



Analytical Report

Environ 2200 Powell Street, 7th Floor Emeryville, CA 94608	Client Project ID: #21-32100GA-G01; NERT-SOIL GAS	Date Sampled:
	Client Contact: John Pekala	Date Received:
	Client P.O.:	Date Reported: 03/20/13
		Date Completed: 03/21/13

WorkOrder: 1303287

April 16, 2013

Dear John:

Enclosed within are:

- 1) The results of the **9** analyzed samples from your project: **#21-32100GA-G01; NERT-SOIL GAS**,
- 2) QC data for the above samples, and
- 3) A copy of the chain of custody.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing McC Campbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius
 Laboratory Manager
 McC Campbell Analytical, Inc.

The analytical results relate only to the items tested.

ENVIRON

6001 Shellmound Street, Suite 700
Emeryville, California 94608
(510) 655-7400
(510) 655-9517 (fax)

CHAIN-of-CUSTODY

1303287

01827

PAGE 1 of 1

PROJECT NAME / FACILITY ID: NERT-SOIL GAS FIELD PERSON: J. HILLER
 PROJECT NUMBER: 21-32100GA-G01 DATE: 3/8/13 PROJECT MANAGER: J. PEKALA
 PROJECT LOCATION: HENDERSON, NV LABORATORY: McCAMPBELL

IS THIS A UST PROJECT OR IS EDF REQUIRED? Y N IF YES, GLOBAL ID #: _____ WO#: _____

SAMPLER: <u>J. Hiller</u>	YEAR 2013							ANALYSIS REQUIRED				TO-15 LOW LEVEL		COMMENTS
	SIGNATURE:	SAMPLE DATE	SAMPLE TIME	SAMPLE DEPTH	MATRIX (S) SOIL (G) GAS (W) WATER	NUMBER OF CONTAINERS	FILTERED/UNFILTERED (F/U)	PRESERVATION (SEE KEY)	START PRESSURE	START TIME	END PRESSURE	END TIME	Helium	
SAMPLE I.D. NUMBER														
TRIP BLANK	3/7	—	—	G	1	U	No	—	—	—	—	X	X	CAN 5800-731
E-SG-3-030713-EB	3/7	1331	—	—	1	—	—	-30	1325	-3	1331	X	X	CAN 5807-738
E-SG-2-030713	3/7	1650	5.0	—	1	—	—	-30	1644	-3	1650	X	X	CAN 6312-792
E-SG-3-030713	3/7	1743	5.0	—	1	—	—	-30	1736	-3	1743	X	X	CAN 6421-852
E-SG-6-030813	3/8	0801	5.0	—	1	—	—	-30	0748	-5	0801	X	X	CAN 6311-791
E-SG-6-030813-FD	3/8	0801	5.0	—	1	—	—	-30	0748	-5	0801	X	X	CAN 6413-800
E-SG-7-030813	3/8	0854	5.0	—	1	—	—	-30	0849	-4	0854	X	X	CAN 6165-751
E-SG-9-030813	3/8	0944	5.0	—	1	—	—	-30	0945	-3	0952	X	X	CAN 7522-870
E-SG-1-030813	3/8	1103	5.0	—	1	—	—	-30	1057	-3	1103	X	X	CAN 6307-787
TOTAL	X	X	X	X	9	X	X	X	X	X	X	9	9	

RELINQUISHED BY:	TIME/DATE: 1400 3/8/13	RECEIVED BY:	TIME/DATE: 1400 3/8/13	TURNAROUND TIME (CIRCLE ONE)	SAMEDAY	72 HOURS
RELINQUISHED BY:	TIME/DATE:	RECEIVED BY:	TIME/DATE: 3/11/13		24 HOURS	5 DAYS
RELINQUISHED BY:	TIME/DATE:	RECEIVED BY:	TIME/DATE: 1300	SAMPLE INTEGRITY	IF SEALED, SEAL INTEGRITY	
REC'D SEALED & INTACT VIA FedEx				INTACT: Y N Temp _____	INTACT: Y N	

H = HCL; N = HNO3; S = H2SO4; U = UNKNOWN; NO = NONE; O = OTHER



CHAIN-OF-CUSTODY RECORD

WorkOrder: 1303287

ClientCode: ENVE

WaterTrax
 WriteOn
 EDF
 Excel
 EQUIS
 Email
 HardCopy
 ThirdParty
 J-flag

Report to:
 John Pekala
 Environ
 2200 Powell Street, 7th Floor
 Emeryville, CA 94608
 (510) 655-7400 FAX: (510) 655-9517

Email: jpekala@environcorp.com
 cc:
 PO:
 ProjectNo: #21-32100GA-G01; NERT-SOIL GAS

Bill to:
 Glenn Chickering
 Environ
 2200 Powell Street, 7th Floor
 Emeryville, CA 94608
 gchickering@environcorp.com

Requested TAT: 5 days

Date Received: 03/11/2013

Date Printed: 03/11/2013

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
1303287-001	TRIP BLANK	Soil Gas	3/7/2013	<input type="checkbox"/>	A												
1303287-002	E-SG-3-030713-EB	Soil Gas	3/7/2013 13:31	<input type="checkbox"/>	A												
1303287-003	E-SG-2-030713	Soil Gas	3/7/2013 17:43	<input type="checkbox"/>	A												
1303287-004	E-SG-3-030713	Soil Gas	3/7/2013 16:50	<input type="checkbox"/>	A												
1303287-005	E-SG-6-030813	Soil Gas	3/8/2013 8:01	<input type="checkbox"/>	A												
1303287-006	E-SG-6-030813-FD	Soil Gas	3/8/2013 8:01	<input type="checkbox"/>	A												
1303287-007	E-SG-7-030813	Soil Gas	3/8/2013 8:54	<input type="checkbox"/>	A												
1303287-008	E-SG-9-030813	Soil Gas	3/8/2013 9:52	<input type="checkbox"/>	A												
1303287-009	E-SG-1-030813	Soil Gas	3/8/2013 11:03	<input type="checkbox"/>	A												

Test Legend:

1	TO15_LL_SOIL(UG/M3)	2		3		4		5	
6		7		8		9		10	
11		12							

The following SampIDs: 001A, 002A, 003A, 004A, 005A, 006A, 007A, 008A, 009A contain testgroup.

Prepared by: Jena Alfaro

Comments: Excel files need for all reports per Nick Walchuk 11/5/10

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days). Hazardous samples will be returned to client or disposed of at client expense.



Sample Receipt Checklist

Client Name: **Environ** Date and Time Received: **3/11/2013 1:26:52 PM**
 Project Name: **#21-32100GA-G01; NERT-SOIL GAS** LogIn Reviewed by: **Jena Alfaro**
 WorkOrder N°: **1303287** Matrix: Soil Gas Carrier: FedEx

Chain of Custody (COC) Information

Chain of custody present? Yes No
 Chain of custody signed when relinquished and received? Yes No
 Chain of custody agrees with sample labels? Yes No
 Sample IDs noted by Client on COC? Yes No
 Date and Time of collection noted by Client on COC? Yes No
 Sampler's name noted on COC? Yes No

Sample Receipt Information

Custody seals intact on shipping container/cooler? Yes No NA
 Shipping container/cooler in good condition? Yes No
 Samples in proper containers/bottles? Yes No
 Sample containers intact? Yes No
 Sufficient sample volume for indicated test? Yes No

Sample Preservation and Hold Time (HT) Information

All samples received within holding time? Yes No
 Container/Temp Blank temperature Cooler Temp: NA
 Water - VOA vials have zero headspace / no bubbles? Yes No No VOA vials submitted
 Sample labels checked for correct preservation? Yes No
 Metal - pH acceptable upon receipt (pH<2)? Yes No NA
 Samples Received on Ice? Yes No

* NOTE: If the "No" box is checked, see comments below.

 Comments:



McC Campbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
<http://www.mcccampbell.com> / E-mail: main@mcccampbell.com

Environ 2200 Powell Street, 7th Floor Emeryville, CA 94608	Client Project ID: #21-32100GA-G01; NERT-SOIL GAS	Date Sampled: 03/07/13
		Date Received: 03/11/13
	Client Contact: John Pekala	Date Reported: 03/20/13
	Client P.O.:	Date Completed: 03/21/13

Work Order: 1303287

March 29, 2013

CASE NARRATIVE REGARDING TO-15 ANALYSIS

All summa canisters are EVACUATED 5 days after the reporting of the results. Please call or email if a longer retention time is required.



Environ 2200 Powell Street, 7th Floor Emeryville, CA 94608	Client Project ID: #21-32100GA-G01; NERT-SOIL GAS	Date Sampled: 03/07/13-03/08/13
	Client Contact: John Pekala	Date Received: 03/11/13
	Client P.O.:	Date Extracted: 03/12/13
		Date Analyzed: 03/12/13

Helium*

Extraction method: ASTM D 1946-90

Analytical methods: ASTM D 1946-90

Work Order: 1303287

Lab ID	Client ID	Matrix	Initial Pressure	Final Pressure	Helium	DF	% SS	Comments
001A	TRIP BLANK	Soil Gas	15.06	30.02	0.044	1	N/A	
002A	E-SG-3-030713-EB	Soil Gas	13.50	26.92	0.0094	1	N/A	
003A	E-SG-2-030713	Soil Gas	13.66	27.24	0.0081	1	N/A	
004A	E-SG-3-030713	Soil Gas	13.22	26.34	0.0082	1	N/A	
005A	E-SG-6-030813	Soil Gas	12.17	24.24	2.0	1	N/A	
006A	E-SG-6-030813-FD	Soil Gas	12.44	24.78	0.076	1	N/A	
007A	E-SG-7-030813	Soil Gas	12.45	24.82	ND	1	N/A	
008A	E-SG-9-030813	Soil Gas	13.48	26.86	ND	1	N/A	
009A	E-SG-1-030813	Soil Gas	15.12	30.14	0.0067	1	N/A	

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	psia	psia	NA	NA
	SoilGas	psia	psia	0.005	%

* vapor samples are reported in %.

%SS = Percent Recovery of Surrogate Standard

DF = Dilution Factor



CLIENT: Environ
Client Sample ID: TRIP BLANK
Project: #21-32100GA-G01; NERT-SOIL GAS
Collection Date: 3/7/2013

Work Order: 1303287
Lab ID: 1303287-001A
Batch ID: 75598
Matrix: SOIL GAS

Low-Level Volatile Organic Compounds in µg/m³

Extraction Method: TO15

Analytical Method: TO15

Table with columns: CAS#, Analytes, Result, Qual, MDL, RL, Units, DF, Instrument, Date Analyzed. Lists various chemical compounds and their detection results.

Qualifiers: ND - Not Detected at the Method Detection Limit S - Spike Recovery outside accepted recovery limits
J - Analyte detected below Reporting Limit R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank E - Value above quantitation range
* - Value exceeds Maximum Contaminant Level H - Samples were analyzed out of holding time



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Client Sample ID: TRIP BLANK
Project: #21-32100GA-G01; NERT-SOIL GAS
Collection Date: 3/7/2013

Work Order: 1303287
Lab ID: 1303287-001A
Batch ID: 75598
Matrix: SOIL GAS

Low-Level Volatile Organic Compounds in µg/m³

Extraction Method: TO15

Analytical Method: TO15

Table with columns: CAS#, Analytes, Result, Qual, MDL, RL, Units, DF, Instrument, Date Analyzed. Lists various organic compounds and their detection results.

Surrogate Recovery

Table with columns: CAS#, Analytes, Result, Qual, MDL, RL, Units, DF, Instrument, Date Analyzed. Lists surrogate recovery results for 1,2-DCA-d4, toluene-d8(surr) (A), and 4-BFB (surr).

Qualifiers: ND - Not Detected at the Method Detection Limit S - Spike Recovery outside accepted recovery limits
J - Analyte detected below Reporting Limit R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank E - Value above quantitation range
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CLIENT: Environ
Client Sample ID: E-SG-3-030713-EB
Project: #21-32100GA-G01; NERT-SOIL GAS
Collection Date: 3/7/2013 1:31:00 PM

Work Order: 1303287
Lab ID: 1303287-002A
Batch ID: 75598
Matrix: SOIL GAS

Low-Level Volatile Organic Compounds in µg/m³

Extraction Method: TO15

Analytical Method: TO15

Table with columns: CAS#, Analytes, Result, Qual, MDL, RL Units, DF, Instrument, Date Analyzed. Contains 40 rows of chemical analysis data.

Qualifiers: ND - Not Detected at the Method Detection Limit
J - Analyte detected below Reporting Limit
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Collection Date: 3/7/2013 1:31:00 PM

Work Order: 1303287
Lab ID: 1303287-002A
Batch ID: 75598
Matrix: SOIL GAS

Low-Level Volatile Organic Compounds in µg/m³

Extraction Method: **TO15**

Analytical Method: **TO15**

CAS#	Analytes	Result	Qual	MDL	RL Units	DF	Instrument	Date Analyzed
637-92-3	Ethyl tert-butyl ether (ETBE)	ND		0.084	0.84 µg/m ³	1	GC24	3/15/13 1:12 PM
100-41-4	Ethylbenzene	0.27	J	0.062	0.88 µg/m ³	1	GC24	3/15/13 1:12 PM
622-96-8	4-Ethyltoluene	ND		1.0	1.0 µg/m ³	1	GC24	3/15/13 1:12 PM
76-13-1	Freon 113	ND		1.6	1.6 µg/m ³	1	GC24	3/15/13 1:12 PM
142-82-5	Heptane	ND		0.074	84 µg/m ³	1	GC24	3/15/13 1:12 PM
87-68-3	Hexachlorobutadiene	ND		0.14	2.2 µg/m ³	1	GC24	3/15/13 1:12 PM
110-54-3	Hexane	16	J	0.72	72 µg/m ³	1	GC24	3/15/13 1:12 PM
591-78-6	2-Hexanone	0.64	J	0.22	84 µg/m ³	1	GC24	3/15/13 1:12 PM
108-10-1	4-Methyl-2-pentanone (MIBK)	0.58	J	0.052	0.84 µg/m ³	1	GC24	3/15/13 1:12 PM
1634-04-4	Methyl-t-butyl ether (MTBE)	ND		0.096	0.74 µg/m ³	1	GC24	3/15/13 1:12 PM
75-09-2	Methylene chloride	ND		0.078	0.70 µg/m ³	1	GC24	3/15/13 1:12 PM
91-20-3	Naphthalene	ND		0.42	0.52 µg/m ³	1	GC24	3/15/13 1:12 PM
100-42-5	Styrene	ND		0.050	0.86 µg/m ³	1	GC24	3/15/13 1:12 PM
630-20-6	1,1,1,2-Tetrachloroethane	ND		0.15	0.34 µg/m ³	1	GC24	3/15/13 1:12 PM
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.072	0.34 µg/m ³	1	GC24	3/15/13 1:12 PM
127-18-4	Tetrachloroethene	0.35		0.34	0.34 µg/m ³	1	GC24	3/15/13 1:12 PM
109-99-9	Tetrahydrofuran	ND		1.2	1.2 µg/m ³	1	GC24	3/15/13 1:12 PM
108-88-3	Toluene	2.4		0.084	0.76 µg/m ³	1	GC24	3/15/13 1:12 PM
120-82-1	1,2,4-Trichlorobenzene	ND		0.22	1.5 µg/m ³	1	GC24	3/15/13 1:12 PM
71-55-6	1,1,1-Trichloroethane	ND		0.092	1.1 µg/m ³	1	GC24	3/15/13 1:12 PM
79-00-5	1,1,2-Trichloroethane	ND		0.10	0.28 µg/m ³	1	GC24	3/15/13 1:12 PM
79-01-6	Trichloroethene	ND		0.12	1.1 µg/m ³	1	GC24	3/15/13 1:12 PM
75-69-4	Trichlorofluoromethane	ND		1.1	1.1 µg/m ³	1	GC24	3/15/13 1:12 PM
95-63-6	1,2,4-Trimethylbenzene	0.22	J	0.11	1.0 µg/m ³	1	GC24	3/15/13 1:12 PM
108-67-8	1,3,5-Trimethylbenzene	ND		0.15	1.0 µg/m ³	1	GC24	3/15/13 1:12 PM
108-05-4	Vinyl Acetate	4.8	J	0.10	72 µg/m ³	1	GC24	3/15/13 1:12 PM
75-01-4	Vinyl Chloride	ND		0.12	0.12 µg/m ³	1	GC24	3/15/13 1:12 PM
1330-20-7	Xylenes, Total	ND		2.6	2.6 µg/m ³	1	GC24	3/15/13 1:12 PM

Surrogate Recovery

17060-07-0	1,2-DCA-d4	96		0	70-130 %REC	1	GC24	3/15/13 1:12 PM
2037-26-5	toluene-d8(surr) (A)	92		0	70-130 %REC	1	GC24	3/15/13 1:12 PM
460-00-4	4-BFB (surr)	86		0	70-130 %REC	1	GC24	3/15/13 1:12 PM

Qualifiers: ND - Not Detected at the Method Detection Limit
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S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 E - Value above quantitation range
 H - Samples were analyzed out of holding time



CLIENT: Environ
Client Sample ID: E-SG-2-030713
Project: #21-32100GA-G01; NERT-SOIL GAS
Collection Date: 3/7/2013 5:43:00 PM

Work Order: 1303287
Lab ID: 1303287-003A
Batch ID: 75598
Matrix: SOIL GAS

Low-Level Volatile Organic Compounds in µg/m³

Extraction Method: **TO15**

Analytical Method: **TO15**

CAS#	Analytes	Result	Qual	MDL	RL Units	DF	Instrument	Date Analyzed
67-64-1	Acetone	18	J	0.50	25 µg/m ³	1	GC24	3/18/13 1:34 PM
107-13-1	Acrylonitrile	ND		0.11	0.46 µg/m ³	1	GC24	3/18/13 1:34 PM
994-05-8	tert-Amyl methyl ether (TAME)	ND		0.080	0.88 µg/m ³	1	GC24	3/18/13 1:34 PM
71-43-2	Benzene	12		0.048	0.17 µg/m ³	1	GC24	3/18/13 1:34 PM
100-44-7	Benzyl chloride	ND		0.071	1.1 µg/m ³	1	GC24	3/18/13 1:34 PM
75-27-4	Bromodichloromethane	ND		0.10	0.38 µg/m ³	1	GC24	3/18/13 1:34 PM
75-25-2	Bromoform	ND		2.3	2.3 µg/m ³	1	GC24	3/18/13 1:34 PM
74-83-9	Bromomethane	ND		0.21	0.82 µg/m ³	1	GC24	3/18/13 1:34 PM
106-99-0	1,3-Butadiene	ND		0.29	0.46 µg/m ³	1	GC24	3/18/13 1:34 PM
78-93-3	2-Butanone (MEK)	6.3	J	0.034	63 µg/m ³	1	GC24	3/18/13 1:34 PM
75-65-0	t-Butyl alcohol (TBA)	2.9	J	0.18	13 µg/m ³	1	GC24	3/18/13 1:34 PM
75-15-0	Carbon Disulfide	ND		0.044	0.67 µg/m ³	1	GC24	3/18/13 1:34 PM
56-23-5	Carbon Tetrachloride	0.42		0.071	0.34 µg/m ³	1	GC24	3/18/13 1:34 PM
108-90-7	Chlorobenzene	17		0.073	0.98 µg/m ³	1	GC24	3/18/13 1:34 PM
75-00-3	Chloroethane	100		0.38	2.7 µg/m ³	5	GC24	3/13/13 9:51 PM
67-66-3	Chloroform	460		0.36	1.2 µg/m ³	5	GC24	3/13/13 9:51 PM
74-87-3	Chloromethane	ND		0.023	0.44 µg/m ³	1	GC24	3/18/13 1:34 PM
110-82-7	Cyclohexane	ND		73	73 µg/m ³	1	GC24	3/18/13 1:34 PM
124-48-1	Dibromochloromethane	ND		0.11	1.8 µg/m ³	1	GC24	3/18/13 1:34 PM
96-12-8	1,2-Dibromo-3-chloropropane	ND		0.21	0.52 µg/m ³	1	GC24	3/18/13 1:34 PM
106-93-4	1,2-Dibromoethane (EDB)	ND		0.10	0.42 µg/m ³	1	GC24	3/18/13 1:34 PM
95-50-1	1,2-Dichlorobenzene	6.1		0.15	1.3 µg/m ³	1	GC24	3/18/13 1:34 PM
541-73-1	1,3-Dichlorobenzene	38		0.11	1.3 µg/m ³	1	GC24	3/18/13 1:34 PM
106-46-7	1,4-Dichlorobenzene	10		0.19	0.31 µg/m ³	1	GC24	3/18/13 1:34 PM
75-71-8	Dichlorodifluoromethane	2.2		0.10	1.0 µg/m ³	1	GC24	3/18/13 1:34 PM
75-34-3	1,1-Dichloroethane	330		4.1	4.1 µg/m ³	5	GC24	3/13/13 9:51 PM
107-06-2	1,2-Dichloroethane (1,2-DCA)	26		0.094	0.21 µg/m ³	1	GC24	3/18/13 1:34 PM
75-35-4	1,1-Dichloroethene	33		0.042	0.21 µg/m ³	1	GC24	3/18/13 1:34 PM
156-59-2	cis-1,2-Dichloroethene	2.3		0.071	0.84 µg/m ³	1	GC24	3/18/13 1:34 PM
156-60-5	trans-1,2-Dichloroethene	2.1		0.067	0.84 µg/m ³	1	GC24	3/18/13 1:34 PM
78-87-5	1,2-Dichloropropane	ND		0.12	0.25 µg/m ³	1	GC24	3/18/13 1:34 PM
10061-01-5	cis-1,3-Dichloropropene	ND		0.084	0.25 µg/m ³	1	GC24	3/18/13 1:34 PM
10061-02-6	trans-1,3-Dichloropropene	ND		0.25	0.25 µg/m ³	1	GC24	3/18/13 1:34 PM
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		0.16	1.5 µg/m ³	1	GC24	3/18/13 1:34 PM
108-20-3	Diisopropyl ether (DIPE)	ND		0.061	0.88 µg/m ³	1	GC24	3/18/13 1:34 PM
123-91-1	1,4-Dioxane	ND		0.10	0.77 µg/m ³	1	GC24	3/18/13 1:34 PM
141-78-6	Ethyl acetate	2.1		0.10	1.9 µg/m ³	1	GC24	3/18/13 1:34 PM

Qualifiers: ND - Not Detected at the Method Detection Limit S - Spike Recovery outside accepted recovery limits
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CLIENT: Environ
Client Sample ID: E-SG-2-030713
Project: #21-32100GA-G01; NERT-SOIL GAS
Collection Date: 3/7/2013 5:43:00 PM

Work Order: 1303287
Lab ID: 1303287-003A
Batch ID: 75598
Matrix: SOIL GAS

Low-Level Volatile Organic Compounds in µg/m³

Extraction Method: **TO15**

Analytical Method: **TO15**

CAS#	Analytes	Result	Qual	MDL	RL Units	DF	Instrument	Date Analyzed
637-92-3	Ethyl tert-butyl ether (ETBE)	ND		0.088	0.88 µg/m³	1	GC24	3/18/13 1:34 PM
100-41-4	Ethylbenzene	0.66	J	0.065	0.92 µg/m³	1	GC24	3/18/13 1:34 PM
622-96-8	4-Ethyltoluene	ND		1.0	1.0 µg/m³	1	GC24	3/18/13 1:34 PM
76-13-1	Freon 113	ND		1.6	1.6 µg/m³	1	GC24	3/18/13 1:34 PM
142-82-5	Heptane	ND		0.077	88 µg/m³	1	GC24	3/18/13 1:34 PM
87-68-3	Hexachlorobutadiene	2.1	J	0.14	2.3 µg/m³	1	GC24	3/18/13 1:34 PM
110-54-3	Hexane	3.1	J	0.75	75 µg/m³	1	GC24	3/18/13 1:34 PM
591-78-6	2-Hexanone	ND		0.23	88 µg/m³	1	GC24	3/18/13 1:34 PM
108-10-1	4-Methyl-2-pentanone (MIBK)	7.2		0.054	0.88 µg/m³	1	GC24	3/18/13 1:34 PM
1634-04-4	Methyl-t-butyl ether (MTBE)	ND		0.10	0.77 µg/m³	1	GC24	3/18/13 1:34 PM
75-09-2	Methylene chloride	19		0.082	0.73 µg/m³	1	GC24	3/18/13 1:34 PM
91-20-3	Naphthalene	1.4		0.44	0.54 µg/m³	1	GC24	3/18/13 1:34 PM
100-42-5	Styrene	ND		0.052	0.90 µg/m³	1	GC24	3/18/13 1:34 PM
630-20-6	1,1,1,2-Tetrachloroethane	ND		0.16	0.36 µg/m³	1	GC24	3/18/13 1:34 PM
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.075	0.36 µg/m³	1	GC24	3/18/13 1:34 PM
127-18-4	Tetrachloroethene	420		1.7	1.7 µg/m³	5	GC24	3/13/13 9:51 PM
109-99-9	Tetrahydrofuran	ND		1.3	1.3 µg/m³	1	GC24	3/18/13 1:34 PM
108-88-3	Toluene	9.3		0.088	0.80 µg/m³	1	GC24	3/18/13 1:34 PM
120-82-1	1,2,4-Trichlorobenzene	79		0.23	1.6 µg/m³	1	GC24	3/18/13 1:34 PM
71-55-6	1,1,1-Trichloroethane	ND		0.096	1.2 µg/m³	1	GC24	3/18/13 1:34 PM
79-00-5	1,1,2-Trichloroethane	8.2		0.11	0.29 µg/m³	1	GC24	3/18/13 1:34 PM
79-01-6	Trichloroethene	570		0.61	5.5 µg/m³	5	GC24	3/13/13 9:51 PM
75-69-4	Trichlorofluoromethane	ND		1.2	1.2 µg/m³	1	GC24	3/18/13 1:34 PM
95-63-6	1,2,4-Trimethylbenzene	0.91	J	0.12	1.0 µg/m³	1	GC24	3/18/13 1:34 PM
108-67-8	1,3,5-Trimethylbenzene	ND		0.16	1.0 µg/m³	1	GC24	3/18/13 1:34 PM
108-05-4	Vinyl Acetate	5.3	J	0.10	75 µg/m³	1	GC24	3/18/13 1:34 PM
75-01-4	Vinyl Chloride	4.4		0.13	0.13 µg/m³	1	GC24	3/18/13 1:34 PM
1330-20-7	Xylenes, Total	3.9		2.7	2.7 µg/m³	1	GC24	3/18/13 1:34 PM

Surrogate Recovery

17060-07-0	1,2-DCA-d4	97		0	70-130 %REC	1	GC24	3/18/13 1:34 PM
2037-26-5	toluene-d8(surr) (A)	95		0	70-130 %REC	1	GC24	3/18/13 1:34 PM
460-00-4	4-BFB (surr)	88		0	70-130 %REC	1	GC24	3/18/13 1:34 PM

Qualifiers: ND - Not Detected at the Method Detection Limit
 J - Analyte detected below Reporting Limit
 B - Analyte detected in the associated Method Blank
 * - Value exceeds Maximum Contaminant Level
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 E - Value above quantitation range
 H - Samples were analyzed out of holding time



CLIENT: Environ
Client Sample ID: E-SG-3-030713
Project: #21-32100GA-G01; NERT-SOIL GAS
Collection Date: 3/7/2013 4:50:00 PM

Work Order: 1303287
Lab ID: 1303287-004A
Batch ID: 75598
Matrix: SOIL GAS

Low-Level Volatile Organic Compounds in µg/m³

Extraction Method: TO15

Analytical Method: TO15

Table with 9 columns: CAS#, Analytes, Result, Qual, MDL, RL Units, DF, Instrument, Date Analyzed. Contains 40 rows of data for various organic compounds.

Qualifiers: ND - Not Detected at the Method Detection Limit S - Spike Recovery outside accepted recovery limits
J - Analyte detected below Reporting Limit R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank E - Value above quantitation range
* - Value exceeds Maximum Contaminant Level H - Samples were analyzed out of holding time



CLIENT: Environ
Client Sample ID: E-SG-3-030713
Project: #21-32100GA-G01; NERT-SOIL GAS
Collection Date: 3/7/2013 4:50:00 PM

Work Order: 1303287
Lab ID: 1303287-004A
Batch ID: 75598
Matrix: SOIL GAS

Low-Level Volatile Organic Compounds in µg/m³

Extraction Method: **TO15**

Analytical Method: **TO15**

CAS#	Analytes	Result	Qual	MDL	RL Units	DF	Instrument	Date Analyzed
637-92-3	Ethyl tert-butyl ether (ETBE)	ND		0.084	0.84 µg/m³	1	GC24	3/18/13 2:39 PM
100-41-4	Ethylbenzene	0.85	J	0.062	0.88 µg/m³	1	GC24	3/18/13 2:39 PM
622-96-8	4-Ethyltoluene	ND		1.0	1.0 µg/m³	1	GC24	3/18/13 2:39 PM
76-13-1	Freon 113	ND		1.6	1.6 µg/m³	1	GC24	3/18/13 2:39 PM
142-82-5	Heptane	2.4	J	0.074	84 µg/m³	1	GC24	3/18/13 2:39 PM
87-68-3	Hexachlorobutadiene	4.0		0.14	2.2 µg/m³	1	GC24	3/18/13 2:39 PM
110-54-3	Hexane	3.4	J	0.72	72 µg/m³	1	GC24	3/18/13 2:39 PM
591-78-6	2-Hexanone	1.2	J	0.22	84 µg/m³	1	GC24	3/18/13 2:39 PM
108-10-1	4-Methyl-2-pentanone (MIBK)	2.1		0.052	0.84 µg/m³	1	GC24	3/18/13 2:39 PM
1634-04-4	Methyl-t-butyl ether (MTBE)	ND		0.096	0.74 µg/m³	1	GC24	3/18/13 2:39 PM
75-09-2	Methylene chloride	14		0.078	0.70 µg/m³	1	GC24	3/18/13 2:39 PM
91-20-3	Naphthalene	1.3		0.42	0.52 µg/m³	1	GC24	3/18/13 2:39 PM
100-42-5	Styrene	0.098	J	0.050	0.86 µg/m³	1	GC24	3/18/13 2:39 PM
630-20-6	1,1,1,2-Tetrachloroethane	ND		0.15	0.34 µg/m³	1	GC24	3/18/13 2:39 PM
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.072	0.34 µg/m³	1	GC24	3/18/13 2:39 PM
127-18-4	Tetrachloroethene	1100		34	34 µg/m³	100	GC24	3/19/13 2:50 PM
109-99-9	Tetrahydrofuran	ND		1.2	1.2 µg/m³	1	GC24	3/18/13 2:39 PM
108-88-3	Toluene	5.7		0.084	0.76 µg/m³	1	GC24	3/18/13 2:39 PM
120-82-1	1,2,4-Trichlorobenzene	9.9		0.22	1.5 µg/m³	1	GC24	3/18/13 2:39 PM
71-55-6	1,1,1-Trichloroethane	ND		0.092	1.1 µg/m³	1	GC24	3/18/13 2:39 PM
79-00-5	1,1,2-Trichloroethane	21		0.10	0.28 µg/m³	1	GC24	3/18/13 2:39 PM
79-01-6	Trichloroethene	170		0.12	1.1 µg/m³	1	GC24	3/18/13 2:39 PM
75-69-4	Trichlorofluoromethane	1.6		1.1	1.1 µg/m³	1	GC24	3/18/13 2:39 PM
95-63-6	1,2,4-Trimethylbenzene	0.68	J	0.11	1.0 µg/m³	1	GC24	3/18/13 2:39 PM
108-67-8	1,3,5-Trimethylbenzene	ND		0.15	1.0 µg/m³	1	GC24	3/18/13 2:39 PM
108-05-4	Vinyl Acetate	6.3	J	0.10	72 µg/m³	1	GC24	3/18/13 2:39 PM
75-01-4	Vinyl Chloride	2.3		0.12	0.12 µg/m³	1	GC24	3/18/13 2:39 PM
1330-20-7	Xylenes, Total	3.2		2.6	2.6 µg/m³	1	GC24	3/18/13 2:39 PM

Surrogate Recovery

17060-07-0	1,2-DCA-d4	122		0	70-130 %REC	1	GC24	3/18/13 2:39 PM
2037-26-5	toluene-d8(surr) (A)	97		0	70-130 %REC	1	GC24	3/18/13 2:39 PM
460-00-4	4-BFB (surr)	89		0	70-130 %REC	1	GC24	3/18/13 2:39 PM

Qualifiers: ND - Not Detected at the Method Detection Limit
 J - Analyte detected below Reporting Limit
 B - Analyte detected in the associated Method Blank
 * - Value exceeds Maximum Contaminant Level
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 E - Value above quantitation range
 H - Samples were analyzed out of holding time



CLIENT: Environ
Client Sample ID: E-SG-6-030813
Project: #21-32100GA-G01; NERT-SOIL GAS
Collection Date: 3/8/2013 8:01:00 AM

Work Order: 1303287
Lab ID: 1303287-005A
Batch ID: 75598
Matrix: SOIL GAS

Low-Level Volatile Organic Compounds in µg/m³

Extraction Method: **TO15**

Analytical Method: **TO15**

CAS#	Analytes	Result	Qual	MDL	RL Units	DF	Instrument	Date Analyzed
67-64-1	Acetone	67		0.58	29 µg/m ³	1.2	GC24	3/18/13 3:38 PM
107-13-1	Acrylonitrile	ND		0.12	0.53 µg/m ³	1.2	GC24	3/18/13 3:38 PM
994-05-8	tert-Amyl methyl ether (TAME)	0.78	J	0.092	1.0 µg/m ³	1.2	GC24	3/18/13 3:38 PM
71-43-2	Benzene	2.6		0.055	0.19 µg/m ³	1.2	GC24	3/18/13 3:38 PM
100-44-7	Benzyl chloride	0.43	J	0.082	1.3 µg/m ³	1.2	GC24	3/18/13 3:38 PM
75-27-4	Bromodichloromethane	1.7		0.12	0.43 µg/m ³	1.2	GC24	3/18/13 3:38 PM
75-25-2	Bromoform	ND		2.7	2.7 µg/m ³	1.2	GC24	3/18/13 3:38 PM
74-83-9	Bromomethane	0.84	J	0.24	0.94 µg/m ³	1.2	GC24	3/18/13 3:38 PM
106-99-0	1,3-Butadiene	ND		0.34	0.53 µg/m ³	1.2	GC24	3/18/13 3:38 PM
78-93-3	2-Butanone (MEK)	9.9	J	0.039	72 µg/m ³	1.2	GC24	3/18/13 3:38 PM
75-65-0	t-Butyl alcohol (TBA)	4.8	J	0.20	15 µg/m ³	1.2	GC24	3/18/13 3:38 PM
75-15-0	Carbon Disulfide	ND		0.051	0.77 µg/m ³	1.2	GC24	3/18/13 3:38 PM
56-23-5	Carbon Tetrachloride	18		0.082	0.39 µg/m ³	1.2	GC24	3/18/13 3:38 PM
108-90-7	Chlorobenzene	2.3		0.084	1.1 µg/m ³	1.2	GC24	3/18/13 3:38 PM
75-00-3	Chloroethane	ND		0.092	0.65 µg/m ³	1.2	GC24	3/18/13 3:38 PM
67-66-3	Chloroform	780		0.36	1.2 µg/m ³	5	GC24	3/13/13 11:13 PM
74-87-3	Chloromethane	ND		0.027	0.51 µg/m ³	1.2	GC24	3/18/13 3:38 PM
110-82-7	Cyclohexane	4.7	J	0.21	84 µg/m ³	1.2	GC24	3/18/13 3:38 PM
124-48-1	Dibromochloromethane	1.2	J	0.13	2.1 µg/m ³	1.2	GC24	3/18/13 3:38 PM
96-12-8	1,2-Dibromo-3-chloropropane	1.7		0.24	0.60 µg/m ³	1.2	GC24	3/18/13 3:38 PM
106-93-4	1,2-Dibromoethane (EDB)	1.4		0.12	0.48 µg/m ³	1.2	GC24	3/18/13 3:38 PM
95-50-1	1,2-Dichlorobenzene	1.5	J	0.18	1.5 µg/m ³	1.2	GC24	3/18/13 3:38 PM
541-73-1	1,3-Dichlorobenzene	ND		0.13	1.5 µg/m ³	1.2	GC24	3/18/13 3:38 PM
106-46-7	1,4-Dichlorobenzene	1.3		0.22	0.36 µg/m ³	1.2	GC24	3/18/13 3:38 PM
75-71-8	Dichlorodifluoromethane	1.5		0.12	1.2 µg/m ³	1.2	GC24	3/18/13 3:38 PM
75-34-3	1,1-Dichloroethane	1.3		0.99	0.99 µg/m ³	1.2	GC24	3/18/13 3:38 PM
107-06-2	1,2-Dichloroethane (1,2-DCA)	0.87		0.11	0.24 µg/m ³	1.2	GC24	3/18/13 3:38 PM
75-35-4	1,1-Dichloroethene	ND		0.048	0.24 µg/m ³	1.2	GC24	3/18/13 3:38 PM
156-59-2	cis-1,2-Dichloroethene	0.89	J	0.082	0.96 µg/m ³	1.2	GC24	3/18/13 3:38 PM
156-60-5	trans-1,2-Dichloroethene	0.94	J	0.077	0.96 µg/m ³	1.2	GC24	3/18/13 3:38 PM
78-87-5	1,2-Dichloropropane	1.0		0.13	0.29 µg/m ³	1.2	GC24	3/18/13 3:38 PM
10061-01-5	cis-1,3-Dichloropropene	0.75		0.096	0.29 µg/m ³	1.2	GC24	3/18/13 3:38 PM
10061-02-6	trans-1,3-Dichloropropene	0.68		0.29	0.29 µg/m ³	1.2	GC24	3/18/13 3:38 PM
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane	1.4	J	0.19	1.7 µg/m ³	1.2	GC24	3/18/13 3:38 PM
108-20-3	Diisopropyl ether (DIPE)	ND		0.070	1.0 µg/m ³	1.2	GC24	3/18/13 3:38 PM
123-91-1	1,4-Dioxane	0.64	J	0.12	0.89 µg/m ³	1.2	GC24	3/18/13 3:38 PM
141-78-6	Ethyl acetate	3.5		0.12	2.2 µg/m ³	1.2	GC24	3/18/13 3:38 PM

Qualifiers: ND - Not Detected at the Method Detection Limit
 J - Analyte detected below Reporting Limit
 B - Analyte detected in the associated Method Blank
 * - Value exceeds Maximum Contaminant Level
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 E - Value above quantitation range
 H - Samples were analyzed out of holding time



CLIENT: Environ
Client Sample ID: E-SG-6-030813
Project: #21-32100GA-G01; NERT-SOIL GAS
Collection Date: 3/8/2013 8:01:00 AM

Work Order: 1303287
Lab ID: 1303287-005A
Batch ID: 75598
Matrix: SOIL GAS

Low-Level Volatile Organic Compounds in µg/m³

Extraction Method: **TO15**

Analytical Method: **TO15**

CAS#	Analytes	Result	Qual	MDL	RL	Units	DF	Instrument	Date Analyzed
637-92-3	Ethyl tert-butyl ether (ETBE)	0.82	J	0.10	1.0	µg/m³	1.2	GC24	3/18/13 3:38 PM
100-41-4	Ethylbenzene	1.5		0.075	1.1	µg/m³	1.2	GC24	3/18/13 3:38 PM
622-96-8	4-Ethyltoluene	ND		1.2	1.2	µg/m³	1.2	GC24	3/18/13 3:38 PM
76-13-1	Freon 113	ND		1.9	1.9	µg/m³	1.2	GC24	3/18/13 3:38 PM
142-82-5	Heptane	2.4	J	0.089	100	µg/m³	1.2	GC24	3/18/13 3:38 PM
87-68-3	Hexachlorobutadiene	1.1	J	0.17	2.7	µg/m³	1.2	GC24	3/18/13 3:38 PM
110-54-3	Hexane	6100		36	3600	µg/m³	50	GC24	3/19/13 3:31 PM
591-78-6	2-Hexanone	2.3	J	0.27	100	µg/m³	1.2	GC24	3/18/13 3:38 PM
108-10-1	4-Methyl-2-pentanone (MIBK)	2.8		0.063	1.0	µg/m³	1.2	GC24	3/18/13 3:38 PM
1634-04-4	Methyl-t-butyl ether (MTBE)	ND		0.89	0.89	µg/m³	1.2	GC24	3/18/13 3:38 PM
75-09-2	Methylene chloride	2.9		0.094	0.84	µg/m³	1.2	GC24	3/18/13 3:38 PM
91-20-3	Naphthalene	5.2		0.51	0.63	µg/m³	1.2	GC24	3/18/13 3:38 PM
100-42-5	Styrene	0.74	J	0.060	1.0	µg/m³	1.2	GC24	3/18/13 3:38 PM
630-20-6	1,1,1,2-Tetrachloroethane	1.1		0.19	0.41	µg/m³	1.2	GC24	3/18/13 3:38 PM
79-34-5	1,1,2,2-Tetrachloroethane	1.1		0.087	0.41	µg/m³	1.2	GC24	3/18/13 3:38 PM
127-18-4	Tetrachloroethene	17		0.41	0.41	µg/m³	1.2	GC24	3/18/13 3:38 PM
109-99-9	Tetrahydrofuran	ND		1.4	1.4	µg/m³	1.2	GC24	3/18/13 3:38 PM
108-88-3	Toluene	4.2		0.10	0.92	µg/m³	1.2	GC24	3/18/13 3:38 PM
120-82-1	1,2,4-Trichlorobenzene	1.2	J	0.27	1.8	µg/m³	1.2	GC24	3/18/13 3:38 PM
71-55-6	1,1,1-Trichloroethane	1.0	J	0.11	1.3	µg/m³	1.2	GC24	3/18/13 3:38 PM
79-00-5	1,1,2-Trichloroethane	1.1		0.12	0.34	µg/m³	1.2	GC24	3/18/13 3:38 PM
79-01-6	Trichloroethene	2.2		0.15	1.3	µg/m³	1.2	GC24	3/18/13 3:38 PM
75-69-4	Trichlorofluoromethane	3.8		1.4	1.4	µg/m³	1.2	GC24	3/18/13 3:38 PM
95-63-6	1,2,4-Trimethylbenzene	1.5		0.13	1.2	µg/m³	1.2	GC24	3/18/13 3:38 PM
108-67-8	1,3,5-Trimethylbenzene	1.2		0.18	1.2	µg/m³	1.2	GC24	3/18/13 3:38 PM
108-05-4	Vinyl Acetate	10	J	0.12	87	µg/m³	1.2	GC24	3/18/13 3:38 PM
75-01-4	Vinyl Chloride	0.40		0.14	0.14	µg/m³	1.2	GC24	3/18/13 3:38 PM
1330-20-7	Xylenes, Total	6.2		3.1	3.1	µg/m³	1.2	GC24	3/18/13 3:38 PM

Surrogate Recovery

17060-07-0	1,2-DCA-d4	98		0	70-130	%REC	1.2	GC24	3/18/13 3:38 PM
2037-26-5	toluene-d8(surr) (A)	96		0	70-130	%REC	1.2	GC24	3/18/13 3:38 PM
460-00-4	4-BFB (surr)	89		0	70-130	%REC	1.2	GC24	3/18/13 3:38 PM

Qualifiers: ND - Not Detected at the Method Detection Limit
 J - Analyte detected below Reporting Limit
 B - Analyte detected in the associated Method Blank
 * - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 E - Value above quantitation range
 H - Samples were analyzed out of holding time



CLIENT: Environ
Client Sample ID: E-SG-6-030813-FD
Project: #21-32100GA-G01; NERT-SOIL GAS
Collection Date: 3/8/2013 8:01:00 AM

Work Order: 1303287
Lab ID: 1303287-006A
Batch ID: 75598
Matrix: SOIL GAS

Low-Level Volatile Organic Compounds in µg/m³

Extraction Method: **TO15**

Analytical Method: **TO15**

CAS#	Analytes	Result	Qual	MDL	RL Units	DF	Instrument	Date Analyzed
67-64-1	Acetone	9.4	J	0.48	24 µg/m ³	1	GC24	3/18/13 4:36 PM
107-13-1	Acrylonitrile	ND		0.10	0.44 µg/m ³	1	GC24	3/18/13 4:36 PM
994-05-8	tert-Amyl methyl ether (TAME)	ND		0.076	0.84 µg/m ³	1	GC24	3/18/13 4:36 PM
71-43-2	Benzene	1.5		0.046	0.16 µg/m ³	1	GC24	3/18/13 4:36 PM
100-44-7	Benzyl chloride	0.14	J	0.068	1.1 µg/m ³	1	GC24	3/18/13 4:36 PM
75-27-4	Bromodichloromethane	0.50		0.10	0.36 µg/m ³	1	GC24	3/18/13 4:36 PM
75-25-2	Bromoform	ND		2.2	2.2 µg/m ³	1	GC24	3/18/13 4:36 PM
74-83-9	Bromomethane	0.33	J	0.20	0.78 µg/m ³	1	GC24	3/18/13 4:36 PM
106-99-0	1,3-Butadiene	ND		0.28	0.44 µg/m ³	1	GC24	3/18/13 4:36 PM
78-93-3	2-Butanone (MEK)	6.2	J	0.032	60 µg/m ³	1	GC24	3/18/13 4:36 PM
75-65-0	t-Butyl alcohol (TBA)	1.2	J	0.17	12 µg/m ³	1	GC24	3/18/13 4:36 PM
75-15-0	Carbon Disulfide	ND		0.042	0.64 µg/m ³	1	GC24	3/18/13 4:36 PM
56-23-5	Carbon Tetrachloride	15		0.068	0.32 µg/m ³	1	GC24	3/18/13 4:36 PM
108-90-7	Chlorobenzene	1.3		0.070	0.94 µg/m ³	1	GC24	3/18/13 4:36 PM
75-00-3	Chloroethane	ND		0.076	0.54 µg/m ³	1	GC24	3/18/13 4:36 PM
67-66-3	Chloroform	790		0.36	1.2 µg/m ³	5	GC24	3/13/13 11:53 PM
74-87-3	Chloromethane	ND		0.022	0.42 µg/m ³	1	GC24	3/18/13 4:36 PM
110-82-7	Cyclohexane	0.60	J	0.18	70 µg/m ³	1	GC24	3/18/13 4:36 PM
124-48-1	Dibromochloromethane	ND		0.11	1.7 µg/m ³	1	GC24	3/18/13 4:36 PM
96-12-8	1,2-Dibromo-3-chloropropane	0.41	J	0.20	0.50 µg/m ³	1	GC24	3/18/13 4:36 PM
106-93-4	1,2-Dibromoethane (EDB)	ND		0.096	0.40 µg/m ³	1	GC24	3/18/13 4:36 PM
95-50-1	1,2-Dichlorobenzene	1.8		0.15	1.2 µg/m ³	1	GC24	3/18/13 4:36 PM
541-73-1	1,3-Dichlorobenzene	ND		0.10	1.2 µg/m ³	1	GC24	3/18/13 4:36 PM
106-46-7	1,4-Dichlorobenzene	1.3		0.18	0.30 µg/m ³	1	GC24	3/18/13 4:36 PM
75-71-8	Dichlorodifluoromethane	2.1		0.096	1.0 µg/m ³	1	GC24	3/18/13 4:36 PM
75-34-3	1,1-Dichloroethane	ND		0.82	0.82 µg/m ³	1	GC24	3/18/13 4:36 PM
107-06-2	1,2-Dichloroethane (1,2-DCA)	0.11	J	0.090	0.20 µg/m ³	1	GC24	3/18/13 4:36 PM
75-35-4	1,1-Dichloroethene	ND		0.040	0.20 µg/m ³	1	GC24	3/18/13 4:36 PM
156-59-2	cis-1,2-Dichloroethene	ND		0.068	0.80 µg/m ³	1	GC24	3/18/13 4:36 PM
156-60-5	trans-1,2-Dichloroethene	0.069	J	0.064	0.80 µg/m ³	1	GC24	3/18/13 4:36 PM
78-87-5	1,2-Dichloropropane	0.12	J	0.11	0.24 µg/m ³	1	GC24	3/18/13 4:36 PM
10061-01-5	cis-1,3-Dichloropropene	ND		0.080	0.24 µg/m ³	1	GC24	3/18/13 4:36 PM
10061-02-6	trans-1,3-Dichloropropene	ND		0.24	0.24 µg/m ³	1	GC24	3/18/13 4:36 PM
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane	0.25	J	0.16	1.4 µg/m ³	1	GC24	3/18/13 4:36 PM
108-20-3	Diisopropyl ether (DIPE)	ND		0.058	0.84 µg/m ³	1	GC24	3/18/13 4:36 PM
123-91-1	1,4-Dioxane	ND		0.096	0.74 µg/m ³	1	GC24	3/18/13 4:36 PM
141-78-6	Ethyl acetate	1.8	J	0.096	1.8 µg/m ³	1	GC24	3/18/13 4:36 PM

Qualifiers: ND - Not Detected at the Method Detection Limit
 J - Analyte detected below Reporting Limit
 B - Analyte detected in the associated Method Blank
 * - Value exceeds Maximum Contaminant Level
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 E - Value above quantitation range
 H - Samples were analyzed out of holding time



CLIENT: Environ
Client Sample ID: E-SG-6-030813-FD
Project: #21-32100GA-G01; NERT-SOIL GAS
Collection Date: 3/8/2013 8:01:00 AM

Work Order: 1303287
Lab ID: 1303287-006A
Batch ID: 75598
Matrix: SOIL GAS

Low-Level Volatile Organic Compounds in µg/m³

Extraction Method: **TO15**

Analytical Method: **TO15**

CAS#	Analytes	Result	Qual	MDL	RL Units	DF	Instrument	Date Analyzed
637-92-3	Ethyl tert-butyl ether (ETBE)	ND		0.084	0.84 µg/m ³	1	GC24	3/18/13 4:36 PM
100-41-4	Ethylbenzene	0.50	J	0.062	0.88 µg/m ³	1	GC24	3/18/13 4:36 PM
622-96-8	4-Ethyltoluene	ND		1.0	1.0 µg/m ³	1	GC24	3/18/13 4:36 PM
76-13-1	Freon 113	ND		1.6	1.6 µg/m ³	1	GC24	3/18/13 4:36 PM
142-82-5	Heptane	1.3	J	0.074	84 µg/m ³	1	GC24	3/18/13 4:36 PM
87-68-3	Hexachlorobutadiene	0.33	J	0.14	2.2 µg/m ³	1	GC24	3/18/13 4:36 PM
110-54-3	Hexane	6.5	J	0.72	72 µg/m ³	1	GC24	3/18/13 4:36 PM
591-78-6	2-Hexanone	1.0	J	0.22	84 µg/m ³	1	GC24	3/18/13 4:36 PM
108-10-1	4-Methyl-2-pentanone (MIBK)	1.5		0.052	0.84 µg/m ³	1	GC24	3/18/13 4:36 PM
1634-04-4	Methyl-t-butyl ether (MTBE)	ND		0.096	0.74 µg/m ³	1	GC24	3/18/13 4:36 PM
75-09-2	Methylene chloride	ND		0.70	0.70 µg/m ³	1	GC24	3/18/13 4:36 PM
91-20-3	Naphthalene	1.3		0.42	0.52 µg/m ³	1	GC24	3/18/13 4:36 PM
100-42-5	Styrene	ND		0.050	0.86 µg/m ³	1	GC24	3/18/13 4:36 PM
630-20-6	1,1,1,2-Tetrachloroethane	ND		0.15	0.34 µg/m ³	1	GC24	3/18/13 4:36 PM
79-34-5	1,1,2,2-Tetrachloroethane	0.14	J	0.072	0.34 µg/m ³	1	GC24	3/18/13 4:36 PM
127-18-4	Tetrachloroethene	13		0.34	0.34 µg/m ³	1	GC24	3/18/13 4:36 PM
109-99-9	Tetrahydrofuran	ND		1.2	1.2 µg/m ³	1	GC24	3/18/13 4:36 PM
108-88-3	Toluene	1.9		0.084	0.76 µg/m ³	1	GC24	3/18/13 4:36 PM
120-82-1	1,2,4-Trichlorobenzene	0.47	J	0.22	1.5 µg/m ³	1	GC24	3/18/13 4:36 PM
71-55-6	1,1,1-Trichloroethane	0.12	J	0.092	1.1 µg/m ³	1	GC24	3/18/13 4:36 PM
79-00-5	1,1,2-Trichloroethane	0.19	J	0.10	0.28 µg/m ³	1	GC24	3/18/13 4:36 PM
79-01-6	Trichloroethene	0.98	J	0.12	1.1 µg/m ³	1	GC24	3/18/13 4:36 PM
75-69-4	Trichlorofluoromethane	2.0		1.1	1.1 µg/m ³	1	GC24	3/18/13 4:36 PM
95-63-6	1,2,4-Trimethylbenzene	0.59	J	0.11	1.0 µg/m ³	1	GC24	3/18/13 4:36 PM
108-67-8	1,3,5-Trimethylbenzene	0.30	J	0.15	1.0 µg/m ³	1	GC24	3/18/13 4:36 PM
108-05-4	Vinyl Acetate	2.3	J	0.10	72 µg/m ³	1	GC24	3/18/13 4:36 PM
75-01-4	Vinyl Chloride	ND		0.12	0.12 µg/m ³	1	GC24	3/18/13 4:36 PM
1330-20-7	Xylenes, Total	ND		2.6	2.6 µg/m ³	1	GC24	3/18/13 4:36 PM

Surrogate Recovery

17060-07-0	1,2-DCA-d4	99		0	70-130 %REC	1	GC24	3/18/13 4:36 PM
2037-26-5	toluene-d8(surr) (A)	96		0	70-130 %REC	1	GC24	3/18/13 4:36 PM
460-00-4	4-BFB (surr)	89		0	70-130 %REC	1	GC24	3/18/13 4:36 PM

Qualifiers: ND - Not Detected at the Method Detection Limit
 J - Analyte detected below Reporting Limit
 B - Analyte detected in the associated Method Blank
 * - Value exceeds Maximum Contaminant Level
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 E - Value above quantitation range
 H - Samples were analyzed out of holding time



CLIENT: Environ
Client Sample ID: E-SG-7-030813
Project: #21-32100GA-G01; NERT-SOIL GAS
Collection Date: 3/8/2013 8:54:00 AM

Work Order: 1303287
Lab ID: 1303287-007A
Batch ID: 75598
Matrix: SOIL GAS

Low-Level Volatile Organic Compounds in µg/m³

Extraction Method: TO15

Analytical Method: TO15

Table with 10 columns: CAS#, Analytes, Result, Qual, MDL, RL Units, DF, Instrument, Date Analyzed. Contains 45 rows of data for various organic compounds.

Qualifiers: ND - Not Detected at the Method Detection Limit S - Spike Recovery outside accepted recovery limits
J - Analyte detected below Reporting Limit R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank E - Value above quantitation range
* - Value exceeds Maximum Contaminant Level H - Samples were analyzed out of holding time



CLIENT: Environ
Client Sample ID: E-SG-7-030813
Project: #21-32100GA-G01; NERT-SOIL GAS
Collection Date: 3/8/2013 8:54:00 AM

Work Order: 1303287
Lab ID: 1303287-007A
Batch ID: 75598
Matrix: SOIL GAS

Low-Level Volatile Organic Compounds in µg/m³

Extraction Method: TO15

Analytical Method: TO15

Table with 9 columns: CAS#, Analytes, Result, Qual, MDL, RL Units, DF, Instrument, Date Analyzed. Lists various compounds like Ethyl tert-butyl ether, Ethylbenzene, etc.

Surrogate Recovery

Table with 8 columns: CAS#, Analytes, Result, Qual, MDL, RL Units, DF, Instrument, Date Analyzed. Lists surrogate recovery results for 1,2-DCA-d4, toluene-d8, and 4-BFB.

Qualifiers: ND - Not Detected at the Method Detection Limit, J - Analyte detected below Reporting Limit, B - Analyte detected in the associated Method Blank, * - Value exceeds Maximum Contaminant Level, S - Spike Recovery outside accepted recovery limits, R - RPD outside accepted recovery limits, E - Value above quantitation range, H - Samples were analyzed out of holding time



CLIENT: Environ
Client Sample ID: E-SG-9-030813
Project: #21-32100GA-G01; NERT-SOIL GAS
Collection Date: 3/8/2013 9:52:00 AM

Work Order: 1303287
Lab ID: 1303287-008A
Batch ID: 75598
Matrix: SOIL GAS

Low-Level Volatile Organic Compounds in µg/m³

Extraction Method: TO15

Analytical Method: TO15

Table with 10 columns: CAS#, Analytes, Result, Qual, MDL, RL, Units, DF, Instrument, Date Analyzed. Contains 40 rows of data for various organic compounds.

Qualifiers: ND - Not Detected at the Method Detection Limit S - Spike Recovery outside accepted recovery limits
J - Analyte detected below Reporting Limit R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank E - Value above quantitation range
* - Value exceeds Maximum Contaminant Level H - Samples were analyzed out of holding time



CLIENT: Environ
Client Sample ID: E-SG-9-030813
Project: #21-32100GA-G01; NERT-SOIL GAS
Collection Date: 3/8/2013 9:52:00 AM

Work Order: 1303287
Lab ID: 1303287-008A
Batch ID: 75598
Matrix: SOIL GAS

Low-Level Volatile Organic Compounds in µg/m³

Extraction Method: **TO15**

Analytical Method: **TO15**

CAS#	Analytes	Result	Qual	MDL	RL Units	DF	Instrument	Date Analyzed
637-92-3	Ethyl tert-butyl ether (ETBE)	ND		0.084	0.84 µg/m³	1	GC24	3/15/13 3:12 PM
100-41-4	Ethylbenzene	0.62	J	0.062	0.88 µg/m³	1	GC24	3/15/13 3:12 PM
622-96-8	4-Ethyltoluene	ND		1.0	1.0 µg/m³	1	GC24	3/15/13 3:12 PM
76-13-1	Freon 113	ND		1.6	1.6 µg/m³	1	GC24	3/15/13 3:12 PM
142-82-5	Heptane	1.7	J	0.074	84 µg/m³	1	GC24	3/15/13 3:12 PM
87-68-3	Hexachlorobutadiene	7.1		0.14	2.2 µg/m³	1	GC24	3/15/13 3:12 PM
110-54-3	Hexane	1.1	J	0.72	72 µg/m³	1	GC24	3/15/13 3:12 PM
591-78-6	2-Hexanone	0.52	J	0.22	84 µg/m³	1	GC24	3/15/13 3:12 PM
108-10-1	4-Methyl-2-pentanone (MIBK)	2.1		0.052	0.84 µg/m³	1	GC24	3/15/13 3:12 PM
1634-04-4	Methyl-t-butyl ether (MTBE)	ND		0.096	0.74 µg/m³	1	GC24	3/15/13 3:12 PM
75-09-2	Methylene chloride	ND		0.078	0.70 µg/m³	1	GC24	3/15/13 3:12 PM
91-20-3	Naphthalene	ND		0.42	0.52 µg/m³	1	GC24	3/15/13 3:12 PM
100-42-5	Styrene	ND		0.050	0.86 µg/m³	1	GC24	3/15/13 3:12 PM
630-20-6	1,1,1,2-Tetrachloroethane	ND		0.15	0.34 µg/m³	1	GC24	3/15/13 3:12 PM
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.072	0.34 µg/m³	1	GC24	3/15/13 3:12 PM
127-18-4	Tetrachloroethene	15		0.34	0.34 µg/m³	1	GC24	3/15/13 3:12 PM
109-99-9	Tetrahydrofuran	ND		1.2	1.2 µg/m³	1	GC24	3/15/13 3:12 PM
108-88-3	Toluene	6.5		0.084	0.76 µg/m³	1	GC24	3/15/13 3:12 PM
120-82-1	1,2,4-Trichlorobenzene	ND		0.22	1.5 µg/m³	1	GC24	3/15/13 3:12 PM
71-55-6	1,1,1-Trichloroethane	ND		0.092	1.1 µg/m³	1	GC24	3/15/13 3:12 PM
79-00-5	1,1,2-Trichloroethane	ND		0.10	0.28 µg/m³	1	GC24	3/15/13 3:12 PM
79-01-6	Trichloroethene	0.41	J	0.12	1.1 µg/m³	1	GC24	3/15/13 3:12 PM
75-69-4	Trichlorofluoromethane	ND		1.1	1.1 µg/m³	1	GC24	3/15/13 3:12 PM
95-63-6	1,2,4-Trimethylbenzene	0.44	J	0.11	1.0 µg/m³	1	GC24	3/15/13 3:12 PM
108-67-8	1,3,5-Trimethylbenzene	ND		0.15	1.0 µg/m³	1	GC24	3/15/13 3:12 PM
108-05-4	Vinyl Acetate	2.5	J	0.10	72 µg/m³	1	GC24	3/15/13 3:12 PM
75-01-4	Vinyl Chloride	ND		0.12	0.12 µg/m³	1	GC24	3/15/13 3:12 PM
1330-20-7	Xylenes, Total	3.5		2.6	2.6 µg/m³	1	GC24	3/15/13 3:12 PM

Surrogate Recovery

17060-07-0	1,2-DCA-d4	92		0	70-130 %REC	1	GC24	3/15/13 3:12 PM
2037-26-5	toluene-d8(surr) (A)	89		0	70-130 %REC	1	GC24	3/15/13 3:12 PM
460-00-4	4-BFB (surr)	83		0	70-130 %REC	1	GC24	3/15/13 3:12 PM

Qualifiers: ND - Not Detected at the Method Detection Limit
 J - Analyte detected below Reporting Limit
 B - Analyte detected in the associated Method Blank
 * - Value exceeds Maximum Contaminant Level
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 E - Value above quantitation range
 H - Samples were analyzed out of holding time



CLIENT: Environ
Client Sample ID: E-SG-1-030813
Project: #21-32100GA-G01; NERT-SOIL GAS
Collection Date: 3/8/2013 11:03:00 AM

Work Order: 1303287
Lab ID: 1303287-009A
Batch ID: 75598
Matrix: SOIL GAS

Low-Level Volatile Organic Compounds in µg/m³

Extraction Method: TO15

Analytical Method: TO15

Table with columns: CAS#, Analytes, Result, Qual, MDL, RL, Units, DF, Instrument, Date Analyzed. Contains 40 rows of data for various organic compounds.

Qualifiers: ND - Not Detected at the Method Detection Limit S - Spike Recovery outside accepted recovery limits
J - Analyte detected below Reporting Limit R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank E - Value above quantitation range
* - Value exceeds Maximum Contaminant Level H - Samples were analyzed out of holding time



CLIENT: Environ
Client Sample ID: E-SG-1-030813
Project: #21-32100GA-G01; NERT-SOIL GAS
Collection Date: 3/8/2013 11:03:00 AM

Work Order: 1303287
Lab ID: 1303287-009A
Batch ID: 75598
Matrix: SOIL GAS

Low-Level Volatile Organic Compounds in µg/m³

Extraction Method: **TO15**

Analytical Method: **TO15**

CAS#	Analytes	Result	Qual	MDL	RL Units	DF	Instrument	Date Analyzed
637-92-3	Ethyl tert-butyl ether (ETBE)	ND		0.084	0.84 µg/m ³	1	GC24	3/15/13 5:18 PM
100-41-4	Ethylbenzene	1.3		0.062	0.88 µg/m ³	1	GC24	3/15/13 5:18 PM
622-96-8	4-Ethyltoluene	ND		1.0	1.0 µg/m ³	1	GC24	3/15/13 5:18 PM
76-13-1	Freon 113	ND		1.6	1.6 µg/m ³	1	GC24	3/15/13 5:18 PM
142-82-5	Heptane	2.3	J	0.074	84 µg/m ³	1	GC24	3/15/13 5:18 PM
87-68-3	Hexachlorobutadiene	ND		0.14	2.2 µg/m ³	1	GC24	3/15/13 5:18 PM
110-54-3	Hexane	2.3	J	0.72	72 µg/m ³	1	GC24	3/15/13 5:18 PM
591-78-6	2-Hexanone	0.54	J	0.22	84 µg/m ³	1	GC24	3/15/13 5:18 PM
108-10-1	4-Methyl-2-pentanone (MIBK)	0.77	J	0.052	0.84 µg/m ³	1	GC24	3/15/13 5:18 PM
1634-04-4	Methyl-t-butyl ether (MTBE)	ND		0.096	0.74 µg/m ³	1	GC24	3/15/13 5:18 PM
75-09-2	Methylene chloride	ND		0.078	0.70 µg/m ³	1	GC24	3/15/13 5:18 PM
91-20-3	Naphthalene	1.2		0.42	0.52 µg/m ³	1	GC24	3/15/13 5:18 PM
100-42-5	Styrene	0.26	J	0.050	0.86 µg/m ³	1	GC24	3/15/13 5:18 PM
630-20-6	1,1,1,2-Tetrachloroethane	ND		0.15	0.34 µg/m ³	1	GC24	3/15/13 5:18 PM
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.072	0.34 µg/m ³	1	GC24	3/15/13 5:18 PM
127-18-4	Tetrachloroethene	1.2		0.34	0.34 µg/m ³	1	GC24	3/15/13 5:18 PM
109-99-9	Tetrahydrofuran	ND		1.2	1.2 µg/m ³	1	GC24	3/15/13 5:18 PM
108-88-3	Toluene	15		0.084	0.76 µg/m ³	1	GC24	3/15/13 5:18 PM
120-82-1	1,2,4-Trichlorobenzene	ND		0.22	1.5 µg/m ³	1	GC24	3/15/13 5:18 PM
71-55-6	1,1,1-Trichloroethane	ND		0.092	1.1 µg/m ³	1	GC24	3/15/13 5:18 PM
79-00-5	1,1,2-Trichloroethane	ND		0.10	0.28 µg/m ³	1	GC24	3/15/13 5:18 PM
79-01-6	Trichloroethene	0.34	J	0.12	1.1 µg/m ³	1	GC24	3/15/13 5:18 PM
75-69-4	Trichlorofluoromethane	ND		1.1	1.1 µg/m ³	1	GC24	3/15/13 5:18 PM
95-63-6	1,2,4-Trimethylbenzene	0.54	J	0.11	1.0 µg/m ³	1	GC24	3/15/13 5:18 PM
108-67-8	1,3,5-Trimethylbenzene	ND		0.15	1.0 µg/m ³	1	GC24	3/15/13 5:18 PM
108-05-4	Vinyl Acetate	1.8	J	0.10	72 µg/m ³	1	GC24	3/15/13 5:18 PM
75-01-4	Vinyl Chloride	ND		0.12	0.12 µg/m ³	1	GC24	3/15/13 5:18 PM
1330-20-7	Xylenes, Total	3.7		2.6	2.6 µg/m ³	1	GC24	3/15/13 5:18 PM

Surrogate Recovery

17060-07-0	1,2-DCA-d4	94		0	70-130 %REC	1	GC24	3/15/13 5:18 PM
2037-26-5	toluene-d8(surr) (A)	89		0	70-130 %REC	1	GC24	3/15/13 5:18 PM
460-00-4	4-BFB (surr)	84		0	70-130 %REC	1	GC24	3/15/13 5:18 PM

Qualifiers:

ND - Not Detected at the Method Detection Limit
 J - Analyte detected below Reporting Limit
 B - Analyte detected in the associated Method Blank
 * - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 E - Value above quantitation range
 H - Samples were analyzed out of holding time



QC SUMMARY REPORT FOR ASTM D 1946-90

W.O. Sample Matrix: Soilgas

QC Matrix: Soilgas

BatchID: 75451

WorkOrder: 1303287

EPA Method: ASTM D 1946-90		Extraction: ASTM D 1946-90					Spiked Sample ID: N/A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)			
	%	%	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS	
Helium	N/A	0.010	N/A	N/A	N/A	105	N/A	N/A	60 - 140	

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
 NONE

BATCH 75451 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1303287-001A	03/07/13	03/12/13	03/12/13 1:02 PM	1303287-002A	03/07/13 1:31 PM	03/12/13	03/12/13 1:16 PM
1303287-003A	03/07/13 5:43 PM	03/12/13	03/12/13 1:39 PM	1303287-004A	03/07/13 4:50 PM	03/12/13	03/12/13 2:01 PM
1303287-005A	03/08/13 8:01 AM	03/12/13	03/12/13 2:24 PM	1303287-006A	03/08/13 8:01 AM	03/12/13	03/12/13 4:10 PM
1303287-007A	03/08/13 8:54 AM	03/12/13	03/12/13 4:32 PM	1303287-008A	03/08/13 9:52 AM	03/12/13	03/12/13 4:45 PM
1303287-009A	03/08/13 11:03 AM	03/12/13	03/12/13 5:04 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.
 $\% \text{ Recovery} = 100 * (\text{MS-Sample}) / (\text{Amount Spiked}); \text{RPD} = 100 * (\text{MS} - \text{MSD}) / ((\text{MS} + \text{MSD}) / 2).$
 MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.
 N/A = not enough sample to perform matrix spike and matrix spike duplicate.
 NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

CLIENT: Environ
 Work Order: 1303287
 Project: #21-32100GA-G01; NERT-SOIL GAS

ANALYTICAL QC SUMMARY REPORT

BatchID: 75598

SampleID	TestCode:	Units:	Prep Date:								
MB-75598	TO15_LL_SOIL(UG/M3)	µg/m³	3/15/2013								
Batch ID:	TestNo:	Run ID:	Analysis Date:								
75598	TO15	GC24_130318B	3/15/2013								
Analyte	Result	MDL	PQL	SPKValue	SPKRefVal	%REC	Limits	RPDRefVal	%RPD	RPDLimit	Qual
Acetone	ND	0.24	12				-				
Acrylonitrile	ND	0.051	0.22				-				
tert-Amyl methyl ether (TAME)	ND	0.038	0.42				-				
Benzene	ND	0.023	0.080				-				
Benzyl chloride	ND	0.034	0.53				-				
Bromodichloromethane	ND	0.050	0.18				-				
Bromoform	ND	1.1	1.1				-				
Bromomethane	ND	0.10	0.39				-				
1,3-Butadiene	ND	0.14	0.22				-				
2-Butanone (MEK)	ND	0.016	30				-				
t-Butyl alcohol (TBA)	ND	0.084	6.2				-				
Carbon Disulfide	ND	0.021	0.32				-				
Carbon Tetrachloride	ND	0.034	0.16				-				
Chlorobenzene	ND	0.035	0.47				-				
Chloroethane	ND	0.038	0.27				-				
Chloroform	ND	0.036	0.12				-				
Chloromethane	ND	0.011	0.21				-				
Cyclohexane	ND	0.088	35				-				
Dibromochloromethane	ND	0.053	0.87				-				
1,2-Dibromo-3-chloropropane	ND	0.098	0.25				-				
1,2-Dibromoethane (EDB)	ND	0.048	0.20				-				
1,2-Dichlorobenzene	ND	0.073	0.61				-				
1,3-Dichlorobenzene	ND	0.052	0.61				-				
1,4-Dichlorobenzene	ND	0.092	0.15				-				
Dichlorodifluoromethane	ND	0.048	0.50				-				
1,1-Dichloroethane	ND	0.41	0.41				-				
1,2-Dichloroethane (1,2-DCA)	ND	0.045	0.10				-				
1,1-Dichloroethene	ND	0.020	0.10				-				
cis-1,2-Dichloroethene	ND	0.034	0.40				-				
trans-1,2-Dichloroethene	ND	0.032	0.40				-				
1,2-Dichloropropane	ND	0.056	0.12				-				
cis-1,3-Dichloropropene	ND	0.040	0.12				-				
trans-1,3-Dichloropropene	ND	0.12	0.12				-				
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	0.078	0.71				-				
Diisopropyl ether (DIPE)	ND	0.029	0.42				-				
1,4-Dioxane	ND	0.048	0.37				-				
Ethyl acetate	ND	0.048	0.92				-				
Ethyl tert-butyl ether (ETBE)	ND	0.042	0.42				-				
Ethylbenzene	ND	0.031	0.44				-				
4-Ethyltoluene	ND	0.50	0.50				-				
Freon 113	ND	0.055	0.78				-				

Qualifiers: ND - Not Detected at the Reporting Limit S - Spike Recovery outside accepted recovery limits
 J - Analyte detected below quantitation limits R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank E - Value above quantitation range

CLIENT: Environ

Work Order: 1303287

Project: #21-32100GA-G01; NERT-SOIL GAS

ANALYTICAL QC SUMMARY REPORT

BatchID: 75598

SampleID MB-75598	TestCode: TO15_LL_SOIL(UG/M3)	Units: µg/m³	Prep Date: 3/15/2013
Batch ID: 75598	TestNo: TO15	Run ID: GC24_130318B	Analysis Date: 3/15/2013

Analyte	Result	MDL	PQL	SPKValue	SPKRefVal	%REC	Limits	RPDRefVal	%RPD	RPDLimit	Qual
Heptane	ND	0.037	42				-				
Hexachlorobutadiene	ND	0.069	1.1				-				
Hexane	ND	0.36	36				-				
2-Hexanone	ND	0.11	42				-				
4-Methyl-2-pentanone (MIBK)	ND	0.026	0.42				-				
Methyl-t-butyl ether (MTBE)	ND	0.048	0.37				-				
Methylene chloride	ND	0.039	0.35				-				
Naphthalene	ND	0.21	0.26				-				
Styrene	ND	0.025	0.43				-				
1,1,1,2-Tetrachloroethane	ND	0.077	0.17				-				
1,1,2,2-Tetrachloroethane	ND	0.036	0.17				-				
Tetrachloroethene	ND	0.17	0.17				-				
Tetrahydrofuran	ND	0.066	0.60				-				
Toluene	ND	0.042	0.38				-				
1,2,4-Trichlorobenzene	ND	0.11	0.75				-				
1,1,1-Trichloroethane	ND	0.046	0.55				-				
1,1,2-Trichloroethane	ND	0.051	0.14				-				
Trichloroethene	ND	0.061	0.55				-				
Trichlorofluoromethane	ND	0.57	0.57				-				
1,2,4-Trimethylbenzene	ND	0.055	0.50				-				
1,3,5-Trimethylbenzene	ND	0.075	0.50				-				
Vinyl Acetate	ND	0.050	36				-				
Vinyl Chloride	ND	0.060	0.060				-				
TPH(g)	ND	36	36				-				
Xylenes, Total	ND	1.3	1.3				-				

Surrogate Recovery

1,2-DCA-d4	99.87		100	100	70 - 130
toluene-d8(surr) (A)	92.11		100	92	70 - 130
4-BFB (surr)	86.28		100	86	70 - 130

Qualifiers: ND - Not Detected at the Reporting Limit
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 B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 E - Value above quantitation range

CLIENT: Environ

Work Order: 1303287

Project: #21-32100GA-G01; NERT-SOIL GAS

ANALYTICAL QC SUMMARY REPORT

BatchID: 75598

SampleID LCS-75598	TestCode: TO15_SOIL(NL/L)	Units: nL/L	Prep Date: 3/15/2013
Batch ID: 75598	TestNo: TO15	Run ID: GC24_130318B	Analysis Date: 3/15/2013

Analyte	Result	MDL	PQL	SPKValue	SPKRefVal	%REC	Limits	RPDRefVal	%RPD	RPDLimit	Qual
Acrylonitrile	28.87	2.0	2.0	25	0	115	60 - 140				
tert-Amyl methyl ether (TAME)	20	2.0	2.0	25	0	80	60 - 140				
Benzene	19.96	2.0	2.0	25	0	79.8	60 - 140				
Benzyl chloride	18.14	2.0	2.0	25	0	72.6	60 - 140				
Bromodichloromethane	21.86	2.0	2.0	25	0	87.5	60 - 140				
Bromoform	25.18	2.0	2.0	25	0	101	60 - 140				
t-Butyl alcohol (TBA)	18.94	20	20	25	0	75.8	60 - 140				J
Carbon Disulfide	18.82	2.0	2.0	25	0	75.3	60 - 140				
Carbon Tetrachloride	21.24	2.0	2.0	25	0	84.9	60 - 140				
Chlorobenzene	19.37	2.0	2.0	25	0	77.5	60 - 140				
Chloroethane	22.39	2.0	2.0	25	0	89.6	60 - 140				
Chloroform	20.65	2.0	2.0	25	0	82.6	60 - 140				
Chloromethane	21.99	2.0	2.0	25	0	88	60 - 140				
Dibromochloromethane	22.74	2.0	2.0	25	0	91	60 - 140				
1,2-Dibromo-3-chloropropane	25.19	2.0	2.0	25	0	101	60 - 140				
1,2-Dibromoethane (EDB)	18.95	2.0	2.0	25	0	75.8	60 - 140				
1,2-Dichlorobenzene	19.4	2.0	2.0	25	0	77.6	60 - 140				
1,3-Dichlorobenzene	19.56	2.0	2.0	25	0	78.2	60 - 140				
1,4-Dichlorobenzene	19.41	2.0	2.0	25	0	77.6	60 - 140				
Dichlorodifluoromethane	21.02	2.0	2.0	25	0	84.1	60 - 140				
1,1-Dichloroethane	20.54	2.0	2.0	25	0	82.2	60 - 140				
1,2-Dichloroethane (1,2-DCA)	20.34	2.0	2.0	25	0	81.4	60 - 140				
1,1-Dichloroethene	28.39	2.0	2.0	25	0	114	60 - 140				
cis-1,2-Dichloroethene	20.61	2.0	2.0	25	0	82.5	60 - 140				
trans-1,2-Dichloroethene	20.49	2.0	2.0	25	0	82	60 - 140				
1,2-Dichloropropane	21.44	2.0	2.0	25	0	85.8	60 - 140				
cis-1,3-Dichloropropene	19.98	2.0	2.0	25	0	79.9	60 - 140				
trans-1,3-Dichloropropene	20.42	2.0	2.0	25	0	81.7	60 - 140				
1,2-Dichloro-1,1,2,2-tetrafluoroethane	18.62	2.0	2.0	25	0	74.5	60 - 140				
Diisopropyl ether (DIPE)	21.38	2.0	2.0	25	0	85.5	60 - 140				
1,4-Dioxane	19.4	2.0	2.0	25	0	77.6	60 - 140				
Ethyl acetate	21.78	5.0	5.0	25	0	87.1	60 - 140				
Ethyl tert-butyl ether (ETBE)	19.75	2.0	2.0	25	0	79	60 - 140				
Ethylbenzene	19	2.0	2.0	25	0	76	60 - 140				
Freon 113	27.58	2.0	2.0	25	0	110	60 - 140				
Hexachlorobutadiene	18.1	2.0	2.0	25	0	72.4	60 - 140				
4-Methyl-2-pentanone (MIBK)	21.85	2.0	2.0	25	0	87.4	60 - 140				
Methyl-t-butyl ether (MTBE)	19.62	2.0	2.0	25	0	78.5	60 - 140				
Methylene chloride	15.35	2.0	2.0	25	0	61.4	60 - 140				
Naphthalene	36.81	2.0	2.0	50	0	73.6	60 - 140				
Styrene	20.83	2.0	2.0	25	0	83.3	60 - 140				
1,1,1,2-Tetrachloroethane	21.22	2.0	2.0	25	0	84.9	60 - 140				
1,1,2,2-Tetrachloroethane	17.96	2.0	2.0	25	0	71.8	60 - 140				

Qualifiers: ND - Not Detected at the Reporting Limit S - Spike Recovery outside accepted recovery limits
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 B - Analyte detected in the associated Method Blank E - Value above quantitation range

CLIENT: Environ

Work Order: 1303287

Project: #21-32100GA-G01; NERT-SOIL GAS

ANALYTICAL QC SUMMARY REPORT

BatchID: 75598

SampleID LCS-75598	TestCode: TO15_SOIL(NL/L)	Units: nL/L	Prep Date: 3/15/2013
Batch ID: 75598	TestNo: TO15	Run ID: GC24_130318B	Analysis Date: 3/15/2013

Analyte	Result	MDL	PQL	SPKValue	SPKRefVal	%REC	Limits	RPDRefVal	%RPD	RPDLimit	Qual
Tetrachloroethene	18.09	2.0	2.0	25	0	72.4	60 - 140				
Tetrahydrofuran	18.67	2.0	2.0	25	0	74.7	60 - 140				
Toluene	18.72	2.0	2.0	25	0	74.9	60 - 140				
1,2,4-Trichlorobenzene	17.88	2.0	2.0	25	0	71.5	60 - 140				
1,1,1-Trichloroethane	20.9	2.0	2.0	25	0	83.6	60 - 140				
1,1,2-Trichloroethane	20.1	2.0	2.0	25	0	80.4	60 - 140				
Trichloroethene	20.09	2.0	2.0	25	0	80.4	60 - 140				
1,2,4-Trimethylbenzene	18.91	2.0	2.0	25	0	75.6	60 - 140				
1,3,5-Trimethylbenzene	19.02	2.0	2.0	25	0	76.1	60 - 140				
Vinyl Chloride	18.98	2.0	2.0	25	0	75.9	60 - 140				
Xylenes, Total	57.94	6.0	6.0	75	0	77.2	60 - 140				

Surrogate Recovery

1,2-DCA-d4	460.8			500		92	60 - 140				
toluene-d8(surr) (A)	457			500		91	60 - 140				
4-BFB (surr)	427.9			500		86	60 - 140				

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 E - Value above quantitation range