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TRANSMITTAL

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 PROJECT NAME: Former Texaco Service Station -
Chevron Site 211079

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Conservation
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Fairbanks, Alaska 99709

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QUANTITY	DESCRIPTION
1	Annual 2014 Groundwater Monitoring and Sampling Report

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First Semi-Annual 2014 Groundwater Monitoring Report

**Chevron Site 211079
1501 South Cushman Street
Fairbanks, Alaska
ADEC File ID 102.26.015**

Prepared For:

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List of Acronyms and Abbreviations

AAC	Alaska Administrative Code
ADEC	Alaska Department of Environmental Conservation
AS	air sparge
BTEX	benzene, toluene, ethyl benzene, and xylenes
COPCs	contaminants of potential concern
CRA	Conestoga-Rovers & Associates
CSM	conceptual site model
DRO	diesel range organics
fbg	feet below grade
GRO	gasoline range organics
P.G.	Professional Geologist
ppmv	parts per million by volume
Ref. No.	reference number
SVE	soil vapor extraction
VOC	volatile organic compound
UST	underground storage tank

Section 1.0 Introduction

Conestoga-Rovers & Associates (CRA) is submitting this *First Semi-Annual 2014 Groundwater Monitoring and Sampling Report* to the Alaska Department of Environmental Conservation (ADEC) on behalf of Chevron Environmental Management Company (Chevron) for Chevron Site 211079. Groundwater monitoring and sampling was performed by CRA in accordance with the ADEC's May 2010 *Draft Field Guidance*. Reporting was performed by CRA in accordance with ADEC's September 2009 *Site Characterization Work Plan and Reporting Guidance for Investigation of Contaminated Sites*.

Project objectives are to monitor current groundwater conditions to determine if attenuation is occurring.

1.1 Site Description and Background

The site is located at 1501 South Cushman Street in Fairbanks, Alaska (Figure 1). The property's legal description is UMB01 BLK3 Gateway. The latitude and longitude are 64.833988° north and 147.716887° west. The site is a former Texaco service station currently occupied by the Friendship Korean Baptist Church. The station operated from 1963 to 1986. Station facilities included six underground storage tanks (USTs), dispenser islands, associated product piping, a station building and a car wash. The USTs were removed in 1988 in 1993. An air sparge/soil vapor extraction (AS/SVE) system operated onsite from 1993 until 2000. CRA decommissioned the AS/SVE remediation system on July 29, 2013.

Land use surrounding the site is primarily commercial and residential. Currently, the site is occupied by a Korean Baptist Church. Businesses are located south of the site and west across South Cushman Street. Residences border the site on the north and east.

Six groundwater monitoring wells are present onsite. One groundwater monitoring well and two soil vapor probes are located offsite. Both onsite and offsite groundwater monitoring wells are monitored and sampled semi-annually (Figure 2). Site photos are included Appendix A.

1.2 Hydrogeology

The site is located in central Alaska approximately 0.5 miles southwest of the Chena River in the Tanana River Valley. Historical static groundwater depths have ranged between 9.8 to 17.12 feet below grade (fbg) according to groundwater data from 1995 to present. Static groundwater depths ranged from 13.46 (MW-4) to 14.95 fbg (MW-1) on January 29, 2014. Groundwater flow was to the north with a gradient of 0.005, which is consistent with historical data (Figure 2).

1.3 Conceptual Site Model

CRA submitted a conceptual site model (CSM) to the ADEC on June 21, 2011. The CSM includes information on sources, affected media and exposure pathways. CRA prepared this CSM in accordance with ADEC's *Draft Guidance on Developing Conceptual Site Models*. Potentially complete pathways include incidental soil ingestion, ingestion of groundwater, and inhalation of outdoor air. Current groundwater conditions are consistent with historical data.

1.4 Contaminants of Potential Concern - Cleanup Levels

Site contaminants of potential concern (COPCs) are diesel range organics (DRO), gasoline range organics (GRO), and benzene. ADEC Table C Groundwater Cleanup Levels (Title 18 Alaska Administrative Code (ACC) 75.345) and ADEC Method Two Soil Cleanup Levels, Tables B1 and B2, under 40-inch zone, migration to groundwater (Title 18 AAC 75.341) are the default site cleanup levels for groundwater and soil.

Section 2.0 Groundwater Monitoring and Sampling

CRA gauged groundwater and sampled monitoring wells MW-1, MW-2, MW-4, MW-5, MW-9 and MW-10 on January 29, 2014. Each well cap was removed to allow groundwater levels to stabilize and equilibrate prior to gauging. CRA deployed HydraSleeves in monitoring wells MW-1, MW-2, MW-4, MW-5, MW-9, and MW-10 on January 28, 2014. HydraSleeves were set approximately 36 inches below groundwater. Non-volatile no-purge samples were collected using Teflon bailers. Groundwater samples, including one duplicate sample, were collected using clean disposable tubing and decanted into clean containers supplied by the analytical laboratory. Groundwater samples were submitted under chain-of-custody to Pace Analytical Laboratories of Minnesota. CRA monitoring data package is presented as Appendix B. CRA's standard operating procedures for low flow sampling are presented as Appendix C.

2.1 Purged Groundwater Disposal

Groundwater not used for sampling was filtered through granular activated carbon and purged to the ground surface behind the church building to ensure no offsite runoff.

Section 3.0 Results and Findings

3.1 Groundwater Analytical Methods

Collected groundwater samples were analyzed for one or more of the following:

- DRO by Alaska Method AK102
- GRO by Alaska Method AK101
- Benzene, toluene, ethyl benzene, and total xylenes (BTEX) by Environmental Protection Agency (EPA) Method 8260
- Methane by EPA Method 8015
- Alkalinity by EPA Method 2320B
- Sulfate by EPA Method 300
- Nitrate as Nitrogen by EPA Method 300
- Ferrous Iron by field test kit HOCH DR 890 color meter

3.2 Groundwater Sampling Results

No DRO, GRO or benzene was detected above ADEC Table C Groundwater Cleanup Levels in samples MW-1, MW-2, MW-4 or MW-10. The highest DRO and GRO detected were 4.0 milligrams per liter (mg/L) (MW-5) and 4.2 mg/L (MW-9), respectively. Sample MW-2 contained the highest benzene (0.00063 mg/L). Hydrocarbon concentrations have decreased since initial monitoring in 1994. Current groundwater analytical data is presented in Table 1. Historical groundwater analytical data is presented in Table 2. Petroleum hydrocarbon concentrations are presented on Figure 3.

Monitored natural attenuation (MNA) parameters in source area wells (MW-2 and MW-5) indicate that natural attenuation is continuing to enhance remediation. Data for the site has only been collected for three years and therefore is difficult to evaluate based on limited data. Field Sulfate levels in source area wells are lower than those outside of the source area, indicating that sulfate is utilized for MNA. Sulfate was lower in well MW-9 during the January sampling indicating an increase in biodegradation during the winter. Methane levels decreased during the frozen ground sampling indicating a reduction in methanogenic chemistry during the winter. Alkalinity is trending downward; however levels in the source area equivalent to background, indicating potential stabilization. Ferrous iron in the source area was higher during the first semiannual sampling event indicating an increase in anaerobic conditions during the winter. MNA parameters from samples outside the source area indicate attenuation has stabilized. MNA parameters are presented in Table 2. The laboratory analytical report is

presented as Appendix D. Petroleum hydrocarbon concentration graphs are presented in Appendix E.

3.3 Data Quality

Based on the QA/QC review, the data submitted were judged to be acceptable for use with the qualifications noted. The ADEC Laboratory Data Review Checklist and Memorandum are presented as Appendix F.

Section 4.0 Conclusions

Groundwater samples contained DRO and GRO above ADEC Table C Groundwater Cleanup Levels in monitoring wells MW-5 and MW-9 during the first semi-annual 2014 sampling event. CRA will continue to conduct semi-annual groundwater monitoring and sampling in 2014.

Figures

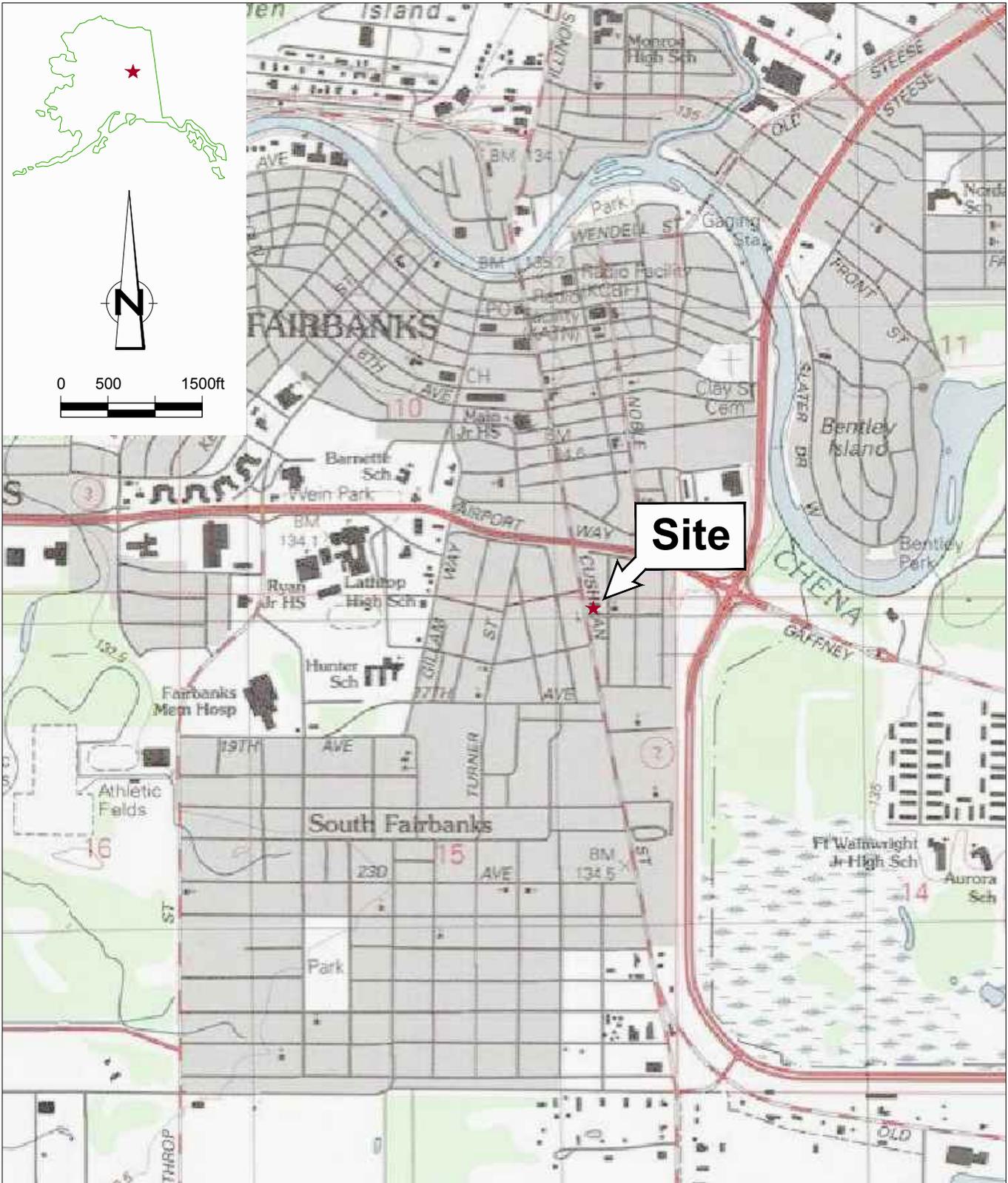


Figure 1
 VICINITY MAP
 FORMER CHEVRON STATION 211079
 1501 CUSHMAN STREET
Fairbanks, Alaska



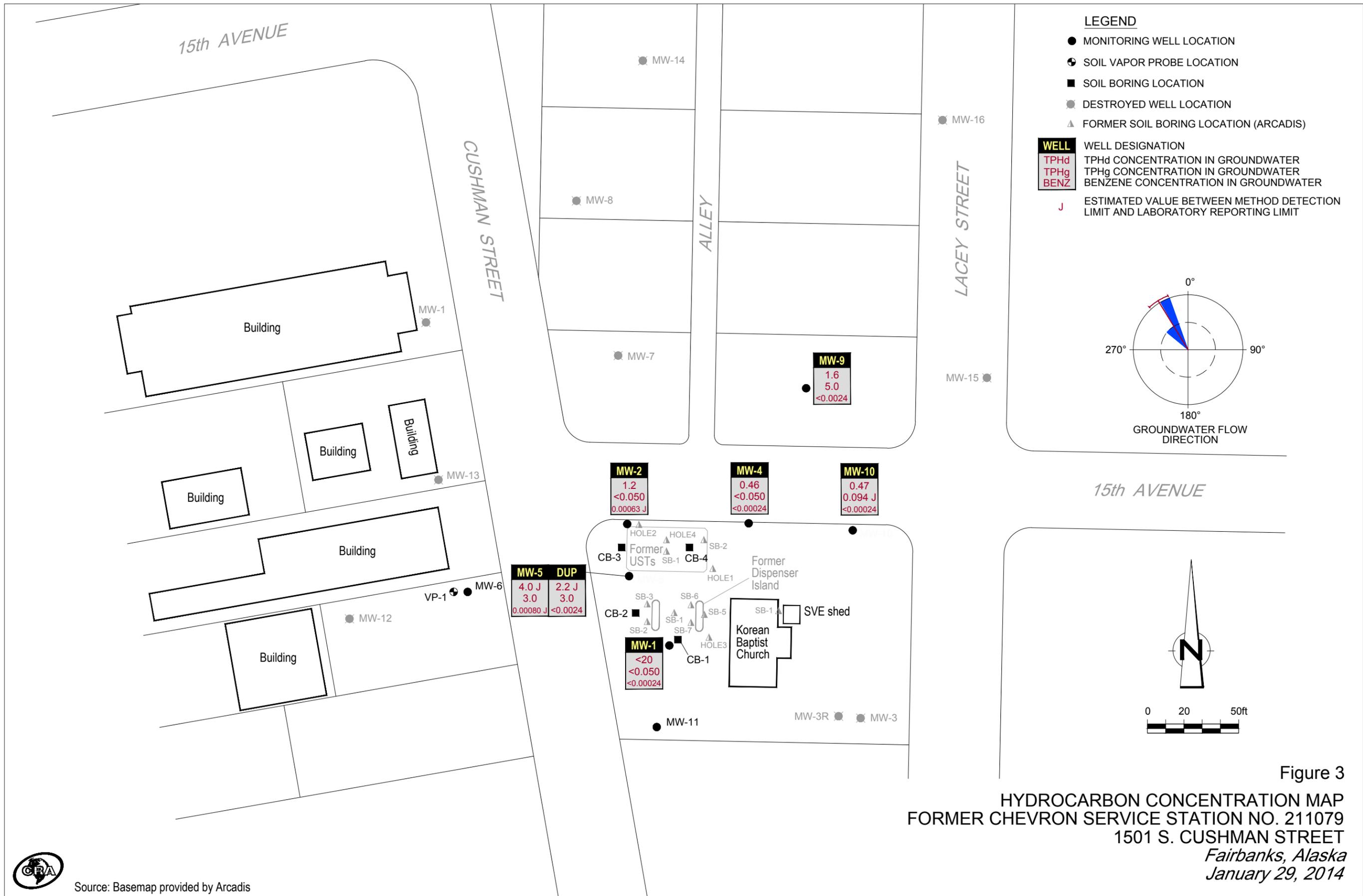


Figure 3
 HYDROCARBON CONCENTRATION MAP
 FORMER CHEVRON SERVICE STATION NO. 211079
 1501 S. CUSHMAN STREET
 Fairbanks, Alaska
 January 29, 2014



Source: Basemap provided by Arcadis

Tables

TABLE 1

**GROUNDWATER ANALYTICAL RESULTS
FORMER TEXACO SERVICE STATION 211079
1501 SOUTH CUSHMAN STREET
FAIRBANKS, ALASKA**

Location	Date	TOC ft msl	DTW fbg	GWE ft msl	HYDROCARBONS			PRIMARY VOCS			
					DRO mg/L	GRO mg/L	RRO mg/L	Benzene mg/L	Toluene mg/L	Ethylbenzene mg/L	Total Xylenes mg/L
ADEC Groundwater Cleanup Levels^a					1.5	2.2	1.1	0.005	1.0	0.7	10.0
MW-1	01/29/2014	440.91	14.95	425.96	<0.20	<0.050	-	<0.00024	<0.00023	<0.00024	<0.00072
MW-2	01/29/2014	439.39	14.38	425.01	1.2	<0.050	-	0.00063 J	<0.00023	<0.00024	0.0038
MW-4	01/29/2014	438.98	13.46	425.52	0.46	<0.050	-	<0.00024	<0.00023	<0.00024	<0.00072
MW-5	01/29/2014	439.82	14.76	425.06	4.0 J / 2.2 J	3.0 / 3.0	-	0.00080 J / <0.0024	0.00036 J / <0.0023	0.0012 / <0.0024	0.0055 / <0.0072
MW-9	01/29/2014	438.75	13.74	425.01	1.6	5.0	-	<0.0024	0.0047 J	0.14	0.59
MW-10	01/29/2014	439.19	14.08	425.11	0.47	0.094 J	-	<0.00024	<0.00023	0.0065	<0.00072
Trip Blank	01/29/2014	-	-	-	-	<0.050	-	<0.00024	<0.00023	<0.00024	<0.00072

Notes and Abbreviations

TOC = Top of Casing

DTW = Depth to Water

GWE = Groundwater Elevation

DRO = Diesel Range Organics by Alaska Series Method AK102

GRO = Gasoline Range Organics by Alaska Series Method AK101

Benzene, Toluene, Ethylbenzene, and Total Xylenes by Environmental Protection Agency (EPA) Method 8021B or 8260B

Total Xylenes = Sum of m-, o-, and p-xylenes

ADEC = Alaska Department of Environmental Conservation

^a = Levels established in ADEC Table C Groundwater Cleanup Levels (18 AAC 75.345), there is no established criteria for Sulfolane**BOLD** = Indicates concentration above the ADEC Table C Groundwater Cleanup Level

NA = Not Applicable

ft msl = Feet Above Mean Sea Level

fbg = Feet Below Grade

mg/L = Milligrams per Liter

ND = Not detected above laboratory method detection limits

TABLE 1

**GROUNDWATER ANALYTICAL RESULTS
FORMER TEXACO SERVICE STATION 211079
1501 SOUTH CUSHMAN STREET
FAIRBANKS, ALASKA**

Location	Date	TOC	DTW	GWE	HYDROCARBONS			PRIMARY VOCS			
					DRO	GRO	RRO	Benzene	Toluene	Ethylbenzene	Total Xylenes
	Units	ft msl	fbg	ft msl	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
ADEC Groundwater Cleanup Levels ^a					1.5	2.2	1.1	0.005	1.0	0.7	10.0

J = Estimated Value

- = Not Measured/Not Analyzed

* = Sample date defaulted to first date listed in historical data table

<x = Constituent not detected above x milligrams per liter

x / y = Sample Results / Blind Duplicate Results

** = Sample date accurate to month and year only

Groundwater data from 1992 through 2007 provided by Gettler-Ryan, Inc.

**MONITORED NATURAL ATTENUATION PARAMETERS
FORMER TEXACO SERVICE STATION 211079
1501 SOUTH CUSHMAN STREET
FAIRBANKS, ALASKA**

Location	Date Units	MNA PARAMETERS								
		Total Alkalinity mg/L	Alkalinity, phenolphthalein mg/L	Sulfate mg/L	Nitrate as Nitrogen mg/L	Methane mg/L	Nitrite (as N) mg/L	Nitrate by Field Measurement mg/L	Ferrous Iron by Field Measurement mg/L	Ferrous Iron mg/L
<i>ADEC Groundwater Cleanup Levels^o</i>										
MW-1	01/29/2014	234	-	17.3	1.0 J	0.0042 J	<0.050	3.3	0.20	0.13 J
MW-2	01/29/2014	468	-	85.0	0.87 J	0.013	<0.050 J	12.5	0.33	0.086 J
MW-4	01/29/2014	256	-	29.5	1.8 J	<0.0033	<0.050 J	5.0	0.05	<0.018 J
MW-5	01/29/2014	250 / 243	-	9.6 / 8.9	<0.050 J / 0.052 J	0.026 / 0.024	<0.050 J / <0.050 J	1.9 / 1.9	1.94 / -	40.6 J / 53.0 J
MW-9	01/29/2014	256	-	<1.2	<0.050 J	0.079	<0.050	0.0	0.52	34.0 J
MW-10	01/29/2014	292	-	53.5	0.16 J	0.039	<0.050	0.0	0.25	3.7 J

Notes and Abbreviations

mg/L = Milligrams per Liter

- = Not Measured/Not Analyzed

<x = Constituent not detected above x milligrams per liter

x / y = Sample Results / Blind Duplicate Results

TABLE 3

HISTORICAL GROUNDWATER ANALYTICAL RESULTS
FORMER TEXACO SERVICE STATION 211079
1501 SOUTH CUSHMAN STREET
FAIRBANKS, ALASKA

Location	Date	TOC Units	DTW ft msl	GWE ft msl	HYDROCARBONS			PRIMARY VOCs					Sulfolane mg/L	
					DRO mg/L	GRO mg/L	RRO mg/L	Benzene mg/L	Toluene mg/L	Ethylbenzene mg/L	Total Xylenes mg/L	EDB mg/L		1,2-DCA mg/L
ADEC Groundwater Cleanup Levels ^a					1.5	2.2	1.1	0.005	1.0	0.7	10.0			
MW-1	06/20/1994	440.92	15.25	425.67	-	49	-	0.75	11	1.8	10	-	-	-
MW-1	09/27/1994	440.92	14.83	426.09	-	52	-	0.81	11.7	2.7	13.4	-	-	-
MW-1	11/21/1994	440.92	15.48	425.44	-	51	-	1.1	13	3.1	14	-	-	-
MW-1	03/29/1995	440.92	16.13	424.79	-	49	-	0.54	14	2.4	10	-	-	-
MW-1	06/29/1995	440.94	14.45	426.49	1.8	58	-	0.38	14	2.6	13	-	-	-
MW-1	09/18/1995	440.94	13.12	427.82	-	24	-	0.055	3.7	1.3	6.9	-	-	-
MW-1	12/13/1995	440.94	15.00	425.94	0.39	42	-	0.29	4	16	7.7	-	-	-
MW-1	03/08/1996	440.94	16.10	424.84	1.1	110	-	0.62	26	3.2	16	-	-	-
MW-1	05/31/1996	440.94	15.13	425.81	-	91.5	-	0.394	20.1	2.37	13.9	-	-	-
MW-1	09/19/1996	440.94	15.18	425.76	-	59.4	-	0.135	9.7	1.7	10.3	-	-	-
MW-1	12/11/1996	440.96	15.73	425.23	-	43.6	-	0.15	8.16	1.56	7.93	-	-	-
MW-1	03/13/1997	440.96	-	-	-	-	-	-	-	-	-	-	-	-
MW-1	06/18/1997	440.96	15.40	425.56	-	37.3	-	<0.025	3.53	1.49	6.91	-	-	-
MW-1	09/19/1997	440.96	14.97	425.99	-	17.2	-	<0.025	1.7	0.919	5.3	-	-	-
MW-1	12/10/1997	440.96	15.80	425.16	-	32.1	-	<0.05	2.77	1.86	9.46	-	-	-
MW-1	03/30/1998	440.96	16.54	424.42	-	16.8 / 9.34	-	0.0142 / <0.025	0.925 / 0.531	0.98 / 0.569	4.53 / 2.66	-	-	-
MW-1	06/08/1998	440.96	15.94	425.02	-	7.79	-	<0.01	0.408	0.476	2.39	-	-	-
MW-1	09/16/1998	440.96	14.32	426.64	-	12.2 / 13.8	-	0.0153 / 0.0197	0.356 / 0.469	0.593 / 0.719	3.2 / 3.68	-	-	-
MW-1	12/28/1998	440.96	15.61	425.35	-	14.3 / 16.3	-	<0.05 / 0.0252	0.865 / 0.987	0.855 / 0.979	3.8 / 4.29	-	-	-
MW-1	03/13/1999	440.96	16.54	424.42	-	9.1	-	<0.025	0.351	0.751	3.26	-	-	-
MW-1	06/22/1999	440.96	-	-	-	-	-	-	-	-	-	-	-	-
MW-1	09/28/1999	440.96	14.92	426.04	-	8.9	-	<0.02	0.079	0.59	2.31	-	-	-
MW-1	12/15/1999	440.96	15.84	425.12	-	8.83	-	0.00888	0.139	0.505	2.11	-	-	-
MW-1	03/21/2000	440.96	16.30	424.66	-	8.95 / 11.5	-	<0.01 / <0.005	0.107 / 0.0917	0.346 / 0.34	1.47 / 1.44	-	-	-
MW-1	06/20/2000	440.96	13.97	426.99	-	4.69	-	0.00885	0.019	0.15	0.565	-	-	-
MW-1	09/13/2000	440.96	12.99	427.97	-	3.84 / 5.96	-	<0.005 / <0.005	0.0135 / 0.023	0.147 / 0.216	0.535 / 0.848	-	-	-
MW-1	12/13/2000	440.96	14.79	426.17	-	6.29 / 5.14	-	<0.004 / <0.004	0.0249 / 0.0142	0.178 / 0.125	0.631 / 0.452	-	-	-
MW-1	03/20/2001	440.96	15.64	425.32	-	6.39 / 6.69	-	<0.0132 / <0.014	0.0133 / 0.0172	0.218 / 0.21	0.793 / 0.754	-	-	-
MW-1	06/20/2001	440.96	14.76	426.20	-	4.16 / 6.18	-	0.00516 / 0.00295	0.00613 / 0.0107	0.194 / 0.197	0.756 / 0.785	-	-	-
MW-1	09/18/2001	440.96	14.03	426.93	-	4.88 / 5.73	-	0.00726 / 0.0078	0.00718 / <0.005	0.189 / 0.186	0.706 / 0.627	-	-	-
MW-1	03/25/2002	440.96	16.12	424.84	-	5.07 / 5.31	-	0.00747 / 0.00528	<0.005 / <0.005	0.151 / 0.17	0.692 / 0.812	-	-	-
MW-1	09/15/2002	440.96	13.02	427.94	-	4.53 / 4.03	-	0.00369 / 0.00419	0.000738 / <0.005	0.0813 / 0.107	0.424 / 0.394	-	-	-
MW-1	04/10/2003	440.96	15.55	425.41	-	4.8 / 4.9	-	<0.01 / <0.02	<0.002 / <0.002	0.072 / 0.073	0.33 / 0.33	-	-	-
MW-1	09/05/2003	440.96	12.56	428.40	-	2.6 / 2.9	-	<0.005 / <0.01	0.0006 / 0.0006	0.037 / 0.042	0.16 / 0.18	-	-	-
MW-1	03/03/2004	440.96	15.85	425.11	-	3.6 / 3.3	-	<0.01 / <0.02	<0.002 / <0.002	0.046 / 0.043	0.22 / 0.2	-	-	-
MW-1	09/20/2004	440.96	15.32	425.64	-	3.5 / 2.6	-	<0.01 / <0.01	<0.0005 / <0.002	0.033 / 0.037	0.17 / 0.19	-	-	-
MW-1	04/04/2005	440.96	16.20	424.76	-	2.8 / 2.5	-	0.0023 / 0.0021	<0.0005 / <0.0005	0.022 / 0.024	0.11 / 0.13	-	-	-
MW-1	09/29/2005	440.91	14.16	426.75	-	2.5 / 1.8	-	<0.005 / <0.005	<0.0005 / <0.0005	0.02 / 0.017	0.099 / 0.066	-	-	-
MW-1	03/24/2006	440.91	16.25	424.66	-	1.8 / 2	-	<0.01 / <0.01	<0.0005 / <0.0005	0.0088 / 0.011	0.049 / 0.06	-	-	-
MW-1	04/02/2008	440.91	16.48	424.43	0.325 / 0.466	3.25 / 2.83	<0.758 / <0.75	0.00676 / 0.00564	0.000652 / <0.0005	0.0023 / 0.00187	0.0123 / 0.0101	-	-	-
MW-1	07/20/2009	-	-	-	<0.056	<0.01	-	<0.0005	<0.0005	<0.0005	<0.0015	-	-	-
MW-1	07/26/2010	440.91	15.30	425.61	0.11 J / 0.097 J	1.0 / 1.1	-	0.0032 / 0.0032	<0.0005 / <0.0005	<0.0005 / <0.0005	<0.0015 / <0.0015	-	-	-
MW-1	06/14/2011	440.91	15.26	425.65	-	-	-	-	-	-	-	-	-	-
MW-1	06/16/2011	-	-	-	<0.048	0.23	-	<0.0020	<0.0005	<0.0005	<0.0015	-	-	-
MW-1	08/20/2012	440.91	14.75	426.16	0.085 J	0.99	-	0.0074	0.0016 J	<0.0005	<0.0015	-	-	-

TABLE 3

**HISTORICAL GROUNDWATER ANALYTICAL RESULTS
FORMER TEXACO SERVICE STATION 211079
1501 SOUTH CUSHMAN STREET
FAIRBANKS, ALASKA**

Location	Date	TOC	DTW	GWE	HYDROCARBONS			PRIMARY VOCs				EDB	1,2-DCA	Sulfolane
					DRO	GRO	RRO	Benzene	Toluene	Ethylbenzene	Total Xylenes			
	Units	ft msl	fbg	ft msl	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
ADEC Groundwater Cleanup Levels ^a					1.5	2.2	1.1	0.005	1.0	0.7	10.0			
MW-1	07/26/2013	440.91	14.91	426.00	-	-	-	-	-	-	-	-	-	-
MW-1	07/27/2013	-	-	-	0.20 J	1.0 J	-	<0.00024	<0.00023	<0.00024	<0.00072	-	-	-
MW-1	01/29/2014	440.91	14.95	425.96	<0.20	<0.050	-	<0.00024	<0.00023	<0.00024	<0.00072	-	-	-
MW-2	06/22/1994	439.45	13.61	425.84	-	37	-	11	9.3	1.2	4.9	-	-	-
MW-2	09/28/1994	439.45	13.50	425.95	-	67	-	18.8	13.8	1.4	6.7	-	-	-
MW-2	11/21/1994	439.45	14.07	425.38	-	140	-	38	33	4	14	-	-	-
MW-2	03/29/1995	439.45	14.73	424.72	-	110	-	29	26	2.1	10	-	-	-
MW-2	06/29/1995	439.42	13.08	426.34	-	42	-	8.3	8.1	1.1	4.7	-	-	-
MW-2	09/19/1995	439.42	11.75	427.67	-	26	-	5.4	6.1	0.65	2.3	-	-	-
MW-2	12/13/1995	439.42	13.60	425.82	-	170 / 150	-	24 / 24	29 / 28	1.3 / 1.3	7.5 / 7.7	-	-	-
MW-2	03/08/1996	439.42	14.70	424.72	-	91 / 100	-	18 / 22	14 / 22	1 / 1.7	5.5 / 9.8	-	-	-
MW-2	06/01/1996	439.42	13.72	425.70	-	83.9 / 80.1	-	17.1 / 16.6	14.4 / 13.8	1.03 / 1.01	4.97 / 4.85	-	-	-
MW-2	09/18/1996	439.42	13.79	425.63	-	12.4	-	1.26	1.25	0.132	0.925	-	-	-
MW-2	12/11/1996	439.42	14.20	425.22	-	26 / 24.8	-	1.86 / 1.9	5.52 / 5.36	0.473 / 0.459	3.47 / 3.24	-	-	-
MW-2	03/13/1997	439.42	14.59	424.83	-	0.741	-	0.0788	0.159	0.00954	0.134	-	-	-
MW-2	06/18/1997	439.42	15.15	424.27	-	0.067 / 0.0652	-	0.00221 / 0.00266	0.00631 / 0.00751	0.00293 / 0.00245	0.0182 / 0.0162	-	-	-
MW-2	09/19/1997	439.42	14.28	425.14	-	<0.5	-	<0.0005	0.000797	<0.0005	0.00145	-	-	-
MW-2	12/10/1997	439.42	13.84	425.58	-	<0.5	-	0.000529	0.000801	0.00102	0.00472	-	-	-
MW-2	03/30/1998	439.42	14.65	424.77	-	0.15	-	<0.0005	0.00684	0.00728	0.0536	-	-	-
MW-2	06/09/1998	439.42	17.12	422.30	-	<0.5	-	<0.0005	0.00149	0.000726	0.00356	-	-	-
MW-2	09/16/1998	439.42	14.81	424.61	-	<0.5	-	<0.0005	<0.0005	<0.0005	<0.001	-	-	-
MW-2	12/28/1998	439.42	13.19	426.23	-	<0.5	-	<0.001	<0.001	<0.001	<0.002	-	-	-
MW-2	03/13/1999	439.42	14.75	424.67	-	<0.5	-	<0.0005	<0.0005	<0.0005	<0.001	-	-	-
MW-2	06/22/1999	439.42	15.36	424.06	-	<0.5	-	0.00203	<0.0005	0.0012	0.00723	-	-	-
MW-2	09/28/1999	439.42	14.29	425.13	-	0.063 / 0.077	-	0.00314 / 0.00333	0.000887 / <0.00050	0.00483 / 0.00544	0.0049 / 0.00485	-	-	-
MW-2	12/15/1999	439.42	14.59	424.83	-	0.0802	-	0.00736	<0.0005	0.00286	0.00451	-	-	-
MW-2	03/21/2000	439.42	15.04	424.38	-	0.0516	-	0.00648	<0.0005	0.00148	0.00213	-	-	-
MW-2	06/20/2000	439.42	12.77	426.65	-	<0.8	-	0.00189	<0.0005	<0.0005	0.00302	-	-	-
MW-2	09/13/2000	439.42	11.74	427.68	-	<0.5	-	0.00169	<0.0005	0.000807	0.00345	-	-	-
MW-2	12/13/2000	439.42	13.59	425.83	-	1.08	-	0.00594	<0.00103	0.0564	0.195	-	-	-
MW-2	03/20/2001	439.42	14.39	425.03	-	0.427	-	0.00507	<0.0005	0.0272	0.0686	-	-	-
MW-2	06/20/2001	439.42	13.58	425.84	-	0.147	-	0.00203	<0.0005	0.00999	0.0209	-	-	-
MW-2	09/18/2001	439.42	12.83	426.59	-	0.431	-	0.00251	0.0005	0.0264	0.102	-	-	-
MW-2	03/25/2002	439.42	14.97	424.45	-	1.16	-	0.00373	0.00487	0.0986	0.315	-	-	-
MW-2	09/15/2002	439.42	11.76	427.66	-	1.34	-	0.00747	<0.005	0.0759	0.319	-	-	-
MW-2	04/10/2003	439.42	13.91	425.51	-	2.7	-	0.0064	<0.0005	0.2	0.62	-	-	-
MW-2	09/05/2003	439.42	11.28	428.14	-	1.6	-	0.0043	<0.0005	0.11	0.43	-	-	-
MW-2	03/01/2004	439.42	-	-	-	-	-	Well Beneath snowbank, no access			-	-	-	-
MW-2	09/20/2004	439.42	14.03	425.39	-	2.3	-	0.0051	<0.0005	0.15	0.41	-	-	-
MW-2	04/04/2005	439.42	14.75	424.67	-	1.9	-	0.0026	<0.0005	0.072	0.55	-	-	-
MW-2	09/29/2005	439.39	12.76	426.66	-	2.6	-	0.0058	0.0007	0.14	0.6	-	-	-
MW-2	03/26/2006	439.39	14.79	424.60	-	2.7	-	0.0038	<0.0005	0.096	0.68	-	-	-
MW-2	04/02/2008	439.39	14.90	424.49	-	-	-	-	-	-	-	-	-	-
MW-2	04/05/2008	-	-	-	0.674	1.81	<0.714	0.00317	<0.0005	0.0471	0.456	-	-	-

TABLE 3

**HISTORICAL GROUNDWATER ANALYTICAL RESULTS
FORMER TEXACO SERVICE STATION 211079
1501 SOUTH CUSHMAN STREET
FAIRBANKS, ALASKA**

Location	Date	TOC	DTW	GWE	HYDROCARBONS			PRIMARY VOCs					1,2-DCA	Sulfolane
					DRO	GRO	RRO	Benzene	Toluene	Ethylbenzene	Total Xylenes	EDB		
	Units	ft msl	fbg	ft msl	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
ADEC Groundwater Cleanup Levels ^a					1.5	2.2	1.1	0.005	1.0	0.7	10.0			
MW-2	07/21/2009	-	-	-	0.68	0.54	-	<0.0005	<0.0005	0.0077	0.12	-	-	
MW-2	07/25/2010	439.39	13.70	425.69	0.64	1.7	-	0.0031	0.0006 J	0.027	0.28	-	-	
MW-2	06/14/2011	439.39	13.61	425.78	-	-	-	-	-	-	-	-	-	
MW-2	08/02/2011	439.39	12.51	426.88	0.19 J / 0.22 J	0.55 / 0.53	-	0.0032 / 0.0031	<0.0005 / <0.0005	0.010 / 0.0098	0.086 / 0.079	-	-	
MW-2	08/20/2012	439.39	13.40	425.99	0.85	1.4	-	0.0032	0.0005 J	0.014	0.16	-	-	
MW-2	07/26/2013	439.39	13.49	425.90	-	-	-	-	-	-	-	-	-	
MW-2	07/27/2013	-	-	-	0.71	0.72	-	0.0015	<0.00023	0.011	0.17	-	-	
MW-2	01/29/2014	439.39	14.38	425.01	1.2	<0.050	-	0.00063 J	<0.00023	<0.00024	0.0038	-	-	
MW-3	06/22/1994	439.84	14.25	425.59	-	ND	-	ND	ND	ND	ND	-	-	
MW-3	09/27/1994	439.84	13.75	426.09	-	ND	-	0.0016	0.002	ND	0.001	-	-	
MW-3	11/22/1994	439.84	14.38	425.46	-	ND	-	0.0013	ND	ND	ND	-	-	
MW-3	03/29/1995	439.84	15.07	424.77	-	ND	-	0.0021	0.002	ND	0.006	-	-	
MW-3	06/29/1995	439.93	13.40	426.53	-	ND	-	0.0006	ND	ND	ND	-	-	
MW-3	09/18/1995	439.93	12.08	427.85	-	ND	-	0.0006	ND	ND	ND	-	-	
MW-3	12/12/1995	439.93	14.10	425.83	-	ND	-	ND	ND	ND	ND	-	-	
MW-3	03/08/1996	439.93	15.12	424.81	ND	ND	-	ND	ND	ND	ND	-	-	
MW-3	05/30/1996	439.93	14.16	425.77	-	ND	-	ND	ND	ND	ND	-	-	
MW-3	09/18/1996	439.93	14.20	425.73	-	ND	-	ND	ND	ND	ND	-	-	
MW-3	12/11/1996	439.93	15.10	424.83	-	ND	-	ND	ND	ND	ND	-	-	
MW-3	03/13/1997	439.93	15.61	424.32	-	ND	-	ND	ND	ND	ND	-	-	
MW-3	06/18/1997	439.93	-	-	-	-	-	-	-	-	-	-	-	
MW-3	09/19/1997	439.93	14.32	425.61	-	<0.5	-	<0.0005	<0.0005	<0.0005	0.0011	-	-	
MW-3	12/10/1997	439.93	-	-	-	-	-	-	-	-	-	-	-	
MW-3	06/09/1998	439.93	15.30	424.63	-	<0.5 / <0.5	-	<0.0005 / <0.0005	<0.0005 / <0.0005	0.000592 / <0.0001	0.0022 / 0.00176	-	-	
MW-3	09/16/1998	439.93	13.69	426.24	-	0.178	-	<0.0005	0.00504	0.00805	0.0687	-	-	
MW-3	12/28/1998	439.93	15.26	424.67	-	<0.5	-	<0.001	<0.001	<0.001	<0.002	-	-	
MW-3	03/13/1999	439.93	15.89	424.04	-	<0.5	-	<0.0005	<0.0005	<0.0005	<0.001	-	-	
MW-3	06/22/1999	439.93	-	-	-	-	-	-	-	-	-	-	-	
MW-3	09/28/1999	439.93	14.32	425.61	-	<0.5	-	<0.0005	<0.0005	<0.0005	<0.001	-	-	
MW-3	12/15/1999	439.93	-	-	-	-	-	-	-	-	-	-	-	
MW-3	03/21/2000	439.93	15.04	424.89	-	<0.5	-	<0.0005	<0.0005	<0.0005	<0.0001	-	-	
MW-3	06/20/2000	439.93	-	-	-	-	-	-	-	-	-	-	-	
MW-3	09/13/2000	439.93	12.42	427.51	-	<0.5	-	<0.0005	<0.0005	<0.0005	<0.0001	-	-	
MW-3	12/13/2000	439.93	-	-	-	-	-	-	-	-	-	-	-	
MW-3	03/20/2001	439.93	15.10	424.83	-	<0.5	-	<0.0002	<0.0005	<0.0005	<0.0001	-	-	
MW-3	06/20/2001	439.93	-	-	-	-	-	-	-	-	-	-	-	
MW-3	09/18/2001	439.93	-	-	-	-	-	-	-	-	-	-	-	
MW-3	03/25/2002	439.93	15.74	424.19	-	<0.5	-	<0.0002	<0.0005	<0.0005	<0.001	-	-	
MW-3	04/09/2003	439.93	15.13	424.80	-	0.012	-	<0.0005	<0.0005	<0.0005	<0.0015	-	-	
MW-3	09/01/2004	439.93	-	-	Well Beneath snowbank - no access. Well Decommissioned due to damage on 8/19/2004.									
MW-3	09/26/2005	439.93	-	-	Well removed and replaced with MW-3R									
MW-3R	09/29/2005	440.14	13.38	426.76	-	<0.01	-	<0.0005	<0.0005	<0.0005	<0.0015	-	-	
MW-3R	03/24/2006	440.14	15.31	424.83	-	<0.01	-	<0.0005	<0.0005	<0.0005	<0.0015	-	-	
MW-3R	04/02/2008	440.14	15.45	424.69	-	-	-	-	-	-	-	-	-	

TABLE 3

**HISTORICAL GROUNDWATER ANALYTICAL RESULTS
FORMER TEXACO SERVICE STATION 211079
1501 SOUTH CUSHMAN STREET
FAIRBANKS, ALASKA**

Location	Date	TOC	DTW	GWE	HYDROCARBONS			PRIMARY VOCs					Sulfolane	
					DRO	GRO	RRO	Benzene	Toluene	Ethylbenzene	Total Xylenes	EDB		1,2-DCA
	Units	ft msl	fbg	ft msl	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
ADEC Groundwater Cleanup Levels ^p					1.5	2.2	1.1	0.005	1.0	0.7	10.0			
MW-3R	04/05/2008	-	-	-	0.506	<0.05	<0.735	<0.0005	<0.0005	<0.0005	<0.001	-	-	
MW-3R	07/21/2009	-	-	-	0.12	<0.01	-	<0.0005	<0.0005	<0.0005	<0.0015	-	-	
MW-3R	07/26/2010	440.14	14.19	425.95	0.12 J	0.012 J	-	<0.0005	<0.0005	<0.0005	<0.0015	-	-	
MW-3R	06/14/2011	440.14	14.14	426.00	-	-	-	-	-	-	-	-	-	
MW-3R	06/15/2011	-	-	-	0.24 J	<0.010	-	<0.0005	<0.0005	<0.0005	<0.0015	-	-	
MW-3R	08/20/2012	440.14	13.95	426.19	<0.049	<0.010	-	<0.0005	<0.0005	<0.0005	<0.0015	-	-	
MW-4	06/20/1994	439.23	13.51	425.72	-	140	-	7.7	56	4.6	20	-	-	
MW-4	09/27/1994	439.23	13.15	426.08	-	98	-	5.51	35	3.8	17.8	-	-	
MW-4	11/21/1994	439.23	13.74	425.49	-	120	-	5.2	42	5	28	-	-	
MW-4	03/29/1995	439.23	14.44	424.79	-	60	-	1	17	2.6	15	-	-	
MW-4	06/29/1995	439.16	12.76	426.40	1.9	79	-	0.79	20	3.3	16	-	-	
MW-4	09/18/1995	439.16	11.35	427.81	-	47	-	0.4	11	1.8	12	-	-	
MW-4	12/13/1995	439.16	13.30	425.86	-	87	-	0.45	12	2.3	14	-	-	
MW-4	03/08/1996	439.16	14.39	424.77	-	130	-	0.66	33	5.3	30	-	-	
MW-4	05/31/1996	439.16	13.38	425.78	-	102	-	0.407	15.9	3.45	22.3	-	-	
MW-4	09/19/1996	439.16	13.45	425.71	-	92.1	-	0.332	11	3.37	22.2	-	-	
MW-4	12/12/1996	439.16	14.22	424.94	-	39.8	-	0.164	3.81	1.33	10.3	-	-	
MW-4	03/13/1997	439.16	14.81	424.35	-	37.2	-	0.141	3.15	1.21	10.1	-	-	
MW-4	06/18/1997	439.16	13.81	425.35	-	33.8	-	<0.1	2.76	1.27	9.77	-	-	
MW-4	09/19/1997	439.16	13.42	425.74	-	34	-	<0.1	3.5	1.62	12.3	-	-	
MW-4	12/10/1997	439.16	14.33	424.83	-	38.7	-	0.0506	1.82	1.33	11.3	-	-	
MW-4	03/30/1998	439.16	15.03	424.13	-	20.5	-	<0.05	1.27	0.849	6.66	-	-	
MW-4	06/09/1998	439.16	14.34	424.82	-	18.7	-	<0.05	0.771	0.673	6.53	-	-	
MW-4	09/16/1998	439.16	12.74	426.42	-	29.1	-	0.0338	0.818	1.15	9.45	-	-	
MW-4	12/28/1998	439.16	14.43	424.73	-	25.9	-	0.00803	0.275	0.939	7.03	-	-	
MW-4	03/13/1999	439.16	15.02	424.14	-	13.6	-	<0.05	0.122	0.644	4.82	-	-	
MW-4	06/22/1999	439.16	-	-	-	-	-	-	-	-	-	-	-	
MW-4	09/28/1999	439.16	13.49	425.67	-	22.7	-	<0.04	0.095	0.766	4.89	-	-	
MW-4	12/15/1999	439.16	14.29	424.87	-	17.5	-	0.0225	0.0454	0.71	3.7	-	-	
MW-4	03/21/2000	439.16	14.75	424.41	-	12.5	-	<0.025	0.0276	0.366	1.99	-	-	
MW-4	06/20/2000	439.16	12.47	426.69	-	14.9	-	0.0235	0.0475	0.395	1.79	-	-	
MW-4	09/13/2000	439.16	11.45	427.71	-	12.4	-	<0.01	0.0278	0.386	2.01	-	-	
MW-4	12/13/2000	439.16	13.24	425.92	-	11.5	-	<0.01	<0.025	0.442	1.91	-	-	
MW-4	03/20/2001	439.16	14.10	425.06	-	9.26	-	<0.0042	<0.01	0.326	1.34	-	-	
MW-4	06/20/2001	439.16	13.27	425.89	-	7.96	-	0.0125	0.0114	0.36	13.91	-	-	
MW-4	09/18/2001	439.16	12.51	426.65	-	9.65	-	0.0129	<0.01	0.373	1.53	-	-	
MW-4	03/25/2002	439.16	14.65	424.51	-	8.38 / 4.2	-	0.00919 / 0.00646	0.00536 / <0.005	0.259 / 0.115	0.94 / 0.342	-	-	
MW-4	09/15/2002	439.16	11.46	427.70	-	8.69	-	0.00693	<0.005	0.315	1.17	-	-	
MW-4	04/10/2003	439.16	13.96	425.20	-	5.6	-	<0.01	0.0013	0.15	0.52	-	-	
MW-4	09/05/2003	439.16	10.88	428.28	-	6.3	-	<0.02	0.0015	0.17	0.43	-	-	
MW-4	03/03/2004	439.16	14.09	425.07	-	3.8	-	<0.02	0.001	0.11	0.3	-	-	
MW-4	09/20/2004	439.16	13.72	425.44	-	6.1	-	<0.02	<0.0025	0.12	0.28	-	-	
MW-4	04/04/2005	439.16	14.48	424.68	-	4	-	0.0032	0.0007	0.056	0.13	-	-	
MW-4	09/29/2005	438.98	12.50	426.66	-	3.2	-	<0.01	<0.005	0.029	0.083	-	-	

TABLE 3

HISTORICAL GROUNDWATER ANALYTICAL RESULTS
FORMER TEXACO SERVICE STATION 211079
1501 SOUTH CUSHMAN STREET
FAIRBANKS, ALASKA

Location	Date	TOC	DTW	GWE	HYDROCARBONS			PRIMARY VOCs				EDB	1,2-DCA	Sulfolane
					DRO	GRO	RRO	Benzene	Toluene	Ethylbenzene	Total Xylenes			
	Units	ft msl	fbg	ft msl	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
ADEC Groundwater Cleanup Levels ^a					1.5	2.2	1.1	0.005	1.0	0.7	10.0			
MW-4	03/24/2006	438.98	14.30	424.68	-	2.1	-	0.0041	<0.0005	0.023	0.045	-	-	-
MW-4	04/02/2008	438.98	14.47	424.51	-	-	-	-	-	-	-	-	-	-
MW-4	04/05/2008	-	-	-	0.511	2.5	<0.773	0.00581	0.000569	0.0113	0.0219	-	-	-
MW-4	07/21/2009	-	-	-	0.13	0.18	-	0.0005	<0.0005	0.0021	0.0033	-	-	-
MW-4	07/25/2010	438.98	13.20	425.78	0.092 J	0.049 J	-	<0.0005	<0.0005	0.0005 J	0.0021 J	-	-	-
MW-4	06/14/2011	438.98	13.11	425.87	-	-	-	-	-	-	-	-	-	-
MW-4	08/02/2011	438.98	12.04	426.94	0.087 J	0.031 J	-	<0.0005	<0.0005	<0.0005	<0.0015	-	-	-
MW-4	08/20/2012	438.98	12.93	426.05	<0.049	0.049 J	-	<0.0005	<0.0005	<0.0005	<0.0015	-	-	-
MW-4	07/26/2013	438.98	13.03	425.95	-	-	-	-	-	-	-	-	-	-
MW-4	07/27/2013	-	-	-	0.14 J	<0.050	-	<0.00024	<0.00023	<0.00024	<0.00072	-	-	-
MW-4	01/29/2014	438.98	13.46	425.52	0.46	<0.050	-	<0.00024	<0.00023	<0.00024	<0.00072	-	-	-
MW-5	06/22/1994	439.90	13.95	426.99	-	150	-	33	45	3.8	16	-	-	-
MW-5	09/27/1994	439.90	13.82	427.12	-	103	-	22.8	24.1	2.9	13.9	-	-	-
MW-5	11/21/1994	439.90	14.44	426.50	-	150	-	29	39	5	30	-	-	-
MW-5	03/29/1995	439.90	15.10	425.84	-	160	-	12	25	5	50	-	-	-
MW-5	06/29/1995	439.82	13.45	426.37	-	19	-	17	37	5.2	33	-	-	-
MW-5	09/19/1995	439.82	12.10	427.72	-	170	-	26	48	4	26	-	-	-
MW-5	12/13/1995	439.82	13.85	425.97	-	420	-	43	60	56	35	-	-	-
MW-5	03/08/1996	439.82	14.90	424.92	2	240	-	37	46	3.2	15	-	-	-
MW-5	06/01/1996	439.82	14.07	425.75	-	124	-	15.4	25.4	2.11	9.89	-	-	-
MW-5	09/17/1996	439.82	14.11	425.71	-	176	-	22.4	36.2	2.83	14.4	-	-	-
MW-5	12/11/1996	439.82	14.81	425.01	-	175	-	17.2	34.5	3.21	18.2	-	-	-
MW-5	03/13/1997	439.82	15.46	424.36	-	54	-	3.12	12.9	0.986	8.43	-	-	-
MW-5	06/18/1997	439.82	14.61	425.21	-	7.15	-	0.23	0.953	0.259	1.21	-	-	-
MW-5	09/19/1997	439.82	14.20	425.62	-	2.15 / 3.05	-	0.0261 / <0.0125	0.402 / 0.613	0.108 / 0.158	0.551 / 0.769	-	-	-
MW-5	12/10/1997	439.82	15.00	424.82	-	7.7 / 6.39	-	0.16 / 0.138	0.427 / 0.418	0.336 / 0.34	1.94 / 1.72	-	-	-
MW-5	03/30/1998	439.82	16.72	423.10	-	1.69	-	0.00589	0.389	0.062	0.322	-	-	-
MW-5	06/09/1998	439.82	15.14	424.68	-	1.28	-	<0.005	0.281	0.0452	0.213	-	-	-
MW-5	09/16/1998	439.82	13.53	426.29	-	2.82 / 2.45	-	<0.0125 / <0.01	0.13 / 0.132	0.141 / 0.145	0.796 / 0.814	-	-	-
MW-5	12/28/1998	439.82	15.09	424.73	-	3.33	-	0.0021	0.06	0.218	0.881	-	-	-
MW-5	03/13/1999	439.82	15.67	424.15	-	4.49 / 5.37	-	0.0267 / 0.03	0.065 / 0.079	0.391 / 0.45	1.22 / 1.41	-	-	-
MW-5	06/22/1999	439.82	14.72	425.10	-	5.66	-	0.0307	0.539	0.207	0.991	-	-	-
MW-5	09/28/1999	439.82	14.18	425.64	-	8.47	-	<0.025	0.052	0.282	1.46	-	-	-
MW-5	12/15/1999	439.82	14.95	424.87	-	7.58 / 5.9	-	0.0305 / 0.0238	0.0454 / 0.0318	0.411 / 0.307	1.92 / 1.38	-	-	-
MW-5	03/21/2000	439.82	15.40	424.42	-	5.38	-	0.013	0.0707	0.179	0.708	-	-	-
MW-5	06/20/2000	439.82	13.13	426.69	-	5.47 / 4.79	-	0.0143 / 0.0142	0.153 / 0.14	0.184 / 0.171	0.875 / 0.74	-	-	-
MW-5	09/13/2000	439.82	12.16	427.66	-	9.57	-	0.0117	0.134	0.38	2.19	-	-	-
MW-5	12/13/2000	439.82	13.89	425.93	-	13	-	<0.01	0.251	0.576	3.73	-	-	-
MW-5	03/20/2001	439.82	14.74	425.08	-	15.1	-	<0.021	0.338	0.637	3.71	-	-	-
MW-5	06/20/2001	439.82	13.98	425.84	-	11.8	-	0.00715	0.325	0.455	2.9	-	-	-
MW-5	09/18/2001	439.82	13.13	426.69	-	11.5	-	0.013	0.223	0.485	3.26	-	-	-
MW-5	03/25/2002	439.82	15.30	424.52	-	9.63	-	0.00552	0.0291	0.448	3.24	-	-	-
MW-5	09/15/2002	439.82	12.13	427.69	-	15.3	-	0.00898	0.0296	0.577	4.59	-	-	-
MW-5	04/10/2003	439.82	14.49	425.33	-	23	-	<0.01	0.021	0.85	6.8	-	-	-

TABLE 3

**HISTORICAL GROUNDWATER ANALYTICAL RESULTS
FORMER TEXACO SERVICE STATION 211079
1501 SOUTH CUSHMAN STREET
FAIRBANKS, ALASKA**

Location	Date	TOC	DTW	GWE	HYDROCARBONS			PRIMARY VOCs				1,2-DCA	Sulfolane	
					DRO	GRO	RRO	Benzene	Toluene	Ethylbenzene	Total Xylenes			EDB
	Units	ft msl	fbg	ft msl	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
ADEC Groundwater Cleanup Levels^a					1.5	2.2	1.1	0.005	1.0	0.7	10.0			
MW-5	09/05/2003	439.82	11.64	428.18	-	18	-	0.03	0.037	0.57	4.6	-	-	-
MW-5	03/03/2004	439.82	14.83	424.99	-	24	-	<0.02	0.0058	0.68	5.6	-	-	-
MW-5	09/20/2004	439.82	14.37	425.45	-	20	-	<0.02	0.0042	0.5	4.5	-	-	-
MW-5	04/04/2005	439.82	15.13	424.69	-	11	-	0.0044	0.0022	0.24	2.4	-	-	-
MW-5	09/29/2005	439.82	13.15	426.67	1.4	13	<0.1	<0.01	<0.0025	0.27	2.3	-	-	-
MW-5	03/26/2006	439.82	15.15	424.67	2.8	11	<0.42	0.0095	0.0019	0.21	1.9	-	-	-
MW-5	04/02/2008	439.82	15.58	424.24	0.359	<0.05	<0.765	<0.0005	0.000647	<0.0005	<0.001	-	-	-
MW-5	07/20/2009	-	-	-	3.9	12	-	0.0096	0.0014	0.067	0.48	-	-	-
MW-5	07/25/2010	439.82	14.09	425.73	1.1 J	5.1	-	0.0067	0.0006 J	0.0090	0.059	-	-	-
MW-5	09/09/2010	439.82	13.91	425.91	-	-	-	-	-	-	-	-	-	<0.010 / <0.010
MW-5	06/14/2011	439.82	13.97	425.85	-	-	-	-	-	-	-	-	-	-
MW-5	06/16/2011	-	-	-	3.7	5.9	-	0.0078 J	<0.0025	0.0089 J	0.058	-	-	-
MW-5	08/20/2012	439.82	13.76	426.06	4.3 / 4.3	8.0 / 7.2	-	0.013 / 0.0094 J	0.0036 J / 0.0028 J	0.0046 J / 0.0038 J	0.020 J / 0.019 J	0.0000097 / <0.000009	<0.001 / <0.001	-
MW-5	07/26/2013	439.82	13.83	425.99	-	-	-	-	-	-	-	-	-	-
MW-5	07/27/2013	-	-	-	2.5 / 2.2	1.6 / 1.6 J	-	0.00049 J / 0.00051	<0.00023 / <0.0002	0.0014 / 0.0013	0.0076 / 0.0071	-	-	-
MW-5	01/29/2014	439.82	14.76	425.06	4.0 J / 2.2 J	3.0 / 3.0	-	0.00080 J / <0.0024	0.00036 J / <0.0023	0.0012 / <0.0024	0.0055 / <0.0072	-	-	-
MW-6	06/20/1994	439.39	13.88	425.51	-	13	-	2.3	0.65	0.85	2.6	-	-	-
MW-6	09/28/1994	439.39	13.44	425.95	-	9	-	2.43	0.9	0.7	1.8	-	-	-
MW-6	11/21/1994	439.39	14.03	425.36	-	28	-	5.8	7.8	1.6	5.2	-	-	-
MW-6	03/29/1995	439.39	14.69	424.70	-	32	-	3.4	7	1.7	6.5	-	-	-
MW-6	06/29/1995	439.37	13.06	426.31	-	4.2	-	0.23	0.008	0.51	0.96	-	-	-
MW-6	09/18/1995	439.37	11.69	427.68	-	2.4	-	0.19	0.017	0.3	0.39	-	-	-
MW-6	12/13/1995	439.37	13.65	425.72	-	39	-	3.6	7.3	1.2	4	-	-	-
MW-6	03/08/1996	439.37	14.67	424.70	-	58	-	3.6	17	2.1	7.9	-	-	-
MW-6	05/31/1996	439.37	13.66	425.71	-	15.3	-	0.377	1.02	0.972	3.38	-	-	-
MW-6	09/17/1996	439.37	13.74	425.63	-	15.4	-	0.848	2.08	0.84	2.5	-	-	-
MW-6	12/12/1996	439.37	14.55	424.82	-	31.7	-	2.08	7.24	1.16	3.39	-	-	-
MW-6	03/13/1997	439.37	15.10	424.27	-	22.4	-	0.773	4.51	1.17	3.95	-	-	-
MW-6	06/18/1997	439.37	14.23	425.14	-	8.06	-	0.124	0.05	0.846	1.68	-	-	-
MW-6	09/20/1997	439.37	13.85	425.52	-	2.46	-	0.0724	0.0331	0.387	0.39	-	-	-
MW-6	12/10/1997	439.37	14.63	424.74	-	5.13	-	0.728	5.13	1.13	2.64	-	-	-
MW-6	03/31/1998	439.37	15.37	424.00	-	12.2	-	0.174	0.638	1.31	3.47	-	-	-
MW-6	06/08/1998	439.37	14.77	424.60	-	4.55	-	0.0649	0.21	0.665	1.23	-	-	-
MW-6	09/16/1998	439.37	13.16	426.21	-	0.87	-	0.0144	<0.0025	0.173	0.159	-	-	-
MW-6	12/29/1998	439.37	14.70	424.67	-	16.9	-	0.249	4.21	1.11	2.71	-	-	-
MW-6	03/14/1999	439.37	15.35	424.02	-	23	-	0.176	4.55	1.82	5.84	-	-	-
MW-6	06/22/1999	439.37	14.36	425.01	-	5.91	-	0.0271	<0.01	0.769	1.78	-	-	-
MW-6	09/28/1999	439.37	13.78	425.59	-	0.698	-	0.0095	<0.0025	0.117	0.142	-	-	-
MW-6	12/16/1999	439.37	14.59	424.78	-	4.24 / 4.55	-	0.102 / 0.0971	0.24 / 0.226	0.562 / 0.522	0.964 / 0.903	-	-	-
MW-6	03/21/2000	439.37	15.04	424.33	-	10.4	-	0.0599	1.41	0.907	1.91	-	-	-
MW-6	06/20/2000	439.37	12.77	426.60	-	2.99	-	0.0135	0.00408	0.407	0.585	-	-	-
MW-6	09/13/2000	439.37	11.80	427.57	-	0.439	-	0.0042	<0.0005	0.0457	0.0888	-	-	-
MW-6	12/13/2000	439.37	13.45	425.92	-	0.655	-	0.00841	0.00103	0.049	0.0695	-	-	-
MW-6	03/20/2001	439.37	14.42	424.95	-	24.9	-	0.238	2.52	1.77	6.26	-	-	-

HISTORICAL GROUNDWATER ANALYTICAL RESULTS
FORMER TEXACO SERVICE STATION 211079
1501 SOUTH CUSHMAN STREET
FAIRBANKS, ALASKA

Location	Date	TOC Units ft msl	DTW fbg	GWE ft msl	HYDROCARBONS			PRIMARY VOCs					Sulfolane mg/L
					DRO mg/L	GRO mg/L	RRO mg/L	Benzene mg/L	Toluene mg/L	Ethylbenzene mg/L	Total Xylenes mg/L	EDB mg/L	
ADEC Groundwater Cleanup Levels ^a					1.5	2.2	1.1	0.005	1.0	0.7	10.0		
MW-6	06/20/2001	439.37	13.56	425.81	-	7.54	-	0.0543	0.0153	0.967	2.22	-	-
MW-6	09/18/2001	439.37	12.84	426.53	-	0.976	-	0.0134	<0.25	0.171	0.233	-	-
MW-6	03/25/2002	439.37	14.98	424.39	-	13.8	-	0.42	0.0788	1.41	3.3	-	-
MW-6	04/16/2002	439.37	-	-	-	24.6	-	0.198	1.41	1.68	6.16	-	-
MW-6	09/15/2002	439.37	11.79	427.58	-	0.34	-	0.00415	<0.0005	0.0116	0.0755	-	-
MW-6	04/09/2003	439.37	14.25	425.12	-	23 / 24	-	0.25 / 0.27	0.83 / 0.95	1.5 / 1.6	5.5 / 5.8	-	-
MW-6	09/05/2003	439.37	11.34	428.03	-	1.8	-	0.023	<0.0005	0.15	0.38	-	-
MW-6	03/03/2004	439.37	14.55	424.82	-	25	-	0.34	0.18	1.4	6.2	-	-
MW-6	09/20/2004	439.37	14.06	425.31	-	3.8	-	0.094	0.012	0.23	0.7	-	-
MW-6	04/04/2005	439.37	14.82	424.55	-	5.9 / 6.1	-	0.078 / 0.078	0.0006 / 0.0006	0.46 / 0.47	1.5 / 1.6	-	-
MW-6	09/29/2005	439.47						Well Inaccessible					
MW-6	03/24/2006	439.47	14.85	424.62	-	16 / 17	-	0.25 / 0.25	0.0087 / 0.0097	1.3 / 1.3	4 / 4.2	-	-
MW-6	04/02/2008	439.47	15.01	424.46	1.04 / 1.15	7.56 / 7.28	<0.773 / <0.781	0.0438 / 0.0432	0.00106 / 0.00108	0.56 / 0.534	1.8 / 1.75	-	-
MW-6	07/21/2009	-	-	-	0.16	0.73	-	0.0063	<0.0005	0.023	0.18	-	-
MW-6	07/26/2010	439.47	13.81	425.66	0.13 J / 0.15 J	0.33 / 0.31	-	0.0028 / 0.0028	<0.0005 / <0.0005	<0.0005 / <0.0005	0.0037 J / 0.0034	-	-
MW-6	07/26/2013	439.47						No Access					
MW-7	06/22/1994	439.72	13.97	425.75	-	44	-	11	6.2	1.6	5.5	-	-
MW-7	09/28/1994	439.72	13.90	425.82	-	38	-	11.4	5.9	1.8	5.8	-	-
MW-7	11/22/1994	439.72	14.46	425.26	-	41	-	12	8.6	1.9	6.9	-	-
MW-7	03/29/1995	439.72	15.12	424.60	-	39	-	8.6	6.8	1.6	6.1	-	-
MW-7	06/29/1995	439.70	13.45	426.25	-	18	-	5.1	2.5	0.9	2.6	-	-
MW-7	09/18/1995	439.70	12.08	427.62	-	2.7	-	0.75	0.005	0.25	0.286	-	-
MW-7	12/13/1995	439.70	14.00	425.70	-	26	-	4.8	0.53	1	3.8	-	-
MW-7	03/08/1996	439.70	15.10	424.60	-	25	-	5.1	0.25	0.96	2.4	-	-
MW-7	06/01/1996	439.70	14.11	425.59	-	13.2	-	3.36	0.0381	0.649	1.03	-	-
MW-7	09/18/1996	439.70	14.19	425.51	-	15.8	-	4.06	0.0526	0.807	1.12	-	-
MW-7	12/11/1996	439.70	14.98	424.72	-	12.3	-	3.34	0.0529	0.715	0.884	-	-
MW-7	03/13/1997	439.70	15.52	424.18	-	13.6	-	3.37	0.162	0.785	1.17	-	-
MW-7	06/18/1997	439.70	14.66	425.04	-	4.63	-	1.43	<0.0125	0.371	0.257	-	-
MW-7	09/20/1997	439.70	14.27	425.43	-	3.23	-	1.25	<0.01	0.305	0.181	-	-
MW-7	12/10/1997	439.70	14.95	424.75	-	2.31	-	0.818	<0.01	0.253	0.112	-	-
MW-7	03/31/1998	439.70	15.79	423.91	-	0.798	-	0.28	<0.0025	0.145	0.0127	-	-
MW-7	06/09/1998	439.70	15.19	424.51	-	0.473	-	0.157	0.00101	0.117	0.00789	-	-
MW-7	09/16/1998	439.70	13.57	426.13	-	0.264	-	0.0553	0.00217	0.0422	0.0323	-	-
MW-7	12/28/1998	439.70	15.15	424.55	-	0.186	-	0.045	0.00122	0.0343	0.02006	-	-
MW-7	03/13/1999	439.70	15.75	423.95	-	0.203 / 0.181	-	0.061 / 0.0607	<0.0005 / <0.0005	0.043 / 0.0426	<0.001 / <0.001	-	-
MW-7	06/22/1999	439.70	14.77	424.93	-	0.0859	-	0.0243	<0.0005	0.0075	<0.001	-	-
MW-7	09/28/1999	439.70	14.19	425.51	-	0.119 / 0.149	-	0.0186 / 0.0218	<0.0005 / 0.00082	0.0062 / 0.0073	0.0175 / 0.0217	-	-
MW-7	12/16/1999	439.70	14.97	424.73	-	0.0503	-	0.0162	<0.0005	0.00117	<0.001	-	-
MW-7	03/21/2000	439.70	15.42	424.28	-	0.0516	-	0.0163	<0.0005	<0.0005	<0.001	-	-
MW-7	06/20/2000	439.70	13.14	426.56	-	0.0516	-	0.0156	<0.0005	<0.0005	<0.001	-	-
MW-7	09/13/2000	439.70	12.17	427.53	-	<0.8	-	0.00499	<0.0005	<0.0005	<0.001	-	-
MW-7	12/13/2000	439.70	13.92	425.78	-	<0.8	-	0.00483	<0.0005	<0.0005	<0.001	-	-
MW-7	03/21/2001	439.70	14.79	424.91	-	<0.5 / <0.5	-	0.00309 / 0.0135	<0.0005 / <0.0005	<0.0005 / <0.0005	<0.001 / <0.001	-	-

TABLE 3

**HISTORICAL GROUNDWATER ANALYTICAL RESULTS
FORMER TEXACO SERVICE STATION 211079
1501 SOUTH CUSHMAN STREET
FAIRBANKS, ALASKA**

Location	Date	TOC Units	DTW ft msl	GWE ft msl	HYDROCARBONS			PRIMARY VOCs				EDB mg/L	1,2-DCA mg/L	Sulfolane mg/L
					DRO mg/L	GRO mg/L	RRO mg/L	Benzene mg/L	Toluene mg/L	Ethylbenzene mg/L	Total Xylenes mg/L			
ADEC Groundwater Cleanup Levels ^a					1.5	2.2	1.1	0.005	1.0	0.7	10.0			
MW-7	06/20/2001	439.70	13.96	425.74	-	<0.5 / <0.5	-	0.00702 / 0.00474	<0.0005 / <0.0005	<0.0005 / <0.0005	<0.001 / <0.001	-	-	-
MW-7	09/18/2001	439.70	-	-	-	-	-	-	-	-	-	-	-	-
MW-7	03/25/2002	439.70	15.31	424.39	-	1.16	-	0.00153	<0.0005	<0.0005	<0.001	-	-	-
MW-7	04/10/2003	439.70	14.66	425.04	-	0.015	-	0.0008	<0.0005	<0.0005	<0.0005	-	-	-
MW-7	03/03/2004	439.70	14.89	424.81	-	<0.01	-	<0.0005	<0.0005	<0.0005	<0.0015	-	-	-
MW-7	04/04/2005	439.70	14.90	424.50	-	<0.01	-	<0.0005	<0.0005	<0.0005	<0.0015	-	-	-
MW-7	03/24/2006	439.70	15.21	424.49	-	0.01	-	<0.0005	<0.0005	<0.0005	<0.0015	-	-	-
MW-7	04/02/2008	439.70	15.33	424.37	0.208	<0.05	<0.773	<0.0005	<0.0005	<0.0005	<0.001	-	-	-
MW-7	07/20/2009	-	-	-	0.072	<0.01	-	<0.0005	<0.0005	<0.0005	<0.0015	-	-	-
MW-7	07/25/2010	439.70	14.12	425.58	0.056	<0.010	-	<0.0005	<0.0005	<0.0005	<0.0015	-	-	-
MW-7	06/14/2011	439.70	14.05	425.65	-	-	-	-	-	-	-	-	-	-
MW-7	08/02/2011	439.70	12.95	426.75	<0.049	<0.010	-	<0.0005	<0.0005	<0.0005	<0.0015	-	-	-
MW-7	08/20/2012	439.70	13.85	425.85	<0.050	<0.010	-	<0.0005	<0.0005	<0.0005	<0.0015	-	-	-
MW-8	06/27/1995	439.58	13.39	426.19	0.1	1.65	-	0.711	0.001	0.03	0.019	-	-	-
MW-8	09/19/1995	439.58	12.03	427.55	-	4.4	-	2.2	0.015	0.102	0.154	-	-	-
MW-8	12/13/1995	439.58	13.96	425.62	2.4	7.2	-	0.24	ND	0.0028	0.0017	-	-	-
MW-8	03/08/1996	439.58	15.03	424.55	-	2.6	-	ND	ND	0.013	0.0035	-	-	-
MW-8	05/31/1996	439.58	14.03	425.55	0.478	1.94	-	0.726	ND	0.00442	0.0101	-	-	-
MW-8	09/16/1996	439.58	14.11	425.47	-	1.36	-	0.593	ND	0.00107	ND	-	-	-
MW-8	12/11/1996	439.58	14.93	424.65	-	1.31	-	0.592	0.000518	0.00309	0.00105	-	-	-
MW-8	03/13/1997	439.58	15.41	424.17	-	0.362	-	0.126	ND	0.00167	ND	-	-	-
MW-8	06/18/1997	439.58	14.58	425.00	-	1.71	-	0.673	<0.005	<0.005	<0.01	-	-	-
MW-8	09/20/1997	439.58	14.19	425.39	-	0.114	-	0.0529	<0.0005	<0.0005	<0.001	-	-	-
MW-8	12/10/1997	439.58	14.95	424.63	-	0.0787	-	0.0334	<0.0005	<0.0005	<0.001	-	-	-
MW-8	03/20/1998	439.58	15.72	423.86	-	-	-	-	-	-	-	-	-	-
MW-8	06/09/1998	439.58	15.11	424.47	-	0.427	-	0.299	<0.0025	0.00302	0.00814	-	-	-
MW-8	09/16/1998	439.58	13.49	426.09	-	1.87	-	1.53	<0.01	0.0367	0.0517	-	-	-
MW-8	12/29/1998	439.58	15.10	424.48	-	0.485	-	0.257	<0.0025	<0.0025	<0.005	-	-	-
MW-8	03/14/1999	439.58	15.68	423.90	-	<0.5	-	0.019	<0.0005	<0.0005	<0.001	-	-	-
MW-8	06/22/1999	439.58	14.70	424.88	-	1.13	-	0.534	<0.01	<0.01	<0.02	-	-	-
MW-8	09/28/1999	439.58	14.12	425.46	-	1.4	-	0.637	<0.01	<0.01	<0.02	-	-	-
MW-8	12/16/1999	439.58	14.89	424.69	-	0.0775	-	0.04	<0.0005	<0.0005	<0.001	-	-	-
MW-8	03/21/2000	439.58	15.35	424.23	-	<0.5	-	<0.0005	<0.0005	<0.0005	<0.001	-	-	-
MW-8	06/20/2000	439.58	13.06	426.52	-	1.13	-	0.436	<0.005	0.00504	<0.01	-	-	-
MW-8	09/14/2000	439.58	12.06	427.52	-	0.242	-	0.106	<0.0005	<0.0005	<0.001	-	-	-
MW-8	12/14/2000	439.58	13.84	425.74	-	<0.5	-	<0.0002	<0.0005	<0.0005	<0.001	-	-	-
MW-8	03/21/2001	439.58	14.71	424.87	-	<0.5	-	<0.0002	<0.0005	<0.0005	<0.001	-	-	-
MW-8	06/20/2001	439.58	13.89	425.69	-	0.296	-	0.141	<0.0005	<0.0005	<0.001	-	-	-
MW-8	09/18/2001	439.58	-	-	-	-	-	-	-	-	-	-	-	-
MW-8	03/25/2002	439.58	15.30	424.28	-	<0.05	-	<0.0002	<0.0005	<0.0005	<0.001	-	-	-
MW-8	04/10/2003	439.58	14.58	425.00	-	<0.01	-	<0.0005	<0.0005	<0.0005	<0.0015	-	-	-
MW-8	03/03/2004	439.58	14.80	424.78	-	<0.01	-	<0.0005	<0.0005	<0.0005	<0.0015	-	-	-
MW-8	04/04/2005	439.58	15.11	424.47	-	<0.01	-	<0.0005	<0.0005	<0.0005	<0.0015	-	-	-
MW-8	03/24/2006	439.58	15.13	424.45	-	<0.01	-	<0.0005	<0.0005	<0.0005	<0.0015	-	-	-

TABLE 3

**HISTORICAL GROUNDWATER ANALYTICAL RESULTS
FORMER TEXACO SERVICE STATION 211079
1501 SOUTH CUSHMAN STREET
FAIRBANKS, ALASKA**

Location	Date	TOC	DTW	GWE	HYDROCARBONS			PRIMARY VOCs					Sulfolane	
					DRO	GRO	RRO	Benzene	Toluene	Ethylbenzene	Total Xylenes	EDB		1,2-DCA
	Units	ft msl	fbg	ft msl	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
ADEC Groundwater Cleanup Levels ^a					1.5	2.2	1.1	0.005	1.0	0.7	10.0			
MW-8	04/02/2008	439.58	15.44	424.14					Ice in well casing prevented access					
MW-8	07/20/2009	-	-	-	<0.052	<0.01	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0015	-	-
MW-8	07/25/2010	439.58	14.09	425.49	<0.049	<0.010	-	<0.0005	<0.0005	<0.0005	<0.0015	-	-	
MW-8	06/14/2011	439.58	13.90	425.68	-	-	-	-	-	-	-	-	-	
MW-8	06/15/2011	-	-	-	<0.052	<0.010	-	0.0014 J	<0.0005	<0.0005	<0.0015	-	-	
MW-8	08/20/2012	439.58	13.79	425.79	<0.049	<0.010	-	<0.0005	<0.0005	<0.0005	<0.0015	-	-	
MW-9	06/30/1995	438.76	12.51	426.25	-	87	-	3.7	2.1	3.8	16	-	-	
MW-9	09/19/1995	438.76	11.10	427.66	-	78	-	3.2	37	3.1	14	-	-	
MW-9	12/13/1995	438.76	13.00	425.76	-	91	-	2.9	18	2.3	11	-	-	
MW-9	03/08/1996	438.76	14.10	424.66	-	110 / 110	-	3.7 / 3.8	34 / 35	3.6 / 3.7	17 / 17	-	-	
MW-9	05/30/1996	438.76	13.10	425.66	-	104	-	2.53	22.8	3.52	15.9	-	-	
MW-9	09/16/1996	438.76	13.19	425.57	-	72.4	-	1.67	16	2.4	10.9	-	-	
MW-9	12/12/1996	438.76	13.96	424.80	-	111	-	2.29	24.9	4.44	18.3	-	-	
MW-9	03/13/1997	438.76	14.52	424.24	-	84.7 / 79.3	-	1.62 / 1.58	19.3 / 19.1	2.94 / 2.84	13.8 / 13.5	-	-	
MW-9	06/18/1997	438.76	13.66	425.10	-	74.4 / 74.6	-	1.12 / 1.13	14.7 / 14.8	3.34 / 3.24	14.3 / 13.9	-	-	
MW-9	09/20/1997	438.76	13.27	425.49	-	59.2	-	0.84	15.9	2.87	12.6	-	-	
MW-9	12/10/1997	438.76	14.00	424.76	-	66.8 / 69.8	-	0.76 / 0.804	16.7 / 17	2.99 / 3.57	16 / 16.6	-	-	
MW-9	03/30/1998	438.76	14.80	423.96	-	57.9	-	0.508	13.9	2.71	12.5	-	-	
MW-9	06/09/1998	438.76	14.21	424.55	-	52.9	-	0.513	12	2.61	12.1	-	-	
MW-9	09/17/1998	438.76	12.59	426.17	-	29.7	-	0.332	5.52	1.3	7.06	-	-	
MW-9	12/29/1998	438.76	14.15	424.61	-	52.9	-	0.238	9.92	2.32	12.83	-	-	
MW-9	03/13/1999	438.76	14.78	423.98	-	56.4	-	0.272	11.2	3.24	16.7	-	-	
MW-9	08/09/1999	438.76	-	-	-	56.2	-	0.11	6.64	2.61	11.8	-	-	
MW-9	09/28/1999	438.76	13.22	425.54	-	36.3	-	<0.2	4.61	1.92	9.24	-	-	
MW-9	12/15/1999	438.76	13.98	424.78	-	45.8	-	<0.125	6.67	2.53	13.9	-	-	
MW-9	03/22/2000	438.76	14.43	424.33	-	54.1	-	0.0598	4.77	2.05	10.9	-	-	
MW-9	06/20/2000	438.76	12.16	426.60	-	44.2	-	0.062	3.54	2.02	10.4	-	-	
MW-9	09/14/2000	438.76	11.20	427.56	-	41.9	-	0.0346	3.45	1.97	10.6	-	-	
MW-9	12/14/2000	438.76	12.94	425.82	-	26.2	-	<0.02	1.92	1.3	7.29	-	-	
MW-9	03/21/2001	438.76	13.81	424.95	-	37.7	-	<0.046	2.52	1.98	11	-	-	
MW-9	06/20/2001	438.76	12.98	425.78	-	35.6	-	0.0408	2.3	1.83	11.4	-	-	
MW-9	09/18/2001	438.76	12.24	426.52	-	19.4	-	<0.02	0.567	1.1	6.01	-	-	
MW-9	03/25/2002	438.76	14.37	424.39	-	42.4	-	0.0189	1.47	2.01	12.5	-	-	
MW-9	09/15/2002	438.76	11.17	427.59	-	24.5	-	0.0125	0.175	1.28	5.81	-	-	
MW-9	04/10/2003	438.76	13.64	425.12	-	41	-	<0.05	0.43	1.7	11	-	-	
MW-9	09/05/2003	438.76	10.71	428.05	-	35	-	<0.05	0.22	1.5	9.3	-	-	
MW-9	03/03/2004	438.76	13.87	424.89	-	34	-	<0.05	0.13	1.3	7.3	-	-	
MW-9	09/20/2004	438.76	13.45	425.31	-	27	-	<0.05	0.053	1.1	5.9	-	-	
MW-9	04/04/2005	438.76	14.18	424.58	-	26	-	<0.01	0.11	1.2	6.6	-	-	
MW-9	09/29/2005	438.75	12.25	426.51	1.4	20	<0.19	<0.01	0.041	0.86	4.6	-	-	
MW-9	03/26/2006	438.75	14.21	424.54	2.4	24	<0.39	<0.1	0.075	0.96	5.8	-	-	
MW-9	04/02/2008	438.75	14.33	424.42	4.06	19.6	<0.773	0.01	0.0232	0.72	3.85	-	-	
MW-9	07/22/2009	-	-	-	1.9	8.8	-	<0.015	0.0057	0.33	1.4	-	-	
MW-9	07/25/2010	438.75	13.16	425.59	1.3 J	9.2	-	<0.050	0.0061 J	0.30	1.4	-	-	

TABLE 3

HISTORICAL GROUNDWATER ANALYTICAL RESULTS
FORMER TEXACO SERVICE STATION 211079
1501 SOUTH CUSHMAN STREET
FAIRBANKS, ALASKA

Location	Date	TOC ft msl	DTW fbg	GWE ft msl	HYDROCARBONS			PRIMARY VOCs					Sulfolane mg/L
					DRO mg/L	GRO mg/L	RRO mg/L	Benzene mg/L	Toluene mg/L	Ethylbenzene mg/L	Total Xylenes mg/L	EDB mg/L	
ADEC Groundwater Cleanup Levels^a					1.5	2.2	1.1	0.005	1.0	0.7	10.0		
MW-9	09/09/2010	438.75	12.96	425.79	-	-	-	-	-	-	-	-	<10.0
MW-9	06/14/2011	438.75	13.04	425.71	-	-	-	-	-	-	-	-	-
MW-9	06/15/2011	-	-	-	1.7 / 1.6	4.8 / 4.9	-	<0.030 / <0.030	0.0043 J / 0.0046 J	0.14 / 0.15	0.64 / 0.66	-	-
MW-9	08/20/2012	438.75	12.85	425.90	1.5 / 1.5	5.7 / 5.6	-	<0.033 / <0.034	0.0045 J / 0.0040 J	0.14 / 0.14	0.52 / 0.51	-	-
MW-9	07/26/2013	438.75	12.91	425.84	-	-	-	-	-	-	-	-	-
MW-9	07/27/2013	-	-	-	1.6	4.2	-	0.00058 J	0.0019	0.12	0.49	-	-
MW-9	01/29/2014	438.75	13.74	425.01	1.6	5.0	-	<0.0024	0.0047 J	0.14	0.59	-	-
MW-10	06/30/1995	439.22	12.78	426.44	-	23	-	0.0212	2.5	1.5	7	-	-
MW-10	09/19/1995	439.22	11.45	427.77	-	13	-	0.021	0.89	0.98	3.8	-	-
MW-10	12/12/1995	439.22	13.30	425.92	-	19	-	0.088	0.13	1.4	3.4	-	-
MW-10	03/08/1996	439.22	14.38	424.84	-	13	-	0.099	0.015	1	1.8	-	-
MW-10	06/01/1996	439.22	13.42	425.80	-	17.4	-	0.108	0.0493	1.23	2.34	-	-
MW-10	09/19/1996	439.22	13.48	425.74	-	20.4	-	0.224	0.292	1.52	3.61	-	-
MW-10	12/11/1996	439.22	14.25	424.97	-	14.3	-	0.107	0.0538	1.15	1.89	-	-
MW-10	03/13/1997	439.22	14.80	424.42	-	3.38	-	0.0237	ND	0.462	0.491	-	-
MW-10	06/10/1997	439.22	-	-	-	-	-	-	-	-	-	-	-
MW-10	09/19/1997	439.22	13.54	425.68	-	21.3	-	0.302	1.06	1.86	6.63	-	-
MW-10	12/10/1997	439.22	14.33	424.89	-	8.57	-	0.0548	0.025	0.953	1.3	-	-
MW-10	03/30/1998	439.22	15.06	424.16	-	1.68	-	0.0109	ND	0.281	0.255	-	-
MW-10	06/09/1998	439.22	14.49	424.73	-	2.2	-	<0.02	<0.0025	0.313	0.23	-	-
MW-10	09/17/1998	439.22	12.88	426.34	-	2.2	-	0.0167	<0.005	0.373	0.347	-	-
MW-10	12/28/1998	439.22	14.42	424.80	-	2.95	-	0.00829	<0.001	0.503	0.481	-	-
MW-10	03/13/1999	439.22	15.03	424.19	-	2	-	0.0133	<0.005	0.424	0.443	-	-
MW-10	08/09/1999	439.22	-	-	-	13.2	-	0.061	0.549	0.991	3.47	-	-
MW-10	09/28/1999	439.22	13.48	425.74	-	8.17	-	0.04	0.0984	0.836	2.5	-	-
MW-10	12/15/1999	439.22	14.27	424.95	-	5.14	-	0.0206	0.00248	0.947	0.988	-	-
MW-10	03/21/2000	439.22	14.72	424.50	-	2.43	-	0.00778	<0.005	0.403	0.378	-	-
MW-10	06/20/2000	439.22	12.47	426.75	-	0.413	-	0.00195	0.000632	0.0475	0.0337	-	-
MW-10	09/14/2000	439.22	11.51	427.71	-	0.838 / 0.666	-	<0.0033 / <0.00275	<0.0025 / <0.0025	0.135 / 0.12	0.0923 / 0.0804	-	-
MW-10	12/14/2000	439.22	13.23	425.99	-	3.26 / 3.03	-	<0.005 / <0.001	<0.0025 / <0.0025	0.405 / 0.425	0.285 / 0.316	-	-
MW-10	03/21/2001	439.22	-	-	-	7.15	-	<0.022	<0.0025	0.821	1.13	-	-
MW-10	06/21/2001	439.22	13.27	425.95	-	6.04	-	0.0101	0.122	0.637	1.15	-	-
MW-10	09/18/2001	439.22	12.53	426.69	-	6.41	-	0.0131	0.063	0.7	1.07	-	-
MW-10	03/25/2002	439.22	14.55	424.67	-	4.14	-	0.00788	0.0499	0.524	0.681	-	-
MW-10	09/15/2002	439.22	12.46	426.76	-	1.75	-	0.00248	0.00216	0.16	0.172	-	-
MW-10	04/10/2003	439.22	13.92	425.30	-	10	-	<0.02	0.13	0.7	1.6	-	-
MW-10	09/05/2003	439.22	10.97	428.25	-	3.1	-	<0.005	0.014	0.19	0.37	-	-
MW-10	03/03/2004	439.22	14.16	425.06	-	4.1	-	<0.01	0.0089	0.3	0.52	-	-
MW-10	09/20/2004	439.22	13.71	425.51	-	13	-	<0.02	0.12	0.64	2	-	-
MW-10	04/04/2005	439.22	14.45	424.77	-	3.8	-	<0.005	0.011	0.19	0.45	-	-
MW-10	09/29/2005	439.19	12.53	426.69	-	6.5	-	<0.005	0.099	0.37	1.3	-	-
MW-10	03/24/2006	439.19	14.45	424.74	-	4.7	-	<0.025	0.0027	0.22	0.53	-	-

TABLE 3

**HISTORICAL GROUNDWATER ANALYTICAL RESULTS
FORMER TEXACO SERVICE STATION 211079
1501 SOUTH CUSHMAN STREET
FAIRBANKS, ALASKA**

Location	Date	TOC Units	DTW ft msl	GWE ft msl	HYDROCARBONS			PRIMARY VOCs				EDB mg/L	1,2-DCA mg/L	Sulfolane mg/L
					DRO mg/L	GRO mg/L	RRO mg/L	Benzene mg/L	Toluene mg/L	Ethylbenzene mg/L	Total Xylenes mg/L			
ADEC Groundwater Cleanup Levels ^a					1.5	2.2	1.1	0.005	1.0	0.7	10.0			
MW-10	04/02/2008	439.19	14.66	424.53	-	-	-	-	-	-	-	-	-	-
MW-10	04/05/2008	-	-	-	0.803	4.14	<0.735	0.00583	<0.0005	0.161	0.308	-	-	-
MW-10	07/21/2009	-	-	-	0.77	3.1	-	0.0052	<0.0005	0.17	0.42	-	-	-
MW-10	07/25/2010	-	-	-	0.33	2.9	-	<0.020	<0.0005	0.12	0.32	-	-	-
MW-10	06/14/2011	439.19	13.30	425.89	-	-	-	-	-	-	-	-	-	-
MW-10	06/16/2011	-	-	-	0.42	1.2	-	0.0034	0.001 J	0.069	0.16	-	-	-
MW-10	08/20/2012	439.19	13.04	426.15	0.56	2.1	-	0.0062	0.0013 J	0.12	0.24	-	-	-
MW-10	07/26/2013	439.19	13.17	426.02	-	-	-	-	-	-	-	-	-	-
MW-10	07/27/2013	-	-	-	1.0	1.2	-	<0.00024	0.00037 J	0.083	0.21	-	-	-
MW-10	01/29/2014	439.19	14.08	425.11	0.47	0.094 J	-	<0.00024	<0.00023	0.0065	<0.00072	-	-	-
MW-11	06/30/1995	440.42	13.96	426.46	14.9	34	-	0.01	0.102	8	28	-	-	-
MW-11	09/18/1995	440.42	12.60	427.82	-	-	-	-	-	-	-	-	-	-
MW-11	12/12/1995	440.42	-	-	-	-	-	-	-	-	-	-	-	-
MW-11	03/08/1996	440.42	15.55	424.87	ND	35	-	0.23	0.012	1.4	2.6	-	-	-
MW-11	05/30/1996	440.42	14.55	425.87	3.4	17.6	-	0.111	ND	0.883	2.07	-	-	-
MW-11	09/17/1996	440.42	14.64	425.78	-	37.9	-	0.224	0.0104	1.13	2.45	-	-	-
MW-11	12/11/1996	440.42	15.42	425.00	-	28.8	-	0.222	ND	0.892	1.88	-	-	-
MW-11	03/13/1997	440.42	16.05	424.37	-	29.5	-	0.165	ND	0.923	2.31	-	-	-
MW-11	06/18/1997	440.42	15.16	425.26	-	-	-	-	-	-	-	-	-	-
MW-11	09/19/1997	440.42	14.72	425.70	-	23.4	-	<0.1	<0.1	0.742	2.06	-	-	-
MW-11	12/10/1997	440.42	15.60	424.82	-	19.6	-	0.0342	0.0132	0.667	1.49	-	-	-
MW-11	03/30/1998	440.42	16.34	424.08	-	14.5	-	0.0234	ND	0.301	0.795	-	-	-
MW-11	06/09/1998	440.42	15.74	424.68	-	14.4	-	<0.025	<0.01	0.352	0.741	-	-	-
MW-11	09/15/1998	440.42	14.12	426.30	-	12.7	-	<0.034	<0.01	0.319	0.603	-	-	-
MW-11	12/28/1998	440.42	15.75	424.67	-	9.97	-	<0.001	<0.001	0.202	0.35715	-	-	-
MW-11	03/13/1999	440.42	16.34	424.08	-	9.11	-	0.0539	0.022	0.29	0.523	-	-	-
MW-11	06/22/1999	440.42	15.37	425.05	-	5.6 / 5.14	-	<0.03 / <0.0255	<0.0071 / <0.0075	0.173 / 0.197	0.342 / 0.303	-	-	-
MW-11	09/28/1999	440.42	14.75	425.67	-	3.15	-	<0.01	<0.005	0.082	0.143	-	-	-
MW-11	12/15/1999	440.42	15.63	424.79	-	8.09	-	<0.02	<0.0075	0.162	0.276	-	-	-
MW-11	03/21/2000	440.42	16.09	424.33	-	9.01	-	<0.005	<0.0085	0.128	0.252	-	-	-
MW-11	06/21/2000	440.42	13.84	426.58	-	8.7	-	0.0192	<0.0025	0.126	0.253	-	-	-
MW-11	09/14/2000	440.42	13.08	427.34	-	5.44	-	<0.00297	<0.00298	0.094	0.175	-	-	-
MW-11	12/14/2000	440.42	14.63	425.79	-	10.6	-	<0.004	<0.01	0.0911	0.184	-	-	-
MW-11	03/21/2001	440.42	15.49	424.93	-	12.2	-	<0.002	0.013	0.157	0.328	-	-	-
MW-11	06/20/2001	440.42	-	-	-	-	-	-	-	-	-	-	-	-
MW-11	09/18/2001	440.42	-	-	-	-	-	-	-	-	-	-	-	-
MW-11	03/25/2002	440.42	15.85	424.57	-	7.83	-	0.0182	0.00154	0.0921	0.176	-	-	-
MW-11	04/09/2003	440.42	15.17	425.25	-	8.5	-	<0.02	<0.005	0.052	0.1	-	-	-
MW-11	03/02/2004	440.42	15.50	424.92	-	4.9	-	<0.05	<0.0025	0.04	0.076	-	-	-
MW-11	04/04/2005	440.42	15.82	424.60	-	7.5	-	0.0077	<0.0025	0.046	0.085	-	-	-
MW-11	03/24/2006	440.38	15.63	424.75	-	4.6	-	<0.025	<0.01	0.02	0.04	-	-	-
MW-11	04/02/2008	440.38	15.85	424.53	0.438	3.55	<0.714	0.00737	<0.0005	0.00901	0.016	-	-	-
MW-11	07/21/2009	-	-	-	0.2	2.1	-	0.0056	<0.0005	0.0038	0.0074	-	-	-
MW-11	07/26/2010	440.38	14.67	425.71	0.16 J	3.1	-	0.0077	0.0005 J	0.0044	0.0084	-	-	-

TABLE 3

HISTORICAL GROUNDWATER ANALYTICAL RESULTS
FORMER TEXACO SERVICE STATION 211079
1501 SOUTH CUSHMAN STREET
FAIRBANKS, ALASKA

Location	Date	TOC	DTW	GWE	HYDROCARBONS			PRIMARY VOCs					Sulfolane	
					DRO	GRO	RRO	Benzene	Toluene	Ethylbenzene	Total Xylenes	EDB		1,2-DCA
	Units	ft msl	fbg	ft msl	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
ADEC Groundwater Cleanup Levels ^a					1.5	2.2	1.1	0.005	1.0	0.7	10.0			
MW-11	06/14/2011	440.38	14.66	425.72	-	-	-	-	-	-	-	-	-	-
MW-11	06/16/2011	-	-	-	0.17 J	1.8	-	<0.010	0.0019 J	0.0022	0.0041 J	-	-	-
MW-11	08/20/2012	440.38	14.46	425.92	0.11 J	1.8	-	0.0086	0.0027	0.0017 J	0.0026 J	-	-	-
MW-11	07/26/2013	440.38	14.40	425.98	-	-	-	-	-	-	-	-	-	-
MW-11	07/27/2013	-	-	-	0.27 J	1.2 J	-	<0.00024	<0.00023	0.0010	0.0019 J	-	-	-
MW-12	06/30/1995	439.59	13.29	426.30	-	0.067	-	ND	0.002	0.002	0.008	-	-	-
MW-12	09/20/1995	439.59	11.95	427.64	-	ND	-	ND	ND	ND	ND	-	-	-
MW-12	12/13/1995	439.59	13.83	425.76	-	ND	-	ND	ND	ND	ND	-	-	-
MW-12	03/07/1996	439.59	14.90	424.69	-	ND	-	ND	ND	ND	ND	-	-	-
MW-12	05/31/1996	439.59	13.90	425.69	-	ND	-	ND	ND	ND	ND	-	-	-
MW-12	09/16/1996	439.59	13.96	425.63	-	ND	-	ND	ND	ND	ND	-	-	-
MW-12	12/11/1996	439.59	14.75	424.84	-	ND	-	ND	ND	ND	ND	-	-	-
MW-12	03/13/1997	439.59	15.31	424.28	-	ND	-	ND	ND	ND	ND	-	-	-
MW-12	06/18/1997	439.59	14.43	425.16	-	<0.5	-	<0.0005	<0.0005	<0.0005	<0.001	-	-	-
MW-12	09/20/1997	439.59	14.05	425.54	-	<0.5	-	<0.0005	<0.0005	<0.0005	<0.001	-	-	-
MW-12	12/10/1997	439.59	-	-	-	-	-	-	-	-	-	-	-	-
MW-12	03/31/1998	439.59	15.58	424.01	-	<0.5	-	<0.0005	<0.0005	<0.0005	<0.001	-	-	-
MW-12	09/16/1998	439.59	13.37	426.22	-	<0.5	-	<0.0005	<0.0005	<0.0005	<0.001	-	-	-
MW-12	03/14/1999	439.59	15.54	424.05	-	<0.5	-	<0.0005	<0.0005	<0.0005	0.00059	-	-	-
MW-12	09/28/1999	439.59	13.98	425.61	-	<0.5	-	<0.0005	<0.0005	<0.0005	0.00121	-	-	-
MW-12	12/15/1999	439.59	-	-	-	-	-	-	-	-	-	-	-	-
MW-12	03/21/2000	439.59	15.22	424.37	<0.0005	<0.5	-	<0.0005	<0.0005	<0.0005	<0.001	-	-	-
MW-12	06/20/2000	439.59	-	-	-	-	-	-	-	-	-	-	-	-
MW-12	09/13/2000	439.59	12.00	427.59	<0.0005	<0.5	-	<0.0005	<0.0005	<0.0005	<0.001	-	-	-
MW-12	12/14/2000	439.59	-	-	-	-	-	-	-	-	-	-	-	-
MW-12	03/21/2001	439.59	14.59	425.00	<0.0002	<0.5	-	<0.0005	<0.0005	<0.0005	<0.001	-	-	-
MW-12	06/20/2001	439.59	-	-	-	-	-	-	-	-	-	-	-	-
MW-12	08/19/2004							Well Decommissioned on 8/19/2004						
MW-13	06/30/1995	439.17	12.92	426.25	-	6.7	-	1.7	0.79	0.46	6.9	-	-	-
MW-13	09/18/1995	439.17	11.55	427.62	-	3.2	-	0.8	0.003	0.32	0.22	-	-	-
MW-13	12/13/1995	439.17	13.45	425.72	-	7 / 7.1	-	1.4 / 1.4	0.00098 / ND	0.39 / 0.37	0.26 / 0.28	-	-	-
MW-13	03/07/1996	439.17	14.50	424.67	-	3.7	-	1.2	0.0009	0.19	0.075	-	-	-
MW-13	05/31/1996	439.17	13.56	425.61	-	10.5	-	2.09	0.781	0.578	0.829	-	-	-
MW-13	09/16/1996	439.17	13.62	425.55	-	17 / 18.6	-	1.9 / 2.06	1.44 / 1.42	1.05 / 1.11	2.9 / 2.7	-	-	-
MW-13	12/11/1996	439.17	14.40	424.77	-	2.69 / 2.83	-	0.356 / 0.374	ND / ND	0.33 / 0.351	0.217 / 0.216	-	-	-
MW-13	03/13/1997	439.17	14.96	424.21	-	1.36 / 1.96	-	0.371 / 0.308	ND / ND	0.178 / 0.23	ND / ND	-	-	-
MW-13	06/18/1997	439.17	14.10	425.07	-	5.44	-	1.43	0.0177	0.578	0.231	-	-	-
MW-13	09/19/1997	439.17	13.70	425.47	-	4.83 / 4.8	-	0.751 / 0.691	<0.005 / <0.0125	0.801 / 0.717	0.524 / 0.463	-	-	-
MW-13	12/10/1997	439.17	14.47	424.70	-	2.05	-	0.231	0.0035	0.417	0.206	-	-	-
MW-13	03/30/1998	439.17	15.24	423.93	-	2.23	-	0.284	0.18	0.31	0.174	-	-	-
MW-13	06/08/1998	439.17	14.66	424.51	-	4.89 / 5.02	-	0.576 / 0.619	0.107 / 0.0919	0.697 / 0.653	0.597 / 0.624	-	-	-
MW-13	09/15/1998	439.17	13.02	426.15	-	1.73	-	0.0991	0.000636	0.281	0.118	-	-	-
MW-13	12/29/1998	439.17	14.61	424.56	-	0.134	-	0.00988	<0.001	0.0148	0.0259	-	-	-
MW-13	03/14/1999	439.17	15.20	423.97	-	<0.5	-	0.00785	<0.0005	<0.0005	0.00234	-	-	-

HISTORICAL GROUNDWATER ANALYTICAL RESULTS
 FORMER TEXACO SERVICE STATION 211079
 1501 SOUTH CUSHMAN STREET
 FAIRBANKS, ALASKA

Location	Date	TOC Units ft msl	DTW fbg	GWE ft msl	HYDROCARBONS			PRIMARY VOCs					Sulfolane mg/L		
					DRO mg/L	GRO mg/L	RRO mg/L	Benzene mg/L	Toluene mg/L	Ethylbenzene mg/L	Total Xylenes mg/L	EDB mg/L		1,2-DCA mg/L	
ADEC Groundwater Cleanup Levels ^a					1.5	2.2	1.1	0.005	1.0	0.7	10.0				
MW-13	06/22/1999	439.17	-	-	-	-	-	-	-	-	-	-	-	-	
MW-13	09/28/1999	439.17	13.64	425.53	-	1.58	-	0.0855	<0.0025	0.306	0.224	-	-	-	
MW-13	12/16/1999	439.17	14.42	424.75	-	<0.05	-	0.00739	<0.0005	0.00138	0.0041	-	-	-	
MW-13	03/22/2000	439.17	14.89	424.28	-	<0.5	-	0.0049	<0.0005	<0.0005	<0.001	-	-	-	
MW-13	06/20/2000	439.17	12.63	426.54	-	0.335	-	0.0542	<0.0005	0.0233	0.0178	-	-	-	
MW-13	09/14/2000	439.17	11.36	427.81	-	0.186	-	0.0128	<0.0005	0.0148	0.0243	-	-	-	
MW-13	12/13/2000	439.17	13.40	425.77	-	0.074	-	0.0116	<0.0005	0.00235	0.00702	-	-	-	
MW-13	03/21/2001	439.17	14.27	424.90	-	<0.5	-	0.00491	<0.0005	<0.0005	<0.001	-	-	-	
MW-13	06/20/2001	439.17	13.44	425.73	-	0.41	-	0.0406	0.00417	0.051	0.0531	-	-	-	
MW-13	09/18/2001	439.17	12.71	426.46	-	0.212	-	0.0361	<0.0005	0.0257	0.0235	-	-	-	
MW-13	03/25/2002	439.17	14.84	424.33	-	<0.05	-	0.0181	<0.0005	<0.0005	<0.001	-	-	-	
MW-13	09/15/2002	439.17	11.64	427.53	-	0.0799	-	0.02	<0.0005	0.00282	0.00135	-	-	-	
MW-13	04/10/2003	439.17	14.18	424.99	-	0.026	-	0.009	<0.0005	<0.0005	<0.0015	-	-	-	
MW-13	09/05/2003	439.17	11.18	427.99	-	0.18	-	0.05	<0.0005	<0.0005	0.007	-	-	-	
MW-13	03/03/2004	439.17	14.40	424.77	-	<0.01	-	0.0006	<0.0005	<0.0005	<0.0015	-	-	-	
MW-13	09/20/2004	439.17	13.95	425.22	-	0.39	-	0.12	<0.0005	0.001	0.0082	-	-	-	
MW-13	04/04/2005	439.17	14.71	424.46	-	0.032	-	0.011	<0.0005	<0.0005	<0.0015	-	-	-	
MW-13	09/29/2005	439.26	12.82	426.35	-	0.052	-	0.013	<0.0005	<0.0005	<0.0015	-	-	-	
MW-13	03/23/2006	439.26	14.73	424.53	-	0.012	-	0.0023	<0.0005	<0.0005	<0.0015	-	-	-	
MW-13	04/02/2008	439.26	-	-	Ice in well prevented access			-	-	-	-	-	-	-	-
MW-13	07/25/2010	439.26	13.74	425.52	0.056 J	<0.010	-	0.0006 J	<0.0005	<0.0005	<0.0015	-	-	-	
MW-13	06/14/2011	439.26	13.58	425.68	-	-	-	-	-	-	-	-	-	-	
MW-13	06/15/2011	-	-	-	0.075 J	<0.010	-	0.0030	<0.0005	<0.0005	<0.0015	-	-	-	
MW-13	08/20/2012	439.26	13.45	425.81	<0.052	0.16	-	0.016	<0.0005	0.0006 J	0.038	-	-	-	
MW-14	06/30/1995	439.26	13.10	426.16	0.0005	0.057	-	0.0007	0.004	0.002	0.008	-	-	-	
MW-14	09/20/1995	439.26	11.70	427.56	-	ND	-	0.0006	ND	ND	ND	-	-	-	
MW-14	12/13/1995	439.26	13.65	425.61	-	ND	-	ND	ND	ND	ND	-	-	-	
MW-14	03/07/1996	439.26	14.70	424.56	-	ND	-	ND	ND	ND	ND	-	-	-	
MW-14	05/31/1996	439.26	13.71	425.55	-	ND	-	ND	ND	ND	ND	-	-	-	
MW-14	09/16/1996	439.26	13.81	425.45	-	ND	-	ND	0.000626	ND	0.00256	-	-	-	
MW-14	12/11/1996	439.26	14.59	424.67	-	ND	-	ND	ND	ND	ND	-	-	-	
MW-14	03/13/1997	439.26	15.13	424.13	-	ND	-	ND	ND	ND	ND	-	-	-	
MW-14	06/18/1997	439.26	14.28	424.98	-	<0.5	-	<0.0005	<0.0005	<0.0005	<0.001	-	-	-	
MW-14	09/20/1997	439.26	13.91	425.35	-	<0.5	-	<0.0005	<0.0005	<0.0005	<0.001	-	-	-	
MW-14	12/10/1997	439.26	-	-	-	-	-	-	-	-	-	-	-	-	
MW-14	03/30/1998	439.26	15.41	423.85	-	<0.5 / <0.5	-	<0.0005 / <0.0005	<0.0005 / <0.0005	<0.0005 / <0.0005	<0.001 / <0.001	-	-	-	
MW-14	06/08/1998	439.26	-	-	-	-	-	-	-	-	-	-	-	-	
MW-14	09/17/1998	439.26	13.20	426.06	-	<0.5	-	<0.0005	<0.0005	<0.0005	<0.001	-	-	-	
MW-14	12/29/1998	439.26	-	-	-	-	-	-	-	-	-	-	-	-	
MW-14	03/14/1999	439.26	15.37	423.89	-	<0.5	-	<0.0005	<0.0005	<0.0005	<0.001	-	-	-	
MW-14	06/22/1999	439.26	-	-	-	-	-	-	-	-	-	-	-	-	
MW-14	09/28/1999	439.26	13.81	425.45	-	<0.5	-	<0.0005	<0.0005	<0.0005	<0.001	-	-	-	
MW-14	12/15/1999	439.26	-	-	-	-	-	-	-	-	-	-	-	-	
MW-14	03/21/2000	439.26	15.04	424.22	<0.0005	<0.5	-	<0.0005	<0.0005	<0.0005	<0.001	-	-	-	

TABLE 3

HISTORICAL GROUNDWATER ANALYTICAL RESULTS
FORMER TEXACO SERVICE STATION 211079
1501 SOUTH CUSHMAN STREET
FAIRBANKS, ALASKA

Location	Date	TOC	DTW	GWE	HYDROCARBONS			PRIMARY VOCs				EDB	1,2-DCA	Sulfolane
					DRO	GRO	RRO	Benzene	Toluene	Ethylbenzene	Total Xylenes			
	Units	ft msl	fbg	ft msl	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
ADEC Groundwater Cleanup Levels ^a					1.5	2.2	1.1	0.005	1.0	0.7	10.0			
MW-14	06/20/2000	439.26	-	-	-	-	-	-	-	-	-	-	-	-
MW-14	09/14/2000	439.26	11.80	427.46	<0.0005	<0.5	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	-	-
MW-14	12/14/2000	439.26	-	-	-	-	-	-	-	-	-	-	-	-
MW-14	03/21/2001	439.26	14.42	424.84	<0.0002 / <0.0001	<0.5 / <0.5	-	<0.0005 / <0.0005	<0.0005 / <0.0005	<0.0005 / <0.0005	<0.0005 / <0.0005	<0.001 / <0.001	-	-
MW-14	06/20/2001	439.26	-	-	-	-	-	-	-	-	-	-	-	-
MW-14	08/19/2004							Well decommissioned on 8/19/2004						
MW-15	09/21/1995	437.55	9.80	427.75	-	ND	-	ND	ND	ND	ND	ND	-	-
MW-15	12/12/1995	437.55	11.70	425.85	-	ND	-	ND	ND	ND	ND	ND	-	-
MW-15	03/07/1996	437.55	12.78	424.77	-	ND	-	ND	ND	ND	ND	ND	-	-
MW-15	05/31/1996	437.55	11.80	425.75	-	ND	-	ND	ND	ND	ND	ND	-	-
MW-15	09/16/1996	437.55	11.88	425.67	-	ND	-	ND	ND	ND	ND	ND	-	-
MW-15	12/11/1996	437.55	12.66	424.89	-	ND	-	ND	ND	ND	ND	ND	-	-
MW-15	03/13/1997	437.55	13.20	424.35	-	ND	-	ND	ND	ND	ND	ND	-	-
MW-15	06/18/1997	437.55	12.36	425.19	-	<0.5	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	-	-
MW-15	09/19/1997	437.55	11.65	425.90	-	<0.5	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	-	-
MW-15	12/10/1997	437.55	12.74	424.81	-	-	-	-	-	-	-	-	-	-
MW-15	03/30/1998	437.55	13.46	424.09	-	-	-	-	-	-	-	-	-	-
MW-15	06/09/1998	437.55	12.90	424.65	-	<0.5	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	-	-
MW-15	09/17/1998	437.55	11.28	426.27	-	<0.5	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	-	-
MW-15	12/29/1998	437.55	-	-	-	-	-	-	-	-	-	-	-	-
MW-15	03/13/1999	437.55	13.46	424.09	-	<0.5	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	-	-
MW-15	06/22/1999	437.55	-	-	-	-	-	-	-	-	-	-	-	-
MW-15	09/28/1999	437.55	11.90	425.65	-	<0.5	-	<0.0005	<0.0005	0.000511	0.00292	-	-	-
MW-15	12/15/1999	437.55	-	-	-	-	-	-	-	-	-	-	-	-
MW-15	03/21/2000	437.55	13.13	424.42	-	<0.5	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	-	-
MW-15	06/20/2000	437.55	-	-	-	-	-	-	-	-	-	-	-	-
MW-15	09/14/2000	437.55	9.91	427.64	-	<0.5	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	-	-
MW-15	12/14/2000	437.55	-	-	-	-	-	-	-	-	-	-	-	-
MW-15	03/21/2001	437.55	-	-	-	-	-	-	-	-	-	-	-	-
MW-15	06/20/2001	437.55	-	-	-	-	-	-	-	-	-	-	-	-
MW-15	08/19/2004							Well decommissioned on 8/19/2004						
MW-16	09/21/1995	437.96	10.33	427.63	-	ND	-	ND	ND	ND	ND	ND	-	-
MW-16	12/12/1995	437.96	12.25	425.71	-	ND	-	ND	ND	ND	ND	ND	-	-
MW-16	05/30/1996	437.96	12.30	425.66	-	ND	-	ND	ND	ND	ND	ND	-	-
MW-16	09/16/1996	437.96	12.44	425.52	-	ND	-	ND	ND	ND	ND	ND	-	-
MW-16	12/12/1996	437.96	13.17	424.79	-	ND	-	ND	ND	ND	ND	ND	-	-
MW-16	03/13/1997	437.96	13.72	424.24	-	ND	-	ND	ND	ND	ND	ND	-	-
MW-16	06/18/1997	437.96	12.89	425.07	-	<0.5	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	-	-
MW-16	09/19/1997	437.96	12.53	425.43	-	<0.5	-	<0.0005	<0.0005	<0.0005	<0.0005	0.00188	-	-
MW-16	12/10/1997	437.96	-	-	-	-	-	-	-	-	-	-	-	-
MW-16	03/31/1998	437.96	14.05	423.91	-	<0.5	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	-	-
MW-16	06/09/1998	437.96	-	-	-	-	-	-	-	-	-	-	-	-
MW-16	09/17/1998	437.96	11.83	426.13	-	<0.5	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	-	-
MW-16	12/29/1998	437.96	-	-	-	-	-	-	-	-	-	-	-	-

TABLE 3

**HISTORICAL GROUNDWATER ANALYTICAL RESULTS
FORMER TEXACO SERVICE STATION 211079
1501 SOUTH CUSHMAN STREET
FAIRBANKS, ALASKA**

Location	Date	TOC	DTW	GWE	HYDROCARBONS			PRIMARY VOCs				EDB	1,2-DCA	Sulfolane
					DRO	GRO	RRO	Benzene	Toluene	Ethylbenzene	Total Xylenes			
	Units	ft msl	fbg	ft msl	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
ADEC Groundwater Cleanup Levels ^a					1.5	2.2	1.1	0.005	1.0	0.7	10.0			
MW-16	03/13/1999	437.96	14.16	423.80	-	<0.5	-	<0.0005	<0.0005	<0.0005	<0.001	-	-	-
MW-16	06/22/1999	437.96	-	-	-	-	-	-	-	-	-	-	-	-
MW-16	09/28/1999	437.96	12.46	425.50	-	<0.5	-	<0.0005	<0.0005	<0.0005	<0.001	-	-	-
MW-16	12/15/1999	437.96	-	-	-	-	-	-	-	-	-	-	-	-
MW-16	03/21/2000	437.96	13.38	424.58	-	<0.5	-	<0.0005	<0.0005	<0.0005	<0.001	-	-	-
MW-16	06/20/2000	437.96	-	-	-	-	-	-	-	-	-	-	-	-
MW-16	09/14/2000	437.96	10.42	427.54	-	<0.5	-	<0.0005	<0.0005	<0.0005	<0.001	-	-	-
MW-16	12/14/2000	437.96	-	-	-	-	-	-	-	-	-	-	-	-
MW-16	03/21/2001	437.96	13.20	424.76	-	<0.5	-	<0.0002	<0.0005	<0.0005	<0.001	-	-	-
MW-16	08/19/2004							Well decommissioned on 8/19/2004						
SWMW-1	06/26/1995	440.34	14.72	425.62	-	0.225	-	0.114	ND	ND	ND	-	-	-
SWMW-1	09/19/1995	440.34	12.79	427.55	-	0.36	-	0.15	ND	ND	ND	-	-	-
SWMW-1	12/13/1995	440.34	14.68	425.66	-	ND	-	ND	ND	ND	ND	-	-	-
SWMW-1	03/07/1996	440.34	15.71	424.63	-	ND	-	ND	ND	ND	ND	-	-	-
SWMW-1	06/01/1996	440.34	14.79	425.55	-	ND / ND	-	ND / ND	ND / ND	ND / ND	ND / ND	-	-	-
SWMW-1	09/16/1996	440.34	14.84	425.50	-	ND	-	ND	ND	ND	ND	-	-	-
SWMW-1	12/12/1996	440.34	15.59	424.75	-	ND	-	ND	ND	ND	ND	-	-	-
SWMW-1	03/13/1997	440.34	-	-	-	-	-	-	-	-	-	-	-	-
SWMW-1	06/18/1997	440.34	15.31	425.03	-	<0.5	-	0.000534	<0.0005	<0.0005	<0.001	-	-	-
SWMW-1	09/20/1997	440.34	14.80	425.54	-	<0.5	-	<0.0005	<0.0005	<0.0005	<0.001	-	-	-
SWMW-1	12/10/1997	440.34	15.71	424.63	-	-	-	-	-	-	-	-	-	-
SWMW-1	03/30/1998	440.34	16.46	423.88	-	<0.5	-	<0.0005	0.0038	<0.0005	<0.001	-	-	-
SWMW-1	06/09/1998	440.34	-	-	-	-	-	-	-	-	-	-	-	-
SWMW-1	09/16/1998	440.34	14.24	426.10	-	<0.5	-	<0.0005	<0.0005	<0.0005	<0.001	-	-	-
SWMW-1	12/29/1998	440.34	-	-	-	-	-	-	-	-	-	-	-	-
SWMW-1	03/14/1999	440.34	16.44	423.90	-	<0.5	-	<0.0005	<0.0005	0.00101	0.00346	-	-	-
SWMW-1	06/22/1999	440.34	-	-	-	-	-	-	-	-	-	-	-	-
SWMW-1	09/28/1999	440.34	14.86	425.48	-	<0.5	-	<0.0005	<0.0005	<0.0005	<0.001	-	-	-
SWMW-1	12/15/1999	440.34	-	-	-	-	-	-	-	-	-	-	-	-
SWMW-1	03/21/2000	440.34	16.11	424.23	-	<0.5	-	<0.0005	<0.0005	<0.0005	<0.001	-	-	-
SWMW-1	06/20/2000	440.34	-	-	-	-	-	-	-	-	-	-	-	-
SWMW-1	09/14/2000	440.34	12.85	427.49	-	<0.5	-	<0.0005	<0.0005	<0.0005	<0.001	-	-	-
SWMW-1	12/14/2000	440.34	-	-	-	-	-	-	-	-	-	-	-	-
SWMW-1	03/21/2001	440.34	15.48	424.86	-	<0.5	-	<0.0002	<0.0005	<0.0005	<0.001	-	-	-
SWMW-1	06/20/2001							Well destroyed						
Trip Blank	09/16/1996	-	-	-	-	ND	-	ND	ND	ND	ND	-	-	-
Trip Blank	12/11/1996	-	-	-	-	ND	-	ND	ND	ND	ND	-	-	-
Trip Blank	03/13/1997	-	-	-	-	ND	-	ND	ND	ND	ND	-	-	-
Trip Blank	06/18/1997	-	-	-	-	<0.5	-	<0.0005	<0.0005	<0.0005	<0.001	-	-	-
Trip Blank	09/18/1997	-	-	-	-	<0.5	-	<0.0005	<0.0005	<0.0005	<0.001	-	-	-
Trip Blank	12/10/1997	-	-	-	-	<0.5	-	<0.0005	<0.0005	<0.0005	<0.001	-	-	-
Trip Blank	03/31/1998	-	-	-	-	<0.5	-	<0.0005	<0.0005	<0.0005	<0.001	-	-	-
Trip Blank	09/28/1999	-	-	-	-	<0.5	-	<0.0005	<0.0005	<0.0005	<0.001	-	-	-
Trip Blank	12/15/1999	-	-	-	-	<0.5	-	<0.0005	<0.0005	<0.0005	<0.001	-	-	-

**HISTORICAL GROUNDWATER ANALYTICAL RESULTS
FORMER TEXACO SERVICE STATION 211079
1501 SOUTH CUSHMAN STREET
FAIRBANKS, ALASKA**

Location	Date	TOC ft msl	DTW fbg	GWE ft msl	HYDROCARBONS			PRIMARY VOCs					1,2-DCA mg/L	Sulfolane mg/L
					DRO mg/L	GRO mg/L	RRO mg/L	Benzene mg/L	Toluene mg/L	Ethylbenzene mg/L	Total Xylenes mg/L	EDB mg/L		
ADEC Groundwater Cleanup Levels^a					1.5	2.2	1.1	0.005	1.0	0.7	10.0			
Trip Blank	03/25/2002	-	-	-	-	<0.05	-	<0.0002	<0.0005	<0.0005	<0.0015	-	-	-
Trip Blank	04/10/2003	-	-	-	-	<0.01	-	<0.0005	<0.0005	<0.0005	<0.0015	-	-	-
Trip Blank	05/09/2003	-	-	-	-	<0.01	-	<0.0005	<0.0005	<0.0005	<0.0015	-	-	-
Trip Blank	03/03/2004	-	-	-	-	<0.01	-	<0.0005	<0.0005	<0.0005	<0.0015	-	-	-
Trip Blank	09/20/2004	-	-	-	-	<0.01	-	<0.0005	<0.0005	<0.0005	<0.0015	-	-	-
Trip Blank	04/04/2005	-	-	-	-	<0.01	-	<0.0005	<0.0005	<0.0005	<0.0015	-	-	-
Trip Blank	09/29/2005	-	-	-	-	<0.01	-	<0.0005	<0.0005	<0.0005	<0.0015	-	-	-
Trip Blank	03/24/2006	-	-	-	-	<0.01	-	<0.0005	<0.0005	<0.0005	<0.0015	-	-	-
Trip Blank	04/02/2008	-	-	-	-	<0.05	-	<0.0005	<0.0005	<0.0005	<0.0015	-	-	-
Trip Blank	07/20/2009	-	-	-	-	<0.01	-	<0.0005	<0.0005	<0.0005	<0.0015	-	-	-
Trip Blank	07/21/2009	-	-	-	-	<0.01 / <0.01	-	<0.0005 / <0.0005	<0.0005 / <0.0005	<0.0005 / <0.0005	<0.0015 / <0.0015	-	-	-
Trip Blank	07/26/2010	-	-	-	-	<0.010	-	<0.0005	<0.0005	<0.0005	<0.0015	-	-	-
Trip Blank	06/15/2011	-	-	-	-	<0.010	-	<0.0005	<0.0005	<0.0005	<0.0015	-	-	-
Trip Blank	08/02/2011	-	-	-	-	<0.010	-	<0.0005	<0.0005	<0.0005	<0.0015	-	-	-
Trip Blank	08/20/2012	-	-	-	-	<0.010	-	<0.0005	<0.0005	<0.0005	<0.0015	<0.000097	<0.0005	-
Trip Blank	07/27/2013	-	-	-	-	<0.050	-	<0.00024	<0.00023	<0.00024	<0.00072	-	-	-
Trip Blank	01/29/2014	-	-	-	-	<0.050	-	<0.00024	<0.00023	<0.00024	<0.00072	-	-	-

Notes and Abbreviations

TOC = Top of Casing
 DTW = Depth to Water
 GWE = Groundwater Elevation
 DRO = Diesel Range Organics by Alaska Series Method AK102
 GRO = Gasoline Range Organics by Alaska Series Method AK101
 Benzene, Toluene, Ethylbenzene, and Total Xylenes by Environmental Protection Agency (EPA) Method 8021B or 8260B
 Total Xylenes = Sum of m-, o-, and p-xylenes
 ADEC = Alaska Department of Environmental Conservation
^a = Levels established in ADEC Table C Groundwater Cleanup Levels (18 AAC 75.345), there is no established criteria for Sulfolane
BOLD = Indicates concentration above the ADEC Table C Groundwater Cleanup Level
 NA = Not Applicable
 ft msl = Feet Above Mean Sea Level
 fbg = Feet Below Grade
 mg/L = Milligrams per Liter
 ND = Not detected above laboratory method detection limits
 J = Estimated Value
 - = Not Measured/Not Analyzed
 * = Sample date defaulted to first date listed in historical data table
 <x = Constituent not detected above x milligrams per liter
 x / y = Sample Results / Blind Duplicate Results
 ** = Sample date accurate to month and year only
 Groundwater data from 1992 through 2007 provided by Gettler-Ryan, Inc.

TABLE 4

**HISTORICAL MONITORED NATURAL ATTENUATION PARAMETERS
FORMER TEXACO SERVICE STATION 211079
1501 SOUTH CUSHMAN STREET
FAIRBANKS, ALASKA**

Location	Date Units	MNA PARAMETERS								
		Total Alkalinity mg/L	Alkalinity, phenolphthalein mg/L	Sulfate mg/L	Nitrate as Nitrogen mg/L	Methane mg/L	Nitrite (as N) mg/L	Nitrate by Field Measurement mg/L	Ferrous Iron by Field Measurement mg/L	Ferrous Iron mg/L
<i>ADEC Groundwater Cleanup Levels^a</i>										
MW-1	07/20/2009	184	-	30	<0.25	0.068	-		-	-
MW-1	08/20/2012	232 J	<0.70	14.3	0.44 J	0.024	-		-	-
MW-1	07/27/2013	215	-	21.1	-	0.036	<0.050 J		0.66	<0.015 J
MW-1	01/29/2014	234	-	17.3	1.0 J	0.0042 J	<0.050	3.3	0.20	0.13 J
MW-2	07/21/2009	319	-	22.7	<0.25	0.037	-		-	-
MW-2	08/20/2012	400 J	<0.70	56.8	0.46 J	0.026	-		-	-
MW-2	07/27/2013	251	-	23.6	-	0.055	<0.050 J		3.30	<0.015 J
MW-2	01/29/2014	468	-	85.0	0.87 J	0.013	<0.050 J	12.5	0.33	0.086 J
MW-3R	07/21/2009	208	-	34.3	1	0.031	-		-	-
MW-3R	08/20/2012	196 J	<0.70	39.3	0.42 J	0.050	-		-	-
MW-4	07/21/2009	223	-	9.4	0.33	0.014	-		-	-
MW-4	08/20/2012	231 J	<0.70	35.9	4.4	0.011 J	-		-	-
MW-4	07/27/2013	202	-	18.8	-	0.0085	<0.050 J		0.00	<0.015 J
MW-4	01/29/2014	256	-	29.5	1.8 J	<0.0033	<0.050 J	5.0	0.05	<0.018 J
MW-5	07/20/2009	269	-	8.6	<0.25	0.031	-		-	-
MW-5	08/20/2012	277 J / 279 J	<0.70 / <0.70	8.9 / 8.2	<0.25 / <0.25	0.022 / 0.018	-		-	-
MW-5	07/27/2013	227 / 235	-	13.7 / 13.4	-	0.047 / 0.045	<0.050 J / <0.050 J		2.40 / 2.40	<0.015 J / <0.015 J
MW-5	01/29/2014	250 / 243	-	9.6 / 8.9	<0.050 J / 0.052 J	0.026 / 0.024	<0.050 J / <0.050 J	1.9 / 1.9	1.94 / 1.94	40.6 J / 53.0 J
MW-6	07/21/2009	256	-	17.7	<0.25	0.044	-		-	-
MW-7	07/20/2009	392	-	70	<0.25	0.027	-		-	-
MW-7	08/20/2012	329 J	<0.70	51.3	<0.25 UJ	0.041	-		-	-
MW-8	07/20/2009	450	-	86.7	<0.25	0.15	-		-	-
MW-8	08/20/2012	379 J	<0.70	46.3	<0.25 UJ	0.16	-		-	-

**HISTORICAL MONITORED NATURAL ATTENUATION PARAMETERS
FORMER TEXACO SERVICE STATION 211079
1501 SOUTH CUSHMAN STREET
FAIRBANKS, ALASKA**

Location	Date Units	MNA PARAMETERS								
		Total Alkalinity mg/L	Alkalinity, phenolphthalein mg/L	Sulfate mg/L	Nitrate as Nitrogen mg/L	Methane mg/L	Nitrite (as N) mg/L	Nitrate by Field Measurement mg/L	Ferrous Iron by Field Measurement mg/L	Ferrous Iron mg/L
<i>ADEC Groundwater Cleanup Levels^a</i>										
MW-9	07/22/2009	269	-	6.4	<0.25	0.063	-	-	-	-
MW-9	08/20/2012	281 J / 281 J	<0.70 / <0.70	5.0 / 5.5	<0.25 / 0.38 J	0.033 / 0.033	-	-	-	-
MW-9	07/27/2013	240	-	7.5	-	0.076	<0.050 J	-	0.57	<0.015 J
MW-9	01/29/2014	256	-	<1.2	<0.050 J	0.079	<0.050	0.0	0.52	34.0 J
MW-10	07/21/2009	255	-	16.5	0.54	0.083	-	-	-	-
MW-10	08/20/2012	274 J	<0.70	47.6	2.1	0.062	-	-	-	-
MW-10	07/27/2013	246	-	33.2	-	0.11	<0.050 J	-	0.58	<0.015 J
MW-10	01/29/2014	292	-	53.5	0.16 J	0.039	<0.050	0.0	0.25	3.7 J
MW-11	07/21/2009	229	-	13.3	<0.25	0.05	-	-	-	-
MW-11	08/20/2012	230 J	<0.70	12.6	<0.25	0.033	-	-	-	-
MW-11	07/27/2013	228	-	16.6	-	0.029	<0.050 J	-	0.44	<0.015 J
MW-13	08/20/2012	375 J	<0.70	18.6	3.8 J	0.034	-	-	-	-

Notes and Abbreviations

mg/L = Milligrams per Liter

- = Not Measured/Not Analyzed

<x = Constituent not detected above x milligrams per liter

x / y = Sample Results / Blind Duplicate Results

Appendix A

Site Photos



1. Site



2. MW-1



3. MW-5



4. MW-6

SITE PHOTOS
FORMER TEXACO SERVICE STATION / CHEVRON 211079
1501 SOUTH CUSHMAN STREET
Fairbanks, Alaska



Appendix B

Monitoring Data Package

Groundwater Monitoring Field Sheet

Well ID	Time	DTP	DTW	Depth to Bottom	Product Thickness	Amount of Product Removed	Casing Diam.	PID	Comments
MW-4	1401	13.96	13.96	21.74	-	-	4"	0.0	
MW-2	1405	—	14.38	22.88	-	-	4"	0.0	
MW-10	1408	—	14.08	16.64	-	-	2"	0.0	
MW-1	1411	—	14.95	19.09	-	-	4"	0.0	Casing needs to be fixed
MW-11	—	—	—	—	-	-	—	—	Could not locate
MW-9	1415	—	13.74	18.11	-	-	2"	0.0	
MW-5	1417	—	14.76	20.31	-	-	4"	0.0	
GAC Filtered Water Volume: _____ / _____ gallons Volume logged on Portable GAC Volume Tracking Log? <input checked="" type="checkbox"/> 									

Project Name: 211079

Project Number: 065003

Field Staff: T. Echtermeyer / D. Bonga

Date: 1-28-14

HYDRASLEEVE SAMPLING FORM

SITE ID: 211079 CRA PROJECT NO. 65003 CRA PM: Siobhan Pritchard WELL ID: MW-5
 ADDRESS: 1501 S Cushman CITY, STATE: Fairbanks, Alaska STAFF: T. Echtermeyer / D. Bonga

1-28-14
 PREVIOUS DEPLOY DATE
 (MM DD YY)

1-29-14
 SAMPLE DATE
 (MM DD YY)

 RE-DEPLOY DATE
 (MM DD YY)

SAMPLER DETAILS

HYDRASLEEVE DEPLOYMENT METHOD SUSPENDED BOTTOM SET BOTH SUSPENDED AND BOTTOM SET

DEDICATED WEIGHT(S) yes / NO TOP WEIGHT BOTTOM WEIGHT

DEDICATED TETHER yes / NO

DEDICATED SAMPLER yes / NO SAMPLER LENGTH 30 inches 36 inches

SAMPLER MODIFIED yes / NO SAMPLE INTERVAL 3600 (inches)
 (e.g. tied off) (Sample Interval = Depth to water - Depth to top of sampler)

WELL / SAMPLE DETAILS

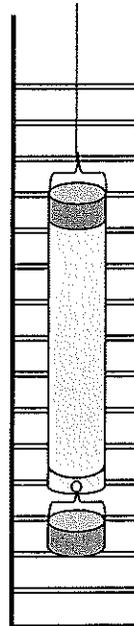
SAMPLE ID	DATE	TIME	ANALYTES / ANALYTIC METHOD		
<u>MW-5-012914</u>	<u>1-29-14</u>	<u>1040</u>	GRO by AK101 <input checked="" type="radio"/>	BTEX by 8260B <input checked="" type="radio"/>	MtBE by 8260B <input type="radio"/>
<u>DUP-1-012914</u>	<u>1-29-14</u>	<u> </u>	BTEX by 8021B <input type="radio"/>	HVOCs by 8260B <input type="radio"/>	EDB by 8011 <input type="radio"/>
					1,2-DCA by 8260B <input type="radio"/>

DEPTH TO WATER 147.6 (ft)
 (Sample interval must lie within well screen.)

LENGTH OF AVAILABLE WATER COLUMN 15.5
 (Available water column must be greater than or equal to total length of the sample interval.)

BOTTOM OF SAMPLE INTERVAL 177.6 (ft)
 (The top of the sampler prior to collection is the bottom of the sample interval. Must be a minimum of 2.5 inches from the bottom of well.)

DEPTH TO BOTTOM 203.1 (ft)



DRD Ak 102
MWA

Time	Temp (°C)	DO (mg/l)	Cond. (mS)	ORP (mv)	PH
<u>1453</u>	<u>-0.20</u>	<u>10.25</u>	<u>0.037</u>	<u>2.5</u>	<u>6.81</u>

SPECIFIC COMMENTS Nitrate 1.9 mg/L Ferric iron 1.94 mg/L

HYDRASLEEVE SAMPLING FORM

SITE ID: 211079 CRA PROJECT NO. 65003 CRA PM: Siobhan Pritchard WELL ID: MW-2
 ADDRESS: 1501 S Cushman CITY, STATE: Fairbanks, Alaska STAFF: T. Echtermeyer / D. Bonga

1-28-14
 PREVIOUS DEPLOY DATE
 (MM DD YY)

1-29-14
 SAMPLE DATE
 (MM DD YY)

 RE-DEPLOY DATE
 (MM DD YY)

SAMPLER DETAILS

HYDRASLEEVE DEPLOYMENT METHOD SUSPENDED BOTTOM SET BOTH SUSPENDED AND BOTTOM SET

DEDICATED WEIGHT(S) yes / TOP WEIGHT BOTTOM WEIGHT

DEDICATED TETHER yes /

DEDICATED SAMPLER yes / SAMPLER LENGTH 30 inches 36 inches

SAMPLER MODIFIED yes / SAMPLE INTERVAL 3600 (inches)
 (e.g. tied off) (Sample Interval = Depth to water - Depth to top of sampler)

WELL / SAMPLE DETAILS

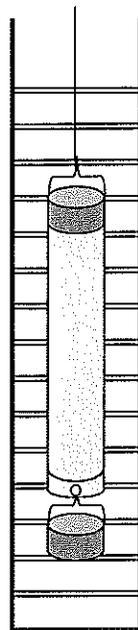
SAMPLE ID	DATE	TIME	ANALYTES / ANALYTIC METHOD
<u>MW-2-012914</u>	<u>1-29-14</u>	<u>1130</u>	GRO by AK101 <input checked="" type="radio"/> BTEX by 8260B <input checked="" type="radio"/> MtBE by 8260B <input type="radio"/> BTEX by 8021B <input type="radio"/> HVOCs by 8260B <input type="radio"/> EDB by 8011 <input type="radio"/> 1,2-DCA by 8260B <input type="radio"/>

DEPTH TO WATER 1438 (ft)
 (Sample interval must lie within well screen.)

LENGTH OF AVAILABLE WATER COLUMN 185
 (Available water column must be greater than or equal to total length of the sample interval.)

BOTTOM OF SAMPLE INTERVAL 1738 (ft)
 (The top of the sampler prior to collection is the bottom of the sample interval. Must be a minimum of 2.5 inches from the bottom of well.)

DEPTH TO BOTTOM 2288 (ft)



DRO AK102
MVA

Time	Temp (°C)	DO (mg/l)	Cond. (mS)	ORP (mv)	pH
<u>1435</u>	<u>2.61</u>	<u>10.55</u>	<u>0.067</u>	<u>187.3</u>	<u>5.96</u> <u>6.66</u>

SPECIFIC COMMENTS Mitrate 12.5 mg/L Ferric Iron 0.33

HYDRASLEEVE SAMPLING FORM

SITE ID: 211079 CRA PROJECT NO. 65003 CRA PM: Siobhan Pritchard WELL ID: MW-4
 ADDRESS: 1501 S Cushman CITY, STATE: Fairbanks, Alaska STAFF: T. Echermeier / D. Bonga

1-28-14
 PREVIOUS DEPLOY DATE
 (MM DD YY)

1-29-14
 SAMPLE DATE
 (MM DD YY)

 RE-DEPLOY DATE
 (MM DD YY)

SAMPLER DETAILS

HYDRASLEEVE DEPLOYMENT METHOD SUSPENDED BOTTOM SET BOTH SUSPENDED AND BOTTOM SET

DEDICATED WEIGHT(S) yes / TOP WEIGHT BOTTOM WEIGHT

DEDICATED TETHER yes /

DEDICATED SAMPLER yes / SAMPLER LENGTH 30 inches 36 inches

SAMPLER MODIFIED yes / SAMPLE INTERVAL 3600 (inches)
 (e.g. tied off) (Sample Interval = Depth to water - Depth to top of sampler)

WELL / SAMPLE DETAILS

SAMPLE ID	DATE	TIME	ANALYTES / ANALYTIC METHOD		
<u>MW-4-012914</u>	<u>1-29-14</u>	<u>1320</u>	GRO by AK101 <input checked="" type="radio"/>	BTEX by 8260B <input checked="" type="radio"/>	MtBE by 8260B <input type="radio"/>
			BTEX by 8021B <input type="radio"/>	HVOCs by 8260B <input type="radio"/>	EDB by 8011 <input type="radio"/>
					1,2-DCA by 8260B <input type="radio"/>

DEPTH TO WATER 1396 (ft)
 (Sample interval must lie within well screen.)

LENGTH OF AVAILABLE WATER COLUMN 178
 (Available water column must be greater than or equal to total length of the sample interval.)

BOTTOM OF SAMPLE INTERVAL 1696 (ft)
 (The top of the sampler prior to collection is the bottom of the sample interval. Must be a minimum of 2.5 inches from the bottom of well.)

DEPTH TO BOTTOM 2174 (ft)



DRO Ak 102
MNA

Time	Temp (°C)	DO (mg/l)	Cond. (mS)	ORP (mv)	PH
<u>1432</u>	<u>4.84</u>	<u>16.54</u>	<u>0.032</u>	<u>182.8</u>	<u>3.94</u> / <u>6.72</u>

SPECIFIC COMMENTS Nitrate 5.0 mg/l Ferrous Iron 0.05 mg/l

HYDRASLEEVE SAMPLING FORM

SITE ID: 211079 CRA PROJECT NO. 65003 CRA PM: Siobhan Pritchard WELL ID: MW-10
 ADDRESS: 1501 S Cushman CITY, STATE: Fairbanks, Alaska STAFF: T. Echtermeyer / D. Bonga

1-28-14
 PREVIOUS DEPLOY DATE
 (MM DD YY)

1-29-14
 SAMPLE DATE
 (MM DD YY)

 RE-DEPLOY DATE
 (MM DD YY)

SAMPLER DETAILS

HYDRASLEEVE DEPLOYMENT METHOD SUSPENDED BOTTOM SET BOTH SUSPENDED AND BOTTOM SET

DEDICATED WEIGHT(S) yes / TOP WEIGHT BOTTOM WEIGHT

DEDICATED TETHER yes /

DEDICATED SAMPLER yes / SAMPLER LENGTH 30 inches 36 inches

SAMPLER MODIFIED yes / SAMPLE INTERVAL 3000 (inches)
 (e.g. tied off) (Sample Interval = Depth to water - Depth to top of sampler)

WELL / SAMPLE DETAILS

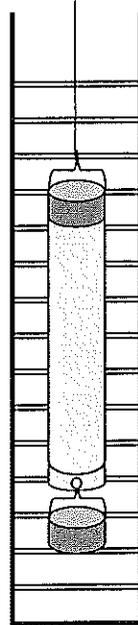
SAMPLE ID	DATE	TIME	ANALYTES / ANALYTIC METHOD
<u>MW-10-012914</u>	<u>1-29-14</u>	<u>1400</u>	GRO by AK101 <input checked="" type="checkbox"/> BTEX by 8260B <input checked="" type="checkbox"/> MtBE by 8260B <input type="checkbox"/> BTEX by 8021B <input type="checkbox"/> HVOCs by 8260B <input type="checkbox"/> EDB by 8011 <input type="checkbox"/> 1,2-DCA by 8260B <input type="checkbox"/>

DEPTH TO WATER 11408 (ft)
 (Sample interval must lie within well screen.)

LENGTH OF AVAILABLE WATER COLUMN 256
 (Available water column must be greater than or equal to total length of the sample interval.)

BOTTOM OF SAMPLE INTERVAL 11864 (ft)
 (The top of the sampler prior to collection is the bottom of the sample interval. Must be a minimum of 2.5 inches from the bottom of well.)

DEPTH TO BOTTOM 11664 (ft)



DRO AK102
MVA

Time	Temp (°C)	DO (mg/l)	Cond. (mS)	ORP (mv)	pH
<u>1440</u>	<u>6.76</u>	<u>19.18</u>	<u>0.020</u>	<u>103.5</u>	<u>6.97</u>

SPECIFIC COMMENTS Nitrate 0.0 mg/L Ferrous Iron 0.25 mg/L

HYDRASLEEVE SAMPLING FORM

SITE ID: 211079 CRA PROJECT NO. 65003 CRA PM: Siobhan Pritchard WELL ID: MW-9
 ADDRESS: 1501 S Cushman CITY, STATE: Fairbanks, Alaska STAFF: T. Echtermeyer / D. Bonga

1-28-14
 PREVIOUS DEPLOY DATE
 (MM DD YY)

1-29-14
 SAMPLE DATE
 (MM DD YY)

 RE-DEPLOY DATE
 (MM DD YY)

SAMPLER DETAILS

HYDRASLEEVE DEPLOYMENT METHOD SUSPENDED BOTTOM SET BOTH SUSPENDED AND BOTTOM SET

DEDICATED WEIGHT(S) yes / no TOP WEIGHT BOTTOM WEIGHT

DEDICATED TETHER yes / no

DEDICATED SAMPLER yes / no SAMPLER LENGTH 30 inches 36 inches

SAMPLER MODIFIED yes / no SAMPLE INTERVAL (inches)
 (e.g. tied off) (Sample Interval = Depth to water - Depth to top of sampler)

WELL / SAMPLE DETAILS

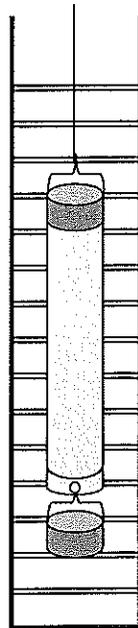
SAMPLE ID	DATE	TIME	ANALYTES / ANALYTIC METHOD		
<u>MW-9-012914</u>	<u>1-29-14</u>	<u>1410</u>	GRO by AK101 <input checked="" type="radio"/>	BTEX by 8260B <input checked="" type="radio"/>	MHE by 8260B <input type="radio"/>
			BTEX by 8021B <input type="radio"/>	HVOCs by 8260B <input type="radio"/>	EDB by 8011 <input type="radio"/>
					1,2-DCA by 8260B <input type="radio"/>

DEPTH TO WATER (ft)
 (Sample interval must lie within well screen.)

LENGTH OF AVAILABLE WATER COLUMN
 (Available water column must be greater than or equal to total length of the sample interval.)

BOTTOM OF SAMPLE INTERVAL (ft)
 (The top of the sampler prior to collection is the bottom of the sample interval. Must be a minimum of 2.5 inches from the bottom of well.)

DEPTH TO BOTTOM (ft)



DRG AK102
MMA

Time	Temp (°C)	DO (mg/l)	Cond. (mS)	ORP (mv)	PH
<u>0:46</u> <u>1:48</u>	<u>0.16</u>	<u>16.58</u>	<u>0.006</u>	<u>26.7</u>	<u>7.92</u> <u>6.95</u>

SPECIFIC COMMENTS Ammonia Nitrate 0.0 mg/L Favors Iron 0.52 mg/L

HYDRASLEEVE SAMPLING FORM

SITE ID: 211079 CRA PROJECT NO. 65003 CRA PM: Siobhan Pritchard WELL ID: MW-1
 ADDRESS: 1501 S Cushman CITY, STATE: Fairbanks, Alaska STAFF: T. Echermeier / D. Bonga

1-28-14 1-29-14
 PREVIOUS DEPLOY DATE SAMPLE DATE RE-DEPLOY DATE
 (MM DD YY) (MM DD YY) (MM DD YY)

SAMPLER DETAILS

HYDRASLEEVE DEPLOYMENT METHOD SUSPENDED BOTTOM SET BOTH SUSPENDED AND BOTTOM SET

DEDICATED WEIGHT(S) yes / TOP WEIGHT BOTTOM WEIGHT

DEDICATED TETHER yes /

DEDICATED SAMPLER yes / SAMPLER LENGTH 30 inches 36 inches

SAMPLER MODIFIED yes / SAMPLE INTERVAL (inches)
 (e.g. tied off) (Sample Interval = Depth to water - Depth to top of sampler)

WELL / SAMPLE DETAILS

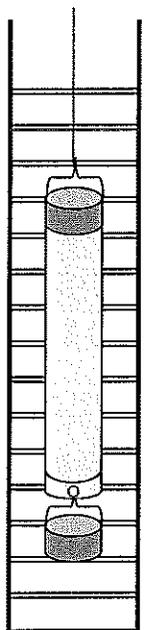
SAMPLE ID	DATE	TIME	ANALYTES / ANALYTIC METHOD		
<u>MW-1-012914</u>	<u>1-29-14</u>	<u>1520</u>	GRO by AK101 <input checked="" type="radio"/>	BTEX by 8260B <input checked="" type="radio"/>	MtBE by 8260B <input type="radio"/>
			BTEX by 8021B <input type="radio"/>	HVOCs by 8260B <input type="radio"/>	EDB by 8011 <input type="radio"/>
					1,2-DCA by 8260B <input type="radio"/>

DEPTH TO WATER (ft)
 (Sample interval must lie within well screen.)

LENGTH OF AVAILABLE WATER COLUMN
 (Available water column must be greater than or equal to total length of the sample interval.)

BOTTOM OF SAMPLE INTERVAL (ft)
 (The top of the sampler prior to collection is the bottom of the sample interval. Must be a minimum of 2.5 inches from the bottom of well.)

DEPTH TO BOTTOM (ft)



DRO AK102
MVA

Time	Temp (°C)	DO (mg/l)	Cond. (mS)	ORP (mv)	pH
<u>14:14</u>	<u>0.13</u>	<u>19.00</u>	<u>0.014</u>	<u>35.4</u>	<u>5.65</u> / <u>6.92</u>

SPECIFIC COMMENTS Nitrate 3.3 mg/L Free Iron 0.20 mg/L

Appendix C

Standard Operating Procedures for Groundwater Monitoring and Sampling



**CONESTOGA-ROVERS
& ASSOCIATES**

STANDARD FIELD PROCEDURES FOR GROUNDWATER MONITORING AND SAMPLING

This document presents standard field methods for groundwater monitoring, purging and sampling, and well development. These procedures are designed to comply with Federal, State and local regulatory guidelines. Conestoga-Rovers & Associates' specific field procedures are summarized below.

Groundwater Monitoring

Prior to performing monitoring activities, the historical monitoring and analytical data of each monitoring well shall be reviewed to determine if any of the wells are likely to contain separate phase hydrocarbons (SPH) and to determine the order in which the wells will be monitored (i.e. cleanest to dirtiest). Groundwater monitoring should not be performed when the potential exists for surface water to enter the well (i.e. flooding during a rainstorm).

Prior to monitoring, each well shall be opened and the well cap removed to allow water levels to stabilize and equilibrate. The condition of the well box and well cap shall be observed and recommended repairs noted. Any surface water that may have entered and flooded the well box should be evacuated prior to removing the well cap. In wells with no history of SPH, the static water level and total well depth shall be measured to the nearest 0.01 foot with an electronic water level meter. Wells with the highest contaminant concentrations shall be monitored last. In wells with a history of SPH, the SPH level/thickness and static water level shall be measured to the nearest 0.01 foot using an electronic interface probe. The water level meter and/or interface probe shall be thoroughly cleaned and decontaminated at the beginning of the monitoring event and between each well. Monitoring equipment shall be washed using soapy water consisting of Liqui-nox™ or Alconox™ followed by one rinse of clean tap water and then two rinses of distilled water.

Groundwater Sampling

Purge Sampling

Prior to groundwater purging and sampling, the historical analytical data of each monitoring well shall be reviewed to determine the order in which the wells should be purged and sampled (i.e. cleanest to dirtiest). No purging or groundwater sampling shall be performed on wells with a measurable thickness of SPH or floating SPH globules. If a sheen is observed, the well should be purged and a groundwater sample collected only if no SPH is present. Wells shall be purged either by hand using a disposal or PVC bailer or by using an aboveground pump (e.g. peristaltic or Wattera™) or down-hole pump (e.g. Grundfos™ or DC Purger pump).

Groundwater wells shall be purged approximately three to ten well-casing volumes (depending on the regulatory agency requirements) or until a minimum of three groundwater parameters have stabilized for three consecutive readings. Temperature, dissolved oxygen (DO), pH, conductivity, and oxidation-reduction potential (ORP) shall be measured and recorded. The total volume of groundwater removed shall be recorded along with any other notable physical characteristic such as color and odor. If required, turbidity shall also be measured prior to collection of each groundwater sample.

Groundwater samples shall be collected after the well has been purged and allowed to recharge to 80% of the pre-purging static water level, or if the well is slow to recharge, after waiting a minimum of 2 hours. Groundwater samples shall be collected using clean disposable bailers or



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pumps (if an operating remediation system exists on site and the project manager approves of its use for sampling) and shall be decanted into clean containers supplied by the analytical laboratory. New nitrile gloves and disposable tubing or bailers shall be used for sampling each well. If a PVC bailer or down-hole pump is used for groundwater purging, it shall be decontaminated before purging each well by using soapy water consisting of Liqui-nox™ or Alconox™ followed by one rinse of clean tap water and then two rinses of distilled water. If a submersible pump with non-dedicated discharge tubing is used for groundwater purging, both the inside and outside of pump and discharge tubing shall be decontaminated as described above.

No Purge Sampling

Groundwater samples shall be collected using clean disposable bailers (PVC or Teflon) and decanted into clean containers supplied by the analytical laboratory. New nitrile gloves shall be used for sampling each well.

HydraSleeve Sampling

HydraSleeve sampling devices shall be deployed a minimum of 24 hours prior to sampling to allow for equilibration and stabilization.

For wells without a previously deployed HydraSleeve sampling device, the groundwater monitoring SOP shall be followed to determine water column length. For wells with a previously deployed HydraSleeve sampling device, the depth to groundwater shall be measured prior to HydraSleeve removal. The depth to well bottom shall be measured prior to new HydraSleeve deployment.

The top of the HydraSleeve sampling device shall be set no more than 3 feet below static groundwater level. If the length of the water column does not allow for this, a top weight bottom set will be employed. Groundwater samples collected using clean disposable HydraSleeve sampling devices will be decanted into clean containers supplied by the analytical laboratory. New nitrile gloves and HydraSleeve sampling devices will be used for sampling each well.

Following sampling, a new HydraSleeve sampling device shall be deployed for the next sampling event if applicable.

Sample Handling

Except for samples that will be tested in the field, or that require special handling or preservation, samples shall be stored in coolers chilled to 4° C for shipment to the analytical laboratory. Samples shall be labeled, placed in protective foam sleeves or bubble wrap as needed, stored on crushed ice at or below 4° C, and submitted under chain-of-custody (COC) to the laboratory. The laboratory shall be notified of the sample shipment schedule and arrival time. Samples shall be shipped to the laboratory within a time frame to allow for extraction and analysis to be performed within the standard sample holding times.

Sample labels shall be filled out using indelible ink and must contain the site name; field identification number; the date, time, and location of sample collection; notation of the type of sample; identification of preservatives used; remarks; and the signature of the sampler. Field identification must be sufficient to allow easy cross-reference with the field datasheet.

All samples submitted to the laboratory shall be accompanied by a COC record to ensure adequate documentation. One copy of the COC shall be kept in the QA/QC file and another copy shall be retained in the project file. Information on the COC shall consist of the project name and



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number; project location; sample numbers; sampler/recorder's signature; date and time of collection of each sample; sample type; analyses requested; name of person receiving the sample; and date of receipt of sample.

Laboratory-supplied trip blanks shall accompany the samples and be analyzed to check for cross-contamination, if requested by the project manager.

Well Development

Wells shall be developed using a combination of groundwater surging and extraction. A surge block shall be used to swab the well and agitate the groundwater in order to dislodge any fine sediment from the sand pack. After approximately ten minutes of swabbing the well, groundwater shall be extracted from the well using a bailer, pump and/or reverse air-lifting through a pipe to remove the sediments from the well. Alternating surging and extraction shall continue until the sediment volume in the groundwater (i.e. turbidity) is negligible, which typically requires extraction of approximately ten well-casing volumes of groundwater. Preliminary well development usually is performed during well installation prior to placing the sanitary surface seal to ensure sand pack stabilization. Well development that is performed after surface seal installation, should occur 72 hours after seal installation to ensure that the cement has had adequate time to set.

Waste Handling and Disposal

Groundwater extracted during development and sampling shall be stored onsite in sealed U.S. DOT H17 55-gallon drums. Each drum shall be labeled with the contents, date of generation, generator identification and consultant contact. If hydrocarbon concentrations in the purged groundwater are below ADEC cleanup levels or the site is in a remote area (pending ADEC approval) groundwater will be discharged to the ground surface, at least 100 feet from the nearest surface water body.

\\DEN-S1\Shared\Denver\Alaska\AK SOP\CRA Alaska SOP\AK Groundwater Monitoring and Sampling SOP - CRA.doc

Appendix D

Laboratory Analytical Report

March 18, 2014

Conestoga-Rovers Association

14998 W. 6th Ave
Golden, CO 80401

RE: Project: 065003 CHEVRON 211079-GWS REV1
Pace Project No.: 10256484

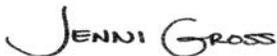
Dear Conestoga-Rovers Association:

Enclosed are the analytical results for sample(s) received by the laboratory on January 31, 2014. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Revised Report, REV-1 03/18/14. Updated SCUR to have initials and date for incorrect year crossed out.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Jennifer Gross
jennifer.gross@pacelabs.com
Project Manager

Enclosures

cc: Chevron-EDDs, Conestoga-Rovers Association
ChevronGWRT, Conestoga-Rovers Association
Jeffrey Cloud, Conestoga-Rovers Association
Sarah Gillette, Conestoga-Rovers Association
Nick Greco, Conestoga-Rovers Association
Siobhan Pritchard, Conestoga-Rovers Association



REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
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CERTIFICATIONS

Project: 065003 CHEVRON 211079-GWS REV1

Pace Project No.: 10256484

Minnesota Certification IDs

1700 Elm Street SE Suite 200, Minneapolis, MN 55414

A2LA Certification #: 2926.01

Alabama Certification #40770

Alabama Certification #40770

Alaska Certification #: UST-078

Alaska Certification #MN00064

Arizona Certification #: AZ-0014

Arkansas Certification #: 88-0680

California Certification #: 01155CA

Colorado Certification #Pace

Connecticut Certification #: PH-0256

EPA Region 8 Certification #: 8TMS-L

Florida/NELAP Certification #: E87605

Guam Certification #: Pace

Georgia Certification #: 959

Idaho Certification #: MN00064

Hawaii Certification #MN00064

Illinois Certification #: 200011

Indiana Certification#C-MN-01

Iowa Certification #: 368

Kansas Certification #: E-10167

Kentucky Dept of Envi. Protection - DW #90062

Kentucky Dept of Envi. Protection - WW #:90062

Louisiana DEQ Certification #: 3086

Louisiana DHH #: LA140001

Maine Certification #: 2013011

Maryland Certification #: 322

Michigan DEPH Certification #: 9909

Minnesota Certification #: 027-053-137

Mississippi Certification #: Pace

Montana Certification #: MT0092

Nebraska Certification #: Pace

New York Certification #: 11647

North Carolina Certification #: 530

North Carolina State Public Health #: 27700

North Dakota Certification #: R-036

Ohio EPA #: 4150

Ohio VAP Certification #: CL101

Oklahoma Certification #: 9507

Oregon Certification #: MN200001

Oregon Certification #: MN300001

Pennsylvania Certification #: 68-00563

Puerto Rico Certification

Saipan (CNMI) #:MP0003

South Carolina #:74003001

Texas Certification #: T104704192

Tennessee Certification #: 02818

Utah Certification #: MN000642013-4

Virginia DGS Certification #: 251

Virginia/VELAP Certification #: Pace

Washington Certification #: C486

Wisconsin Certification #: 999407970

West Virginia Certification #: 382

West Virginia TO-15 Approval

West Virginia DHHR #:9952C

Kansas Certification IDs

9608 Loiret Boulevard, Lenexa, KS 66219

WY STR Certification #: 2456.01

Arkansas Certification #: 13-012-0

Illinois Certification #: 003097

Iowa Certification #: 118

Kansas/NELAP Certification #: E-10116

Louisiana Certification #: 03055

Nevada Certification #: KS000212008A

Oklahoma Certification #: 9205/9935

Texas Certification #: T104704407-13-4

Utah Certification #: KS000212013-3

Illinois Certification #: 003097

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: 065003 CHEVRON 211079-GWS REV1

Pace Project No.: 10256484

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10256484001	MW-1-012914	Water	01/29/14 15:20	01/31/14 09:54
10256484002	MW-2-012914	Water	01/29/14 11:30	01/31/14 09:54
10256484003	MW-4-012914	Water	01/29/14 13:20	01/31/14 09:54
10256484004	MW-5-012914	Water	01/29/14 12:40	01/31/14 09:54
10256484005	MW-9-012914	Water	01/29/14 14:40	01/31/14 09:54
10256484006	MW-10-012914	Water	01/29/14 14:10	01/31/14 09:54
10256484007	DUP-1-012914	Water	01/29/14 00:00	01/31/14 09:54
10256484008	TRIP BLANK-1-012914	Water	01/29/14 00:00	01/31/14 09:54

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: 065003 CHEVRON 211079-GWS REV1

Pace Project No.: 10256484

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10256484001	MW-1-012914	RSK 175	DL1	1	PASI-M
		Alaska 102/103	MT	3	PASI-M
		Alaska 101	LLC	2	PASI-M
		EPA 8260	SH2	7	PASI-M
		SM 2320B	PH1	1	PASI-M
		SM 3500-Fe B#4	JML	1	PASI-K
		SM 4500-NO3 H	PH1	2	PASI-M
		ASTM D516	KEO	1	PASI-M
		SM 4500-NO2 B	KEO	1	PASI-M
10256484002	MW-2-012914	RSK 175	DL1	1	PASI-M
		Alaska 102/103	JRH	3	PASI-M
		Alaska 101	LLC	2	PASI-M
		EPA 8260	SH2	7	PASI-M
		SM 2320B	PH1	1	PASI-M
		SM 3500-Fe B#4	JML	1	PASI-K
		SM 4500-NO3 H	PH1	2	PASI-M
		ASTM D516	KEO	1	PASI-M
		SM 4500-NO2 B	KEO	1	PASI-M
10256484003	MW-4-012914	RSK 175	DL1	1	PASI-M
		Alaska 102/103	MT	3	PASI-M
		Alaska 101	LLC	2	PASI-M
		EPA 8260	SH2	7	PASI-M
		SM 2320B	PH1	1	PASI-M
		SM 3500-Fe B#4	JML	1	PASI-K
		SM 4500-NO3 H	PH1	2	PASI-M
		ASTM D516	KEO	1	PASI-M
		SM 4500-NO2 B	KEO	1	PASI-M
10256484004	MW-5-012914	RSK 175	DL1	1	PASI-M
		Alaska 102/103	MT	3	PASI-M
		Alaska 101	LLC	2	PASI-M
		EPA 8260	SH2	7	PASI-M
		SM 2320B	PH1	1	PASI-M
		SM 3500-Fe B#4	JML	1	PASI-K
		SM 4500-NO3 H	PH1	2	PASI-M
		ASTM D516	KEO	1	PASI-M
		SM 4500-NO2 B	KEO	1	PASI-M
10256484005	MW-9-012914	RSK 175	DL1	1	PASI-M

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: 065003 CHEVRON 211079-GWS REV1

Pace Project No.: 10256484

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		Alaska 102/103	MT	3	PASI-M
		Alaska 101	LLC	2	PASI-M
		EPA 8260	SH2	7	PASI-M
		SM 2320B	PH1	1	PASI-M
		SM 3500-Fe B#4	JML	1	PASI-K
		SM 4500-NO3 H	PH1	2	PASI-M
		ASTM D516	KEO	1	PASI-M
		SM 4500-NO2 B	KEO	1	PASI-M
10256484006	MW-10-012914	RSK 175	DL1	1	PASI-M
		Alaska 102/103	MT	3	PASI-M
		Alaska 101	LLC	2	PASI-M
		EPA 8260	SH2	7	PASI-M
		SM 2320B	PH1	1	PASI-M
		SM 3500-Fe B#4	JML	1	PASI-K
		SM 4500-NO3 H	PH1	2	PASI-M
		ASTM D516	KEO	1	PASI-M
		SM 4500-NO2 B	KEO	1	PASI-M
10256484007	DUP-1-012914	RSK 175	DL1	1	PASI-M
		Alaska 102/103	MT	3	PASI-M
		Alaska 101	LLC	2	PASI-M
		EPA 8260	SH2	7	PASI-M
		SM 2320B	PH1	1	PASI-M
		SM 3500-Fe B#4	JML	1	PASI-K
		SM 4500-NO3 H	PH1	2	PASI-M
		ASTM D516	KEO	1	PASI-M
		SM 4500-NO2 B	KEO	1	PASI-M
10256484008	TRIP BLANK-1-012914	Alaska 101	LLC	2	PASI-M
		EPA 8260	SH2	7	PASI-M

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PROJECT NARRATIVE

Project: 065003 CHEVRON 211079-GWS REV1

Pace Project No.: 10256484

Method: RSK 175

Description: RSK 175 AIR Headspace

Client: CRA_Chevron

Date: March 18, 2014

General Information:

7 samples were analyzed for RSK 175. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Internal Standards:

All internal standards were within QC limits with any exceptions noted below.

Surrogates:

All surrogates were within QC limits with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:

All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: 065003 CHEVRON 211079-GWS REV1
Pace Project No.: 10256484

Method: Alaska 102/103
Description: DRO and RRO by AK102/103
Client: CRA_Chevron
Date: March 18, 2014

General Information:

7 samples were analyzed for Alaska 102/103. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:

The samples were prepared in accordance with EPA 3510 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Surrogates:

All surrogates were within QC limits with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: GCSV/12797

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

Additional Comments:

Analyte Comments:

QC Batch: OEXT/24291

N2: The lab does not hold TNI accreditation for this parameter.

- BLANK (Lab ID: 1619004)
 - DRO by AK 102
- DUP-1-012914 (Lab ID: 10256484007)
 - DRO by AK 102
- LCS (Lab ID: 1619005)
 - DRO by AK 102
- LCSD (Lab ID: 1619006)
 - DRO by AK 102

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PROJECT NARRATIVE

Project: 065003 CHEVRON 211079-GWS REV1

Pace Project No.: 10256484

Method: Alaska 102/103

Description: DRO and RRO by AK102/103

Client: CRA_Chevron

Date: March 18, 2014

Analyte Comments:

QC Batch: OEXT/24291

N2: The lab does not hold TNI accreditation for this parameter.

- MW-1-012914 (Lab ID: 10256484001)
 - DRO by AK 102
- MW-10-012914 (Lab ID: 10256484006)
 - DRO by AK 102
- MW-2-012914 (Lab ID: 10256484002)
 - DRO by AK 102
- MW-4-012914 (Lab ID: 10256484003)
 - DRO by AK 102
- MW-5-012914 (Lab ID: 10256484004)
 - DRO by AK 102
- MW-9-012914 (Lab ID: 10256484005)
 - DRO by AK 102

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PROJECT NARRATIVE

Project: 065003 CHEVRON 211079-GWS REV1
Pace Project No.: 10256484

Method: Alaska 101
Description: AK101 GCV
Client: CRA_Chevron
Date: March 18, 2014

General Information:

8 samples were analyzed for Alaska 101. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Internal Standards:

All internal standards were within QC limits with any exceptions noted below.

Surrogates:

All surrogates were within QC limits with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: GCV/11650

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 10256484001

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1622036)
- AK101 Gasoline Range Organics

QC Batch: GCV/11676

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

Duplicate Sample:

All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: 065003 CHEVRON 211079-GWS REV1
Pace Project No.: 10256484

Method: Alaska 101
Description: AK101 GCV
Client: CRA_Chevron
Date: March 18, 2014

Analyte Comments:

QC Batch: GCV/11650

1M: Surrogate recovery outside laboratory control limits due to matrix interferences.

- DUP-1-012914 (Lab ID: 10256484007)
 - a,a,a-Trifluorotoluene (S)
- MW-5-012914 (Lab ID: 10256484004)
 - a,a,a-Trifluorotoluene (S)

N2: The lab does not hold TNI accreditation for this parameter.

- BLANK (Lab ID: 1618831)
 - AK101 Gasoline Range Organics
- DUP (Lab ID: 1622037)
 - AK101 Gasoline Range Organics
- DUP-1-012914 (Lab ID: 10256484007)
 - AK101 Gasoline Range Organics
- LCS (Lab ID: 1618832)
 - AK101 Gasoline Range Organics
- LCSD (Lab ID: 1618833)
 - AK101 Gasoline Range Organics
- MS (Lab ID: 1622036)
 - AK101 Gasoline Range Organics
- MW-1-012914 (Lab ID: 10256484001)
 - AK101 Gasoline Range Organics
- MW-2-012914 (Lab ID: 10256484002)
 - AK101 Gasoline Range Organics
- MW-4-012914 (Lab ID: 10256484003)
 - AK101 Gasoline Range Organics
- MW-5-012914 (Lab ID: 10256484004)
 - AK101 Gasoline Range Organics
- MW-9-012914 (Lab ID: 10256484005)
 - AK101 Gasoline Range Organics
- TRIP BLANK-1-012914 (Lab ID: 10256484008)
 - AK101 Gasoline Range Organics

QC Batch: GCV/11676

N2: The lab does not hold TNI accreditation for this parameter.

- BLANK (Lab ID: 1623463)
 - AK101 Gasoline Range Organics
- LCS (Lab ID: 1623464)
 - AK101 Gasoline Range Organics
- LCSD (Lab ID: 1623465)
 - AK101 Gasoline Range Organics
- MW-10-012914 (Lab ID: 10256484006)
 - AK101 Gasoline Range Organics

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PROJECT NARRATIVE

Project: 065003 CHEVRON 211079-GWS REV1
Pace Project No.: 10256484

Method: EPA 8260
Description: 8260 MSV UST
Client: CRA_Chevron
Date: March 18, 2014

General Information:

8 samples were analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Internal Standards:

All internal standards were within QC limits with any exceptions noted below.

Surrogates:

All surrogates were within QC limits with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Analyte Comments:

QC Batch: MSV/26278

D3: Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

- DUP-1-012914 (Lab ID: 10256484007)
 - 1,2-Dichloroethane-d4 (S)
- MS (Lab ID: 1618956)
 - 1,2-Dichloroethane-d4 (S)
- MSD (Lab ID: 1618957)
 - 1,2-Dichloroethane-d4 (S)
- MW-9-012914 (Lab ID: 10256484005)
 - 1,2-Dichloroethane-d4 (S)

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PROJECT NARRATIVE

Project: 065003 CHEVRON 211079-GWS REV1

Pace Project No.: 10256484

Method: SM 2320B

Description: 2320B Alkalinity

Client: CRA_Chevron

Date: March 18, 2014

General Information:

7 samples were analyzed for SM 2320B. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: 065003 CHEVRON 211079-GWS REV1

Pace Project No.: 10256484

Method: SM 3500-Fe B#4

Description: Iron, Ferrous

Client: CRA_Chevron

Date: March 18, 2014

General Information:

7 samples were analyzed for SM 3500-Fe B#4. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

H6: Analysis initiated outside of the 15 minute EPA recommended holding time.

- DUP-1-012914 (Lab ID: 10256484007)
- MW-1-012914 (Lab ID: 10256484001)
- MW-10-012914 (Lab ID: 10256484006)
- MW-2-012914 (Lab ID: 10256484002)
- MW-4-012914 (Lab ID: 10256484003)
- MW-5-012914 (Lab ID: 10256484004)
- MW-9-012914 (Lab ID: 10256484005)

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: 065003 CHEVRON 211079-GWS REV1

Pace Project No.: 10256484

Method: SM 4500-NO3 H

Description: SM4500NO3-H, NO2 + NO3 pres.

Client: CRA_Chevron

Date: March 18, 2014

General Information:

7 samples were analyzed for SM 4500-NO3 H. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: WETA/17262

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 10256331002,10256484006

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1618479)
 - Nitrogen, NO2 plus NO3
- MS (Lab ID: 1618481)
 - Nitrogen, NO2 plus NO3
- MSD (Lab ID: 1618480)
 - Nitrogen, NO2 plus NO3
- MSD (Lab ID: 1618482)
 - Nitrogen, NO2 plus NO3

Additional Comments:

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PROJECT NARRATIVE

Project: 065003 CHEVRON 211079-GWS REV1

Pace Project No.: 10256484

Method: ASTM D516

Description: ASTM D516 Sulfate Water

Client: CRA_Chevron

Date: March 18, 2014

General Information:

7 samples were analyzed for ASTM D516. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: 065003 CHEVRON 211079-GWS REV1

Pace Project No.: 10256484

Method: SM 4500-NO2 B

Description: SM4500NO2-B, Nitrite, unpres

Client: CRA_Chevron

Date: March 18, 2014

General Information:

7 samples were analyzed for SM 4500-NO2 B. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

H1: Analysis conducted outside the recognized method holding time.

- MW-4-012914 (Lab ID: 10256484003)
- MW-5-012914 (Lab ID: 10256484004)

H3: Sample was received or analysis requested beyond the recognized method holding time.

- DUP-1-012914 (Lab ID: 10256484007)
- MW-2-012914 (Lab ID: 10256484002)

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: WETA/17252

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 10256439001

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1618027)
 - Nitrite as N
- MSD (Lab ID: 1618028)
 - Nitrite as N

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: 065003 CHEVRON 211079-GWS REV1

Pace Project No.: 10256484

Sample: MW-1-012914 **Lab ID: 10256484001** Collected: 01/29/14 15:20 Received: 01/31/14 09:54 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 AIR Headspace									
Analytical Method: RSK 175									
Methane	0.0042J	mg/L	0.0066	0.0033	1		02/03/14 14:47	74-82-8	
DRO and RRO by AK102/103									
Analytical Method: Alaska 102/103 Preparation Method: EPA 3510									
DRO by AK 102	<0.20	mg/L	0.40	0.20	1	02/04/14 09:24	02/06/14 14:38		N2
Surrogates									
o-Terphenyl (S)	65 %.		50-150		1	02/04/14 09:24	02/06/14 14:38	84-15-1	
n-Triacontane (S)	71 %.		50-150		1	02/04/14 09:24	02/06/14 14:38	638-68-6	
AK101 GCV									
Analytical Method: Alaska 101									
AK101 Gasoline Range Organics	<0.050	mg/L	0.10	0.050	1		02/06/14 17:41		N2
Surrogates									
a,a,a-Trifluorotoluene (S)	96 %.		60-120		1		02/06/14 17:41	98-08-8	
8260 MSV UST									
Analytical Method: EPA 8260									
Benzene	<0.00024	mg/L	0.0010	0.00024	1		02/03/14 13:31	71-43-2	
Ethylbenzene	<0.00024	mg/L	0.0010	0.00024	1		02/03/14 13:31	100-41-4	
Toluene	<0.00023	mg/L	0.0010	0.00023	1		02/03/14 13:31	108-88-3	
Xylene (Total)	<0.00072	mg/L	0.0030	0.00072	1		02/03/14 13:31	1330-20-7	
Surrogates									
1,2-Dichloroethane-d4 (S)	99 %.		75-125		1		02/03/14 13:31	17060-07-0	
Toluene-d8 (S)	102 %.		75-125		1		02/03/14 13:31	2037-26-5	
4-Bromofluorobenzene (S)	101 %.		75-125		1		02/03/14 13:31	460-00-4	
2320B Alkalinity									
Analytical Method: SM 2320B									
Alkalinity, Total as CaCO3	234	mg/L	5.0	2.5	1		02/07/14 12:14		
Iron, Ferrous									
Analytical Method: SM 3500-Fe B#4									
Iron, Ferrous	0.13J	mg/L	0.20	0.018	1		02/02/14 10:42		H6
SM4500NO3-H, NO2 + NO3 pres.									
Analytical Method: SM 4500-NO3 H									
Nitrate as N	1.0	mg/L	0.10	0.050	1		02/03/14 12:11	14797-55-8	
Nitrogen, NO2 plus NO3	1.0	mg/L	0.10	0.050	1		02/03/14 12:11		
ASTM D516 Sulfate Water									
Analytical Method: ASTM D516									
Sulfate	17.3	mg/L	2.5	1.2	1		02/07/14 13:54	14808-79-8	
SM4500NO2-B, Nitrite, unpres									
Analytical Method: SM 4500-NO2 B									
Nitrite as N	<0.050	mg/L	0.10	0.050	1		01/31/14 13:35	14797-65-0	

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ANALYTICAL RESULTS

Project: 065003 CHEVRON 211079-GWS REV1

Pace Project No.: 10256484

Sample: MW-2-012914 **Lab ID: 10256484002** Collected: 01/29/14 11:30 Received: 01/31/14 09:54 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 AIR Headspace									
Analytical Method: RSK 175									
Methane	0.013	mg/L	0.0066	0.0033	1		02/03/14 15:29	74-82-8	
DRO and RRO by AK102/103									
Analytical Method: Alaska 102/103 Preparation Method: EPA 3510									
DRO by AK 102	1.2	mg/L	0.40	0.20	1	02/04/14 09:24	02/07/14 17:10		N2
Surrogates									
o-Terphenyl (S)	94	%	50-150		1	02/04/14 09:24	02/07/14 17:10	84-15-1	
n-Triacontane (S)	102	%	50-150		1	02/04/14 09:24	02/07/14 17:10	638-68-6	
AK101 GCV									
Analytical Method: Alaska 101									
AK101 Gasoline Range Organics	<0.050	mg/L	0.10	0.050	1		02/06/14 15:41		N2
Surrogates									
a,a,a-Trifluorotoluene (S)	94	%	60-120		1		02/06/14 15:41	98-08-8	
8260 MSV UST									
Analytical Method: EPA 8260									
Benzene	0.00063J	mg/L	0.0010	0.00024	1		02/03/14 13:47	71-43-2	
Ethylbenzene	<0.00024	mg/L	0.0010	0.00024	1		02/03/14 13:47	100-41-4	
Toluene	<0.00023	mg/L	0.0010	0.00023	1		02/03/14 13:47	108-88-3	
Xylene (Total)	0.0038	mg/L	0.0030	0.00072	1		02/03/14 13:47	1330-20-7	
Surrogates									
1,2-Dichloroethane-d4 (S)	100	%	75-125		1		02/03/14 13:47	17060-07-0	
Toluene-d8 (S)	100	%	75-125		1		02/03/14 13:47	2037-26-5	
4-Bromofluorobenzene (S)	100	%	75-125		1		02/03/14 13:47	460-00-4	
2320B Alkalinity									
Analytical Method: SM 2320B									
Alkalinity, Total as CaCO3	468	mg/L	5.0	2.5	1		02/07/14 12:18		
Iron, Ferrous									
Analytical Method: SM 3500-Fe B#4									
Iron, Ferrous	0.086J	mg/L	0.20	0.018	1		02/02/14 10:36		H6
SM4500NO3-H, NO2 + NO3 pres.									
Analytical Method: SM 4500-NO3 H									
Nitrate as N	0.87	mg/L	0.10	0.050	1		02/03/14 12:11	14797-55-8	
Nitrogen, NO2 plus NO3	0.87	mg/L	0.10	0.050	1		02/03/14 12:11		
ASTM D516 Sulfate Water									
Analytical Method: ASTM D516									
Sulfate	85.0	mg/L	12.5	6.2	5		02/07/14 14:12	14808-79-8	
SM4500NO2-B, Nitrite, unpres									
Analytical Method: SM 4500-NO2 B									
Nitrite as N	<0.050	mg/L	0.10	0.050	1		01/31/14 13:35	14797-65-0	H3

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ANALYTICAL RESULTS

Project: 065003 CHEVRON 211079-GWS REV1

Pace Project No.: 10256484

Sample: MW-4-012914 **Lab ID: 10256484003** Collected: 01/29/14 13:20 Received: 01/31/14 09:54 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 AIR Headspace									
Analytical Method: RSK 175									
Methane	<0.0033	mg/L	0.0066	0.0033	1		02/03/14 15:38	74-82-8	
DRO and RRO by AK102/103									
Analytical Method: Alaska 102/103 Preparation Method: EPA 3510									
DRO by AK 102	0.46	mg/L	0.40	0.20	1	02/04/14 09:24	02/06/14 15:43		N2
Surrogates									
o-Terphenyl (S)	89 %		50-150		1	02/04/14 09:24	02/06/14 15:43	84-15-1	
n-Triacontane (S)	97 %		50-150		1	02/04/14 09:24	02/06/14 15:43	638-68-6	
AK101 GCV									
Analytical Method: Alaska 101									
AK101 Gasoline Range Organics	<0.050	mg/L	0.10	0.050	1		02/06/14 16:01		N2
Surrogates									
a,a,a-Trifluorotoluene (S)	94 %		60-120		1		02/06/14 16:01	98-08-8	
8260 MSV UST									
Analytical Method: EPA 8260									
Benzene	<0.00024	mg/L	0.0010	0.00024	1		02/03/14 14:03	71-43-2	
Ethylbenzene	<0.00024	mg/L	0.0010	0.00024	1		02/03/14 14:03	100-41-4	
Toluene	<0.00023	mg/L	0.0010	0.00023	1		02/03/14 14:03	108-88-3	
Xylene (Total)	<0.00072	mg/L	0.0030	0.00072	1		02/03/14 14:03	1330-20-7	
Surrogates									
1,2-Dichloroethane-d4 (S)	99 %		75-125		1		02/03/14 14:03	17060-07-0	
Toluene-d8 (S)	101 %		75-125		1		02/03/14 14:03	2037-26-5	
4-Bromofluorobenzene (S)	100 %		75-125		1		02/03/14 14:03	460-00-4	
2320B Alkalinity									
Analytical Method: SM 2320B									
Alkalinity, Total as CaCO3	256	mg/L	5.0	2.5	1		02/07/14 12:22		
Iron, Ferrous									
Analytical Method: SM 3500-Fe B#4									
Iron, Ferrous	<0.018	mg/L	0.20	0.018	1		02/02/14 10:38		H6
SM4500NO3-H, NO2 + NO3 pres.									
Analytical Method: SM 4500-NO3 H									
Nitrate as N	1.8	mg/L	0.10	0.050	1		02/03/14 12:14	14797-55-8	
Nitrogen, NO2 plus NO3	1.8	mg/L	0.10	0.050	1		02/03/14 12:14		
ASTM D516 Sulfate Water									
Analytical Method: ASTM D516									
Sulfate	29.5	mg/L	2.5	1.2	1		02/07/14 13:54	14808-79-8	
SM4500NO2-B, Nitrite, unpres									
Analytical Method: SM 4500-NO2 B									
Nitrite as N	<0.050	mg/L	0.10	0.050	1		01/31/14 13:35	14797-65-0	H1

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ANALYTICAL RESULTS

Project: 065003 CHEVRON 211079-GWS REV1

Pace Project No.: 10256484

Sample: MW-5-012914 **Lab ID: 10256484004** Collected: 01/29/14 12:40 Received: 01/31/14 09:54 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 AIR Headspace									
Analytical Method: RSK 175									
Methane	0.026	mg/L	0.0066	0.0033	1		02/03/14 15:47	74-82-8	
DRO and RRO by AK102/103									
Analytical Method: Alaska 102/103 Preparation Method: EPA 3510									
DRO by AK 102	4.0	mg/L	0.40	0.20	1	02/04/14 09:24	02/06/14 16:05		N2
Surrogates									
o-Terphenyl (S)	89 %.		50-150		1	02/04/14 09:24	02/06/14 16:05	84-15-1	
n-Triacontane (S)	99 %.		50-150		1	02/04/14 09:24	02/06/14 16:05	638-68-6	
AK101 GCV									
Analytical Method: Alaska 101									
AK101 Gasoline Range Organics	3.0	mg/L	0.50	0.25	5		02/06/14 16:21		N2
Surrogates									
a,a,a-Trifluorotoluene (S)	121 %.		60-120		5		02/06/14 16:21	98-08-8	1M
8260 MSV UST									
Analytical Method: EPA 8260									
Benzene	0.00080J	mg/L	0.0010	0.00024	1		02/03/14 14:19	71-43-2	
Ethylbenzene	0.0012	mg/L	0.0010	0.00024	1		02/03/14 14:19	100-41-4	
Toluene	0.00036J	mg/L	0.0010	0.00023	1		02/03/14 14:19	108-88-3	
Xylene (Total)	0.0055	mg/L	0.0030	0.00072	1		02/03/14 14:19	1330-20-7	
Surrogates									
1,2-Dichloroethane-d4 (S)	100 %.		75-125		1		02/03/14 14:19	17060-07-0	
Toluene-d8 (S)	101 %.		75-125		1		02/03/14 14:19	2037-26-5	
4-Bromofluorobenzene (S)	94 %.		75-125		1		02/03/14 14:19	460-00-4	
2320B Alkalinity									
Analytical Method: SM 2320B									
Alkalinity, Total as CaCO3	250	mg/L	5.0	2.5	1		02/07/14 12:26		
Iron, Ferrous									
Analytical Method: SM 3500-Fe B#4									
Iron, Ferrous	40.6	mg/L	2.0	0.18	10		02/02/14 10:37		H6
SM4500NO3-H, NO2 + NO3 pres.									
Analytical Method: SM 4500-NO3 H									
Nitrate as N	<0.050	mg/L	0.10	0.050	1		02/03/14 12:14	14797-55-8	
Nitrogen, NO2 plus NO3	<0.050	mg/L	0.10	0.050	1		02/03/14 12:14		
ASTM D516 Sulfate Water									
Analytical Method: ASTM D516									
Sulfate	9.6	mg/L	2.5	1.2	1		02/07/14 13:54	14808-79-8	
SM4500NO2-B, Nitrite, unpres									
Analytical Method: SM 4500-NO2 B									
Nitrite as N	<0.050	mg/L	0.10	0.050	1		01/31/14 13:35	14797-65-0	H1

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ANALYTICAL RESULTS

Project: 065003 CHEVRON 211079-GWS REV1

Pace Project No.: 10256484

Sample: MW-9-012914 **Lab ID: 10256484005** Collected: 01/29/14 14:40 Received: 01/31/14 09:54 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 AIR Headspace									
Analytical Method: RSK 175									
Methane	0.079	mg/L	0.0066	0.0033	1		02/03/14 16:25	74-82-8	
DRO and RRO by AK102/103									
Analytical Method: Alaska 102/103 Preparation Method: EPA 3510									
DRO by AK 102	1.6	mg/L	0.40	0.20	1	02/04/14 09:24	02/06/14 16:26		N2
Surrogates									
o-Terphenyl (S)	88	%	50-150		1	02/04/14 09:24	02/06/14 16:26	84-15-1	
n-Triacontane (S)	98	%	50-150		1	02/04/14 09:24	02/06/14 16:26	638-68-6	
AK101 GCV									
Analytical Method: Alaska 101									
AK101 Gasoline Range Organics	5.0	mg/L	0.50	0.25	5		02/06/14 17:01		N2
Surrogates									
a,a,a-Trifluorotoluene (S)	114	%	60-120		5		02/06/14 17:01	98-08-8	
8260 MSV UST									
Analytical Method: EPA 8260									
Benzene	<0.0024	mg/L	0.010	0.0024	10		02/05/14 04:22	71-43-2	
Ethylbenzene	0.14	mg/L	0.010	0.0024	10		02/05/14 04:22	100-41-4	
Toluene	0.0047J	mg/L	0.010	0.0023	10		02/05/14 04:22	108-88-3	
Xylene (Total)	0.59	mg/L	0.030	0.0072	10		02/05/14 04:22	1330-20-7	
Surrogates									
1,2-Dichloroethane-d4 (S)	95	%	75-125		10		02/05/14 04:22	17060-07-0	D3
Toluene-d8 (S)	101	%	75-125		10		02/05/14 04:22	2037-26-5	
4-Bromofluorobenzene (S)	99	%	75-125		10		02/05/14 04:22	460-00-4	
2320B Alkalinity									
Analytical Method: SM 2320B									
Alkalinity, Total as CaCO3	256	mg/L	5.0	2.5	1		02/07/14 12:29		
Iron, Ferrous									
Analytical Method: SM 3500-Fe B#4									
Iron, Ferrous	34.0	mg/L	2.0	0.18	10		02/02/14 10:40		H6
SM4500NO3-H, NO2 + NO3 pres.									
Analytical Method: SM 4500-NO3 H									
Nitrate as N	<0.050	mg/L	0.10	0.050	1		02/03/14 12:15	14797-55-8	
Nitrogen, NO2 plus NO3	<0.050	mg/L	0.10	0.050	1		02/03/14 12:15		
ASTM D516 Sulfate Water									
Analytical Method: ASTM D516									
Sulfate	<1.2	mg/L	2.5	1.2	1		02/07/14 13:55	14808-79-8	
SM4500NO2-B, Nitrite, unpres									
Analytical Method: SM 4500-NO2 B									
Nitrite as N	<0.050	mg/L	0.10	0.050	1		01/31/14 13:35	14797-65-0	

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ANALYTICAL RESULTS

Project: 065003 CHEVRON 211079-GWS REV1

Pace Project No.: 10256484

Sample: MW-10-012914 **Lab ID: 10256484006** Collected: 01/29/14 14:10 Received: 01/31/14 09:54 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 AIR Headspace									
Analytical Method: RSK 175									
Methane	0.039	mg/L	0.0066	0.0033	1		02/03/14 16:36	74-82-8	
DRO and RRO by AK102/103									
Analytical Method: Alaska 102/103 Preparation Method: EPA 3510									
DRO by AK 102	0.47	mg/L	0.40	0.20	1	02/04/14 09:24	02/06/14 14:16		N2
Surrogates									
o-Terphenyl (S)	65	%	50-150		1	02/04/14 09:24	02/06/14 14:16	84-15-1	
n-Triacontane (S)	70	%	50-150		1	02/04/14 09:24	02/06/14 14:16	638-68-6	
AK101 GCV									
Analytical Method: Alaska 101									
AK101 Gasoline Range Organics	0.094J	mg/L	0.10	0.050	1		02/04/14 21:53		N2
Surrogates									
a,a,a-Trifluorotoluene (S)	95	%	60-120		1		02/04/14 21:53	98-08-8	
8260 MSV UST									
Analytical Method: EPA 8260									
Benzene	<0.00024	mg/L	0.0010	0.00024	1		02/05/14 03:51	71-43-2	
Ethylbenzene	0.0065	mg/L	0.0010	0.00024	1		02/05/14 03:51	100-41-4	
Toluene	<0.00023	mg/L	0.0010	0.00023	1		02/05/14 03:51	108-88-3	
Xylene (Total)	<0.00072	mg/L	0.0030	0.00072	1		02/05/14 03:51	1330-20-7	
Surrogates									
1,2-Dichloroethane-d4 (S)	94	%	75-125		1		02/05/14 03:51	17060-07-0	
Toluene-d8 (S)	101	%	75-125		1		02/05/14 03:51	2037-26-5	
4-Bromofluorobenzene (S)	99	%	75-125		1		02/05/14 03:51	460-00-4	
2320B Alkalinity									
Analytical Method: SM 2320B									
Alkalinity, Total as CaCO3	292	mg/L	5.0	2.5	1		02/07/14 12:33		
Iron, Ferrous									
Analytical Method: SM 3500-Fe B#4									
Iron, Ferrous	3.7	mg/L	0.20	0.018	1		02/02/14 10:47		H6
SM4500NO3-H, NO2 + NO3 pres.									
Analytical Method: SM 4500-NO3 H									
Nitrate as N	0.16	mg/L	0.10	0.050	1		02/03/14 12:16	14797-55-8	
Nitrogen, NO2 plus NO3	0.16	mg/L	0.10	0.050	1		02/03/14 12:16		M1
ASTM D516 Sulfate Water									
Analytical Method: ASTM D516									
Sulfate	53.5	mg/L	5.0	2.5	2		02/07/14 14:04	14808-79-8	
SM4500NO2-B, Nitrite, unpres									
Analytical Method: SM 4500-NO2 B									
Nitrite as N	<0.050	mg/L	0.10	0.050	1		01/31/14 13:37	14797-65-0	

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ANALYTICAL RESULTS

Project: 065003 CHEVRON 211079-GWS REV1

Pace Project No.: 10256484

Sample: DUP-1-012914 **Lab ID: 10256484007** Collected: 01/29/14 00:00 Received: 01/31/14 09:54 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
RSK 175 AIR Headspace									
Analytical Method: RSK 175									
Methane	0.024	mg/L	0.0066	0.0033	1		02/03/14 16:46	74-82-8	
DRO and RRO by AK102/103									
Analytical Method: Alaska 102/103 Preparation Method: EPA 3510									
DRO by AK 102	2.2	mg/L	0.40	0.20	1	02/04/14 09:24	02/06/14 15:00		N2
Surrogates									
o-Terphenyl (S)	50 %.		50-150		1	02/04/14 09:24	02/06/14 15:00	84-15-1	
n-Triacontane (S)	51 %.		50-150		1	02/04/14 09:24	02/06/14 15:00	638-68-6	
AK101 GCV									
Analytical Method: Alaska 101									
AK101 Gasoline Range Organics	3.0	mg/L	0.50	0.25	5		02/06/14 16:41		N2
Surrogates									
a,a,a-Trifluorotoluene (S)	123 %.		60-120		5		02/06/14 16:41	98-08-8	1M
8260 MSV UST									
Analytical Method: EPA 8260									
Benzene	< 0.0024	mg/L	0.010	0.0024	10		02/05/14 04:37	71-43-2	
Ethylbenzene	< 0.0024	mg/L	0.010	0.0024	10		02/05/14 04:37	100-41-4	
Toluene	< 0.0023	mg/L	0.010	0.0023	10		02/05/14 04:37	108-88-3	
Xylene (Total)	< 0.0072	mg/L	0.030	0.0072	10		02/05/14 04:37	1330-20-7	
Surrogates									
1,2-Dichloroethane-d4 (S)	94 %.		75-125		10		02/05/14 04:37	17060-07-0	D3
Toluene-d8 (S)	101 %.		75-125		10		02/05/14 04:37	2037-26-5	
4-Bromofluorobenzene (S)	98 %.		75-125		10		02/05/14 04:37	460-00-4	
2320B Alkalinity									
Analytical Method: SM 2320B									
Alkalinity, Total as CaCO3	243	mg/L	5.0	2.5	1		02/07/14 12:37		
Iron, Ferrous									
Analytical Method: SM 3500-Fe B#4									
Iron, Ferrous	53.0	mg/L	4.0	0.37	20		02/02/14 10:34		H6
SM4500NO3-H, NO2 + NO3 pres.									
Analytical Method: SM 4500-NO3 H									
Nitrate as N	0.052J	mg/L	0.10	0.050	1		02/03/14 12:20	14797-55-8	
Nitrogen, NO2 plus NO3	0.052J	mg/L	0.10	0.050	1		02/03/14 12:20		
ASTM D516 Sulfate Water									
Analytical Method: ASTM D516									
Sulfate	8.9	mg/L	2.5	1.2	1		02/07/14 13:56	14808-79-8	
SM4500NO2-B, Nitrite, unpres									
Analytical Method: SM 4500-NO2 B									
Nitrite as N	< 0.050	mg/L	0.10	0.050	1		01/31/14 13:37	14797-65-0	H3

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ANALYTICAL RESULTS

Project: 065003 CHEVRON 211079-GWS REV1

Pace Project No.: 10256484

Sample: TRIP BLANK-1-012914 **Lab ID: 10256484008** Collected: 01/29/14 00:00 Received: 01/31/14 09:54 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
AK101 GCV Analytical Method: Alaska 101									
AK101 Gasoline Range Organics	<0.050	mg/L	0.10	0.050	1		02/06/14 15:21		N2
Surrogates									
a,a,a-Trifluorotoluene (S)	93 %.		60-120		1		02/06/14 15:21	98-08-8	
8260 MSV UST Analytical Method: EPA 8260									
Benzene	<0.00024	mg/L	0.0010	0.00024	1		02/03/14 10:38	71-43-2	
Ethylbenzene	<0.00024	mg/L	0.0010	0.00024	1		02/03/14 10:38	100-41-4	
Toluene	<0.00023	mg/L	0.0010	0.00023	1		02/03/14 10:38	108-88-3	
Xylene (Total)	<0.00072	mg/L	0.0030	0.00072	1		02/03/14 10:38	1330-20-7	
Surrogates									
1,2-Dichloroethane-d4 (S)	97 %.		75-125		1		02/03/14 10:38	17060-07-0	
Toluene-d8 (S)	101 %.		75-125		1		02/03/14 10:38	2037-26-5	
4-Bromofluorobenzene (S)	103 %.		75-125		1		02/03/14 10:38	460-00-4	

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QUALITY CONTROL DATA

Project: 065003 CHEVRON 211079-GWS REV1

Pace Project No.: 10256484

QC Batch: AIR/19339 Analysis Method: RSK 175
 QC Batch Method: RSK 175 Analysis Description: RSK 175 AIR HEADSPACE
 Associated Lab Samples: 10256484001, 10256484002, 10256484003, 10256484004, 10256484005, 10256484006, 10256484007

METHOD BLANK: 1618730 Matrix: Water
 Associated Lab Samples: 10256484001, 10256484002, 10256484003, 10256484004, 10256484005, 10256484006, 10256484007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Methane	mg/L	<0.0033	0.0066	02/03/14 09:41	

LABORATORY CONTROL SAMPLE & LCSD: 1618731 1618732

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Methane	mg/L	.061	0.057	0.056	94	92	85-115	2	20	

SAMPLE DUPLICATE: 1618733

Parameter	Units	5092816001 Result	Dup Result	RPD	Max RPD	Qualifiers
Methane	mg/L	ND	<0.0033		20	

SAMPLE DUPLICATE: 1618734

Parameter	Units	10256484001 Result	Dup Result	RPD	Max RPD	Qualifiers
Methane	mg/L	0.0042J	0.0038J		20	

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QUALITY CONTROL DATA

Project: 065003 CHEVRON 211079-GWS REV1

Pace Project No.: 10256484

QC Batch: GCV/11650

Analysis Method: Alaska 101

QC Batch Method: Alaska 101

Analysis Description: AK101W GCV Water

Associated Lab Samples: 10256484001, 10256484002, 10256484003, 10256484004, 10256484005, 10256484007, 10256484008

METHOD BLANK: 1618831

Matrix: Water

Associated Lab Samples: 10256484001, 10256484002, 10256484003, 10256484004, 10256484005, 10256484007, 10256484008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
AK101 Gasoline Range Organics	mg/L	<0.050	0.10	02/06/14 15:01	N2
a,a,a-Trifluorotoluene (S)	%.	93	60-120	02/06/14 15:01	

LABORATORY CONTROL SAMPLE & LCSD: 1618832

1618833

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
AK101 Gasoline Range Organics	mg/L	1	1.1	1.1	109	108	60-120	.9	20	N2
a,a,a-Trifluorotoluene (S)	%.				108	108	60-120			

MATRIX SPIKE SAMPLE: 1622036

Parameter	Units	10256484001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
AK101 Gasoline Range Organics	mg/L	<0.050	1	1.3	131	70-130	M1,N2
a,a,a-Trifluorotoluene (S)	%.				120	60-120	

SAMPLE DUPLICATE: 1622037

Parameter	Units	10256484005 Result	Dup Result	RPD	Max RPD	Qualifiers
AK101 Gasoline Range Organics	mg/L	5.0	4.9	3	30	N2
a,a,a-Trifluorotoluene (S)	%.	114	112	1		

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QUALITY CONTROL DATA

Project: 065003 CHEVRON 211079-GWS REV1

Pace Project No.: 10256484

QC Batch:	GCV/11676	Analysis Method:	Alaska 101
QC Batch Method:	Alaska 101	Analysis Description:	AK101W GCV Water
Associated Lab Samples:	10256484006		

METHOD BLANK: 1623463 Matrix: Water

Associated Lab Samples: 10256484006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
AK101 Gasoline Range Organics	mg/L	<0.050	0.10	02/04/14 20:53	N2
a,a,a-Trifluorotoluene (S)	%.	92	60-120	02/04/14 20:53	

LABORATORY CONTROL SAMPLE & LCSD: 1623464

1623465

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
AK101 Gasoline Range Organics	mg/L	1	0.90	0.76	90	76	60-120	17	20	N2
a,a,a-Trifluorotoluene (S)	%.				108	98	60-120			

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QUALITY CONTROL DATA

Project: 065003 CHEVRON 211079-GWS REV1

Pace Project No.: 10256484

QC Batch: MSV/26264 Analysis Method: EPA 8260
 QC Batch Method: EPA 8260 Analysis Description: 8260 MSV UST-WATER
 Associated Lab Samples: 10256484001, 10256484002, 10256484003, 10256484004, 10256484008

METHOD BLANK: 1618460 Matrix: Water
 Associated Lab Samples: 10256484001, 10256484002, 10256484003, 10256484004, 10256484008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	mg/L	<0.00024	0.0010	02/03/14 10:13	
Ethylbenzene	mg/L	<0.00024	0.0010	02/03/14 10:13	
Toluene	mg/L	<0.00023	0.0010	02/03/14 10:13	
Xylene (Total)	mg/L	<0.00072	0.0030	02/03/14 10:13	
1,2-Dichloroethane-d4 (S)	%	96	75-125	02/03/14 10:13	
4-Bromofluorobenzene (S)	%	102	75-125	02/03/14 10:13	
Toluene-d8 (S)	%	102	75-125	02/03/14 10:13	

LABORATORY CONTROL SAMPLE: 1618461

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	mg/L	.02	0.016	79	75-125	
Ethylbenzene	mg/L	.02	0.017	85	75-125	
Toluene	mg/L	.02	0.017	86	75-125	
Xylene (Total)	mg/L	.06	0.052	86	75-125	
1,2-Dichloroethane-d4 (S)	%			97	75-125	
4-Bromofluorobenzene (S)	%			102	75-125	
Toluene-d8 (S)	%			102	75-125	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1618627 1618628

Parameter	Units	10256615005		1618627		1618628		% Rec	% Rec	% Rec Limits	Max RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec						
Benzene	mg/L	ND	.1	.1	0.082	0.094	82	94	75-129	14	30		
Ethylbenzene	mg/L	ND	.1	.1	0.081	0.094	81	94	75-128	15	30		
Toluene	mg/L	ND	.1	.1	0.085	0.097	85	97	75-129	14	30		
Xylene (Total)	mg/L	ND	.3	.3	0.25	0.29	84	96	75-129	14	30		
1,2-Dichloroethane-d4 (S)	%						101	100	75-125				
4-Bromofluorobenzene (S)	%						101	99	75-125				
Toluene-d8 (S)	%						102	101	75-125				

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 065003 CHEVRON 211079-GWS REV1

Pace Project No.: 10256484

QC Batch: MSV/26278 Analysis Method: EPA 8260
 QC Batch Method: EPA 8260 Analysis Description: 8260 MSV UST-WATER
 Associated Lab Samples: 10256484005, 10256484006, 10256484007

METHOD BLANK: 1618954 Matrix: Water

Associated Lab Samples: 10256484005, 10256484006, 10256484007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	mg/L	<0.00024	0.0010	02/05/14 02:50	
Ethylbenzene	mg/L	<0.00024	0.0010	02/05/14 02:50	
Toluene	mg/L	<0.00023	0.0010	02/05/14 02:50	
Xylene (Total)	mg/L	<0.00072	0.0030	02/05/14 02:50	
1,2-Dichloroethane-d4 (S)	%	95	75-125	02/05/14 02:50	
4-Bromofluorobenzene (S)	%	99	75-125	02/05/14 02:50	
Toluene-d8 (S)	%	101	75-125	02/05/14 02:50	

LABORATORY CONTROL SAMPLE: 1618955

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	mg/L	.02	0.015	77	75-125	
Ethylbenzene	mg/L	.02	0.016	82	75-125	
Toluene	mg/L	.02	0.017	83	75-125	
Xylene (Total)	mg/L	.06	0.051	85	75-125	
1,2-Dichloroethane-d4 (S)	%			95	75-125	
4-Bromofluorobenzene (S)	%			100	75-125	
Toluene-d8 (S)	%			101	75-125	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1618956 1618957

Parameter	Units	10256455006		1618956		1618957		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result							
Benzene	mg/L	0.11	.2	.2	0.27	0.27	79	78	75-129	.7	30		
Ethylbenzene	mg/L	0.20	.2	.2	0.37	0.36	85	82	75-128	2	30		
Toluene	mg/L	0.78	.2	.2	1.0	1.0	122	120	75-129	.4	30		
Xylene (Total)	mg/L	4.0	.6	.6	4.8	4.7	129	128	75-129	.1	30	MS	
1,2-Dichloroethane-d4 (S)	%						96	95	75-125			D3	
4-Bromofluorobenzene (S)	%						98	99	75-125				
Toluene-d8 (S)	%						101	102	75-125				

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 065003 CHEVRON 211079-GWS REV1

Pace Project No.: 10256484

QC Batch: WET/34260 Analysis Method: SM 2320B
 QC Batch Method: SM 2320B Analysis Description: 2320B Alkalinity
 Associated Lab Samples: 10256484001, 10256484002, 10256484003, 10256484004, 10256484005, 10256484006, 10256484007

METHOD BLANK: 1620235 Matrix: Water
 Associated Lab Samples: 10256484001, 10256484002, 10256484003, 10256484004, 10256484005, 10256484006, 10256484007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	<2.5	5.0	02/07/14 11:13	

LABORATORY CONTROL SAMPLE & LCSD: 1620236 1620237

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	40	41.6	41.2	104	103	90-110	.9	30	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1620238 1620239

Parameter	Units	10256253007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Alkalinity, Total as CaCO3	mg/L	224	40	40	268	264	109	99	80-120	1	30	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1620240 1620241

Parameter	Units	10256671001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Alkalinity, Total as CaCO3	mg/L	16.5	40	40	56.8	57.2	101	102	80-120	.6	30	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 065003 CHEVRON 211079-GWS REV1

Pace Project No.: 10256484

QC Batch: WET/45926 Analysis Method: SM 3500-Fe B#4
 QC Batch Method: SM 3500-Fe B#4 Analysis Description: Iron, Ferrous
 Associated Lab Samples: 10256484001, 10256484002, 10256484003, 10256484004, 10256484005, 10256484006, 10256484007

METHOD BLANK: 1325780 Matrix: Water

Associated Lab Samples:

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Iron, Ferrous	mg/L	<0.018	0.20	02/02/14 10:33	H6

LABORATORY CONTROL SAMPLE: 1325781

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	2	1.9	97	90-110	H6

MATRIX SPIKE SAMPLE: 1325782

Parameter	Units	10256484007 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Iron, Ferrous	mg/L	53.0	40	92.0	98	50-150	H6

SAMPLE DUPLICATE: 1325783

Parameter	Units	10256484002 Result	Dup Result	RPD	Max RPD	Qualifiers
Iron, Ferrous	mg/L	0.086J	0.086J		10	H6

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QUALITY CONTROL DATA

Project: 065003 CHEVRON 211079-GWS REV1

Pace Project No.: 10256484

QC Batch: WETA/17262

Analysis Method: SM 4500-NO3 H

QC Batch Method: SM 4500-NO3 H

Analysis Description: SM4500NO3-H, NO2 + NO3 pres.

Associated Lab Samples: 10256484001, 10256484002, 10256484003, 10256484004, 10256484005, 10256484006, 10256484007

METHOD BLANK: 1618477

Matrix: Water

Associated Lab Samples: 10256484001, 10256484002, 10256484003, 10256484004, 10256484005, 10256484006, 10256484007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, NO2 plus NO3	mg/L	<0.050	0.10	02/03/14 11:52	

LABORATORY CONTROL SAMPLE: 1618478

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, NO2 plus NO3	mg/L	2.5	2.7	109	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1618479 1618480

Parameter	Units	10256331002		MS		MSD		MS		MSD		% Rec		Max	
		Result	Conc.	Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual		
Nitrogen, NO2 plus NO3	mg/L	0.73	2.5	2.5	1.1	1.2	13	20	80-120	14	30	M1			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1618481 1618482

Parameter	Units	10256484006		MS		MSD		MS		MSD		% Rec		Max	
		Result	Conc.	Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual		
Nitrogen, NO2 plus NO3	mg/L	0.16	2.5	2.5	1.1	1.2	36	40	80-120	9	30	M1			

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QUALITY CONTROL DATA

Project: 065003 CHEVRON 211079-GWS REV1

Pace Project No.: 10256484

QC Batch: WETA/17252 Analysis Method: SM 4500-NO2 B
 QC Batch Method: SM 4500-NO2 B Analysis Description: SM4500NO2-B, Nitrite, unpres
 Associated Lab Samples: 10256484001, 10256484002, 10256484003, 10256484004, 10256484005, 10256484006, 10256484007

METHOD BLANK: 1618025 Matrix: Water
 Associated Lab Samples: 10256484001, 10256484002, 10256484003, 10256484004, 10256484005, 10256484006, 10256484007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrite as N	mg/L	<0.050	0.10	01/31/14 13:35	

LABORATORY CONTROL SAMPLE: 1618026

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrite as N	mg/L	.3	0.30	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1618027 1618028

Parameter	Units	10256439001		MS		MSD		MS		MSD		% Rec Limits	RPD	Max RPD	Qual
		Result	Conc.	Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec						
Nitrite as N	mg/L	ND	.3	.3	.3	0.21	0.21	69	69	80-120	0	30	M1		

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: 065003 CHEVRON 211079-GWS REV1

Pace Project No.: 10256484

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-K Pace Analytical Services - Kansas City

PASI-M Pace Analytical Services - Minneapolis

BATCH QUALIFIERS

Batch: GCSV/12797

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

Batch: GCV/11676

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

ANALYTE QUALIFIERS

1M Surrogate recovery outside laboratory control limits due to matrix interferences.

D3 Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

H1 Analysis conducted outside the recognized method holding time.

H3 Sample was received or analysis requested beyond the recognized method holding time.

H6 Analysis initiated outside of the 15 minute EPA recommended holding time.

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

MS Analyte recovery in the matrix spike was outside QC limits for one or more of the constituent analytes used in the calculated result.

N2 The lab does not hold TNI accreditation for this parameter.

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METHOD CROSS REFERENCE TABLE

Project: 065003 CHEVRON 211079-GWS REV1

Pace Project No.: 10256484

Parameter	Matrix	Analytical Method	Preparation Method
8260 MSV UST	Water	SW-846 8260B/5030B	N/A

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 065003 CHEVRON 211079-GWS REV1
Pace Project No.: 10256484

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10256484001	MW-1-012914	RSK 175	AIR/19339		
10256484002	MW-2-012914	RSK 175	AIR/19339		
10256484003	MW-4-012914	RSK 175	AIR/19339		
10256484004	MW-5-012914	RSK 175	AIR/19339		
10256484005	MW-9-012914	RSK 175	AIR/19339		
10256484006	MW-10-012914	RSK 175	AIR/19339		
10256484007	DUP-1-012914	RSK 175	AIR/19339		
10256484001	MW-1-012914	EPA 3510	OEXT/24291	Alaska 102/103	GCSV/12797
10256484002	MW-2-012914	EPA 3510	OEXT/24291	Alaska 102/103	GCSV/12797
10256484003	MW-4-012914	EPA 3510	OEXT/24291	Alaska 102/103	GCSV/12797
10256484004	MW-5-012914	EPA 3510	OEXT/24291	Alaska 102/103	GCSV/12797
10256484005	MW-9-012914	EPA 3510	OEXT/24291	Alaska 102/103	GCSV/12797
10256484006	MW-10-012914	EPA 3510	OEXT/24291	Alaska 102/103	GCSV/12797
10256484007	DUP-1-012914	EPA 3510	OEXT/24291	Alaska 102/103	GCSV/12797
10256484001	MW-1-012914	Alaska 101	GCV/11650		
10256484002	MW-2-012914	Alaska 101	GCV/11650		
10256484003	MW-4-012914	Alaska 101	GCV/11650		
10256484004	MW-5-012914	Alaska 101	GCV/11650		
10256484005	MW-9-012914	Alaska 101	GCV/11650		
10256484006	MW-10-012914	Alaska 101	GCV/11676		
10256484007	DUP-1-012914	Alaska 101	GCV/11650		
10256484008	TRIP BLANK-1-012914	Alaska 101	GCV/11650		
10256484001	MW-1-012914	EPA 8260	MSV/26264		
10256484002	MW-2-012914	EPA 8260	MSV/26264		
10256484003	MW-4-012914	EPA 8260	MSV/26264		
10256484004	MW-5-012914	EPA 8260	MSV/26264		
10256484005	MW-9-012914	EPA 8260	MSV/26278		
10256484006	MW-10-012914	EPA 8260	MSV/26278		
10256484007	DUP-1-012914	EPA 8260	MSV/26278		
10256484008	TRIP BLANK-1-012914	EPA 8260	MSV/26264		
10256484001	MW-1-012914	SM 2320B	WET/34260		
10256484002	MW-2-012914	SM 2320B	WET/34260		
10256484003	MW-4-012914	SM 2320B	WET/34260		
10256484004	MW-5-012914	SM 2320B	WET/34260		
10256484005	MW-9-012914	SM 2320B	WET/34260		
10256484006	MW-10-012914	SM 2320B	WET/34260		
10256484007	DUP-1-012914	SM 2320B	WET/34260		
10256484001	MW-1-012914	SM 3500-Fe B#4	WET/45926		
10256484002	MW-2-012914	SM 3500-Fe B#4	WET/45926		
10256484003	MW-4-012914	SM 3500-Fe B#4	WET/45926		
10256484004	MW-5-012914	SM 3500-Fe B#4	WET/45926		
10256484005	MW-9-012914	SM 3500-Fe B#4	WET/45926		
10256484006	MW-10-012914	SM 3500-Fe B#4	WET/45926		
10256484007	DUP-1-012914	SM 3500-Fe B#4	WET/45926		

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 065003 CHEVRON 211079-GWS REV1

Pace Project No.: 10256484

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10256484001	MW-1-012914	SM 4500-NO3 H	WETA/17262		
10256484002	MW-2-012914	SM 4500-NO3 H	WETA/17262		
10256484003	MW-4-012914	SM 4500-NO3 H	WETA/17262		
10256484004	MW-5-012914	SM 4500-NO3 H	WETA/17262		
10256484005	MW-9-012914	SM 4500-NO3 H	WETA/17262		
10256484006	MW-10-012914	SM 4500-NO3 H	WETA/17262		
10256484007	DUP-1-012914	SM 4500-NO3 H	WETA/17262		
10256484001	MW-1-012914	ASTM D516	WETA/17290		
10256484002	MW-2-012914	ASTM D516	WETA/17290		
10256484003	MW-4-012914	ASTM D516	WETA/17290		
10256484004	MW-5-012914	ASTM D516	WETA/17290		
10256484005	MW-9-012914	ASTM D516	WETA/17290		
10256484006	MW-10-012914	ASTM D516	WETA/17290		
10256484007	DUP-1-012914	ASTM D516	WETA/17290		
10256484001	MW-1-012914	SM 4500-NO2 B	WETA/17252		
10256484002	MW-2-012914	SM 4500-NO2 B	WETA/17252		
10256484003	MW-4-012914	SM 4500-NO2 B	WETA/17252		
10256484004	MW-5-012914	SM 4500-NO2 B	WETA/17252		
10256484005	MW-9-012914	SM 4500-NO2 B	WETA/17252		
10256484006	MW-10-012914	SM 4500-NO2 B	WETA/17252		
10256484007	DUP-1-012914	SM 4500-NO2 B	WETA/17252		

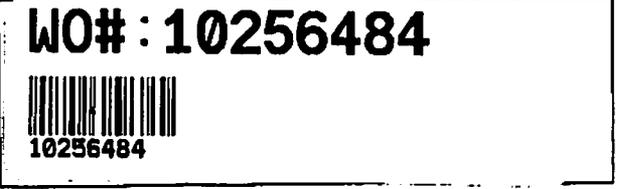
REPORT OF LABORATORY ANALYSIS

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Sample Condition Upon Receipt **Client Name:** CRA **Project #:** WO# : 10256484

Courier: Fed Ex UPS USPS Client
 Commercial Pace Other:

Tracking Number: 6753 4198 1010, 1009



Custody Seal on Cooler/Box Present? Yes No **Seals Intact?** Yes No **Optional:** Proj. Due Date: Proj. Name:

Packing Material: Bubble Wrap Bubble Bags None Other: **Temp Blank?** Yes No

Thermom. Used: 80512447 72337080 888A912167504 888A9132521491 **Type of Ice:** Wet Blue None Samples on ice, cooling process has begun

Cooler Temp Read (°C): 3.4 **Cooler Temp Corrected (°C):** 3.4 **Biological Tissue Frozen?** Yes No N/A
Temp should be above freezing to 6°C **Correction Factor:** TRUE **Date and Initials of Person Examining Contents:** CMB 12/11/14

Comments:

Chain of Custody Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name and/or Signature on COC?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Short Hold Time Analysis (<72 hr)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6. Methane by RSK, Nitrate.
Rush Turn Around Time Requested?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Filtered Volume Received for Dissolved Tests?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels Match COC?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes Date/Time/ID/Analysis Matrix: <u>WT</u>		
All containers needing acid/base preservation have been checked? Noncompliances are noted in 13.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13. <input type="checkbox"/> HNO ₃ <input type="checkbox"/> H ₂ SO ₄ <input type="checkbox"/> NaOH <input checked="" type="checkbox"/> HCl
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO ₃ , H ₂ SO ₄ , HCl<2; NaOH>12)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Sample #
Exceptions: VOA, Tolliform, TOC, Oil and Grease, WI-DRO (water) DOC	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Initial when completed: <u>JT</u> Lot # of added preservative:
Headspace in VOA Vials (>6mm)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	14.
Trip Blank Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	15.
Trip Blank Custody Seals Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased): <u>1014 011014-1</u>		

CLIENT NOTIFICATION/RESOLUTION **Field Data Required?** Yes No

Person Contacted: _____ **Date/Time:** _____

Comments/Resolution: _____

Project Manager Review: [Signature] **Date:** 01/31/14

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)



Sample Condition Upon Receipt

WO#: 60162319



60162319

Client Name: PAGE WIN

Courier: Fed Ex UPS USPS Client Commercial Pace Other

Tracking #: _____ Pace Shipping Label Used? Yes No

Custody Seal on Cooler/Box Present: Yes No Seals intact: Yes No

Packing Material: Bubble Wrap Bubble Bags Foam None Other

Thermometer Used: T-239 / T-194 Type of Ice: Wet Blue None Samples received on ice, cooling process has begun. (circle one)

Cooler Temperature: 4.2

Date and initials of person examining contents: pmw/1/14

Temperature should be above freezing to 6°C

Chain of Custody present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody filled out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler name & signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples arrived within holding time: <u>out 2/1/14</u>	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	5.
Short Hold Time analyses (<72hr):	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6. <u>Fert</u>
Rush Turn Around Time requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct containers used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
Pace containers used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
Containers intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Unpreserved 5035A soils frozen w/in 48hrs?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Filtered volume received for dissolved tests?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	12.
Sample labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Includes date/time/ID/analyses Matrix: <u>WT</u>		13.
All containers needing preservation have been checked.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
All containers needing preservation are found to be in compliance with EPA recommendation.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Exceptions: VOA, coliform, TOC, O&G, WI-DRO (water), Phenolics	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Initial when completed
Trip Blank present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Lot # of added preservative
Pace Trip Blank lot # (if purchased):		15.
Headspace in VOA vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	16.
Project sampled in USDA Regulated Area:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	17. List State:

Client Notification/ Resolution: Copy COC to Client? Y N Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: AAF

Date: 2/3/15 2/3/14 AAF
2/3/14

Chain of Custody



Workorder: 10256484 Workorder Name: 065003 CHEVRON 211079-GWS Owner Received Date: 1/31/2014 Results Requested By: 2/14/2014

Report To
 Jennifer Gross
 Pace Analytical Services, Inc.
 1700 Elm Street, Suite 200
 Minneapolis, MN 55414
 Phone (612)607-1700
 Fax (612)607-6444

Subcontract To
 Pace Analytical Kansas
 9608 Lolret Blvd
 Lenexa, KS 66219
 Phone (913)599-5665

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers		Requested Analysis
						Q	H	
1	MW-1-012914	PS	1/29/2014 15:20	10256484001	Water	1		
2	MW-2-012915	PS	1/29/2014 11:30	10256484002	Water	1		
3	MW-4-012916	PS	1/29/2014 13:20	10256484003	Water	1		
4	MW-5-012917	PS	1/29/2014 12:40	10256484004	Water	1		
5	MW-9-012918	PS	1/29/2014 14:40	10256484005	Water	1		
6	MW-10-012919	PS	1/29/2014 14:10	10256484006	Water	1		
7	DUP-1-012920	PS	1/29/2014 00:00	10256484007	Water	1		

60162319

LAB USE ONLY

10THL off
 ORC
 SP2
 SP

Ferrous Ion

Transfers	Released By	Date/Time	Received By	Date/Time	Received on Ice	Y or N	Samples Intact	Y or N
1	Carly Spauld	1-31-14 1400	MW PASE	2/11/14 0900				
2								
3								

Cooler Temperature on Receipt 4.2 °C Custody Seal or N Received on Ice or N Samples Intact or N

Comments

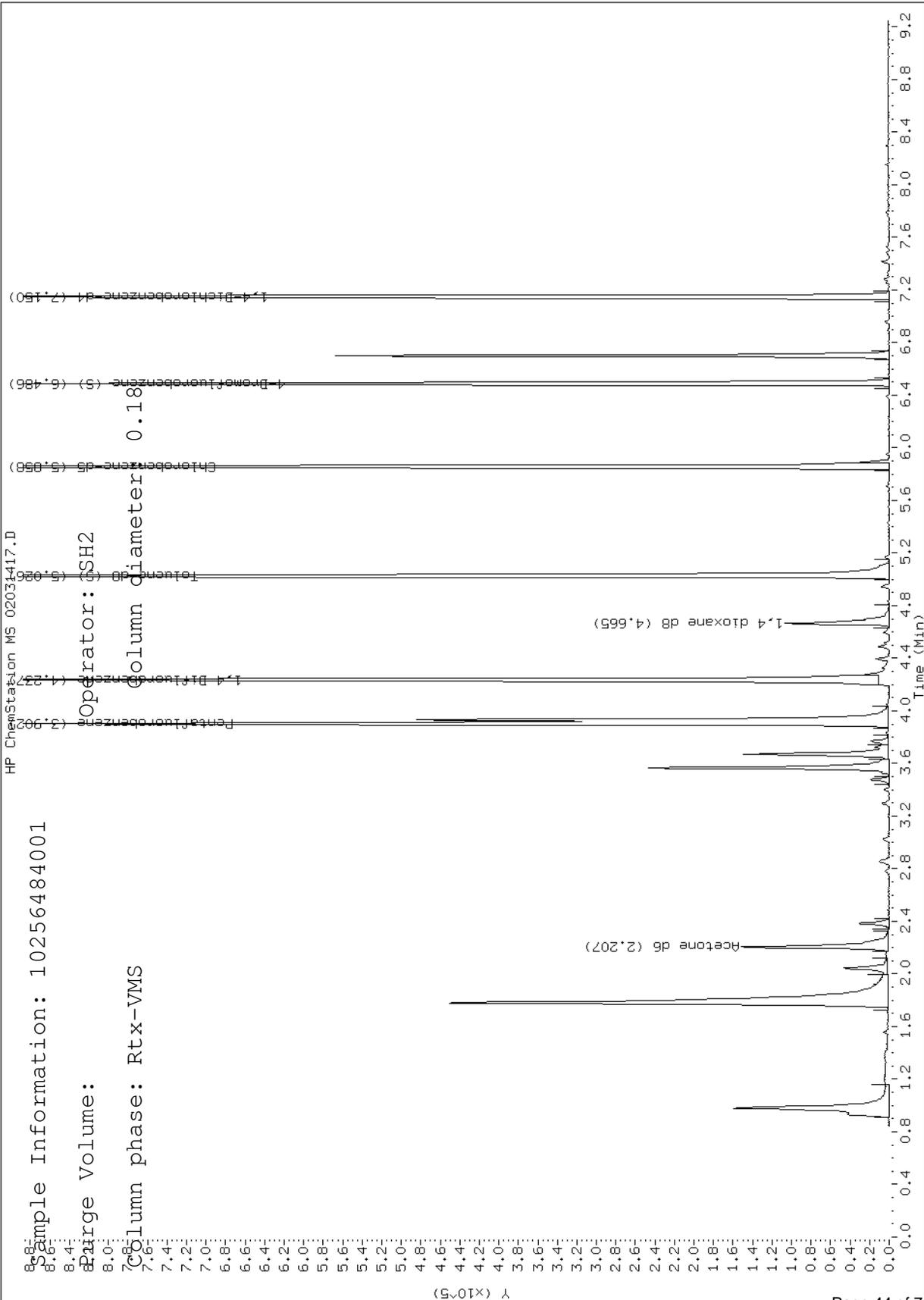
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Report Date: 02/04/2014

Sample ID: 10256484001

Client ID:

Instrument: 10msv1.i



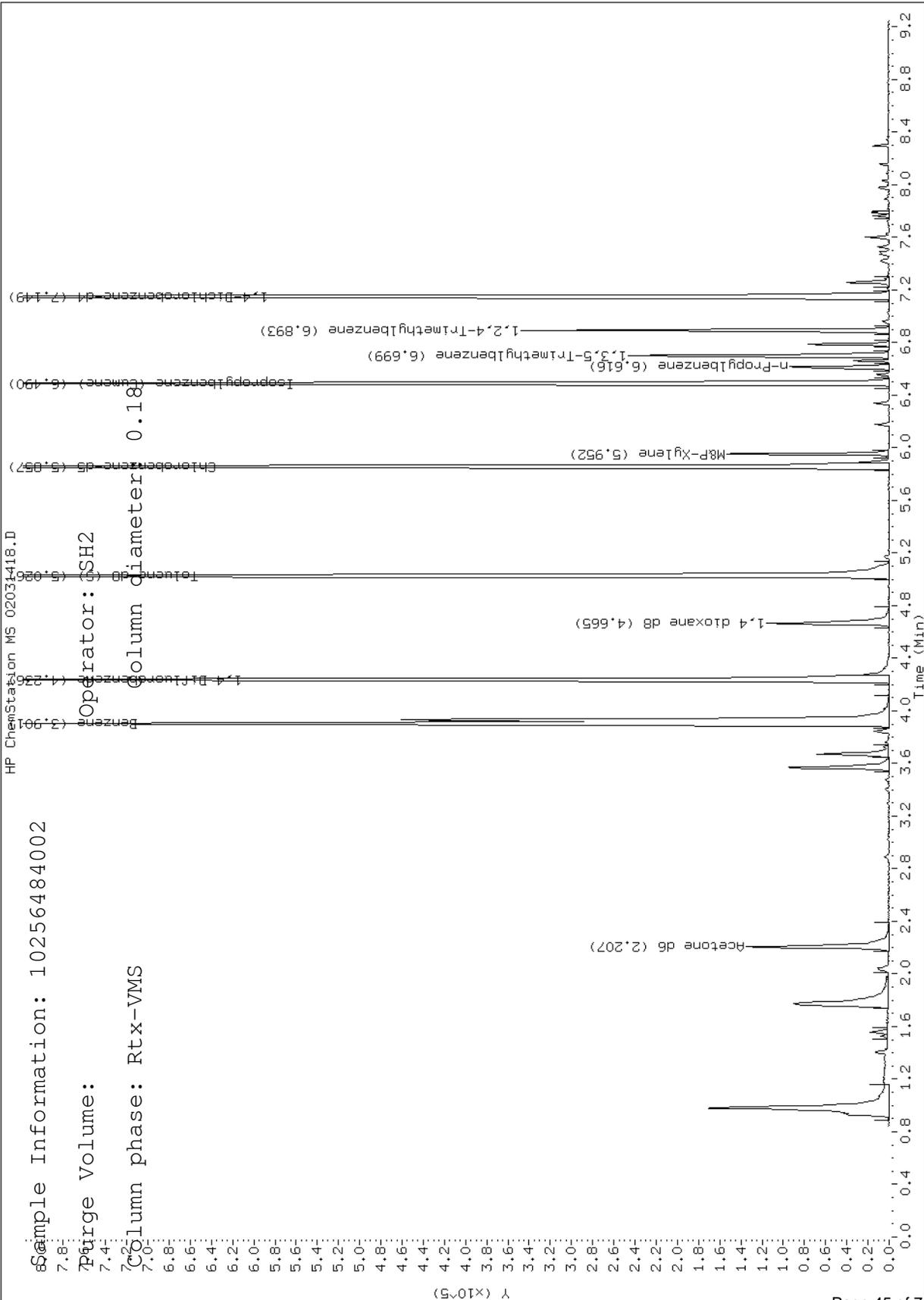
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Report Date: 02/04/2014

Sample ID: 10256484002

Client ID:

Instrument: 10msv1.i



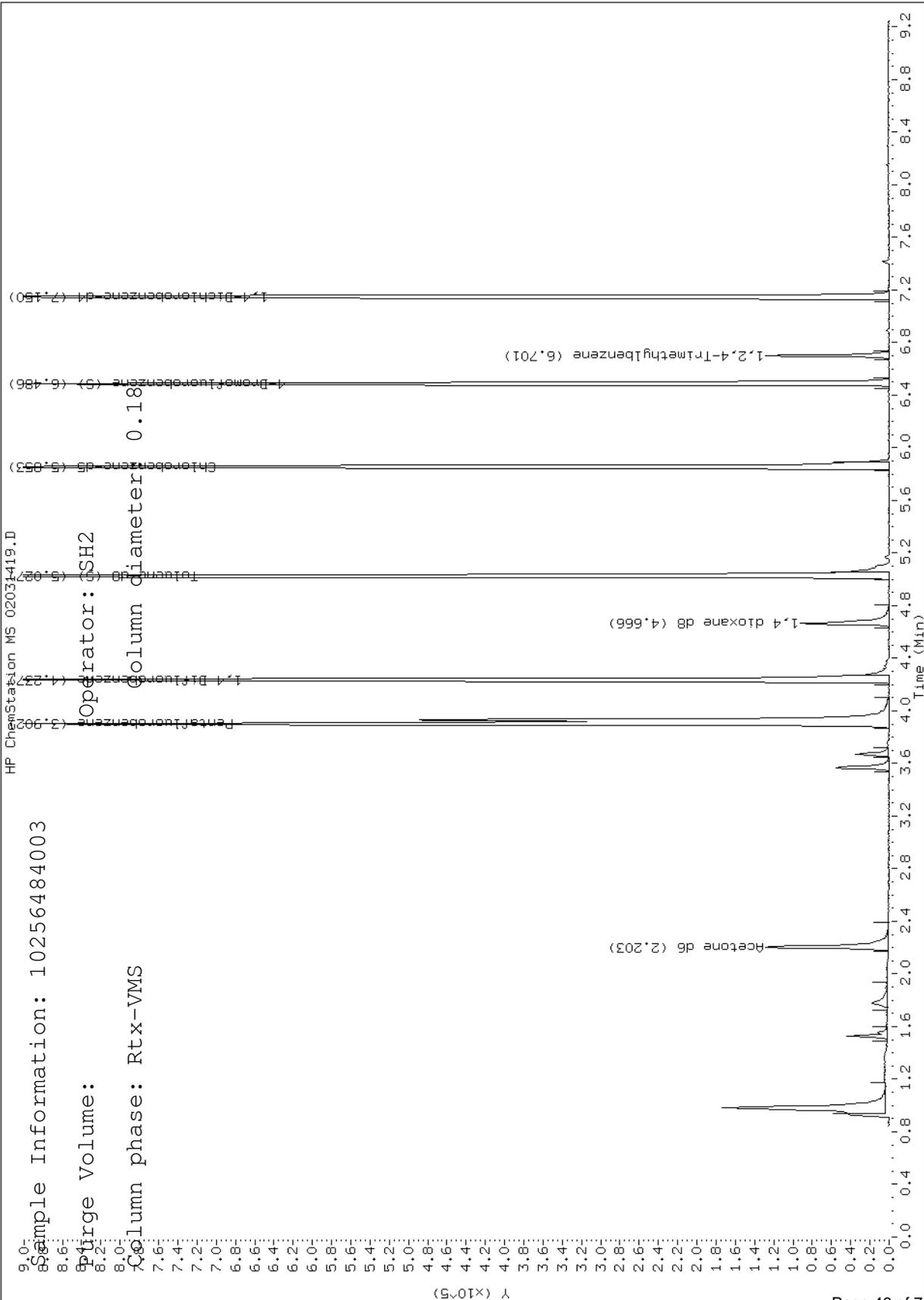
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Report Date: 02/04/2014

Sample ID: 10256484003

Client ID:

Instrument: 10msv1.i



Data File: \\192.168.10.12\chem\10msv1.i\020314A.B\02031420.D

Report Date: 02/04/2014

Sample ID: 10256484004

Client ID:

Instrument: 10msv1.i

HP ChemStation MS 02031420.D

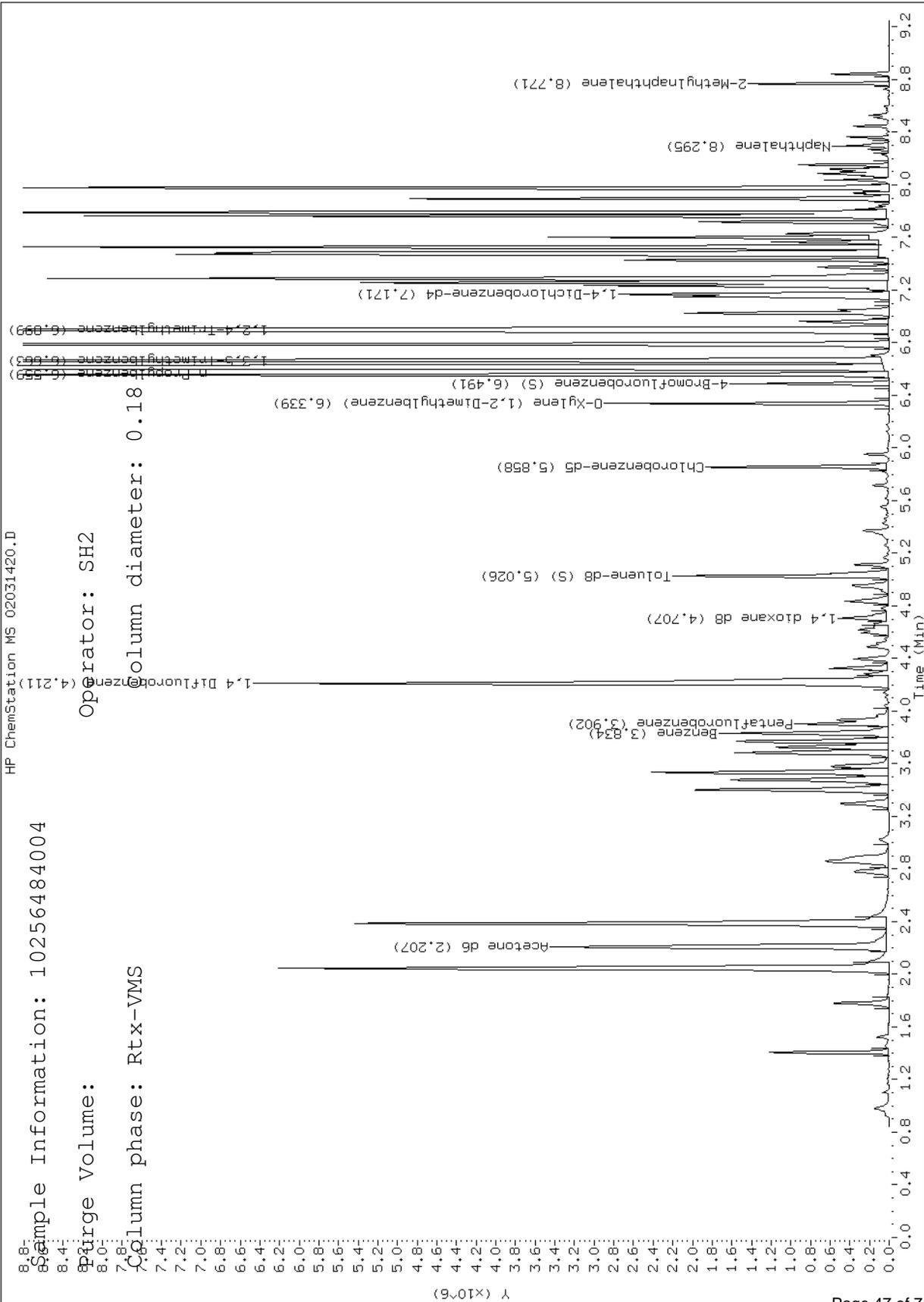
Sample Information: 10256484004

Purge Volume:

Operator: SH2

Column phase: Rtx-VMS

Column diameter: 0.18



Data File: \\192.168.10.12\chem\10msv1.i\020314b.b\02031465.D

Report Date: 02/04/2014

Sample ID: 10256484004

Client ID:

Instrument: 10msv1.i

HP ChemStation MS 02031465.D

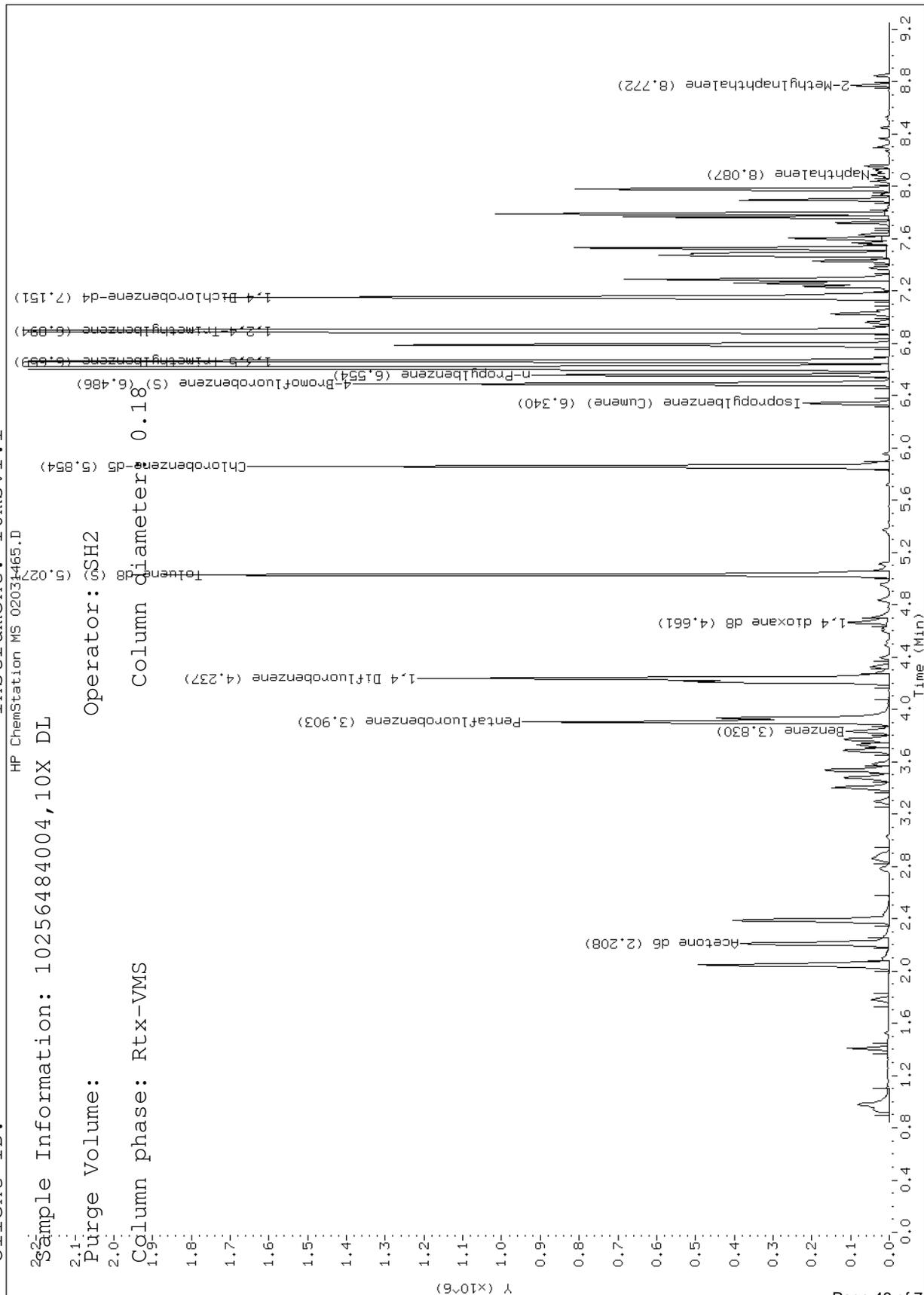
Sample Information: 10256484004, 10X DL

Purge Volume: 2.1

Operator: GSH2

Column phase: Rtx-VMS

Column diameter: 0.18



Data File: \\192.168.10.12\chem\10msv1.i\020414c.b\02041476.D

Report Date: 02/05/2014

Sample ID: 10256484005

Client ID:

Instrument: 10msv1.i

HP ChemStation MS 02041476.D

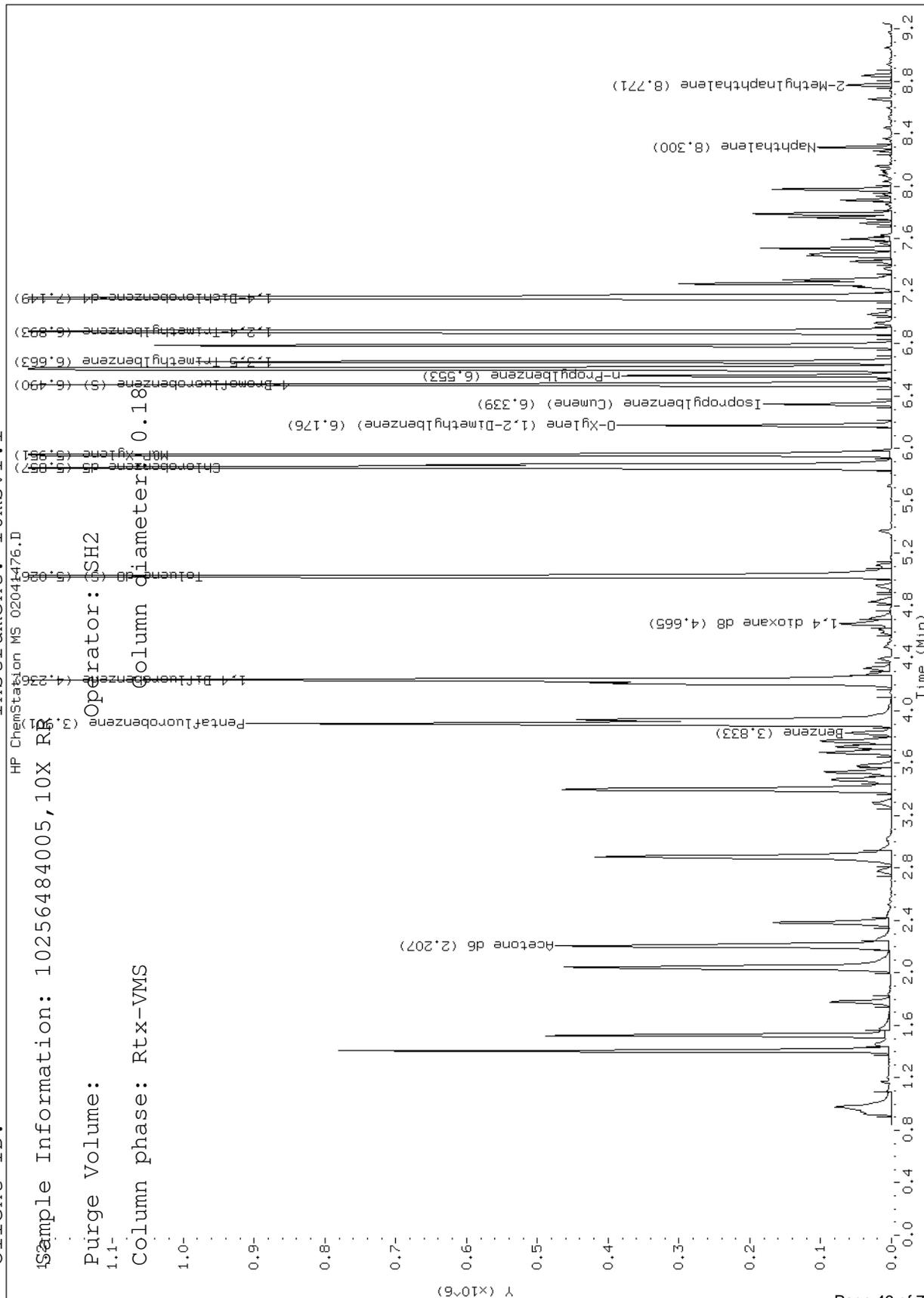
Sample Information: 10256484005, 10X RB

Purge Volume:

Operator: SH2

Column phase: Rtx-VMS

Column diameter: 0.18



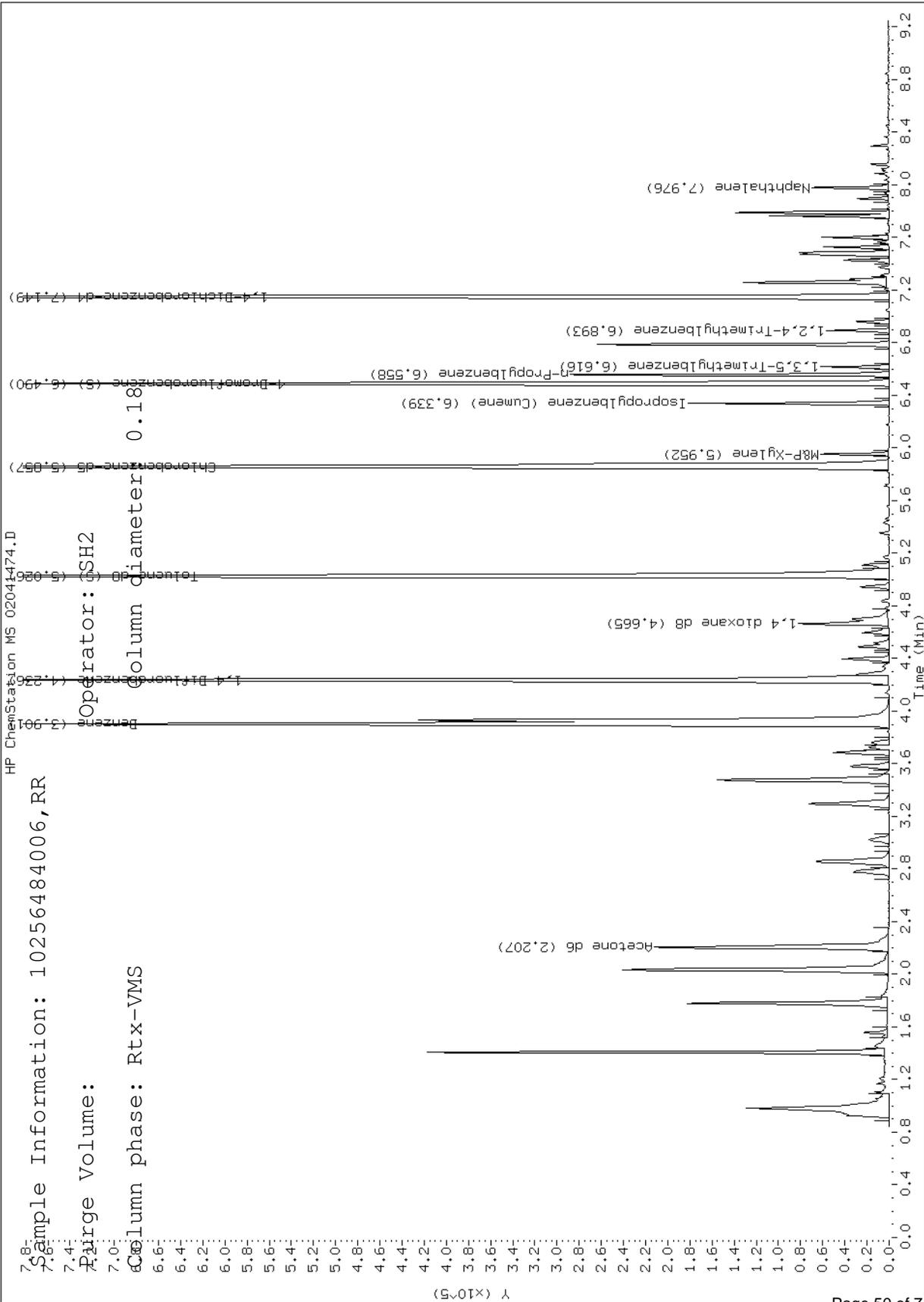
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Report Date: 02/05/2014

Sample ID: 10256484006

Client ID:

Instrument: 10msv1.i



Data File: \\192.168.10.12\chem\10msv1.i\020414c.b\02041477.D

Report Date: 02/05/2014

Sample ID: 10256484007

Client ID:

Instrument: 10msv1.i

Sample Information: 10256484007, 10X RR

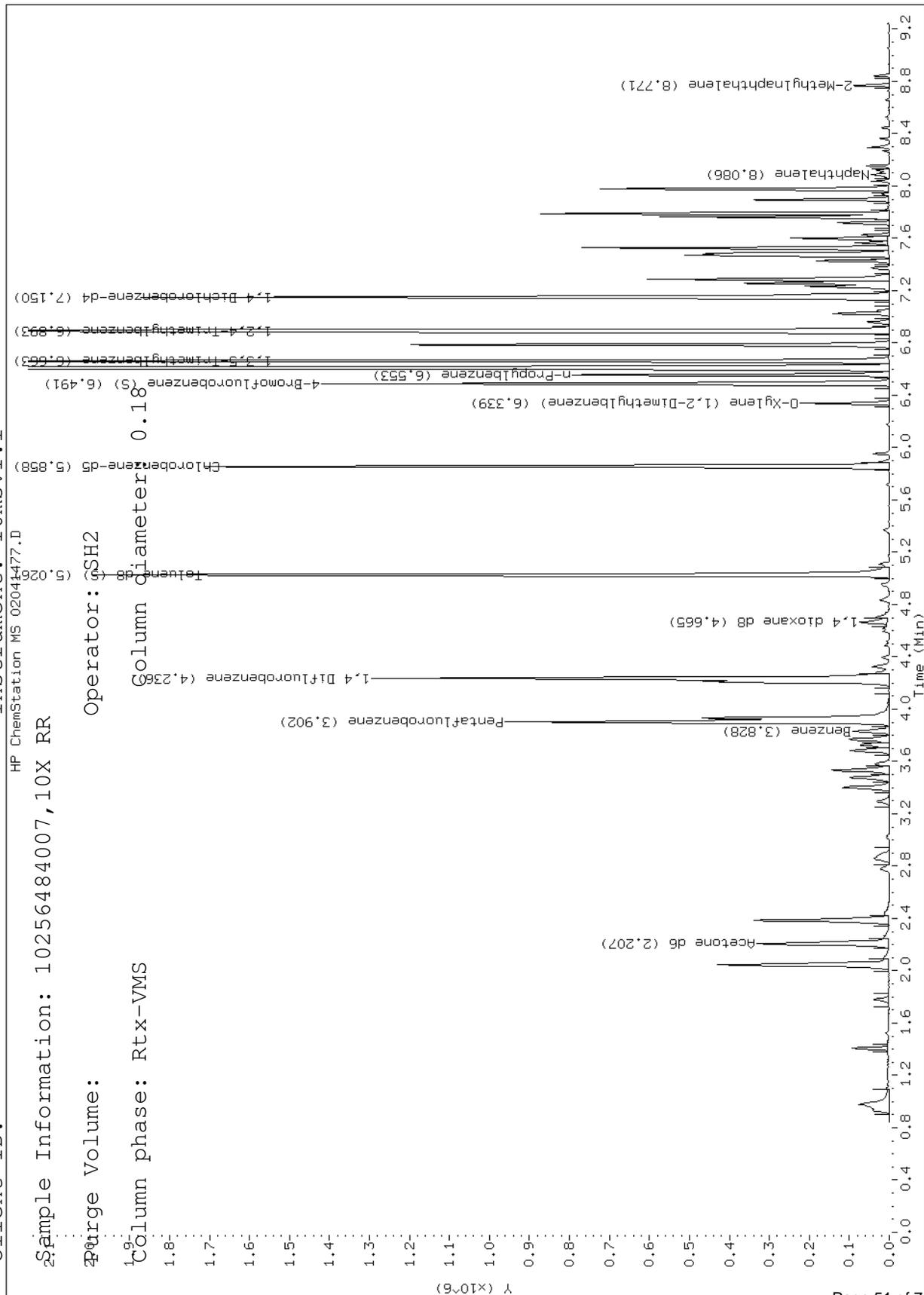
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Purge Volume:

Operator: SH2

Column phase: Rtx-VMS

Column diameter: 0.18



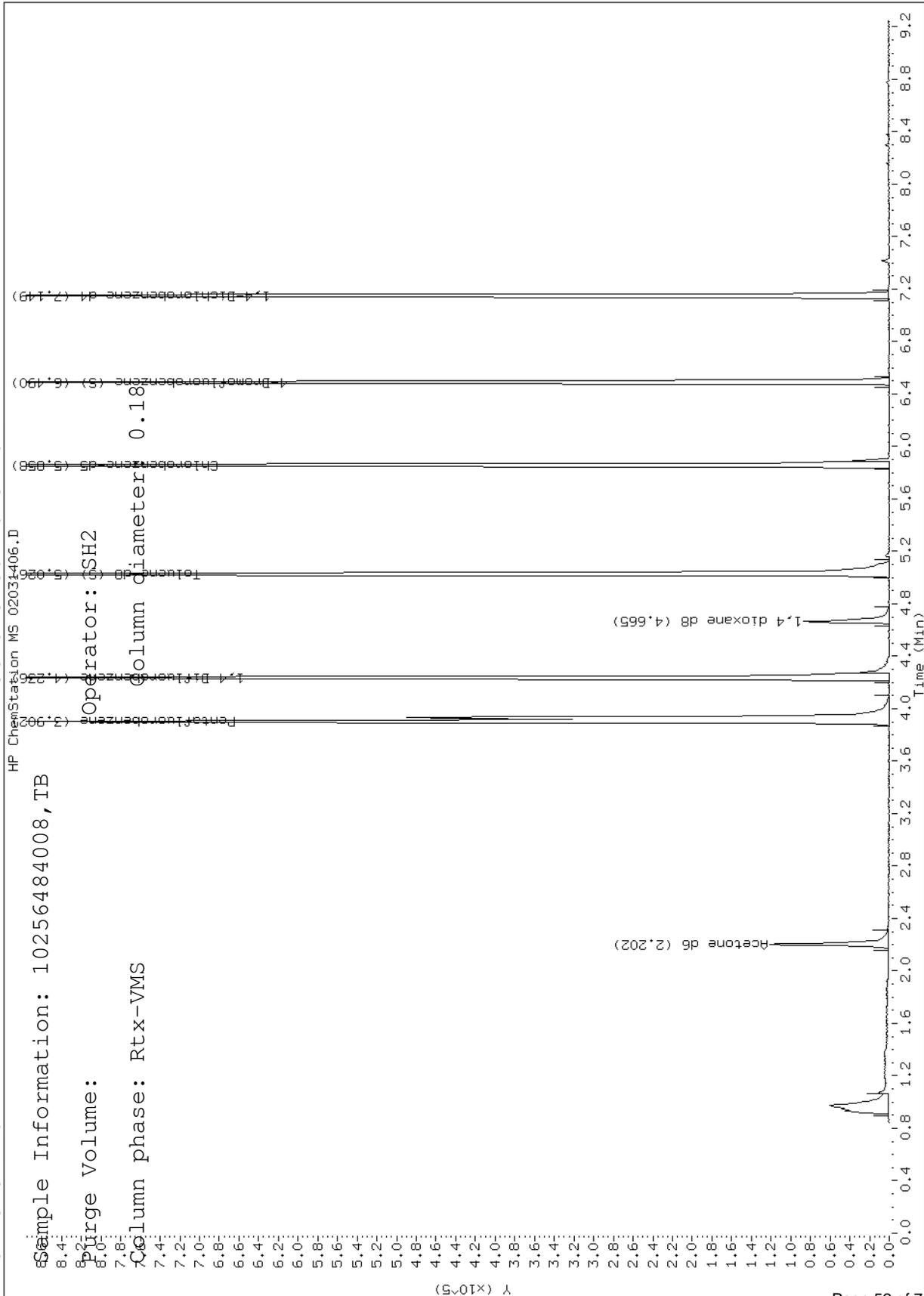
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Report Date: 02/03/2014

Sample ID: 10256484008

Client ID:

Instrument: 10msv1.i



Data File: \\192.168.10.12\chem\10gcv6.i\020614a-2.b\020614013.d

Report Date: 02/09/2014

Sample ID: 10256484001

Client ID:

Instrument: 10gcv6.i

ANDI 020614013.d

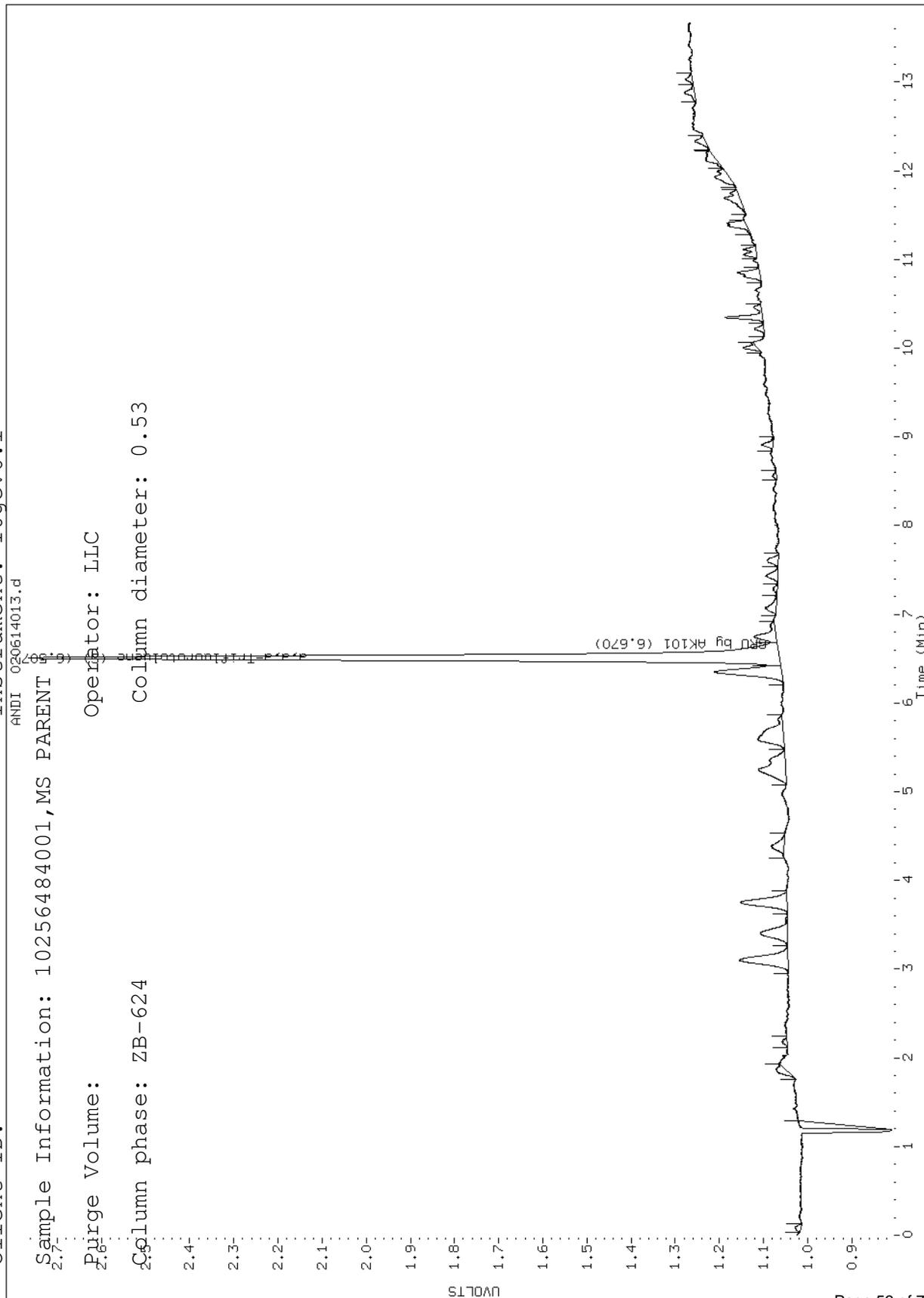
Sample Information: 10256484001, MS PARENT

Purge Volume:

Operator: ILC

Column phase: ZB-624

Column diameter: 0.53



Data File: \\192.168.10.12\chem\10gcv6.i\020614a-2.b\020614007.d

Report Date: 02/09/2014

Sample ID: 10256484002

Client ID:

Instrument: 10gcv6.i

ANDI_020614007.d

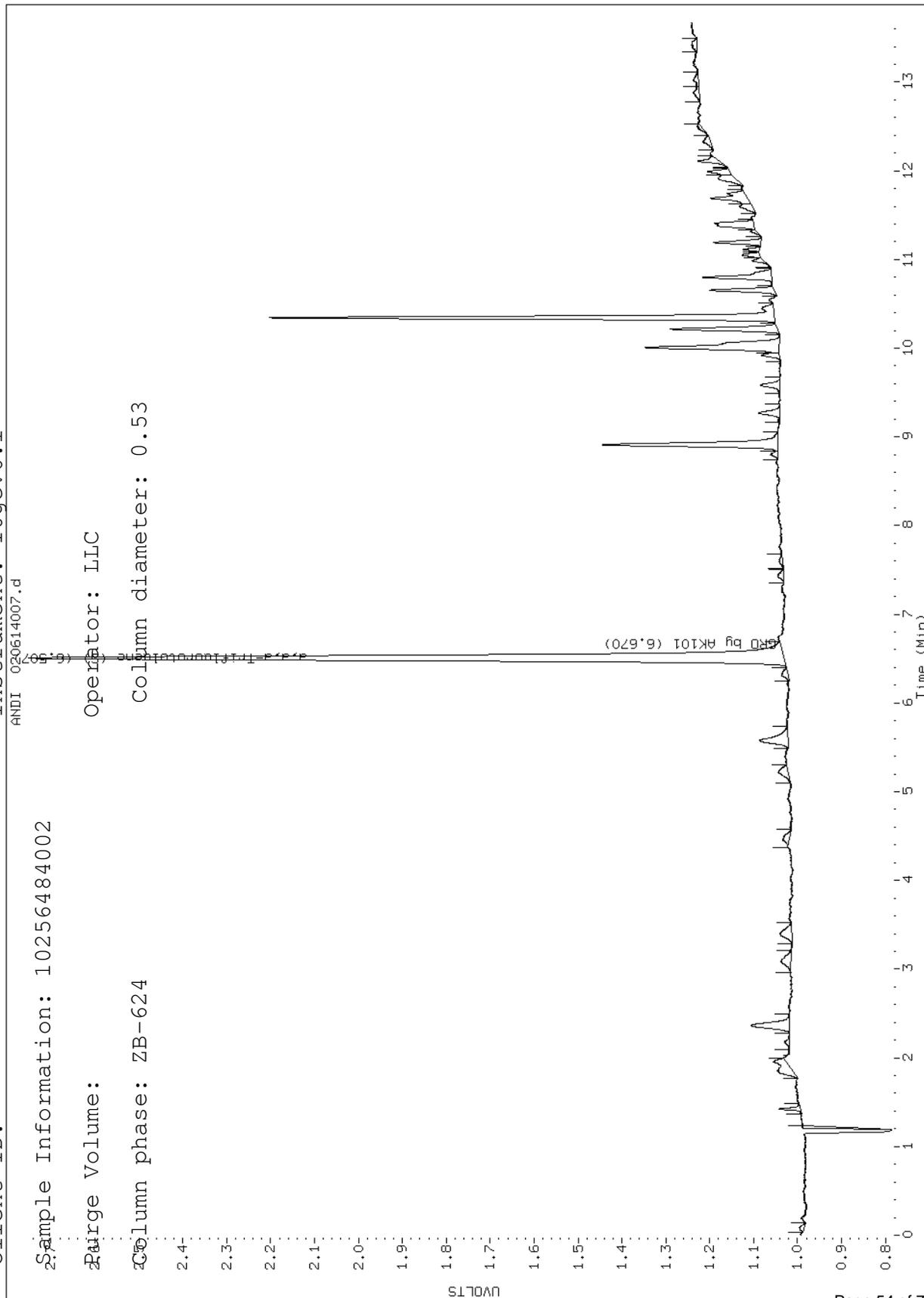
Sample Information: 10256484002

Purge Volume:

Operator: ILC

Column phase: ZB-624

Column diameter: 0.53



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Report Date: 02/09/2014

Sample ID: 10256484003

Client ID:

Instrument: 10gcv6.i

ANDI 020614008.d

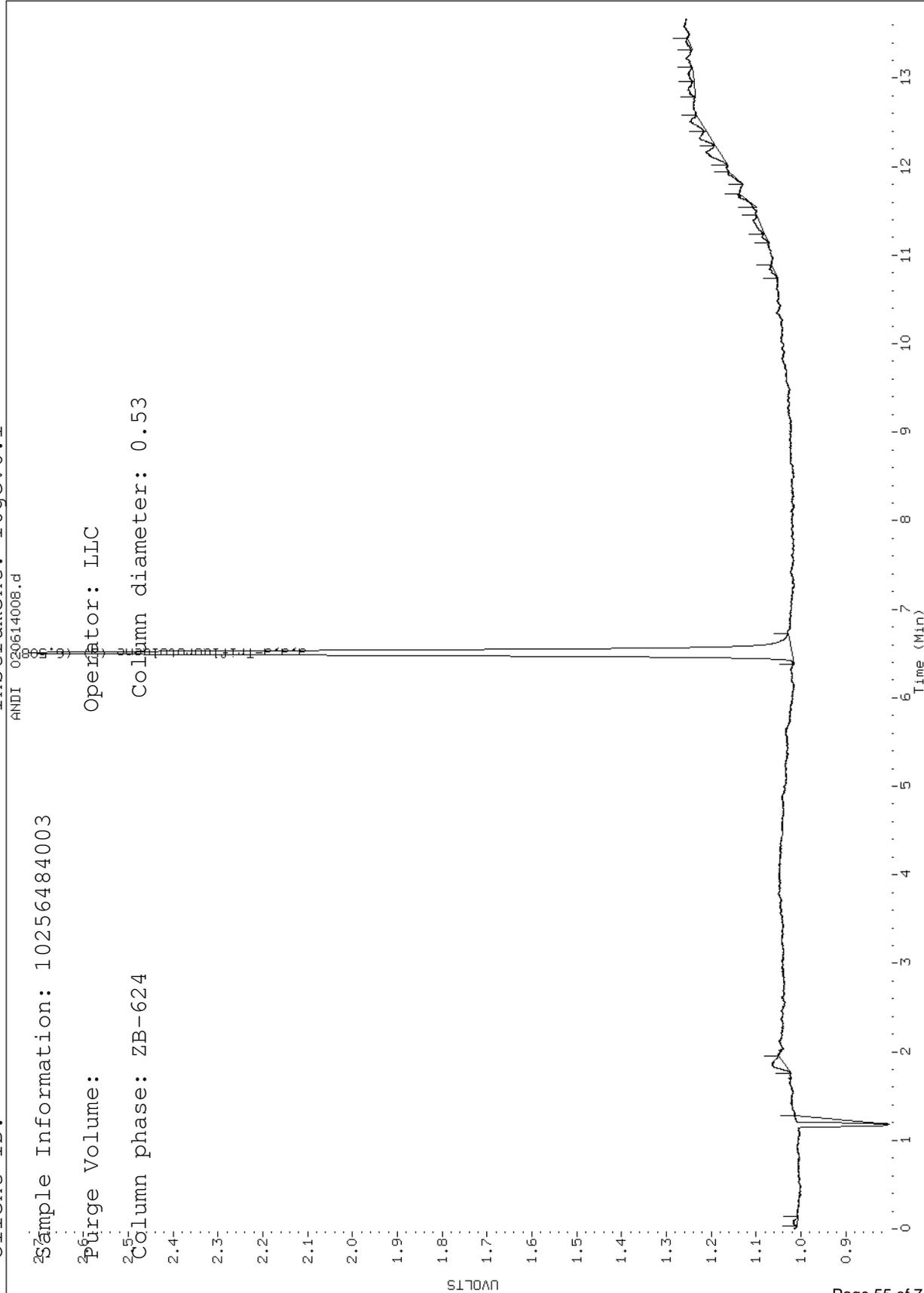
Sample Information: 10256484003

Purge Volume:

Operator: ILC

Column phase: ZB-624

Column diameter: 0.53



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Report Date: 02/09/2014

Sample ID: 10256484004

Client ID:

Instrument: 10gcv6.i

ANDI 020614009.d

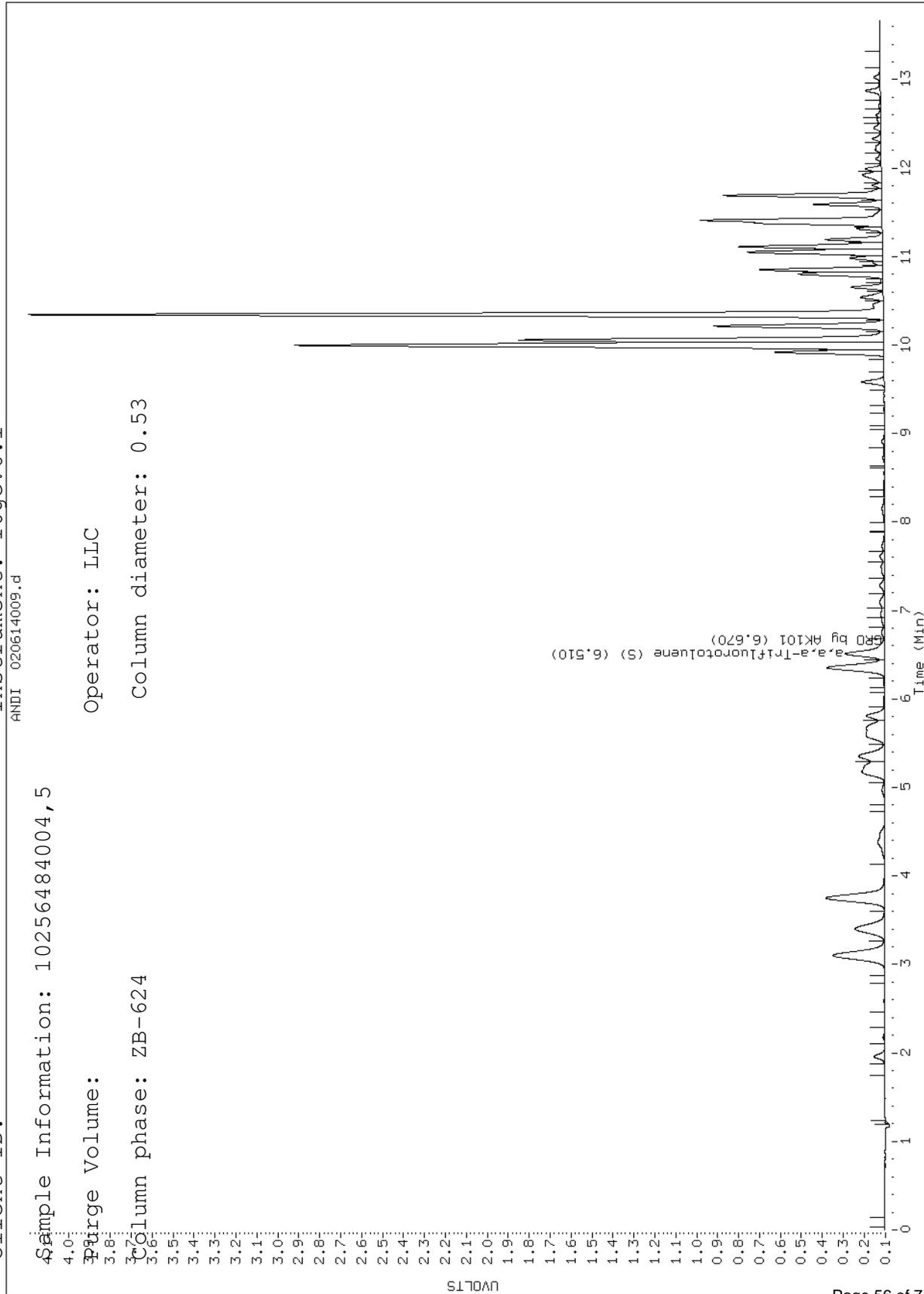
Sample Information: 10256484004,5

Purge Volume:

Operator: ILC

Column phase: ZB-624

Column diameter: 0.53



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Report Date: 02/09/2014

Sample ID: 10256484005

Client ID: Instrument: 10gcv6.i

ANDI 020614011.d

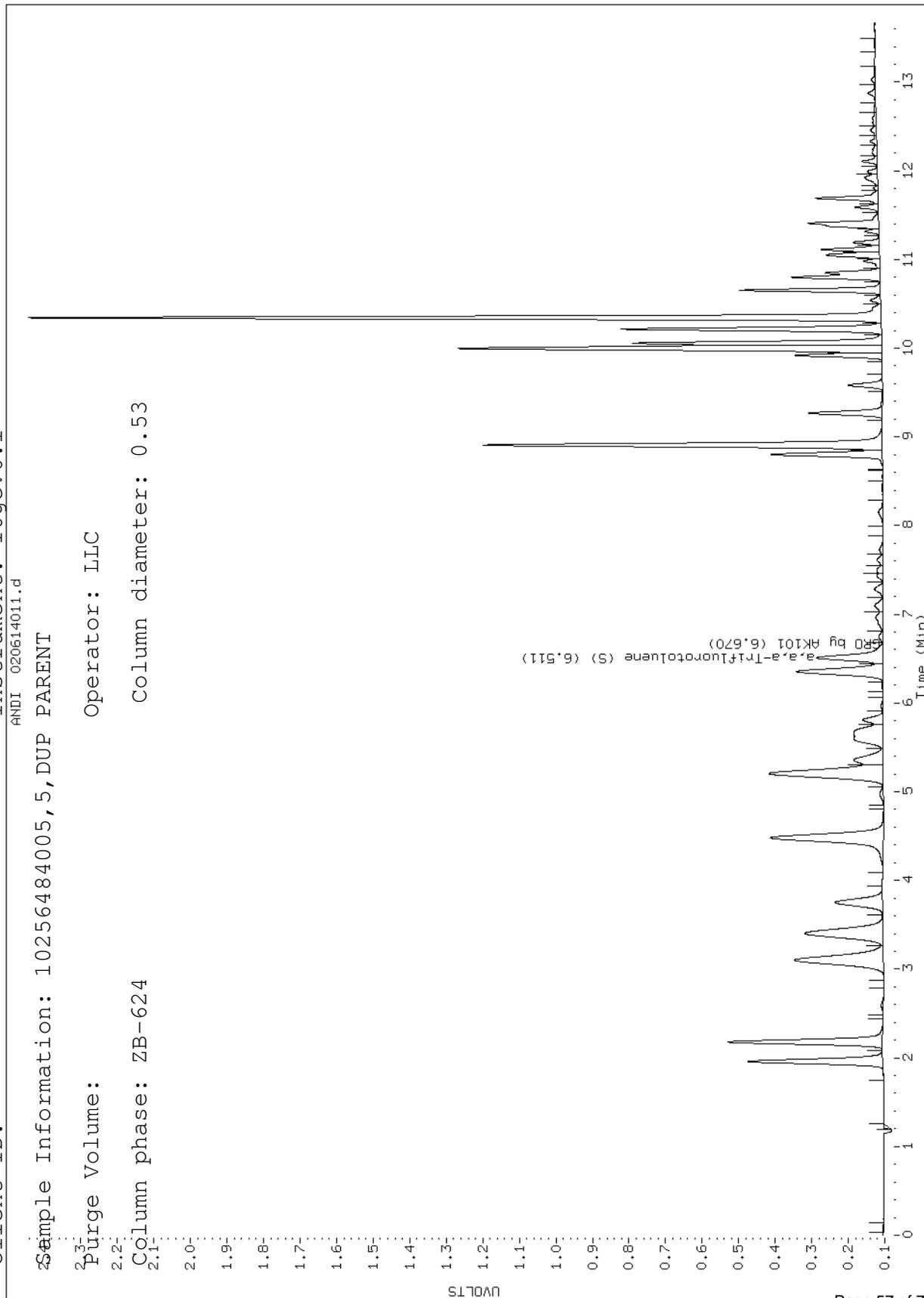
Sample Information: 10256484005, 5, DUP PARENT

Purge Volume:

Operator: ILC

Column phase: ZB-624

Column diameter: 0.53



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Report Date: 02/12/2014

Sample ID: 10256484006

Client ID:

Instrument: 10gcv6.i

ANDI 020414027.d

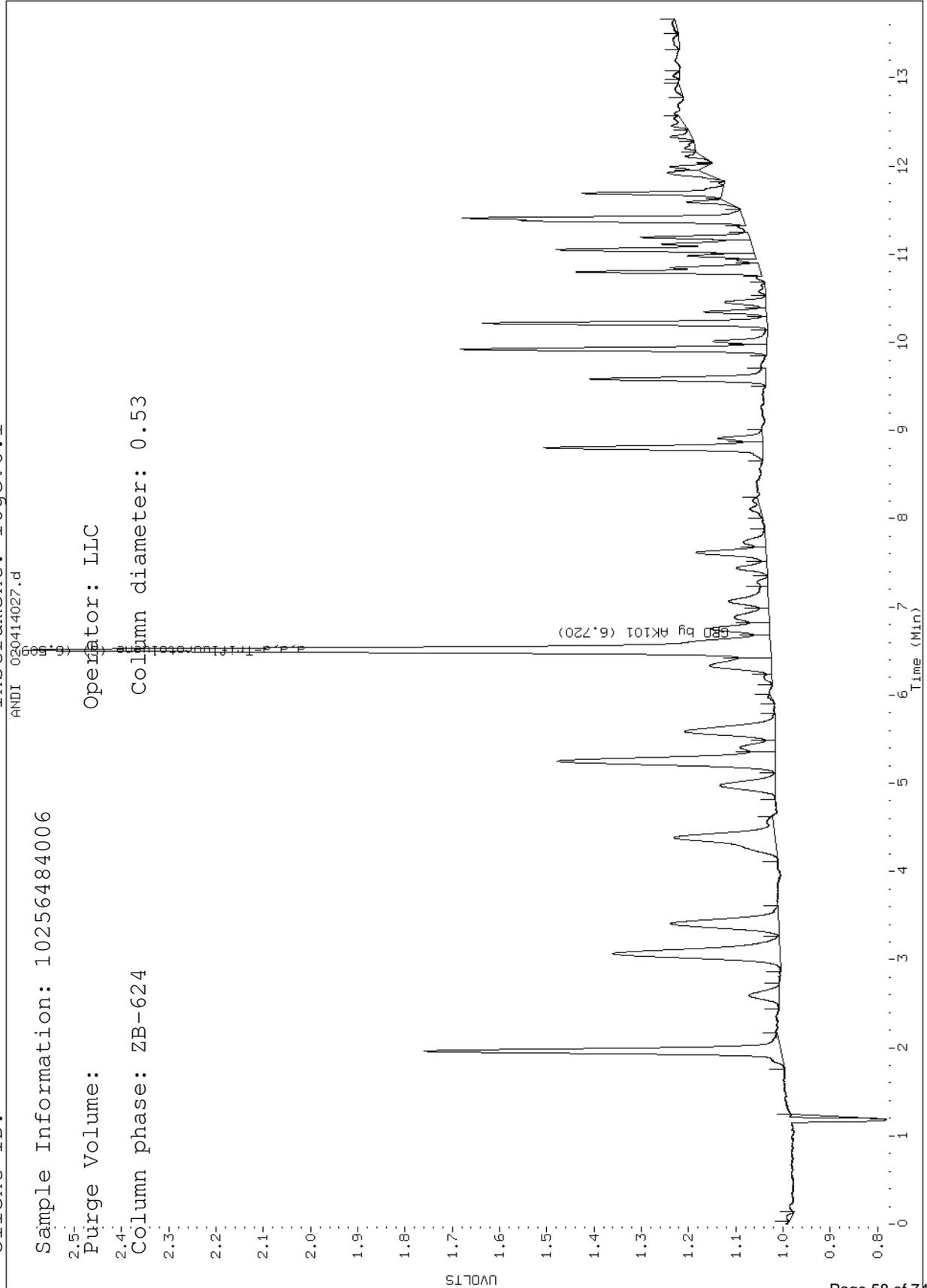
Sample Information: 10256484006

Purge Volume:

Operator: ILC

Column phase: ZB-624

Column diameter: 0.53



Data File: \\192.168.10.12\chem\10gcv6.i\020614a-2.b\020614010.d

Report Date: 02/09/2014

Sample ID: 10256484007

Client ID:

Instrument: 10gcv6.i

ANDI 020614010.d

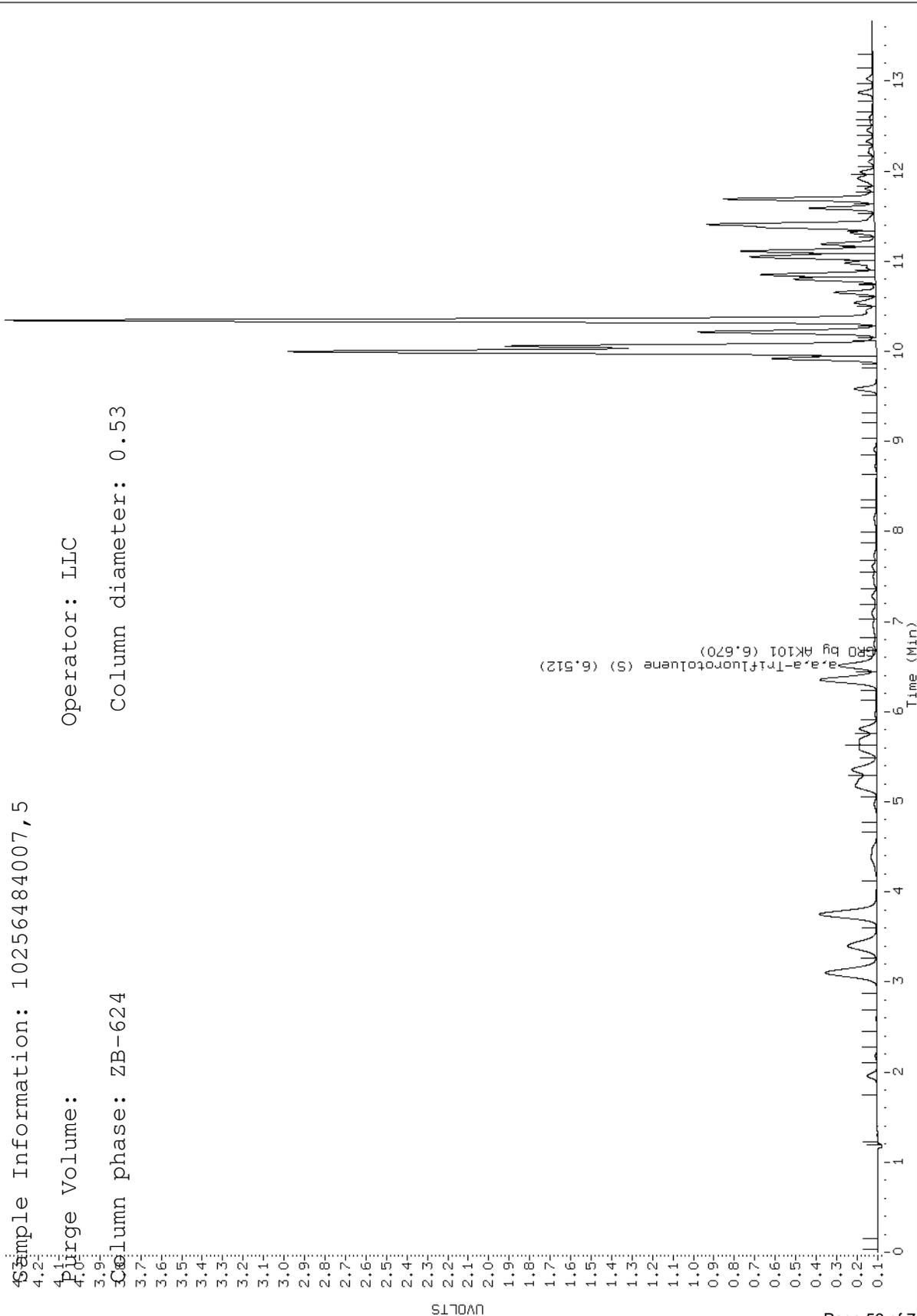
Sample Information: 10256484007, 5

Purge Volume: 4.1

Operator: ILC

Column phase: ZB-624

Column diameter: 0.53



Data File: \\192.168.10.12\chem\10gcv6.i\020614a-2.b\020614006.d

Report Date: 02/09/2014

Sample ID: 10256484008

Client ID:

Instrument: 10gcv6.i

ANDI 020614006.d

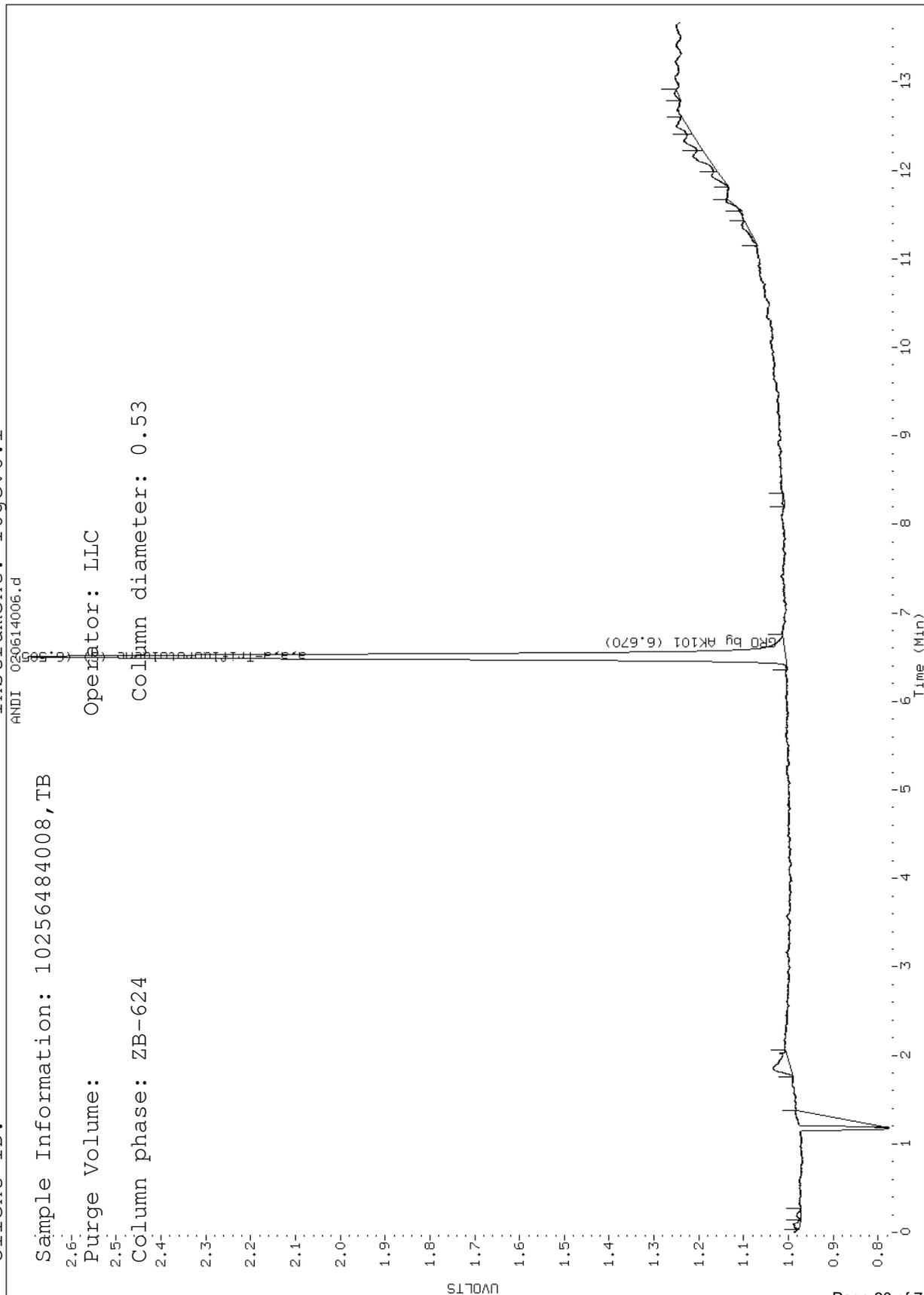
Sample Information: 10256484008, TB

Purge Volume: 2.6-

Operator: ILC

Column phase: ZB-624

Column diameter: 0.53



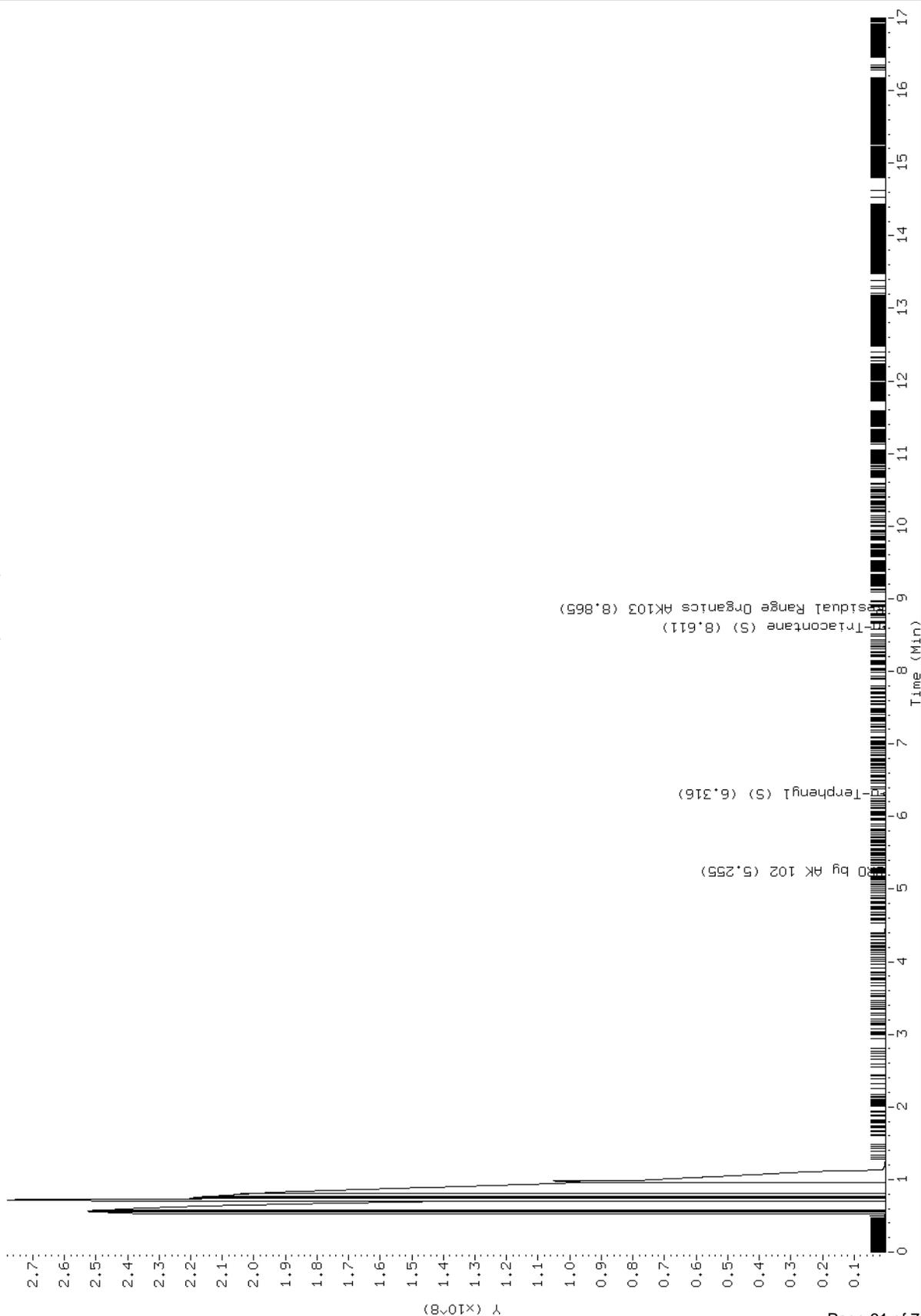
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Report Date: 02/07/2014
Sample ID: 10256484001
Client ID:
Sample Information: 10256484001
Purge Volume:
Column phase: DB-5MS

Instrument: 10gcsC.i

Operator: MT

Column diameter: 0.25

HP6890 GC Data, FID1A.CH



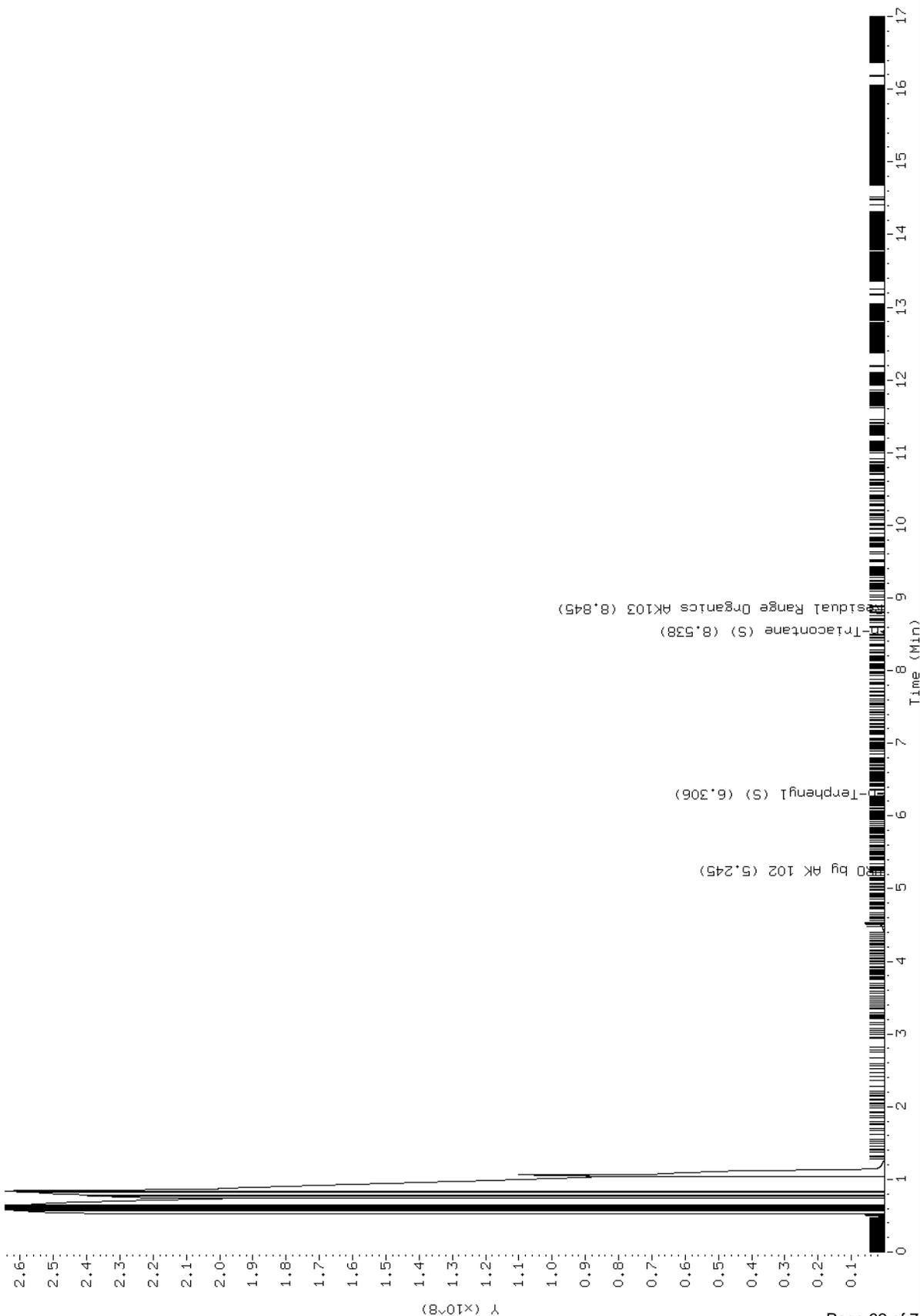
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Sample ID: 10256484002
Client ID:
Sample Information: 10256484002,rr
Purge Volume:
Column phase: DB-5MS

Instrument: 10gcsC.i

Operator: JRH

Column diameter: 0.25

HP6890 GC Data, FID1A.CH



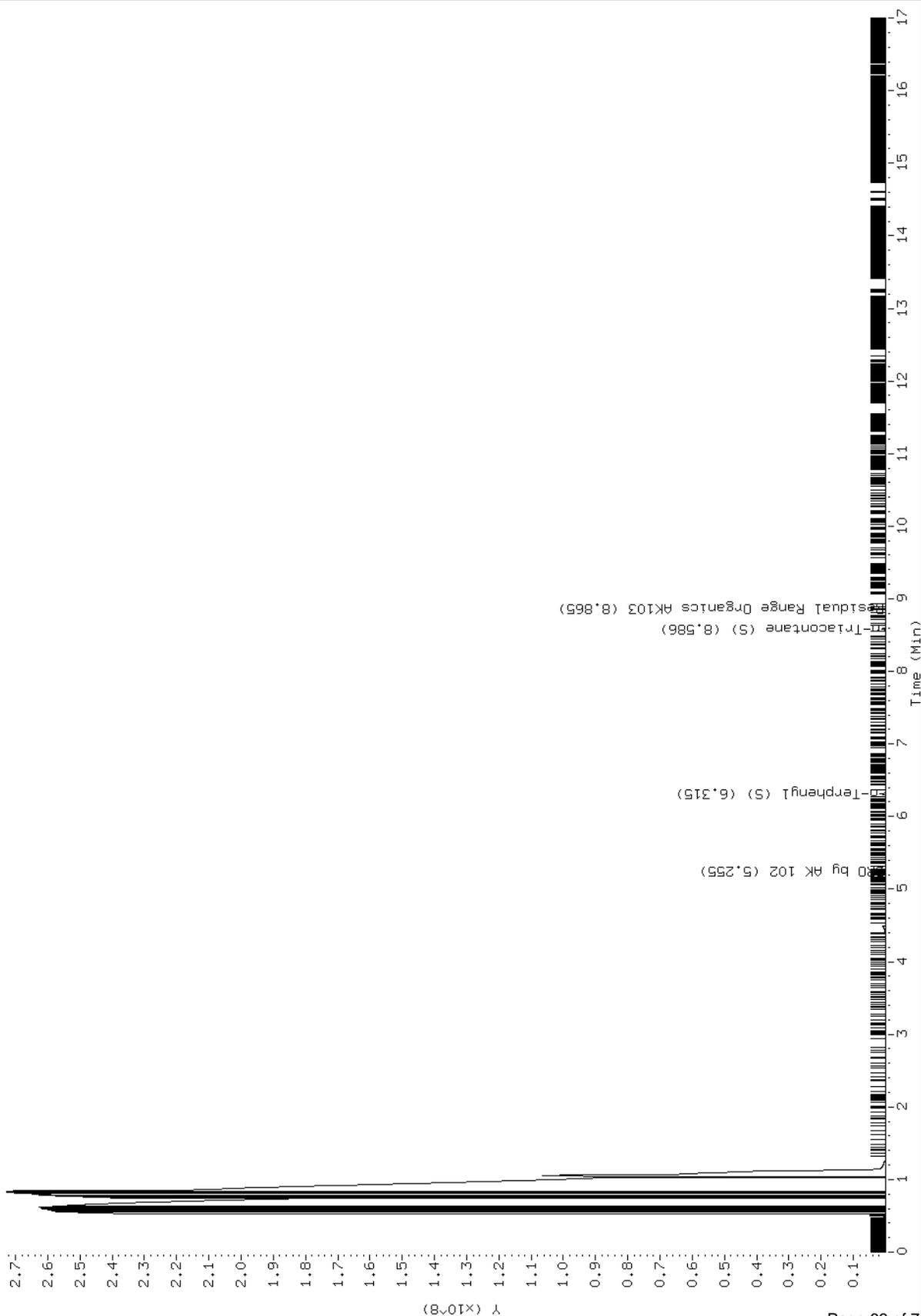
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Sample ID: 10256484003
Client ID:
Sample Information: 10256484003
Purge Volume:
Column phase: DB-5MS

Instrument: 10gcsC.i

Operator: MT

Column diameter: 0.25

HP6890 GC Data, FID1A.CH



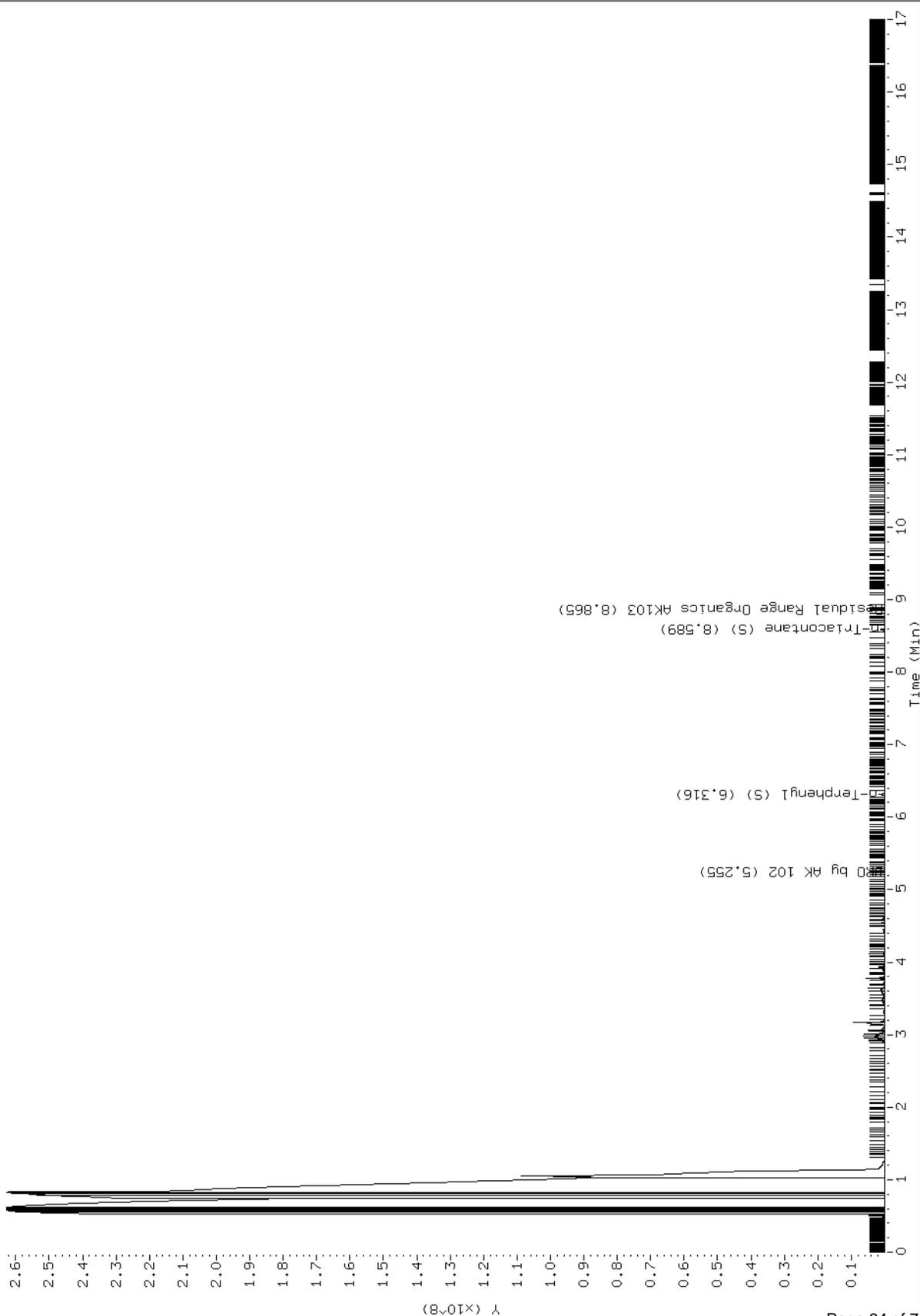
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Instrument: 10gcsC.i

Operator: MT

Column diameter: 0.25

HP6890 GC Data, FID1A.CH



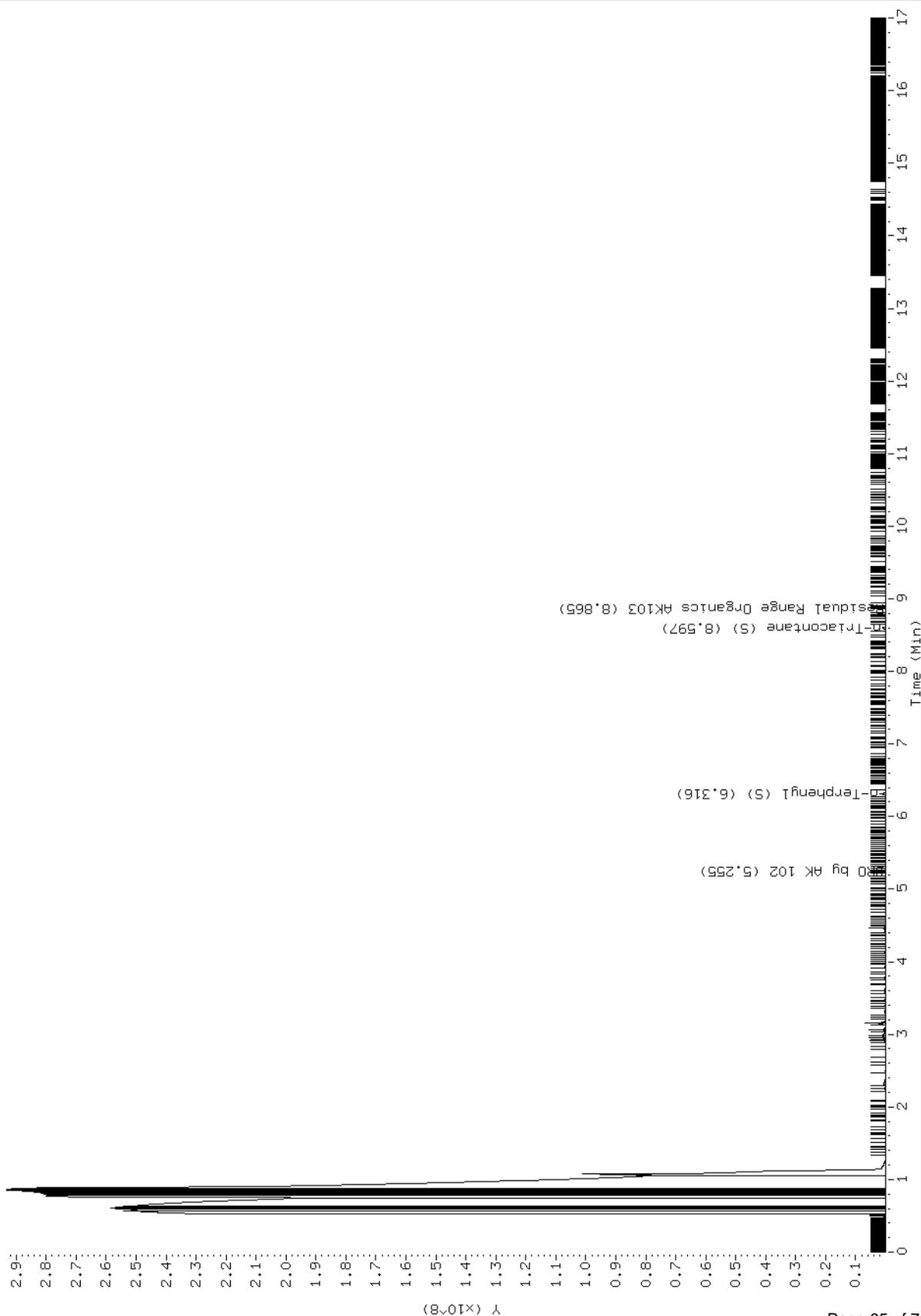
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Client ID:
Sample Information: 10256484005
Purge Volume:
Column phase: DB-5MS

Instrument: 10gcsC.i

Operator: MT

Column diameter: 0.25

HP6890 GC Data, FID1A.CH



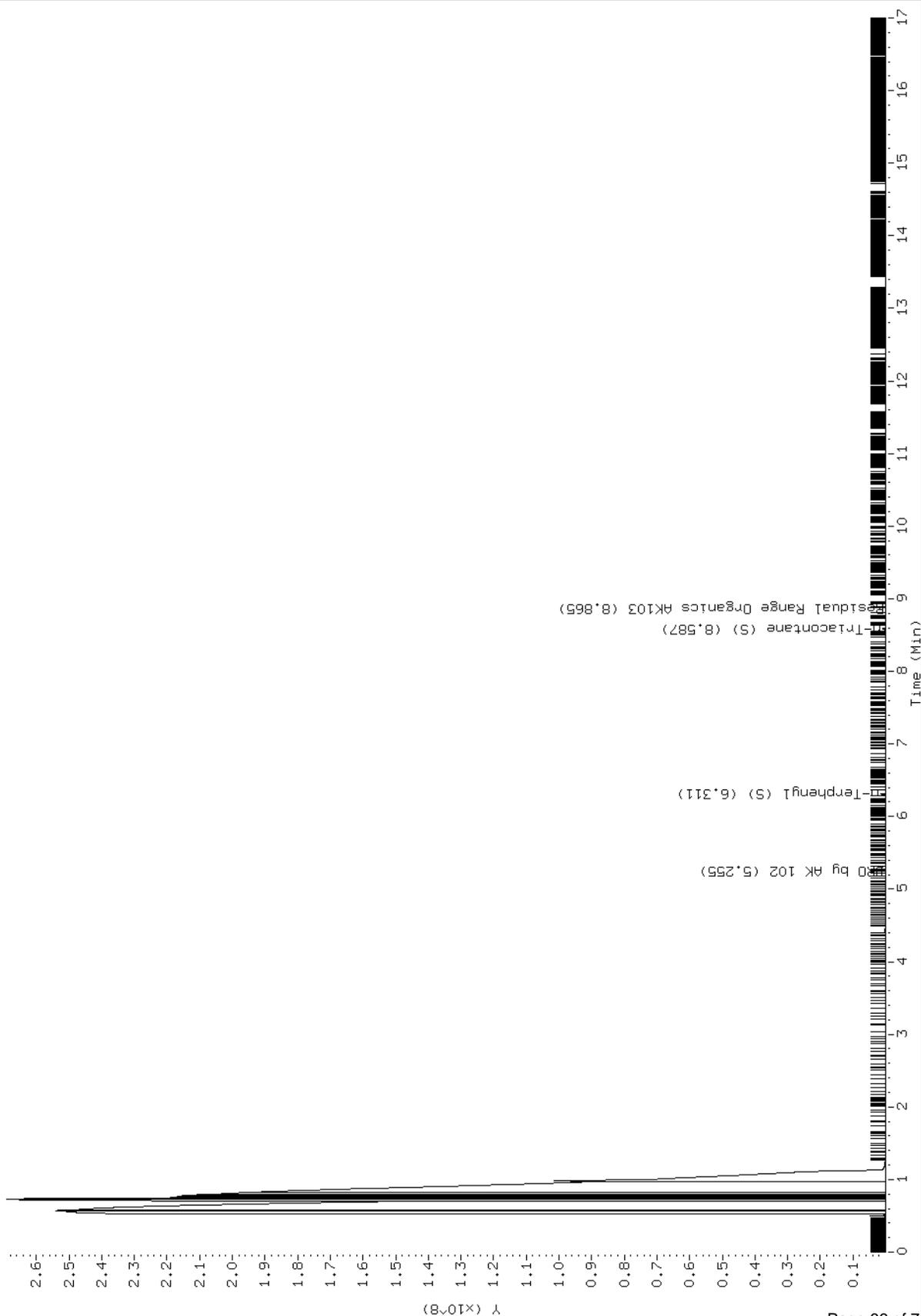
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Client ID:
Sample Information: 10256484006
Purge Volume:
Column phase: DB-5MS

Instrument: 10gcsC.i

Operator: MT

Column diameter: 0.25

HP6890 GC Data, FID1A.CH



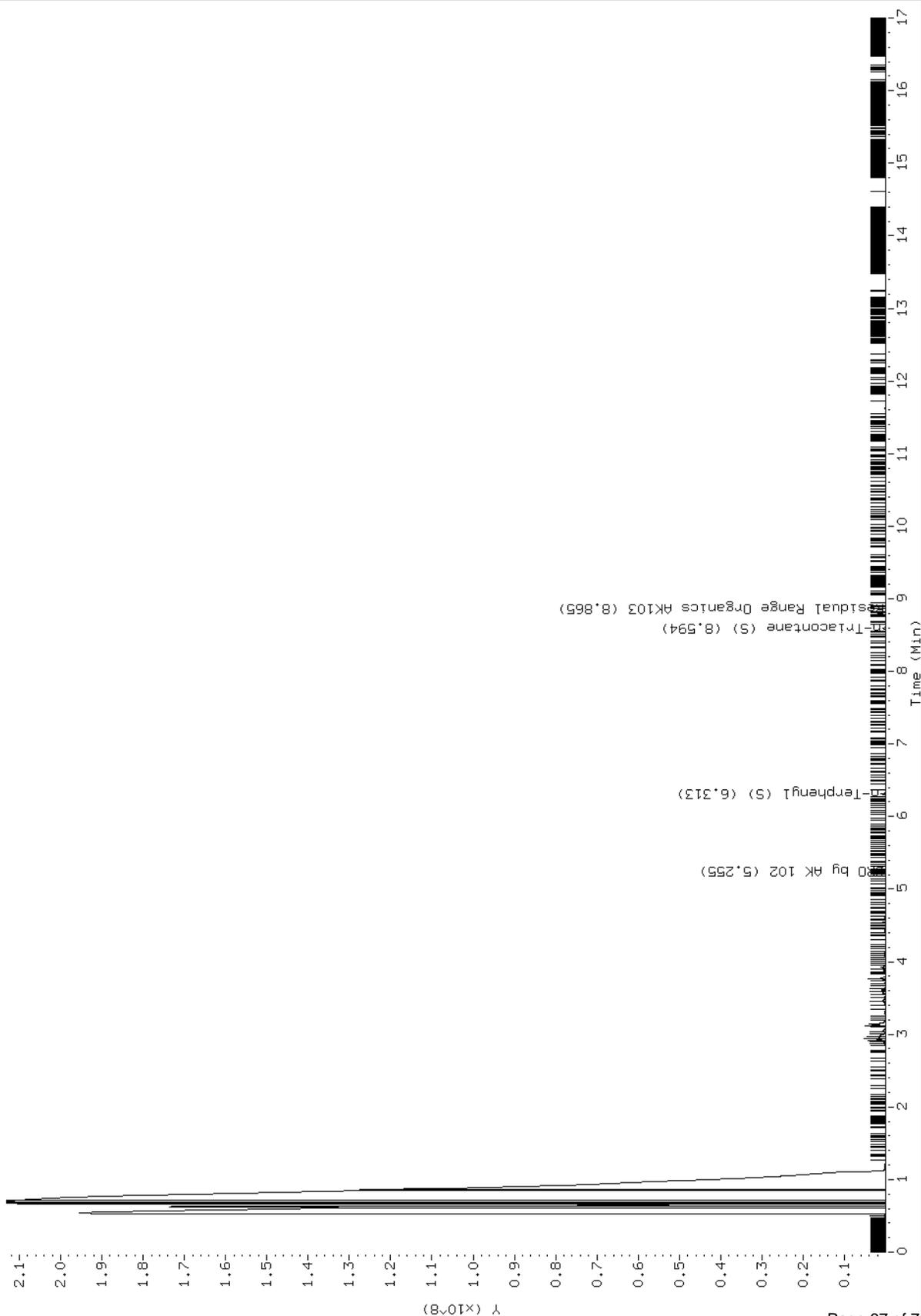
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Sample Information: 10256484007
Purge Volume:
Column phase: DB-5MS

Instrument: 10gcsC.i

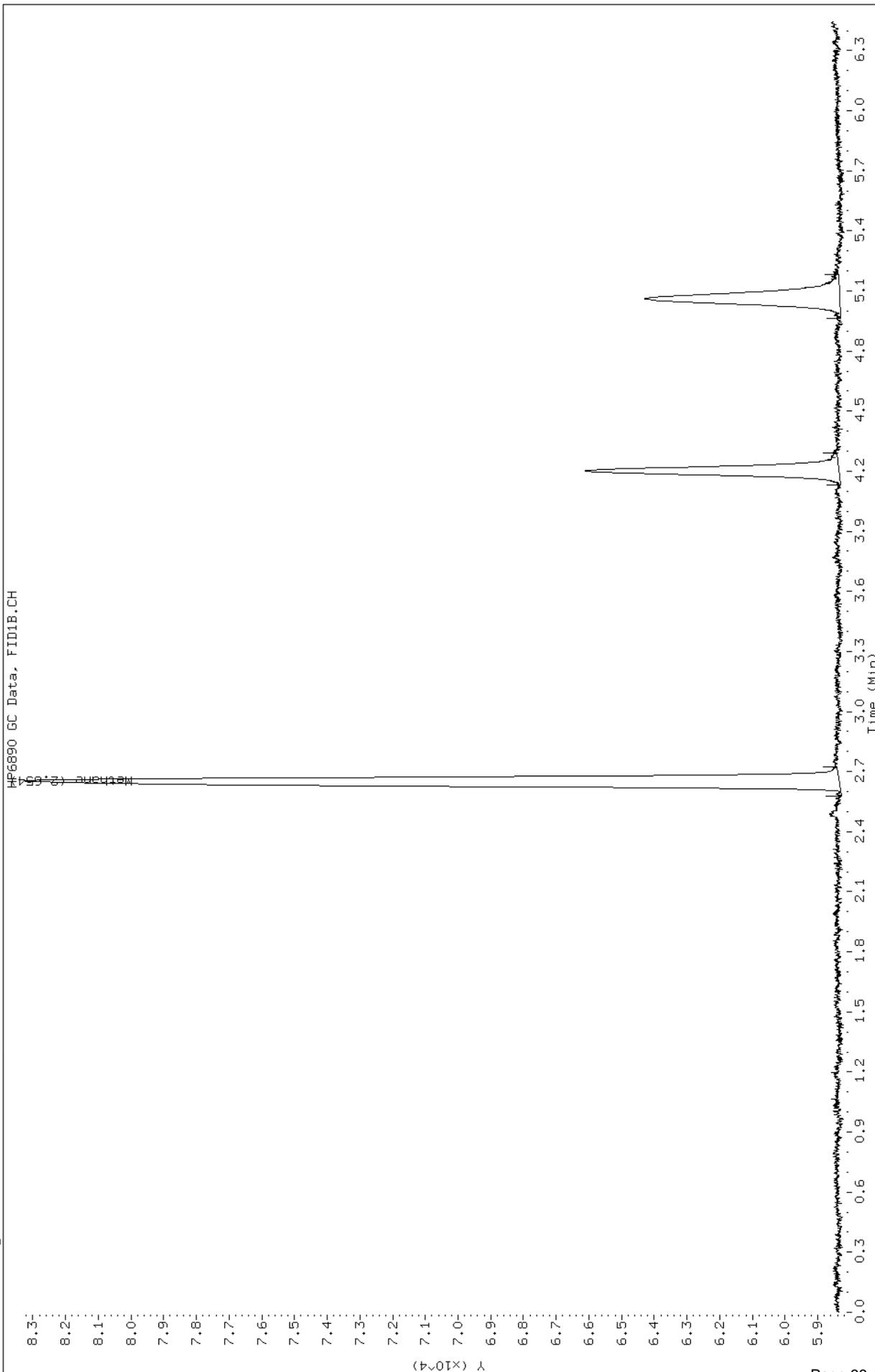
Operator: MT

Column diameter: 0.25

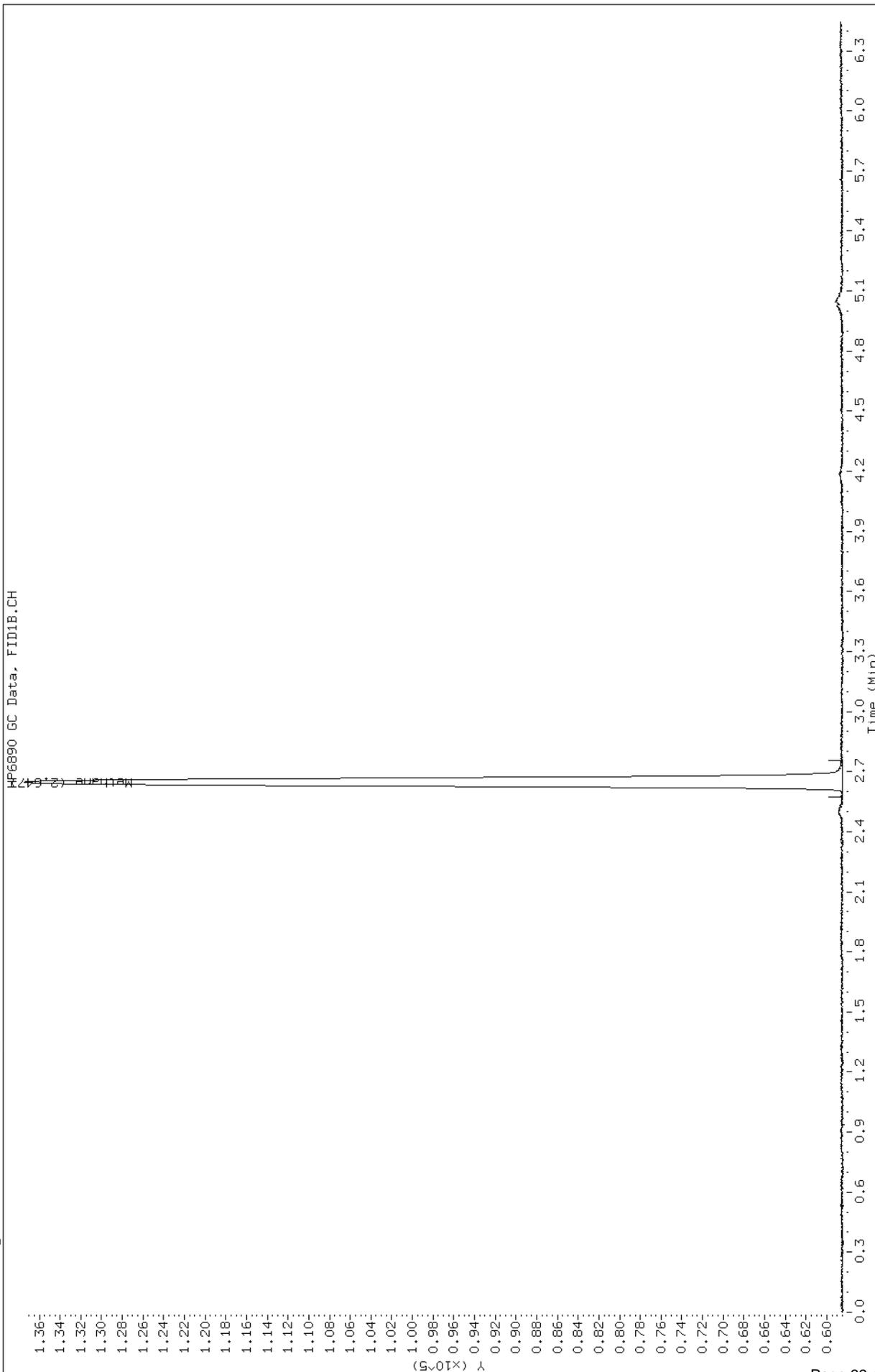
HP6890 GC Data, FID1A.CH



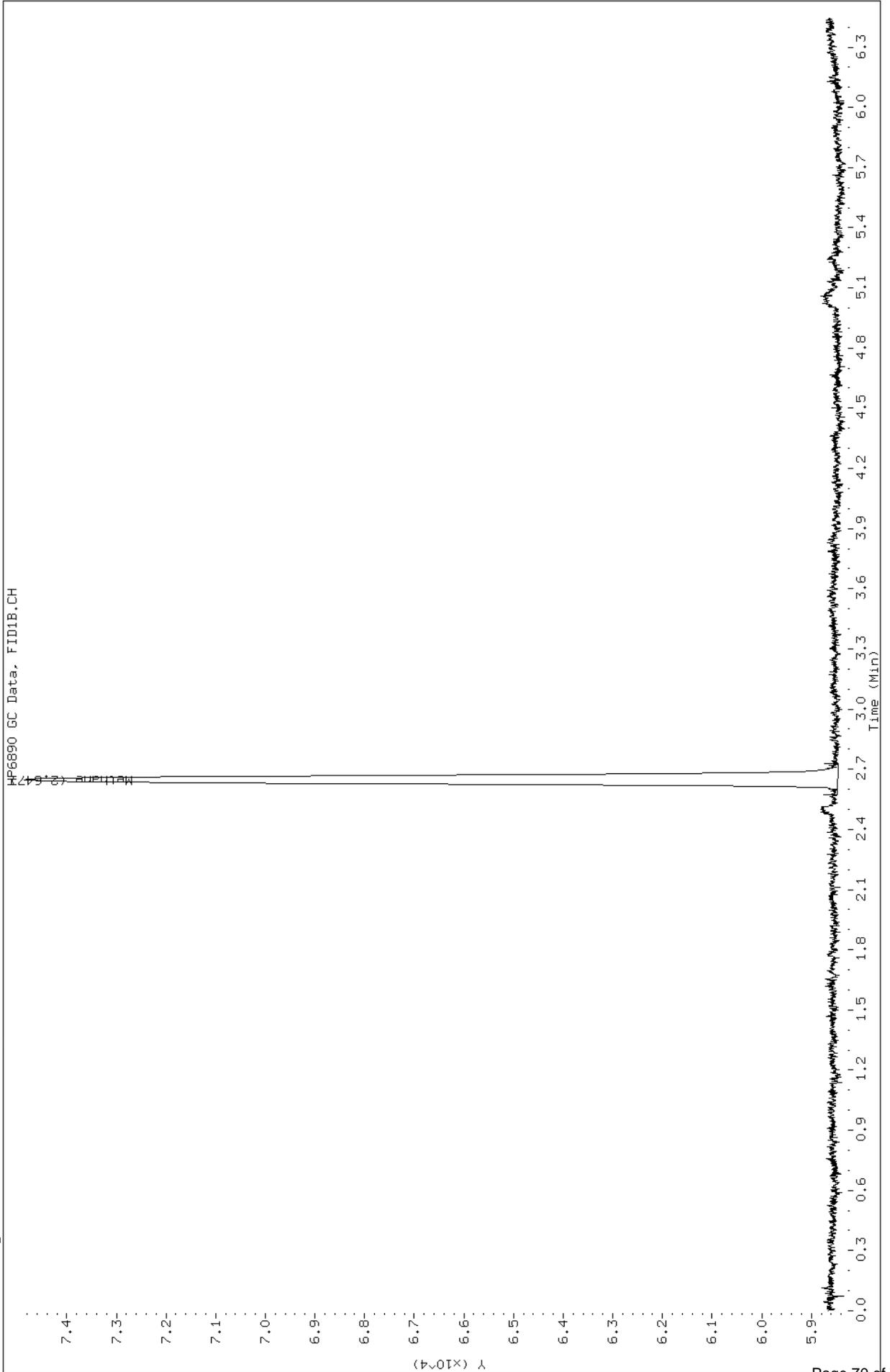
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Sample Information:
Purge Volume:
Column phase: J&W GS-Q
Instrument: 10air9.i
Operator: DL1
Column diameter: 0.53



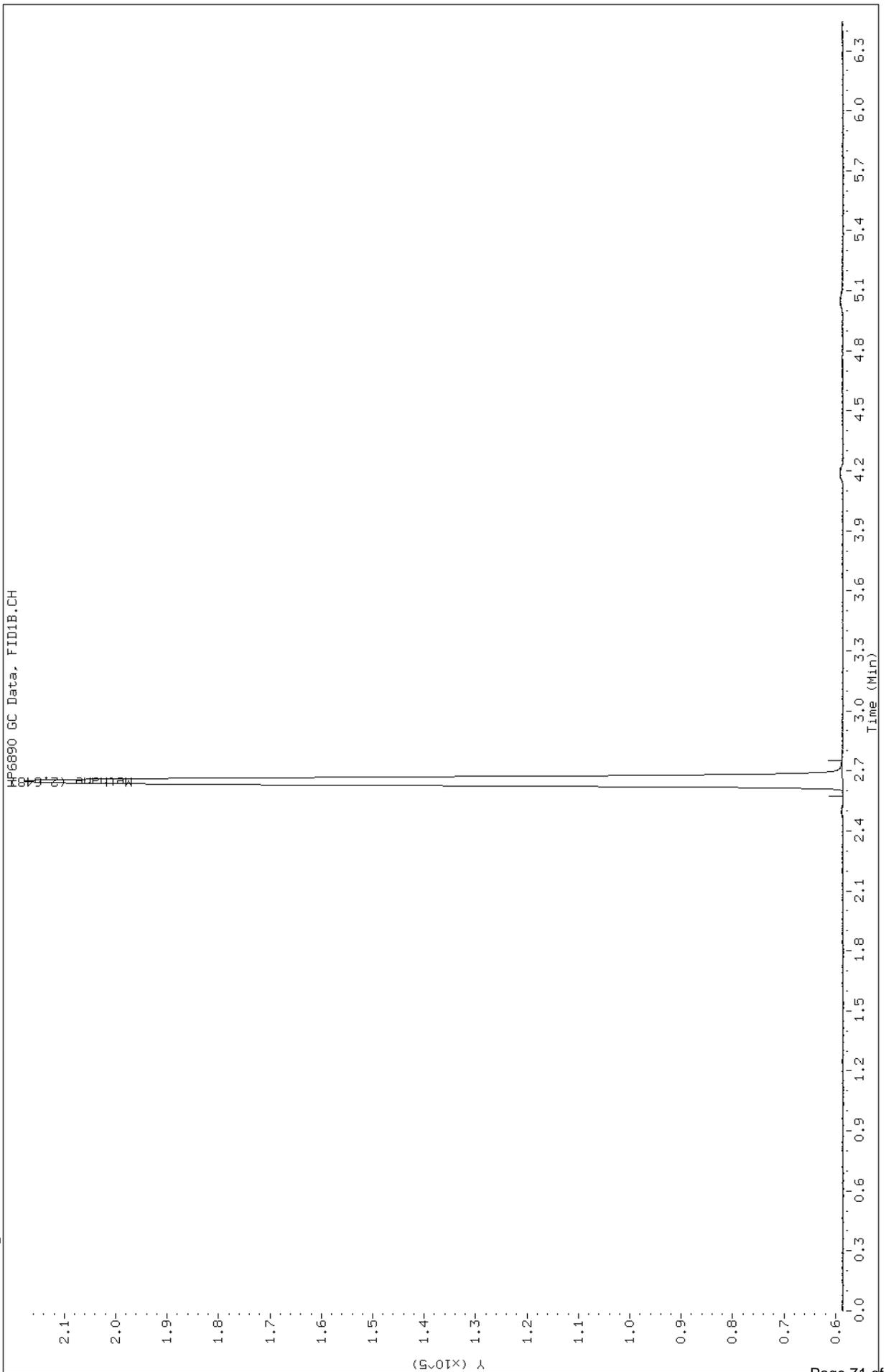
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Client ID:
Sample Information:
Purge Volume: J&W GS-Q
Column phase: J&W GS-Q
Instrument: 10air9.i
Operator: DL1
Column diameter: 0.53



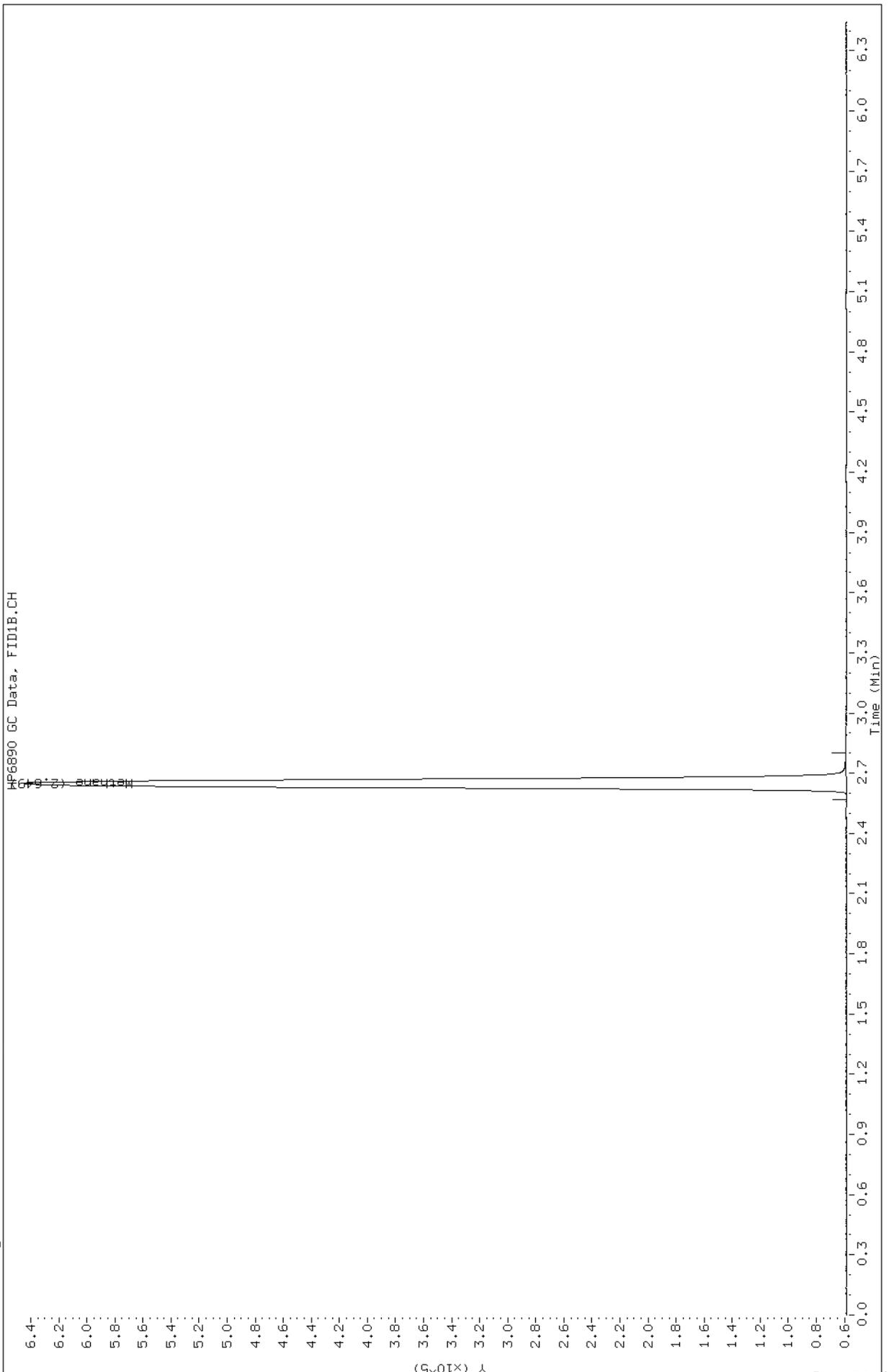
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Client ID:
Sample Information:
Purge Volume:
Column phase: J&W GS-Q
Instrument: 10air9.i
Operator: DL1
Column diameter: 0.53



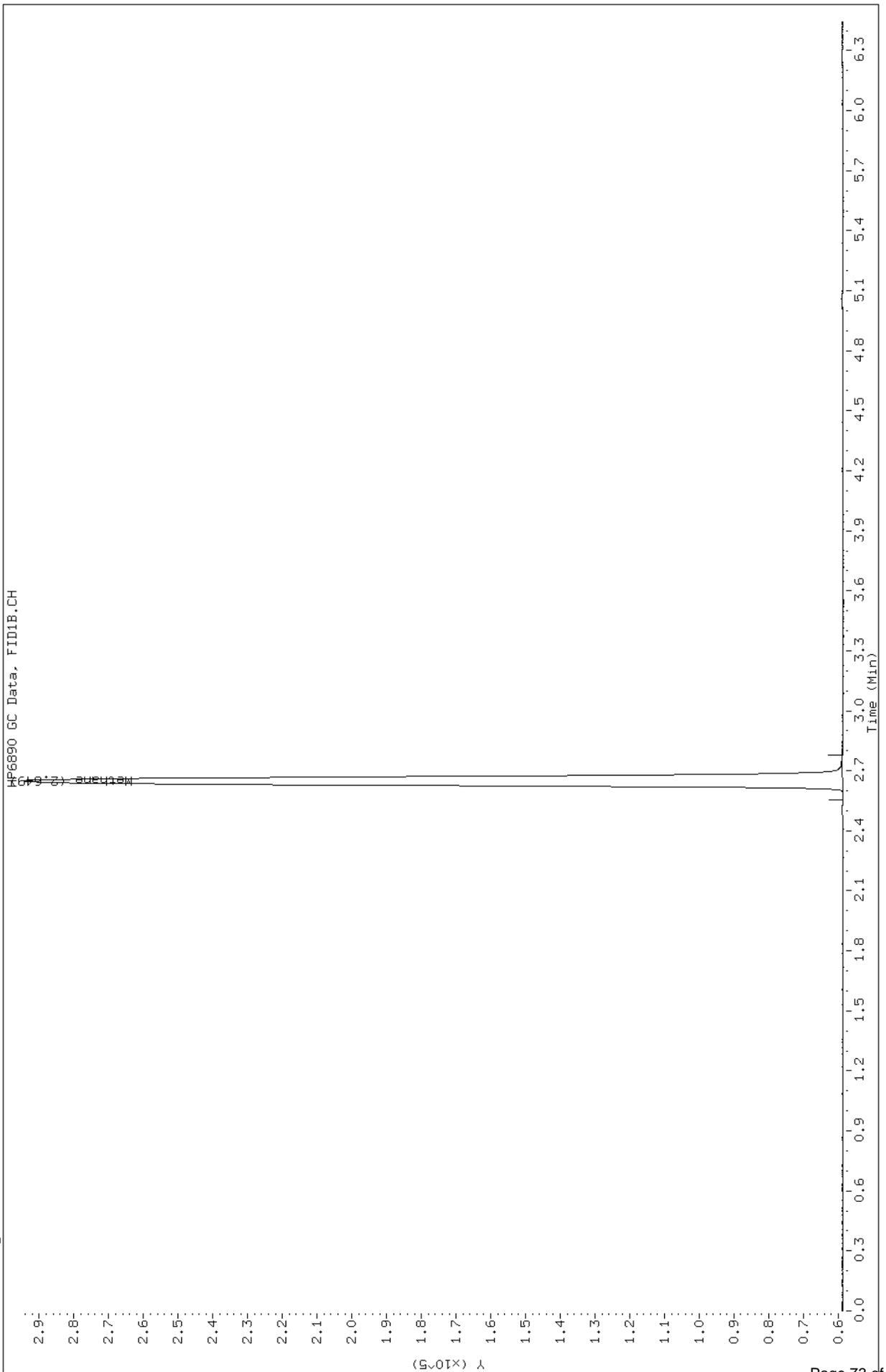
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Client ID:
Sample Information:
Purge Volume: J&W GS-Q
Column phase: J&W GS-Q
Instrument: 10air9.i
Operator: DL1
Column diameter: 0.53



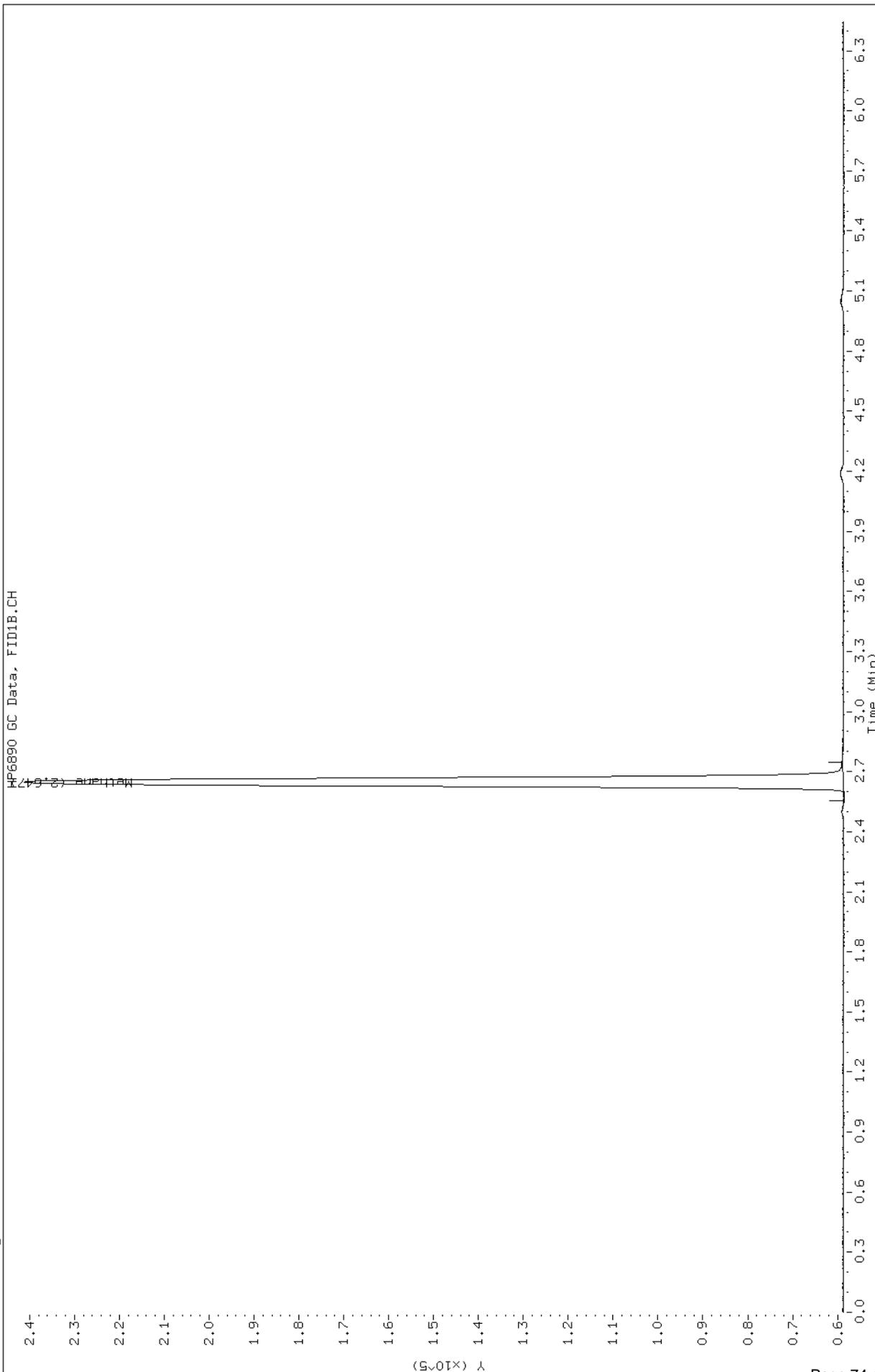
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Report Date: 02/04/2014
Client ID:
Sample Information:
Purge Volume:
Column phase: J&W GS-Q
Instrument: 10air9.i
Operator: DL1
Column diameter: 0.53



Data File: \\192.168.10.12\chem\10air9.i\020314-mee.b\03400021.D
Report Date: 02/04/2014
Client ID:
Sample Information:
Purge Volume: J&W GS-Q
Column phase: J&W GS-Q
Instrument: 10air9.i
Operator: DL1
Column diameter: 0.53



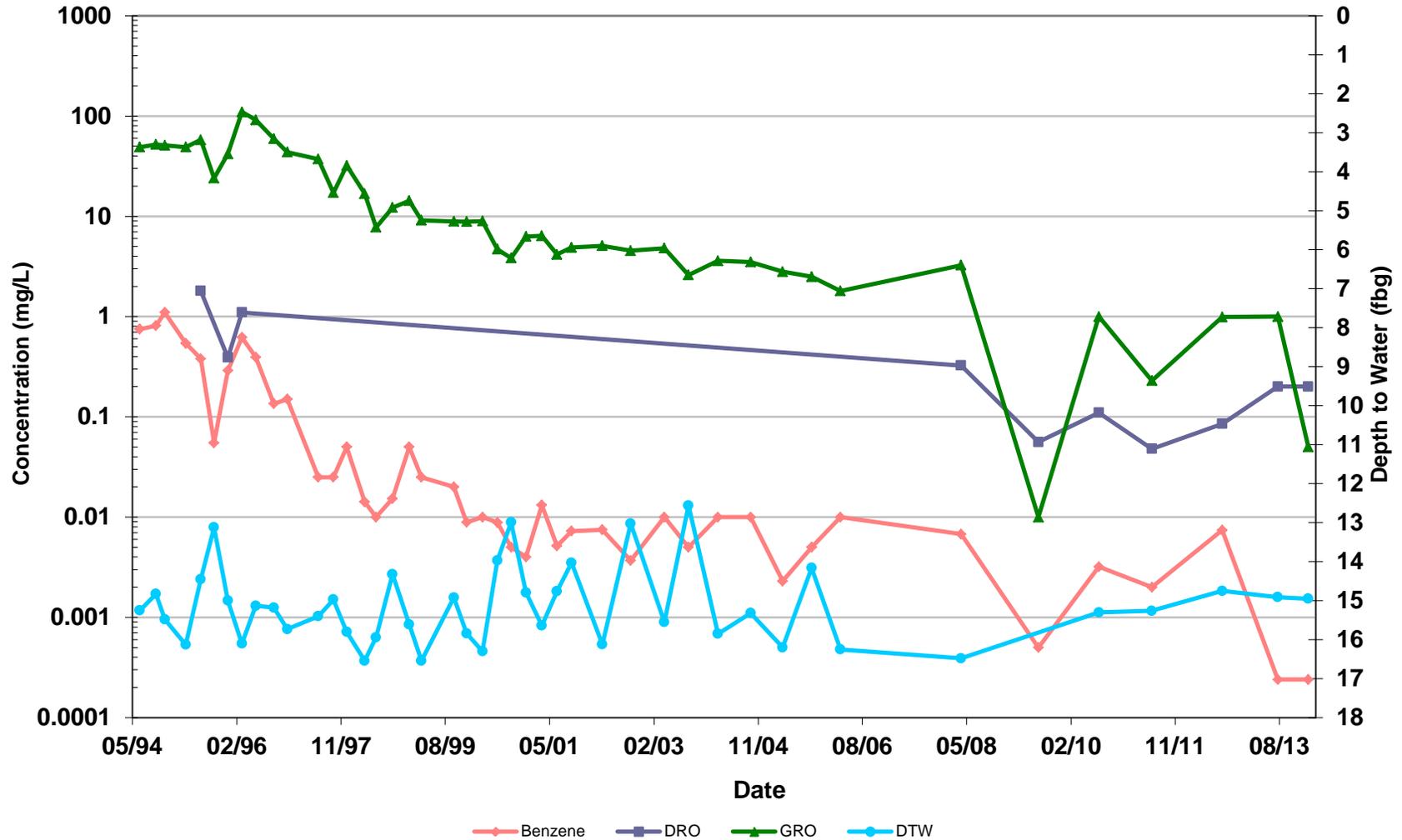
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Report Date: 02/04/2014
Client ID:
Sample Information:
Purge Volume: J&W GS-Q
Column phase: J&W GS-Q
Instrument: 10air9.i
Operator: DL1
Column diameter: 0.53



Appendix E

Petroleum Hydrocarbon Concentration Graphs

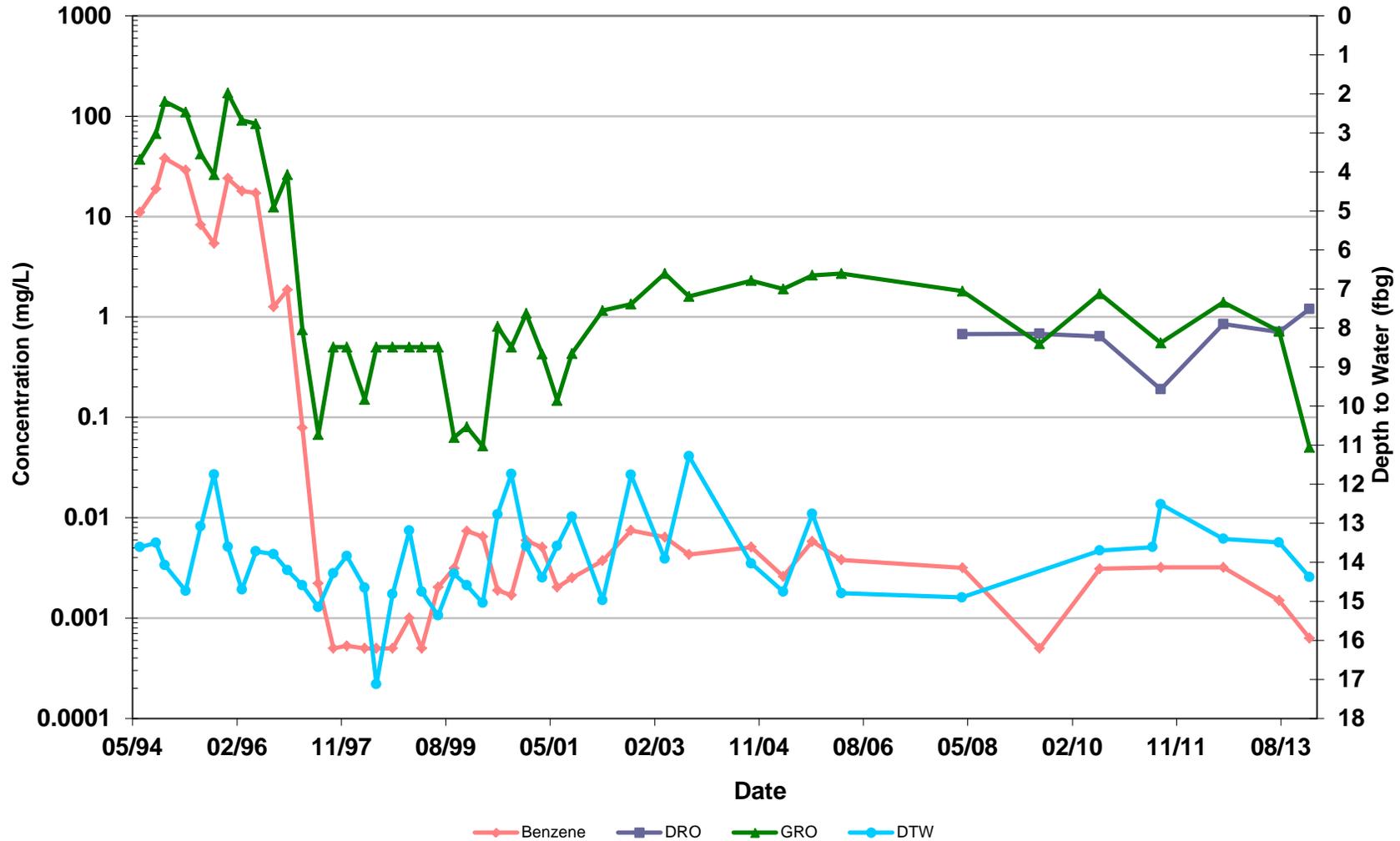
MW-1



Former Texaco Service Station 211079
1501 South Cushman Street
Fairbanks, Alaska



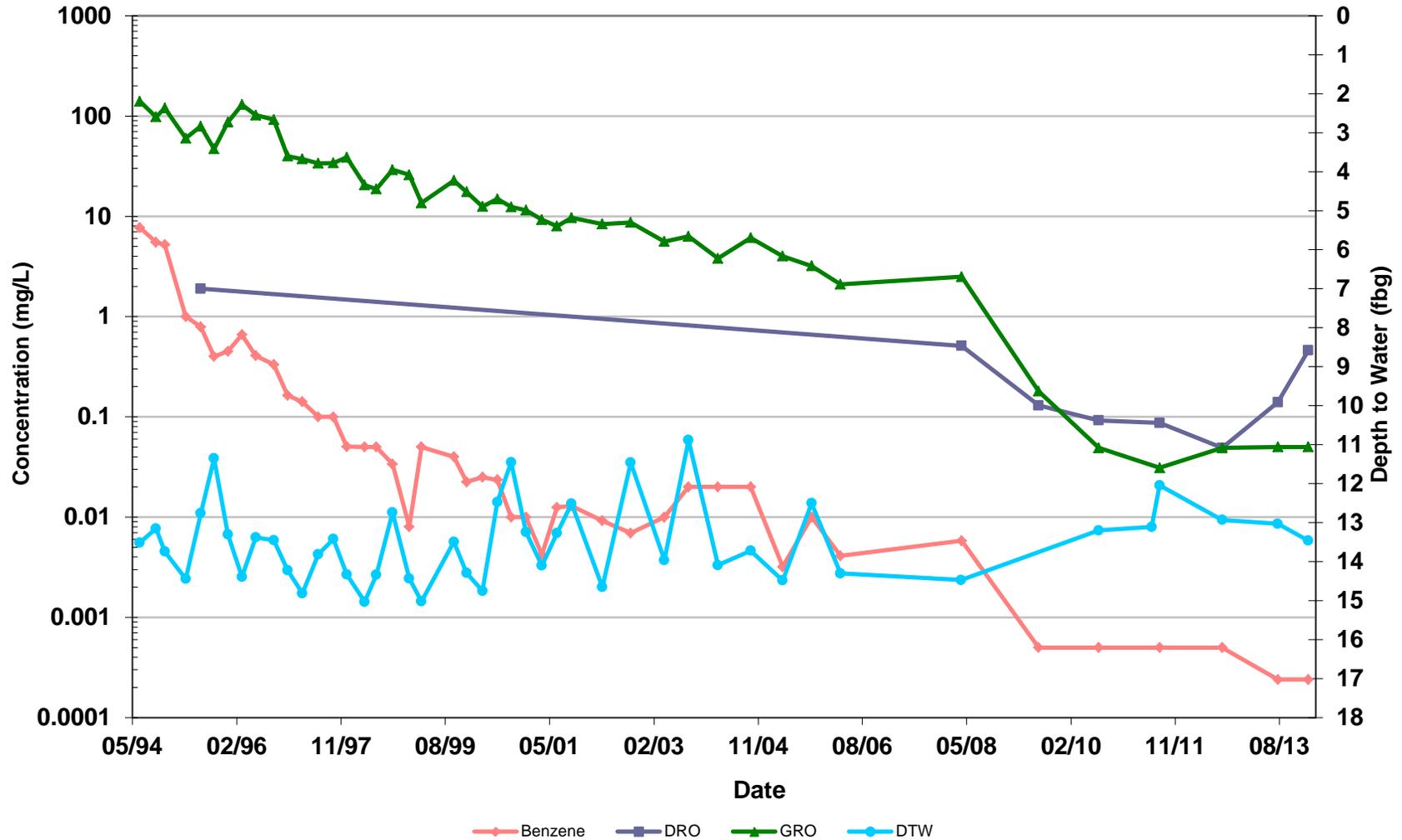
MW-2



Former Texaco Service Station 211079
1501 South Cushman Street
Fairbanks, Alaska



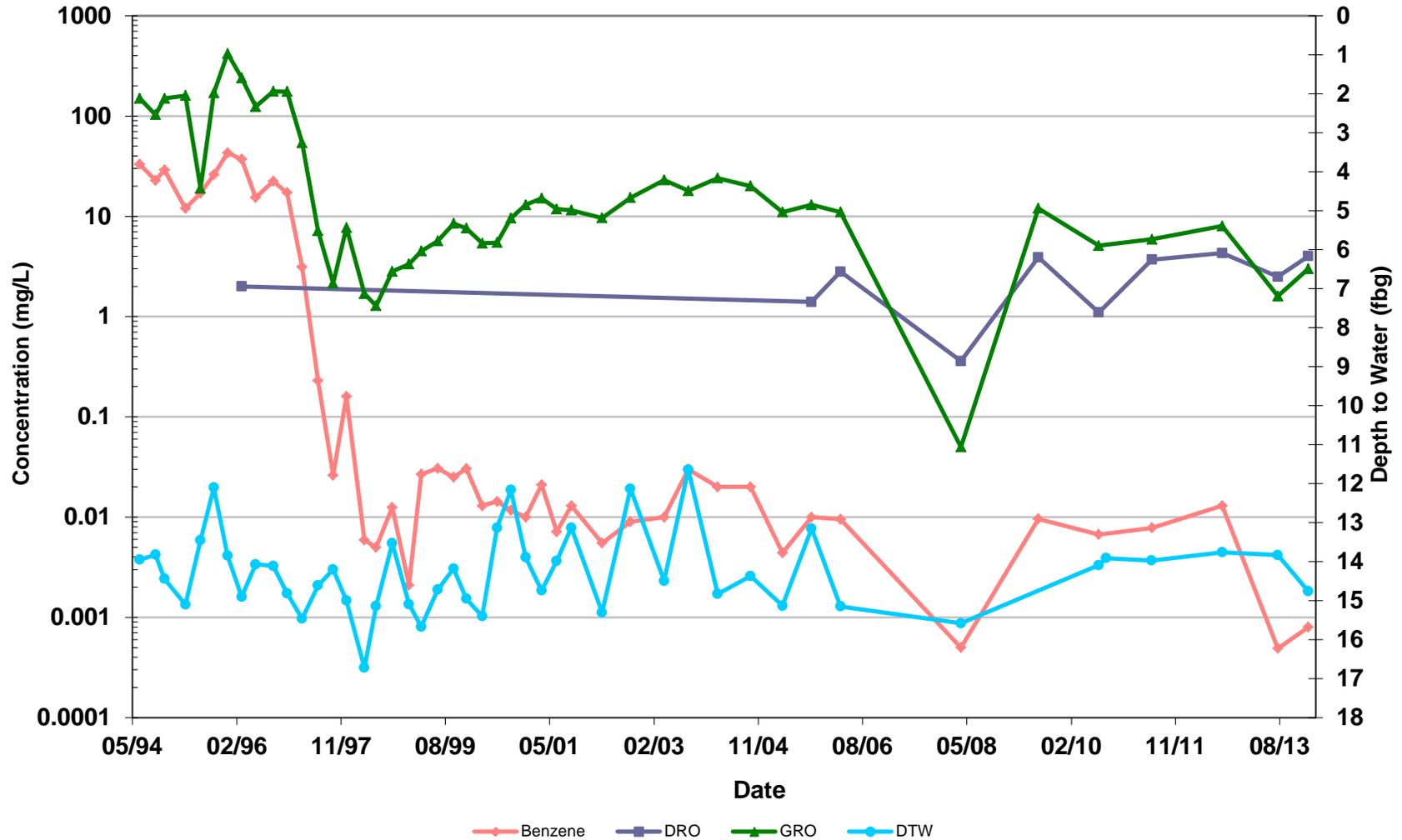
MW-4



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Fairbanks, Alaska



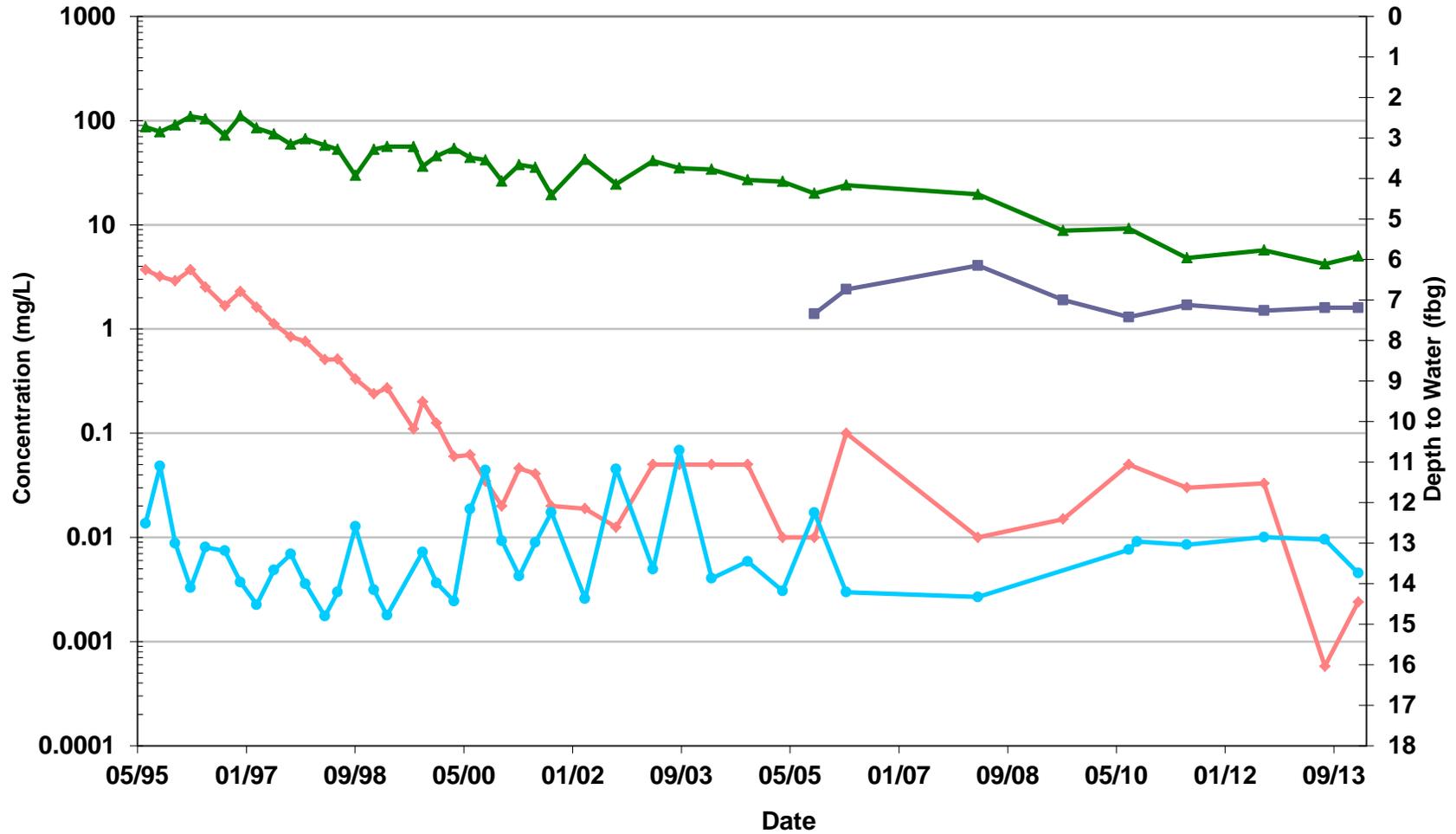
MW-5



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MW-9

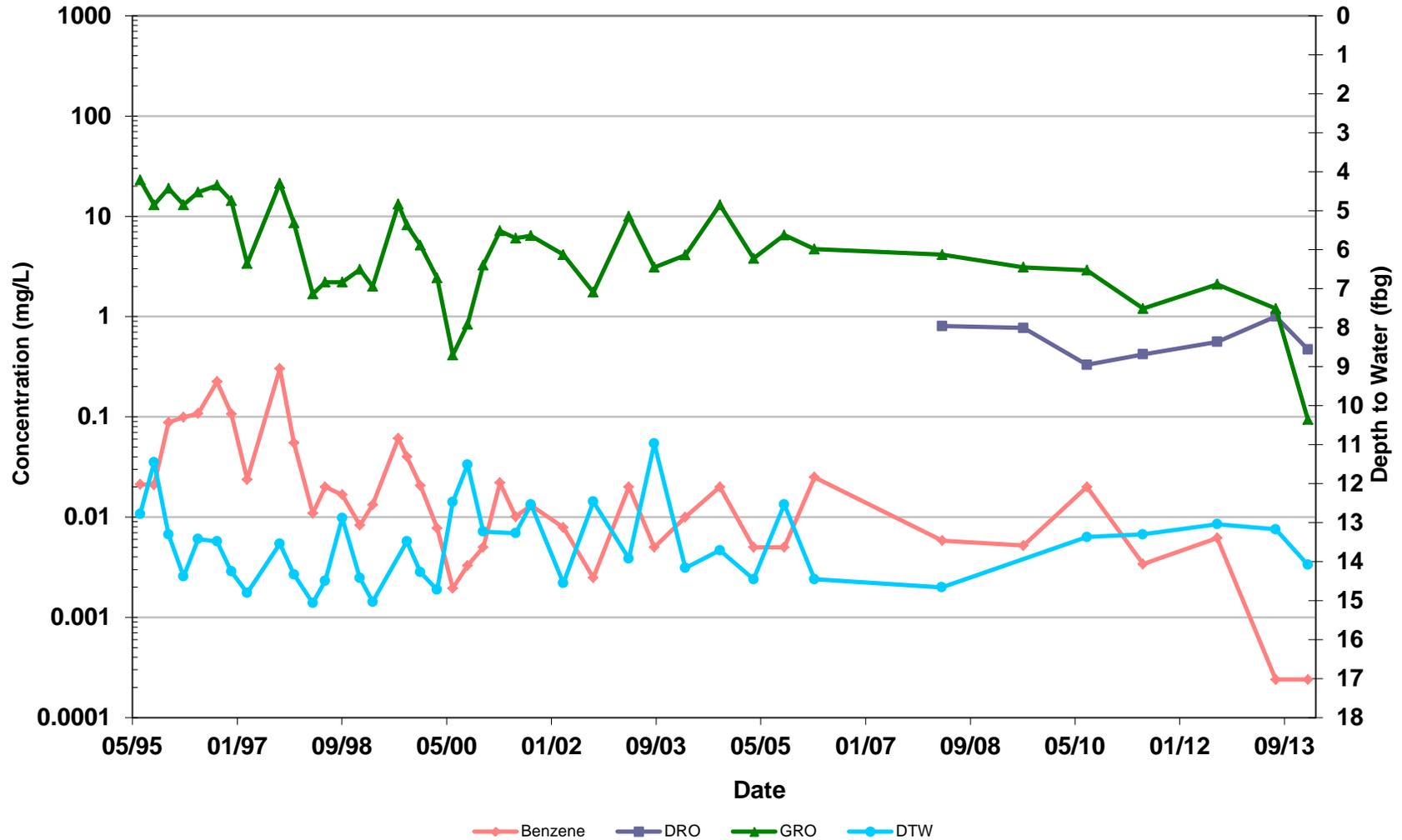


—◆— Benzene —■— DRO —▲— GRO —●— DTW

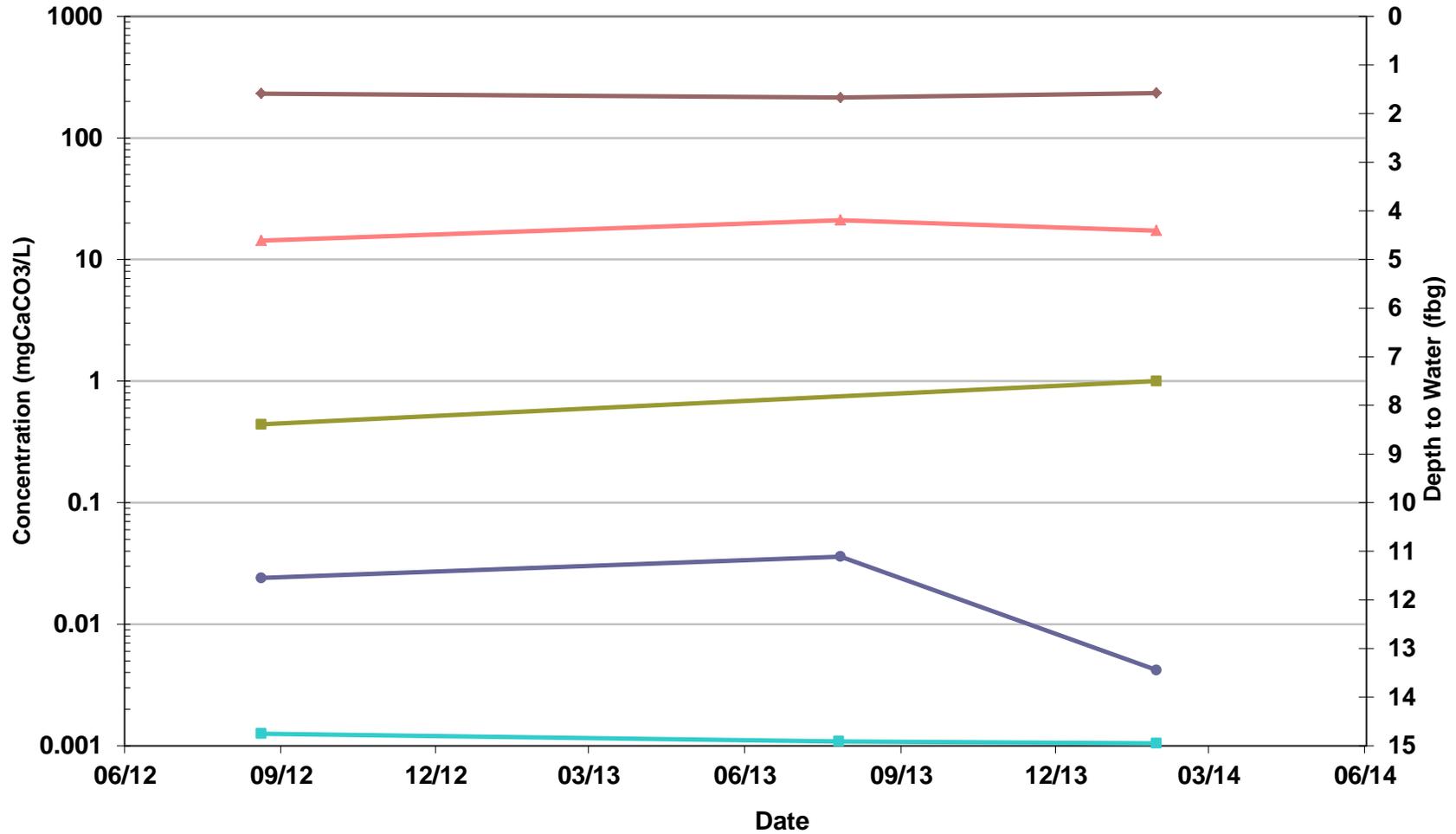
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MW-10



MW-1

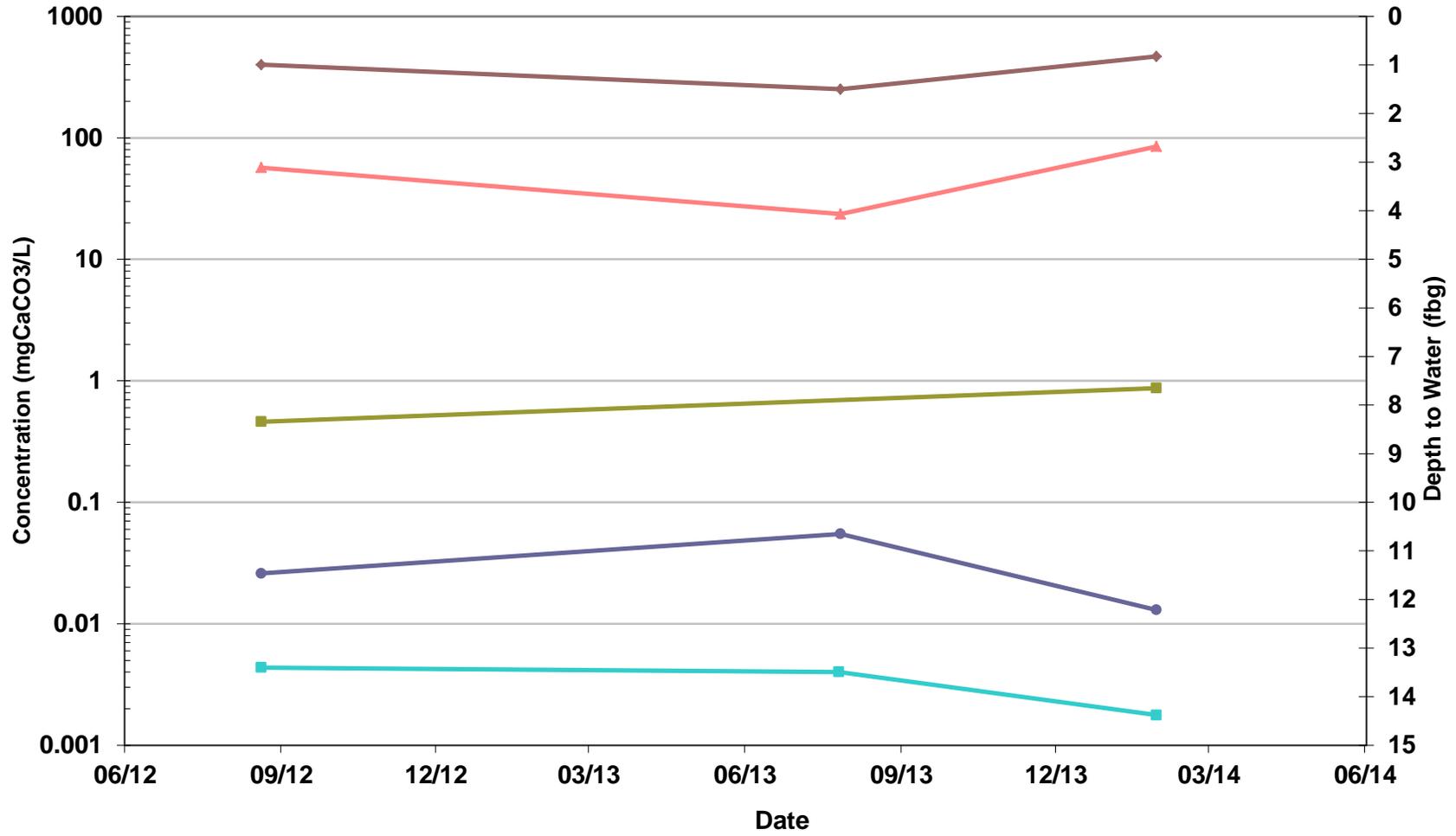


—◆— Total Alkalinity —■— Nitrate as Nitrogen —▲— Sulfate —●— Methane —■— DTW

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MW-2

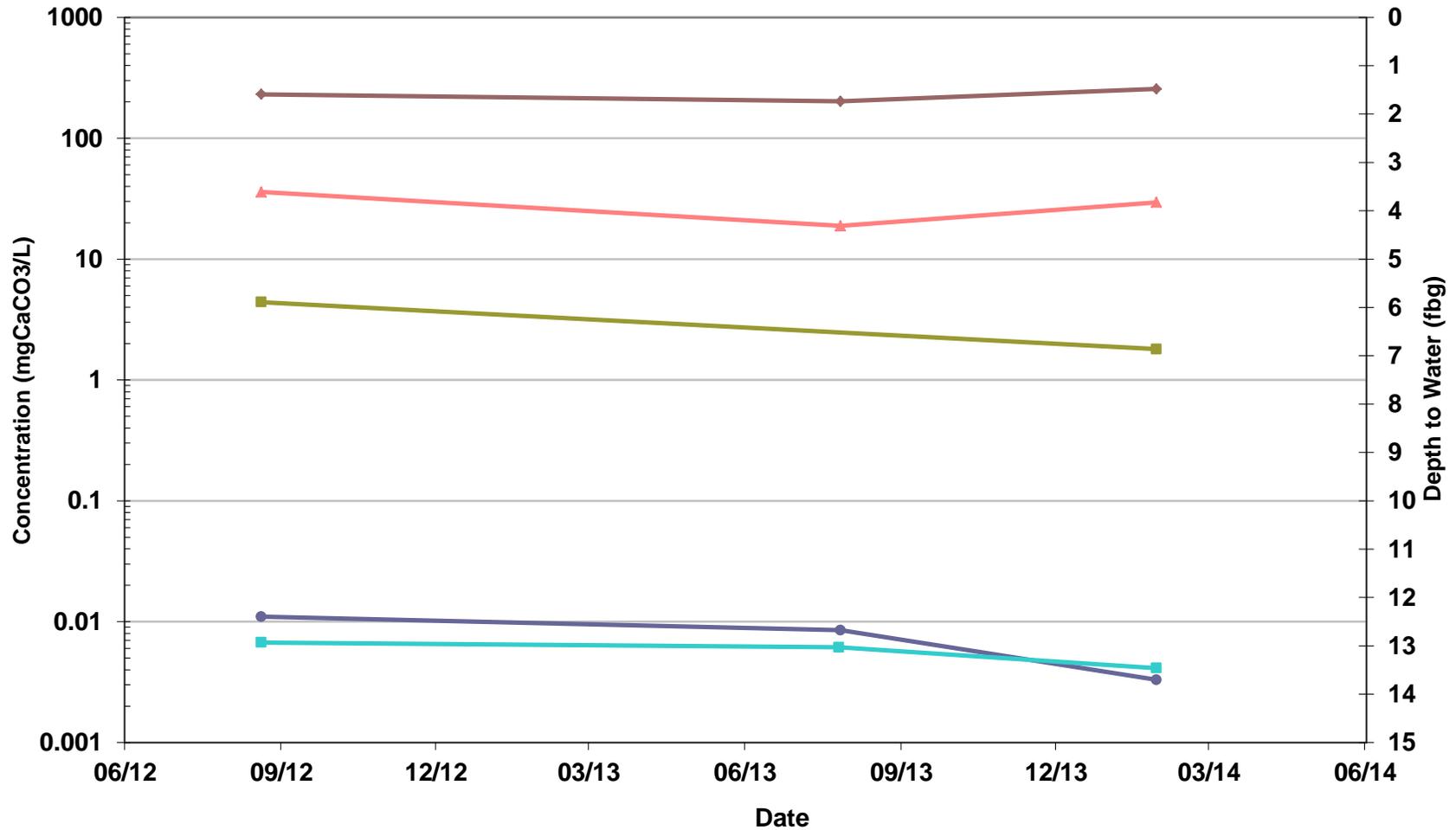


—◆— Total Alkalinity —■— Nitrate as Nitrogen —▲— Sulfate —●— Methane —■— DTW

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MW-4

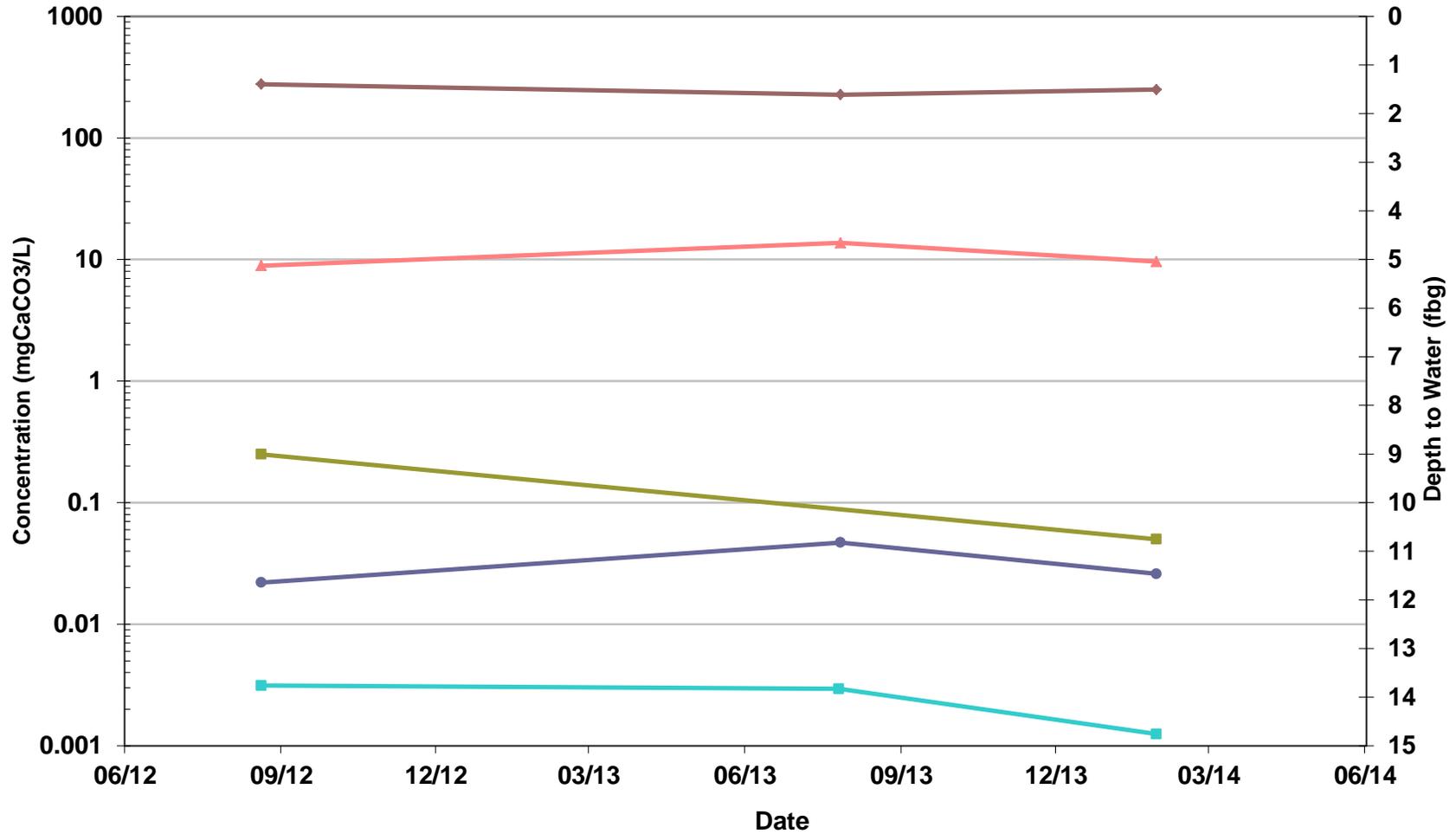


—◆— Total Alkalinity —■— Nitrate as Nitrogen —▲— Sulfate —●— Methane —□— DTW

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MW-5

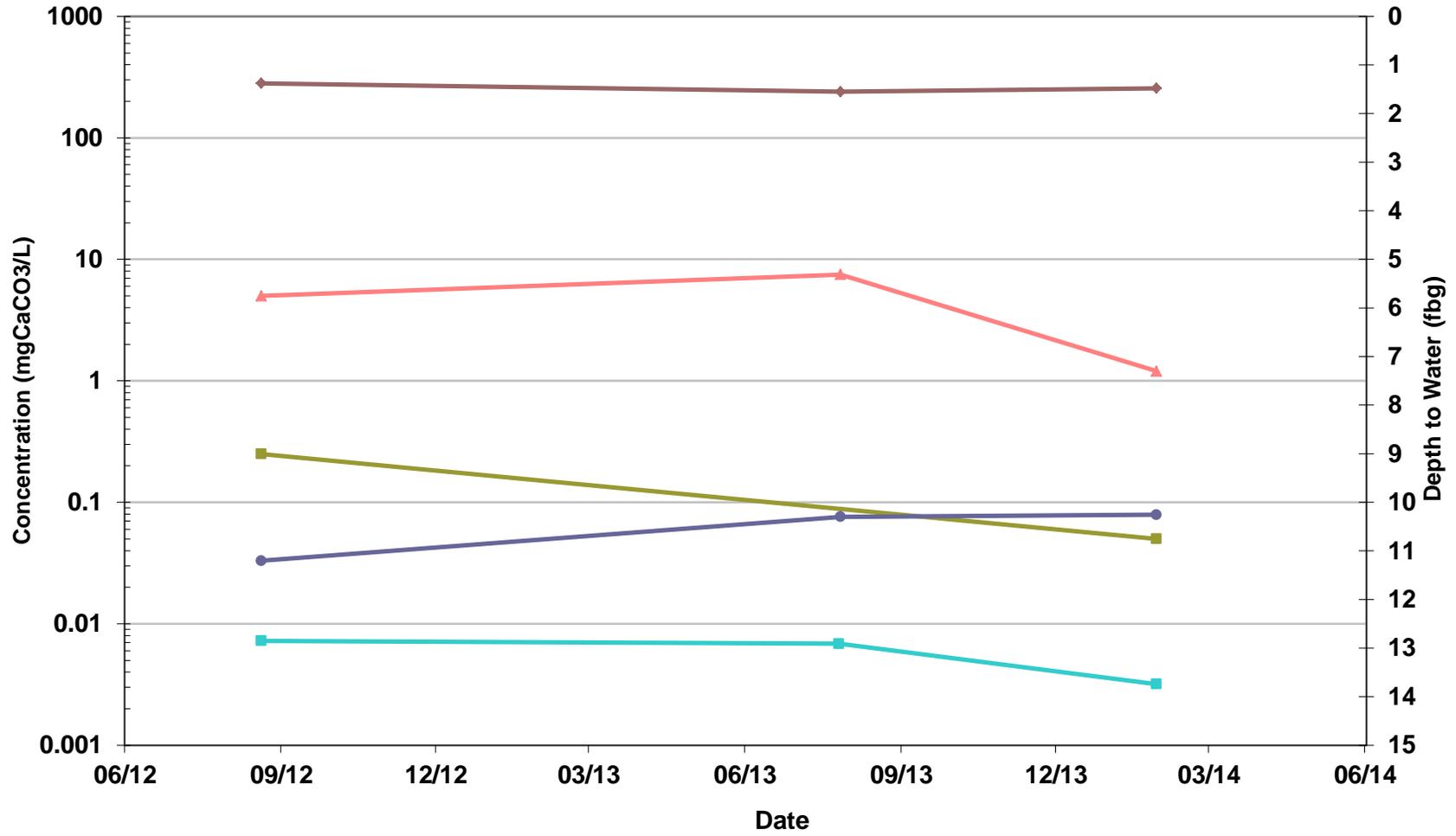


—◆— Total Alkalinity —■— Nitrate as Nitrogen —▲— Sulfate —●— Methane —■— DTW

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MW-9

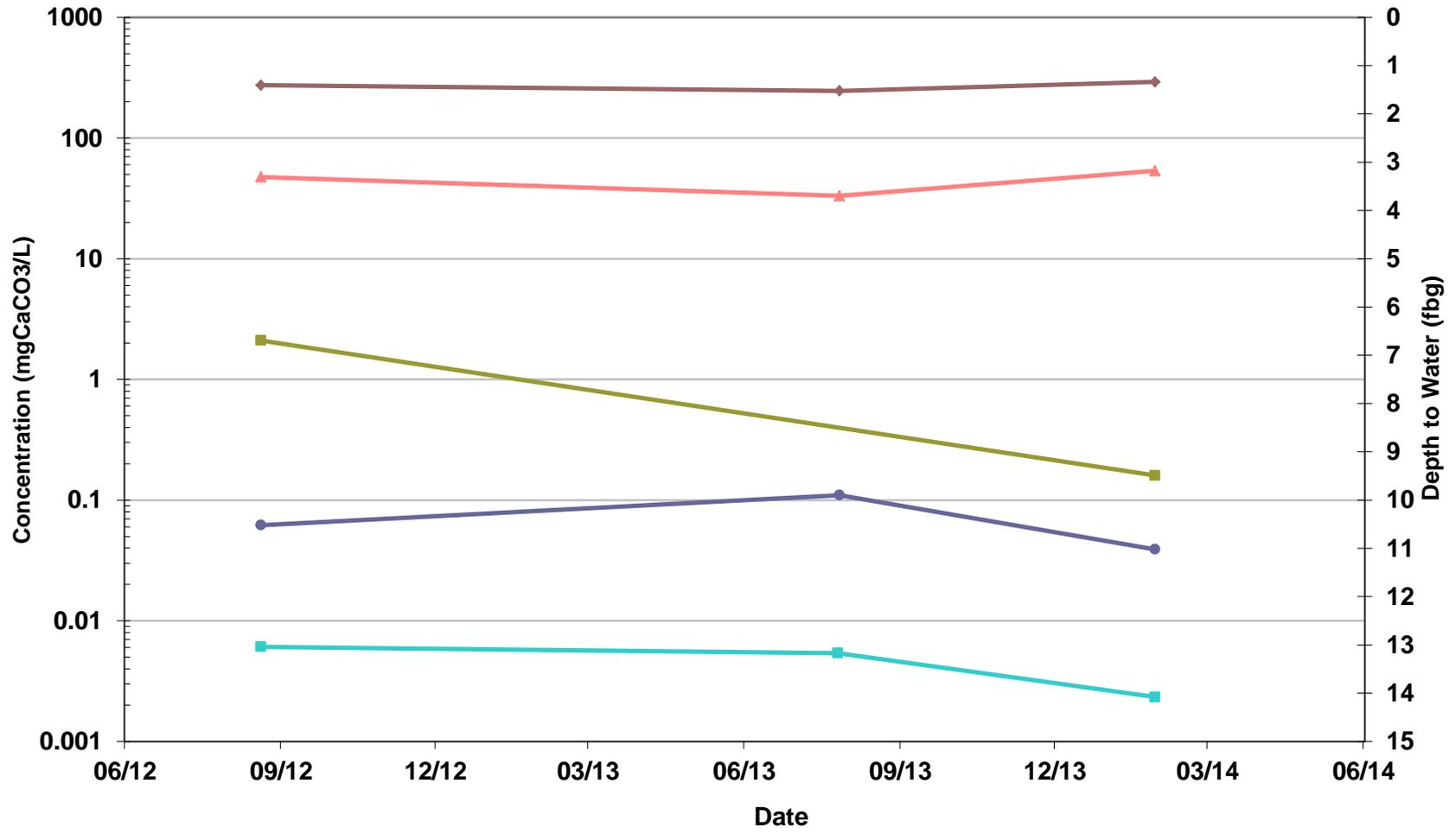


—◆— Total Alkalinity —■— Nitrate as Nitrogen —▲— Sulfate —●— Methane —■— DTW

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MW-10



—◆— Total Alkalinity —■— Nitrate as Nitrogen —▲— Sulfate —●— Methane —■— DTW

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Appendix F

ADEC Laboratory Data Review Checklist and Memorandum

Laboratory Data Review Checklist

Completed by:

Title: Date:

CS Report Name: Report Date:

Consultant Firm:

Laboratory Name: Laboratory Report Number:

ADEC File Number: ADEC RecKey Number:

1. Laboratory

- a. Did an ADEC CS approved laboratory receive and perform all of the submitted sample analyses?
X Yes No NA (Please explain.) Comments:

- b. If the samples were transferred to another “network” laboratory or sub-contracted to an alternate laboratory, was the laboratory performing the analyses ADEC CS approved?
X Yes No NA (Please explain.) Comments:

2. Chain of Custody (COC)

- a. COC information completed, signed, and dated (including released/received by)?
X Yes No NA (Please explain.) Comments:

- b. Correct analyses requested?
X Yes No NA (Please explain.) Comments:

3. Laboratory Sample Receipt Documentation

- a. Sample/cooler temperature documented and within range at receipt ($4^{\circ} \pm 2^{\circ} \text{C}$)?
X Yes No NA (Please explain.) Comments:

- b. Sample preservation acceptable – acidified waters, Methanol preserved VOC soil (GRO, BTEX, Volatile Chlorinated Solvents, etc.)?
X Yes No NA (Please explain.) Comments:

c. Sample condition documented – broken, leaking (Methanol), zero headspace (VOC vials)?

Yes No NA (Please explain.)

Comments:

d. If there were any discrepancies, were they documented? For example, incorrect sample containers/preservation, sample temperature outside of acceptable range, insufficient or missing samples, etc.?

Yes No NA (Please explain.)

Comments:

e. Data quality or usability affected? (Please explain.)

Comments:

4. Case Narrative

a. Present and understandable?

Yes No NA (Please explain.)

Comments:

b. Discrepancies, errors or QC failures identified by the lab?

Yes No NA (Please explain.)

Comments:

c. Were all corrective actions documented?

Yes No NA (Please explain.)

Comments:

d. What is the effect on data quality/usability according to the case narrative?

Comments:

5. Samples Results

a. Correct analyses performed/reported as requested on COC?

Yes No NA (Please explain.)

Comments:

b. All applicable holding times met?

The nitrite analyses for samples MW-2, MW-4, MW-5 and DUP-1 and all ferrous iron analyses were run outside of the method specified hold time.

Yes No NA (Please explain.)

Comments:

c. All soils reported on a dry weight basis?

Yes No NA (Please explain.)

Comments:

No soils

d. Are the reported PQLs less than the Cleanup Level or the minimum required detection level for the project?

Yes No NA (Please explain.)

Comments:

e. Data quality or usability affected?

Comments:

None

6. QC Samples

a. Method Blank

i. One method blank reported per matrix, analysis and 20 samples?

Yes No NA (Please explain.)

Comments:

ii. All method blank results less than PQL?

Yes No NA (Please explain.)

Comments:

iii. If above PQL, what samples are affected?

Comments:

No affected samples

iv. Do the affected sample(s) have data flags and if so, are the data flags clearly defined?

Yes No NA (Please explain.)

Comments:

No affected samples

v. Data quality or usability affected? (Please explain.)

Comments:

None

b. Laboratory Control Sample/Duplicate (LCS/LCSD)

i. Organics – One LCS/LCSD reported per matrix, analysis and 20 samples? (LCS/LCSD required per AK methods, LCS required per SW846)

X Yes No NA (Please explain.)

Comments:

ii. Metals/Inorganics – one LCS and one sample duplicate reported per matrix, analysis and 20 samples?

Yes X No NA (Please explain.)

Comments:

Alkalinity, sulfate and nitrite did not have project related duplicates

iii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods: AK101 60%-120%, AK102 75%-125%, AK103 60%-120%; all other analyses see the laboratory QC pages)

Yes X No NA (Please explain.)

Comments:

The nitrate+nitrite MS/MSD set had low recoveries

iv. Precision – All relative percent differences (RPD) reported and less than method or laboratory limits? And project specified DQOs, if applicable. RPD reported from LCS/LCSD, MS/MSD, and or sample/sample duplicate. (AK Petroleum methods 20%; all other analyses see the laboratory QC pages)

X Yes No NA (Please explain.)

Comments:

v. If %R or RPD is outside of acceptable limits, what samples are affected?

Comments:

All samples analyzed for nitrate+nitrite

vi. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

X Yes No NA (Please explain.)

Comments:

vii. Data quality or usability affected? (Use comment box to explain.)

Comments:

All nitrate+nitrite and nitrate results were qualified as estimated due to the implied low bias

c. Surrogates – Organics Only

i. Are surrogate recoveries reported for organic analyses – field, QC and laboratory samples?

X Yes No NA (Please explain.)

Comments:

ii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods 50-150 %R; all other analyses see the laboratory report pages)

X Yes No NA (Please explain.)

Comments:

iii. Do the sample results with failed surrogate recoveries have data flags? If so, are the data flags clearly defined?

Yes No NA (Please explain.)

Comments:

No failed surrogates

iv. Data quality or usability affected? (Use the comment box to explain.)

Comments:

None

d. Trip blank – Volatile analyses only (GRO, BTEX, Volatile Chlorinated Solvents, etc.): Water and Soil

i. One trip blank reported per matrix, analysis and for each cooler containing volatile samples? (If not, enter explanation below.)

Yes No NA (Please explain.)

Comments:

ii. Is the cooler used to transport the trip blank and VOA samples clearly indicated on the COC? (If not, a comment explaining why must be entered below)

Yes No NA (Please explain.)

Comments:

iii. All results less than PQL?

Yes No NA (Please explain.)

Comments:

iv. If above PQL, what samples are affected?

Comments:

No affected samples

v. Data quality or usability affected? (Please explain.)

Comments:

None

e. Field Duplicate

i. One field duplicate submitted per matrix, analysis and 10 project samples?

Yes No NA (Please explain.)

Comments:

ii. Submitted blind to lab?
X Yes No NA (Please explain.)

Comments:

iii. Precision – All relative percent differences (RPD) less than specified DQOs?
(Recommended: 30% water, 50% soil)

$$\text{RPD (\%)} = \text{Absolute value of: } \frac{(R_1 - R_2)}{((R_1 + R_2)/2)} \times 100$$

Where R_1 = Sample Concentration
 R_2 = Field Duplicate Concentration

Yes No NA (Please explain.)

Comments:

DRO had a high RPD

iv. Data quality or usability affected? (Use the comment box to explain why or why not.)

Comments:

The DRO results for samples

f. Decontamination or Equipment Blank (If not used explain why).

Yes No NA (Please explain.)

Comments:

Not collected

i. All results less than PQL?

Yes No NA (Please explain.)

Comments:

Not collected

ii. If above PQL, what samples are affected?

Comments:

Not collected

iii. Data quality or usability affected? (Please explain.)

Comments:

Not collected

7. Other Data Flags/Qualifiers (ACOE, AFCEE, Lab Specific, etc.)

a. Defined and appropriate?

X Yes No NA (Please explain.)

Comments:



MEMORANDUM

To: ADEC REF. NO.: 065003

FROM: Jeffrey Cloud DATE: May 20, 2014

CC: Siobhan Pritchard Send via E-Mail and U.S. Mail

RE: **QA/QC Review**
ChevronTexaco Site 211079
Job #10256484
January 2014

INTRODUCTION

Groundwater samples were submitted to Pace Analytical Services, located in Minneapolis, Minnesota. Samples were analyzed for the methods requested on the Chain of Custody.

A full data package was received from Pace Analytical Services. The final results and supporting quality assurance/quality control (QA/QC) data were reviewed. Evaluation of the data was based on information obtained from the Chain of Custody forms, finished report forms, blank data, and spike recoveries.

QA/QC REVIEW

All samples were prepared and/or analyzed within the required holding times with a few exceptions. The nitrite analyses for samples MW-2, MW-4, MW-5 and DUP-1 and all ferrous iron analyses were run outside of the method specified hold time and the associated sample results were qualified as estimated. All samples were properly preserved and cooled after collection.

All appropriate samples and blanks were spiked with surrogate compounds prior to sample preparation and/or analysis in accordance with the organic methods. All surrogate spike recoveries met the associated method criteria indicating adequate analytical efficiency.

Method blanks were prepared and analyzed with the samples for all parameters. All blank results were non-detect for the analytes of interest.

Laboratory control samples (LCS) were analyzed in duplicate for all parameters. All recoveries were within required control limits showing adequate analytical accuracy and precision (where applicable).

Matrix spikes (MS) were prepared and analyzed for GRO, ferrous iron and nitrate+nitrite. All recoveries were within required control limits showing adequate analytical accuracy and precision with the exceptions of two low nitrate+nitrite recoveries. The associated nitrate+nitrite and nitrite results were qualified as estimated due to the implied low bias.

Trip blanks were collected and analyzed with the investigative samples. All trip blank results were non-detect for the compounds of interest.

A field duplicate was collected and submitted blind to the laboratory. The sample ID was MW-5 and its duplicate was DUP-1. A comparison of the results showed good analytical and sampling precision with the exception of a high DRO RPD. The DRO results for samples MW-5 and DUP-1 were qualified as estimated.

CONCLUSION

Based on the QA/QC review, the data submitted were judged to be acceptable for use with the qualifications noted.