09 17:35		171600	
2-Butanone (MEK)	10	U	10	1	NA	9/23/09 17:35		171600	
Carbon Disulfide	10	U	10	1	NA	9/23/09 17:35		171600	
Carbon Tetrachloride	5.0	U	5.0	1	NA	9/23/09 17:35		171600	
Chlorobenzene	5.0	U	5.0	1	NA	9/23/09 17:35		171600	
Chloroethane	5.0	U	5.0	1	NA	9/23/09 17:35		171600	
Chloroform	5.0	U	5.0	1	NA	9/23/09 17:35		171600	
Chloromethane	5.0	U	5.0	1	NA	9/23/09 17:35		171600	
Dibromochloromethane	5.0	U	5.0	1	NA	9/23/09 17:35		171600	
1,1-Dichloroethane	5.0	U	5.0	1	NA	9/23/09 17:35		171600	
1,2-Dichloroethane	5.0	U	5.0	1	NA	9/23/09 17:35		171600	
1,1-Dichloroethene	5.0	U	5.0	1	NA	9/23/09 17:35		171600	
cis-1,2-Dichloroethene	5.0	U	5.0	1	NA	9/23/09 17:35		171600	
trans-1,2-Dichloroethene	5.0	U	5.0	1	NA	9/23/09 17:35		171600	
1,2-Dichloropropane	5.0	U	5.0	1	NA	9/23/09 17:35		171600	
cis-1,3-Dichloropropene	5.0	U	5.0	1	NA	9/23/09 17:35		171600	
trans-1,3-Dichloropropene	5.0	U	5.0	1	NA	9/23/09 17:35		171600	
Ethylbenzene	5.0	U	5.0	1	NA	9/23/09 17:35		171600	
2-Hexanone	10	U	10	1	NA	9/23/09 17:35		171600	
Methylene Chloride	5.0	U	5.0	1	NA	9/23/09 17:35		171600	
4-Methyl-2-pentanone (MIBK)	10	U	10	1	NA	9/23/09 17:35		171600	
Styrene	5.0	U	5.0	1	NA	9/23/09 17:35		171600	
1,1,2,2-Tetrachloroethane	5.0	U	5.0	1	NA	9/23/09 17:35		171600	
Tetrachloroethene	5.0	U	5.0	1	NA	9/23/09 17:35		171600	
Toluene	5.0	U	5.0	1	NA	9/23/09 17:35		171600	
1,1,1-Trichloroethane	5.0	U	5.0	1	NA	9/23/09 17:35		171600	
1,1,2-Trichloroethane	5.0	U	5.0	1	NA	9/23/09 17:35		171600	
Trichloroethene	5.0	U	5.0	1	NA	9/23/09 17:35		171600	
Vinyl Chloride	5.0	U	5.0	1	NA	9/23/09 17:35		171600	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Unicorn Management Consultants	**Service Request:**	R0905245
Project:	Union Rd #2011-100	**Date Collected:**	9/14/09 1915
Sample Matrix:	Water	**Date Received:**	9/15/09
Sample Name:	MW 13M	**Units:**	µg/L
Lab Code:	R0905245-009	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
o-Xylene	5.0	U	5.0	1	NA	9/23/09 17:35		171600	
m,p-Xylenes	5.0	U	5.0	1	NA	9/23/09 17:35		171600	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
4-Bromofluorobenzene	107	85-122	9/23/09 17:35		
Toluene-d8	101	87-121	9/23/09 17:35		
Dibromofluoromethane	113	89-119	9/23/09 17:35		

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Unicorn Management Consultants
Project: Union Rd #2011-100
Sample Matrix: Water

Sample Name: MW 13M
Lab Code: R0905245-009

Service Request: R0905245
Date Collected: 9/14/09 1915
Date Received: 9/15/09

Units: µg/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270C
Prep Method: EPA 3510C

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,2,4-Trichlorobenzene	9.4	U	9.4	1	9/17/09	9/21/09 19:30	96208	171359	
1,2-Dichlorobenzene	9.4	U	9.4	1	9/17/09	9/21/09 19:30	96208	171359	
1,3-Dichlorobenzene	9.4	U	9.4	1	9/17/09	9/21/09 19:30	96208	171359	
1,4-Dichlorobenzene	9.4	U	9.4	1	9/17/09	9/21/09 19:30	96208	171359	
2,4,5-Trichlorophenol	9.4	U	9.4	1	9/17/09	9/21/09 19:30	96208	171359	
2,4,6-Trichlorophenol	9.4	U	9.4	1	9/17/09	9/21/09 19:30	96208	171359	
2,4-Dichlorophenol	9.4	U	9.4	1	9/17/09	9/21/09 19:30	96208	171359	
2,4-Dimethylphenol	9.4	U	9.4	1	9/17/09	9/21/09 19:30	96208	171359	
2,4-Dinitrophenol	47	U	47	1	9/17/09	9/21/09 19:30	96208	171359	
2,4-Dinitrotoluene	9.4	U	9.4	1	9/17/09	9/21/09 19:30	96208	171359	
2,6-Dinitrotoluene	9.4	U	9.4	1	9/17/09	9/21/09 19:30	96208	171359	
2-Chloronaphthalene	9.4	U	9.4	1	9/17/09	9/21/09 19:30	96208	171359	
2-Chlorophenol	9.4	U	9.4	1	9/17/09	9/21/09 19:30	96208	171359	
2-Methylnaphthalene	9.4	U	9.4	1	9/17/09	9/21/09 19:30	96208	171359	
2-Methylphenol	9.4	U	9.4	1	9/17/09	9/21/09 19:30	96208	171359	
2-Nitroaniline	47	U	47	1	9/17/09	9/21/09 19:30	96208	171359	
2-Nitrophenol	9.4	U	9.4	1	9/17/09	9/21/09 19:30	96208	171359	
3,3'-Dichlorobenzidine	9.4	U	9.4	1	9/17/09	9/21/09 19:30	96208	171359	
3- and 4-Methylphenol Coelution	9.4	U	9.4	1	9/17/09	9/21/09 19:30	96208	171359	
3-Nitroaniline	47	U	47	1	9/17/09	9/21/09 19:30	96208	171359	
4,6-Dinitro-2-methylphenol	47	U	47	1	9/17/09	9/21/09 19:30	96208	171359	
4-Bromophenyl Phenyl Ether	9.4	U	9.4	1	9/17/09	9/21/09 19:30	96208	171359	
4-Chloro-3-methylphenol	9.4	U	9.4	1	9/17/09	9/21/09 19:30	96208	171359	
4-Chloroaniline	9.4	U	9.4	1	9/17/09	9/21/09 19:30	96208	171359	
4-Chlorophenyl Phenyl Ether	9.4	U	9.4	1	9/17/09	9/21/09 19:30	96208	171359	
4-Nitroaniline	47	U	47	1	9/17/09	9/21/09 19:30	96208	171359	
4-Nitrophenol	47	U	47	1	9/17/09	9/21/09 19:30	96208	171359	
Acenaphthene	9.4	U	9.4	1	9/17/09	9/21/09 19:30	96208	171359	
Acenaphthylene	9.4	U	9.4	1	9/17/09	9/21/09 19:30	96208	171359	
Anthracene	9.4	U	9.4	1	9/17/09	9/21/09 19:30	96208	171359	
Benz(a)anthracene	9.4	U	9.4	1	9/17/09	9/21/09 19:30	96208	171359	
Benzo(a)pyrene	9.4	U	9.4	1	9/17/09	9/21/09 19:30	96208	171359	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Unicorn Management Consultants
Project: Union Rd #2011-100
Sample Matrix: Water

Service Request: R0905245
Date Collected: 9/14/09 1915
Date Received: 9/15/09

Sample Name: MW 13M
Lab Code: R0905245-009

Units: µg/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270C
Prep Method: EPA 3510C

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Benzo(b)fluoranthene	9.4	U	9.4	1	9/17/09	9/21/09 19:30	96208	171359	
Benzo(g,h,i)perylene	9.4	U	9.4	1	9/17/09	9/21/09 19:30	96208	171359	
Benzo(k)fluoranthene	9.4	U	9.4	1	9/17/09	9/21/09 19:30	96208	171359	
Benzyl Alcohol	9.4	U	9.4	1	9/17/09	9/21/09 19:30	96208	171359	
2,2'-Oxybis(1-chloropropane)	9.4	U	9.4	1	9/17/09	9/21/09 19:30	96208	171359	
Bis(2-chloroethoxy)methane	9.4	U	9.4	1	9/17/09	9/21/09 19:30	96208	171359	
Bis(2-chloroethyl) Ether	9.4	U	9.4	1	9/17/09	9/21/09 19:30	96208	171359	
Bis(2-ethylhexyl) Phthalate	9.4	U	9.4	1	9/17/09	9/21/09 19:30	96208	171359	
Butyl Benzyl Phthalate	9.4	U	9.4	1	9/17/09	9/21/09 19:30	96208	171359	
Carbazole	9.4	U	9.4	1	9/17/09	9/21/09 19:30	96208	171359	
Chrysene	9.4	U	9.4	1	9/17/09	9/21/09 19:30	96208	171359	
Di-n-butyl Phthalate	9.4	U	9.4	1	9/17/09	9/21/09 19:30	96208	171359	
Di-n-octyl Phthalate	9.4	U	9.4	1	9/17/09	9/21/09 19:30	96208	171359	
Dibenz(a,h)anthracene	9.4	U	9.4	1	9/17/09	9/21/09 19:30	96208	171359	
Dibenzofuran	9.4	U	9.4	1	9/17/09	9/21/09 19:30	96208	171359	
Diethyl Phthalate	9.4	U	9.4	1	9/17/09	9/21/09 19:30	96208	171359	
Dimethyl Phthalate	9.4	U	9.4	1	9/17/09	9/21/09 19:30	96208	171359	
Fluoranthene	9.4	U	9.4	1	9/17/09	9/21/09 19:30	96208	171359	
Fluorene	9.4	U	9.4	1	9/17/09	9/21/09 19:30	96208	171359	
Hexachlorobenzene	9.4	U	9.4	1	9/17/09	9/21/09 19:30	96208	171359	
Hexachlorobutadiene	9.4	U	9.4	1	9/17/09	9/21/09 19:30	96208	171359	
Hexachlorocyclopentadiene	9.4	U	9.4	1	9/17/09	9/21/09 19:30	96208	171359	
Hexachloroethane	9.4	U	9.4	1	9/17/09	9/21/09 19:30	96208	171359	
Indeno(1,2,3-cd)pyrene	9.4	U	9.4	1	9/17/09	9/21/09 19:30	96208	171359	
Isophorone	9.4	U	9.4	1	9/17/09	9/21/09 19:30	96208	171359	
N-Nitrosodi-n-propylamine	9.4	U	9.4	1	9/17/09	9/21/09 19:30	96208	171359	
N-Nitrosodimethylamine	9.4	U	9.4	1	9/17/09	9/21/09 19:30	96208	171359	
N-Nitrosodiphenylamine	9.4	U	9.4	1	9/17/09	9/21/09 19:30	96208	171359	
Naphthalene	9.4	U	9.4	1	9/17/09	9/21/09 19:30	96208	171359	
Nitrobenzene	9.4	U	9.4	1	9/17/09	9/21/09 19:30	96208	171359	
Pentachlorophenol (PCP)	47	U	47	1	9/17/09	9/21/09 19:30	96208	171359	
Phenanthrene	9.4	U	9.4	1	9/17/09	9/21/09 19:30	96208	171359	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Unicorn Management Consultants	**Service Request:**	R0905245
Project:	Union Rd #2011-100	**Date Collected:**	9/14/09 1915
Sample Matrix:	Water	**Date Received:**	9/15/09
Sample Name:	MW 13M	**Units:**	µg/L
Lab Code:	R0905245-009	**Basis:**	NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270C
Prep Method: EPA 3510C

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Phenol	9.4	U	9.4	1	9/17/09	9/21/09 19:30	96208	171359	
Pyrene	9.4	U	9.4	1	9/17/09	9/21/09 19:30	96208	171359	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
2,4,6-Tribromophenol	91	46-134	9/21/09 19:30		
2-Fluorobiphenyl	76	46-110	9/21/09 19:30		
2-Fluorophenol	43	12-84	9/21/09 19:30		
Nitrobenzene-d5	78	44-117	9/21/09 19:30		
Phenol-d6	28	10-70	9/21/09 19:30		
p-Terphenyl-d14	94	40-133	9/21/09 19:30		

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Unicorn Management Consultants	**Service Request:**	R0905245
Project:	Union Rd #2011-100	**Date Collected:**	9/14/09 1930
Sample Matrix:	Water	**Date Received:**	9/15/09
Sample Name:	MW 13S		
Lab Code:	R0905245-010	**Basis:**	NA

Oil and Grease, HEM Silica Gel Treated

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed
Oil and Grease, Nonpolar (SGT-HEM)	1664	4.8	U	mg/L	4.8	1	NA	9/24/09 07:30

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Unicorn Management Consultants	**Service Request:**	R0905245
Project:	Union Rd #2011-100	**Date Collected:**	9/14/09 1930
Sample Matrix:	Water	**Date Received:**	9/15/09
Sample Name:	MW 13S		
Lab Code:	R0905245-010	**Basis:**	NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed
Arsenic, Dissolved	6010B	0.010	U	mg/L	0.010	1	9/22/09	9/24/09 19:20
Lead, Dissolved	6010B	0.0050	U	mg/L	0.0050	1	9/22/09	9/24/09 19:20

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Unicorn Management Consultants
Project: Union Rd #2011-100
Sample Matrix: Water

Sample Name: MW 13S
Lab Code: R0905245-010

Service Request: R0905245
Date Collected: 9/14/09 1930
Date Received: 9/15/09

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Acetone	20	U	20	1	NA	9/23/09 18:03		171600	
Benzene	5.0	U	5.0	1	NA	9/23/09 18:03		171600	
Bromodichloromethane	5.0	U	5.0	1	NA	9/23/09 18:03		171600	
Bromoform	5.0	U	5.0	1	NA	9/23/09 18:03		171600	
Bromomethane	5.0	U	5.0	1	NA	9/23/09 18:03		171600	
2-Butanone (MEK)	10	U	10	1	NA	9/23/09 18:03		171600	
Carbon Disulfide	10	U	10	1	NA	9/23/09 18:03		171600	
Carbon Tetrachloride	5.0	U	5.0	1	NA	9/23/09 18:03		171600	
Chlorobenzene	5.0	U	5.0	1	NA	9/23/09 18:03		171600	
Chloroethane	5.0	U	5.0	1	NA	9/23/09 18:03		171600	
Chloroform	5.0	U	5.0	1	NA	9/23/09 18:03		171600	
Chloromethane	5.0	U	5.0	1	NA	9/23/09 18:03		171600	
Dibromochloromethane	5.0	U	5.0	1	NA	9/23/09 18:03		171600	
1,1-Dichloroethane	5.0	U	5.0	1	NA	9/23/09 18:03		171600	
1,2-Dichloroethane	5.0	U	5.0	1	NA	9/23/09 18:03		171600	
1,1-Dichloroethene	5.0	U	5.0	1	NA	9/23/09 18:03		171600	
cis-1,2-Dichloroethene	5.0	U	5.0	1	NA	9/23/09 18:03		171600	
trans-1,2-Dichloroethene	5.0	U	5.0	1	NA	9/23/09 18:03		171600	
1,2-Dichloropropane	5.0	U	5.0	1	NA	9/23/09 18:03		171600	
cis-1,3-Dichloropropene	5.0	U	5.0	1	NA	9/23/09 18:03		171600	
trans-1,3-Dichloropropene	5.0	U	5.0	1	NA	9/23/09 18:03		171600	
Ethylbenzene	5.0	U	5.0	1	NA	9/23/09 18:03		171600	
2-Hexanone	10	U	10	1	NA	9/23/09 18:03		171600	
Methylene Chloride	5.0	U	5.0	1	NA	9/23/09 18:03		171600	
4-Methyl-2-pentanone (MIBK)	10	U	10	1	NA	9/23/09 18:03		171600	
Styrene	5.0	U	5.0	1	NA	9/23/09 18:03		171600	
1,1,2,2-Tetrachloroethane	5.0	U	5.0	1	NA	9/23/09 18:03		171600	
Tetrachloroethene	5.0	U	5.0	1	NA	9/23/09 18:03		171600	
Toluene	5.0	U	5.0	1	NA	9/23/09 18:03		171600	
1,1,1-Trichloroethane	5.0	U	5.0	1	NA	9/23/09 18:03		171600	
1,1,2-Trichloroethane	5.0	U	5.0	1	NA	9/23/09 18:03		171600	
Trichloroethene	5.0	U	5.0	1	NA	9/23/09 18:03		171600	
Vinyl Chloride	5.0	U	5.0	1	NA	9/23/09 18:03		171600	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Unicorn Management Consultants	**Service Request:**	R0905245
Project:	Union Rd #2011-100	**Date Collected:**	9/14/09 1930
Sample Matrix:	Water	**Date Received:**	9/15/09
Sample Name:	MW 13S	**Units:**	µg/L
Lab Code:	R0905245-010	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
o-Xylene	5.0	U	5.0	1	NA	9/23/09 18:03		171600	
m,p-Xylenes	5.0	U	5.0	1	NA	9/23/09 18:03		171600	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
4-Bromofluorobenzene	107	85-122	9/23/09 18:03		
Toluene-d8	102	87-121	9/23/09 18:03		
Dibromofluoromethane	110	89-119	9/23/09 18:03		

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Unicorn Management Consultants
Project: Union Rd #2011-100
Sample Matrix: Water

Sample Name: MW 13S
Lab Code: R0905245-010

Service Request: R0905245
Date Collected: 9/14/09 1930
Date Received: 9/15/09

Units: µg/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270C
Prep Method: EPA 3510C

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,2,4-Trichlorobenzene	9.4	U	9.4	1	9/17/09	9/21/09 20:10	96208	171359	
1,2-Dichlorobenzene	9.4	U	9.4	1	9/17/09	9/21/09 20:10	96208	171359	
1,3-Dichlorobenzene	9.4	U	9.4	1	9/17/09	9/21/09 20:10	96208	171359	
1,4-Dichlorobenzene	9.4	U	9.4	1	9/17/09	9/21/09 20:10	96208	171359	
2,4,5-Trichlorophenol	9.4	U	9.4	1	9/17/09	9/21/09 20:10	96208	171359	
2,4,6-Trichlorophenol	9.4	U	9.4	1	9/17/09	9/21/09 20:10	96208	171359	
2,4-Dichlorophenol	9.4	U	9.4	1	9/17/09	9/21/09 20:10	96208	171359	
2,4-Dimethylphenol	9.4	U	9.4	1	9/17/09	9/21/09 20:10	96208	171359	
2,4-Dinitrophenol	47	U	47	1	9/17/09	9/21/09 20:10	96208	171359	
2,4-Dinitrotoluene	9.4	U	9.4	1	9/17/09	9/21/09 20:10	96208	171359	
2,6-Dinitrotoluene	9.4	U	9.4	1	9/17/09	9/21/09 20:10	96208	171359	
2-Chloronaphthalene	9.4	U	9.4	1	9/17/09	9/21/09 20:10	96208	171359	
2-Chlorophenol	9.4	U	9.4	1	9/17/09	9/21/09 20:10	96208	171359	
2-Methylnaphthalene	9.4	U	9.4	1	9/17/09	9/21/09 20:10	96208	171359	
2-Methylphenol	9.4	U	9.4	1	9/17/09	9/21/09 20:10	96208	171359	
2-Nitroaniline	47	U	47	1	9/17/09	9/21/09 20:10	96208	171359	
2-Nitrophenol	9.4	U	9.4	1	9/17/09	9/21/09 20:10	96208	171359	
3,3'-Dichlorobenzidine	9.4	U	9.4	1	9/17/09	9/21/09 20:10	96208	171359	
3- and 4-Methylphenol Coelution	9.4	U	9.4	1	9/17/09	9/21/09 20:10	96208	171359	
3-Nitroaniline	47	U	47	1	9/17/09	9/21/09 20:10	96208	171359	
4,6-Dinitro-2-methylphenol	47	U	47	1	9/17/09	9/21/09 20:10	96208	171359	
4-Bromophenyl Phenyl Ether	9.4	U	9.4	1	9/17/09	9/21/09 20:10	96208	171359	
4-Chloro-3-methylphenol	9.4	U	9.4	1	9/17/09	9/21/09 20:10	96208	171359	
4-Chloroaniline	9.4	U	9.4	1	9/17/09	9/21/09 20:10	96208	171359	
4-Chlorophenyl Phenyl Ether	9.4	U	9.4	1	9/17/09	9/21/09 20:10	96208	171359	
4-Nitroaniline	47	U	47	1	9/17/09	9/21/09 20:10	96208	171359	
4-Nitrophenol	47	U	47	1	9/17/09	9/21/09 20:10	96208	171359	
Acenaphthene	9.4	U	9.4	1	9/17/09	9/21/09 20:10	96208	171359	
Acenaphthylene	9.4	U	9.4	1	9/17/09	9/21/09 20:10	96208	171359	
Anthracene	9.4	U	9.4	1	9/17/09	9/21/09 20:10	96208	171359	
Benz(a)anthracene	9.4	U	9.4	1	9/17/09	9/21/09 20:10	96208	171359	
Benzo(a)pyrene	9.4	U	9.4	1	9/17/09	9/21/09 20:10	96208	171359	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Unicorn Management Consultants
Project: Union Rd #2011-100
Sample Matrix: Water

Sample Name: MW 13S
Lab Code: R0905245-010

Service Request: R0905245
Date Collected: 9/14/09 1930
Date Received: 9/15/09

Units: µg/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270C
Prep Method: EPA 3510C

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Benzo(b)fluoranthene	9.4	U	9.4	1	9/17/09	9/21/09 20:10	96208	171359	
Benzo(g,h,i)perylene	9.4	U	9.4	1	9/17/09	9/21/09 20:10	96208	171359	
Benzo(k)fluoranthene	9.4	U	9.4	1	9/17/09	9/21/09 20:10	96208	171359	
Benzyl Alcohol	9.4	U	9.4	1	9/17/09	9/21/09 20:10	96208	171359	
2,2'-Oxybis(1-chloropropane)	9.4	U	9.4	1	9/17/09	9/21/09 20:10	96208	171359	
Bis(2-chloroethoxy)methane	9.4	U	9.4	1	9/17/09	9/21/09 20:10	96208	171359	
Bis(2-chloroethyl) Ether	9.4	U	9.4	1	9/17/09	9/21/09 20:10	96208	171359	
Bis(2-ethylhexyl) Phthalate	9.4	U	9.4	1	9/17/09	9/21/09 20:10	96208	171359	
Butyl Benzyl Phthalate	9.4	U	9.4	1	9/17/09	9/21/09 20:10	96208	171359	
Carbazole	9.4	U	9.4	1	9/17/09	9/21/09 20:10	96208	171359	
Chrysene	9.4	U	9.4	1	9/17/09	9/21/09 20:10	96208	171359	
Di-n-butyl Phthalate	9.4	U	9.4	1	9/17/09	9/21/09 20:10	96208	171359	
Di-n-octyl Phthalate	9.4	U	9.4	1	9/17/09	9/21/09 20:10	96208	171359	
Dibenz(a,h)anthracene	9.4	U	9.4	1	9/17/09	9/21/09 20:10	96208	171359	
Dibenzofuran	9.4	U	9.4	1	9/17/09	9/21/09 20:10	96208	171359	
Diethyl Phthalate	9.4	U	9.4	1	9/17/09	9/21/09 20:10	96208	171359	
Dimethyl Phthalate	9.4	U	9.4	1	9/17/09	9/21/09 20:10	96208	171359	
Fluoranthene	9.4	U	9.4	1	9/17/09	9/21/09 20:10	96208	171359	
Fluorene	9.4	U	9.4	1	9/17/09	9/21/09 20:10	96208	171359	
Hexachlorobenzene	9.4	U	9.4	1	9/17/09	9/21/09 20:10	96208	171359	
Hexachlorobutadiene	9.4	U	9.4	1	9/17/09	9/21/09 20:10	96208	171359	
Hexachlorocyclopentadiene	9.4	U	9.4	1	9/17/09	9/21/09 20:10	96208	171359	
Hexachloroethane	9.4	U	9.4	1	9/17/09	9/21/09 20:10	96208	171359	
Indeno(1,2,3-cd)pyrene	9.4	U	9.4	1	9/17/09	9/21/09 20:10	96208	171359	
Isophorone	9.4	U	9.4	1	9/17/09	9/21/09 20:10	96208	171359	
N-Nitrosodi-n-propylamine	9.4	U	9.4	1	9/17/09	9/21/09 20:10	96208	171359	
N-Nitrosodimethylamine	9.4	U	9.4	1	9/17/09	9/21/09 20:10	96208	171359	
N-Nitrosodiphenylamine	9.4	U	9.4	1	9/17/09	9/21/09 20:10	96208	171359	
Naphthalene	9.4	U	9.4	1	9/17/09	9/21/09 20:10	96208	171359	
Nitrobenzene	9.4	U	9.4	1	9/17/09	9/21/09 20:10	96208	171359	
Pentachlorophenol (PCP)	47	U	47	1	9/17/09	9/21/09 20:10	96208	171359	
Phenanthrene	9.4	U	9.4	1	9/17/09	9/21/09 20:10	96208	171359	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Unicorn Management Consultants	**Service Request:**	R0905245
Project:	Union Rd #2011-100	**Date Collected:**	9/14/09 1930
Sample Matrix:	Water	**Date Received:**	9/15/09
Sample Name:	MW 13S	**Units:**	µg/L
Lab Code:	R0905245-010	**Basis:**	NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270C
Prep Method: EPA 3510C

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Phenol	9.4	U	9.4	1	9/17/09	9/21/09 20:10	96208	171359	
Pyrene	9.4	U	9.4	1	9/17/09	9/21/09 20:10	96208	171359	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
2,4,6-Tribromophenol	97	46-134	9/21/09 20:10		
2-Fluorobiphenyl	85	46-110	9/21/09 20:10		
2-Fluorophenol	49	12-84	9/21/09 20:10		
Nitrobenzene-d5	85	44-117	9/21/09 20:10		
Phenol-d6	31	10-70	9/21/09 20:10		
p-Terphenyl-d14	93	40-133	9/21/09 20:10		

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Unicorn Management Consultants	**Service Request:**	R0905245
Project:	Union Rd #2011-100	**Date Collected:**	9/14/09 1820
Sample Matrix:	Water	**Date Received:**	9/15/09
Sample Name:	MW 14S		
Lab Code:	R0905245-011	**Basis:**	NA

Oil and Grease, HEM Silica Gel Treated

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed
Oil and Grease, Nonpolar (SGT-HEM)	1664	4.7	U	mg/L	4.7	1	NA	9/24/09 07:30

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Unicorn Management Consultants
Project: Union Rd #2011-100
Sample Matrix: Water

Sample Name: MW 14S
Lab Code: R0905245-011

Service Request: R0905245
Date Collected: 9/14/09 1820
Date Received: 9/15/09

Basis: NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed
Arsenic, Dissolved	6010B	0.010	U	mg/L	0.010	1	9/22/09	9/24/09 19:26
Lead, Dissolved	6010B	0.0050	U	mg/L	0.0050	1	9/22/09	9/24/09 19:26

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Unicorn Management Consultants
Project: Union Rd #2011-100
Sample Matrix: Water

Sample Name: MW 14S
Lab Code: R0905245-011

Service Request: R0905245
Date Collected: 9/14/09 1820
Date Received: 9/15/09

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Acetone	20	U	20	1	NA	9/23/09 18:31		171600	
Benzene	5.0	U	5.0	1	NA	9/23/09 18:31		171600	
Bromodichloromethane	5.0	U	5.0	1	NA	9/23/09 18:31		171600	
Bromoform	5.0	U	5.0	1	NA	9/23/09 18:31		171600	
Bromomethane	5.0	U	5.0	1	NA	9/23/09 18:31		171600	
2-Butanone (MEK)	10	U	10	1	NA	9/23/09 18:31		171600	
Carbon Disulfide	10	U	10	1	NA	9/23/09 18:31		171600	
Carbon Tetrachloride	5.0	U	5.0	1	NA	9/23/09 18:31		171600	
Chlorobenzene	5.0	U	5.0	1	NA	9/23/09 18:31		171600	
Chloroethane	5.0	U	5.0	1	NA	9/23/09 18:31		171600	
Chloroform	5.0	U	5.0	1	NA	9/23/09 18:31		171600	
Chloromethane	5.0	U	5.0	1	NA	9/23/09 18:31		171600	
Dibromochloromethane	5.0	U	5.0	1	NA	9/23/09 18:31		171600	
1,1-Dichloroethane	5.0	U	5.0	1	NA	9/23/09 18:31		171600	
1,2-Dichloroethane	5.0	U	5.0	1	NA	9/23/09 18:31		171600	
1,1-Dichloroethene	5.0	U	5.0	1	NA	9/23/09 18:31		171600	
cis-1,2-Dichloroethene	5.0	U	5.0	1	NA	9/23/09 18:31		171600	
trans-1,2-Dichloroethene	5.0	U	5.0	1	NA	9/23/09 18:31		171600	
1,2-Dichloropropane	5.0	U	5.0	1	NA	9/23/09 18:31		171600	
cis-1,3-Dichloropropene	5.0	U	5.0	1	NA	9/23/09 18:31		171600	
trans-1,3-Dichloropropene	5.0	U	5.0	1	NA	9/23/09 18:31		171600	
Ethylbenzene	5.0	U	5.0	1	NA	9/23/09 18:31		171600	
2-Hexanone	10	U	10	1	NA	9/23/09 18:31		171600	
Methylene Chloride	5.0	U	5.0	1	NA	9/23/09 18:31		171600	
4-Methyl-2-pentanone (MIBK)	10	U	10	1	NA	9/23/09 18:31		171600	
Styrene	5.0	U	5.0	1	NA	9/23/09 18:31		171600	
1,1,2,2-Tetrachloroethane	5.0	U	5.0	1	NA	9/23/09 18:31		171600	
Tetrachloroethene	5.0	U	5.0	1	NA	9/23/09 18:31		171600	
Toluene	5.0	U	5.0	1	NA	9/23/09 18:31		171600	
1,1,1-Trichloroethane	5.0	U	5.0	1	NA	9/23/09 18:31		171600	
1,1,2-Trichloroethane	5.0	U	5.0	1	NA	9/23/09 18:31		171600	
Trichloroethene	5.0	U	5.0	1	NA	9/23/09 18:31		171600	
Vinyl Chloride	5.0	U	5.0	1	NA	9/23/09 18:31		171600	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Unicorn Management Consultants	**Service Request:**	R0905245
Project:	Union Rd #2011-100	**Date Collected:**	9/14/09 1820
Sample Matrix:	Water	**Date Received:**	9/15/09
Sample Name:	MW 14S	**Units:**	µg/L
Lab Code:	R0905245-011	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
o-Xylene	5.0	U	5.0	1	NA	9/23/09 18:31		171600	
m,p-Xylenes	5.0	U	5.0	1	NA	9/23/09 18:31		171600	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
4-Bromofluorobenzene	108	85-122	9/23/09 18:31		
Toluene-d8	102	87-121	9/23/09 18:31		
Dibromofluoromethane	112	89-119	9/23/09 18:31		

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Unicorn Management Consultants	**Service Request:**	R0905245
Project:	Union Rd #2011-100	**Date Collected:**	9/14/09 1820
Sample Matrix:	Water	**Date Received:**	9/15/09
Sample Name:	MW 14S	**Units:**	µg/L
Lab Code:	R0905245-011	**Basis:**	NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270C
Prep Method: EPA 3510C

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,2,4-Trichlorobenzene	9.4	U	9.4	1	9/17/09	9/21/09 20:50	96208	171359	
1,2-Dichlorobenzene	9.4	U	9.4	1	9/17/09	9/21/09 20:50	96208	171359	
1,3-Dichlorobenzene	9.4	U	9.4	1	9/17/09	9/21/09 20:50	96208	171359	
1,4-Dichlorobenzene	9.4	U	9.4	1	9/17/09	9/21/09 20:50	96208	171359	
2,4,5-Trichlorophenol	9.4	U	9.4	1	9/17/09	9/21/09 20:50	96208	171359	
2,4,6-Trichlorophenol	9.4	U	9.4	1	9/17/09	9/21/09 20:50	96208	171359	
2,4-Dichlorophenol	9.4	U	9.4	1	9/17/09	9/21/09 20:50	96208	171359	
2,4-Dimethylphenol	9.4	U	9.4	1	9/17/09	9/21/09 20:50	96208	171359	
2,4-Dinitrophenol	47	U	47	1	9/17/09	9/21/09 20:50	96208	171359	
2,4-Dinitrotoluene	9.4	U	9.4	1	9/17/09	9/21/09 20:50	96208	171359	
2,6-Dinitrotoluene	9.4	U	9.4	1	9/17/09	9/21/09 20:50	96208	171359	
2-Chloronaphthalene	9.4	U	9.4	1	9/17/09	9/21/09 20:50	96208	171359	
2-Chlorophenol	9.4	U	9.4	1	9/17/09	9/21/09 20:50	96208	171359	
2-Methylnaphthalene	9.4	U	9.4	1	9/17/09	9/21/09 20:50	96208	171359	
2-Methylphenol	9.4	U	9.4	1	9/17/09	9/21/09 20:50	96208	171359	
2-Nitroaniline	47	U	47	1	9/17/09	9/21/09 20:50	96208	171359	
2-Nitrophenol	9.4	U	9.4	1	9/17/09	9/21/09 20:50	96208	171359	
3,3'-Dichlorobenzidine	9.4	U	9.4	1	9/17/09	9/21/09 20:50	96208	171359	
3- and 4-Methylphenol Coelution	9.4	U	9.4	1	9/17/09	9/21/09 20:50	96208	171359	
3-Nitroaniline	47	U	47	1	9/17/09	9/21/09 20:50	96208	171359	
4,6-Dinitro-2-methylphenol	47	U	47	1	9/17/09	9/21/09 20:50	96208	171359	
4-Bromophenyl Phenyl Ether	9.4	U	9.4	1	9/17/09	9/21/09 20:50	96208	171359	
4-Chloro-3-methylphenol	9.4	U	9.4	1	9/17/09	9/21/09 20:50	96208	171359	
4-Chloroaniline	9.4	U	9.4	1	9/17/09	9/21/09 20:50	96208	171359	
4-Chlorophenyl Phenyl Ether	9.4	U	9.4	1	9/17/09	9/21/09 20:50	96208	171359	
4-Nitroaniline	47	U	47	1	9/17/09	9/21/09 20:50	96208	171359	
4-Nitrophenol	47	U	47	1	9/17/09	9/21/09 20:50	96208	171359	
Acenaphthene	9.4	U	9.4	1	9/17/09	9/21/09 20:50	96208	171359	
Acenaphthylene	9.4	U	9.4	1	9/17/09	9/21/09 20:50	96208	171359	
Anthracene	9.4	U	9.4	1	9/17/09	9/21/09 20:50	96208	171359	
Benz(a)anthracene	9.4	U	9.4	1	9/17/09	9/21/09 20:50	96208	171359	
Benzo(a)pyrene	9.4	U	9.4	1	9/17/09	9/21/09 20:50	96208	171359	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Unicorn Management Consultants
Project: Union Rd #2011-100
Sample Matrix: Water

Sample Name: MW 14S
Lab Code: R0905245-011

Service Request: R0905245
Date Collected: 9/14/09 1820
Date Received: 9/15/09

Units: µg/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270C
Prep Method: EPA 3510C

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Benzo(b)fluoranthene	9.4	U	9.4	1	9/17/09	9/21/09 20:50	96208	171359	
Benzo(g,h,i)perylene	9.4	U	9.4	1	9/17/09	9/21/09 20:50	96208	171359	
Benzo(k)fluoranthene	9.4	U	9.4	1	9/17/09	9/21/09 20:50	96208	171359	
Benzyl Alcohol	9.4	U	9.4	1	9/17/09	9/21/09 20:50	96208	171359	
2,2'-Oxybis(1-chloropropane)	9.4	U	9.4	1	9/17/09	9/21/09 20:50	96208	171359	
Bis(2-chloroethoxy)methane	9.4	U	9.4	1	9/17/09	9/21/09 20:50	96208	171359	
Bis(2-chloroethyl) Ether	9.4	U	9.4	1	9/17/09	9/21/09 20:50	96208	171359	
Bis(2-ethylhexyl) Phthalate	9.4	U	9.4	1	9/17/09	9/21/09 20:50	96208	171359	
Butyl Benzyl Phthalate	9.4	U	9.4	1	9/17/09	9/21/09 20:50	96208	171359	
Carbazole	9.4	U	9.4	1	9/17/09	9/21/09 20:50	96208	171359	
Chrysene	9.4	U	9.4	1	9/17/09	9/21/09 20:50	96208	171359	
Di-n-butyl Phthalate	9.4	U	9.4	1	9/17/09	9/21/09 20:50	96208	171359	
Di-n-octyl Phthalate	9.4	U	9.4	1	9/17/09	9/21/09 20:50	96208	171359	
Dibenz(a,h)anthracene	9.4	U	9.4	1	9/17/09	9/21/09 20:50	96208	171359	
Dibenzofuran	9.4	U	9.4	1	9/17/09	9/21/09 20:50	96208	171359	
Diethyl Phthalate	9.4	U	9.4	1	9/17/09	9/21/09 20:50	96208	171359	
Dimethyl Phthalate	9.4	U	9.4	1	9/17/09	9/21/09 20:50	96208	171359	
Fluoranthene	9.4	U	9.4	1	9/17/09	9/21/09 20:50	96208	171359	
Fluorene	9.4	U	9.4	1	9/17/09	9/21/09 20:50	96208	171359	
Hexachlorobenzene	9.4	U	9.4	1	9/17/09	9/21/09 20:50	96208	171359	
Hexachlorobutadiene	9.4	U	9.4	1	9/17/09	9/21/09 20:50	96208	171359	
Hexachlorocyclopentadiene	9.4	U	9.4	1	9/17/09	9/21/09 20:50	96208	171359	
Hexachloroethane	9.4	U	9.4	1	9/17/09	9/21/09 20:50	96208	171359	
Indeno(1,2,3-cd)pyrene	9.4	U	9.4	1	9/17/09	9/21/09 20:50	96208	171359	
Isophorone	9.4	U	9.4	1	9/17/09	9/21/09 20:50	96208	171359	
N-Nitrosodi-n-propylamine	9.4	U	9.4	1	9/17/09	9/21/09 20:50	96208	171359	
N-Nitrosodimethylamine	9.4	U	9.4	1	9/17/09	9/21/09 20:50	96208	171359	
N-Nitrosodiphenylamine	9.4	U	9.4	1	9/17/09	9/21/09 20:50	96208	171359	
Naphthalene	9.4	U	9.4	1	9/17/09	9/21/09 20:50	96208	171359	
Nitrobenzene	9.4	U	9.4	1	9/17/09	9/21/09 20:50	96208	171359	
Pentachlorophenol (PCP)	47	U	47	1	9/17/09	9/21/09 20:50	96208	171359	
Phenanthrene	9.4	U	9.4	1	9/17/09	9/21/09 20:50	96208	171359	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Unicorn Management Consultants	**Service Request:**	R0905245
Project:	Union Rd #2011-100	**Date Collected:**	9/14/09 1820
Sample Matrix:	Water	**Date Received:**	9/15/09
Sample Name:	MW 14S	**Units:**	µg/L
Lab Code:	R0905245-011	**Basis:**	NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270C
Prep Method: EPA 3510C

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Phenol	9.4	U	9.4	1	9/17/09	9/21/09 20:50	96208	171359	
Pyrene	9.4	U	9.4	1	9/17/09	9/21/09 20:50	96208	171359	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
2,4,6-Tribromophenol	96	46-134	9/21/09 20:50		
2-Fluorobiphenyl	81	46-110	9/21/09 20:50		
2-Fluorophenol	48	12-84	9/21/09 20:50		
Nitrobenzene-d5	81	44-117	9/21/09 20:50		
Phenol-d6	32	10-70	9/21/09 20:50		
p-Terphenyl-d14	98	40-133	9/21/09 20:50		

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Unicorn Management Consultants	**Service Request:**	R0905245
Project:	Union Rd #2011-100	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Basis:**	NA
Lab Code:	R0905245-MB		

Oil and Grease, HEM Silica Gel Treated

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed
Oil and Grease, Nonpolar (SGT-HEM)	1664	5.0	U	mg/L	5.0	1	NA	9/24/09 07:30

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Unicorn Management Consultants	**Service Request:**	R0905245
Project:	Union Rd #2011-100	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank		
Lab Code:	R0905245-MB1	**Basis:**	NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed
Arsenic, Dissolved	6010B	0.010	U	mg/L	0.010	1	9/22/09	9/24/09 16:59
Lead, Dissolved	6010B	0.0050	U	mg/L	0.0050	1	9/22/09	9/24/09 16:59

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Unicorn Management Consultants	**Service Request:**	R0905245
Project:	Union Rd #2011-100	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Basis:**	NA
Lab Code:	R0905245-MB2		

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed
Arsenic, Dissolved	6010B	0.010	U	mg/L	0.010	1	9/22/09	9/24/09 17:11
Lead, Dissolved	6010B	0.0050	U	mg/L	0.0050	1	9/22/09	9/24/09 17:11

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Unicorn Management Consultants
Project: Union Rd #2011-100
Sample Matrix: Water

Sample Name: Method Blank
Lab Code: RQ0909006-01

Service Request: R0905245
Date Collected: NA
Date Received: NA

Units: µg/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Acetone	20	U	20	1	NA	9/23/09 12:49		171600	
Benzene	5.0	U	5.0	1	NA	9/23/09 12:49		171600	
Bromodichloromethane	5.0	U	5.0	1	NA	9/23/09 12:49		171600	
Bromoform	5.0	U	5.0	1	NA	9/23/09 12:49		171600	
Bromomethane	5.0	U	5.0	1	NA	9/23/09 12:49		171600	
2-Butanone (MEK)	10	U	10	1	NA	9/23/09 12:49		171600	
Carbon Disulfide	10	U	10	1	NA	9/23/09 12:49		171600	
Carbon Tetrachloride	5.0	U	5.0	1	NA	9/23/09 12:49		171600	
Chlorobenzene	5.0	U	5.0	1	NA	9/23/09 12:49		171600	
Chloroethane	5.0	U	5.0	1	NA	9/23/09 12:49		171600	
Chloroform	5.0	U	5.0	1	NA	9/23/09 12:49		171600	
Chloromethane	5.0	U	5.0	1	NA	9/23/09 12:49		171600	
Dibromochloromethane	5.0	U	5.0	1	NA	9/23/09 12:49		171600	
1,1-Dichloroethane	5.0	U	5.0	1	NA	9/23/09 12:49		171600	
1,2-Dichloroethane	5.0	U	5.0	1	NA	9/23/09 12:49		171600	
1,1-Dichloroethene	5.0	U	5.0	1	NA	9/23/09 12:49		171600	
cis-1,2-Dichloroethene	5.0	U	5.0	1	NA	9/23/09 12:49		171600	
trans-1,2-Dichloroethene	5.0	U	5.0	1	NA	9/23/09 12:49		171600	
1,2-Dichloropropane	5.0	U	5.0	1	NA	9/23/09 12:49		171600	
cis-1,3-Dichloropropene	5.0	U	5.0	1	NA	9/23/09 12:49		171600	
trans-1,3-Dichloropropene	5.0	U	5.0	1	NA	9/23/09 12:49		171600	
Ethylbenzene	5.0	U	5.0	1	NA	9/23/09 12:49		171600	
2-Hexanone	10	U	10	1	NA	9/23/09 12:49		171600	
Methylene Chloride	5.0	U	5.0	1	NA	9/23/09 12:49		171600	
4-Methyl-2-pentanone (MIBK)	10	U	10	1	NA	9/23/09 12:49		171600	
Styrene	5.0	U	5.0	1	NA	9/23/09 12:49		171600	
1,1,2,2-Tetrachloroethane	5.0	U	5.0	1	NA	9/23/09 12:49		171600	
Tetrachloroethene	5.0	U	5.0	1	NA	9/23/09 12:49		171600	
Toluene	5.0	U	5.0	1	NA	9/23/09 12:49		171600	
1,1,1-Trichloroethane	5.0	U	5.0	1	NA	9/23/09 12:49		171600	
1,1,2-Trichloroethane	5.0	U	5.0	1	NA	9/23/09 12:49		171600	
Trichloroethene	5.0	U	5.0	1	NA	9/23/09 12:49		171600	
Vinyl Chloride	5.0	U	5.0	1	NA	9/23/09 12:49		171600	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Unicorn Management Consultants	**Service Request:**	R0905245
Project:	Union Rd #2011-100	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ0909006-01	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
o-Xylene	5.0	U	5.0	1	NA	9/23/09 12:49		171600	
m,p-Xylenes	5.0	U	5.0	1	NA	9/23/09 12:49		171600	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q	Note
4-Bromofluorobenzene	108	85-122	9/23/09 12:49		
Toluene-d8	104	87-121	9/23/09 12:49		
Dibromofluoromethane	109	89-119	9/23/09 12:49		

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Unicorn Management Consultants	**Service Request:**	R0905245
Project:	Union Rd #2011-100	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ0908726-01	**Basis:**	NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270C
Prep Method: EPA 3510C

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
1,2,4-Trichlorobenzene	10	U	10	1	9/17/09	9/21/09 12:50	96208	171359	
1,2-Dichlorobenzene	10	U	10	1	9/17/09	9/21/09 12:50	96208	171359	
1,3-Dichlorobenzene	10	U	10	1	9/17/09	9/21/09 12:50	96208	171359	
1,4-Dichlorobenzene	10	U	10	1	9/17/09	9/21/09 12:50	96208	171359	
2,4,5-Trichlorophenol	10	U	10	1	9/17/09	9/21/09 12:50	96208	171359	
2,4,6-Trichlorophenol	10	U	10	1	9/17/09	9/21/09 12:50	96208	171359	
2,4-Dichlorophenol	10	U	10	1	9/17/09	9/21/09 12:50	96208	171359	
2,4-Dimethylphenol	10	U	10	1	9/17/09	9/21/09 12:50	96208	171359	
2,4-Dinitrophenol	50	U	50	1	9/17/09	9/21/09 12:50	96208	171359	
2,4-Dinitrotoluene	10	U	10	1	9/17/09	9/21/09 12:50	96208	171359	
2,6-Dinitrotoluene	10	U	10	1	9/17/09	9/21/09 12:50	96208	171359	
2-Chloronaphthalene	10	U	10	1	9/17/09	9/21/09 12:50	96208	171359	
2-Chlorophenol	10	U	10	1	9/17/09	9/21/09 12:50	96208	171359	
2-Methylnaphthalene	10	U	10	1	9/17/09	9/21/09 12:50	96208	171359	
2-Methylphenol	10	U	10	1	9/17/09	9/21/09 12:50	96208	171359	
2-Nitroaniline	50	U	50	1	9/17/09	9/21/09 12:50	96208	171359	
2-Nitrophenol	10	U	10	1	9/17/09	9/21/09 12:50	96208	171359	
3,3'-Dichlorobenzidine	10	U	10	1	9/17/09	9/21/09 12:50	96208	171359	
3- and 4-Methylphenol Coelution	10	U	10	1	9/17/09	9/21/09 12:50	96208	171359	
3-Nitroaniline	50	U	50	1	9/17/09	9/21/09 12:50	96208	171359	
4,6-Dinitro-2-methylphenol	50	U	50	1	9/17/09	9/21/09 12:50	96208	171359	
4-Bromophenyl Phenyl Ether	10	U	10	1	9/17/09	9/21/09 12:50	96208	171359	
4-Chloro-3-methylphenol	10	U	10	1	9/17/09	9/21/09 12:50	96208	171359	
4-Chloroaniline	10	U	10	1	9/17/09	9/21/09 12:50	96208	171359	
4-Chlorophenyl Phenyl Ether	10	U	10	1	9/17/09	9/21/09 12:50	96208	171359	
4-Nitroaniline	50	U	50	1	9/17/09	9/21/09 12:50	96208	171359	
4-Nitrophenol	50	U	50	1	9/17/09	9/21/09 12:50	96208	171359	
Acenaphthene	10	U	10	1	9/17/09	9/21/09 12:50	96208	171359	
Acenaphthylene	10	U	10	1	9/17/09	9/21/09 12:50	96208	171359	
Anthracene	10	U	10	1	9/17/09	9/21/09 12:50	96208	171359	
Benz(a)anthracene	10	U	10	1	9/17/09	9/21/09 12:50	96208	171359	
Benzo(a)pyrene	10	U	10	1	9/17/09	9/21/09 12:50	96208	171359	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Unicorn Management Consultants	**Service Request:**	R0905245
Project:	Union Rd #2011-100	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ0908726-01	**Basis:**	NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270C
Prep Method: EPA 3510C

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Benzo(b)fluoranthene	10	U	10	1	9/17/09	9/21/09 12:50	96208	171359	
Benzo(g,h,i)perylene	10	U	10	1	9/17/09	9/21/09 12:50	96208	171359	
Benzo(k)fluoranthene	10	U	10	1	9/17/09	9/21/09 12:50	96208	171359	
Benzyl Alcohol	10	U	10	1	9/17/09	9/21/09 12:50	96208	171359	
2,2'-Oxybis(1-chloropropane)	10	U	10	1	9/17/09	9/21/09 12:50	96208	171359	
Bis(2-chloroethoxy)methane	10	U	10	1	9/17/09	9/21/09 12:50	96208	171359	
Bis(2-chloroethyl) Ether	10	U	10	1	9/17/09	9/21/09 12:50	96208	171359	
Bis(2-ethylhexyl) Phthalate	10	U	10	1	9/17/09	9/21/09 12:50	96208	171359	
Butyl Benzyl Phthalate	10	U	10	1	9/17/09	9/21/09 12:50	96208	171359	
Carbazole	10	U	10	1	9/17/09	9/21/09 12:50	96208	171359	
Chrysene	10	U	10	1	9/17/09	9/21/09 12:50	96208	171359	
Di-n-butyl Phthalate	10	U	10	1	9/17/09	9/21/09 12:50	96208	171359	
Di-n-octyl Phthalate	10	U	10	1	9/17/09	9/21/09 12:50	96208	171359	
Dibenz(a,h)anthracene	10	U	10	1	9/17/09	9/21/09 12:50	96208	171359	
Dibenzofuran	10	U	10	1	9/17/09	9/21/09 12:50	96208	171359	
Diethyl Phthalate	10	U	10	1	9/17/09	9/21/09 12:50	96208	171359	
Dimethyl Phthalate	10	U	10	1	9/17/09	9/21/09 12:50	96208	171359	
Fluoranthene	10	U	10	1	9/17/09	9/21/09 12:50	96208	171359	
Fluorene	10	U	10	1	9/17/09	9/21/09 12:50	96208	171359	
Hexachlorobenzene	10	U	10	1	9/17/09	9/21/09 12:50	96208	171359	
Hexachlorobutadiene	10	U	10	1	9/17/09	9/21/09 12:50	96208	171359	
Hexachlorocyclopentadiene	10	U	10	1	9/17/09	9/21/09 12:50	96208	171359	
Hexachloroethane	10	U	10	1	9/17/09	9/21/09 12:50	96208	171359	
Indeno(1,2,3-cd)pyrene	10	U	10	1	9/17/09	9/21/09 12:50	96208	171359	
Isophorone	10	U	10	1	9/17/09	9/21/09 12:50	96208	171359	
N-Nitrosodi-n-propylamine	10	U	10	1	9/17/09	9/21/09 12:50	96208	171359	
N-Nitrosodimethylamine	10	U	10	1	9/17/09	9/21/09 12:50	96208	171359	
N-Nitrosodiphenylamine	10	U	10	1	9/17/09	9/21/09 12:50	96208	171359	
Naphthalene	10	U	10	1	9/17/09	9/21/09 12:50	96208	171359	
Nitrobenzene	10	U	10	1	9/17/09	9/21/09 12:50	96208	171359	
Pentachlorophenol (PCP)	50	U	50	1	9/17/09	9/21/09 12:50	96208	171359	
Phenanthrene	10	U	10	1	9/17/09	9/21/09 12:50	96208	171359	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	Unicorn Management Consultants	**Service Request:**	R0905245
Project:	Union Rd #2011-100	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ0908726-01	**Basis:**	NA

Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270C
Prep Method: EPA 3510C

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Analysis Lot	Note
Phenol	10	U	10	1	9/17/09	9/21/09 12:50	96208	171359	
Pyrene	10	U	10	1	9/17/09	9/21/09 12:50	96208	171359	

Surrogate Name	%Rec		Control Limits	Date Analyzed	Q	Note
2,4,6-Tribromophenol	35	*	46-134	9/21/09 12:50		
2-Fluorobiphenyl	34	*	46-110	9/21/09 12:50		
2-Fluorophenol	14		12-84	9/21/09 12:50		
Nitrobenzene-d5	30	*	44-117	9/21/09 12:50		
Phenol-d6	12		10-70	9/21/09 12:50		
p-Terphenyl-d14	60		40-133	9/21/09 12:50		

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Unicorn Management Consultants
Project: Union Rd #2011-100
Sample Matrix: Water

Service Request: R0905245
Date Analyzed: 9/24/09

Lab Control Sample Summary
Oil and Grease, HEM Silica Gel Treated

Units: mg/L
Basis: NA

Analyte Name	Method	Lab Control Sample R0905245-LCS Result	Expected	% Rec	Duplicate Lab Control Sample R0905245-DLCS Result	Expected	% Rec	% Rec Limits	RPD	RPD Limit
Oil and Grease, Nonpolar (SGT-HEM)	1664	17.7	20.9	85	17.6	20.9	84	64 - 132	1	34

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Unicorn Management Consultants
Project: Union Rd #2011-100
Sample Matrix: Water

Service Request: R0905245
Date Analyzed: 9/24/09

Lab Control Sample Summary
Inorganic Parameters

Units: mg/L
Basis: NA

Analyte Name	Method	Lab Control Sample R0905245-LCS Result	Expected	% Rec	% Rec Limits
Arsenic, Dissolved	6010B	**0.0368**	0.040	92	80 - 120
Lead, Dissolved	6010B	**0.519**	0.500	104	80 - 120

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Unicorn Management Consultants
Project: Union Rd #2011-100
Sample Matrix: Water

Service Request: R0905245
Date Analyzed: 9/23/09

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260B

Units: µg/L
Basis: NA

Analysis Lot: 171600

Analyte Name	Lab Control Sample RQ0909006-02 Result	Expected	% Rec	% Rec Limits
Acetone	**26.5**	20.0	132	50 - 150
Benzene	**21.5**	20.0	107	70 - 130
Bromodichloromethane	**21.3**	20.0	106	70 - 130
Bromoform	**22.0**	20.0	110	70 - 130
Bromomethane	**21.8**	20.0	109	50 - 150
2-Butanone (MEK)	**24.8**	20.0	124	50 - 150
Carbon Disulfide	**20.5**	20.0	103	70 - 130
Carbon Tetrachloride	**20.2**	20.0	101	70 - 130
Chlorobenzene	**21.2**	20.0	106	70 - 130
Chloroethane	**22.8**	20.0	114	70 - 130
Chloroform	**22.2**	20.0	111	70 - 130
Chloromethane	**22.0**	20.0	110	70 - 130
Dibromochloromethane	**23.1**	20.0	115	70 - 130
1,1-Dichloroethane	**21.6**	20.0	108	70 - 130
1,2-Dichloroethane	**22.0**	20.0	110	70 - 130
1,1-Dichloroethene	**20.8**	20.0	104	70 - 130
cis-1,2-Dichloroethene	**21.1**	20.0	105	70 - 130
trans-1,2-Dichloroethene	**20.8**	20.0	104	70 - 130
1,2-Dichloropropane	**21.5**	20.0	108	70 - 130
cis-1,3-Dichloropropene	**21.4**	20.0	107	70 - 130
trans-1,3-Dichloropropene	**20.6**	20.0	103	70 - 130
Ethylbenzene	**20.5**	20.0	102	70 - 130
2-Hexanone	**23.2**	20.0	116	70 - 130
Methylene Chloride	**23.0**	20.0	115	70 - 130
4-Methyl-2-pentanone (MIBK)	**24.0**	20.0	120	70 - 130
Styrene	**22.5**	20.0	112	70 - 130
1,1,2,2-Tetrachloroethane	**23.3**	20.0	117	70 - 130
Tetrachloroethene	**21.4**	20.0	107	70 - 130
Toluene	**20.6**	20.0	103	70 - 130
1,1,1-Trichloroethane	**20.4**	20.0	102	70 - 130
1,1,2-Trichloroethane	**22.0**	20.0	110	70 - 130
Trichloroethene	**20.7**	20.0	104	70 - 130
Vinyl Chloride	**24.0**	20.0	120	70 - 130
o-Xylene	**21.2**	20.0	106	70 - 130
m,p-Xylenes	**41.5**	40.0	104	70 - 130

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Unicorn Management Consultants
Project: Union Rd #2011-100
Sample Matrix: Water

Service Request: R0905245
Date Analyzed: 9/21/09

Lab Control Sample Summary
Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270C
Prep Method: EPA 3510C

Units: µg/L
Basis: NA

Extraction Lot: 96208

Analyte Name	Lab Control Sample RQ0908726-02 Result	Expected	% Rec	Duplicate Lab Control Sample RQ0908726-03 Result	Expected	% Rec	% Rec Limits	RPD	RPD Limit
1,2,4-Trichlorobenzene	65.7	100	66	68.3	100	68	17 - 99	4	30
1,2-Dichlorobenzene	65.4	100	65	65.4	100	65	23 - 130	0	30
1,3-Dichlorobenzene	61.4	100	61	63.6	100	64	17 - 130	4	30
1,4-Dichlorobenzene	63.1	100	63	64.9	100	65	31 - 84	3	30
2,4,5-Trichlorophenol	93.3	100	93	100	100	100	62 - 117	7	30
2,4,6-Trichlorophenol	94.0	100	94	101	100	101	62 - 115	8	30
2,4-Dichlorophenol	88.7	100	89	92.7	100	93	62 - 109	4	30
2,4-Dimethylphenol	68.5	100	68	76.4	100	76	33 - 130	11	30
2,4-Dinitrophenol	96.1	100	96	98.6	100	99	48 - 142	3	30
2,4-Dinitrotoluene	104	100	104	107	100	107	69 - 122	3	30
2,6-Dinitrotoluene	100	100	100	104	100	104	48 - 125	3	30
2-Chloronaphthalene	77.2	100	77	82.2	100	82	47 - 130	6	30
2-Chlorophenol	82.1	100	82	84.9	100	85	42 - 112	3	30
2-Methylnaphthalene	77.7	100	78	79.8	100	80	34 - 102	3	30
2-Methylphenol	76.7	100	77	78.9	100	79	51 - 130	3	30
2-Nitroaniline	104	100	104	107	100	107	60 - 119	3	30
2-Nitrophenol	91.0	100	91	94.5	100	94	60 - 113	4	30
3,3'-Dichlorobenzidine	80.5	100	81	86.2	100	86	18 - 108	7	30
3- and 4-Methylphenol Coelution	151	200	76	152	200	76	49 - 130	1	30
3-Nitroaniline	82.8	100	83	82.9	100	83	34 - 130	0	30
4,6-Dinitro-2-methylphenol	107	100	107	111	100	111	60 - 135	3	30
4-Bromophenyl Phenyl Ether	93.5	100	93	100	100	100	63 - 124	7	30
4-Chloro-3-methylphenol	94.5	100	95	97.1	100	97	42 - 124	3	30
4-Chloroaniline	86.5	100	86	89.1	100	89	24 - 130	3	30
4-Chlorophenyl Phenyl Ether	91.3	100	91	95.3	100	95	59 - 112	4	30
4-Nitroaniline	97.2	100	97	96.6	100	97	55 - 111	1	30
4-Nitrophenol	40.6	100	41	40.7	100	41	15 - 130	0	30
Acenaphthene	89.0	100	89	92.7	100	93	57 - 104	4	30
Acenaphthylene	94.2	100	94	98.6	100	99	57 - 109	5	30
Anthracene	95.1	100	95	99.0	100	99	55 - 116	4	30
Benz(a)anthracene	97.0	100	97	102	100	102	66 - 130	5	30
Benzo(a)pyrene	87.1	100	87	91.9	100	92	44 - 114	5	30
Benzo(b)fluoranthene	105	100	105	109	100	109	64 - 122	3	30
Benzo(g,h,i)perylene	99.8	100	100	100	100	100	60 - 127	0	30
Benzo(k)fluoranthene	102	100	102	107	100	107	49 - 133	5	30
Benzyl Alcohol	71.9	100	72	74.1	100	74	31 - 109	3	30

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Unicorn Management Consultants
Project: Union Rd #2011-100
Sample Matrix: Water

Service Request: R0905245
Date Analyzed: 9/21/09

Lab Control Sample Summary
Semivolatile Organic Compounds by GC/MS

Analytical Method: 8270C
Prep Method: EPA 3510C

Units: µg/L
Basis: NA

Extraction Lot: 96208

Analyte Name	Lab Control Sample RQ0908726-02 Result	Expected	% Rec	Duplicate Lab Control Sample RQ0908726-03 Result	Expected	% Rec	% Rec Limits	RPD	RPD Limit
2,2'-Oxybis(1-chloropropane)	**100**	100	100	**102**	100	102	10 - 140	2	30
Bis(2-chloroethoxy)methane	**94.5**	100	95	**99.0**	100	99	44 - 141	5	30
Bis(2-chloroethyl) Ether	**87.9**	100	88	**91.3**	100	91	56 - 106	4	30
Bis(2-ethylhexyl) Phthalate	**101**	100	101	**112**	100	112	62 - 124	10	30
Butyl Benzyl Phthalate	**94.1**	100	94	**103**	100	103	41 - 148	9	30
Carbazole	**99.0**	100	99	**99.4**	100	99	66 - 117	0	30
Chrysene	**96.7**	100	97	**101**	100	101	57 - 118	4	30
Di-n-butyl Phthalate	**105**	100	105	**107**	100	107	59 - 139	2	30
Di-n-octyl Phthalate	**98.7**	100	99	**114**	100	114	44 - 151	14	30
Dibenz(a,h)anthracene	**98.6**	100	99	**100**	100	100	58 - 132	2	30
Dibenzofuran	**89.8**	100	90	**92.8**	100	93	58 - 105	3	30
Diethyl Phthalate	**98.9**	100	99	**102**	100	102	65 - 122	3	30
Dimethyl Phthalate	**97.0**	100	97	**100**	100	100	69 - 130	3	30
Fluoranthene	**104**	100	104	**103**	100	103	62 - 123	2	30
Fluorene	**94.4**	100	94	**97.2**	100	97	60 - 112	3	30
Hexachlorobenzene	**95.0**	100	95	**99.7**	100	100	51 - 132	5	30
Hexachlorobutadiene	**67.6**	100	68	**69.2**	100	69	27 - 130	2	30
Hexachlorocyclopentadiene	**57.2**	100	57	**66.3**	100	66	10 - 130	15	30
Hexachloroethane	**63.4**	100	63	**63.4**	100	63	28 - 130	0	30
Indeno(1,2,3-cd)pyrene	**97.4**	100	97	**98.7**	100	99	64 - 126	1	30
Isophorone	**97.1**	100	97	**100**	100	100	61 - 128	3	30
N-Nitrosodi-n-propylamine	**92.8**	100	93	**96.2**	100	96	25 - 120	4	30
N-Nitrosodimethylamine	**53.8**	100	54	**54.8**	100	55	27 - 130	2	30
N-Nitrosodiphenylamine	**96.4**	100	96	**102**	100	102	45 - 123	5	30
Naphthalene	**72.8**	100	73	**74.8**	100	75	40 - 130	3	30
Nitrobenzene	**88.6**	100	89	**93.1**	100	93	51 - 113	5	30
Pentachlorophenol (PCP)	**99.0**	100	99	**106**	100	106	39 - 147	7	30
Phenanthrene	**100**	100	100	**103**	100	103	58 - 118	3	30
Phenol	**38.4**	100	38	**38.5**	100	38	16 - 130	0	30
Pyrene	**98.9**	100	99	**107**	100	107	67 - 118	8	30

Comments:

Columbia Analytical Services™ CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

SR #

CAS Contact

www.caslab.com One Mustard St., Suite 250 • Rochester, NY 14609-0859(585) 288-5380 • 800-695-7222 x11 • FAX (585) 288-8475 PAGE 1 OF 2

Project Name: Union Rd	Project Number: 2011-100
Project Manager: Kerry Hanlon	Report CC:
Company/Address: Unicorn Management 52 Federal Rd Danbury, CT 06810	
Phone #: 203-205-9000	FAX#: 203-205-9011
Sampler's Signature: Wayne DeGolier	Sampler's Printed Name: Wayne DeGolier

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

PRESERVATIVE

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	GC/MS VOA's ☐ 8260 ☐ 624 ☐ CLP	GC/MS SVOA's ☐ 8270 ☐ 625 ☐ CLP	GC VOA's ☐ 8021 ☐ 601/602	PESTICIDES ☐ 8081 ☐ 608 ☐ CLP	PCB's ☐ 8082 ☐ 608 ☐ CLP	METALS, TOTAL (List in comments below)	METALS, DISSOLVED (List in comments below)	TPH	REMARKS/ ALTERNATE DESCRIPTION
MW 10 S	-001	9/14/09	15:20	H2O	5		✓	✓				✓	✓	
MW 10 M	-002	9/14/09	15:00											
MW 10 D	-003	9/15/09	9:30											
MW 11 M	-004	9/14/09	16:00											
MW 11 S	-005	9/14/09	16:30											
MW 12 S	-006	9/14/09	17:50											
MW 12 M	-007	9/14/09	17:20											
MW 12 D	-008	9/14/09	17:00											
MW 13 M	-009	9/14/09	19:15				✓	✓				✓	✓	
MW 13 S	-010	9/14/09	19:30											

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

SPECIAL INSTRUCTIONS/COMMENTS
Metals

MW # Filter Sample

Analysis For Pb + As

See QAPP ☐

TURNAROUND REQUIREMENTS
____ RUSH (SURCHARGES APPLY)
____ 24hr ____ 48 hr ____ 5 day
✓ STANDARD
REQUESTED FAX DATE
REQUESTED REPORT DATE

REPORT REQUIREMENTS
____ I. Results Only
X II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data
____ V. Specialized Forms / Custom R
Edata X Yes ____ N

INVOICE INFORMATION
PO#
BILL TO:

R0905245
Unicorn Management Consultants
Union Rd #2011-100

SAMPLE RECEIPT: CONDITION/COOLER TEMP: 2-6°C CUSTODY SEALS: Y (N)

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY
Signature: Wayne DeGolier	Signature:	Signature:	Signature: Mark R. Peters	Signature
Printed Name: Unicorn	Printed Name: Pat Bennett	Printed Name: Pat Bennett	Printed Name: Mark R. Peters	Printed Name
Firm: 9/15/09 11:30	Firm: CAS	Firm: CAS	Firm: CAS	Firm
Date/Time	Date/Time: 9-15-09 1145	Date/Time: 9-15-09 1410	Date/Time: 9/15/09 1410	Date/Time

Distribution: White - Return to Originator; Yellow - Lab Copy; Pink - Retained by Client

SCOC-1102-08

Columbia Analytical Services™ CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

SR #

CAS Contact

www.caslab.com One Mustard St., Suite 250 • Rochester, NY 14609-0859(585) 288-5380 • 800-695-7222 x11 • FAX (585) 288-8475 PAGE 2 OF 2

Project Name: Union Rd	Project Number: 2011-100
Project Manager: Kerry Hanlon	Report CC:
Company/Address: Unicorn Management 52 Federal Rd. Danbury, CT 06810	
Phone #: 203-205-9000	FAX#: 203-205-9000
Sampler's Signature: Wayne DeGolier	Sampler's Printed Name: Wayne DeGolier

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	PRESERVATIVE	GC/MS VOA's ☐8260 ☐624 ☐CLP	GC/MS SVOA's ☐8270 ☐625 ☐CLP	GC VOA's ☐8021 ☐601/602	PESTICIDES ☐8081 ☐608 ☐CLP	PCBs ☐8082 ☐608 ☐CLP	METALS, TOTAL (List in comments below)	METALS, DISSOLVED (List in comments below)	TPH	TSS	Phenols	Oil + Grease	REMARKS/ ALTERNATE DESCRIPTION
MW 14S	-011	9/14/09	18:20	H_2O	5		✓	✓					✓	✓				
GWD091409		9/14/09	19:45	H_2O	4							✓			✓	✓	✓	

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

SPECIAL INSTRUCTIONS/COMMENTS
Metals

MW # Filter Sample

Analysis For Pb + As

TURNAROUND REQUIREMENTS
____ RUSH (SURCHARGES APPLY)
____ 24 hr ____ 48 hr ____ 5 day
✓ STANDARD
REQUESTED FAX DATE
REQUESTED REPORT DATE

REPORT REQUIREMENTS
____ I. Results Only
____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data
____ V. Specialized Forms / Custom
Edata ✓ Yes ____

INVOICE INFORMATION
PO#
BILL TO:

R0905245
Unicorn Management Consultants
Union Rd #2011-100

See QAPP ☐

SAMPLE RECEIPT: CONDITION/COOLER TEMP: 2-6°C CUSTODY SEALS: (Y) N

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY
Signature: Wayne DeGolier	Signature:	Signature:	Signature: Mark R. Peters	Signature
Printed Name: Unicorn	Printed Name: Pat Bennett	Printed Name:	Printed Name: Mark R. Peters	Printed Name
Firm	Firm: CAS	Firm	Firm: CAS	Firm
Date/Time: 9/15/09 11:30	Date/Time: 9-15-09 1145	Date/Time: 9-15-09 1410	Date/Time: 9/15/09 1410	Date/Time

Distribution: White - Return to Originator; Yellow - Lab Copy; Pink - Retained by Client

SCOC-1102-08

Cooler Receipt And Preservation Check Form

Project/Client Unicorn Management Submission Number R0905245

Cooler received on 9/15/09 by: MC COURIER: CAS UPS FEDEX VELOCITY CLIENT

1.	Were custody seals on outside of cooler?			YES	(NO)			
2.	Were custody papers properly filled out (ink, signed, etc.)?			(YES)	NO			
3.	Did all bottles arrive in good condition (unbroken)?			(YES)	NO			
4.	Did any VOA vials have significant* air bubbles?			YES	(NO)	N/A		
5.	Were **Ice** or **Ice packs** present?			(YES)	NO			
6.	Where did the bottles originate?			CAS/ROC, CLIENT				
7.	Temperature of cooler(s) upon receipt:	2°	6°	4°	6°	2°	6°	4°
	Is the temperature within 0° - 6° C?:	(Yes)	(Yes)	(Yes)	(Yes)	(Yes)	(Y)	(Y)
	If No, Explain Below	No	No	No	No	No		

Date/Time Temperatures Taken: 9/15/09 @ 1430

Thermometer ID: 161 / IR GUN#2 / IR GUN#3 Reading From: Temp Blank / Sample Bottle

If out of Temperature, note packing/ice condition, Client Approval to Run Samples: _____

PC Secondary Review: KB 9/15/09

Cooler Breakdown: Date: 9-16-09 by: KE

1.	Were all bottle labels complete (*i.e.* analysis, preservation, etc.)?	(YES)	NO
2.	Did all bottle labels and tags agree with custody papers?	(YES)	NO
3.	Were correct containers used for the tests indicated?	(YES)	NO
4.	Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated		(N/A)

Explain any discrepancies: _____

pH	Reagent	YES	NO	Lot Received	Exp	Sample ID	Vol. Added	Lot Added	Final pH
≥12	NaOH								
≤2	HNO_3								
≤2	H_2SO_4								
Residual Chlorine (-)	For TCN and Phenol			If present, contact PM to add ascorbic acid					
	$Na_2S_2O_3$	-	-						
	Zn Aceta	-	-						
	HCl	*	*	G45A01	08/10				

*Not to be tested before analysis – pH tested and recorded by VOAs or GenChem on a separate worksheet

Yes = All samples OK

No = Samples were preserved at lab as listed

PM OK to Adjust: _____

Bottle lot numbers: 9-121-001, 037955, 072009-1CC

Other Comments:

HCl for TPH- MI7800985 exp 07/10

PC Secondary Review: _____ *significant air bubbles are greater than 5-6 mm

Enclosure 1
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Site Management Periodic Review Report Notice
Institutional and Engineering Controls Certification Form

Site Details **Box 1**

Site No. 915128

Site Name Union Road Site

Site Address: Losson Road Zip Code: 14110
City/Town: Cheektowaga
County: Erie
Allowable Use(s) (if applicable, does not address local zoning):
Site Acreage: 23.0
Owner: WITBEN REALTY
P.O. BOX 4369, Jacksonville, FL 33201

Reporting Period: December 26, 2008 to December 26, 2009

Verification of Site Details **Box 2**

		YES	NO
1.	Is the information in Box 1 correct?	☑	☐
	If NO, are changes handwritten above or included on a separate sheet?	☐	
2.	Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?	☐	☑
	If YES, is documentation or evidence that documentation has been previously submitted included with this certification?	☐	
3.	Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?	☐	☑
	If YES, is documentation (or evidence that documentation has been previously submitted) included with this certification?	☐	
4.	If use of the site is restricted, is the current use of the site consistent with those restrictions?	☑	☐
	If NO, is an explanation included with this certification?	☐	
5.	For non-significant-threat Brownfield Cleanup Program Sites subject to ECL 27-1415.7(c), has any new information revealed that assumptions made in the Qualitative Exposure Assessment regarding offsite contamination are no longer valid?	☐	☑
	If YES, is the new information or evidence that new information has been previously submitted included with this Certification?	☐	
6.	For non-significant-threat Brownfield Cleanup Program Sites subject to ECL 27-1415.7(c), are the assumptions in the Qualitative Exposure Assessment still valid (must be certified every five years)?	☑	☐
	If NO, are changes in the assessment included with this certification?	☐	

SITE NO. 915128

Description of Institutional Controls

Parcel	Institutional Control
S_B_L Image: **114.17-1-2**	Ground Water Use Restriction Landuse Restriction Monitoring Plan O&M Plan

Description of Engineering Controls

Parcel	Engineering Control
S_B_L Image: **114.17-1-2**	Cover System Fencing/Access Control Pump & Treat

Attach documentation if IC/ECs cannot be certified or why IC/ECs are no longer applicable. (See instructions)

Control Description for Site No. 915128

Parcel: 114.17-1-2

Site O&M Plan & Reporting per Order on Consent.

Periodic Review Report (PRR) Certification Statements

1. I certify by checking "YES" below that:

   a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the certification;

   b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted

YES	NO
☑	☐

2. If this site has an IC/EC Plan (or equivalent as required in the Decision Document), for each Institutional or Engineering control listed in Boxes 3 and/or 4, I certify by checking "YES" below that all of the following statements are true:

(a) the Institutional Control and/or Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;

(b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;

(c) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control;

(d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and

(e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.

YES	NO
☑	☐

3. If this site has an Operation and Maintenance (O&M) Plan (or equivalent as required in the Decision Document);

   I certify by checking "YES" below that the O&M Plan Requirements (or equivalent as required in the Decision Document) are being met.

☑	☐

4. If this site has a Monitoring Plan (or equivalent as required in the remedy selection document);

   I certify by checking "YES" below that the requirements of the Monitoring Plan (or equivalent as required in the Decision Document) is being met.

YES	NO
☑	☐

IC CERTIFICATIONS
SITE NO. 915128

Box 6

SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

I certify that all information and statements in Boxes 2 and/or 3 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Kerry M. Hanlon (print name) at 52 Federal Rd Danbury, CT 06810 (print business address)

am certifying as agent for Remedial Party (Owner or Remedial Party)

for the Site named in the Site Details Section of this form.

Signature of Owner or Remedial Party Rendering Certification — Date: 3/31/10

IC/EC CERTIFICATIONS

Box 7

QUALIFIED ENVIRONMENTAL PROFESSIONAL (QEP) SIGNATURE

I certify that all information in Boxes 4 and 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Kerry M. Hanlon (print name) at 52 Federal Rd, Danbury, CT 06810 (print business address)

am certifying as a Qualified Environmental Professional for the Remedial Party

(Owner or Remedial Party) for the Site named in the Site Details Section of this form.

Signature of Qualified Environmental Professional, for the Owner or Remedial Party, Rendering Certification — Stamp (if Required) — Date