



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Friday, May 19, 2023

John Renda

Anchor QEA, LLC

6720 SW Macadam Ave. Suite 125

Portland, OR 97219

RE: A3C0788 - Gasco-CMMA/TCE Mon. Wells 1Q 2023 Perf. Mon. - 000029-02.84 T-01.001F

Thank you for using Apex Laboratories. We greatly appreciate your business and strive to provide the highest quality services to the environmental industry.

Enclosed are the results of analyses for work order A3C0788, which was received by the laboratory on 3/22/2023 at 8:02:00AM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: dthomas@apex-labs.com, or by phone at 503-718-2323.

Please note: All samples will be disposed of within 30 days of sample receipt, unless prior arrangements have been made.

Cooler Receipt Information

(See Cooler Receipt Form for details)

Cooler #1 4.8 degC

Cooler #2 5.9 degC

Cooler #3 4.9 degC

This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.

All other deliverables derived from this data, including Electronic Data Deliverables (EDDs), CLP-like forms, client requested summary sheets, and all other products are considered secondary to this report.



Apex Laboratories

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Darwin Thomas, Business Development Director

**ANALYTICAL REPORT****Apex Laboratories, LLC**6700 S.W. Sandburg Street
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503-718-2323
ORELAP ID: OR100062**Anchor QEA, LLC**6720 SW Macadam Ave. Suite 125
Portland, OR 97219Project: **Gasco-CMMA/TCE Mon. Wells 1Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001F**Project Manager: **John Renda****Report ID:****A3C0788 - 05 19 23 0603****ANALYTICAL REPORT FOR SAMPLES****SAMPLE INFORMATION**

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
GS-032123-39	A3C0788-01	WG	03/21/23 10:30	03/22/23 08:02
GS-032123-40	A3C0788-02	WG	03/21/23 10:35	03/22/23 08:02
GS-032123-41	A3C0788-03	WG	03/21/23 10:50	03/22/23 08:02
GS-032123-42	A3C0788-04	WG	03/21/23 12:30	03/22/23 08:02
GS-032123-43	A3C0788-05	WG	03/21/23 12:40	03/22/23 08:02
GS-032123-44	A3C0788-06	WG	03/21/23 13:30	03/22/23 08:02
GS-032123-45	A3C0788-07	WG	03/21/23 14:40	03/22/23 08:02
TB-032123	A3C0788-08	W	03/21/23 16:15	03/22/23 08:02

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Project Number: 000029-02.84 T-01.001F

Project Manager: John Renda

Report ID:

A3C0788 - 05 19 23 0603

ANALYTICAL SAMPLE RESULTS

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-032123-39 (A3C0788-01)		Matrix: WG			Batch: 23D0047			
Diesel	627	95.2	190	ug/L	1	04/03/23 23:22	NWTPH-Dx	F-13
Oil	ND	190	381	ug/L	1	04/03/23 23:22	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		Recovery: 93 %			Limits: 50-150 %	1	04/03/23 23:22	NWTPH-Dx
GS-032123-40 (A3C0788-02)		Matrix: WG			Batch: 23D0047			
Diesel	627	95.2	190	ug/L	1	04/03/23 23:43	NWTPH-Dx	F-13
Oil	458	190	381	ug/L	1	04/03/23 23:43	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		Recovery: 100 %			Limits: 50-150 %	1	04/03/23 23:43	NWTPH-Dx
GS-032123-41 (A3C0788-03)		Matrix: WG			Batch: 23D0047			
Diesel	1090	95.2	190	ug/L	1	04/04/23 00:03	NWTPH-Dx	F-13
Oil	ND	190	381	ug/L	1	04/04/23 00:03	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		Recovery: 98 %			Limits: 50-150 %	1	04/04/23 00:03	NWTPH-Dx
GS-032123-42 (A3C0788-04)		Matrix: WG			Batch: 23D0047			
Diesel	1240	95.2	190	ug/L	1	04/04/23 00:24	NWTPH-Dx	F-13
Oil	327	190	381	ug/L	1	04/04/23 00:24	NWTPH-Dx	J
Surrogate: o-Terphenyl (Surr)		Recovery: 99 %			Limits: 50-150 %	1	04/04/23 00:24	NWTPH-Dx
GS-032123-43 (A3C0788-05)		Matrix: WG			Batch: 23D0047			
Diesel	357	95.2	190	ug/L	1	04/04/23 00:44	NWTPH-Dx	F-13
Oil	ND	190	381	ug/L	1	04/04/23 00:44	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		Recovery: 105 %			Limits: 50-150 %	1	04/04/23 00:44	NWTPH-Dx
GS-032123-44 (A3C0788-06)		Matrix: WG			Batch: 23D0047			
Diesel	ND	94.3	189	ug/L	1	04/04/23 01:04	NWTPH-Dx	
Oil	766	189	377	ug/L	1	04/04/23 01:04	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		Recovery: 94 %			Limits: 50-150 %	1	04/04/23 01:04	NWTPH-Dx
GS-032123-45 (A3C0788-07)		Matrix: WG			Batch: 23D0047			
Diesel	1650	95.2	190	ug/L	1	04/04/23 01:25	NWTPH-Dx	F-13
Oil	379	190	381	ug/L	1	04/04/23 01:25	NWTPH-Dx	J
Surrogate: o-Terphenyl (Surr)		Recovery: 94 %			Limits: 50-150 %	1	04/04/23 01:25	NWTPH-Dx

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Project: Gasco-CMMA/TCE Mon. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001F

Project Manager: John Renda

Report ID:

A3C0788 - 05 19 23 0603

ANALYTICAL SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-032123-39 (A3C0788-01)		Matrix: WG		Batch: 23C0997				
Gasoline Range Organics	600	50.0	100	ug/L	1	03/25/23 09:22	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery: 97 %	Limits: 50-150 %	1	03/25/23 09:22	NWTPH-Gx (MS)		
1,4-Difluorobenzene (Sur)		102 %	50-150 %	1	03/25/23 09:22	NWTPH-Gx (MS)		
GS-032123-40 (A3C0788-02)		Matrix: WG		Batch: 23C0997				
Gasoline Range Organics	601	50.0	100	ug/L	1	03/25/23 09:44	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery: 96 %	Limits: 50-150 %	1	03/25/23 09:44	NWTPH-Gx (MS)		
1,4-Difluorobenzene (Sur)		102 %	50-150 %	1	03/25/23 09:44	NWTPH-Gx (MS)		
GS-032123-41 (A3C0788-03RE2)		Matrix: WG		Batch: 23C1174				
Gasoline Range Organics	530	50.0	100	ug/L	1	03/29/23 22:07	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery: 98 %	Limits: 50-150 %	1	03/29/23 22:07	NWTPH-Gx (MS)		
1,4-Difluorobenzene (Sur)		101 %	50-150 %	1	03/29/23 22:07	NWTPH-Gx (MS)		
GS-032123-42 (A3C0788-04RE1)		Matrix: WG		Batch: 23C1041				
Gasoline Range Organics	2390	500	1000	ug/L	10	03/27/23 18:45	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery: 97 %	Limits: 50-150 %	1	03/27/23 18:45	NWTPH-Gx (MS)		
1,4-Difluorobenzene (Sur)		98 %	50-150 %	1	03/27/23 18:45	NWTPH-Gx (MS)		
GS-032123-43 (A3C0788-05RE1)		Matrix: WG		Batch: 23C1041				
Gasoline Range Organics	ND	50.0	100	ug/L	1	03/27/23 17:24	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery: 98 %	Limits: 50-150 %	1	03/27/23 17:24	NWTPH-Gx (MS)		
1,4-Difluorobenzene (Sur)		98 %	50-150 %	1	03/27/23 17:24	NWTPH-Gx (MS)		
GS-032123-44 (A3C0788-06)		Matrix: WG		Batch: 23C1008				
Gasoline Range Organics	ND	50.0	100	ug/L	1	03/26/23 11:20	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery: 96 %	Limits: 50-150 %	1	03/26/23 11:20	NWTPH-Gx (MS)		
1,4-Difluorobenzene (Sur)		106 %	50-150 %	1	03/26/23 11:20	NWTPH-Gx (MS)		
GS-032123-45 (A3C0788-07)		Matrix: WG		Batch: 23C1008				
Gasoline Range Organics	38400	2500	5000	ug/L	50	03/26/23 15:25	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery: 87 %	Limits: 50-150 %	1	03/26/23 15:25	NWTPH-Gx (MS)		
1,4-Difluorobenzene (Sur)		93 %	50-150 %	1	03/26/23 15:25	NWTPH-Gx (MS)		

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ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-032123-39 (A3C0788-01)		Matrix: WG			Batch: 23C0997			
Acetone	ND	20.0	20.0	ug/L	1	03/25/23 09:22	EPA 8260D	
Acrylonitrile	ND	1.00	2.00	ug/L	1	03/25/23 09:22	EPA 8260D	
Benzene	0.830	0.100	0.200	ug/L	1	03/25/23 09:22	EPA 8260D	
Bromobenzene	ND	0.250	0.500	ug/L	1	03/25/23 09:22	EPA 8260D	
Bromochloromethane	ND	0.500	1.00	ug/L	1	03/25/23 09:22	EPA 8260D	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	03/25/23 09:22	EPA 8260D	
Bromoform	ND	0.500	1.00	ug/L	1	03/25/23 09:22	EPA 8260D	
Bromomethane	ND	5.00	5.00	ug/L	1	03/25/23 09:22	EPA 8260D	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	03/25/23 09:22	EPA 8260D	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	03/25/23 09:22	EPA 8260D	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	03/25/23 09:22	EPA 8260D	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	03/25/23 09:22	EPA 8260D	
Carbon disulfide	ND	5.00	10.0	ug/L	1	03/25/23 09:22	EPA 8260D	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	03/25/23 09:22	EPA 8260D	
Chlorobenzene	ND	0.250	0.500	ug/L	1	03/25/23 09:22	EPA 8260D	
Chloroethane	ND	5.00	5.00	ug/L	1	03/25/23 09:22	EPA 8260D	
Chloroform	ND	0.500	1.00	ug/L	1	03/25/23 09:22	EPA 8260D	
Chloromethane	ND	2.50	5.00	ug/L	1	03/25/23 09:22	EPA 8260D	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	03/25/23 09:22	EPA 8260D	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	03/25/23 09:22	EPA 8260D	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	03/25/23 09:22	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	03/25/23 09:22	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	03/25/23 09:22	EPA 8260D	
Dibromomethane	ND	0.500	1.00	ug/L	1	03/25/23 09:22	EPA 8260D	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	03/25/23 09:22	EPA 8260D	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	03/25/23 09:22	EPA 8260D	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	03/25/23 09:22	EPA 8260D	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	03/25/23 09:22	EPA 8260D	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	03/25/23 09:22	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	03/25/23 09:22	EPA 8260D	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	03/25/23 09:22	EPA 8260D	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	03/25/23 09:22	EPA 8260D	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	03/25/23 09:22	EPA 8260D	

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ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-032123-39 (A3C0788-01)		Matrix: WG			Batch: 23C0997			
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	03/25/23 09:22	EPA 8260D	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	03/25/23 09:22	EPA 8260D	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	03/25/23 09:22	EPA 8260D	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	03/25/23 09:22	EPA 8260D	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	03/25/23 09:22	EPA 8260D	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	03/25/23 09:22	EPA 8260D	
Ethylbenzene	2.42	0.250	0.500	ug/L	1	03/25/23 09:22	EPA 8260D	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	03/25/23 09:22	EPA 8260D	
2-Hexanone	ND	5.00	10.0	ug/L	1	03/25/23 09:22	EPA 8260D	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	03/25/23 09:22	EPA 8260D	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	03/25/23 09:22	EPA 8260D	
Methylene chloride	ND	5.00	10.0	ug/L	1	03/25/23 09:22	EPA 8260D	
4-Methyl-2-pentanone (MIBK)	ND	5.00	10.0	ug/L	1	03/25/23 09:22	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	03/25/23 09:22	EPA 8260D	
Naphthalene	28.7	2.00	2.00	ug/L	1	03/25/23 09:22	EPA 8260D	Q-54y
n-Propylbenzene	ND	0.250	0.500	ug/L	1	03/25/23 09:22	EPA 8260D	
Styrene	ND	0.500	1.00	ug/L	1	03/25/23 09:22	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	03/25/23 09:22	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	03/25/23 09:22	EPA 8260D	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	03/25/23 09:22	EPA 8260D	
Toluene	ND	0.500	1.00	ug/L	1	03/25/23 09:22	EPA 8260D	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	03/25/23 09:22	EPA 8260D	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	03/25/23 09:22	EPA 8260D	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	03/25/23 09:22	EPA 8260D	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	03/25/23 09:22	EPA 8260D	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	03/25/23 09:22	EPA 8260D	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	03/25/23 09:22	EPA 8260D	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	03/25/23 09:22	EPA 8260D	
1,2,4-Trimethylbenzene	2.80	0.500	1.00	ug/L	1	03/25/23 09:22	EPA 8260D	
1,3,5-Trimethylbenzene	0.820	0.500	1.00	ug/L	1	03/25/23 09:22	EPA 8260D	J
Vinyl chloride	ND	0.400	0.400	ug/L	1	03/25/23 09:22	EPA 8260D	
m,p-Xylene	1.43	0.500	1.00	ug/L	1	03/25/23 09:22	EPA 8260D	
o-Xylene	2.14	0.250	0.500	ug/L	1	03/25/23 09:22	EPA 8260D	

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ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-032123-39 (A3C0788-01)		Matrix: WG			Batch: 23C0997			
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery: 98 %	Limits: 80-120 %	1		03/25/23 09:22	EPA 8260D	
Toluene-d8 (Surr)		101 %	80-120 %	1		03/25/23 09:22	EPA 8260D	
4-Bromofluorobenzene (Surr)		94 %	80-120 %	1		03/25/23 09:22	EPA 8260D	
GS-032123-40 (A3C0788-02)		Matrix: WG			Batch: 23C0997			
Acetone	ND	10.0	20.0	ug/L	1	03/25/23 09:44	EPA 8260D	
Acrylonitrile	ND	1.00	2.00	ug/L	1	03/25/23 09:44	EPA 8260D	
Benzene	0.720	0.100	0.200	ug/L	1	03/25/23 09:44	EPA 8260D	
Bromobenzene	ND	0.250	0.500	ug/L	1	03/25/23 09:44	EPA 8260D	
Bromochloromethane	ND	0.500	1.00	ug/L	1	03/25/23 09:44	EPA 8260D	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	03/25/23 09:44	EPA 8260D	
Bromoform	ND	0.500	1.00	ug/L	1	03/25/23 09:44	EPA 8260D	
Bromomethane	ND	5.00	5.00	ug/L	1	03/25/23 09:44	EPA 8260D	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	03/25/23 09:44	EPA 8260D	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	03/25/23 09:44	EPA 8260D	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	03/25/23 09:44	EPA 8260D	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	03/25/23 09:44	EPA 8260D	
Carbon disulfide	ND	5.00	10.0	ug/L	1	03/25/23 09:44	EPA 8260D	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	03/25/23 09:44	EPA 8260D	
Chlorobenzene	ND	0.250	0.500	ug/L	1	03/25/23 09:44	EPA 8260D	
Chloroethane	ND	5.00	5.00	ug/L	1	03/25/23 09:44	EPA 8260D	
Chloroform	ND	0.500	1.00	ug/L	1	03/25/23 09:44	EPA 8260D	
Chloromethane	ND	2.50	5.00	ug/L	1	03/25/23 09:44	EPA 8260D	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	03/25/23 09:44	EPA 8260D	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	03/25/23 09:44	EPA 8260D	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	03/25/23 09:44	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	03/25/23 09:44	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	03/25/23 09:44	EPA 8260D	
Dibromomethane	ND	0.500	1.00	ug/L	1	03/25/23 09:44	EPA 8260D	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	03/25/23 09:44	EPA 8260D	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	03/25/23 09:44	EPA 8260D	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	03/25/23 09:44	EPA 8260D	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	03/25/23 09:44	EPA 8260D	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	03/25/23 09:44	EPA 8260D	

Apex Laboratories

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Darwin Thomas, Business Development Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Anchor QEA, LLC

6720 SW Macadam Ave. Suite 125

Portland, OR 97219

Project: **Gasco-CMMA/TCE Mon. Wells 1Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001F**Project Manager: **John Renda****Report ID:****A3C0788 - 05 19 23 0603**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-032123-40 (A3C0788-02)		Matrix: WG			Batch: 23C0997			
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	03/25/23 09:44	EPA 8260D	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	03/25/23 09:44	EPA 8260D	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	03/25/23 09:44	EPA 8260D	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	03/25/23 09:44	EPA 8260D	
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	03/25/23 09:44	EPA 8260D	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	03/25/23 09:44	EPA 8260D	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	03/25/23 09:44	EPA 8260D	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	03/25/23 09:44	EPA 8260D	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	03/25/23 09:44	EPA 8260D	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	03/25/23 09:44	EPA 8260D	
Ethylbenzene	2.43	0.250	0.500	ug/L	1	03/25/23 09:44	EPA 8260D	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	03/25/23 09:44	EPA 8260D	
2-Hexanone	ND	5.00	10.0	ug/L	1	03/25/23 09:44	EPA 8260D	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	03/25/23 09:44	EPA 8260D	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	03/25/23 09:44	EPA 8260D	
Methylene chloride	ND	5.00	10.0	ug/L	1	03/25/23 09:44	EPA 8260D	
4-Methyl-2-pentanone (MIBK)	ND	5.00	10.0	ug/L	1	03/25/23 09:44	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	03/25/23 09:44	EPA 8260D	
Naphthalene	30.2	2.00	2.00	ug/L	1	03/25/23 09:44	EPA 8260D	Q-54y
n-Propylbenzene	ND	0.250	0.500	ug/L	1	03/25/23 09:44	EPA 8260D	
Styrene	ND	0.500	1.00	ug/L	1	03/25/23 09:44	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	03/25/23 09:44	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	03/25/23 09:44	EPA 8260D	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	03/25/23 09:44	EPA 8260D	
Toluene	ND	0.500	1.00	ug/L	1	03/25/23 09:44	EPA 8260D	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	03/25/23 09:44	EPA 8260D	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	03/25/23 09:44	EPA 8260D	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	03/25/23 09:44	EPA 8260D	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	03/25/23 09:44	EPA 8260D	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	03/25/23 09:44	EPA 8260D	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	03/25/23 09:44	EPA 8260D	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	03/25/23 09:44	EPA 8260D	
1,2,4-Trimethylbenzene	2.89	0.500	1.00	ug/L	1	03/25/23 09:44	EPA 8260D	

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Darwin Thomas, Business Development Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Anchor QEA, LLC

6720 SW Macadam Ave. Suite 125

Portland, OR 97219

Project: **Gasco-CMMA/TCE Mon. Wells 1Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001F**Project Manager: **John Renda****Report ID:****A3C0788 - 05 19 23 0603**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-032123-40 (A3C0788-02)		Matrix: WG			Batch: 23C0997			
1,3,5-Trimethylbenzene	0.820	0.500	1.00	ug/L	1	03/25/23 09:44	EPA 8260D	J
Vinyl chloride	ND	0.400	0.400	ug/L	1	03/25/23 09:44	EPA 8260D	
m,p-Xylene	1.48	0.500	1.00	ug/L	1	03/25/23 09:44	EPA 8260D	
o-Xylene	2.21	0.250	0.500	ug/L	1	03/25/23 09:44	EPA 8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery:</i>	<i>98 %</i>	<i>Limits:</i>	<i>80-120 %</i>	<i>1</i>	<i>03/25/23 09:44</i>	<i>EPA 8260D</i>
<i>Toluene-d8 (Surr)</i>			<i>101 %</i>		<i>80-120 %</i>	<i>1</i>	<i>03/25/23 09:44</i>	<i>EPA 8260D</i>
<i>4-Bromofluorobenzene (Surr)</i>			<i>96 %</i>		<i>80-120 %</i>	<i>1</i>	<i>03/25/23 09:44</i>	<i>EPA 8260D</i>
GS-032123-41 (A3C0788-03RE2)		Matrix: WG			Batch: 23C1174			
Acetone	ND	20.0	20.0	ug/L	1	03/29/23 22:07	EPA 8260D	
Acrylonitrile	ND	1.00	2.00	ug/L	1	03/29/23 22:07	EPA 8260D	
Benzene	4.18	0.100	0.200	ug/L	1	03/29/23 22:07	EPA 8260D	
Bromobenzene	ND	0.250	0.500	ug/L	1	03/29/23 22:07	EPA 8260D	
Bromochloromethane	ND	0.500	1.00	ug/L	1	03/29/23 22:07	EPA 8260D	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	03/29/23 22:07	EPA 8260D	
Bromoform	ND	0.500	1.00	ug/L	1	03/29/23 22:07	EPA 8260D	
Bromomethane	ND	5.00	5.00	ug/L	1	03/29/23 22:07	EPA 8260D	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	03/29/23 22:07	EPA 8260D	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	03/29/23 22:07	EPA 8260D	
sec-Butylbenzene	0.700	0.500	1.00	ug/L	1	03/29/23 22:07	EPA 8260D	J
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	03/29/23 22:07	EPA 8260D	
Carbon disulfide	ND	5.00	10.0	ug/L	1	03/29/23 22:07	EPA 8260D	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	03/29/23 22:07	EPA 8260D	
Chlorobenzene	ND	0.250	0.500	ug/L	1	03/29/23 22:07	EPA 8260D	
Chloroethane	ND	5.00	5.00	ug/L	1	03/29/23 22:07	EPA 8260D	
Chloroform	ND	0.500	1.00	ug/L	1	03/29/23 22:07	EPA 8260D	
Chloromethane	ND	2.50	5.00	ug/L	1	03/29/23 22:07	EPA 8260D	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	03/29/23 22:07	EPA 8260D	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	03/29/23 22:07	EPA 8260D	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	03/29/23 22:07	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	03/29/23 22:07	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	03/29/23 22:07	EPA 8260D	
Dibromomethane	ND	0.500	1.00	ug/L	1	03/29/23 22:07	EPA 8260D	

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Darwin Thomas, Business Development Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062**Anchor QEA, LLC**6720 SW Macadam Ave. Suite 125
Portland, OR 97219Project: **Gasco-CMMA/TCE Mon. Wells 1Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001F**Project Manager: **John Renda****Report ID:****A3C0788 - 05 19 23 0603**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-032123-41 (A3C0788-03RE2)		Matrix: WG		Batch: 23C1174				
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	03/29/23 22:07	EPA 8260D	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	03/29/23 22:07	EPA 8260D	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	03/29/23 22:07	EPA 8260D	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	03/29/23 22:07	EPA 8260D	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	03/29/23 22:07	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	03/29/23 22:07	EPA 8260D	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	03/29/23 22:07	EPA 8260D	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	03/29/23 22:07	EPA 8260D	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	03/29/23 22:07	EPA 8260D	
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	03/29/23 22:07	EPA 8260D	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	03/29/23 22:07	EPA 8260D	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	03/29/23 22:07	EPA 8260D	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	03/29/23 22:07	EPA 8260D	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	03/29/23 22:07	EPA 8260D	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	03/29/23 22:07	EPA 8260D	
Ethylbenzene	ND	0.250	0.500	ug/L	1	03/29/23 22:07	EPA 8260D	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	03/29/23 22:07	EPA 8260D	
2-Hexanone	ND	5.00	10.0	ug/L	1	03/29/23 22:07	EPA 8260D	
Isopropylbenzene	1.03	0.500	1.00	ug/L	1	03/29/23 22:07	EPA 8260D	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	03/29/23 22:07	EPA 8260D	
Methylene chloride	ND	5.00	10.0	ug/L	1	03/29/23 22:07	EPA 8260D	
4-Methyl-2-pentanone (MIBK)	ND	5.00	10.0	ug/L	1	03/29/23 22:07	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	03/29/23 22:07	EPA 8260D	
Naphthalene	2.34	1.00	2.00	ug/L	1	03/29/23 22:07	EPA 8260D	
n-Propylbenzene	0.370	0.250	0.500	ug/L	1	03/29/23 22:07	EPA 8260D	J
Styrene	ND	0.500	1.00	ug/L	1	03/29/23 22:07	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	03/29/23 22:07	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	03/29/23 22:07	EPA 8260D	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	03/29/23 22:07	EPA 8260D	
Toluene	ND	0.500	1.00	ug/L	1	03/29/23 22:07	EPA 8260D	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	03/29/23 22:07	EPA 8260D	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	03/29/23 22:07	EPA 8260D	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	03/29/23 22:07	EPA 8260D	

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Darwin Thomas, Business Development Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Anchor QEA, LLC

6720 SW Macadam Ave. Suite 125

Portland, OR 97219

Project: Gasco-CMMA/TCE Mon. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001F

Project Manager: John Renda

Report ID:

A3C0788 - 05 19 23 0603

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-032123-41 (A3C0788-03RE2)		Matrix: WG			Batch: 23C1174			
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	03/29/23 22:07	EPA 8260D	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	03/29/23 22:07	EPA 8260D	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	03/29/23 22:07	EPA 8260D	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	03/29/23 22:07	EPA 8260D	
1,2,4-Trimethylbenzene	1.32	0.500	1.00	ug/L	1	03/29/23 22:07	EPA 8260D	
1,3,5-Trimethylbenzene	0.760	0.500	1.00	ug/L	1	03/29/23 22:07	EPA 8260D	J
Vinyl chloride	ND	0.200	0.400	ug/L	1	03/29/23 22:07	EPA 8260D	
m,p-Xylene	1.16	0.500	1.00	ug/L	1	03/29/23 22:07	EPA 8260D	Q-54
o-Xylene	2.04	0.250	0.500	ug/L	1	03/29/23 22:07	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery: 97 %		Limits: 80-120 %	1	03/29/23 22:07	EPA 8260D	
Toluene-d8 (Surr)		102 %		80-120 %	1	03/29/23 22:07	EPA 8260D	
4-Bromofluorobenzene (Surr)		96 %		80-120 %	1	03/29/23 22:07	EPA 8260D	
GS-032123-42 (A3C0788-04RE1)		Matrix: WG			Batch: 23C1041			
Acetone	ND	100	200	ug/L	10	03/27/23 18:45	EPA 8260D	
Acrylonitrile	ND	10.0	20.0	ug/L	10	03/27/23 18:45	EPA 8260D	
Benzene	140	1.00	2.00	ug/L	10	03/27/23 18:45	EPA 8260D	
Bromobenzene	ND	2.50	5.00	ug/L	10	03/27/23 18:45	EPA 8260D	
Bromochloromethane	ND	5.00	10.0	ug/L	10	03/27/23 18:45	EPA 8260D	
Bromodichloromethane	ND	5.00	10.0	ug/L	10	03/27/23 18:45	EPA 8260D	
Bromoform	ND	10.0	10.0	ug/L	10	03/27/23 18:45	EPA 8260D	
Bromomethane	ND	50.0	50.0	ug/L	10	03/27/23 18:45	EPA 8260D	
2-Butanone (MEK)	ND	50.0	100	ug/L	10	03/27/23 18:45	EPA 8260D	
n-Butylbenzene	ND	5.00	10.0	ug/L	10	03/27/23 18:45	EPA 8260D	
sec-Butylbenzene	ND	5.00	10.0	ug/L	10	03/27/23 18:45	EPA 8260D	
tert-Butylbenzene	ND	5.00	10.0	ug/L	10	03/27/23 18:45	EPA 8260D	
Carbon disulfide	831	50.0	100	ug/L	10	03/27/23 18:45	EPA 8260D	
Carbon tetrachloride	ND	10.0	10.0	ug/L	10	03/27/23 18:45	EPA 8260D	
Chlorobenzene	ND	2.50	5.00	ug/L	10	03/27/23 18:45	EPA 8260D	
Chloroethane	ND	50.0	50.0	ug/L	10	03/27/23 18:45	EPA 8260D	
Chloroform	ND	5.00	10.0	ug/L	10	03/27/23 18:45	EPA 8260D	
Chloromethane	ND	25.0	50.0	ug/L	10	03/27/23 18:45	EPA 8260D	
2-Chlorotoluene	ND	5.00	10.0	ug/L	10	03/27/23 18:45	EPA 8260D	

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Darwin Thomas, Business Development Director

Page 11 of 135



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
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503-718-2323
ORELAP ID: OR100062

Anchor QEA, LLC

6720 SW Macadam Ave. Suite 125
Portland, OR 97219

Project: Gasco-CMMA/TCE Mon. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001F

Project Manager: John Renda

Report ID:

A3C0788 - 05 19 23 0603

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-032123-42 (A3C0788-04RE1)		Matrix: WG		Batch: 23C1041				
4-Chlorotoluene	ND	5.00	10.0	ug/L	10	03/27/23 18:45	EPA 8260D	
Dibromochloromethane	ND	10.0	10.0	ug/L	10	03/27/23 18:45	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	50.0	50.0	ug/L	10	03/27/23 18:45	EPA 8260D	Q-54w
1,2-Dibromoethane (EDB)	ND	2.50	5.00	ug/L	10	03/27/23 18:45	EPA 8260D	
Dibromomethane	ND	5.00	10.0	ug/L	10	03/27/23 18:45	EPA 8260D	
1,2-Dichlorobenzene	ND	2.50	5.00	ug/L	10	03/27/23 18:45	EPA 8260D	
1,3-Dichlorobenzene	ND	2.50	5.00	ug/L	10	03/27/23 18:45	EPA 8260D	
1,4-Dichlorobenzene	ND	2.50	5.00	ug/L	10	03/27/23 18:45	EPA 8260D	
Dichlorodifluoromethane	ND	5.00	10.0	ug/L	10	03/27/23 18:45	EPA 8260D	
1,1-Dichloroethane	ND	2.00	4.00	ug/L	10	03/27/23 18:45	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	2.00	4.00	ug/L	10	03/27/23 18:45	EPA 8260D	
1,2-Dichloropropane	ND	2.50	5.00	ug/L	10	03/27/23 18:45	EPA 8260D	
1,3-Dichloropropane	ND	5.00	10.0	ug/L	10	03/27/23 18:45	EPA 8260D	
2,2-Dichloropropane	ND	10.0	10.0	ug/L	10	03/27/23 18:45	EPA 8260D	Q-54x
1,1-Dichloropropene	ND	5.00	10.0	ug/L	10	03/27/23 18:45	EPA 8260D	
cis-1,3-Dichloropropene	ND	5.00	10.0	ug/L	10	03/27/23 18:45	EPA 8260D	
trans-1,3-Dichloropropene	ND	10.0	10.0	ug/L	10	03/27/23 18:45	EPA 8260D	Q-54u
Ethylbenzene	75.6	2.50	5.00	ug/L	10	03/27/23 18:45	EPA 8260D	
Hexachlorobutadiene	ND	25.0	50.0	ug/L	10	03/27/23 18:45	EPA 8260D	
2-Hexanone	ND	50.0	100	ug/L	10	03/27/23 18:45	EPA 8260D	
Isopropylbenzene	ND	5.00	10.0	ug/L	10	03/27/23 18:45	EPA 8260D	
4-Isopropyltoluene	ND	5.00	10.0	ug/L	10	03/27/23 18:45	EPA 8260D	
Methylene chloride	ND	50.0	100	ug/L	10	03/27/23 18:45	EPA 8260D	
4-Methyl-2-pentanone (MIBK)	ND	50.0	100	ug/L	10	03/27/23 18:45	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	5.00	10.0	ug/L	10	03/27/23 18:45	EPA 8260D	
Naphthalene	591	10.0	20.0	ug/L	10	03/27/23 18:45	EPA 8260D	
n-Propylbenzene	ND	2.50	5.00	ug/L	10	03/27/23 18:45	EPA 8260D	
Styrene	ND	5.00	10.0	ug/L	10	03/27/23 18:45	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	2.00	4.00	ug/L	10	03/27/23 18:45	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	2.50	5.00	ug/L	10	03/27/23 18:45	EPA 8260D	
Tetrachloroethene (PCE)	ND	2.00	4.00	ug/L	10	03/27/23 18:45	EPA 8260D	
Toluene	5.60	5.00	10.0	ug/L	10	03/27/23 18:45	EPA 8260D	J
1,2,3-Trichlorobenzene	ND	10.0	20.0	ug/L	10	03/27/23 18:45	EPA 8260D	

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Darwin Thomas, Business Development Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Anchor QEA, LLC

6720 SW Macadam Ave. Suite 125

Portland, OR 97219

Project: Gasco-CMMA/TCE Mon. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001F

Project Manager: John Renda

Report ID:

A3C0788 - 05 19 23 0603

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-032123-42 (A3C0788-04RE1)		Matrix: WG			Batch: 23C1041			
1,2,4-Trichlorobenzene	ND	10.0	20.0	ug/L	10	03/27/23 18:45	EPA 8260D	
1,1,1-Trichloroethane	ND	4.00	4.00	ug/L	10	03/27/23 18:45	EPA 8260D	
1,1,2-Trichloroethane	ND	2.50	5.00	ug/L	10	03/27/23 18:45	EPA 8260D	
Trichlorofluoromethane	ND	10.0	20.0	ug/L	10	03/27/23 18:45	EPA 8260D	
1,2,3-Trichloropropane	ND	5.00	10.0	ug/L	10	03/27/23 18:45	EPA 8260D	
1,2,4-Trimethylbenzene	6.70	5.00	10.0	ug/L	10	03/27/23 18:45	EPA 8260D	J
1,3,5-Trimethylbenzene	ND	5.00	10.0	ug/L	10	03/27/23 18:45	EPA 8260D	
m,p-Xylene	17.8	5.00	10.0	ug/L	10	03/27/23 18:45	EPA 8260D	
o-Xylene	18.3	2.50	5.00	ug/L	10	03/27/23 18:45	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery: 98 %		Limits: 80-120 %	1	03/27/23 18:45	EPA 8260D	
Toluene-d8 (Surr)		100 %		80-120 %	1	03/27/23 18:45	EPA 8260D	
4-Bromofluorobenzene (Surr)		99 %		80-120 %	1	03/27/23 18:45	EPA 8260D	
GS-032123-43 (A3C0788-05RE1)		Matrix: WG			Batch: 23C1041			
Acetone	ND	10.0	20.0	ug/L	1	03/27/23 17:24	EPA 8260D	
Acrylonitrile	ND	1.00	2.00	ug/L	1	03/27/23 17:24	EPA 8260D	
Benzene	ND	0.100	0.200	ug/L	1	03/27/23 17:24	EPA 8260D	
Bromobenzene	ND	0.250	0.500	ug/L	1	03/27/23 17:24	EPA 8260D	
Bromochloromethane	ND	0.500	1.00	ug/L	1	03/27/23 17:24	EPA 8260D	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	03/27/23 17:24	EPA 8260D	
Bromoform	ND	1.00	1.00	ug/L	1	03/27/23 17:24	EPA 8260D	
Bromomethane	ND	5.00	5.00	ug/L	1	03/27/23 17:24	EPA 8260D	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	03/27/23 17:24	EPA 8260D	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	03/27/23 17:24	EPA 8260D	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	03/27/23 17:24	EPA 8260D	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	03/27/23 17:24	EPA 8260D	
Carbon disulfide	ND	5.00	10.0	ug/L	1	03/27/23 17:24	EPA 8260D	
Carbon tetrachloride	ND	1.00	1.00	ug/L	1	03/27/23 17:24	EPA 8260D	
Chlorobenzene	ND	0.250	0.500	ug/L	1	03/27/23 17:24	EPA 8260D	
Chloroethane	ND	5.00	5.00	ug/L	1	03/27/23 17:24	EPA 8260D	
Chloroform	ND	0.500	1.00	ug/L	1	03/27/23 17:24	EPA 8260D	
Chloromethane	ND	2.50	5.00	ug/L	1	03/27/23 17:24	EPA 8260D	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	03/27/23 17:24	EPA 8260D	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	03/27/23 17:24	EPA 8260D	

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Darwin Thomas, Business Development Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062**Anchor QEA, LLC**6720 SW Macadam Ave. Suite 125
Portland, OR 97219Project: **Gasco-CMMA/TCE Mon. Wells 1Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001F**Project Manager: **John Renda****Report ID:****A3C0788 - 05 19 23 0603**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-032123-43 (A3C0788-05RE1)				Matrix: WG		Batch: 23C1041		
Dibromochloromethane	ND	1.00	1.00	ug/L	1	03/27/23 17:24	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	5.00	5.00	ug/L	1	03/27/23 17:24	EPA 8260D	Q-54w
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	03/27/23 17:24	EPA 8260D	
Dibromomethane	ND	0.500	1.00	ug/L	1	03/27/23 17:24	EPA 8260D	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	03/27/23 17:24	EPA 8260D	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	03/27/23 17:24	EPA 8260D	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	03/27/23 17:24	EPA 8260D	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	03/27/23 17:24	EPA 8260D	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	03/27/23 17:24	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	03/27/23 17:24	EPA 8260D	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	03/27/23 17:24	EPA 8260D	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	03/27/23 17:24	EPA 8260D	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	03/27/23 17:24	EPA 8260D	
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	03/27/23 17:24	EPA 8260D	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	03/27/23 17:24	EPA 8260D	
2,2-Dichloropropane	ND	1.00	1.00	ug/L	1	03/27/23 17:24	EPA 8260D	Q-54x
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	03/27/23 17:24	EPA 8260D	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	03/27/23 17:24	EPA 8260D	
trans-1,3-Dichloropropene	ND	1.00	1.00	ug/L	1	03/27/23 17:24	EPA 8260D	Q-54u
Ethylbenzene	ND	0.250	0.500	ug/L	1	03/27/23 17:24	EPA 8260D	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	03/27/23 17:24	EPA 8260D	
2-Hexanone	ND	5.00	10.0	ug/L	1	03/27/23 17:24	EPA 8260D	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	03/27/23 17:24	EPA 8260D	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	03/27/23 17:24	EPA 8260D	
Methylene chloride	ND	5.00	10.0	ug/L	1	03/27/23 17:24	EPA 8260D	
4-Methyl-2-pentanone (MIBK)	ND	5.00	10.0	ug/L	1	03/27/23 17:24	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	03/27/23 17:24	EPA 8260D	
Naphthalene	ND	1.00	2.00	ug/L	1	03/27/23 17:24	EPA 8260D	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	03/27/23 17:24	EPA 8260D	
Styrene	ND	0.500	1.00	ug/L	1	03/27/23 17:24	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	03/27/23 17:24	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	03/27/23 17:24	EPA 8260D	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	03/27/23 17:24	EPA 8260D	

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Darwin Thomas, Business Development Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Anchor QEA, LLC

6720 SW Macadam Ave. Suite 125
Portland, OR 97219

Project: Gasco-CMMA/TCE Mon. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001F

Project Manager: John Renda

Report ID:

A3C0788 - 05 19 23 0603

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-032123-43 (A3C0788-05RE1)		Matrix: WG			Batch: 23C1041			
Toluene	ND	0.500	1.00	ug/L	1	03/27/23 17:24	EPA 8260D	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	03/27/23 17:24	EPA 8260D	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	03/27/23 17:24	EPA 8260D	
1,1,1-Trichloroethane	ND	0.400	0.400	ug/L	1	03/27/23 17:24	EPA 8260D	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	03/27/23 17:24	EPA 8260D	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	03/27/23 17:24	EPA 8260D	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	03/27/23 17:24	EPA 8260D	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	03/27/23 17:24	EPA 8260D	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	03/27/23 17:24	EPA 8260D	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	03/27/23 17:24	EPA 8260D	
Vinyl chloride	ND	0.200	0.400	ug/L	1	03/27/23 17:24	EPA 8260D	
m,p-Xylene	ND	0.500	1.00	ug/L	1	03/27/23 17:24	EPA 8260D	
o-Xylene	ND	0.250	0.500	ug/L	1	03/27/23 17:24	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery: 98 %		Limits: 80-120 %	1	03/27/23 17:24	EPA 8260D	
Toluene-d8 (Surr)		99 %		80-120 %	1	03/27/23 17:24	EPA 8260D	
4-Bromofluorobenzene (Surr)		100 %		80-120 %	1	03/27/23 17:24	EPA 8260D	
GS-032123-44 (A3C0788-06)		Matrix: WG			Batch: 23C1008			
Acetone	ND	10.0	20.0	ug/L	1	03/26/23 11:20	EPA 8260D	
Acrylonitrile	ND	1.00	2.00	ug/L	1	03/26/23 11:20	EPA 8260D	
Benzene	ND	0.100	0.200	ug/L	1	03/26/23 11:20	EPA 8260D	
Bromobenzene	ND	0.250	0.500	ug/L	1	03/26/23 11:20	EPA 8260D	
Bromochloromethane	ND	0.500	1.00	ug/L	1	03/26/23 11:20	EPA 8260D	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	03/26/23 11:20	EPA 8260D	
Bromoform	ND	0.500	1.00	ug/L	1	03/26/23 11:20	EPA 8260D	
Bromomethane	ND	5.00	5.00	ug/L	1	03/26/23 11:20	EPA 8260D	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	03/26/23 11:20	EPA 8260D	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	03/26/23 11:20	EPA 8260D	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	03/26/23 11:20	EPA 8260D	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	03/26/23 11:20	EPA 8260D	
Carbon disulfide	ND	5.00	10.0	ug/L	1	03/26/23 11:20	EPA 8260D	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	03/26/23 11:20	EPA 8260D	
Chlorobenzene	ND	0.250	0.500	ug/L	1	03/26/23 11:20	EPA 8260D	
Chloroethane	ND	5.00	5.00	ug/L	1	03/26/23 11:20	EPA 8260D	

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Darwin Thomas, Business Development Director

**ANALYTICAL REPORT****Apex Laboratories, LLC**6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062**Anchor QEA, LLC**6720 SW Macadam Ave. Suite 125
Portland, OR 97219Project: **Gasco-CMMA/TCE Mon. Wells 1Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001F**Project Manager: **John Renda****Report ID:****A3C0788 - 05 19 23 0603****ANALYTICAL SAMPLE RESULTS****Volatile Organic Compounds by EPA 8260D**

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-032123-44 (A3C0788-06)		Matrix: WG			Batch: 23C1008			
Chloroform	ND	0.500	1.00	ug/L	1	03/26/23 11:20	EPA 8260D	
Chloromethane	ND	2.50	5.00	ug/L	1	03/26/23 11:20	EPA 8260D	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	03/26/23 11:20	EPA 8260D	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	03/26/23 11:20	EPA 8260D	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	03/26/23 11:20	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	03/26/23 11:20	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	03/26/23 11:20	EPA 8260D	
Dibromomethane	ND	0.500	1.00	ug/L	1	03/26/23 11:20	EPA 8260D	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	03/26/23 11:20	EPA 8260D	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	03/26/23 11:20	EPA 8260D	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	03/26/23 11:20	EPA 8260D	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	03/26/23 11:20	EPA 8260D	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	03/26/23 11:20	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	03/26/23 11:20	EPA 8260D	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	03/26/23 11:20	EPA 8260D	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	03/26/23 11:20	EPA 8260D	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	03/26/23 11:20	EPA 8260D	
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	03/26/23 11:20	EPA 8260D	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	03/26/23 11:20	EPA 8260D	
2,2-Dichloropropane	ND	1.00	1.00	ug/L	1	03/26/23 11:20	EPA 8260D	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	03/26/23 11:20	EPA 8260D	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	03/26/23 11:20	EPA 8260D	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	03/26/23 11:20	EPA 8260D	
Ethylbenzene	ND	0.250	0.500	ug/L	1	03/26/23 11:20	EPA 8260D	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	03/26/23 11:20	EPA 8260D	
2-Hexanone	ND	5.00	10.0	ug/L	1	03/26/23 11:20	EPA 8260D	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	03/26/23 11:20	EPA 8260D	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	03/26/23 11:20	EPA 8260D	
Methylene chloride	ND	5.00	10.0	ug/L	1	03/26/23 11:20	EPA 8260D	
4-Methyl-2-pentanone (MIBK)	ND	5.00	10.0	ug/L	1	03/26/23 11:20	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	03/26/23 11:20	EPA 8260D	
Naphthalene	ND	1.00	2.00	ug/L	1	03/26/23 11:20	EPA 8260D	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	03/26/23 11:20	EPA 8260D	

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Darwin Thomas, Business Development Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Anchor QEA, LLC

6720 SW Macadam Ave. Suite 125
Portland, OR 97219

Project: Gasco-CMMA/TCE Mon. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001F

Project Manager: John Renda

Report ID:

A3C0788 - 05 19 23 0603

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-032123-44 (A3C0788-06)		Matrix: WG			Batch: 23C1008			
Styrene	ND	0.500	1.00	ug/L	1	03/26/23 11:20	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	03/26/23 11:20	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	03/26/23 11:20	EPA 8260D	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	03/26/23 11:20	EPA 8260D	
Toluene	ND	0.500	1.00	ug/L	1	03/26/23 11:20	EPA 8260D	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	03/26/23 11:20	EPA 8260D	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	03/26/23 11:20	EPA 8260D	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	03/26/23 11:20	EPA 8260D	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	03/26/23 11:20	EPA 8260D	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	03/26/23 11:20	EPA 8260D	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	03/26/23 11:20	EPA 8260D	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	03/26/23 11:20	EPA 8260D	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	03/26/23 11:20	EPA 8260D	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	03/26/23 11:20	EPA 8260D	
Vinyl chloride	ND	0.200	0.400	ug/L	1	03/26/23 11:20	EPA 8260D	
m,p-Xylene	ND	0.500	1.00	ug/L	1	03/26/23 11:20	EPA 8260D	
o-Xylene	ND	0.250	0.500	ug/L	1	03/26/23 11:20	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery: 101 %		Limits: 80-120 %	1	03/26/23 11:20	EPA 8260D	
Toluene-d8 (Surr)		102 %		80-120 %	1	03/26/23 11:20	EPA 8260D	
4-Bromofluorobenzene (Surr)		99 %		80-120 %	1	03/26/23 11:20	EPA 8260D	

GS-032123-45 (A3C0788-07)

Matrix: WG

Batch: 23C1008

V-25

Acetone	ND	500	1000	ug/L	50	03/26/23 15:25	EPA 8260D
Acrylonitrile	ND	50.0	100	ug/L	50	03/26/23 15:25	EPA 8260D
Bromobenzene	ND	12.5	25.0	ug/L	50	03/26/23 15:25	EPA 8260D
Bromochloromethane	ND	25.0	50.0	ug/L	50	03/26/23 15:25	EPA 8260D
Bromodichloromethane	ND	25.0	50.0	ug/L	50	03/26/23 15:25	EPA 8260D
Bromoform	ND	25.0	50.0	ug/L	50	03/26/23 15:25	EPA 8260D
Bromomethane	ND	250	250	ug/L	50	03/26/23 15:25	EPA 8260D
2-Butanone (MEK)	ND	250	500	ug/L	50	03/26/23 15:25	EPA 8260D
n-Butylbenzene	ND	25.0	50.0	ug/L	50	03/26/23 15:25	EPA 8260D
sec-Butylbenzene	ND	25.0	50.0	ug/L	50	03/26/23 15:25	EPA 8260D
tert-Butylbenzene	ND	25.0	50.0	ug/L	50	03/26/23 15:25	EPA 8260D
Carbon disulfide	ND	250	500	ug/L	50	03/26/23 15:25	EPA 8260D

Apex Laboratories

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Darwin Thomas, Business Development Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062**Anchor QEA, LLC**6720 SW Macadam Ave. Suite 125
Portland, OR 97219Project: **Gasco-CMMA/TCE Mon. Wells 1Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001F**Project Manager: **John Renda****Report ID:****A3C0788 - 05 19 23 0603**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-032123-45 (A3C0788-07)		Matrix: WG			Batch: 23C1008		V-25	
Carbon tetrachloride	ND	25.0	50.0	ug/L	50	03/26/23 15:25	EPA 8260D	
Chlorobenzene	ND	12.5	25.0	ug/L	50	03/26/23 15:25	EPA 8260D	
Chloroethane	ND	250	250	ug/L	50	03/26/23 15:25	EPA 8260D	
Chloroform	ND	25.0	50.0	ug/L	50	03/26/23 15:25	EPA 8260D	
Chloromethane	ND	125	250	ug/L	50	03/26/23 15:25	EPA 8260D	
2-Chlorotoluene	ND	25.0	50.0	ug/L	50	03/26/23 15:25	EPA 8260D	
4-Chlorotoluene	ND	25.0	50.0	ug/L	50	03/26/23 15:25	EPA 8260D	
Dibromochloromethane	ND	25.0	50.0	ug/L	50	03/26/23 15:25	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	125	250	ug/L	50	03/26/23 15:25	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	12.5	25.0	ug/L	50	03/26/23 15:25	EPA 8260D	
Dibromomethane	ND	25.0	50.0	ug/L	50	03/26/23 15:25	EPA 8260D	
1,2-Dichlorobenzene	ND	12.5	25.0	ug/L	50	03/26/23 15:25	EPA 8260D	
1,3-Dichlorobenzene	ND	12.5	25.0	ug/L	50	03/26/23 15:25	EPA 8260D	
1,4-Dichlorobenzene	ND	12.5	25.0	ug/L	50	03/26/23 15:25	EPA 8260D	
Dichlorodifluoromethane	ND	25.0	50.0	ug/L	50	03/26/23 15:25	EPA 8260D	
1,1-Dichloroethane	ND	10.0	20.0	ug/L	50	03/26/23 15:25	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	10.0	20.0	ug/L	50	03/26/23 15:25	EPA 8260D	
1,1-Dichloroethene	ND	10.0	20.0	ug/L	50	03/26/23 15:25	EPA 8260D	
cis-1,2-Dichloroethene	ND	10.0	20.0	ug/L	50	03/26/23 15:25	EPA 8260D	
trans-1,2-Dichloroethene	ND	10.0	20.0	ug/L	50	03/26/23 15:25	EPA 8260D	
1,2-Dichloropropane	ND	12.5	25.0	ug/L	50	03/26/23 15:25	EPA 8260D	
1,3-Dichloropropane	ND	25.0	50.0	ug/L	50	03/26/23 15:25	EPA 8260D	
2,2-Dichloropropane	ND	50.0	50.0	ug/L	50	03/26/23 15:25	EPA 8260D	
1,1-Dichloropropene	ND	25.0	50.0	ug/L	50	03/26/23 15:25	EPA 8260D	
cis-1,3-Dichloropropene	ND	25.0	50.0	ug/L	50	03/26/23 15:25	EPA 8260D	
trans-1,3-Dichloropropene	ND	25.0	50.0	ug/L	50	03/26/23 15:25	EPA 8260D	
Ethylbenzene	196	12.5	25.0	ug/L	50	03/26/23 15:25	EPA 8260D	
Hexachlorobutadiene	ND	125	250	ug/L	50	03/26/23 15:25	EPA 8260D	
2-Hexanone	ND	250	500	ug/L	50	03/26/23 15:25	EPA 8260D	
Isopropylbenzene	ND	25.0	50.0	ug/L	50	03/26/23 15:25	EPA 8260D	
4-Isopropyltoluene	ND	25.0	50.0	ug/L	50	03/26/23 15:25	EPA 8260D	
Methylene chloride	ND	250	500	ug/L	50	03/26/23 15:25	EPA 8260D	
4-Methyl-2-pentanone (MiBK)	ND	250	500	ug/L	50	03/26/23 15:25	EPA 8260D	

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Darwin Thomas, Business Development Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Anchor QEA, LLC

6720 SW Macadam Ave. Suite 125
Portland, OR 97219

Project: Gasco-CMMA/TCE Mon. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001F

Project Manager: John Renda

Report ID:

A3C0788 - 05 19 23 0603

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-032123-45 (A3C0788-07)		Matrix: WG			Batch: 23C1008		V-25	
Methyl tert-butyl ether (MTBE)	ND	25.0	50.0	ug/L	50	03/26/23 15:25	EPA 8260D	
Naphthalene	296	50.0	100	ug/L	50	03/26/23 15:25	EPA 8260D	
n-Propylbenzene	ND	12.5	25.0	ug/L	50	03/26/23 15:25	EPA 8260D	
Styrene	ND	25.0	50.0	ug/L	50	03/26/23 15:25	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	10.0	20.0	ug/L	50	03/26/23 15:25	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	12.5	25.0	ug/L	50	03/26/23 15:25	EPA 8260D	
Tetrachloroethene (PCE)	ND	10.0	20.0	ug/L	50	03/26/23 15:25	EPA 8260D	
Toluene	58.5	25.0	50.0	ug/L	50	03/26/23 15:25	EPA 8260D	
1,2,3-Trichlorobenzene	ND	50.0	100	ug/L	50	03/26/23 15:25	EPA 8260D	
1,2,4-Trichlorobenzene	ND	50.0	100	ug/L	50	03/26/23 15:25	EPA 8260D	
1,1,1-Trichloroethane	ND	10.0	20.0	ug/L	50	03/26/23 15:25	EPA 8260D	
1,1,2-Trichloroethane	ND	12.5	25.0	ug/L	50	03/26/23 15:25	EPA 8260D	
Trichloroethene (TCE)	ND	10.0	20.0	ug/L	50	03/26/23 15:25	EPA 8260D	
Trichlorofluoromethane	ND	50.0	100	ug/L	50	03/26/23 15:25	EPA 8260D	
1,2,3-Trichloropropane	ND	25.0	50.0	ug/L	50	03/26/23 15:25	EPA 8260D	
1,2,4-Trimethylbenzene	ND	25.0	50.0	ug/L	50	03/26/23 15:25	EPA 8260D	
1,3,5-Trimethylbenzene	ND	25.0	50.0	ug/L	50	03/26/23 15:25	EPA 8260D	
Vinyl chloride	ND	10.0	20.0	ug/L	50	03/26/23 15:25	EPA 8260D	
m,p-Xylene	202	25.0	50.0	ug/L	50	03/26/23 15:25	EPA 8260D	
o-Xylene	116	12.5	25.0	ug/L	50	03/26/23 15:25	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery: 88 %		Limits: 80-120 %	1	03/26/23 15:25	EPA 8260D	
Toluene-d8 (Surr)		101 %		80-120 %	1	03/26/23 15:25	EPA 8260D	
4-Bromofluorobenzene (Surr)		99 %		80-120 %	1	03/26/23 15:25	EPA 8260D	
GS-032123-45 (A3C0788-07RE1)		Matrix: WG			Batch: 23C1023			
Benzene	13500	50.0	100	ug/L	500	03/27/23 12:56	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery: 93 %		Limits: 80-120 %	1	03/27/23 12:56	EPA 8260D	
Toluene-d8 (Surr)		103 %		80-120 %	1	03/27/23 12:56	EPA 8260D	
4-Bromofluorobenzene (Surr)		99 %		80-120 %	1	03/27/23 12:56	EPA 8260D	
TB-032123 (A3C0788-08)		Matrix: W			Batch: 23C1008			
Acetone	ND	10.0	20.0	ug/L	1	03/26/23 08:44	EPA 8260D	
Acrylonitrile	ND	1.00	2.00	ug/L	1	03/26/23 08:44	EPA 8260D	
Benzene	ND	0.100	0.200	ug/L	1	03/26/23 08:44	EPA 8260D	

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Darwin Thomas, Business Development Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062**Anchor QEA, LLC**6720 SW Macadam Ave. Suite 125
Portland, OR 97219Project: **Gasco-CMMA/TCE Mon. Wells 1Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001F**Project Manager: **John Renda****Report ID:****A3C0788 - 05 19 23 0603**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
TB-032123 (A3C0788-08)		Matrix: W			Batch: 23C1008			
Bromobenzene	ND	0.250	0.500	ug/L	1	03/26/23 08:44	EPA 8260D	
Bromochloromethane	ND	0.500	1.00	ug/L	1	03/26/23 08:44	EPA 8260D	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	03/26/23 08:44	EPA 8260D	
Bromoform	ND	0.500	1.00	ug/L	1	03/26/23 08:44	EPA 8260D	
Bromomethane	ND	5.00	5.00	ug/L	1	03/26/23 08:44	EPA 8260D	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	03/26/23 08:44	EPA 8260D	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	03/26/23 08:44	EPA 8260D	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	03/26/23 08:44	EPA 8260D	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	03/26/23 08:44	EPA 8260D	
Carbon disulfide	ND	5.00	10.0	ug/L	1	03/26/23 08:44	EPA 8260D	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	03/26/23 08:44	EPA 8260D	
Chlorobenzene	ND	0.250	0.500	ug/L	1	03/26/23 08:44	EPA 8260D	
Chloroethane	ND	5.00	5.00	ug/L	1	03/26/23 08:44	EPA 8260D	
Chloroform	ND	0.500	1.00	ug/L	1	03/26/23 08:44	EPA 8260D	
Chloromethane	ND	2.50	5.00	ug/L	1	03/26/23 08:44	EPA 8260D	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	03/26/23 08:44	EPA 8260D	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	03/26/23 08:44	EPA 8260D	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	03/26/23 08:44	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	03/26/23 08:44	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	03/26/23 08:44	EPA 8260D	
Dibromomethane	ND	0.500	1.00	ug/L	1	03/26/23 08:44	EPA 8260D	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	03/26/23 08:44	EPA 8260D	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	03/26/23 08:44	EPA 8260D	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	03/26/23 08:44	EPA 8260D	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	03/26/23 08:44	EPA 8260D	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	03/26/23 08:44	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	03/26/23 08:44	EPA 8260D	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	03/26/23 08:44	EPA 8260D	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	03/26/23 08:44	EPA 8260D	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	03/26/23 08:44	EPA 8260D	
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	03/26/23 08:44	EPA 8260D	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	03/26/23 08:44	EPA 8260D	
2,2-Dichloropropane	ND	1.00	1.00	ug/L	1	03/26/23 08:44	EPA 8260D	

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Darwin Thomas, Business Development Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Anchor QEA, LLC

6720 SW Macadam Ave. Suite 125

Portland, OR 97219

Project: **Gasco-CMMA/TCE Mon. Wells 1Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001F**Project Manager: **John Renda****Report ID:****A3C0788 - 05 19 23 0603**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
TB-032123 (A3C0788-08)		Matrix: W			Batch: 23C1008			
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	03/26/23 08:44	EPA 8260D	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	03/26/23 08:44	EPA 8260D	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	03/26/23 08:44	EPA 8260D	
Ethylbenzene	ND	0.250	0.500	ug/L	1	03/26/23 08:44	EPA 8260D	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	03/26/23 08:44	EPA 8260D	
2-Hexanone	ND	5.00	10.0	ug/L	1	03/26/23 08:44	EPA 8260D	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	03/26/23 08:44	EPA 8260D	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	03/26/23 08:44	EPA 8260D	
Methylene chloride	ND	5.00	10.0	ug/L	1	03/26/23 08:44	EPA 8260D	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	03/26/23 08:44	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	03/26/23 08:44	EPA 8260D	
Naphthalene	ND	1.00	2.00	ug/L	1	03/26/23 08:44	EPA 8260D	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	03/26/23 08:44	EPA 8260D	
Styrene	ND	0.500	1.00	ug/L	1	03/26/23 08:44	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	03/26/23 08:44	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	03/26/23 08:44	EPA 8260D	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	03/26/23 08:44	EPA 8260D	
Toluene	ND	0.500	1.00	ug/L	1	03/26/23 08:44	EPA 8260D	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	03/26/23 08:44	EPA 8260D	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	03/26/23 08:44	EPA 8260D	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	03/26/23 08:44	EPA 8260D	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	03/26/23 08:44	EPA 8260D	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	03/26/23 08:44	EPA 8260D	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	03/26/23 08:44	EPA 8260D	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	03/26/23 08:44	EPA 8260D	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	03/26/23 08:44	EPA 8260D	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	03/26/23 08:44	EPA 8260D	
Vinyl chloride	ND	0.200	0.400	ug/L	1	03/26/23 08:44	EPA 8260D	
m,p-Xylene	ND	0.500	1.00	ug/L	1	03/26/23 08:44	EPA 8260D	
o-Xylene	ND	0.250	0.500	ug/L	1	03/26/23 08:44	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery: 100 %	Limits: 80-120 %	1	03/26/23 08:44	EPA 8260D		
Toluene-d8 (Surr)		102 %	80-120 %	1	03/26/23 08:44	EPA 8260D		
4-Bromofluorobenzene (Surr)		100 %	80-120 %	1	03/26/23 08:44	EPA 8260D		

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Darwin Thomas, Business Development Director



ANALYTICAL REPORT

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6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Anchor QEA, LLC

6720 SW Macadam Ave. Suite 125

Portland, OR 97219

Project: Gasco-CMMA/TCE Mon. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001F

Project Manager: John Renda

Report ID:

A3C0788 - 05 19 23 0603

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D SIM

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-032123-42 (A3C0788-04)		Matrix: WG			Batch: 23C1096			
1,1-Dichloroethene	ND	0.250	0.500	ug/L	25	03/28/23 16:53	EPA 8260D SIM	
cis-1,2-Dichloroethene	ND	0.250	0.500	ug/L	25	03/28/23 16:53	EPA 8260D SIM	
trans-1,2-Dichloroethene	ND	0.250	0.500	ug/L	25	03/28/23 16:53	EPA 8260D SIM	
Trichloroethene (TCE)	ND	0.250	0.500	ug/L	25	03/28/23 16:53	EPA 8260D SIM	
Vinyl chloride	ND	0.250	0.500	ug/L	25	03/28/23 16:53	EPA 8260D SIM	
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery: 104 %		Limits: 80-120 %	1	03/28/23 16:53	EPA 8260D SIM	
Toluene-d8 (Surr)		100 %		80-120 %	1	03/28/23 16:53	EPA 8260D SIM	
4-Bromofluorobenzene (Surr)		95 %		80-120 %	1	03/28/23 16:53	EPA 8260D SIM	

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ANALYTICAL REPORT

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Project Number: 000029-02.84 T-01.001F

Project Manager: John Renda

Report ID:

A3C0788 - 05 19 23 0603

ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E (Large Volume Injection)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-032123-39 (A3C0788-01RE2)		Matrix: WG			Batch: 23C1086			
Acenaphthene	15.3	0.0819	0.164	ug/L	4	03/28/23 17:58	EPA 8270E LVI	
Acenaphthylene	1.21	0.0819	0.164	ug/L	4	03/28/23 17:58	EPA 8270E LVI	
Anthracene	0.897	0.0819	0.164	ug/L	4	03/28/23 17:58	EPA 8270E LVI	
Benz(a)anthracene	0.0716	0.0409	0.0819	ug/L	4	03/28/23 17:58	EPA 8270E LVI	J
Benzo(a)pyrene	ND	0.0409	0.0819	ug/L	4	03/28/23 17:58	EPA 8270E LVI	
Benzo(b)fluoranthene	ND	0.0409	0.0819	ug/L	4	03/28/23 17:58	EPA 8270E LVI	
Benzo(k)fluoranthene	ND	0.0409	0.0819	ug/L	4	03/28/23 17:58	EPA 8270E LVI	
Benzo(g,h,i)perylene	ND	0.0819	0.164	ug/L	4	03/28/23 17:58	EPA 8270E LVI	
Chrysene	0.0675	0.0409	0.0819	ug/L	4	03/28/23 17:58	EPA 8270E LVI	J
Dibenz(a,h)anthracene	ND	0.0409	0.0819	ug/L	4	03/28/23 17:58	EPA 8270E LVI	
Fluoranthene	1.14	0.0819	0.164	ug/L	4	03/28/23 17:58	EPA 8270E LVI	
Fluorene	4.38	0.0819	0.164	ug/L	4	03/28/23 17:58	EPA 8270E LVI	
Indeno(1,2,3-cd)pyrene	ND	0.0409	0.0819	ug/L	4	03/28/23 17:58	EPA 8270E LVI	
1-Methylnaphthalene	6.02	0.164	0.327	ug/L	4	03/28/23 17:58	EPA 8270E LVI	
2-Methylnaphthalene	6.57	0.164	0.327	ug/L	4	03/28/23 17:58	EPA 8270E LVI	
Naphthalene	16.0	0.164	0.327	ug/L	4	03/28/23 17:58	EPA 8270E LVI	
Phenanthrene	3.28	0.164	0.327	ug/L	4	03/28/23 17:58	EPA 8270E LVI	
Pyrene	1.31	0.0819	0.164	ug/L	4	03/28/23 17:58	EPA 8270E LVI	
Carbazole	ND	0.0819	0.164	ug/L	4	03/28/23 17:58	EPA 8270E LVI	
Dibenzofuran	0.227	0.0819	0.164	ug/L	4	03/28/23 17:58	EPA 8270E LVI	
Surrogate: Acenaphthylene-d8 (Surr)		Recovery:	82 %	Limits:	78-134 %	4	03/28/23 17:58	EPA 8270E LVI
Benzo(a)pyrene-d12 (Surr)			81 %		80-132 %	4	03/28/23 17:58	EPA 8270E LVI

GS-032123-40 (A3C0788-02)

Matrix: WG

Batch: 23C0899

Acenaphthene	18.1	0.196	0.393	ug/L	10	03/23/23 17:07	EPA 8270E LVI	
Acenaphthylene	1.77	0.196	0.393	ug/L	10	03/23/23 17:07	EPA 8270E LVI	
Anthracene	1.10	0.196	0.393	ug/L	10	03/23/23 17:07	EPA 8270E LVI	
Benz(a)anthracene	0.128	0.0982	0.196	ug/L	10	03/23/23 17:07	EPA 8270E LVI	J
Benzo(a)pyrene	ND	0.0982	0.196	ug/L	10	03/23/23 17:07	EPA 8270E LVI	
Benzo(b)fluoranthene	ND	0.0982	0.196	ug/L	10	03/23/23 17:07	EPA 8270E LVI	
Benzo(k)fluoranthene	ND	0.0982	0.196	ug/L	10	03/23/23 17:07	EPA 8270E LVI	
Benzo(g,h,i)perylene	ND	0.196	0.393	ug/L	10	03/23/23 17:07	EPA 8270E LVI	
Chrysene	0.0982	0.0982	0.196	ug/L	10	03/23/23 17:07	EPA 8270E LVI	J

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Darwin Thomas, Business Development Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Anchor QEA, LLC

6720 SW Macadam Ave. Suite 125
Portland, OR 97219

Project: Gasco-CMMA/TCE Mon. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001F

Project Manager: John Renda

Report ID:

A3C0788 - 05 19 23 0603

ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E (Large Volume Injection)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-032123-40 (A3C0788-02)		Matrix: WG			Batch: 23C0899			
Dibenz(a,h)anthracene	ND	0.0982	0.196	ug/L	10	03/23/23 17:07	EPA 8270E LVI	
Fluoranthene	1.34	0.196	0.393	ug/L	10	03/23/23 17:07	EPA 8270E LVI	
Fluorene	4.83	0.196	0.393	ug/L	10	03/23/23 17:07	EPA 8270E LVI	
Indeno(1,2,3-cd)pyrene	ND	0.0982	0.196	ug/L	10	03/23/23 17:07	EPA 8270E LVI	
1-Methylnaphthalene	6.38	0.393	0.786	ug/L	10	03/23/23 17:07	EPA 8270E LVI	
2-Methylnaphthalene	7.11	0.393	0.786	ug/L	10	03/23/23 17:07	EPA 8270E LVI	
Naphthalene	17.7	0.393	0.786	ug/L	10	03/23/23 17:07	EPA 8270E LVI	
Phenanthrene	4.05	0.393	0.786	ug/L	10	03/23/23 17:07	EPA 8270E LVI	
Pyrene	1.59	0.196	0.393	ug/L	10	03/23/23 17:07	EPA 8270E LVI	
Carbazole	ND	0.196	0.393	ug/L	10	03/23/23 17:07	EPA 8270E LVI	
Dibenzofuran	0.295	0.196	0.393	ug/L	10	03/23/23 17:07	EPA 8270E LVI	J
Surrogate: Acenaphthylene-d8 (Surr)		Recovery: 94 %		Limits: 78-134 %	10	03/23/23 17:07	EPA 8270E LVI	S-05
Benzo(a)pyrene-d12 (Surr)		82 %		80-132 %	10	03/23/23 17:07	EPA 8270E LVI	S-05
GS-032123-41 (A3C0788-03)		Matrix: WG			Batch: 23C0899			
Acenaphthene	165	0.206	0.412	ug/L	10	03/23/23 17:41	EPA 8270E LVI	
Acenaphthylene	6.19	0.206	0.412	ug/L	10	03/23/23 17:41	EPA 8270E LVI	
Anthracene	4.31	0.206	0.412	ug/L	10	03/23/23 17:41	EPA 8270E LVI	
Benz(a)anthracene	0.325	0.103	0.206	ug/L	10	03/23/23 17:41	EPA 8270E LVI	
Benzo(a)pyrene	ND	0.103	0.206	ug/L	10	03/23/23 17:41	EPA 8270E LVI	
Benzo(b)fluoranthene	ND	0.103	0.206	ug/L	10	03/23/23 17:41	EPA 8270E LVI	
Benzo(k)fluoranthene	ND	0.103	0.206	ug/L	10	03/23/23 17:41	EPA 8270E LVI	
Benzo(g,h,i)perylene	ND	0.206	0.412	ug/L	10	03/23/23 17:41	EPA 8270E LVI	
Chrysene	0.304	0.103	0.206	ug/L	10	03/23/23 17:41	EPA 8270E LVI	
Dibenz(a,h)anthracene	ND	0.103	0.206	ug/L	10	03/23/23 17:41	EPA 8270E LVI	
Fluoranthene	4.74	0.206	0.412	ug/L	10	03/23/23 17:41	EPA 8270E LVI	
Fluorene	39.3	0.206	0.412	ug/L	10	03/23/23 17:41	EPA 8270E LVI	
Indeno(1,2,3-cd)pyrene	ND	0.103	0.206	ug/L	10	03/23/23 17:41	EPA 8270E LVI	
1-Methylnaphthalene	3.19	0.412	0.824	ug/L	10	03/23/23 17:41	EPA 8270E LVI	
2-Methylnaphthalene	0.428	0.412	0.824	ug/L	10	03/23/23 17:41	EPA 8270E LVI	J
Naphthalene	1.45	0.412	0.824	ug/L	10	03/23/23 17:41	EPA 8270E LVI	
Phenanthrene	4.16	0.412	0.824	ug/L	10	03/23/23 17:41	EPA 8270E LVI	
Pyrene	5.19	0.206	0.412	ug/L	10	03/23/23 17:41	EPA 8270E LVI	

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Project Number: 000029-02.84 T-01.001F

Project Manager: John Renda

Report ID:

A3C0788 - 05 19 23 0603

ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E (Large Volume Injection)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-032123-41 (A3C0788-03)		Matrix: WG			Batch: 23C0899			
Carbazole	ND	0.206	0.412	ug/L	10	03/23/23 17:41	EPA 8270E LVI	
Dibenzofuran	ND	0.206	0.412	ug/L	10	03/23/23 17:41	EPA 8270E LVI	
Surrogate: Acenaphthylene-d8 (Surr)		Recovery:	85 %	Limits:	78-134 %	10	03/23/23 17:41	EPA 8270E LVI S-05
Benzo(a)pyrene-d12 (Surr)			78 %		80-132 %	10	03/23/23 17:41	EPA 8270E LVI S-05
GS-032123-42 (A3C0788-04RE2)		Matrix: WG			Batch: 23C1086			
Acenaphthene	3.41	0.0879	0.176	ug/L	4	03/28/23 18:31	EPA 8270E LVI	
Acenaphthylene	ND	0.440	0.440	ug/L	4	03/28/23 18:31	EPA 8270E LVI	R-02
Anthracene	1.21	0.0879	0.176	ug/L	4	03/28/23 18:31	EPA 8270E LVI	
Benz(a)anthracene	0.149	0.0440	0.0879	ug/L	4	03/28/23 18:31	EPA 8270E LVI	
Benzo(a)pyrene	0.0681	0.0440	0.0879	ug/L	4	03/28/23 18:31	EPA 8270E LVI	J
Benzo(b)fluoranthene	0.0945	0.0440	0.0879	ug/L	4	03/28/23 18:31	EPA 8270E LVI	M-05, Q-29
Benzo(k)fluoranthene	0.0505	0.0440	0.0879	ug/L	4	03/28/23 18:31	EPA 8270E LVI	J
Benzo(g,h,i)perylene	ND	0.0879	0.176	ug/L	4	03/28/23 18:31	EPA 8270E LVI	
Chrysene	0.193	0.0440	0.0879	ug/L	4	03/28/23 18:31	EPA 8270E LVI	
Dibenz(a,h)anthracene	ND	0.0440	0.0879	ug/L	4	03/28/23 18:31	EPA 8270E LVI	
Fluoranthene	2.00	0.0879	0.176	ug/L	4	03/28/23 18:31	EPA 8270E LVI	
Fluorene	2.87	0.0879	0.176	ug/L	4	03/28/23 18:31	EPA 8270E LVI	
Indeno(1,2,3-cd)pyrene	0.0835	0.0440	0.0879	ug/L	4	03/28/23 18:31	EPA 8270E LVI	J
1-Methylnaphthalene	12.0	0.176	0.352	ug/L	4	03/28/23 18:31	EPA 8270E LVI	
2-Methylnaphthalene	10.9	0.176	0.352	ug/L	4	03/28/23 18:31	EPA 8270E LVI	
Phenanthrene	8.07	0.176	0.352	ug/L	4	03/28/23 18:31	EPA 8270E LVI	
Pyrene	1.63	0.0879	0.176	ug/L	4	03/28/23 18:31	EPA 8270E LVI	
Carbazole	1.19	0.0879	0.176	ug/L	4	03/28/23 18:31	EPA 8270E LVI	
Dibenzofuran	0.646	0.0879	0.176	ug/L	4	03/28/23 18:31	EPA 8270E LVI	
Surrogate: Acenaphthylene-d8 (Surr)		Recovery:	80 %	Limits:	78-134 %	4	03/28/23 18:31	EPA 8270E LVI S-05
Benzo(a)pyrene-d12 (Surr)			78 %		80-132 %	4	03/28/23 18:31	EPA 8270E LVI S-05
GS-032123-42 (A3C0788-04RE3)		Matrix: WG			Batch: 23C1086			
Naphthalene	326	2.20	4.40	ug/L	50	03/29/23 01:09	EPA 8270E LVI	
GS-032123-43 (A3C0788-05)		Matrix: WG			Batch: 23C0899			
Acenaphthylene	1.12	0.0194	0.0387	ug/L	1	03/23/23 19:20	EPA 8270E LVI	
Anthracene	0.689	0.0194	0.0387	ug/L	1	03/23/23 19:20	EPA 8270E LVI	

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Project Number: 000029-02.84 T-01.001F

Project Manager: John Renda

Report ID:

A3C0788 - 05 19 23 0603

ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E (Large Volume Injection)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-032123-43 (A3C0788-05)		Matrix: WG			Batch: 23C0899			
Benz(a)anthracene	0.0624	0.00968	0.0194	ug/L	1	03/23/23 19:20	EPA 8270E LVI	
Benzo(a)pyrene	ND	0.00968	0.0194	ug/L	1	03/23/23 19:20	EPA 8270E LVI	
Benzo(b)fluoranthene	ND	0.00968	0.0194	ug/L	1	03/23/23 19:20	EPA 8270E LVI	
Benzo(k)fluoranthene	ND	0.00968	0.0194	ug/L	1	03/23/23 19:20	EPA 8270E LVI	
Benzo(g,h,i)perylene	ND	0.0194	0.0387	ug/L	1	03/23/23 19:20	EPA 8270E LVI	
Chrysene	0.0711	0.00968	0.0194	ug/L	1	03/23/23 19:20	EPA 8270E LVI	
Dibenz(a,h)anthracene	ND	0.00968	0.0194	ug/L	1	03/23/23 19:20	EPA 8270E LVI	
Fluoranthene	2.13	0.0194	0.0387	ug/L	1	03/23/23 19:20	EPA 8270E LVI	
Fluorene	9.57	0.0194	0.0387	ug/L	1	03/23/23 19:20	EPA 8270E LVI	
Indeno(1,2,3-cd)pyrene	ND	0.00968	0.0194	ug/L	1	03/23/23 19:20	EPA 8270E LVI	
1-Methylnaphthalene	0.179	0.0387	0.0774	ug/L	1	03/23/23 19:20	EPA 8270E LVI	
2-Methylnaphthalene	ND	0.0387	0.0774	ug/L	1	03/23/23 19:20	EPA 8270E LVI	
Naphthalene	ND	0.242	0.242	ug/L	1	03/23/23 19:20	EPA 8270E LVI	R-02
Phenanthrene	7.36	0.0387	0.0774	ug/L	1	03/23/23 19:20	EPA 8270E LVI	
Pyrene	2.15	0.0194	0.0387	ug/L	1	03/23/23 19:20	EPA 8270E LVI	
Carbazole	ND	0.0387	0.0387	ug/L	1	03/23/23 19:20	EPA 8270E LVI	
Dibenzofuran	ND	0.0847	0.0847	ug/L	1	03/23/23 19:20	EPA 8270E LVI	R-02
Surrogate: Acenaphthylene-d8 (Surr)		Recovery: 118 %		Limits: 78-134 %	1	03/23/23 19:20	EPA 8270E LVI	
Benzo(a)pyrene-d12 (Surr)		127 %		80-132 %	1	03/23/23 19:20	EPA 8270E LVI	
GS-032123-43 (A3C0788-05RE1)		Matrix: WG			Batch: 23C0899			
Acenaphthene	27.8	0.194	0.387	ug/L	10	03/23/23 23:44	EPA 8270E LVI	
GS-032123-44 (A3C0788-06)		Matrix: WG			Batch: 23C0899			
Acenaphthene	ND	0.0169	0.0339	ug/L	1	03/23/23 19:54	EPA 8270E LVI	
Acenaphthylene	ND	0.0169	0.0339	ug/L	1	03/23/23 19:54	EPA 8270E LVI	
Anthracene	ND	0.0169	0.0339	ug/L	1	03/23/23 19:54	EPA 8270E LVI	
Benz(a)anthracene	ND	0.00847	0.0169	ug/L	1	03/23/23 19:54	EPA 8270E LVI	
Benzo(a)pyrene	ND	0.00847	0.0169	ug/L	1	03/23/23 19:54	EPA 8270E LVI	
Benzo(b)fluoranthene	ND	0.00847	0.0169	ug/L	1	03/23/23 19:54	EPA 8270E LVI	
Benzo(k)fluoranthene	ND	0.00847	0.0169	ug/L	1	03/23/23 19:54	EPA 8270E LVI	
Benzo(g,h,i)perylene	ND	0.0169	0.0339	ug/L	1	03/23/23 19:54	EPA 8270E LVI	
Chrysene	ND	0.00847	0.0169	ug/L	1	03/23/23 19:54	EPA 8270E LVI	
Dibenz(a,h)anthracene	ND	0.00847	0.0169	ug/L	1	03/23/23 19:54	EPA 8270E LVI	

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ANALYTICAL REPORT

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Project Manager: John Renda

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A3C0788 - 05 19 23 0603

ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E (Large Volume Injection)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-032123-44 (A3C0788-06)		Matrix: WG			Batch: 23C0899			
Fluoranthene	ND	0.0169	0.0339	ug/L	1	03/23/23 19:54	EPA 8270E LVI	
Fluorene	ND	0.0169	0.0339	ug/L	1	03/23/23 19:54	EPA 8270E LVI	
Indeno(1,2,3-cd)pyrene	ND	0.00847	0.0169	ug/L	1	03/23/23 19:54	EPA 8270E LVI	
1-Methylnaphthalene	ND	0.0339	0.0678	ug/L	1	03/23/23 19:54	EPA 8270E LVI	
2-Methylnaphthalene	ND	0.0339	0.0678	ug/L	1	03/23/23 19:54	EPA 8270E LVI	
Naphthalene	0.0534	0.0339	0.0678	ug/L	1	03/23/23 19:54	EPA 8270E LVI	J
Phenanthrene	ND	0.0339	0.0678	ug/L	1	03/23/23 19:54	EPA 8270E LVI	
Pyrene	0.0178	0.0169	0.0339	ug/L	1	03/23/23 19:54	EPA 8270E LVI	J
Carbazole	ND	0.0169	0.0339	ug/L	1	03/23/23 19:54	EPA 8270E LVI	
Dibenzofuran	ND	0.0169	0.0339	ug/L	1	03/23/23 19:54	EPA 8270E LVI	
Surrogate: Acenaphthylene-d8 (Surr)		Recovery: 118 %		Limits: 78-134 %	1	03/23/23 19:54	EPA 8270E LVI	
Benzo(a)pyrene-d12 (Surr)		129 %		80-132 %	1	03/23/23 19:54	EPA 8270E LVI	
GS-032123-45 (A3C0788-07)		Matrix: WG			Batch: 23C0899			
Acenaphthene	56.0	2.11	4.23	ug/L	100	03/23/23 14:21	EPA 8270E LVI	
Acenaphthylene	3.12	2.11	4.23	ug/L	100	03/23/23 14:21	EPA 8270E LVI	J
Anthracene	ND	2.11	4.23	ug/L	100	03/23/23 14:21	EPA 8270E LVI	
Benz(a)anthracene	ND	1.06	2.11	ug/L	100	03/23/23 14:21	EPA 8270E LVI	
Benzo(a)pyrene	ND	1.06	2.11	ug/L	100	03/23/23 14:21	EPA 8270E LVI	
Benzo(b)fluoranthene	ND	1.06	2.11	ug/L	100	03/23/23 14:21	EPA 8270E LVI	
Benzo(k)fluoranthene	ND	1.06	2.11	ug/L	100	03/23/23 14:21	EPA 8270E LVI	
Benzo(g,h,i)perylene	ND	2.11	4.23	ug/L	100	03/23/23 14:21	EPA 8270E LVI	
Chrysene	ND	1.06	2.11	ug/L	100	03/23/23 14:21	EPA 8270E LVI	
Dibenz(a,h)anthracene	ND	1.06	2.11	ug/L	100	03/23/23 14:21	EPA 8270E LVI	
Fluoranthene	ND	2.11	4.23	ug/L	100	03/23/23 14:21	EPA 8270E LVI	
Fluorene	9.94	2.11	4.23	ug/L	100	03/23/23 14:21	EPA 8270E LVI	
Indeno(1,2,3-cd)pyrene	ND	1.06	2.11	ug/L	100	03/23/23 14:21	EPA 8270E LVI	
1-Methylnaphthalene	16.4	4.23	8.46	ug/L	100	03/23/23 14:21	EPA 8270E LVI	
2-Methylnaphthalene	5.97	4.23	8.46	ug/L	100	03/23/23 14:21	EPA 8270E LVI	J
Naphthalene	355	4.23	8.46	ug/L	100	03/23/23 14:21	EPA 8270E LVI	
Phenanthrene	7.35	4.23	8.46	ug/L	100	03/23/23 14:21	EPA 8270E LVI	J
Pyrene	ND	2.11	4.23	ug/L	100	03/23/23 14:21	EPA 8270E LVI	
Carbazole	15.4	2.11	4.23	ug/L	100	03/23/23 14:21	EPA 8270E LVI	

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Darwin Thomas, Business Development Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Anchor QEA, LLC

6720 SW Macadam Ave. Suite 125
Portland, OR 97219

Project: Gasco-CMMA/TCE Mon. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001F

Project Manager: John Renda

Report ID:

A3C0788 - 05 19 23 0603

ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E (Large Volume Injection)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-032123-45 (A3C0788-07)		Matrix: WG			Batch: 23C0899			
Dibenzofuran	5.29	2.11	4.23	ug/L	100	03/23/23 14:21	EPA 8270E LVI	
<i>Surrogate: Acenaphthylene-d8 (Surr)</i>		<i>Recovery:</i>	218 %	<i>Limits:</i>	78-134 %	100	03/23/23 14:21	EPA 8270E LVI S-05
<i>Benzo(a)pyrene-d12 (Surr)</i>			66 %		80-132 %	100	03/23/23 14:21	EPA 8270E LVI S-05

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ORELAP ID: OR100062**Anchor QEA, LLC**6720 SW Macadam Ave. Suite 125
Portland, OR 97219Project: **Gasco-CMMA/TCE Mon. Wells 1Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001F**Project Manager: **John Renda****Report ID:****A3C0788 - 05 19 23 0603**

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-032123-39 (A3C0788-01)		Matrix: WG						
Batch: 23C1227								
Aluminum	566	25.0	50.0	ug/L	1	04/01/23 00:56	EPA 6020B	
Antimony	ND	0.500	1.00	ug/L	1	04/01/23 00:56	EPA 6020B	
Arsenic	27.2	0.500	1.00	ug/L	1	04/01/23 00:56	EPA 6020B	
Barium	159	1.00	2.00	ug/L	1	04/01/23 00:56	EPA 6020B	
Beryllium	ND	0.100	0.200	ug/L	1	04/01/23 00:56	EPA 6020B	
Cadmium	0.122	0.100	0.200	ug/L	1	04/01/23 00:56	EPA 6020B	J
Chromium	2.00	1.00	2.00	ug/L	1	04/01/23 00:56	EPA 6020B	
Copper	1.55	1.00	2.00	ug/L	1	04/01/23 00:56	EPA 6020B	J
Lead	0.924	0.110	0.200	ug/L	1	04/01/23 00:56	EPA 6020B	
Mercury	ND	0.0400	0.0800	ug/L	1	04/01/23 00:56	EPA 6020B	
Nickel	5.08	1.00	2.00	ug/L	1	04/01/23 00:56	EPA 6020B	
Selenium	ND	0.500	1.00	ug/L	1	04/01/23 00:56	EPA 6020B	
Silver	ND	0.100	0.200	ug/L	1	04/01/23 00:56	EPA 6020B	
Thallium	ND	0.100	0.200	ug/L	1	04/01/23 00:56	EPA 6020B	
Vanadium	3.89	1.00	2.00	ug/L	1	04/01/23 00:56	EPA 6020B	
Zinc	10.1	2.00	4.00	ug/L	1	04/01/23 00:56	EPA 6020B	
GS-032123-39 (A3C0788-01RE1)		Matrix: WG						
Batch: 23C1227								
Iron	101000	1250	2500	ug/L	50	04/03/23 18:58	EPA 6020B	
Manganese	5320	25.0	50.0	ug/L	50	04/03/23 18:58	EPA 6020B	
GS-032123-40 (A3C0788-02)		Matrix: WG						
Batch: 23C1227								
Aluminum	157	25.0	50.0	ug/L	1	04/01/23 01:01	EPA 6020B	
Antimony	ND	0.500	1.00	ug/L	1	04/01/23 01:01	EPA 6020B	
Arsenic	25.9	0.500	1.00	ug/L	1	04/01/23 01:01	EPA 6020B	
Barium	149	1.00	2.00	ug/L	1	04/01/23 01:01	EPA 6020B	
Beryllium	ND	0.100	0.200	ug/L	1	04/01/23 01:01	EPA 6020B	
Cadmium	ND	0.100	0.200	ug/L	1	04/01/23 01:01	EPA 6020B	
Chromium	ND	1.00	2.00	ug/L	1	04/01/23 01:01	EPA 6020B	
Copper	ND	1.00	2.00	ug/L	1	04/01/23 01:01	EPA 6020B	
Lead	0.276	0.110	0.200	ug/L	1	04/01/23 01:01	EPA 6020B	

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ANALYTICAL REPORT

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ORELAP ID: OR100062**Anchor QEA, LLC**6720 SW Macadam Ave. Suite 125
Portland, OR 97219Project: **Gasco-CMMA/TCE Mon. Wells 1Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001F**Project Manager: **John Renda****Report ID:****A3C0788 - 05 19 23 0603**

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-032123-40 (A3C0788-02)		Matrix: WG						
Mercury	ND	0.0400	0.0800	ug/L	1	04/01/23 01:01	EPA 6020B	
Nickel	4.12	1.00	2.00	ug/L	1	04/01/23 01:01	EPA 6020B	
Selenium	ND	0.500	1.00	ug/L	1	04/01/23 01:01	EPA 6020B	
Silver	ND	0.100	0.200	ug/L	1	04/01/23 01:01	EPA 6020B	
Thallium	ND	0.100	0.200	ug/L	1	04/01/23 01:01	EPA 6020B	
Vanadium	2.40	1.00	2.00	ug/L	1	04/01/23 01:01	EPA 6020B	
Zinc	5.81	2.00	4.00	ug/L	1	04/01/23 01:01	EPA 6020B	
GS-032123-40 (A3C0788-02RE1)		Matrix: WG						
Batch: 23C1227								
Iron	97500	1250	2500	ug/L	50	04/03/23 19:03	EPA 6020B	
Manganese	5160	25.0	50.0	ug/L	50	04/03/23 19:03	EPA 6020B	
GS-032123-41 (A3C0788-03)		Matrix: WG						
Batch: 23C1227								
Aluminum	54.2	25.0	50.0	ug/L	1	04/01/23 01:06	EPA 6020B	
Antimony	ND	0.500	1.00	ug/L	1	04/01/23 01:06	EPA 6020B	
Arsenic	8.82	0.500	1.00	ug/L	1	04/01/23 01:06	EPA 6020B	
Barium	58.3	1.00	2.00	ug/L	1	04/01/23 01:06	EPA 6020B	
Beryllium	ND	0.100	0.200	ug/L	1	04/01/23 01:06	EPA 6020B	
Cadmium	ND	0.100	0.200	ug/L	1	04/01/23 01:06	EPA 6020B	
Chromium	ND	1.00	2.00	ug/L	1	04/01/23 01:06	EPA 6020B	
Copper	ND	1.00	2.00	ug/L	1	04/01/23 01:06	EPA 6020B	
Lead	ND	0.110	0.200	ug/L	1	04/01/23 01:06	EPA 6020B	
Manganese	2440	0.500	1.00	ug/L	1	04/01/23 01:06	EPA 6020B	
Mercury	ND	0.0400	0.0800	ug/L	1	04/01/23 01:06	EPA 6020B	
Nickel	2.29	1.00	2.00	ug/L	1	04/01/23 01:06	EPA 6020B	
Selenium	ND	0.500	1.00	ug/L	1	04/01/23 01:06	EPA 6020B	
Silver	ND	0.100	0.200	ug/L	1	04/01/23 01:06	EPA 6020B	
Thallium	ND	0.100	0.200	ug/L	1	04/01/23 01:06	EPA 6020B	
Vanadium	ND	1.00	2.00	ug/L	1	04/01/23 01:06	EPA 6020B	
Zinc	ND	2.00	4.00	ug/L	1	04/01/23 01:06	EPA 6020B	
GS-032123-41 (A3C0788-03RE1)		Matrix: WG						

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ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-032123-41 (A3C0788-03RE1) Matrix: WG								
Batch: 23C1227								
Iron	60200	250	500	ug/L	10	04/03/23 19:08	EPA 6020B	
GS-032123-42 (A3C0788-04RE1) Matrix: WG								
Batch: 23C1227								
Aluminum	52.7	25.0	50.0	ug/L	1	04/03/23 19:23	EPA 6020B	
Antimony	ND	0.500	1.00	ug/L	1	04/03/23 19:23	EPA 6020B	
Arsenic	0.786	0.500	1.00	ug/L	1	04/03/23 19:23	EPA 6020B	J
Barium	172	1.00	2.00	ug/L	1	04/03/23 19:23	EPA 6020B	
Cadmium	ND	0.100	0.200	ug/L	1	04/03/23 19:23	EPA 6020B	
Chromium	4.09	1.00	2.00	ug/L	1	04/03/23 19:23	EPA 6020B	
Copper	ND	1.00	2.00	ug/L	1	04/03/23 19:23	EPA 6020B	
Iron	11900	25.0	50.0	ug/L	1	04/03/23 19:23	EPA 6020B	
Lead	0.331	0.110	0.200	ug/L	1	04/03/23 19:23	EPA 6020B	
Manganese	2010	0.500	1.00	ug/L	1	04/03/23 19:23	EPA 6020B	
Mercury	ND	0.0400	0.0800	ug/L	1	04/03/23 19:23	EPA 6020B	
Nickel	ND	1.00	2.00	ug/L	1	04/03/23 19:23	EPA 6020B	
Selenium	ND	0.500	1.00	ug/L	1	04/03/23 19:23	EPA 6020B	
Silver	ND	0.100	0.200	ug/L	1	04/03/23 19:23	EPA 6020B	
Thallium	ND	0.100	0.200	ug/L	1	04/03/23 19:23	EPA 6020B	
Vanadium	1.29	1.00	2.00	ug/L	1	04/03/23 19:23	EPA 6020B	J
Zinc	16.2	2.00	4.00	ug/L	1	04/03/23 19:23	EPA 6020B	
GS-032123-42 (A3C0788-04RE2) Matrix: WG								
Batch: 23C1227								
Beryllium	ND	0.100	0.200	ug/L	1	04/04/23 11:16	EPA 6020B	
GS-032123-43 (A3C0788-05) Matrix: WG								
Batch: 23C1227								
Aluminum	ND	25.0	50.0	ug/L	1	04/01/23 01:16	EPA 6020B	
Antimony	ND	0.500	1.00	ug/L	1	04/01/23 01:16	EPA 6020B	
Arsenic	5.52	0.500	1.00	ug/L	1	04/01/23 01:16	EPA 6020B	
Barium	49.5	1.00	2.00	ug/L	1	04/01/23 01:16	EPA 6020B	
Beryllium	ND	0.100	0.200	ug/L	1	04/01/23 01:16	EPA 6020B	

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503-718-2323

ORELAP ID: OR100062

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Project Number: 000029-02.84 T-01.001F

Project Manager: John Renda

Report ID:

A3C0788 - 05 19 23 0603

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-032123-43 (A3C0788-05)		Matrix: WG						
Cadmium	ND	0.100	0.200	ug/L	1	04/01/23 01:16	EPA 6020B	
Chromium	ND	1.00	2.00	ug/L	1	04/01/23 01:16	EPA 6020B	
Copper	ND	1.00	2.00	ug/L	1	04/01/23 01:16	EPA 6020B	
Iron	44600	25.0	50.0	ug/L	1	04/01/23 01:16	EPA 6020B	
Lead	ND	0.110	0.200	ug/L	1	04/01/23 01:16	EPA 6020B	
Manganese	1580	0.500	1.00	ug/L	1	04/01/23 01:16	EPA 6020B	
Mercury	ND	0.0400	0.0800	ug/L	1	04/01/23 01:16	EPA 6020B	
Nickel	ND	1.00	2.00	ug/L	1	04/01/23 01:16	EPA 6020B	
Selenium	ND	0.500	1.00	ug/L	1	04/01/23 01:16	EPA 6020B	
Silver	ND	0.100	0.200	ug/L	1	04/01/23 01:16	EPA 6020B	
Thallium	ND	0.100	0.200	ug/L	1	04/01/23 01:16	EPA 6020B	
Vanadium	1.05	1.00	2.00	ug/L	1	04/01/23 01:16	EPA 6020B	J
Zinc	3.53	2.00	4.00	ug/L	1	04/01/23 01:16	EPA 6020B	J
GS-032123-44 (A3C0788-06)		Matrix: WG						
Batch: 23C1227								
Aluminum	37.5	25.0	50.0	ug/L	1	04/01/23 01:21	EPA 6020B	J
Antimony	ND	0.500	1.00	ug/L	1	04/01/23 01:21	EPA 6020B	
Arsenic	4.28	0.500	1.00	ug/L	1	04/01/23 01:21	EPA 6020B	
Barium	186	1.00	2.00	ug/L	1	04/01/23 01:21	EPA 6020B	
Beryllium	ND	0.100	0.200	ug/L	1	04/01/23 01:21	EPA 6020B	
Cadmium	0.595	0.100	0.200	ug/L	1	04/01/23 01:21	EPA 6020B	
Chromium	ND	1.00	2.00	ug/L	1	04/01/23 01:21	EPA 6020B	
Copper	1.06	1.00	2.00	ug/L	1	04/01/23 01:21	EPA 6020B	J
Iron	274	25.0	50.0	ug/L	1	04/01/23 01:21	EPA 6020B	
Lead	ND	0.110	0.200	ug/L	1	04/01/23 01:21	EPA 6020B	
Mercury	ND	0.0400	0.0800	ug/L	1	04/01/23 01:21	EPA 6020B	
Nickel	5.64	1.00	2.00	ug/L	1	04/01/23 01:21	EPA 6020B	
Selenium	ND	0.500	1.00	ug/L	1	04/01/23 01:21	EPA 6020B	
Silver	ND	0.100	0.200	ug/L	1	04/01/23 01:21	EPA 6020B	
Thallium	ND	0.100	0.200	ug/L	1	04/01/23 01:21	EPA 6020B	
Vanadium	15.7	1.00	2.00	ug/L	1	04/01/23 01:21	EPA 6020B	
Zinc	4.80	2.00	4.00	ug/L	1	04/01/23 01:21	EPA 6020B	

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Project Number: 000029-02.84 T-01.001F

Project Manager: John Renda

Report ID:

A3C0788 - 05 19 23 0603

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-032123-44 (A3C0788-06RE1) Matrix: WG								
Batch: 23C1227								
Manganese	21500	25.0	50.0	ug/L	50	04/03/23 19:27	EPA 6020B	
GS-032123-45 (A3C0788-07) Matrix: WG								
Batch: 23C1227								
Aluminum	178	25.0	50.0	ug/L	1	04/01/23 01:36	EPA 6020B	
Antimony	ND	0.500	1.00	ug/L	1	04/01/23 01:36	EPA 6020B	
Arsenic	1.76	0.500	1.00	ug/L	1	04/01/23 01:36	EPA 6020B	
Barium	37.9	1.00	2.00	ug/L	1	04/01/23 01:36	EPA 6020B	
Beryllium	ND	0.100	0.200	ug/L	1	04/01/23 01:36	EPA 6020B	
Cadmium	ND	0.100	0.200	ug/L	1	04/01/23 01:36	EPA 6020B	
Chromium	ND	1.00	2.00	ug/L	1	04/01/23 01:36	EPA 6020B	
Copper	ND	1.00	2.00	ug/L	1	04/01/23 01:36	EPA 6020B	
Iron	7300	25.0	50.0	ug/L	1	04/01/23 01:36	EPA 6020B	
Lead	0.110	0.110	0.200	ug/L	1	04/01/23 01:36	EPA 6020B	J
Mercury	ND	0.0400	0.0800	ug/L	1	04/01/23 01:36	EPA 6020B	
Nickel	ND	1.00	2.00	ug/L	1	04/01/23 01:36	EPA 6020B	
Selenium	ND	0.500	1.00	ug/L	1	04/01/23 01:36	EPA 6020B	
Silver	ND	0.100	0.200	ug/L	1	04/01/23 01:36	EPA 6020B	
Thallium	ND	0.100	0.200	ug/L	1	04/01/23 01:36	EPA 6020B	
Vanadium	1.57	1.00	2.00	ug/L	1	04/01/23 01:36	EPA 6020B	J
Zinc	3.48	2.00	4.00	ug/L	1	04/01/23 01:36	EPA 6020B	J
GS-032123-45 (A3C0788-07RE1) Matrix: WG								
Batch: 23C1227								
Manganese	4750	25.0	50.0	ug/L	50	04/03/23 19:32	EPA 6020B	

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Page 33 of 135



ANALYTICAL REPORT

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Portland, OR 97219Project: Gasco-CMMA/TCE Mon. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001F

Project Manager: John Renda

Report ID:

A3C0788 - 05 19 23 0603

ANALYTICAL SAMPLE RESULTS

Total Cyanide by Flow Analysis (Aqueous)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-032123-39 (A3C0788-01RE1)				Matrix: WG		Batch: 23C1090		
Total Cyanide	0.0847	0.00500	0.00500	mg/L	1	03/28/23 16:50	EPA 335.4	
GS-032123-40 (A3C0788-02RE1)				Matrix: WG		Batch: 23C1090		
Total Cyanide	0.0775	0.00500	0.00500	mg/L	1	03/28/23 16:52	EPA 335.4	
GS-032123-41 (A3C0788-03RE1)				Matrix: WG		Batch: 23C1090		
Total Cyanide	0.159	0.00500	0.00500	mg/L	1	03/28/23 16:54	EPA 335.4	
GS-032123-42 (A3C0788-04RE2)				Matrix: WG		Batch: 23C1090		
Total Cyanide	44.9	1.00	1.00	mg/L	200	03/28/23 17:24	EPA 335.4	
GS-032123-43 (A3C0788-05RE1)				Matrix: WG		Batch: 23C1090		
Total Cyanide	0.0341	0.00500	0.00500	mg/L	1	03/28/23 17:20	EPA 335.4	
GS-032123-44 (A3C0788-06)				Matrix: WG		Batch: 23D0035		PRES
Total Cyanide	0.200	0.00500	0.00500	mg/L	1	04/03/23 14:05	EPA 335.4	
GS-032123-45 (A3C0788-07)				Matrix: WG		Batch: 23D0035		
Total Cyanide	ND	0.00500	0.00500	mg/L	1	04/03/23 14:07	EPA 335.4	

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ANALYTICAL SAMPLE RESULTS

Available Cyanide by FIA, Ligand Exchange and Amperometric Detection

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-032123-39 (A3C0788-01)				Matrix: WG		Batch: 23C0907		
Available Cyanide	ND	0.00100	0.00200	mg/L	1	03/23/23 15:47	D6888-09	
GS-032123-40 (A3C0788-02)				Matrix: WG		Batch: 23C0907		
Available Cyanide	ND	0.00100	0.00200	mg/L	1	03/23/23 15:48	D6888-09	
GS-032123-41 (A3C0788-03)				Matrix: WG		Batch: 23C0907		
Available Cyanide	ND	0.00100	0.00200	mg/L	1	03/23/23 15:50	D6888-09	
GS-032123-42 (A3C0788-04RE1)				Matrix: WG		Batch: 23C0907		
Available Cyanide	0.0434	0.00200	0.00400	mg/L	2	03/23/23 16:36	D6888-09	
GS-032123-43 (A3C0788-05)				Matrix: WG		Batch: 23C0907		
Available Cyanide	ND	0.00100	0.00200	mg/L	1	03/23/23 15:54	D6888-09	
GS-032123-44 (A3C0788-06)				Matrix: WG		Batch: 23C0907		
Available Cyanide	0.00450	0.00100	0.00200	mg/L	1	03/23/23 15:56	D6888-09	
GS-032123-45 (A3C0788-07)				Matrix: WG		Batch: 23C0907		
Available Cyanide	ND	0.00100	0.00200	mg/L	1	03/23/23 15:59	D6888-09	

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Darwin Thomas, Business Development Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Anchor QEA, LLC

6720 SW Macadam Ave. Suite 125

Portland, OR 97219

Project: Gasco-CMMA/TCE Mon. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001F

Project Manager: John Renda

Report ID:

A3C0788 - 05 19 23 0603

ANALYTICAL SAMPLE RESULTS

Free Cyanide by Microdiffusion/Colorimetric Spectrophotometry

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-032123-39 (A3C0788-01)				Matrix: WG		Batch: 23C1077		PRES
Free Cyanide	ND	0.00250	0.00500	mg/L	1	03/28/23 15:50	D4282-02	
GS-032123-40 (A3C0788-02)				Matrix: WG		Batch: 23C1077		PRES
Free Cyanide	ND	0.00250	0.00500	mg/L	1	03/28/23 15:51	D4282-02	
GS-032123-41 (A3C0788-03)				Matrix: WG		Batch: 23C1077		PRES
Free Cyanide	ND	0.00250	0.00500	mg/L	1	03/28/23 15:51	D4282-02	
GS-032123-42 (A3C0788-04)				Matrix: WG		Batch: 23C1077		PRES
Free Cyanide	0.0187	0.00250	0.00500	mg/L	1	03/28/23 15:56	D4282-02	
GS-032123-43 (A3C0788-05)				Matrix: WG		Batch: 23C1077		PRES
Free Cyanide	ND	0.00250	0.00500	mg/L	1	03/28/23 15:56	D4282-02	
GS-032123-44 (A3C0788-06)				Matrix: WG		Batch: 23C1077		PRES
Free Cyanide	ND	0.00250	0.00500	mg/L	1	03/28/23 15:57	D4282-02	
GS-032123-45 (A3C0788-07)				Matrix: WG		Batch: 23C1077		
Free Cyanide	ND	0.00250	0.00500	mg/L	1	03/28/23 15:57	D4282-02	

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Project Number: **000029-02.84 T-01.001F**

Project Manager: **John Renda**

Report ID:

A3C0788 - 05 19 23 0603

Analytical Resources, LLC

ANALYTICAL SAMPLE RESULTS (Subcontracted)

Washington Department of Ecology Methods

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-032123-39 (A3C0788-01)				Matrix: WG		Batch: BLC0652		
Batch: BLC0652								
C8-C10 Aliphatics	ND	---	40	ug/L	1	03/30/23 17:46	WA EPH	U
>C10-C12 Aliphatics	ND	---	40	ug/L	1	03/30/23 17:46	WA EPH	U
>C12-C16 Aliphatics	ND	---	40	ug/L	1	03/30/23 17:46	WA EPH	U
>C16-C21 Aliphatics	ND	---	40	ug/L	1	03/30/23 17:46	WA EPH	U
>C21-C34 Aliphatics	46	---	40	ug/L	1	03/30/23 17:46	WA EPH	
C8-C10 Aromatics	ND	---	40	ug/L	1	03/30/23 10:30	WA EPH	U
>C10-C12 Aromatics	ND	---	40	ug/L	1	03/30/23 10:30	WA EPH	U
>C12-C16 Aromatics	66	---	40	ug/L	1	03/30/23 10:30	WA EPH	
>C16-C21 Aromatics	ND	---	40	ug/L	1	03/30/23 10:30	WA EPH	U
>C21-C34 Aromatics	ND	---	40	ug/L	1	03/30/23 10:30	WA EPH	U
Batch: BLC0828								
C5-C6 Aliphatics	ND	---	50	ug/L	1	03/30/23 17:27	WA VPH	U
>C6-C8 Aliphatics	ND	---	50	ug/L	1	03/30/23 17:27	WA VPH	U
>C8-C10 Aliphatics	ND	---	50	ug/L	1	03/30/23 17:27	WA VPH	U
>C10-C12 Aliphatics	69	---	50	ug/L	1	03/30/23 17:27	WA VPH	
C8-C10 Aromatics	ND	---	50	ug/L	1	03/30/23 17:27	WA VPH	U
>C10-C12 Aromatics	126	---	50	ug/L	1	03/30/23 17:27	WA VPH	
>C12-C13 Aromatics	56	---	50	ug/L	1	03/30/23 17:27	WA VPH	
Methyl tert-butyl Ether	ND	---	5	ug/L	1	03/30/23 17:27	WA VPH	U
Benzene	ND	---	5	ug/L	1	03/30/23 17:27	WA VPH	U
Toluene	ND	---	5	ug/L	1	03/30/23 17:27	WA VPH	U
Ethylbenzene	ND	---	5	ug/L	1	03/30/23 17:27	WA VPH	U
1,2,3-Trimethylbenzene	ND	---	5	ug/L	1	03/30/23 17:27	WA VPH	U
m,p-Xylene	ND	---	10	ug/L	1	03/30/23 17:27	WA VPH	U
Naphthalene	26	---	5	ug/L	1	03/30/23 17:27	WA VPH	
1-Methylnaphthalene	10	---	5	ug/L	1	03/30/23 17:27	WA VPH	
o-Xylene	ND	---	5	ug/L	1	03/30/23 17:27	WA VPH	U
n-Pentane	ND	---	5	ug/L	1	03/30/23 17:27	WA VPH	U
n-Hexane	ND	---	5	ug/L	1	03/30/23 17:27	WA VPH	U
n-Octane	ND	---	5	ug/L	1	03/30/23 17:27	WA VPH	U
n-Decane	ND	---	5	ug/L	1	03/30/23 17:27	WA VPH	U

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Darwin Thomas, Business Development Director



ANALYTICAL REPORT

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6700 S.W. Sandburg Street
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503-718-2323
ORELAP ID: OR100062**Anchor QEA, LLC**6720 SW Macadam Ave. Suite 125
Portland, OR 97219Project: **Gasco-CMMA/TCE Mon. Wells 1Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001F**Project Manager: **John Renda****Report ID:****A3C0788 - 05 19 23 0603****Analytical Resources, LLC****ANALYTICAL SAMPLE RESULTS (Subcontracted)****Washington Department of Ecology Methods**

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-032123-39 (A3C0788-01)		Matrix: WG			Batch: BLC0828			
n-Dodecane	ND	---	5	ug/L	1	03/30/23 17:27	WA VPH	U
Batch: BLC0652								
Surrogate: o-Terphenyl		Recovery:	72.5 %	Limits:	41-120 %	1	03/30/23 10:30	WA EPH
1-Chloro-octadecane			36.5 %		36-120 %	1	03/30/23 17:46	WA EPH
Batch: BLC0828								
PID: 2,5-Dibromotoluene			87.1 %		60-140 %	1	03/30/23 17:27	WA VPH
FID: 2,5-Dibromotoluene			90.9 %		60-140 %	1	03/30/23 17:27	WA VPH
GS-032123-40 (A3C0788-02)		Matrix: WG			Batch: BLC0652			
Batch: BLC0652								
C8-C10 Aliphatics	ND	---	40	ug/L	1	03/30/23 18:10	WA EPH	U
>C10-C12 Aliphatics	ND	---	40	ug/L	1	03/30/23 18:10	WA EPH	U
>C12-C16 Aliphatics	ND	---	40	ug/L	1	03/30/23 18:10	WA EPH	U
>C16-C21 Aliphatics	ND	---	40	ug/L	1	03/30/23 18:10	WA EPH	U
>C21-C34 Aliphatics	46	---	40	ug/L	1	03/30/23 18:10	WA EPH	
C8-C10 Aromatics	ND	---	40	ug/L	1	03/30/23 10:54	WA EPH	U
>C10-C12 Aromatics	ND	---	40	ug/L	1	03/30/23 10:54	WA EPH	U
>C12-C16 Aromatics	66	---	40	ug/L	1	03/30/23 10:54	WA EPH	
>C16-C21 Aromatics	ND	---	40	ug/L	1	03/30/23 10:54	WA EPH	U
>C21-C34 Aromatics	ND	---	40	ug/L	1	03/30/23 10:54	WA EPH	U
Batch: BLC0828								
C5-C6 Aliphatics	ND	---	50	ug/L	1	03/30/23 17:58	WA VPH	U
>C6-C8 Aliphatics	ND	---	50	ug/L	1	03/30/23 17:58	WA VPH	U
>C8-C10 Aliphatics	ND	---	50	ug/L	1	03/30/23 17:58	WA VPH	U
>C10-C12 Aliphatics	71	---	50	ug/L	1	03/30/23 17:58	WA VPH	
C8-C10 Aromatics	ND	---	50	ug/L	1	03/30/23 17:58	WA VPH	U
>C10-C12 Aromatics	125	---	50	ug/L	1	03/30/23 17:58	WA VPH	
>C12-C13 Aromatics	59	---	50	ug/L	1	03/30/23 17:58	WA VPH	
Methyl tert-butyl Ether	ND	---	5	ug/L	1	03/30/23 17:58	WA VPH	U
Benzene	ND	---	5	ug/L	1	03/30/23 17:58	WA VPH	U
Toluene	ND	---	5	ug/L	1	03/30/23 17:58	WA VPH	U
Ethylbenzene	ND	---	5	ug/L	1	03/30/23 17:58	WA VPH	U

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Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-032123-40 (A3C0788-02)		Matrix: WG			Batch: BLC0828			
1,2,3-Trimethylbenzene	ND	---	5	ug/L	1	03/30/23 17:58	WA VPH	U
m,p-Xylene	ND	---	10	ug/L	1	03/30/23 17:58	WA VPH	U
Naphthalene	26	---	5	ug/L	1	03/30/23 17:58	WA VPH	
1-Methylnaphthalene	11	---	5	ug/L	1	03/30/23 17:58	WA VPH	
o-Xylene	ND	---	5	ug/L	1	03/30/23 17:58	WA VPH	U
n-Pentane	ND	---	5	ug/L	1	03/30/23 17:58	WA VPH	U
n-Hexane	ND	---	5	ug/L	1	03/30/23 17:58	WA VPH	U
n-Octane	ND	---	5	ug/L	1	03/30/23 17:58	WA VPH	U
n-Decane	ND	---	5	ug/L	1	03/30/23 17:58	WA VPH	U
n-Dodecane	ND	---	5	ug/L	1	03/30/23 17:58	WA VPH	U
Batch: BLC0652								
Surrogate: o-Terphenyl		Recovery:	82.1 %	Limits:	41-120 %	1	03/30/23 10:54	WA EPH
1-Chloro-octadecane			44.1 %		36-120 %	1	03/30/23 18:10	WA EPH
Batch: BLC0828								
PID: 2,5-Dibromotoluene			89.9 %		60-140 %	1	03/30/23 17:58	WA VPH
FID: 2,5-Dibromotoluene			93.5 %		60-140 %	1	03/30/23 17:58	WA VPH
GS-032123-41 (A3C0788-03)		Matrix: WG			Batch: BLC0652			
Batch: BLC0652								
C8-C10 Aliphatics	ND	---	40	ug/L	1	03/30/23 18:34	WA EPH	U
>C10-C12 Aliphatics	ND	---	40	ug/L	1	03/30/23 18:34	WA EPH	U
>C12-C16 Aliphatics	ND	---	40	ug/L	1	03/30/23 18:34	WA EPH	U
>C16-C21 Aliphatics	ND	---	40	ug/L	1	03/30/23 18:34	WA EPH	U
>C21-C34 Aliphatics	ND	---	40	ug/L	1	03/30/23 18:34	WA EPH	U
C8-C10 Aromatics	ND	---	40	ug/L	1	03/30/23 11:18	WA EPH	U
>C10-C12 Aromatics	ND	---	40	ug/L	1	03/30/23 11:18	WA EPH	U
>C12-C16 Aromatics	247	---	40	ug/L	1	03/30/23 11:18	WA EPH	
>C16-C21 Aromatics	118	---	40	ug/L	1	03/30/23 11:18	WA EPH	
>C21-C34 Aromatics	ND	---	40	ug/L	1	03/30/23 11:18	WA EPH	U
Batch: BLC0828								
C5-C6 Aliphatics	ND	---	50	ug/L	1	03/30/23 18:28	WA VPH	U
>C6-C8 Aliphatics	ND	---	50	ug/L	1	03/30/23 18:28	WA VPH	U

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Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-032123-41 (A3C0788-03)		Matrix: WG			Batch: BLC0828			
>C8-C10 Aliphatics	ND	---	50	ug/L	1	03/30/23 18:28	WA VPH	U
>C10-C12 Aliphatics	ND	---	50	ug/L	1	03/30/23 18:28	WA VPH	U
C8-C10 Aromatics	ND	---	50	ug/L	1	03/30/23 18:28	WA VPH	U
>C10-C12 Aromatics	104	---	50	ug/L	1	03/30/23 18:28	WA VPH	
>C12-C13 Aromatics	116	---	50	ug/L	1	03/30/23 18:28	WA VPH	
Methyl tert-butyl Ether	ND	---	5	ug/L	1	03/30/23 18:28	WA VPH	U
Benzene	ND	---	5	ug/L	1	03/30/23 18:28	WA VPH	U
Toluene	ND	---	5	ug/L	1	03/30/23 18:28	WA VPH	U
Ethylbenzene	ND	---	5	ug/L	1	03/30/23 18:28	WA VPH	U
1,2,3-Trimethylbenzene	ND	---	5	ug/L	1	03/30/23 18:28	WA VPH	U
m,p-Xylene	ND	---	10	ug/L	1	03/30/23 18:28	WA VPH	U
Naphthalene	ND	---	5	ug/L	1	03/30/23 18:28	WA VPH	U
1-Methylnaphthalene	7	---	5	ug/L	1	03/30/23 18:28	WA VPH	
o-Xylene	ND	---	5	ug/L	1	03/30/23 18:28	WA VPH	U
n-Pentane	ND	---	5	ug/L	1	03/30/23 18:28	WA VPH	U
n-Hexane	ND	---	5	ug/L	1	03/30/23 18:28	WA VPH	U
n-Octane	ND	---	5	ug/L	1	03/30/23 18:28	WA VPH	U
n-Decane	ND	---	5	ug/L	1	03/30/23 18:28	WA VPH	U
n-Dodecane	7	---	5	ug/L	1	03/30/23 18:28	WA VPH	
Batch: BLC0652								
Surrogate: o-Terphenyl		Recovery: 67.9 %		Limits: 41-120 %	1	03/30/23 11:18	WA EPH	
1-Chloro-octadecane		38.5 %		36-120 %	1	03/30/23 18:34	WA EPH	
Batch: BLC0828								
PID: 2,5-Dibromotoluene			94.5 %		60-140 %	1	03/30/23 18:28 WA VPH	
FID: 2,5-Dibromotoluene			98.6 %		60-140 %	1	03/30/23 18:28 WA VPH	

GS-032123-43 (A3C0788-05)**Matrix: WG****Batch: BLC0652**

Batch: BLC0652								
C8-C10 Aliphatics	ND	---	40	ug/L	1	03/30/23 18:58	WA EPH	U
>C10-C12 Aliphatics	ND	---	40	ug/L	1	03/30/23 18:58	WA EPH	U
>C12-C16 Aliphatics	ND	---	40	ug/L	1	03/30/23 18:58	WA EPH	U
>C16-C21 Aliphatics	ND	---	40	ug/L	1	03/30/23 18:58	WA EPH	U

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Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-032123-43 (A3C0788-05)			Matrix: WG		Batch: BLC0652			
>C21-C34 Aliphatics	59	---	40	ug/L	1	03/30/23 18:58	WA EPH	
C8-C10 Aromatics	ND	---	40	ug/L	1	03/30/23 11:42	WA EPH	U
>C10-C12 Aromatics	ND	---	40	ug/L	1	03/30/23 11:42	WA EPH	U
>C12-C16 Aromatics	50	---	40	ug/L	1	03/30/23 11:42	WA EPH	
>C16-C21 Aromatics	40	---	40	ug/L	1	03/30/23 11:42	WA EPH	
>C21-C34 Aromatics	ND	---	40	ug/L	1	03/30/23 11:42	WA EPH	U
Batch: BLC0828								
C5-C6 Aliphatics	ND	---	50	ug/L	1	03/30/23 18:59	WA VPH	U
>C6-C8 Aliphatics	ND	---	50	ug/L	1	03/30/23 18:59	WA VPH	U
>C8-C10 Aliphatics	ND	---	50	ug/L	1	03/30/23 18:59	WA VPH	U
>C10-C12 Aliphatics	ND	---	50	ug/L	1	03/30/23 18:59	WA VPH	U
C8-C10 Aromatics	ND	---	50	ug/L	1	03/30/23 18:59	WA VPH	U
>C10-C12 Aromatics	ND	---	50	ug/L	1	03/30/23 18:59	WA VPH	U
>C12-C13 Aromatics	ND	---	50	ug/L	1	03/30/23 18:59	WA VPH	U
Methyl tert-butyl Ether	ND	---	5	ug/L	1	03/30/23 18:59	WA VPH	U
Benzene	ND	---	5	ug/L	1	03/30/23 18:59	WA VPH	U
Toluene	ND	---	5	ug/L	1	03/30/23 18:59	WA VPH	U
Ethylbenzene	ND	---	5	ug/L	1	03/30/23 18:59	WA VPH	U
1,2,3-Trimethylbenzene	ND	---	5	ug/L	1	03/30/23 18:59	WA VPH	U
m,p-Xylene	ND	---	10	ug/L	1	03/30/23 18:59	WA VPH	U
Naphthalene	ND	---	5	ug/L	1	03/30/23 18:59	WA VPH	U
1-Methylnaphthalene	ND	---	5	ug/L	1	03/30/23 18:59	WA VPH	U
o-Xylene	ND	---	5	ug/L	1	03/30/23 18:59	WA VPH	U
n-Pentane	ND	---	5	ug/L	1	03/30/23 18:59	WA VPH	U
n-Hexane	ND	---	5	ug/L	1	03/30/23 18:59	WA VPH	U
n-Octane	ND	---	5	ug/L	1	03/30/23 18:59	WA VPH	U
n-Decane	ND	---	5	ug/L	1	03/30/23 18:59	WA VPH	U
n-Dodecane	ND	---	5	ug/L	1	03/30/23 18:59	WA VPH	U
Batch: BLC0652								
Surrogate: o-Terphenyl		Recovery: 77.9 %		Limits: 41-120 %	1	03/30/23 11:42	WA EPH	
1-Chloro-octadecane		44.1 %		36-120 %	1	03/30/23 18:58	WA EPH	
Batch: BLC0828								

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Portland, OR 97219

Project: Gasco-CMMA/TCE Mon. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001F

Project Manager: John Renda

Report ID:

A3C0788 - 05 19 23 0603

Analytical Resources, LLC

ANALYTICAL SAMPLE RESULTS (Subcontracted)

Washington Department of Ecology Methods

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-032123-43 (A3C0788-05)		Matrix: WG			Batch: BLC0828			
Surrogate: PID: 2,5-Dibromotoluene		Recovery: 88.1 %	Limits: 60-140 %	1	03/30/23 18:59	WA VPH		
FID: 2,5-Dibromotoluene		90.8 %	60-140 %	1	03/30/23 18:59	WA VPH		

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Darwin Thomas, Business Development Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Anchor QEA, LLC

6720 SW Macadam Ave. Suite 125
Portland, OR 97219

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QUALITY CONTROL (QC) SAMPLE RESULTS

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23D0047 - EPA 3510C (Fuels/Acid Ext.)						Water						
Blank (23D0047-BLK1)			Prepared: 04/03/23 12:28 Analyzed: 04/03/23 20:17									
NWTPH-Dx												
Diesel	ND	100	200	ug/L	1	---	---	---	---	---	---	
Oil	ND	200	400	ug/L	1	---	---	---	---	---	---	
Surr: o-Terphenyl (Surr)		Recovery: 81 %		Limits: 50-150 %		Dilution: 1x						
LCS (23D0047-BS1)			Prepared: 04/03/23 12:28 Analyzed: 04/03/23 20:38									
NWTPH-Dx												
Diesel	767	100	200	ug/L	1	1250	---	61	36-132%	---	---	
Surr: o-Terphenyl (Surr)		Recovery: 93 %		Limits: 50-150 %		Dilution: 1x						
LCS Dup (23D0047-BSD1)			Prepared: 04/03/23 12:28 Analyzed: 04/03/23 20:58									
NWTPH-Dx												
Diesel	790	100	200	ug/L	1	1250	---	63	36-132%	3	30%	
Surr: o-Terphenyl (Surr)		Recovery: 89 %		Limits: 50-150 %		Dilution: 1x						
Matrix Spike (23D0047-MS1)			Prepared: 04/03/23 15:49 Analyzed: 04/04/23 01:45									
QC Source Sample: GS-032123-45 (A3C0788-07)												
NWTPH-Dx												
Diesel	2730	95.2	190	ug/L	1	1190	1650	91	36-132%	---	---	
Surr: o-Terphenyl (Surr)		Recovery: 95 %		Limits: 50-150 %		Dilution: 1x						
Matrix Spike Dup (23D0047-MSD1)			Prepared: 04/03/23 15:49 Analyzed: 04/04/23 02:06									
QC Source Sample: GS-032123-45 (A3C0788-07)												
NWTPH-Dx												
Diesel	2800	94.3	189	ug/L	1	1180	1650	98	36-132%	3	30%	
Surr: o-Terphenyl (Surr)		Recovery: 108 %		Limits: 50-150 %		Dilution: 1x						

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Project Number: 000029-02.84 T-01.001F

Project Manager: John Renda

Report ID:

A3C0788 - 05 19 23 0603

QUALITY CONTROL (QC) SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C0997 - EPA 5030C						Water						
Blank (23C0997-BLK1)			Prepared: 03/24/23 15:45 Analyzed: 03/25/23 07:08									
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	50.0	100	ug/L	1	---	---	---	---	---	---	
Surr: 4-Bromofluorobenzene (Sur)		Recovery: 91 %		Limits: 50-150 %		Dilution: 1x						
1,4-Difluorobenzene (Sur)		104 %		50-150 %		"						
LCS (23C0997-BS2)			Prepared: 03/24/23 15:45 Analyzed: 03/25/23 06:46									
NWTPH-Gx (MS)												
Gasoline Range Organics	486	50.0	100	ug/L	1	500	---	97	80-120%	---	---	
Surr: 4-Bromofluorobenzene (Sur)		Recovery: 91 %		Limits: 50-150 %		Dilution: 1x						
1,4-Difluorobenzene (Sur)		99 %		50-150 %		"						
Duplicate (23C0997-DUP1)			Prepared: 03/24/23 15:45 Analyzed: 03/25/23 10:28									
QC Source Sample: GS-032123-41 (A3C0788-03)												
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	2500	5000	ug/L	50	---	ND	---	---	---	30%	
Surr: 4-Bromofluorobenzene (Sur)		Recovery: 92 %		Limits: 50-150 %		Dilution: 1x						
1,4-Difluorobenzene (Sur)		103 %		50-150 %		"						

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QUALITY CONTROL (QC) SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C1008 - EPA 5030C						Water						
Blank (23C1008-BLK1)			Prepared: 03/25/23 16:51 Analyzed: 03/26/23 08:22									
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	50.0	100	ug/L	1	---	---	---	---	---	---	
Surr: 4-Bromofluorobenzene (Sur)		Recovery: 92 %		Limits: 50-150 %		Dilution: 1x						
1,4-Difluorobenzene (Sur)		102 %		50-150 %		"						
LCS (23C1008-BS2)			Prepared: 03/25/23 16:51 Analyzed: 03/26/23 07:59									
NWTPH-Gx (MS)												
Gasoline Range Organics	469	50.0	100	ug/L	1	500	---	94	80-120%	---	---	
Surr: 4-Bromofluorobenzene (Sur)		Recovery: 92 %		Limits: 50-150 %		Dilution: 1x						
1,4-Difluorobenzene (Sur)		99 %		50-150 %		"						
Duplicate (23C1008-DUP1)			Prepared: 03/25/23 16:51 Analyzed: 03/26/23 09:51									
QC Source Sample: Non-SDG (A3C0902-01)												
Gasoline Range Organics	ND	50.0	100	ug/L	1	---	ND	---	---	---	30%	
Surr: 4-Bromofluorobenzene (Sur)		Recovery: 96 %		Limits: 50-150 %		Dilution: 1x						
1,4-Difluorobenzene (Sur)		104 %		50-150 %		"						

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QUALITY CONTROL (QC) SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C1023 - EPA 5030C						Water						
Blank (23C1023-BLK1)			Prepared: 03/27/23 10:00 Analyzed: 03/27/23 12:12									
<u>NWTPH-Gx (MS)</u>												
Gasoline Range Organics	ND	50.0	100	ug/L	1	---	---	---	---	---	---	
Surr: 4-Bromofluorobenzene (Sur)		Recovery: 85 %		Limits: 50-150 %		Dilution: 1x						
1,4-Difluorobenzene (Sur)		101 %		50-150 %		"						
LCS (23C1023-BS2)			Prepared: 03/27/23 10:00 Analyzed: 03/27/23 11:40									
<u>NWTPH-Gx (MS)</u>												
Gasoline Range Organics	497	50.0	100	ug/L	1	500	---	99	80-120%	---	---	
Surr: 4-Bromofluorobenzene (Sur)		Recovery: 91 %		Limits: 50-150 %		Dilution: 1x						
1,4-Difluorobenzene (Sur)		99 %		50-150 %		"						
Duplicate (23C1023-DUP1)			Prepared: 03/27/23 10:00 Analyzed: 03/27/23 16:17									
<u>QC Source Sample: Non-SDG (A3C0831-01)</u>												
Gasoline Range Organics	ND	50.0	100	ug/L	1	---	ND	---	---	---	30%	
Surr: 4-Bromofluorobenzene (Sur)		Recovery: 91 %		Limits: 50-150 %		Dilution: 1x						
1,4-Difluorobenzene (Sur)		99 %		50-150 %		"						

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Portland, OR 97219Project: **Gasco-CMMA/TCE Mon. Wells 1Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001F**Project Manager: **John Renda****Report ID:****A3C0788 - 05 19 23 0603****QUALITY CONTROL (QC) SAMPLE RESULTS****Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C1041 - EPA 5030C						Water						
Blank (23C1041-BLK1)			Prepared: 03/27/23 14:13 Analyzed: 03/27/23 16:30									
<u>NWTPH-Gx (MS)</u>												
Gasoline Range Organics	ND	50.0	100	ug/L	1	---	---	---	---	---	---	
Surr: 4-Bromofluorobenzene (Sur)		Recovery: 95 %		Limits: 50-150 %		Dilution: 1x						
1,4-Difluorobenzene (Sur)		97 %		50-150 %		"						
LCS (23C1041-BS2)			Prepared: 03/27/23 14:13 Analyzed: 03/27/23 15:08									
<u>NWTPH-Gx (MS)</u>												
Gasoline Range Organics	477	50.0	100	ug/L	1	500	---	95	80-120%	---	---	
Surr: 4-Bromofluorobenzene (Sur)		Recovery: 98 %		Limits: 50-150 %		Dilution: 1x						
1,4-Difluorobenzene (Sur)		98 %		50-150 %		"						
Duplicate (23C1041-DUP1)			Prepared: 03/27/23 14:13 Analyzed: 03/27/23 22:21									
<u>QC Source Sample: Non-SDG (A3C0826-01)</u>												
Gasoline Range Organics	ND	2500	5000	ug/L	50	---	ND	---	---	---	30%	
Surr: 4-Bromofluorobenzene (Sur)		Recovery: 95 %		Limits: 50-150 %		Dilution: 1x						
1,4-Difluorobenzene (Sur)		98 %		50-150 %		"						

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QUALITY CONTROL (QC) SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C1174 - EPA 5030C						Water						
Blank (23C1174-BLK1)			Prepared: 03/29/23 13:58 Analyzed: 03/29/23 20:37									
<u>NWTPH-Gx (MS)</u>												
Gasoline Range Organics	ND	50.0	100	ug/L	1	---	---	---	---	---	---	
Surr: 4-Bromofluorobenzene (Sur)		Recovery: 92 %		Limits: 50-150 %		Dilution: 1x						
1,4-Difluorobenzene (Sur)		103 %		50-150 %		"						
LCS (23C1174-BS2)			Prepared: 03/29/23 13:58 Analyzed: 03/29/23 20:15									
<u>NWTPH-Gx (MS)</u>												
Gasoline Range Organics	481	50.0	100	ug/L	1	500	---	96	80-120%	---	---	
Surr: 4-Bromofluorobenzene (Sur)		Recovery: 93 %		Limits: 50-150 %		Dilution: 1x						
1,4-Difluorobenzene (Sur)		99 %		50-150 %		"						
Duplicate (23C1174-DUP1)			Prepared: 03/29/23 13:58 Analyzed: 03/30/23 04:52									
<u>QC Source Sample: Non-SDG (A3C0961-02)</u>												
Gasoline Range Organics	ND	500	1000	ug/L	10	---	ND	---	---	---	30%	
Surr: 4-Bromofluorobenzene (Sur)		Recovery: 96 %		Limits: 50-150 %		Dilution: 1x						
1,4-Difluorobenzene (Sur)		107 %		50-150 %		"						

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QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C0997 - EPA 5030C						Water						
Blank (23C0997-BLK1)			Prepared: 03/24/23 15:45		Analyzed: 03/25/23 07:08							
EPA 8260D												
Acetone	ND	10.0	20.0	ug/L	1	---	---	---	---	---	---	
Acrylonitrile	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
Benzene	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
Bromobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Bromochloromethane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Bromoform	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Bromomethane	ND	5.00	5.00	ug/L	1	---	---	---	---	---	---	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	---	---	---	---	---	---	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Carbon disulfide	ND	5.00	10.0	ug/L	1	---	---	---	---	---	---	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Chlorobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Chloroethane	ND	5.00	5.00	ug/L	1	---	---	---	---	---	---	
Chloroform	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Chloromethane	ND	2.50	5.00	ug/L	1	---	---	---	---	---	---	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Dibromomethane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	

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QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C0997 - EPA 5030C						Water						
Blank (23C0997-BLK1)						Prepared: 03/24/23 15:45 Analyzed: 03/25/23 07:08						
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Ethylbenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	---	---	---	---	---	---	
2-Hexanone	ND	5.00	10.0	ug/L	1	---	---	---	---	---	---	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Methylene chloride	ND	5.00	10.0	ug/L	1	---	---	---	---	---	---	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	---	---	---	---	---	---	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Naphthalene	ND	2.00	2.00	ug/L	1	---	---	---	---	---	---	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Styrene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
Toluene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Vinyl chloride	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
m,p-Xylene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
o-Xylene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr) Recovery: 99 % Limits: 80-120 % Dilution: 1x												

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Darwin Thomas, Business Development Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Anchor QEA, LLC

6720 SW Macadam Ave. Suite 125

Portland, OR 97219

Project: Gasco-CMMA/TCE Mon. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001F

Project Manager: John Renda

Report ID:

A3C0788 - 05 19 23 0603

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C0997 - EPA 5030C						Water						
Blank (23C0997-BLK1)			Prepared: 03/24/23 15:45		Analyzed: 03/25/23 07:08							
Surr: Toluene-d8 (Surr)		Recovery: 104 %		Limits: 80-120 %		Dilution: 1x						
4-Bromofluorobenzene (Surr)		97 %		80-120 %		"						
LCS (23C0997-BS1)			Prepared: 03/24/23 15:45		Analyzed: 03/25/23 06:24							
EPA 8260D												
Acetone	46.4	10.0	20.0	ug/L	1	40.0	---	116	80-120%	---	---	
Acrylonitrile	22.6	1.00	2.00	ug/L	1	20.0	---	113	80-120%	---	---	
Benzene	20.8	0.100	0.200	ug/L	1	20.0	---	104	80-120%	---	---	
Bromobenzene	19.1	0.250	0.500	ug/L	1	20.0	---	95	80-120%	---	---	
Bromochloromethane	26.0	0.500	1.00	ug/L	1	20.0	---	130	80-120%	---	---	Q-56
Bromodichloromethane	23.0	0.500	1.00	ug/L	1	20.0	---	115	80-120%	---	---	
Bromoform	22.6	0.500	1.00	ug/L	1	20.0	---	113	80-120%	---	---	
Bromomethane	24.9	5.00	5.00	ug/L	1	20.0	---	125	80-120%	---	---	Q-56
2-Butanone (MEK)	47.8	5.00	10.0	ug/L	1	40.0	---	119	80-120%	---	---	
n-Butylbenzene	21.6	0.500	1.00	ug/L	1	20.0	---	108	80-120%	---	---	
sec-Butylbenzene	22.7	0.500	1.00	ug/L	1	20.0	---	114	80-120%	---	---	
tert-Butylbenzene	21.7	0.500	1.00	ug/L	1	20.0	---	109	80-120%	---	---	
Carbon disulfide	21.9	5.00	10.0	ug/L	1	20.0	---	110	80-120%	---	---	
Carbon tetrachloride	23.5	0.500	1.00	ug/L	1	20.0	---	117	80-120%	---	---	
Chlorobenzene	20.2	0.250	0.500	ug/L	1	20.0	---	101	80-120%	---	---	
Chloroethane	28.6	5.00	5.00	ug/L	1	20.0	---	143	80-120%	---	---	Q-56
Chloroform	21.4	0.500	1.00	ug/L	1	20.0	---	107	80-120%	---	---	
Chloromethane	23.2	2.50	5.00	ug/L	1	20.0	---	116	80-120%	---	---	
2-Chlorotoluene	19.8	0.500	1.00	ug/L	1	20.0	---	99	80-120%	---	---	
4-Chlorotoluene	21.4	0.500	1.00	ug/L	1	20.0	---	107	80-120%	---	---	
Dibromochloromethane	22.0	0.500	1.00	ug/L	1	20.0	---	110	80-120%	---	---	
1,2-Dibromo-3-chloropropane	19.2	2.50	5.00	ug/L	1	20.0	---	96	80-120%	---	---	
1,2-Dibromoethane (EDB)	21.4	0.250	0.500	ug/L	1	20.0	---	107	80-120%	---	---	
Dibromomethane	21.7	0.500	1.00	ug/L	1	20.0	---	108	80-120%	---	---	
1,2-Dichlorobenzene	20.1	0.250	0.500	ug/L	1	20.0	---	100	80-120%	---	---	
1,3-Dichlorobenzene	20.4	0.250	0.500	ug/L	1	20.0	---	102	80-120%	---	---	
1,4-Dichlorobenzene	19.4	0.250	0.500	ug/L	1	20.0	---	97	80-120%	---	---	
Dichlorodifluoromethane	25.6	0.500	1.00	ug/L	1	20.0	---	128	80-120%	---	---	Q-56
1,1-Dichloroethane	22.7	0.200	0.400	ug/L	1	20.0	---	113	80-120%	---	---	

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Darwin Thomas, Business Development Director

Page 51 of 135



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Project Number: 000029-02.84 T-01.001F

Project Manager: John Renda

Report ID:

A3C0788 - 05 19 23 0603

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C0997 - EPA 5030C						Water						
LCS (23C0997-BS1)						Prepared: 03/24/23 15:45 Analyzed: 03/25/23 06:24						
1,2-Dichloroethane (EDC)	23.8	0.200	0.400	ug/L	1	20.0	---	119	80-120%	---	---	
1,1-Dichloroethene	22.5	0.200	0.400	ug/L	1	20.0	---	113	80-120%	---	---	
cis-1,2-Dichloroethene	21.3	0.200	0.400	ug/L	1	20.0	---	106	80-120%	---	---	
trans-1,2-Dichloroethene	21.0	0.200	0.400	ug/L	1	20.0	---	105	80-120%	---	---	
1,2-Dichloropropane	21.2	0.250	0.500	ug/L	1	20.0	---	106	80-120%	---	---	
1,3-Dichloropropane	21.8	0.500	1.00	ug/L	1	20.0	---	109	80-120%	---	---	
2,2-Dichloropropane	19.8	0.500	1.00	ug/L	1	20.0	---	99	80-120%	---	---	
1,1-Dichloropropene	21.2	0.500	1.00	ug/L	1	20.0	---	106	80-120%	---	---	
cis-1,3-Dichloropropene	21.7	0.500	1.00	ug/L	1	20.0	---	108	80-120%	---	---	
trans-1,3-Dichloropropene	24.2	0.500	1.00	ug/L	1	20.0	---	121	80-120%	---	---	Q-56
Ethylbenzene	21.4	0.250	0.500	ug/L	1	20.0	---	107	80-120%	---	---	
Hexachlorobutadiene	19.4	2.50	5.00	ug/L	1	20.0	---	97	80-120%	---	---	
2-Hexanone	45.6	5.00	10.0	ug/L	1	40.0	---	114	80-120%	---	---	
Isopropylbenzene	21.5	0.500	1.00	ug/L	1	20.0	---	108	80-120%	---	---	
4-Isopropyltoluene	22.3	0.500	1.00	ug/L	1	20.0	---	111	80-120%	---	---	
Methylene chloride	20.8	5.00	10.0	ug/L	1	20.0	---	104	80-120%	---	---	
4-Methyl-2-pentanone (MiBK)	52.8	5.00	10.0	ug/L	1	40.0	---	132	80-120%	---	---	Q-56
Methyl tert-butyl ether (MTBE)	21.4	0.500	1.00	ug/L	1	20.0	---	107	80-120%	---	---	
Naphthalene	15.2	2.00	2.00	ug/L	1	20.0	---	76	80-120%	---	---	Q-55
n-Propylbenzene	21.1	0.250	0.500	ug/L	1	20.0	---	106	80-120%	---	---	
Styrene	22.6	0.500	1.00	ug/L	1	20.0	---	113	80-120%	---	---	
1,1,1,2-Tetrachloroethane	20.4	0.200	0.400	ug/L	1	20.0	---	102	80-120%	---	---	
1,1,2,2-Tetrachloroethane	22.7	0.250	0.500	ug/L	1	20.0	---	114	80-120%	---	---	
Tetrachloroethene (PCE)	20.5	0.200	0.400	ug/L	1	20.0	---	102	80-120%	---	---	
Toluene	20.0	0.250	0.500	ug/L	1	20.0	---	100	80-120%	---	---	
1,2,3-Trichlorobenzene	20.2	1.00	2.00	ug/L	1	20.0	---	101	80-120%	---	---	
1,2,4-Trichlorobenzene	18.0	1.00	2.00	ug/L	1	20.0	---	90	80-120%	---	---	
1,1,1-Trichloroethane	22.4	0.200	0.400	ug/L	1	20.0	---	112	80-120%	---	---	
1,1,2-Trichloroethane	21.2	0.250	0.500	ug/L	1	20.0	---	106	80-120%	---	---	
Trichloroethene (TCE)	18.7	0.200	0.400	ug/L	1	20.0	---	94	80-120%	---	---	
Trichlorofluoromethane	24.4	1.00	2.00	ug/L	1	20.0	---	122	80-120%	---	---	Q-56
1,2,3-Trichloropropane	22.5	0.500	1.00	ug/L	1	20.0	---	113	80-120%	---	---	
1,2,4-Trimethylbenzene	22.8	0.500	1.00	ug/L	1	20.0	---	114	80-120%	---	---	
1,3,5-Trimethylbenzene	22.4	0.500	1.00	ug/L	1	20.0	---	112	80-120%	---	---	

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Darwin Thomas, Business Development Director



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Project Number: 000029-02.84 T-01.001F

Project Manager: John Renda

Report ID:

A3C0788 - 05 19 23 0603

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C0997 - EPA 5030C						Water						
LCS (23C0997-BS1)			Prepared: 03/24/23 15:45		Analyzed: 03/25/23 06:24							
Vinyl chloride	24.2	0.200	0.400	ug/L	1	20.0	---	121	80-120%	---	---	Q-56
m,p-Xylene	46.2	0.500	1.00	ug/L	1	40.0	---	115	80-120%	---	---	
o-Xylene	21.2	0.250	0.500	ug/L	1	20.0	---	106	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 95 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		100 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		92 %		80-120 %		"						

Duplicate (23C0997-DUP1)

Prepared: 03/24/23 15:45 Analyzed: 03/25/23 10:28

QC Source Sample: GS-032123-41 (A3C0788-03)

EPA 8260D

Acetone	ND	500	1000	ug/L	50	---	ND	---	---	---	30%	
Acrylonitrile	ND	50.0	100	ug/L	50	---	ND	---	---	---	30%	
Benzene	5.00	5.00	10.0	ug/L	50	---	5.00	---	---	0	30%	J
Bromobenzene	ND	12.5	25.0	ug/L	50	---	ND	---	---	---	30%	
Bromochloromethane	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
Bromodichloromethane	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
Bromoform	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
Bromomethane	ND	250	250	ug/L	50	---	ND	---	---	---	30%	
2-Butanone (MEK)	ND	250	500	ug/L	50	---	ND	---	---	---	30%	
n-Butylbenzene	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
sec-Butylbenzene	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
tert-Butylbenzene	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
Carbon disulfide	ND	250	500	ug/L	50	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
Chlorobenzene	ND	12.5	25.0	ug/L	50	---	ND	---	---	---	30%	
Chloroethane	ND	250	250	ug/L	50	---	ND	---	---	---	30%	
Chloroform	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
Chloromethane	ND	125	250	ug/L	50	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
Dibromochloromethane	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	125	250	ug/L	50	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	12.5	25.0	ug/L	50	---	ND	---	---	---	30%	
Dibromomethane	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	

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QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C0997 - EPA 5030C						Water						
Duplicate (23C0997-DUP1)			Prepared: 03/24/23 15:45 Analyzed: 03/25/23 10:28									
QC Source Sample: GS-032123-41 (A3C0788-03)												
1,2-Dichlorobenzene	ND	12.5	25.0	ug/L	50	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	12.5	25.0	ug/L	50	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	12.5	25.0	ug/L	50	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	10.0	20.0	ug/L	50	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	10.0	20.0	ug/L	50	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	10.0	20.0	ug/L	50	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	ND	10.0	20.0	ug/L	50	---	ND	---	---	---	30%	
trans-1,2-Dichloroethene	ND	10.0	20.0	ug/L	50	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	12.5	25.0	ug/L	50	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
Ethylbenzene	ND	12.5	25.0	ug/L	50	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	125	250	ug/L	50	---	ND	---	---	---	30%	
2-Hexanone	ND	250	500	ug/L	50	---	ND	---	---	---	30%	
Isopropylbenzene	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
4-Isopropyltoluene	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
Methylene chloride	ND	250	500	ug/L	50	---	ND	---	---	---	30%	
4-Methyl-2-pentanone (MiBK)	ND	250	500	ug/L	50	---	ND	---	---	---	30%	
Methyl tert-butyl ether (MTBE)	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
Naphthalene	ND	100	100	ug/L	50	---	ND	---	---	---	30%	
n-Propylbenzene	ND	12.5	25.0	ug/L	50	---	ND	---	---	---	30%	
Styrene	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
1,1,1,2-Tetrachloroethane	ND	10.0	20.0	ug/L	50	---	ND	---	---	---	30%	
1,1,2,2-Tetrachloroethane	ND	12.5	25.0	ug/L	50	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	ND	10.0	20.0	ug/L	50	---	ND	---	---	---	30%	
Toluene	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
1,2,3-Trichlorobenzene	ND	50.0	100	ug/L	50	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	50.0	100	ug/L	50	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	10.0	20.0	ug/L	50	---	ND	---	---	---	30%	

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QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C0997 - EPA 5030C						Water						
Duplicate (23C0997-DUP1)			Prepared: 03/24/23 15:45 Analyzed: 03/25/23 10:28									
QC Source Sample: GS-032123-41 (A3C0788-03)												
1,1,2-Trichloroethane	ND	12.5	25.0	ug/L	50	---	ND	---	---	---	30%	
Trichloroethene (TCE)	ND	10.0	20.0	ug/L	50	---	ND	---	---	---	30%	
Trichlorofluoromethane	ND	50.0	100	ug/L	50	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
1,2,4-Trimethylbenzene	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
1,3,5-Trimethylbenzene	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
Vinyl chloride	ND	10.0	20.0	ug/L	50	---	ND	---	---	---	30%	
m,p-Xylene	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
o-Xylene	ND	12.5	25.0	ug/L	50	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 98 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		102 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		100 %		80-120 %		"						
Matrix Spike (23C0997-MS1)						Prepared: 03/24/23 15:45 Analyzed: 03/25/23 14:55						
QC Source Sample: Non-SDG (A3C0830-07)												
EPA 8260D												
Acetone	4780	1000	2000	ug/L	100	4000	ND	119	39-160%	---	---	
Acrylonitrile	2280	100	200	ug/L	100	2000	ND	114	63-135%	---	---	
Benzene	11200	10.0	20.0	ug/L	100	2000	8890	115	79-120%	---	---	
Bromobenzene	1990	25.0	50.0	ug/L	100	2000	ND	99	80-120%	---	---	
Bromochloromethane	2460	50.0	100	ug/L	100	2000	ND	123	78-123%	---	---	Q-54a
Bromodichloromethane	2170	50.0	100	ug/L	100	2000	ND	108	79-125%	---	---	
Bromoform	2120	50.0	100	ug/L	100	2000	ND	106	66-130%	---	---	
Bromomethane	2020	500	500	ug/L	100	2000	ND	101	53-141%	---	---	Q-54b
2-Butanone (MEK)	4900	500	1000	ug/L	100	4000	ND	123	56-143%	---	---	
n-Butylbenzene	2560	50.0	100	ug/L	100	2000	ND	128	75-128%	---	---	
sec-Butylbenzene	2580	50.0	100	ug/L	100	2000	ND	129	77-126%	---	---	Q-01
tert-Butylbenzene	2490	50.0	100	ug/L	100	2000	ND	125	78-124%	---	---	Q-01
Carbon disulfide	2260	500	1000	ug/L	100	2000	ND	113	64-133%	---	---	
Carbon tetrachloride	2380	50.0	100	ug/L	100	2000	ND	119	72-136%	---	---	
Chlorobenzene	2050	25.0	50.0	ug/L	100	2000	ND	102	80-120%	---	---	
Chloroethane	2410	500	500	ug/L	100	2000	ND	120	60-138%	---	---	Q-54c
Chloroform	2080	50.0	100	ug/L	100	2000	ND	104	79-124%	---	---	

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Darwin Thomas, Business Development Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Anchor QEA, LLC

6720 SW Macadam Ave. Suite 125

Portland, OR 97219

Project: Gasco-CMMA/TCE Mon. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001F

Project Manager: John Renda

Report ID:

A3C0788 - 05 19 23 0603

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C0997 - EPA 5030C						Water						
Matrix Spike (23C0997-MS1)			Prepared: 03/24/23 15:45 Analyzed: 03/25/23 14:55									
QC Source Sample: Non-SDG (A3C0830-07)												
Chloromethane	2560	250	500	ug/L	100	2000	ND	128	50-139%	---	---	
2-Chlorotoluene	2210	50.0	100	ug/L	100	2000	ND	111	79-122%	---	---	
4-Chlorotoluene	2260	50.0	100	ug/L	100	2000	ND	113	78-122%	---	---	
Dibromochloromethane	2140	50.0	100	ug/L	100	2000	ND	107	74-126%	---	---	
1,2-Dibromo-3-chloropropane	2140	250	500	ug/L	100	2000	ND	107	62-128%	---	---	
1,2-Dibromoethane (EDB)	2150	25.0	50.0	ug/L	100	2000	ND	108	77-121%	---	---	
Dibromomethane	2060	50.0	100	ug/L	100	2000	ND	103	79-123%	---	---	
1,2-Dichlorobenzene	2100	25.0	50.0	ug/L	100	2000	ND	105	80-120%	---	---	
1,3-Dichlorobenzene	2120	25.0	50.0	ug/L	100	2000	ND	106	80-120%	---	---	
1,4-Dichlorobenzene	1960	25.0	50.0	ug/L	100	2000	ND	98	79-120%	---	---	
Dichlorodifluoromethane	2760	50.0	100	ug/L	100	2000	ND	138	32-152%	---	---	Q-54q
1,1-Dichloroethane	2270	20.0	40.0	ug/L	100	2000	ND	113	77-125%	---	---	
1,2-Dichloroethane (EDC)	2210	20.0	40.0	ug/L	100	2000	ND	111	73-128%	---	---	
1,1-Dichloroethene	2400	20.0	40.0	ug/L	100	2000	ND	120	71-131%	---	---	
cis-1,2-Dichloroethene	2320	20.0	40.0	ug/L	100	2000	ND	116	78-123%	---	---	
trans-1,2-Dichloroethene	2310	20.0	40.0	ug/L	100	2000	ND	116	75-124%	---	---	
1,2-Dichloropropane	2180	25.0	50.0	ug/L	100	2000	ND	109	78-122%	---	---	
1,3-Dichloropropane	2240	50.0	100	ug/L	100	2000	ND	112	80-120%	---	---	
2,2-Dichloropropane	1780	50.0	100	ug/L	100	2000	ND	89	60-139%	---	---	
1,1-Dichloropropene	2470	50.0	100	ug/L	100	2000	ND	124	79-125%	---	---	
cis-1,3-Dichloropropene	2080	50.0	100	ug/L	100	2000	ND	104	75-124%	---	---	
trans-1,3-Dichloropropene	2340	50.0	100	ug/L	100	2000	ND	117	73-127%	---	---	Q-54
Ethylbenzene	3010	25.0	50.0	ug/L	100	2000	659	117	79-121%	---	---	
Hexachlorobutadiene	2350	250	500	ug/L	100	2000	ND	118	66-134%	---	---	
2-Hexanone	5140	500	1000	ug/L	100	4000	ND	128	57-139%	---	---	
Isopropylbenzene	2530	50.0	100	ug/L	100	2000	ND	127	72-131%	---	---	
4-Isopropyltoluene	2550	50.0	100	ug/L	100	2000	ND	128	77-127%	---	---	Q-01
Methylene chloride	2010	500	1000	ug/L	100	2000	ND	100	74-124%	---	---	
4-Methyl-2-pentanone (MiBK)	5520	500	1000	ug/L	100	4000	ND	138	67-130%	---	---	Q-54c
Methyl tert-butyl ether (MTBE)	2200	50.0	100	ug/L	100	2000	ND	110	71-124%	---	---	
Naphthalene	6160	200	200	ug/L	100	2000	3790	119	61-128%	---	---	Q-54y
n-Propylbenzene	2300	25.0	50.0	ug/L	100	2000	ND	115	76-126%	---	---	
Styrene	2340	50.0	100	ug/L	100	2000	ND	117	78-123%	---	---	

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Page 56 of 135



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

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503-718-2323

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6720 SW Macadam Ave. Suite 125

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Project Number: 000029-02.84 T-01.001F

Project Manager: John Renda

Report ID:

A3C0788 - 05 19 23 0603

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C0997 - EPA 5030C						Water						
Matrix Spike (23C0997-MS1)			Prepared: 03/24/23 15:45 Analyzed: 03/25/23 14:55									
QC Source Sample: Non-SDG (A3C0830-07)												
1,1,1,2-Tetrachloroethane	2000	20.0	40.0	ug/L	100	2000	ND	100	78-124%	---	---	
1,1,2,2-Tetrachloroethane	2210	25.0	50.0	ug/L	100	2000	ND	110	71-121%	---	---	
Tetrachloroethene (PCE)	2230	20.0	40.0	ug/L	100	2000	ND	112	74-129%	---	---	
Toluene	2370	50.0	100	ug/L	100	2000	280	104	80-121%	---	---	
1,2,3-Trichlorobenzene	2410	100	200	ug/L	100	2000	ND	120	69-129%	---	---	
1,2,4-Trichlorobenzene	2340	100	200	ug/L	100	2000	ND	117	69-130%	---	---	
1,1,1-Trichloroethane	2280	20.0	40.0	ug/L	100	2000	ND	114	74-131%	---	---	
1,1,2-Trichloroethane	2070	25.0	50.0	ug/L	100	2000	ND	103	80-120%	---	---	
Trichloroethene (TCE)	2020	20.0	40.0	ug/L	100	2000	ND	101	79-123%	---	---	
Trichlorofluoromethane	2470	100	200	ug/L	100	2000	ND	124	65-141%	---	---	Q-54k
1,2,3-Trichloropropane	2150	50.0	100	ug/L	100	2000	ND	108	73-122%	---	---	
1,2,4-Trimethylbenzene	2590	50.0	100	ug/L	100	2000	106	124	76-124%	---	---	
1,3,5-Trimethylbenzene	2460	50.0	100	ug/L	100	2000	ND	123	75-124%	---	---	
Vinyl chloride	2580	20.0	40.0	ug/L	100	2000	ND	129	58-137%	---	---	Q-54
m,p-Xylene	5080	50.0	100	ug/L	100	4000	190	122	80-121%	---	---	Q-01
o-Xylene	2710	25.0	50.0	ug/L	100	2000	204	125	78-122%	---	---	Q-01
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 95 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		99 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		97 %		80-120 %		"						

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QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C1008 - EPA 5030C						Water						
Blank (23C1008-BLK1)			Prepared: 03/25/23 16:51		Analyzed: 03/26/23 08:22							
EPA 8260D												
Acetone	ND	10.0	20.0	ug/L	1	---	---	---	---	---	---	
Acrylonitrile	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
Benzene	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
Bromobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Bromochloromethane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Bromoform	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Bromomethane	ND	5.00	5.00	ug/L	1	---	---	---	---	---	---	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	---	---	---	---	---	---	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Carbon disulfide	ND	5.00	10.0	ug/L	1	---	---	---	---	---	---	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Chlorobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Chloroethane	ND	5.00	5.00	ug/L	1	---	---	---	---	---	---	
Chloroform	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Chloromethane	ND	2.50	5.00	ug/L	1	---	---	---	---	---	---	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Dibromomethane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethene	ND	0.200	0.200	ug/L	1	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	

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Project Number: 000029-02.84 T-01.001F

Project Manager: John Renda

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A3C0788 - 05 19 23 0603

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C1008 - EPA 5030C						Water						
Blank (23C1008-BLK1)						Prepared: 03/25/23 16:51 Analyzed: 03/26/23 08:22						
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
2,2-Dichloropropane	ND	1.00	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Ethylbenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	---	---	---	---	---	---	
2-Hexanone	ND	5.00	10.0	ug/L	1	---	---	---	---	---	---	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Methylene chloride	ND	5.00	10.0	ug/L	1	---	---	---	---	---	---	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	---	---	---	---	---	---	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Naphthalene	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Styrene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	0.200	0.200	ug/L	1	---	---	---	---	---	---	
Toluene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	0.200	0.200	ug/L	1	---	---	---	---	---	---	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Vinyl chloride	ND	0.200	0.200	ug/L	1	---	---	---	---	---	---	
m,p-Xylene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
o-Xylene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr) Recovery: 98 % Limits: 80-120 % Dilution: 1x												

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Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C1008 - EPA 5030C						Water						
Blank (23C1008-BLK1)				Prepared: 03/25/23 16:51		Analyzed: 03/26/23 08:22						
Surr: Toluene-d8 (Surr)		Recovery: 102 %		Limits: 80-120 %		Dilution: 1x						
4-Bromofluorobenzene (Surr)		100 %		80-120 %		"						
LCS (23C1008-BS1)				Prepared: 03/25/23 16:51		Analyzed: 03/26/23 07:37						
EPA 8260D												
Acetone	42.1	10.0	20.0	ug/L	1	40.0	---	105	80-120%	---	---	
Acrylonitrile	20.4	1.00	2.00	ug/L	1	20.0	---	102	80-120%	---	---	
Benzene	19.6	0.100	0.200	ug/L	1	20.0	---	98	80-120%	---	---	
Bromobenzene	18.6	0.250	0.500	ug/L	1	20.0	---	93	80-120%	---	---	
Bromochloromethane	22.4	0.500	1.00	ug/L	1	20.0	---	112	80-120%	---	---	
Bromodichloromethane	21.4	0.500	1.00	ug/L	1	20.0	---	107	80-120%	---	---	
Bromoform	21.6	0.500	1.00	ug/L	1	20.0	---	108	80-120%	---	---	
Bromomethane	24.8	5.00	5.00	ug/L	1	20.0	---	124	80-120%	---	---	Q-56
2-Butanone (MEK)	42.4	5.00	10.0	ug/L	1	40.0	---	106	80-120%	---	---	
n-Butylbenzene	21.0	0.500	1.00	ug/L	1	20.0	---	105	80-120%	---	---	
sec-Butylbenzene	22.6	0.500	1.00	ug/L	1	20.0	---	113	80-120%	---	---	
tert-Butylbenzene	21.9	0.500	1.00	ug/L	1	20.0	---	110	80-120%	---	---	
Carbon disulfide	20.6	5.00	10.0	ug/L	1	20.0	---	103	80-120%	---	---	
Carbon tetrachloride	22.8	0.500	1.00	ug/L	1	20.0	---	114	80-120%	---	---	
Chlorobenzene	19.9	0.250	0.500	ug/L	1	20.0	---	100	80-120%	---	---	
Chloroethane	25.2	5.00	5.00	ug/L	1	20.0	---	126	80-120%	---	---	Q-56
Chloroform	20.0	0.500	1.00	ug/L	1	20.0	---	100	80-120%	---	---	
Chloromethane	21.7	2.50	5.00	ug/L	1	20.0	---	108	80-120%	---	---	
2-Chlorotoluene	19.6	0.500	1.00	ug/L	1	20.0	---	98	80-120%	---	---	
4-Chlorotoluene	20.9	0.500	1.00	ug/L	1	20.0	---	105	80-120%	---	---	
Dibromochloromethane	21.2	0.500	1.00	ug/L	1	20.0	---	106	80-120%	---	---	
1,2-Dibromo-3-chloropropane	18.8	2.50	5.00	ug/L	1	20.0	---	94	80-120%	---	---	
1,2-Dibromoethane (EDB)	20.5	0.250	0.500	ug/L	1	20.0	---	103	80-120%	---	---	
Dibromomethane	20.1	0.500	1.00	ug/L	1	20.0	---	100	80-120%	---	---	
1,2-Dichlorobenzene	19.8	0.250	0.500	ug/L	1	20.0	---	99	80-120%	---	---	
1,3-Dichlorobenzene	20.1	0.250	0.500	ug/L	1	20.0	---	101	80-120%	---	---	
1,4-Dichlorobenzene	18.7	0.250	0.500	ug/L	1	20.0	---	94	80-120%	---	---	
Dichlorodifluoromethane	24.1	0.500	1.00	ug/L	1	20.0	---	120	80-120%	---	---	
1,1-Dichloroethane	20.7	0.200	0.400	ug/L	1	20.0	---	104	80-120%	---	---	

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Darwin Thomas, Business Development Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Anchor QEA, LLC

6720 SW Macadam Ave. Suite 125

Portland, OR 97219

Project: Gasco-CMMA/TCE Mon. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001F

Project Manager: John Renda

Report ID:

A3C0788 - 05 19 23 0603

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C1008 - EPA 5030C						Water						
LCS (23C1008-BS1)			Prepared: 03/25/23 16:51		Analyzed: 03/26/23 07:37							
1,2-Dichloroethane (EDC)	21.8	0.200	0.400	ug/L	1	20.0	---	109	80-120%	---	---	Q-55
1,1-Dichloroethene	21.3	0.200	0.200	ug/L	1	20.0	---	106	80-120%	---	---	
cis-1,2-Dichloroethene	20.2	0.200	0.400	ug/L	1	20.0	---	101	80-120%	---	---	
trans-1,2-Dichloroethene	19.9	0.200	0.400	ug/L	1	20.0	---	100	80-120%	---	---	
1,2-Dichloropropane	19.2	0.250	0.500	ug/L	1	20.0	---	96	80-120%	---	---	
1,3-Dichloropropane	20.6	0.500	1.00	ug/L	1	20.0	---	103	80-120%	---	---	
2,2-Dichloropropane	15.6	1.00	1.00	ug/L	1	20.0	---	78	80-120%	---	---	
1,1-Dichloropropene	20.8	0.500	1.00	ug/L	1	20.0	---	104	80-120%	---	---	
cis-1,3-Dichloropropene	20.3	0.500	1.00	ug/L	1	20.0	---	102	80-120%	---	---	
trans-1,3-Dichloropropene	22.2	0.500	1.00	ug/L	1	20.0	---	111	80-120%	---	---	
Ethylbenzene	21.1	0.250	0.500	ug/L	1	20.0	---	106	80-120%	---	---	
Hexachlorobutadiene	19.4	2.50	5.00	ug/L	1	20.0	---	97	80-120%	---	---	
2-Hexanone	41.8	5.00	10.0	ug/L	1	40.0	---	105	80-120%	---	---	
Isopropylbenzene	21.7	0.500	1.00	ug/L	1	20.0	---	109	80-120%	---	---	
4-Isopropyltoluene	22.2	0.500	1.00	ug/L	1	20.0	---	111	80-120%	---	---	
Methylene chloride	19.1	5.00	10.0	ug/L	1	20.0	---	95	80-120%	---	---	
4-Methyl-2-pentanone (MiBK)	47.3	5.00	10.0	ug/L	1	40.0	---	118	80-120%	---	---	
Methyl tert-butyl ether (MTBE)	20.4	0.500	1.00	ug/L	1	20.0	---	102	80-120%	---	---	
Naphthalene	15.9	1.00	2.00	ug/L	1	20.0	---	80	80-120%	---	---	
n-Propylbenzene	20.7	0.250	0.500	ug/L	1	20.0	---	104	80-120%	---	---	
Styrene	22.3	0.500	1.00	ug/L	1	20.0	---	112	80-120%	---	---	
1,1,1,2-Tetrachloroethane	20.1	0.200	0.400	ug/L	1	20.0	---	101	80-120%	---	---	
1,1,2,2-Tetrachloroethane	20.8	0.250	0.500	ug/L	1	20.0	---	104	80-120%	---	---	
Tetrachloroethene (PCE)	20.4	0.200	0.200	ug/L	1	20.0	---	102	80-120%	---	---	
Toluene	19.4	0.500	1.00	ug/L	1	20.0	---	97	80-120%	---	---	
1,2,3-Trichlorobenzene	20.3	1.00	2.00	ug/L	1	20.0	---	101	80-120%	---	---	
1,2,4-Trichlorobenzene	18.6	1.00	2.00	ug/L	1	20.0	---	93	80-120%	---	---	
1,1,1-Trichloroethane	21.3	0.200	0.400	ug/L	1	20.0	---	106	80-120%	---	---	
1,1,2-Trichloroethane	20.3	0.250	0.500	ug/L	1	20.0	---	101	80-120%	---	---	
Trichloroethene (TCE)	18.6	0.200	0.200	ug/L	1	20.0	---	93	80-120%	---	---	
Trichlorofluoromethane	23.2	1.00	2.00	ug/L	1	20.0	---	116	80-120%	---	---	
1,2,3-Trichloropropane	21.0	0.500	1.00	ug/L	1	20.0	---	105	80-120%	---	---	
1,2,4-Trimethylbenzene	22.6	0.500	1.00	ug/L	1	20.0	---	113	80-120%	---	---	
1,3,5-Trimethylbenzene	22.2	0.500	1.00	ug/L	1	20.0	---	111	80-120%	---	---	

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A3C0788 - 05 19 23 0603

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C1008 - EPA 5030C						Water						
LCS (23C1008-BS1)			Prepared: 03/25/23 16:51		Analyzed: 03/26/23 07:37							
Vinyl chloride	21.3	0.200	0.200	ug/L	1	20.0	---	107	80-120%	---	---	
m,p-Xylene	45.8	0.500	1.00	ug/L	1	40.0	---	114	80-120%	---	---	
o-Xylene	21.4	0.250	0.500	ug/L	1	20.0	---	107	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 95 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		99 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		94 %		80-120 %		"						
Duplicate (23C1008-DUP1)			Prepared: 03/25/23 16:51		Analyzed: 03/26/23 09:51							
QC Source Sample: Non-SDG (A3C0902-01)												
Acetone	20.3	10.0	20.0	ug/L	1	---	ND	---	---		30%	Q-17
Acrylonitrile	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	30%	
Benzene	ND	0.100	0.200	ug/L	1	---	ND	---	---	---	30%	
Bromobenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Bromochloromethane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Bromoform	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Bromomethane	ND	5.00	5.00	ug/L	1	---	ND	---	---	---	30%	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	---	ND	---	---	---	30%	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Carbon disulfide	ND	5.00	10.0	ug/L	1	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Chlorobenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Chloroethane	ND	5.00	5.00	ug/L	1	---	ND	---	---	---	30%	
Chloroform	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Chloromethane	ND	2.50	5.00	ug/L	1	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Dibromomethane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	

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Darwin Thomas, Business Development Director



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503-718-2323

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Portland, OR 97219

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Project Number: 000029-02.84 T-01.001F

Project Manager: John Renda

Report ID:

A3C0788 - 05 19 23 0603

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C1008 - EPA 5030C						Water						
Duplicate (23C1008-DUP1)			Prepared: 03/25/23 16:51		Analyzed: 03/26/23 09:51							
QC Source Sample: Non-SDG (A3C0902-01)												
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	1.00	1.00	ug/L	1	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Ethylbenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	---	ND	---	---	---	30%	
2-Hexanone	ND	5.00	10.0	ug/L	1	---	ND	---	---	---	30%	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Methylene chloride	ND	5.00	10.0	ug/L	1	---	ND	---	---	---	30%	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	---	ND	---	---	---	30%	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Naphthalene	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	30%	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Styrene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
Toluene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	

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QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C1008 - EPA 5030C						Water						
Duplicate (23C1008-DUP1)			Prepared: 03/25/23 16:51		Analyzed: 03/26/23 09:51							
QC Source Sample: Non-SDG (A3C0902-01)												
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Vinyl chloride	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
m,p-Xylene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
o-Xylene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 100 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		102 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		98 %		80-120 %		"						
Matrix Spike (23C1008-MS1)						Prepared: 03/25/23 16:51 Analyzed: 03/26/23 15:47						
QC Source Sample: GS-032123-45 (A3C0788-07)												
EPA 8260D												
Acetone	2140	500	1000	ug/L	50	2000	ND	107	39-160%	---	---	
Acrylonitrile	1010	50.0	100	ug/L	50	1000	ND	101	63-135%	---	---	
Benzene	13500	5.00	10.0	ug/L	50	1000	12400	118	79-120%	---	---	E
Bromobenzene	936	12.5	25.0	ug/L	50	1000	ND	94	80-120%	---	---	
Bromochloromethane	1190	25.0	50.0	ug/L	50	1000	ND	119	78-123%	---	---	
Bromodichloromethane	1110	25.0	50.0	ug/L	50	1000	ND	111	79-125%	---	---	
Bromoform	1090	25.0	50.0	ug/L	50	1000	ND	109	66-130%	---	---	
Bromomethane	1290	250	250	ug/L	50	1000	ND	129	53-141%	---	---	Q-54n
2-Butanone (MEK)	2120	250	500	ug/L	50	2000	ND	106	56-143%	---	---	
n-Butylbenzene	1150	25.0	50.0	ug/L	50	1000	ND	115	75-128%	---	---	
sec-Butylbenzene	1180	25.0	50.0	ug/L	50	1000	ND	118	77-126%	---	---	
tert-Butylbenzene	1140	25.0	50.0	ug/L	50	1000	ND	114	78-124%	---	---	
Carbon disulfide	1140	250	500	ug/L	50	1000	ND	114	64-133%	---	---	
Carbon tetrachloride	1260	25.0	50.0	ug/L	50	1000	ND	126	72-136%	---	---	
Chlorobenzene	1030	12.5	25.0	ug/L	50	1000	ND	103	80-120%	---	---	
Chloroethane	1360	250	250	ug/L	50	1000	ND	136	60-138%	---	---	Q-54o
Chloroform	1050	25.0	50.0	ug/L	50	1000	ND	105	79-124%	---	---	
Chloromethane	1200	125	250	ug/L	50	1000	ND	120	50-139%	---	---	

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Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C1008 - EPA 5030C						Water						
Matrix Spike (23C1008-MS1)				Prepared: 03/25/23 16:51		Analyzed: 03/26/23 15:47						
QC Source Sample: GS-032123-45 (A3C0788-07)												
2-Chlorotoluene	1020	25.0	50.0	ug/L	50	1000	ND	102	79-122%	---	---	
4-Chlorotoluene	1060	25.0	50.0	ug/L	50	1000	ND	106	78-122%	---	---	
Dibromochloromethane	1070	25.0	50.0	ug/L	50	1000	ND	107	74-126%	---	---	
1,2-Dibromo-3-chloropropane	918	125	250	ug/L	50	1000	ND	92	62-128%	---	---	
1,2-Dibromoethane (EDB)	1020	12.5	25.0	ug/L	50	1000	ND	102	77-121%	---	---	
Dibromomethane	1020	25.0	50.0	ug/L	50	1000	ND	102	79-123%	---	---	
1,2-Dichlorobenzene	989	12.5	25.0	ug/L	50	1000	ND	99	80-120%	---	---	
1,3-Dichlorobenzene	1030	12.5	25.0	ug/L	50	1000	ND	103	80-120%	---	---	
1,4-Dichlorobenzene	952	12.5	25.0	ug/L	50	1000	ND	95	79-120%	---	---	
Dichlorodifluoromethane	1370	25.0	50.0	ug/L	50	1000	ND	137	32-152%	---	---	
1,1-Dichloroethane	1090	10.0	20.0	ug/L	50	1000	ND	109	77-125%	---	---	
1,2-Dichloroethane (EDC)	1140	10.0	20.0	ug/L	50	1000	ND	114	73-128%	---	---	
1,1-Dichloroethene	1180	10.0	20.0	ug/L	50	1000	ND	118	71-131%	---	---	
cis-1,2-Dichloroethene	1050	10.0	20.0	ug/L	50	1000	ND	105	78-123%	---	---	
trans-1,2-Dichloroethene	1070	10.0	20.0	ug/L	50	1000	ND	107	75-124%	---	---	
1,2-Dichloropropane	1010	12.5	25.0	ug/L	50	1000	ND	101	78-122%	---	---	
1,3-Dichloropropane	1050	25.0	50.0	ug/L	50	1000	ND	105	80-120%	---	---	
2,2-Dichloropropane	846	50.0	50.0	ug/L	50	1000	ND	85	60-139%	---	---	Q-54v
1,1-Dichloropropene	1120	25.0	50.0	ug/L	50	1000	ND	112	79-125%	---	---	
cis-1,3-Dichloropropene	899	25.0	50.0	ug/L	50	1000	ND	90	75-124%	---	---	
trans-1,3-Dichloropropene	1120	25.0	50.0	ug/L	50	1000	ND	112	73-127%	---	---	
Ethylbenzene	1350	12.5	25.0	ug/L	50	1000	196	116	79-121%	---	---	
Hexachlorobutadiene	1040	125	250	ug/L	50	1000	ND	104	66-134%	---	---	
2-Hexanone	2040	250	500	ug/L	50	2000	ND	102	57-139%	---	---	
Isopropylbenzene	1160	25.0	50.0	ug/L	50	1000	ND	116	72-131%	---	---	
4-Isopropyltoluene	1160	25.0	50.0	ug/L	50	1000	ND	116	77-127%	---	---	
Methylene chloride	990	250	500	ug/L	50	1000	ND	99	74-124%	---	---	
4-Methyl-2-pentanone (MiBK)	2310	250	500	ug/L	50	2000	ND	116	67-130%	---	---	
Methyl tert-butyl ether (MTBE)	1020	25.0	50.0	ug/L	50	1000	ND	102	71-124%	---	---	
Naphthalene	1250	50.0	100	ug/L	50	1000	296	95	61-128%	---	---	
n-Propylbenzene	1080	12.5	25.0	ug/L	50	1000	ND	108	76-126%	---	---	
Styrene	1150	25.0	50.0	ug/L	50	1000	ND	115	78-123%	---	---	
1,1,1,2-Tetrachloroethane	1040	10.0	20.0	ug/L	50	1000	ND	104	78-124%	---	---	

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Darwin Thomas, Business Development Director

Page 65 of 135



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Anchor QEA, LLC

6720 SW Macadam Ave. Suite 125

Portland, OR 97219

Project: Gasco-CMMA/TCE Mon. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001F

Project Manager: John Renda

Report ID:

A3C0788 - 05 19 23 0603

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C1008 - EPA 5030C						Water						
Matrix Spike (23C1008-MS1)			Prepared: 03/25/23 16:51		Analyzed: 03/26/23 15:47							
QC Source Sample: GS-032123-45 (A3C0788-07)												
1,1,2,2-Tetrachloroethane	1030	12.5	25.0	ug/L	50	1000	ND	103	71-121%	---	---	
Tetrachloroethene (PCE)	1100	10.0	20.0	ug/L	50	1000	ND	110	74-129%	---	---	
Toluene	1080	25.0	50.0	ug/L	50	1000	58.5	102	80-121%	---	---	
1,2,3-Trichlorobenzene	1030	50.0	100	ug/L	50	1000	ND	103	69-129%	---	---	
1,2,4-Trichlorobenzene	918	50.0	100	ug/L	50	1000	ND	92	69-130%	---	---	
1,1,1-Trichloroethane	1160	10.0	20.0	ug/L	50	1000	ND	116	74-131%	---	---	
1,1,2-Trichloroethane	1020	12.5	25.0	ug/L	50	1000	ND	102	80-120%	---	---	
Trichloroethene (TCE)	956	10.0	20.0	ug/L	50	1000	ND	96	79-123%	---	---	
Trichlorofluoromethane	1320	50.0	100	ug/L	50	1000	ND	132	65-141%	---	---	
1,2,3-Trichloropropane	1010	25.0	50.0	ug/L	50	1000	ND	101	73-122%	---	---	
1,2,4-Trimethylbenzene	1170	25.0	50.0	ug/L	50	1000	ND	117	76-124%	---	---	
1,3,5-Trimethylbenzene	1150	25.0	50.0	ug/L	50	1000	ND	115	75-124%	---	---	
Vinyl chloride	1160	10.0	20.0	ug/L	50	1000	ND	116	58-137%	---	---	
m,p-Xylene	2700	25.0	50.0	ug/L	50	2000	202	125	80-121%	---	---	Q-01
o-Xylene	1280	12.5	25.0	ug/L	50	1000	116	116	78-122%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 93 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		97 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		92 %		80-120 %		"						

Matrix Spike (23C1008-MS2)

Prepared: 03/25/23 16:51 Analyzed: 03/26/23 16:54

QC Source Sample: Non-SDG (A3C0852-02)

EPA 8260D

Acetone	50.7	10.0	20.0	ug/L	1	40.0	ND	99	39-160%	---	---	
Acrylonitrile	21.4	1.00	2.00	ug/L	1	20.0	ND	107	63-135%	---	---	
Benzene	21.5	0.100	0.200	ug/L	1	20.0	ND	108	79-120%	---	---	
Bromobenzene	19.7	0.250	0.500	ug/L	1	20.0	ND	99	80-120%	---	---	
Bromochloromethane	24.9	0.500	1.00	ug/L	1	20.0	ND	125	78-123%	---	---	Q-01
Bromodichloromethane	23.0	0.500	1.00	ug/L	1	20.0	ND	115	79-125%	---	---	
Bromoform	22.3	0.500	1.00	ug/L	1	20.0	ND	112	66-130%	---	---	
Bromomethane	25.5	5.00	5.00	ug/L	1	20.0	ND	128	53-141%	---	---	Q-54m
2-Butanone (MEK)	44.9	5.00	10.0	ug/L	1	40.0	ND	112	56-143%	---	---	
n-Butylbenzene	22.2	0.500	1.00	ug/L	1	20.0	ND	111	75-128%	---	---	
sec-Butylbenzene	24.2	0.500	1.00	ug/L	1	20.0	ND	121	77-126%	---	---	

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Darwin Thomas, Business Development Director



ANALYTICAL REPORT

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Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Anchor QEA, LLC

6720 SW Macadam Ave. Suite 125

Portland, OR 97219

Project: **Gasco-CMMA/TCE Mon. Wells 1Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001F**Project Manager: **John Renda****Report ID:****A3C0788 - 05 19 23 0603**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C1008 - EPA 5030C						Water						
Matrix Spike (23C1008-MS2)			Prepared: 03/25/23 16:51		Analyzed: 03/26/23 16:54							
QC Source Sample: Non-SDG (A3C0852-02)												
tert-Butylbenzene	23.5	0.500	1.00	ug/L	1	20.0	ND	118	78-124%	---	---	Q-54o
Carbon disulfide	23.6	5.00	10.0	ug/L	1	20.0	ND	118	64-133%	---	---	
Carbon tetrachloride	25.9	0.500	1.00	ug/L	1	20.0	ND	130	72-136%	---	---	
Chlorobenzene	21.1	0.250	0.500	ug/L	1	20.0	ND	106	80-120%	---	---	
Chloroethane	28.2	5.00	5.00	ug/L	1	20.0	ND	141	60-138%	---	---	
Chloroform	21.6	0.500	1.00	ug/L	1	20.0	ND	108	79-124%	---	---	Q-54v
Chloromethane	26.1	2.50	5.00	ug/L	1	20.0	ND	131	50-139%	---	---	
2-Chlorotoluene	21.4	0.500	1.00	ug/L	1	20.0	ND	107	79-122%	---	---	
4-Chlorotoluene	22.4	0.500	1.00	ug/L	1	20.0	ND	112	78-122%	---	---	
Dibromochloromethane	22.2	0.500	1.00	ug/L	1	20.0	ND	111	74-126%	---	---	
1,2-Dibromo-3-chloropropane	19.8	2.50	5.00	ug/L	1	20.0	ND	99	62-128%	---	---	
1,2-Dibromoethane (EDB)	21.1	0.250	0.500	ug/L	1	20.0	ND	106	77-121%	---	---	
Dibromomethane	20.9	0.500	1.00	ug/L	1	20.0	ND	105	79-123%	---	---	
1,2-Dichlorobenzene	22.3	0.250	0.500	ug/L	1	20.0	1.35	105	80-120%	---	---	
1,3-Dichlorobenzene	21.3	0.250	0.500	ug/L	1	20.0	ND	106	80-120%	---	---	
1,4-Dichlorobenzene	20.6	0.250	0.500	ug/L	1	20.0	0.960	98	79-120%	---	---	
Dichlorodifluoromethane	28.5	0.500	1.00	ug/L	1	20.0	ND	142	32-152%	---	---	
1,1-Dichloroethane	22.9	0.200	0.400	ug/L	1	20.0	ND	115	77-125%	---	---	
1,2-Dichloroethane (EDC)	23.9	0.200	0.400	ug/L	1	20.0	ND	119	73-128%	---	---	
1,1-Dichloroethene	24.8	0.200	0.400	ug/L	1	20.0	ND	124	71-131%	---	---	
cis-1,2-Dichloroethene	22.6	0.200	0.400	ug/L	1	20.0	0.260	112	78-123%	---	---	
trans-1,2-Dichloroethene	22.7	0.200	0.400	ug/L	1	20.0	ND	113	75-124%	---	---	
1,2-Dichloropropane	21.0	0.250	0.500	ug/L	1	20.0	ND	105	78-122%	---	---	
1,3-Dichloropropane	21.7	0.500	1.00	ug/L	1	20.0	ND	108	80-120%	---	---	
2,2-Dichloropropane	17.1	1.00	1.00	ug/L	1	20.0	ND	85	60-139%	---	---	
1,1-Dichloropropene	23.6	0.500	1.00	ug/L	1	20.0	ND	118	79-125%	---	---	
cis-1,3-Dichloropropene	19.2	0.500	1.00	ug/L	1	20.0	ND	96	75-124%	---	---	
trans-1,3-Dichloropropene	23.6	0.500	1.00	ug/L	1	20.0	ND	118	73-127%	---	---	
Ethylbenzene	22.9	0.250	0.500	ug/L	1	20.0	ND	115	79-121%	---	---	
Hexachlorobutadiene	18.7	2.50	5.00	ug/L	1	20.0	ND	94	66-134%	---	---	
2-Hexanone	43.8	5.00	10.0	ug/L	1	40.0	ND	109	57-139%	---	---	
Isopropylbenzene	23.8	0.500	1.00	ug/L	1	20.0	ND	119	72-131%	---	---	
4-Isopropyltoluene	23.5	0.500	1.00	ug/L	1	20.0	ND	118	77-127%	---	---	

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Darwin Thomas, Business Development Director



ANALYTICAL REPORT

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503-718-2323

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6720 SW Macadam Ave. Suite 125

Portland, OR 97219

Project: Gasco-CMMA/TCE Mon. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001F

Project Manager: John Renda

Report ID:

A3C0788 - 05 19 23 0603

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C1008 - EPA 5030C						Water						
Matrix Spike (23C1008-MS2)				Prepared: 03/25/23 16:51		Analyzed: 03/26/23 16:54						
QC Source Sample: Non-SDG (A3C0852-02)												
Methylene chloride	20.0	5.00	10.0	ug/L	1	20.0	ND	100	74-124%	---	---	
4-Methyl-2-pentanone (MiBK)	50.0	5.00	10.0	ug/L	1	40.0	ND	125	67-130%	---	---	
Methyl tert-butyl ether (MTBE)	21.5	0.500	1.00	ug/L	1	20.0	ND	108	71-124%	---	---	
Naphthalene	16.2	1.00	2.00	ug/L	1	20.0	ND	81	61-128%	---	---	
n-Propylbenzene	22.3	0.250	0.500	ug/L	1	20.0	ND	112	76-126%	---	---	
Styrene	23.3	0.500	1.00	ug/L	1	20.0	ND	116	78-123%	---	---	
1,1,1,2-Tetrachloroethane	21.0	0.200	0.400	ug/L	1	20.0	ND	105	78-124%	---	---	
1,1,2,2-Tetrachloroethane	22.3	0.250	0.500	ug/L	1	20.0	ND	112	71-121%	---	---	
Tetrachloroethene (PCE)	23.7	0.200	0.400	ug/L	1	20.0	1.05	113	74-129%	---	---	
Toluene	21.0	0.500	1.00	ug/L	1	20.0	ND	105	80-121%	---	---	
1,2,3-Trichlorobenzene	20.3	1.00	2.00	ug/L	1	20.0	ND	102	69-129%	---	---	
1,2,4-Trichlorobenzene	18.6	1.00	2.00	ug/L	1	20.0	ND	93	69-130%	---	---	
1,1,1-Trichloroethane	24.3	0.200	0.400	ug/L	1	20.0	ND	121	74-131%	---	---	
1,1,2-Trichloroethane	21.0	0.250	0.500	ug/L	1	20.0	ND	105	80-120%	---	---	
Trichloroethene (TCE)	21.6	0.200	0.400	ug/L	1	20.0	1.89	99	79-123%	---	---	
Trichlorofluoromethane	27.0	1.00	2.00	ug/L	1	20.0	ND	135	65-141%	---	---	
1,2,3-Trichloropropane	21.6	0.500	1.00	ug/L	1	20.0	ND	108	73-122%	---	---	
1,2,4-Trimethylbenzene	23.7	0.500	1.00	ug/L	1	20.0	ND	119	76-124%	---	---	
1,3,5-Trimethylbenzene	23.7	0.500	1.00	ug/L	1	20.0	ND	118	75-124%	---	---	
Vinyl chloride	23.9	0.200	0.400	ug/L	1	20.0	ND	120	58-137%	---	---	
m,p-Xylene	49.4	0.500	1.00	ug/L	1	40.0	ND	124	80-121%	---	---	Q-01
o-Xylene	22.8	0.250	0.500	ug/L	1	20.0	ND	114	78-122%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 95 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		98 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		94 %		80-120 %		"						

Matrix Spike Dup (23C1008-MSD1)

Prepared: 03/25/23 16:51 Analyzed: 03/26/23 16:09

QC Source Sample: GS-032123-45 (A3C0788-07)

EPA 8260D

Acetone	2250	500	1000	ug/L	50	2000	ND	112	39-160%	5	30%	
Acrylonitrile	1060	50.0	100	ug/L	50	1000	ND	106	63-135%	5	30%	
Benzene	13600	5.00	10.0	ug/L	50	1000	12400	126	79-120%	0.6	30%	Q-03, E
Bromobenzene	988	12.5	25.0	ug/L	50	1000	ND	99	80-120%	5	30%	

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Project Manager: John Renda

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A3C0788 - 05 19 23 0603

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C1008 - EPA 5030C						Water						
Matrix Spike Dup (23C1008-MSD1)			Prepared: 03/25/23 16:51 Analyzed: 03/26/23 16:09									
QC Source Sample: GS-032123-45 (A3C0788-07)												
Bromochloromethane	1220	25.0	50.0	ug/L	50	1000	ND	122	78-123%	3	30%	Q-54m
Bromodichloromethane	1150	25.0	50.0	ug/L	50	1000	ND	115	79-125%	3	30%	
Bromoform	1120	25.0	50.0	ug/L	50	1000	ND	112	66-130%	3	30%	
Bromomethane	1370	250	250	ug/L	50	1000	ND	137	53-141%	6	30%	
2-Butanone (MEK)	2250	250	500	ug/L	50	2000	ND	113	56-143%	6	30%	
n-Butylbenzene	1220	25.0	50.0	ug/L	50	1000	ND	122	75-128%	6	30%	Q-54o
sec-Butylbenzene	1260	25.0	50.0	ug/L	50	1000	ND	126	77-126%	6	30%	
tert-Butylbenzene	1220	25.0	50.0	ug/L	50	1000	ND	122	78-124%	7	30%	
Carbon disulfide	1170	250	500	ug/L	50	1000	ND	117	64-133%	3	30%	
Carbon tetrachloride	1280	25.0	50.0	ug/L	50	1000	ND	128	72-136%	2	30%	
Chlorobenzene	1060	12.5	25.0	ug/L	50	1000	ND	106	80-120%	3	30%	
Chloroethane	1500	250	250	ug/L	50	1000	ND	150	60-138%	10	30%	
Chloroform	1080	25.0	50.0	ug/L	50	1000	ND	108	79-124%	3	30%	
Chloromethane	1290	125	250	ug/L	50	1000	ND	129	50-139%	7	30%	
2-Chlorotoluene	1070	25.0	50.0	ug/L	50	1000	ND	107	79-122%	5	30%	
4-Chlorotoluene	1130	25.0	50.0	ug/L	50	1000	ND	113	78-122%	7	30%	
Dibromochloromethane	1100	25.0	50.0	ug/L	50	1000	ND	110	74-126%	2	30%	
1,2-Dibromo-3-chloropropane	1020	125	250	ug/L	50	1000	ND	102	62-128%	11	30%	
1,2-Dibromoethane (EDB)	1070	12.5	25.0	ug/L	50	1000	ND	107	77-121%	5	30%	
Dibromomethane	1060	25.0	50.0	ug/L	50	1000	ND	106	79-123%	4	30%	
1,2-Dichlorobenzene	1060	12.5	25.0	ug/L	50	1000	ND	106	80-120%	7	30%	
1,3-Dichlorobenzene	1090	12.5	25.0	ug/L	50	1000	ND	109	80-120%	6	30%	
1,4-Dichlorobenzene	986	12.5	25.0	ug/L	50	1000	ND	99	79-120%	4	30%	
Dichlorodifluoromethane	1440	25.0	50.0	ug/L	50	1000	ND	144	32-152%	5	30%	
1,1-Dichloroethane	1140	10.0	20.0	ug/L	50	1000	ND	114	77-125%	5	30%	
1,2-Dichloroethane (EDC)	1170	10.0	20.0	ug/L	50	1000	ND	117	73-128%	3	30%	
1,1-Dichloroethene	1240	10.0	20.0	ug/L	50	1000	ND	124	71-131%	5	30%	
cis-1,2-Dichloroethene	1110	10.0	20.0	ug/L	50	1000	ND	111	78-123%	5	30%	
trans-1,2-Dichloroethene	1120	10.0	20.0	ug/L	50	1000	ND	112	75-124%	5	30%	
1,2-Dichloropropane	1050	12.5	25.0	ug/L	50	1000	ND	105	78-122%	4	30%	
1,3-Dichloropropane	1100	25.0	50.0	ug/L	50	1000	ND	110	80-120%	5	30%	
2,2-Dichloropropane	865	50.0	50.0	ug/L	50	1000	ND	86	60-139%	2	30%	
1,1-Dichloropropene	1190	25.0	50.0	ug/L	50	1000	ND	119	79-125%	6	30%	
												Q-54v

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QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C1008 - EPA 5030C						Water						
Matrix Spike Dup (23C1008-MSD1)			Prepared: 03/25/23 16:51		Analyzed: 03/26/23 16:09							
QC Source Sample: GS-032123-45 (A3C0788-07)												
cis-1,3-Dichloropropene	946	25.0	50.0	ug/L	50	1000	ND	95	75-124%	5	30%	
trans-1,3-Dichloropropene	1170	25.0	50.0	ug/L	50	1000	ND	117	73-127%	4	30%	
Ethylbenzene	1380	12.5	25.0	ug/L	50	1000	196	118	79-121%	2	30%	
Hexachlorobutadiene	1140	125	250	ug/L	50	1000	ND	114	66-134%	9	30%	
2-Hexanone	2190	250	500	ug/L	50	2000	ND	109	57-139%	7	30%	
Isopropylbenzene	1210	25.0	50.0	ug/L	50	1000	ND	121	72-131%	4	30%	
4-Isopropyltoluene	1230	25.0	50.0	ug/L	50	1000	ND	123	77-127%	6	30%	
Methylene chloride	1030	250	500	ug/L	50	1000	ND	103	74-124%	4	30%	
4-Methyl-2-pentanone (MiBK)	2540	250	500	ug/L	50	2000	ND	127	67-130%	9	30%	
Methyl tert-butyl ether (MTBE)	1070	25.0	50.0	ug/L	50	1000	ND	107	71-124%	5	30%	
Naphthalene	1390	50.0	100	ug/L	50	1000	296	109	61-128%	11	30%	
n-Propylbenzene	1140	12.5	25.0	ug/L	50	1000	ND	114	76-126%	5	30%	
Styrene	1190	25.0	50.0	ug/L	50	1000	ND	119	78-123%	3	30%	
1,1,1,2-Tetrachloroethane	1050	10.0	20.0	ug/L	50	1000	ND	105	78-124%	2	30%	
1,1,2,2-Tetrachloroethane	1110	12.5	25.0	ug/L	50	1000	ND	111	71-121%	7	30%	
Tetrachloroethene (PCE)	1130	10.0	20.0	ug/L	50	1000	ND	113	74-129%	3	30%	
Toluene	1120	25.0	50.0	ug/L	50	1000	58.5	106	80-121%	3	30%	
1,2,3-Trichlorobenzene	1140	50.0	100	ug/L	50	1000	ND	114	69-129%	10	30%	
1,2,4-Trichlorobenzene	1030	50.0	100	ug/L	50	1000	ND	103	69-130%	12	30%	
1,1,1-Trichloroethane	1190	10.0	20.0	ug/L	50	1000	ND	119	74-131%	3	30%	
1,1,2-Trichloroethane	1050	12.5	25.0	ug/L	50	1000	ND	105	80-120%	4	30%	
Trichloroethene (TCE)	994	10.0	20.0	ug/L	50	1000	ND	99	79-123%	4	30%	
Trichlorofluoromethane	1340	50.0	100	ug/L	50	1000	ND	134	65-141%	2	30%	
1,2,3-Trichloropropane	1070	25.0	50.0	ug/L	50	1000	ND	107	73-122%	6	30%	
1,2,4-Trimethylbenzene	1250	25.0	50.0	ug/L	50	1000	ND	125	76-124%	7	30%	Q-01
1,3,5-Trimethylbenzene	1210	25.0	50.0	ug/L	50	1000	ND	121	75-124%	4	30%	
Vinyl chloride	1310	10.0	20.0	ug/L	50	1000	ND	131	58-137%	12	30%	
m,p-Xylene	2780	25.0	50.0	ug/L	50	2000	202	129	80-121%	3	30%	Q-01
o-Xylene	1340	12.5	25.0	ug/L	50	1000	116	123	78-122%	5	30%	Q-01
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 94 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		98 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		93 %		80-120 %		"						

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Page 70 of 135



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Anchor QEA, LLC

6720 SW Macadam Ave. Suite 125

Portland, OR 97219

Project: Gasco-CMMA/TCE Mon. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001F

Project Manager: John Renda

Report ID:

A3C0788 - 05 19 23 0603

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C1008 - EPA 5030C						Water						
Matrix Spike Dup (23C1008-MSD2)			Prepared: 03/25/23 16:51		Analyzed: 03/26/23 17:16							
QC Source Sample: Non-SDG (A3C0852-02)												
Acetone	50.2	10.0	20.0	ug/L	1	40.0	ND	98	39-160%	1	30%	
Acrylonitrile	21.5	1.00	2.00	ug/L	1	20.0	ND	107	63-135%	0.4	30%	
Benzene	21.3	0.100	0.200	ug/L	1	20.0	ND	106	79-120%	1	30%	
Bromobenzene	19.5	0.250	0.500	ug/L	1	20.0	ND	98	80-120%	1	30%	
Bromochloromethane	23.8	0.500	1.00	ug/L	1	20.0	ND	119	78-123%	4	30%	
Bromodichloromethane	22.4	0.500	1.00	ug/L	1	20.0	ND	112	79-125%	3	30%	
Bromoform	21.8	0.500	1.00	ug/L	1	20.0	ND	109	66-130%	2	30%	
Bromomethane	24.2	5.00	5.00	ug/L	1	20.0	ND	121	53-141%	5	30%	Q-54m
2-Butanone (MEK)	45.2	5.00	10.0	ug/L	1	40.0	ND	113	56-143%	0.6	30%	
n-Butylbenzene	22.7	0.500	1.00	ug/L	1	20.0	ND	113	75-128%	2	30%	
sec-Butylbenzene	24.4	0.500	1.00	ug/L	1	20.0	ND	122	77-126%	0.9	30%	
tert-Butylbenzene	23.5	0.500	1.00	ug/L	1	20.0	ND	118	78-124%	0.04	30%	
Carbon disulfide	23.2	5.00	10.0	ug/L	1	20.0	ND	116	64-133%	1	30%	
Carbon tetrachloride	25.2	0.500	1.00	ug/L	1	20.0	ND	126	72-136%	3	30%	
Chlorobenzene	20.8	0.250	0.500	ug/L	1	20.0	ND	104	80-120%	1	30%	
Chloroethane	27.6	5.00	5.00	ug/L	1	20.0	ND	138	60-138%	2	30%	Q-54o
Chloroform	21.2	0.500	1.00	ug/L	1	20.0	ND	106	79-124%	2	30%	
Chloromethane	25.6	2.50	5.00	ug/L	1	20.0	ND	128	50-139%	2	30%	
2-Chlorotoluene	21.3	0.500	1.00	ug/L	1	20.0	ND	106	79-122%	0.7	30%	
4-Chlorotoluene	22.4	0.500	1.00	ug/L	1	20.0	ND	112	78-122%	0.2	30%	
Dibromochloromethane	21.8	0.500	1.00	ug/L	1	20.0	ND	109	74-126%	2	30%	
1,2-Dibromo-3-chloropropane	19.1	2.50	5.00	ug/L	1	20.0	ND	95	62-128%	4	30%	
1,2-Dibromoethane (EDB)	20.9	0.250	0.500	ug/L	1	20.0	ND	105	77-121%	1	30%	
Dibromomethane	20.6	0.500	1.00	ug/L	1	20.0	ND	103	79-123%	1	30%	
1,2-Dichlorobenzene	21.8	0.250	0.500	ug/L	1	20.0	1.35	102	80-120%	2	30%	
1,3-Dichlorobenzene	21.2	0.250	0.500	ug/L	1	20.0	ND	106	80-120%	0.5	30%	
1,4-Dichlorobenzene	20.2	0.250	0.500	ug/L	1	20.0	0.960	96	79-120%	1	30%	
Dichlorodifluoromethane	27.9	0.500	1.00	ug/L	1	20.0	ND	140	32-152%	2	30%	
1,1-Dichloroethane	22.6	0.200	0.400	ug/L	1	20.0	ND	113	77-125%	1	30%	
1,2-Dichloroethane (EDC)	23.0	0.200	0.400	ug/L	1	20.0	ND	115	73-128%	3	30%	
1,1-Dichloroethene	24.4	0.200	0.400	ug/L	1	20.0	ND	122	71-131%	1	30%	
cis-1,2-Dichloroethene	22.3	0.200	0.400	ug/L	1	20.0	0.260	110	78-123%	1	30%	
trans-1,2-Dichloroethene	22.4	0.200	0.400	ug/L	1	20.0	ND	112	75-124%	1	30%	

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Darwin Thomas, Business Development Director

Page 71 of 135



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Anchor QEA, LLC

6720 SW Macadam Ave. Suite 125

Portland, OR 97219

Project: Gasco-CMMA/TCE Mon. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001F

Project Manager: John Renda

Report ID:

A3C0788 - 05 19 23 0603

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C1008 - EPA 5030C						Water						
Matrix Spike Dup (23C1008-MSD2)			Prepared: 03/25/23 16:51		Analyzed: 03/26/23 17:16							
QC Source Sample: Non-SDG (A3C0852-02)												
1,2-Dichloropropane	20.7	0.250	0.500	ug/L	1	20.0	ND	104	78-122%	1	30%	Q-54v
1,3-Dichloropropane	21.6	0.500	1.00	ug/L	1	20.0	ND	108	80-120%	0.3	30%	
2,2-Dichloropropane	16.5	1.00	1.00	ug/L	1	20.0	ND	82	60-139%	4	30%	
1,1-Dichloropropene	23.3	0.500	1.00	ug/L	1	20.0	ND	116	79-125%	1	30%	
cis-1,3-Dichloropropene	19.2	0.500	1.00	ug/L	1	20.0	ND	96	75-124%	0.3	30%	Q-54v
trans-1,3-Dichloropropene	23.4	0.500	1.00	ug/L	1	20.0	ND	117	73-127%	1	30%	
Ethylbenzene	22.7	0.250	0.500	ug/L	1	20.0	ND	113	79-121%	1	30%	
Hexachlorobutadiene	20.1	2.50	5.00	ug/L	1	20.0	ND	101	66-134%	7	30%	
2-Hexanone	44.2	5.00	10.0	ug/L	1	40.0	ND	110	57-139%	0.9	30%	Q-54v
Isopropylbenzene	23.7	0.500	1.00	ug/L	1	20.0	ND	118	72-131%	0.4	30%	
4-Isopropyltoluene	23.9	0.500	1.00	ug/L	1	20.0	ND	120	77-127%	2	30%	
Methylene chloride	19.9	5.00	10.0	ug/L	1	20.0	ND	99	74-124%	0.6	30%	
4-Methyl-2-pentanone (MiBK)	50.4	5.00	10.0	ug/L	1	40.0	ND	126	67-130%	0.7	30%	Q-54v
Methyl tert-butyl ether (MTBE)	21.4	0.500	1.00	ug/L	1	20.0	ND	107	71-124%	0.7	30%	
Naphthalene	16.9	1.00	2.00	ug/L	1	20.0	ND	84	61-128%	4	30%	
n-Propylbenzene	22.1	0.250	0.500	ug/L	1	20.0	ND	111	76-126%	0.9	30%	
Styrene	23.2	0.500	1.00	ug/L	1	20.0	ND	116	78-123%	0.3	30%	Q-54v
1,1,1,2-Tetrachloroethane	20.9	0.200	0.400	ug/L	1	20.0	ND	104	78-124%	0.5	30%	
1,1,2,2-Tetrachloroethane	21.6	0.250	0.500	ug/L	1	20.0	ND	108	71-121%	3	30%	
Tetrachloroethene (PCE)	23.4	0.200	0.400	ug/L	1	20.0	1.05	112	74-129%	1	30%	
Toluene	20.8	0.500	1.00	ug/L	1	20.0	ND	104	80-121%	0.9	30%	Q-54v
1,2,3-Trichlorobenzene	20.9	1.00	2.00	ug/L	1	20.0	ND	104	69-129%	3	30%	
1,2,4-Trichlorobenzene	19.4	1.00	2.00	ug/L	1	20.0	ND	97	69-130%	4	30%	
1,1,1-Trichloroethane	23.6	0.200	0.400	ug/L	1	20.0	ND	118	74-131%	3	30%	
1,1,2-Trichloroethane	20.4	0.250	0.500	ug/L	1	20.0	ND	102	80-120%	3	30%	Q-54v
Trichloroethene (TCE)	21.3	0.200	0.400	ug/L	1	20.0	1.89	97	79-123%	1	30%	
Trichlorofluoromethane	26.5	1.00	2.00	ug/L	1	20.0	ND	132	65-141%	2	30%	
1,2,3-Trichloropropane	21.1	0.500	1.00	ug/L	1	20.0	ND	105	73-122%	2	30%	
1,2,4-Trimethylbenzene	23.8	0.500	1.00	ug/L	1	20.0	ND	119	76-124%	0.2	30%	Q-54v
1,3,5-Trimethylbenzene	23.7	0.500	1.00	ug/L	1	20.0	ND	118	75-124%	0.2	30%	
Vinyl chloride	25.2	0.200	0.400	ug/L	1	20.0	ND	126	58-137%	5	30%	
m,p-Xylene	48.8	0.500	1.00	ug/L	1	40.0	ND	122	80-121%	1	30%	
o-Xylene	23.1	0.250	0.500	ug/L	1	20.0	ND	116	78-122%	2	30%	Q-01

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Page 72 of 135



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

Anchor QEA, LLC

6720 SW Macadam Ave. Suite 125
Portland, OR 97219

Project: Gasco-CMMA/TCE Mon. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001F

Project Manager: John Renda

Report ID:

A3C0788 - 05 19 23 0603

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C1008 - EPA 5030C							Water					
Matrix Spike Dup (23C1008-MSD2)			Prepared: 03/25/23 16:51 Analyzed: 03/26/23 17:16									
<u>QC Source Sample: Non-SDG (A3C0852-02)</u>												
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 94 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		98 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		95 %		80-120 %		"						

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Darwin Thomas, Business Development Director

**ANALYTICAL REPORT****Apex Laboratories, LLC**6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062**Anchor QEA, LLC**6720 SW Macadam Ave. Suite 125
Portland, OR 97219Project: **Gasco-CMMA/TCE Mon. Wells 1Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001F**Project Manager: **John Renda****Report ID:****A3C0788 - 05 19 23 0603****QUALITY CONTROL (QC) SAMPLE RESULTS****Volatile Organic Compounds by EPA 8260D**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C1023 - EPA 5030C						Water						
Blank (23C1023-BLK1)			Prepared: 03/27/23 10:00		Analyzed: 03/27/23 12:12							
EPA 8260D												
Acetone	ND	10.0	20.0	ug/L	1	---	---	---	---	---	---	
Acrylonitrile	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
Benzene	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
Bromobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Bromochloromethane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Bromoform	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Bromomethane	ND	5.00	5.00	ug/L	1	---	---	---	---	---	---	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	---	---	---	---	---	---	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Carbon disulfide	ND	5.00	10.0	ug/L	1	---	---	---	---	---	---	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Chlorobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Chloroethane	ND	5.00	5.00	ug/L	1	---	---	---	---	---	---	
Chloroform	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Chloromethane	ND	2.50	5.00	ug/L	1	---	---	---	---	---	---	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Dibromomethane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	

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ANALYTICAL REPORT

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Project Number: 000029-02.84 T-01.001F

Project Manager: John Renda

Report ID:

A3C0788 - 05 19 23 0603

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C1023 - EPA 5030C						Water						
Blank (23C1023-BLK1)						Prepared: 03/27/23 10:00 Analyzed: 03/27/23 12:12						
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Ethylbenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	---	---	---	---	---	---	
2-Hexanone	ND	5.00	10.0	ug/L	1	---	---	---	---	---	---	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Methylene chloride	ND	5.00	10.0	ug/L	1	---	---	---	---	---	---	
4-Methyl-2-pentanone (MiBK)	ND	10.0	10.0	ug/L	1	---	---	---	---	---	---	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Naphthalene	ND	2.00	2.00	ug/L	1	---	---	---	---	---	---	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Styrene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
Toluene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Vinyl chloride	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
m,p-Xylene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
o-Xylene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr) Recovery: 100 % Limits: 80-120 % Dilution: 1x												

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Darwin Thomas, Business Development Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Anchor QEA, LLC

6720 SW Macadam Ave. Suite 125

Portland, OR 97219

Project: Gasco-CMMA/TCE Mon. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001F

Project Manager: John Renda

Report ID:

A3C0788 - 05 19 23 0603

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C1023 - EPA 5030C						Water						
Blank (23C1023-BLK1)			Prepared: 03/27/23 10:00		Analyzed: 03/27/23 12:12							
Surr: Toluene-d8 (Surr)		Recovery: 100 %		Limits: 80-120 %		Dilution: 1x						
4-Bromofluorobenzene (Surr)		103 %		80-120 %		"						
LCS (23C1023-BS1)			Prepared: 03/27/23 10:00		Analyzed: 03/27/23 11:18							
EPA 8260D												
Acetone	37.1	10.0	20.0	ug/L	1	40.0	---	93	80-120%	---	---	
Acrylonitrile	19.3	1.00	2.00	ug/L	1	20.0	---	97	80-120%	---	---	
Benzene	19.3	0.100	0.200	ug/L	1	20.0	---	96	80-120%	---	---	
Bromobenzene	19.3	0.250	0.500	ug/L	1	20.0	---	96	80-120%	---	---	
Bromochloromethane	19.4	0.500	1.00	ug/L	1	20.0	---	97	80-120%	---	---	
Bromodichloromethane	21.2	0.500	1.00	ug/L	1	20.0	---	106	80-120%	---	---	
Bromoform	23.2	0.500	1.00	ug/L	1	20.0	---	116	80-120%	---	---	
Bromomethane	29.4	5.00	5.00	ug/L	1	20.0	---	147	80-120%	---	---	Q-56
2-Butanone (MEK)	35.3	5.00	10.0	ug/L	1	40.0	---	88	80-120%	---	---	
n-Butylbenzene	23.2	0.500	1.00	ug/L	1	20.0	---	116	80-120%	---	---	
sec-Butylbenzene	24.2	0.500	1.00	ug/L	1	20.0	---	121	80-120%	---	---	Q-56
tert-Butylbenzene	23.0	0.500	1.00	ug/L	1	20.0	---	115	80-120%	---	---	
Carbon disulfide	24.4	5.00	10.0	ug/L	1	20.0	---	122	80-120%	---	---	Q-56
Carbon tetrachloride	26.3	0.500	1.00	ug/L	1	20.0	---	132	80-120%	---	---	Q-56
Chlorobenzene	20.6	0.250	0.500	ug/L	1	20.0	---	103	80-120%	---	---	
Chloroethane	30.9	5.00	5.00	ug/L	1	20.0	---	155	80-120%	---	---	Q-56
Chloroform	20.3	0.500	1.00	ug/L	1	20.0	---	102	80-120%	---	---	
Chloromethane	26.1	2.50	5.00	ug/L	1	20.0	---	131	80-120%	---	---	Q-56
2-Chlorotoluene	20.6	0.500	1.00	ug/L	1	20.0	---	103	80-120%	---	---	
4-Chlorotoluene	22.0	0.500	1.00	ug/L	1	20.0	---	110	80-120%	---	---	
Dibromochloromethane	20.7	0.500	1.00	ug/L	1	20.0	---	103	80-120%	---	---	
1,2-Dibromo-3-chloropropane	18.9	2.50	5.00	ug/L	1	20.0	---	94	80-120%	---	---	
1,2-Dibromoethane (EDB)	19.0	0.250	0.500	ug/L	1	20.0	---	95	80-120%	---	---	
Dibromomethane	20.3	0.500	1.00	ug/L	1	20.0	---	101	80-120%	---	---	
1,2-Dichlorobenzene	20.5	0.250	0.500	ug/L	1	20.0	---	103	80-120%	---	---	
1,3-Dichlorobenzene	21.2	0.250	0.500	ug/L	1	20.0	---	106	80-120%	---	---	
1,4-Dichlorobenzene	19.6	0.250	0.500	ug/L	1	20.0	---	98	80-120%	---	---	
Dichlorodifluoromethane	29.8	0.500	1.00	ug/L	1	20.0	---	149	80-120%	---	---	Q-56
1,1-Dichloroethane	22.0	0.200	0.400	ug/L	1	20.0	---	110	80-120%	---	---	

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Darwin Thomas, Business Development Director



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Project Number: 000029-02.84 T-01.001F

Project Manager: John Renda

Report ID:

A3C0788 - 05 19 23 0603

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C1023 - EPA 5030C						Water						
LCS (23C1023-BS1)			Prepared: 03/27/23 10:00		Analyzed: 03/27/23 11:18							
1,2-Dichloroethane (EDC)	20.4	0.200	0.400	ug/L	1	20.0	---	102	80-120%	---	---	
1,1-Dichloroethene	24.6	0.200	0.400	ug/L	1	20.0	---	123	80-120%	---	---	Q-56
cis-1,2-Dichloroethene	20.3	0.200	0.400	ug/L	1	20.0	---	102	80-120%	---	---	
trans-1,2-Dichloroethene	19.8	0.200	0.400	ug/L	1	20.0	---	99	80-120%	---	---	
1,2-Dichloropropane	16.4	0.250	0.500	ug/L	1	20.0	---	82	80-120%	---	---	
1,3-Dichloropropane	16.8	0.500	1.00	ug/L	1	20.0	---	84	80-120%	---	---	
2,2-Dichloropropane	27.7	0.500	1.00	ug/L	1	20.0	---	138	80-120%	---	---	Q-56
1,1-Dichloropropene	22.0	0.500	1.00	ug/L	1	20.0	---	110	80-120%	---	---	
cis-1,3-Dichloropropene	18.2	0.500	1.00	ug/L	1	20.0	---	91	80-120%	---	---	
trans-1,3-Dichloropropene	20.6	0.500	1.00	ug/L	1	20.0	---	103	80-120%	---	---	
Ethylbenzene	21.9	0.250	0.500	ug/L	1	20.0	---	109	80-120%	---	---	
Hexachlorobutadiene	22.3	2.50	5.00	ug/L	1	20.0	---	111	80-120%	---	---	
2-Hexanone	35.6	5.00	10.0	ug/L	1	40.0	---	89	80-120%	---	---	
Isopropylbenzene	24.1	0.500	1.00	ug/L	1	20.0	---	121	80-120%	---	---	Q-56
4-Isopropyltoluene	23.9	0.500	1.00	ug/L	1	20.0	---	120	80-120%	---	---	
Methylene chloride	20.7	5.00	10.0	ug/L	1	20.0	---	103	80-120%	---	---	
4-Methyl-2-pentanone (MiBK)	31.2	10.0	10.0	ug/L	1	40.0	---	78	80-120%	---	---	Q-55
Methyl tert-butyl ether (MTBE)	21.3	0.500	1.00	ug/L	1	20.0	---	106	80-120%	---	---	
Naphthalene	15.8	2.00	2.00	ug/L	1	20.0	---	79	80-120%	---	---	Q-55
n-Propylbenzene	22.0	0.250	0.500	ug/L	1	20.0	---	110	80-120%	---	---	
Styrene	23.8	0.500	1.00	ug/L	1	20.0	---	119	80-120%	---	---	
1,1,1,2-Tetrachloroethane	21.2	0.200	0.400	ug/L	1	20.0	---	106	80-120%	---	---	
1,1,2,2-Tetrachloroethane	21.1	0.250	0.500	ug/L	1	20.0	---	105	80-120%	---	---	
Tetrachloroethene (PCE)	21.8	0.200	0.400	ug/L	1	20.0	---	109	80-120%	---	---	
Toluene	17.2	0.500	1.00	ug/L	1	20.0	---	86	80-120%	---	---	
1,2,3-Trichlorobenzene	20.9	1.00	2.00	ug/L	1	20.0	---	104	80-120%	---	---	
1,2,4-Trichlorobenzene	19.2	1.00	2.00	ug/L	1	20.0	---	96	80-120%	---	---	
1,1,1-Trichloroethane	24.0	0.200	0.400	ug/L	1	20.0	---	120	80-120%	---	---	
1,1,2-Trichloroethane	18.3	0.250	0.500	ug/L	1	20.0	---	92	80-120%	---	---	
Trichloroethene (TCE)	20.2	0.200	0.400	ug/L	1	20.0	---	101	80-120%	---	---	
Trichlorofluoromethane	28.7	1.00	2.00	ug/L	1	20.0	---	143	80-120%	---	---	Q-56
1,2,3-Trichloropropane	21.0	0.500	1.00	ug/L	1	20.0	---	105	80-120%	---	---	
1,2,4-Trimethylbenzene	23.7	0.500	1.00	ug/L	1	20.0	---	118	80-120%	---	---	
1,3,5-Trimethylbenzene	23.5	0.500	1.00	ug/L	1	20.0	---	118	80-120%	---	---	

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Darwin Thomas, Business Development Director



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Project Number: 000029-02.84 T-01.001F

Project Manager: John Renda

Report ID:

A3C0788 - 05 19 23 0603

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C1023 - EPA 5030C												
Water												
LCS (23C1023-BS1)			Prepared: 03/27/23 10:00		Analyzed: 03/27/23 11:18							
Vinyl chloride	26.1	0.200	0.400	ug/L	1	20.0	---	130	80-120%	---	---	Q-56
m,p-Xylene	48.8	0.500	1.00	ug/L	1	40.0	---	122	80-120%	---	---	Q-56
o-Xylene	22.9	0.250	0.500	ug/L	1	20.0	---	114	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 96 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		86 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		93 %		80-120 %		"						
Duplicate (23C1023-DUP1)												
QC Source Sample: Non-SDG (A3C0831-01)												
Acetone	ND	20.0	20.0	ug/L	1	---	ND	---	---	---	30%	
Acrylonitrile	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	30%	
Benzene	ND	0.100	0.200	ug/L	1	---	ND	---	---	---	30%	
Bromobenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Bromochloromethane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Bromoform	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Bromomethane	ND	5.00	5.00	ug/L	1	---	ND	---	---	---	30%	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	---	ND	---	---	---	30%	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Carbon disulfide	ND	5.00	10.0	ug/L	1	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Chlorobenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Chloroethane	ND	5.00	5.00	ug/L	1	---	ND	---	---	---	30%	
Chloroform	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Chloromethane	ND	2.50	5.00	ug/L	1	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Dibromomethane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	

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Darwin Thomas, Business Development Director



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Project Number: 000029-02.84 T-01.001F

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A3C0788 - 05 19 23 0603

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C1023 - EPA 5030C						Water						
Duplicate (23C1023-DUP1)			Prepared: 03/27/23 10:00		Analyzed: 03/27/23 16:17							
QC Source Sample: Non-SDG (A3C0831-01)												
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Ethylbenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	---	ND	---	---	---	30%	
2-Hexanone	ND	5.00	10.0	ug/L	1	---	ND	---	---	---	30%	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Methylene chloride	ND	5.00	10.0	ug/L	1	---	ND	---	---	---	30%	
4-Methyl-2-pentanone (MiBK)	ND	10.0	10.0	ug/L	1	---	ND	---	---	---	30%	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Naphthalene	ND	2.00	2.00	ug/L	1	---	ND	---	---	---	30%	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Styrene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
Toluene	0.700	0.500	1.00	ug/L	1	---	0.720	---	---	3	30%	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	

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QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C1023 - EPA 5030C						Water						
Duplicate (23C1023-DUP1)			Prepared: 03/27/23 10:00		Analyzed: 03/27/23 16:17							
QC Source Sample: Non-SDG (A3C0831-01)												
Trichloroethene (TCE)	0.210	0.200	0.400	ug/L	1	---	0.210	---	---	0	30%	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
Vinyl chloride	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%	
m,p-Xylene	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	30%	
o-Xylene	ND	0.250	0.500	ug/L	1	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 96 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		102 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		99 %		80-120 %		"						
Matrix Spike (23C1023-MS1)						Prepared: 03/27/23 10:00 Analyzed: 03/27/23 20:45						
QC Source Sample: GS-032123-45 (A3C0788-07RE1)												
EPA 8260D												
Acetone	20900	5000	10000	ug/L	500	20000	ND	105	39-160%	---	---	
Acrylonitrile	10800	500	1000	ug/L	500	10000	ND	108	63-135%	---	---	
Benzene	24600	50.0	100	ug/L	500	10000	13500	111	79-120%	---	---	
Bromobenzene	9860	125	250	ug/L	500	10000	ND	99	80-120%	---	---	
Bromochloromethane	12200	250	500	ug/L	500	10000	ND	122	78-123%	---	---	
Bromodichloromethane	11400	250	500	ug/L	500	10000	ND	114	79-125%	---	---	
Bromoform	11600	250	500	ug/L	500	10000	ND	116	66-130%	---	---	
Bromomethane	14100	2500	2500	ug/L	500	10000	ND	141	53-141%	---	---	Q-54i
2-Butanone (MEK)	22900	2500	5000	ug/L	500	20000	ND	115	56-143%	---	---	
n-Butylbenzene	12200	250	500	ug/L	500	10000	ND	122	75-128%	---	---	
sec-Butylbenzene	12600	250	500	ug/L	500	10000	ND	126	77-126%	---	---	Q-54
tert-Butylbenzene	12000	250	500	ug/L	500	10000	ND	120	78-124%	---	---	
Carbon disulfide	11700	2500	5000	ug/L	500	10000	ND	117	64-133%	---	---	Q-54f
Carbon tetrachloride	13100	250	500	ug/L	500	10000	ND	131	72-136%	---	---	Q-54c
Chlorobenzene	10600	125	250	ug/L	500	10000	ND	106	80-120%	---	---	
Chloroethane	14000	2500	2500	ug/L	500	10000	ND	140	60-138%	---	---	Q-54l
Chloroform	10800	250	500	ug/L	500	10000	ND	108	79-124%	---	---	
Chloromethane	11800	1250	2500	ug/L	500	10000	ND	118	50-139%	---	---	Q-54b

Apex Laboratories

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Darwin Thomas, Business Development Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Anchor QEA, LLC

6720 SW Macadam Ave. Suite 125

Portland, OR 97219

Project: Gasco-CMMA/TCE Mon. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001F

Project Manager: John Renda

Report ID:

A3C0788 - 05 19 23 0603

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C1023 - EPA 5030C						Water						
Matrix Spike (23C1023-MS1)			Prepared: 03/27/23 10:00			Analyzed: 03/27/23 20:45						
QC Source Sample: GS-032123-45 (A3C0788-07RE1)												
2-Chlorotoluene	10700	250	500	ug/L	500	10000	ND	107	79-122%	---	---	
4-Chlorotoluene	11300	250	500	ug/L	500	10000	ND	113	78-122%	---	---	
Dibromochloromethane	11400	250	500	ug/L	500	10000	ND	114	74-126%	---	---	
1,2-Dibromo-3-chloropropane	9940	1250	2500	ug/L	500	10000	ND	99	62-128%	---	---	
1,2-Dibromoethane (EDB)	10800	125	250	ug/L	500	10000	ND	108	77-121%	---	---	
Dibromomethane	10600	250	500	ug/L	500	10000	ND	106	79-123%	---	---	
1,2-Dichlorobenzene	10500	125	250	ug/L	500	10000	ND	105	80-120%	---	---	
1,3-Dichlorobenzene	10700	125	250	ug/L	500	10000	ND	107	80-120%	---	---	
1,4-Dichlorobenzene	10000	125	250	ug/L	500	10000	ND	100	79-120%	---	---	
Dichlorodifluoromethane	14100	250	500	ug/L	500	10000	ND	141	32-152%	---	---	Q-54j
1,1-Dichloroethane	11200	100	200	ug/L	500	10000	ND	112	77-125%	---	---	
1,2-Dichloroethane (EDC)	11900	100	200	ug/L	500	10000	ND	119	73-128%	---	---	
1,1-Dichloroethene	12000	100	200	ug/L	500	10000	ND	120	71-131%	---	---	Q-54k
cis-1,2-Dichloroethene	10900	100	200	ug/L	500	10000	ND	109	78-123%	---	---	
trans-1,2-Dichloroethene	10900	100	200	ug/L	500	10000	ND	109	75-124%	---	---	
1,2-Dichloropropane	10300	125	250	ug/L	500	10000	ND	103	78-122%	---	---	
1,3-Dichloropropane	10900	250	500	ug/L	500	10000	ND	109	80-120%	---	---	
2,2-Dichloropropane	12200	250	500	ug/L	500	10000	ND	122	60-139%	---	---	Q-54e
1,1-Dichloropropene	11700	250	500	ug/L	500	10000	ND	117	79-125%	---	---	
cis-1,3-Dichloropropene	10900	250	500	ug/L	500	10000	ND	109	75-124%	---	---	
trans-1,3-Dichloropropene	12500	250	500	ug/L	500	10000	ND	125	73-127%	---	---	
Ethylbenzene	11800	125	250	ug/L	500	10000	195	116	79-121%	---	---	
Hexachlorobutadiene	11300	1250	2500	ug/L	500	10000	ND	113	66-134%	---	---	
2-Hexanone	22300	2500	5000	ug/L	500	20000	ND	112	57-139%	---	---	
Isopropylbenzene	12200	250	500	ug/L	500	10000	ND	122	72-131%	---	---	Q-54
4-Isopropyltoluene	12400	250	500	ug/L	500	10000	ND	124	77-127%	---	---	
Methylene chloride	10000	2500	5000	ug/L	500	10000	ND	100	74-124%	---	---	
4-Methyl-2-pentanone (MiBK)	24800	5000	5000	ug/L	500	20000	ND	124	67-130%	---	---	Q-54v
Methyl tert-butyl ether (MTBE)	10700	250	500	ug/L	500	10000	ND	107	71-124%	---	---	
Naphthalene	8780	1000	1000	ug/L	500	10000	ND	88	61-128%	---	---	Q-54s
n-Propylbenzene	11400	125	250	ug/L	500	10000	ND	114	76-126%	---	---	
Styrene	12100	250	500	ug/L	500	10000	ND	121	78-123%	---	---	
1,1,1,2-Tetrachloroethane	10800	100	200	ug/L	500	10000	ND	108	78-124%	---	---	

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Darwin Thomas, Business Development Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Anchor QEA, LLC

6720 SW Macadam Ave. Suite 125

Portland, OR 97219

Project: Gasco-CMMA/TCE Mon. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001F

Project Manager: John Renda

Report ID:

A3C0788 - 05 19 23 0603

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C1023 - EPA 5030C						Water						
Matrix Spike (23C1023-MS1)			Prepared: 03/27/23 10:00 Analyzed: 03/27/23 20:45									
QC Source Sample: GS-032123-45 (A3C0788-07RE1)												
1,1,2,2-Tetrachloroethane	11300	125	250	ug/L	500	10000	ND	113	71-121%	---	---	
Tetrachloroethene (PCE)	11600	100	200	ug/L	500	10000	ND	116	74-129%	---	---	
Toluene	10600	250	500	ug/L	500	10000	ND	106	80-121%	---	---	
1,2,3-Trichlorobenzene	11000	500	1000	ug/L	500	10000	ND	110	69-129%	---	---	
1,2,4-Trichlorobenzene	10100	500	1000	ug/L	500	10000	ND	101	69-130%	---	---	
1,1,1-Trichloroethane	11900	100	200	ug/L	500	10000	ND	119	74-131%	---	---	
1,1,2-Trichloroethane	10800	125	250	ug/L	500	10000	ND	108	80-120%	---	---	
Trichloroethene (TCE)	9790	100	200	ug/L	500	10000	ND	98	79-123%	---	---	
Trichlorofluoromethane	13500	500	1000	ug/L	500	10000	ND	135	65-141%	---	---	Q-54h
1,2,3-Trichloropropane	10900	250	500	ug/L	500	10000	ND	109	73-122%	---	---	
1,2,4-Trimethylbenzene	12200	250	500	ug/L	500	10000	ND	122	76-124%	---	---	
1,3,5-Trimethylbenzene	12100	250	500	ug/L	500	10000	ND	121	75-124%	---	---	
Vinyl chloride	11900	100	200	ug/L	500	10000	ND	119	58-137%	---	---	Q-54a
m,p-Xylene	25600	250	500	ug/L	500	20000	ND	128	80-121%	---	---	Q-54f
o-Xylene	11700	125	250	ug/L	500	10000	ND	117	78-122%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 93 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		99 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		93 %		80-120 %		"						

Matrix Spike Dup (23C1023-MSD1)

Prepared: 03/27/23 10:00 Analyzed: 03/27/23 21:07

QC Source Sample: GS-032123-45 (A3C0788-07RE1)

EPA 8260D

Acetone	22900	5000	10000	ug/L	500	20000	ND	115	39-160%	9	30%	
Acrylonitrile	10900	500	1000	ug/L	500	10000	ND	109	63-135%	1	30%	
Benzene	24100	50.0	100	ug/L	500	10000	13500	106	79-120%	2	30%	
Bromobenzene	9940	125	250	ug/L	500	10000	ND	99	80-120%	0.9	30%	
Bromochloromethane	12200	250	500	ug/L	500	10000	ND	122	78-123%	0.8	30%	
Bromodichloromethane	11300	250	500	ug/L	500	10000	ND	113	79-125%	1	30%	
Bromoform	11400	250	500	ug/L	500	10000	ND	114	66-130%	2	30%	
Bromomethane	13400	2500	2500	ug/L	500	10000	ND	134	53-141%	5	30%	Q-54i
2-Butanone (MEK)	23400	2500	5000	ug/L	500	20000	ND	117	56-143%	2	30%	
n-Butylbenzene	12200	250	500	ug/L	500	10000	ND	122	75-128%	0.2	30%	
sec-Butylbenzene	12700	250	500	ug/L	500	10000	ND	127	77-126%	0.8	30%	Q-54

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Darwin Thomas, Business Development Director



ANALYTICAL REPORT

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6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Anchor QEA, LLC

6720 SW Macadam Ave. Suite 125

Portland, OR 97219

Project: Gasco-CMMA/TCE Mon. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001F

Project Manager: John Renda

Report ID:

A3C0788 - 05 19 23 0603

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C1023 - EPA 5030C						Water						
Matrix Spike Dup (23C1023-MSD1)			Prepared: 03/27/23 10:00		Analyzed: 03/27/23 21:07							
QC Source Sample: GS-032123-45 (A3C0788-07RE1)												
tert-Butylbenzene	12200	250	500	ug/L	500	10000	ND	122	78-124%	2	30%	
Carbon disulfide	11700	2500	5000	ug/L	500	10000	ND	117	64-133%	0.1	30%	Q-54f
Carbon tetrachloride	12600	250	500	ug/L	500	10000	ND	126	72-136%	4	30%	Q-54c
Chlorobenzene	10700	125	250	ug/L	500	10000	ND	107	80-120%	0.4	30%	
Chloroethane	13400	2500	2500	ug/L	500	10000	ND	134	60-138%	4	30%	Q-54l
Chloroform	10600	250	500	ug/L	500	10000	ND	106	79-124%	1	30%	
Chloromethane	12400	1250	2500	ug/L	500	10000	ND	124	50-139%	5	30%	Q-54b
2-Chlorotoluene	10900	250	500	ug/L	500	10000	ND	109	79-122%	1	30%	
4-Chlorotoluene	11300	250	500	ug/L	500	10000	ND	113	78-122%	0.5	30%	
Dibromochloromethane	11300	250	500	ug/L	500	10000	ND	113	74-126%	2	30%	
1,2-Dibromo-3-chloropropane	10000	1250	2500	ug/L	500	10000	ND	100	62-128%	1	30%	
1,2-Dibromoethane (EDB)	10800	125	250	ug/L	500	10000	ND	108	77-121%	0.8	30%	
Dibromomethane	10600	250	500	ug/L	500	10000	ND	106	79-123%	0.4	30%	
1,2-Dichlorobenzene	10500	125	250	ug/L	500	10000	ND	105	80-120%	0.3	30%	
1,3-Dichlorobenzene	10800	125	250	ug/L	500	10000	ND	108	80-120%	0.4	30%	
1,4-Dichlorobenzene	10100	125	250	ug/L	500	10000	ND	101	79-120%	0.8	30%	
Dichlorodifluoromethane	13700	250	500	ug/L	500	10000	ND	137	32-152%	3	30%	Q-54j
1,1-Dichloroethane	11300	100	200	ug/L	500	10000	ND	113	77-125%	0.9	30%	
1,2-Dichloroethane (EDC)	11800	100	200	ug/L	500	10000	ND	118	73-128%	1	30%	
1,1-Dichloroethene	12200	100	200	ug/L	500	10000	ND	122	71-131%	1	30%	Q-54k
cis-1,2-Dichloroethene	11100	100	200	ug/L	500	10000	ND	111	78-123%	2	30%	
trans-1,2-Dichloroethene	11100	100	200	ug/L	500	10000	ND	111	75-124%	2	30%	
1,2-Dichloropropane	10300	125	250	ug/L	500	10000	ND	103	78-122%	0.2	30%	
1,3-Dichloropropane	11200	250	500	ug/L	500	10000	ND	112	80-120%	2	30%	
2,2-Dichloropropane	11900	250	500	ug/L	500	10000	ND	119	60-139%	3	30%	Q-54e
1,1-Dichloropropene	11700	250	500	ug/L	500	10000	ND	117	79-125%	0.3	30%	
cis-1,3-Dichloropropene	11000	250	500	ug/L	500	10000	ND	110	75-124%	1	30%	
trans-1,3-Dichloropropene	12600	250	500	ug/L	500	10000	ND	126	73-127%	0.8	30%	
Ethylbenzene	11800	125	250	ug/L	500	10000	195	116	79-121%	0.3	30%	
Hexachlorobutadiene	11700	1250	2500	ug/L	500	10000	ND	117	66-134%	3	30%	
2-Hexanone	23600	2500	5000	ug/L	500	20000	ND	118	57-139%	5	30%	
Isopropylbenzene	12200	250	500	ug/L	500	10000	ND	122	72-131%	0.4	30%	Q-54
4-Isopropyltoluene	12400	250	500	ug/L	500	10000	ND	124	77-127%	0.6	30%	

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Darwin Thomas, Business Development Director

Page 83 of 135



ANALYTICAL REPORT

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Project Manager: John Renda

Report ID:

A3C0788 - 05 19 23 0603

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C1023 - EPA 5030C						Water						
Matrix Spike Dup (23C1023-MSD1)			Prepared: 03/27/23 10:00 Analyzed: 03/27/23 21:07									
QC Source Sample: GS-032123-45 (A3C0788-07RE1)												
Methylene chloride	10100	2500	5000	ug/L	500	10000	ND	101	74-124%	0.7	30%	
4-Methyl-2-pentanone (MiBK)	26100	5000	5000	ug/L	500	20000	ND	131	67-130%	5	30%	Q-54v
Methyl tert-butyl ether (MTBE)	10800	250	500	ug/L	500	10000	ND	108	71-124%	1	30%	
Naphthalene	9040	1000	1000	ug/L	500	10000	ND	90	61-128%	3	30%	Q-54s
n-Propylbenzene	11400	125	250	ug/L	500	10000	ND	114	76-126%	0.2	30%	
Styrene	12000	250	500	ug/L	500	10000	ND	120	78-123%	0.8	30%	
1,1,1,2-Tetrachloroethane	10600	100	200	ug/L	500	10000	ND	106	78-124%	1	30%	
1,1,2,2-Tetrachloroethane	11200	125	250	ug/L	500	10000	ND	112	71-121%	1	30%	
Tetrachloroethene (PCE)	11600	100	200	ug/L	500	10000	ND	116	74-129%	0.3	30%	
Toluene	10600	250	500	ug/L	500	10000	ND	106	80-121%	0.09	30%	
1,2,3-Trichlorobenzene	11000	500	1000	ug/L	500	10000	ND	110	69-129%	0.05	30%	
1,2,4-Trichlorobenzene	10200	500	1000	ug/L	500	10000	ND	102	69-130%	1	30%	
1,1,1-Trichloroethane	11800	100	200	ug/L	500	10000	ND	118	74-131%	0.6	30%	
1,1,2-Trichloroethane	10700	125	250	ug/L	500	10000	ND	107	80-120%	0.7	30%	
Trichloroethene (TCE)	9850	100	200	ug/L	500	10000	ND	98	79-123%	0.6	30%	
Trichlorofluoromethane	13200	500	1000	ug/L	500	10000	ND	132	65-141%	3	30%	Q-54h
1,2,3-Trichloropropane	11000	250	500	ug/L	500	10000	ND	110	73-122%	1	30%	
1,2,4-Trimethylbenzene	12200	250	500	ug/L	500	10000	ND	122	76-124%	0.6	30%	
1,3,5-Trimethylbenzene	12100	250	500	ug/L	500	10000	ND	121	75-124%	0.4	30%	
Vinyl chloride	12300	100	200	ug/L	500	10000	ND	123	58-137%	3	30%	Q-54a
m,p-Xylene	25500	250	500	ug/L	500	20000	ND	127	80-121%	0.4	30%	Q-54f
o-Xylene	11900	125	250	ug/L	500	10000	ND	119	78-122%	1	30%	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 92 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		98 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		93 %		80-120 %		"						

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Project Manager: John Renda

Report ID:

A3C0788 - 05 19 23 0603

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C1041 - EPA 5030C						Water						
Blank (23C1041-BLK1)				Prepared: 03/27/23 14:13		Analyzed: 03/27/23 16:30						
EPA 8260D												
Acetone	ND	10.0	20.0	ug/L	1	---	---	---	---	---	---	
Acrylonitrile	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
Benzene	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
Bromobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Bromochloromethane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Bromoform	ND	1.00	1.00	ug/L	1	---	---	---	---	---	---	
Bromomethane	ND	5.00	5.00	ug/L	1	---	---	---	---	---	---	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	---	---	---	---	---	---	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Carbon disulfide	ND	5.00	10.0	ug/L	1	---	---	---	---	---	---	
Carbon tetrachloride	ND	1.00	1.00	ug/L	1	---	---	---	---	---	---	
Chlorobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Chloroethane	ND	5.00	5.00	ug/L	1	---	---	---	---	---	---	
Chloroform	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Chloromethane	ND	2.50	5.00	ug/L	1	---	---	---	---	---	---	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Dibromochloromethane	ND	1.00	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	5.00	5.00	ug/L	1	---	---	---	---	---	---	Q-54w
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Dibromomethane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	

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Darwin Thomas, Business Development Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Anchor QEA, LLC

6720 SW Macadam Ave. Suite 125

Portland, OR 97219

Project: Gasco-CMMA/TCE Mon. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001F

Project Manager: John Renda

Report ID:

A3C0788 - 05 19 23 0603

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C1041 - EPA 5030C						Water						
Blank (23C1041-BLK1)						Prepared: 03/27/23 14:13 Analyzed: 03/27/23 16:30						
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
2,2-Dichloropropane	ND	1.00	1.00	ug/L	1	---	---	---	---	---	---	Q-54x
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	1.00	1.00	ug/L	1	---	---	---	---	---	---	Q-54u
Ethylbenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	---	---	---	---	---	---	
2-Hexanone	ND	5.00	10.0	ug/L	1	---	---	---	---	---	---	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Methylene chloride	ND	5.00	10.0	ug/L	1	---	---	---	---	---	---	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	---	---	---	---	---	---	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Naphthalene	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Styrene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
Toluene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	0.400	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Vinyl chloride	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
m,p-Xylene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
o-Xylene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr) Recovery: 98 % Limits: 80-120 % Dilution: 1x												

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Darwin Thomas, Business Development Director



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Project Number: 000029-02.84 T-01.001F

Project Manager: John Renda

Report ID:

A3C0788 - 05 19 23 0603

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C1041 - EPA 5030C						Water						
Blank (23C1041-BLK1)				Prepared: 03/27/23 14:13		Analyzed: 03/27/23 16:30						
Surr: Toluene-d8 (Surr)		Recovery: 100 %		Limits: 80-120 %		Dilution: 1x						
4-Bromofluorobenzene (Surr)		108 %		80-120 %		"						
LCS (23C1041-BS1)				Prepared: 03/27/23 14:13		Analyzed: 03/27/23 14:37						
EPA 8260D												
Acetone	34.8	10.0	20.0	ug/L	1	40.0	---	87	80-120%	---	---	
Acrylonitrile	18.6	1.00	2.00	ug/L	1	20.0	---	93	80-120%	---	---	
Benzene	19.3	0.100	0.200	ug/L	1	20.0	---	96	80-120%	---	---	
Bromobenzene	19.3	0.250	0.500	ug/L	1	20.0	---	97	80-120%	---	---	
Bromochloromethane	18.5	0.500	1.00	ug/L	1	20.0	---	93	80-120%	---	---	
Bromodichloromethane	20.6	0.500	1.00	ug/L	1	20.0	---	103	80-120%	---	---	
Bromoform	14.1	1.00	1.00	ug/L	1	20.0	---	71	80-120%	---	---	Q-55
Bromomethane	21.0	5.00	5.00	ug/L	1	20.0	---	105	80-120%	---	---	
2-Butanone (MEK)	39.5	5.00	10.0	ug/L	1	40.0	---	99	80-120%	---	---	
n-Butylbenzene	23.2	0.500	1.00	ug/L	1	20.0	---	116	80-120%	---	---	
sec-Butylbenzene	21.9	0.500	1.00	ug/L	1	20.0	---	109	80-120%	---	---	
tert-Butylbenzene	20.2	0.500	1.00	ug/L	1	20.0	---	101	80-120%	---	---	
Carbon disulfide	20.3	5.00	10.0	ug/L	1	20.0	---	102	80-120%	---	---	
Carbon tetrachloride	14.7	1.00	1.00	ug/L	1	20.0	---	73	80-120%	---	---	Q-55
Chlorobenzene	19.7	0.250	0.500	ug/L	1	20.0	---	98	80-120%	---	---	
Chloroethane	19.2	5.00	5.00	ug/L	1	20.0	---	96	80-120%	---	---	
Chloroform	19.8	0.500	1.00	ug/L	1	20.0	---	99	80-120%	---	---	
Chloromethane	18.9	2.50	5.00	ug/L	1	20.0	---	95	80-120%	---	---	
2-Chlorotoluene	19.9	0.500	1.00	ug/L	1	20.0	---	99	80-120%	---	---	
4-Chlorotoluene	19.6	0.500	1.00	ug/L	1	20.0	---	98	80-120%	---	---	
Dibromochloromethane	15.6	1.00	1.00	ug/L	1	20.0	---	78	80-120%	---	---	Q-55
1,2-Dibromo-3-chloropropane	12.0	5.00	5.00	ug/L	1	20.0	---	60	80-120%	---	---	Q-54w
1,2-Dibromoethane (EDB)	17.4	0.250	0.500	ug/L	1	20.0	---	87	80-120%	---	---	
Dibromomethane	21.7	0.500	1.00	ug/L	1	20.0	---	108	80-120%	---	---	
1,2-Dichlorobenzene	20.8	0.250	0.500	ug/L	1	20.0	---	104	80-120%	---	---	
1,3-Dichlorobenzene	20.6	0.250	0.500	ug/L	1	20.0	---	103	80-120%	---	---	
1,4-Dichlorobenzene	19.5	0.250	0.500	ug/L	1	20.0	---	98	80-120%	---	---	
Dichlorodifluoromethane	21.7	0.500	1.00	ug/L	1	20.0	---	108	80-120%	---	---	
1,1-Dichloroethane	19.6	0.200	0.400	ug/L	1	20.0	---	98	80-120%	---	---	

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Project Manager: John Renda

Report ID:

A3C0788 - 05 19 23 0603

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C1041 - EPA 5030C						Water						
LCS (23C1041-BS1)						Prepared: 03/27/23 14:13 Analyzed: 03/27/23 14:37						
1,2-Dichloroethane (EDC)	20.1	0.200	0.400	ug/L	1	20.0	---	100	80-120%	---	---	
1,1-Dichloroethene	19.9	0.200	0.400	ug/L	1	20.0	---	99	80-120%	---	---	
cis-1,2-Dichloroethene	19.5	0.200	0.400	ug/L	1	20.0	---	98	80-120%	---	---	
trans-1,2-Dichloroethene	19.8	0.200	0.400	ug/L	1	20.0	---	99	80-120%	---	---	
1,2-Dichloropropane	18.7	0.250	0.500	ug/L	1	20.0	---	93	80-120%	---	---	
1,3-Dichloropropane	20.3	0.500	1.00	ug/L	1	20.0	---	101	80-120%	---	---	
2,2-Dichloropropane	10.7	1.00	1.00	ug/L	1	20.0	---	53	80-120%	---	---	Q-54x
1,1-Dichloropropene	21.0	0.500	1.00	ug/L	1	20.0	---	105	80-120%	---	---	
cis-1,3-Dichloropropene	16.4	0.500	1.00	ug/L	1	20.0	---	82	80-120%	---	---	
trans-1,3-Dichloropropene	12.7	1.00	1.00	ug/L	1	20.0	---	63	80-120%	---	---	Q-54u
Ethylbenzene	20.6	0.250	0.500	ug/L	1	20.0	---	103	80-120%	---	---	
Hexachlorobutadiene	23.7	2.50	5.00	ug/L	1	20.0	---	118	80-120%	---	---	
2-Hexanone	41.6	5.00	10.0	ug/L	1	40.0	---	104	80-120%	---	---	
Isopropylbenzene	21.5	0.500	1.00	ug/L	1	20.0	---	107	80-120%	---	---	
4-Isopropyltoluene	22.7	0.500	1.00	ug/L	1	20.0	---	113	80-120%	---	---	
Methylene chloride	18.6	5.00	10.0	ug/L	1	20.0	---	93	80-120%	---	---	
4-Methyl-2-pentanone (MiBK)	40.0	5.00	10.0	ug/L	1	40.0	---	100	80-120%	---	---	
Methyl tert-butyl ether (MTBE)	16.4	0.500	1.00	ug/L	1	20.0	---	82	80-120%	---	---	
Naphthalene	18.7	1.00	2.00	ug/L	1	20.0	---	94	80-120%	---	---	
n-Propylbenzene	20.0	0.250	0.500	ug/L	1	20.0	---	100	80-120%	---	---	
Styrene	21.5	0.500	1.00	ug/L	1	20.0	---	108	80-120%	---	---	
1,1,1,2-Tetrachloroethane	16.3	0.200	0.400	ug/L	1	20.0	---	81	80-120%	---	---	
1,1,2,2-Tetrachloroethane	19.3	0.250	0.500	ug/L	1	20.0	---	97	80-120%	---	---	
Tetrachloroethene (PCE)	21.2	0.200	0.400	ug/L	1	20.0	---	106	80-120%	---	---	
Toluene	18.6	0.500	1.00	ug/L	1	20.0	---	93	80-120%	---	---	
1,2,3-Trichlorobenzene	19.8	1.00	2.00	ug/L	1	20.0	---	99	80-120%	---	---	
1,2,4-Trichlorobenzene	20.2	1.00	2.00	ug/L	1	20.0	---	101	80-120%	---	---	
1,1,1-Trichloroethane	15.8	0.400	0.400	ug/L	1	20.0	---	79	80-120%	---	---	Q-55
1,1,2-Trichloroethane	19.8	0.250	0.500	ug/L	1	20.0	---	99	80-120%	---	---	
Trichloroethene (TCE)	20.3	0.200	0.400	ug/L	1	20.0	---	102	80-120%	---	---	
Trichlorofluoromethane	24.6	1.00	2.00	ug/L	1	20.0	---	123	80-120%	---	---	Q-56
1,2,3-Trichloropropane	19.7	0.500	1.00	ug/L	1	20.0	---	99	80-120%	---	---	
1,2,4-Trimethylbenzene	21.0	0.500	1.00	ug/L	1	20.0	---	105	80-120%	---	---	
1,3,5-Trimethylbenzene	21.4	0.500	1.00	ug/L	1	20.0	---	107	80-120%	---	---	

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Page 88 of 135



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A3C0788 - 05 19 23 0603

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C1041 - EPA 5030C						Water						
LCS (23C1041-BS1)				Prepared: 03/27/23 14:13 Analyzed: 03/27/23 14:37								
Vinyl chloride	20.1	0.200	0.400	ug/L	1	20.0	---	101	80-120%	---	---	
m,p-Xylene	41.0	0.500	1.00	ug/L	1	40.0	---	103	80-120%	---	---	
o-Xylene	20.5	0.250	0.500	ug/L	1	20.0	---	103	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 99 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		98 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		95 %		80-120 %		"						
Duplicate (23C1041-DUP1)						Prepared: 03/27/23 14:13 Analyzed: 03/27/23 22:21						
QC Source Sample: Non-SDG (A3C0826-01)												
Acetone	ND	500	1000	ug/L	50	---	ND	---	---	---	30%	
Acrylonitrile	ND	50.0	100	ug/L	50	---	ND	---	---	---	30%	
Benzene	ND	10.0	10.0	ug/L	50	---	ND	---	---	---	30%	
Bromobenzene	ND	12.5	25.0	ug/L	50	---	ND	---	---	---	30%	
Bromochloromethane	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
Bromodichloromethane	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
Bromoform	ND	50.0	50.0	ug/L	50	---	ND	---	---	---	30%	
Bromomethane	ND	250	250	ug/L	50	---	ND	---	---	---	30%	
2-Butanone (MEK)	ND	250	500	ug/L	50	---	ND	---	---	---	30%	
n-Butylbenzene	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
sec-Butylbenzene	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
tert-Butylbenzene	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
Carbon disulfide	ND	250	500	ug/L	50	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	50.0	50.0	ug/L	50	---	ND	---	---	---	30%	
Chlorobenzene	ND	12.5	25.0	ug/L	50	---	ND	---	---	---	30%	
Chloroethane	ND	250	250	ug/L	50	---	ND	---	---	---	30%	
Chloroform	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
Chloromethane	ND	125	250	ug/L	50	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
Dibromochloromethane	ND	50.0	50.0	ug/L	50	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	250	250	ug/L	50	---	ND	---	---	---	30%	Q-54w
1,2-Dibromoethane (EDB)	ND	12.5	25.0	ug/L	50	---	ND	---	---	---	30%	
Dibromomethane	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	12.5	25.0	ug/L	50	---	ND	---	---	---	30%	

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Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C1041 - EPA 5030C						Water						
Duplicate (23C1041-DUP1)			Prepared: 03/27/23 14:13		Analyzed: 03/27/23 22:21							
QC Source Sample: Non-SDG (A3C0826-01)												
1,3-Dichlorobenzene	ND	12.5	25.0	ug/L	50	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	12.5	25.0	ug/L	50	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	10.0	20.0	ug/L	50	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	10.0	20.0	ug/L	50	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	10.0	20.0	ug/L	50	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	ND	10.0	20.0	ug/L	50	---	ND	---	---	---	30%	
trans-1,2-Dichloroethene	ND	10.0	20.0	ug/L	50	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	12.5	25.0	ug/L	50	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	50.0	50.0	ug/L	50	---	ND	---	---	---	30%	Q-54x
1,1-Dichloropropene	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	50.0	50.0	ug/L	50	---	ND	---	---	---	30%	Q-54u
Ethylbenzene	ND	12.5	25.0	ug/L	50	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	125	250	ug/L	50	---	ND	---	---	---	30%	
2-Hexanone	ND	250	500	ug/L	50	---	ND	---	---	---	30%	
Isopropylbenzene	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
4-Isopropyltoluene	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
Methylene chloride	ND	250	500	ug/L	50	---	ND	---	---	---	30%	
4-Methyl-2-pentanone (MiBK)	ND	250	500	ug/L	50	---	ND	---	---	---	30%	
Methyl tert-butyl ether (MTBE)	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
Naphthalene	ND	50.0	100	ug/L	50	---	ND	---	---	---	30%	
n-Propylbenzene	ND	12.5	25.0	ug/L	50	---	ND	---	---	---	30%	
Styrene	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
1,1,1,2-Tetrachloroethane	ND	10.0	20.0	ug/L	50	---	ND	---	---	---	30%	
1,1,2,2-Tetrachloroethane	ND	12.5	25.0	ug/L	50	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	ND	10.0	20.0	ug/L	50	---	ND	---	---	---	30%	
Toluene	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
1,2,3-Trichlorobenzene	ND	50.0	100	ug/L	50	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	50.0	100	ug/L	50	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	20.0	20.0	ug/L	50	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	12.5	25.0	ug/L	50	---	ND	---	---	---	30%	

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Page 90 of 135



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Anchor QEA, LLC

6720 SW Macadam Ave. Suite 125

Portland, OR 97219

Project: Gasco-CMMA/TCE Mon. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001F

Project Manager: John Renda

Report ID:

A3C0788 - 05 19 23 0603

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C1041 - EPA 5030C						Water						
Duplicate (23C1041-DUP1)			Prepared: 03/27/23 14:13 Analyzed: 03/27/23 22:21									
QC Source Sample: Non-SDG (A3C0826-01)												
Trichloroethene (TCE)	ND	10.0	20.0	ug/L	50	---	ND	---	---	---	30%	
Trichlorofluoromethane	ND	50.0	100	ug/L	50	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
1,2,4-Trimethylbenzene	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
1,3,5-Trimethylbenzene	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
Vinyl chloride	ND	10.0	20.0	ug/L	50	---	ND	---	---	---	30%	
m,p-Xylene	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
o-Xylene	ND	12.5	25.0	ug/L	50	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 98 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		100 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		106 %		80-120 %		"						

Matrix Spike (23C1041-MS1)

Prepared: 03/27/23 14:13 Analyzed: 03/28/23 02:25

QC Source Sample: Non-SDG (A3C0826-06)

EPA 8260D												
Acetone	1920	500	1000	ug/L	50	2000	ND	96	39-160%	---	---	
Acrylonitrile	972	50.0	100	ug/L	50	1000	ND	97	63-135%	---	---	
Benzene	1110	5.00	10.0	ug/L	50	1000	59.5	105	79-120%	---	---	
Bromobenzene	1040	12.5	25.0	ug/L	50	1000	ND	104	80-120%	---	---	
Bromochloromethane	1010	25.0	50.0	ug/L	50	1000	ND	101	78-123%	---	---	
Bromodichloromethane	1110	25.0	50.0	ug/L	50	1000	ND	111	79-125%	---	---	
Bromoform	740	50.0	50.0	ug/L	50	1000	ND	74	66-130%	---	---	Q-54aa
Bromomethane	1160	250	250	ug/L	50	1000	ND	116	53-141%	---	---	
2-Butanone (MEK)	2090	250	500	ug/L	50	2000	ND	104	56-143%	---	---	
n-Butylbenzene	1300	25.0	50.0	ug/L	50	1000	ND	130	75-128%	---	---	Q-01
sec-Butylbenzene	1230	25.0	50.0	ug/L	50	1000	ND	123	77-126%	---	---	
tert-Butylbenzene	1150	25.0	50.0	ug/L	50	1000	ND	115	78-124%	---	---	
Carbon disulfide	1070	250	500	ug/L	50	1000	ND	107	64-133%	---	---	
Carbon tetrachloride	802	50.0	50.0	ug/L	50	1000	ND	80	72-136%	---	---	Q-54z
Chlorobenzene	1060	12.5	25.0	ug/L	50	1000	ND	106	80-120%	---	---	
Chloroethane	1180	250	250	ug/L	50	1000	ND	118	60-138%	---	---	
Chloroform	1070	25.0	50.0	ug/L	50	1000	ND	107	79-124%	---	---	
Chloromethane	1060	125	250	ug/L	50	1000	ND	106	50-139%	---	---	

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Anchor QEA, LLC

6720 SW Macadam Ave. Suite 125

Portland, OR 97219

Project: Gasco-CMMA/TCE Mon. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001F

Project Manager: John Renda

Report ID:

A3C0788 - 05 19 23 0603

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C1041 - EPA 5030C						Water						
Matrix Spike (23C1041-MS1)			Prepared: 03/27/23 14:13			Analyzed: 03/28/23 02:25						
QC Source Sample: Non-SDG (A3C0826-06)												
2-Chlorotoluene	1100	25.0	50.0	ug/L	50	1000	ND	110	79-122%	---	---	
4-Chlorotoluene	1080	25.0	50.0	ug/L	50	1000	ND	108	78-122%	---	---	
Dibromochloromethane	834	50.0	50.0	ug/L	50	1000	ND	83	74-126%	---	---	Q-54v
1,2-Dibromo-3-chloropropane	646	250	250	ug/L	50	1000	ND	65	62-128%	---	---	Q-54t
1,2-Dibromoethane (EDB)	946	12.5	25.0	ug/L	50	1000	ND	95	77-121%	---	---	
Dibromomethane	1150	25.0	50.0	ug/L	50	1000	ND	115	79-123%	---	---	
1,2-Dichlorobenzene	1130	12.5	25.0	ug/L	50	1000	ND	113	80-120%	---	---	
1,3-Dichlorobenzene	1110	12.5	25.0	ug/L	50	1000	ND	111	80-120%	---	---	
1,4-Dichlorobenzene	1060	12.5	25.0	ug/L	50	1000	ND	106	79-120%	---	---	
Dichlorodifluoromethane	1240	25.0	50.0	ug/L	50	1000	ND	124	32-152%	---	---	
1,1-Dichloroethane	1060	10.0	20.0	ug/L	50	1000	ND	106	77-125%	---	---	
1,2-Dichloroethane (EDC)	1080	10.0	20.0	ug/L	50	1000	ND	108	73-128%	---	---	
1,1-Dichloroethene	1120	10.0	20.0	ug/L	50	1000	ND	112	71-131%	---	---	
cis-1,2-Dichloroethene	1080	10.0	20.0	ug/L	50	1000	ND	108	78-123%	---	---	
trans-1,2-Dichloroethene	1090	10.0	20.0	ug/L	50	1000	ND	109	75-124%	---	---	
1,2-Dichloropropane	1010	12.5	25.0	ug/L	50	1000	ND	101	78-122%	---	---	
1,3-Dichloropropane	1100	25.0	50.0	ug/L	50	1000	ND	110	80-120%	---	---	
2,2-Dichloropropane	495	50.0	50.0	ug/L	50	1000	ND	50	60-139%	---	---	Q-54x
1,1-Dichloropropene	1170	25.0	50.0	ug/L	50	1000	ND	117	79-125%	---	---	
cis-1,3-Dichloropropene	860	25.0	50.0	ug/L	50	1000	ND	86	75-124%	---	---	
trans-1,3-Dichloropropene	680	50.0	50.0	ug/L	50	1000	ND	68	73-127%	---	---	Q-54u
Ethylbenzene	1200	12.5	25.0	ug/L	50	1000	50.5	115	79-121%	---	---	
Hexachlorobutadiene	1300	125	250	ug/L	50	1000	ND	130	66-134%	---	---	
2-Hexanone	2260	250	500	ug/L	50	2000	ND	113	57-139%	---	---	
Isopropylbenzene	1190	25.0	50.0	ug/L	50	1000	ND	119	72-131%	---	---	
4-Isopropyltoluene	1280	25.0	50.0	ug/L	50	1000	ND	128	77-127%	---	---	Q-01
Methylene chloride	990	250	500	ug/L	50	1000	ND	99	74-124%	---	---	
4-Methyl-2-pentanone (MiBK)	2170	250	500	ug/L	50	2000	ND	108	67-130%	---	---	
Methyl tert-butyl ether (MTBE)	898	25.0	50.0	ug/L	50	1000	ND	90	71-124%	---	---	
Naphthalene	2510	50.0	100	ug/L	50	1000	1290	122	61-128%	---	---	
n-Propylbenzene	1140	12.5	25.0	ug/L	50	1000	ND	114	76-126%	---	---	
Styrene	1150	25.0	50.0	ug/L	50	1000	ND	115	78-123%	---	---	
1,1,1,2-Tetrachloroethane	870	10.0	20.0	ug/L	50	1000	ND	87	78-124%	---	---	

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Page 92 of 135



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Anchor QEA, LLC

6720 SW Macadam Ave. Suite 125

Portland, OR 97219

Project: Gasco-CMMA/TCE Mon. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001F

Project Manager: John Renda

Report ID:

A3C0788 - 05 19 23 0603

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C1041 - EPA 5030C						Water						
Matrix Spike (23C1041-MS1)			Prepared: 03/27/23 14:13		Analyzed: 03/28/23 02:25							
QC Source Sample: Non-SDG (A3C0826-06)												
1,1,2,2-Tetrachloroethane	1060	12.5	25.0	ug/L	50	1000	ND	106	71-121%	---	---	
Tetrachloroethene (PCE)	1150	10.0	20.0	ug/L	50	1000	ND	115	74-129%	---	---	
Toluene	1040	25.0	50.0	ug/L	50	1000	ND	104	80-121%	---	---	
1,2,3-Trichlorobenzene	1110	50.0	100	ug/L	50	1000	ND	111	69-129%	---	---	
1,2,4-Trichlorobenzene	1140	50.0	100	ug/L	50	1000	ND	114	69-130%	---	---	
1,1,1-Trichloroethane	913	20.0	20.0	ug/L	50	1000	ND	91	74-131%	---	---	Q-54s
1,1,2-Trichloroethane	1060	12.5	25.0	ug/L	50	1000	ND	106	80-120%	---	---	
Trichloroethene (TCE)	1090	10.0	20.0	ug/L	50	1000	ND	109	79-123%	---	---	
Trichlorofluoromethane	1400	50.0	100	ug/L	50	1000	ND	140	65-141%	---	---	Q-54k
1,2,3-Trichloropropane	1060	25.0	50.0	ug/L	50	1000	ND	106	73-122%	---	---	
1,2,4-Trimethylbenzene	1200	25.0	50.0	ug/L	50	1000	ND	120	76-124%	---	---	
1,3,5-Trimethylbenzene	1200	25.0	50.0	ug/L	50	1000	ND	120	75-124%	---	---	
Vinyl chloride	1130	10.0	20.0	ug/L	50	1000	ND	113	58-137%	---	---	
m,p-Xylene	2270	25.0	50.0	ug/L	50	2000	ND	114	80-121%	---	---	
o-Xylene	1150	12.5	25.0	ug/L	50	1000	22.0	113	78-122%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 97 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		99 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		95 %		80-120 %		"						

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**ANALYTICAL REPORT****Apex Laboratories, LLC**6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062**Anchor QEA, LLC**6720 SW Macadam Ave. Suite 125
Portland, OR 97219Project: **Gasco-CMMA/TCE Mon. Wells 1Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001F**Project Manager: **John Renda****Report ID:****A3C0788 - 05 19 23 0603****QUALITY CONTROL (QC) SAMPLE RESULTS****Volatile Organic Compounds by EPA 8260D**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C1174 - EPA 5030C						Water						
Blank (23C1174-BLK1)			Prepared: 03/29/23 13:58		Analyzed: 03/29/23 20:37							
EPA 8260D												
Acetone	ND	10.0	20.0	ug/L	1	---	---	---	---	---	---	
Acrylonitrile	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
Benzene	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
Bromobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Bromochloromethane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Bromoform	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Bromomethane	ND	5.00	5.00	ug/L	1	---	---	---	---	---	---	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	---	---	---	---	---	---	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Carbon disulfide	ND	5.00	10.0	ug/L	1	---	---	---	---	---	---	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Chlorobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Chloroethane	ND	5.00	5.00	ug/L	1	---	---	---	---	---	---	
Chloroform	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Chloromethane	ND	2.50	5.00	ug/L	1	---	---	---	---	---	---	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Dibromomethane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	

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ANALYTICAL REPORT

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Project Number: 000029-02.84 T-01.001F

Project Manager: John Renda

Report ID:

A3C0788 - 05 19 23 0603

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C1174 - EPA 5030C						Water						
Blank (23C1174-BLK1)						Prepared: 03/29/23 13:58 Analyzed: 03/29/23 20:37						
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Ethylbenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	---	---	---	---	---	---	
2-Hexanone	ND	5.00	10.0	ug/L	1	---	---	---	---	---	---	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Methylene chloride	ND	5.00	10.0	ug/L	1	---	---	---	---	---	---	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	---	---	---	---	---	---	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Naphthalene	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Styrene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
Toluene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Vinyl chloride	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
m,p-Xylene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
o-Xylene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr) Recovery: 97 % Limits: 80-120 % Dilution: 1x												

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Darwin Thomas, Business Development Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Anchor QEA, LLC

6720 SW Macadam Ave. Suite 125

Portland, OR 97219

Project: Gasco-CMMA/TCE Mon. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001F

Project Manager: John Renda

Report ID:

A3C0788 - 05 19 23 0603

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C1174 - EPA 5030C						Water						
Blank (23C1174-BLK1)			Prepared: 03/29/23 13:58		Analyzed: 03/29/23 20:37							
Surr: Toluene-d8 (Surr)		Recovery: 102 %		Limits: 80-120 %		Dilution: 1x						
4-Bromofluorobenzene (Surr)		99 %		80-120 %		"						
LCS (23C1174-BS1)			Prepared: 03/29/23 13:58		Analyzed: 03/29/23 19:53							
EPA 8260D												
Acetone	43.0	10.0	20.0	ug/L	1	40.0	---	107	80-120%	---	---	
Acrylonitrile	21.8	1.00	2.00	ug/L	1	20.0	---	109	80-120%	---	---	
Benzene	20.3	0.100	0.200	ug/L	1	20.0	---	102	80-120%	---	---	
Bromobenzene	19.0	0.250	0.500	ug/L	1	20.0	---	95	80-120%	---	---	
Bromochloromethane	24.2	0.500	1.00	ug/L	1	20.0	---	121	80-120%	---	---	Q-56
Bromodichloromethane	22.0	0.500	1.00	ug/L	1	20.0	---	110	80-120%	---	---	
Bromoform	22.7	0.500	1.00	ug/L	1	20.0	---	113	80-120%	---	---	
Bromomethane	26.6	5.00	5.00	ug/L	1	20.0	---	133	80-120%	---	---	Q-56
2-Butanone (MEK)	46.6	5.00	10.0	ug/L	1	40.0	---	117	80-120%	---	---	
n-Butylbenzene	22.4	0.500	1.00	ug/L	1	20.0	---	112	80-120%	---	---	
sec-Butylbenzene	23.7	0.500	1.00	ug/L	1	20.0	---	118	80-120%	---	---	
tert-Butylbenzene	22.9	0.500	1.00	ug/L	1	20.0	---	115	80-120%	---	---	
Carbon disulfide	22.0	5.00	10.0	ug/L	1	20.0	---	110	80-120%	---	---	
Carbon tetrachloride	24.0	0.500	1.00	ug/L	1	20.0	---	120	80-120%	---	---	
Chlorobenzene	20.5	0.250	0.500	ug/L	1	20.0	---	103	80-120%	---	---	
Chloroethane	28.0	5.00	5.00	ug/L	1	20.0	---	140	80-120%	---	---	Q-56
Chloroform	20.7	0.500	1.00	ug/L	1	20.0	---	103	80-120%	---	---	
Chloromethane	25.4	2.50	5.00	ug/L	1	20.0	---	127	80-120%	---	---	Q-56
2-Chlorotoluene	20.5	0.500	1.00	ug/L	1	20.0	---	103	80-120%	---	---	
4-Chlorotoluene	21.7	0.500	1.00	ug/L	1	20.0	---	109	80-120%	---	---	
Dibromochloromethane	21.8	0.500	1.00	ug/L	1	20.0	---	109	80-120%	---	---	
1,2-Dibromo-3-chloropropane	19.1	2.50	5.00	ug/L	1	20.0	---	95	80-120%	---	---	
1,2-Dibromoethane (EDB)	21.1	0.250	0.500	ug/L	1	20.0	---	105	80-120%	---	---	
Dibromomethane	20.8	0.500	1.00	ug/L	1	20.0	---	104	80-120%	---	---	
1,2-Dichlorobenzene	20.0	0.250	0.500	ug/L	1	20.0	---	100	80-120%	---	---	
1,3-Dichlorobenzene	20.6	0.250	0.500	ug/L	1	20.0	---	103	80-120%	---	---	
1,4-Dichlorobenzene	19.2	0.250	0.500	ug/L	1	20.0	---	96	80-120%	---	---	
Dichlorodifluoromethane	29.9	0.500	1.00	ug/L	1	20.0	---	149	80-120%	---	---	Q-56
1,1-Dichloroethane	21.7	0.200	0.400	ug/L	1	20.0	---	109	80-120%	---	---	

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A3C0788 - 05 19 23 0603

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C1174 - EPA 5030C						Water						
LCS (23C1174-BS1)			Prepared: 03/29/23 13:58		Analyzed: 03/29/23 19:53							
1,2-Dichloroethane (EDC)	23.3	0.200	0.400	ug/L	1	20.0	---	117	80-120%	---	---	
1,1-Dichloroethene	23.2	0.200	0.400	ug/L	1	20.0	---	116	80-120%	---	---	
cis-1,2-Dichloroethene	21.3	0.200	0.400	ug/L	1	20.0	---	106	80-120%	---	---	
trans-1,2-Dichloroethene	21.3	0.200	0.400	ug/L	1	20.0	---	107	80-120%	---	---	
1,2-Dichloropropane	19.9	0.250	0.500	ug/L	1	20.0	---	99	80-120%	---	---	
1,3-Dichloropropane	21.6	0.500	1.00	ug/L	1	20.0	---	108	80-120%	---	---	
2,2-Dichloropropane	24.6	0.500	1.00	ug/L	1	20.0	---	123	80-120%	---	---	Q-56
1,1-Dichloropropene	22.3	0.500	1.00	ug/L	1	20.0	---	111	80-120%	---	---	
cis-1,3-Dichloropropene	22.5	0.500	1.00	ug/L	1	20.0	---	113	80-120%	---	---	
trans-1,3-Dichloropropene	25.3	0.500	1.00	ug/L	1	20.0	---	126	80-120%	---	---	Q-56
Ethylbenzene	22.3	0.250	0.500	ug/L	1	20.0	---	111	80-120%	---	---	
Hexachlorobutadiene	20.7	2.50	5.00	ug/L	1	20.0	---	103	80-120%	---	---	
2-Hexanone	45.4	5.00	10.0	ug/L	1	40.0	---	113	80-120%	---	---	
Isopropylbenzene	23.1	0.500	1.00	ug/L	1	20.0	---	116	80-120%	---	---	
4-Isopropyltoluene	23.3	0.500	1.00	ug/L	1	20.0	---	116	80-120%	---	---	
Methylene chloride	20.2	5.00	10.0	ug/L	1	20.0	---	101	80-120%	---	---	
4-Methyl-2-pentanone (MiBK)	51.7	5.00	10.0	ug/L	1	40.0	---	129	80-120%	---	---	Q-56
Methyl tert-butyl ether (MTBE)	20.9	0.500	1.00	ug/L	1	20.0	---	105	80-120%	---	---	
Naphthalene	16.2	1.00	2.00	ug/L	1	20.0	---	81	80-120%	---	---	
n-Propylbenzene	21.6	0.250	0.500	ug/L	1	20.0	---	108	80-120%	---	---	
Styrene	23.0	0.500	1.00	ug/L	1	20.0	---	115	80-120%	---	---	
1,1,1,2-Tetrachloroethane	20.9	0.200	0.400	ug/L	1	20.0	---	105	80-120%	---	---	
1,1,2,2-Tetrachloroethane	21.4	0.250	0.500	ug/L	1	20.0	---	107	80-120%	---	---	
Tetrachloroethene (PCE)	21.6	0.200	0.400	ug/L	1	20.0	---	108	80-120%	---	---	
Toluene	20.3	0.500	1.00	ug/L	1	20.0	---	101	80-120%	---	---	
1,2,3-Trichlorobenzene	20.6	1.00	2.00	ug/L	1	20.0	---	103	80-120%	---	---	
1,2,4-Trichlorobenzene	18.8	1.00	2.00	ug/L	1	20.0	---	94	80-120%	---	---	
1,1,1-Trichloroethane	22.8	0.200	0.400	ug/L	1	20.0	---	114	80-120%	---	---	
1,1,2-Trichloroethane	21.0	0.250	0.500	ug/L	1	20.0	---	105	80-120%	---	---	
Trichloroethene (TCE)	18.7	0.200	0.400	ug/L	1	20.0	---	94	80-120%	---	---	
Trichlorofluoromethane	25.7	1.00	2.00	ug/L	1	20.0	---	128	80-120%	---	---	Q-56
1,2,3-Trichloropropane	21.5	0.500	1.00	ug/L	1	20.0	---	108	80-120%	---	---	
1,2,4-Trimethylbenzene	23.1	0.500	1.00	ug/L	1	20.0	---	116	80-120%	---	---	
1,3,5-Trimethylbenzene	23.0	0.500	1.00	ug/L	1	20.0	---	115	80-120%	---	---	

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Darwin Thomas, Business Development Director



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Project Number: 000029-02.84 T-01.001F

Project Manager: John Renda

Report ID:

A3C0788 - 05 19 23 0603

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C1174 - EPA 5030C						Water						
LCS (23C1174-BS1)				Prepared: 03/29/23 13:58		Analyzed: 03/29/23 19:53						
Vinyl chloride	23.5	0.200	0.400	ug/L	1	20.0	---	117	80-120%	---	---	Q-56
m,p-Xylene	48.2	0.500	1.00	ug/L	1	40.0	---	121	80-120%	---	---	
o-Xylene	22.4	0.250	0.500	ug/L	1	20.0	---	112	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 93 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		99 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		94 %		80-120 %		"						
Duplicate (23C1174-DUP1)						Prepared: 03/29/23 13:58		Analyzed: 03/30/23 04:52				
QC Source Sample: Non-SDG (A3C0961-02)												
Acetone	ND	100	200	ug/L	10	---	ND	---	---	---	30%	
Acrylonitrile	ND	10.0	20.0	ug/L	10	---	ND	---	---	---	30%	
Benzene	ND	1.00	2.00	ug/L	10	---	ND	---	---	---	30%	
Bromobenzene	ND	2.50	5.00	ug/L	10	---	ND	---	---	---	30%	
Bromochloromethane	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	
Bromodichloromethane	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	
Bromoform	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	
Bromomethane	ND	50.0	50.0	ug/L	10	---	ND	---	---	---	30%	
2-Butanone (MEK)	ND	50.0	100	ug/L	10	---	ND	---	---	---	30%	
n-Butylbenzene	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	
sec-Butylbenzene	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	
tert-Butylbenzene	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	
Carbon disulfide	ND	50.0	100	ug/L	10	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	
Chlorobenzene	ND	2.50	5.00	ug/L	10	---	ND	---	---	---	30%	
Chloroethane	ND	50.0	50.0	ug/L	10	---	ND	---	---	---	30%	
Chloroform	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	
Chloromethane	ND	25.0	50.0	ug/L	10	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	
Dibromochloromethane	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	25.0	50.0	ug/L	10	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	2.50	5.00	ug/L	10	---	ND	---	---	---	30%	
Dibromomethane	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	2.50	5.00	ug/L	10	---	ND	---	---	---	30%	

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A3C0788 - 05 19 23 0603

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C1174 - EPA 5030C						Water						
Duplicate (23C1174-DUP1)			Prepared: 03/29/23 13:58 Analyzed: 03/30/23 04:52									
QC Source Sample: Non-SDG (A3C0961-02)												
1,3-Dichlorobenzene	ND	2.50	5.00	ug/L	10	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	2.50	5.00	ug/L	10	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	2.00	4.00	ug/L	10	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	2.00	4.00	ug/L	10	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	2.00	4.00	ug/L	10	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	123	2.00	4.00	ug/L	10	---	130	---	---	5	30%	
trans-1,2-Dichloroethene	10.0	2.00	4.00	ug/L	10	---	10.8	---	---	8	30%	
1,2-Dichloropropane	ND	2.50	5.00	ug/L	10	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	
Ethylbenzene	ND	2.50	5.00	ug/L	10	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	25.0	50.0	ug/L	10	---	ND	---	---	---	30%	
2-Hexanone	ND	50.0	100	ug/L	10	---	ND	---	---	---	30%	
Isopropylbenzene	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	
4-Isopropyltoluene	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	
Methylene chloride	ND	50.0	100	ug/L	10	---	ND	---	---	---	30%	
4-Methyl-2-pentanone (MiBK)	ND	50.0	100	ug/L	10	---	ND	---	---	---	30%	
Methyl tert-butyl ether (MTBE)	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	
Naphthalene	ND	10.0	20.0	ug/L	10	---	ND	---	---	---	30%	
n-Propylbenzene	ND	2.50	5.00	ug/L	10	---	ND	---	---	---	30%	
Styrene	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	
1,1,1,2-Tetrachloroethane	ND	2.00	4.00	ug/L	10	---	ND	---	---	---	30%	
1,1,2,2-Tetrachloroethane	ND	2.50	5.00	ug/L	10	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	ND	2.00	4.00	ug/L	10	---	ND	---	---	---	30%	
Toluene	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	
1,2,3-Trichlorobenzene	ND	10.0	20.0	ug/L	10	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	10.0	20.0	ug/L	10	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	2.00	4.00	ug/L	10	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	2.50	5.00	ug/L	10	---	ND	---	---	---	30%	

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Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C1174 - EPA 5030C						Water						
Duplicate (23C1174-DUP1)			Prepared: 03/29/23 13:58 Analyzed: 03/30/23 04:52									
QC Source Sample: Non-SDG (A3C0961-02)												
Trichloroethene (TCE)	82.1	2.00	4.00	ug/L	10	---	86.0	---	---	5	30%	
Trichlorofluoromethane	ND	10.0	20.0	ug/L	10	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	
1,2,4-Trimethylbenzene	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	
1,3,5-Trimethylbenzene	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	
Vinyl chloride	10.9	2.00	4.00	ug/L	10	---	11.7	---	---	7	30%	
m,p-Xylene	ND	5.00	10.0	ug/L	10	---	ND	---	---	---	30%	
o-Xylene	ND	2.50	5.00	ug/L	10	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 102 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		103 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		97 %		80-120 %		"						

Matrix Spike (23C1174-MS1)

Prepared: 03/29/23 13:58 Analyzed: 03/30/23 02:15

QC Source Sample: Non-SDG (A3C1021-02)

EPA 8260D												
Acetone	50.0	10.0	20.0	ug/L	1	40.0	ND	125	39-160%	---	---	
Acrylonitrile	20.3	1.00	2.00	ug/L	1	20.0	ND	101	63-135%	---	---	
Benzene	20.7	0.100	0.200	ug/L	1	20.0	ND	103	79-120%	---	---	
Bromobenzene	18.8	0.250	0.500	ug/L	1	20.0	ND	94	80-120%	---	---	
Bromochloromethane	24.3	0.500	1.00	ug/L	1	20.0	ND	122	78-123%	---	---	Q-54
Bromodichloromethane	22.7	0.500	1.00	ug/L	1	20.0	ND	113	79-125%	---	---	
Bromoform	22.5	0.500	1.00	ug/L	1	20.0	ND	112	66-130%	---	---	
Bromomethane	27.8	5.00	5.00	ug/L	1	20.0	ND	139	53-141%	---	---	Q-54d
2-Butanone (MEK)	37.5	5.00	10.0	ug/L	1	40.0	ND	94	56-143%	---	---	
n-Butylbenzene	21.6	0.500	1.00	ug/L	1	20.0	ND	108	75-128%	---	---	
sec-Butylbenzene	23.9	0.500	1.00	ug/L	1	20.0	ND	120	77-126%	---	---	
tert-Butylbenzene	22.9	0.500	1.00	ug/L	1	20.0	ND	115	78-124%	---	---	
Carbon disulfide	23.0	5.00	10.0	ug/L	1	20.0	ND	115	64-133%	---	---	
Carbon tetrachloride	25.9	0.500	1.00	ug/L	1	20.0	ND	130	72-136%	---	---	
Chlorobenzene	21.0	0.250	0.500	ug/L	1	20.0	ND	105	80-120%	---	---	
Chloroethane	29.4	5.00	5.00	ug/L	1	20.0	ND	147	60-138%	---	---	Q-54g
Chloroform	21.2	0.500	1.00	ug/L	1	20.0	ND	106	79-124%	---	---	
Chloromethane	26.1	2.50	5.00	ug/L	1	20.0	ND	131	50-139%	---	---	Q-54p

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Darwin Thomas, Business Development Director



ANALYTICAL REPORT

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6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Anchor QEA, LLC

6720 SW Macadam Ave. Suite 125

Portland, OR 97219

Project: Gasco-CMMA/TCE Mon. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001F

Project Manager: John Renda

Report ID:

A3C0788 - 05 19 23 0603

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C1174 - EPA 5030C						Water						
Matrix Spike (23C1174-MS1)			Prepared: 03/29/23 13:58		Analyzed: 03/30/23 02:15							
QC Source Sample: Non-SDG (A3C1021-02)												
2-Chlorotoluene	20.2	0.500	1.00	ug/L	1	20.0	ND	101	79-122%	---	---	
4-Chlorotoluene	21.4	0.500	1.00	ug/L	1	20.0	ND	107	78-122%	---	---	
Dibromochloromethane	22.1	0.500	1.00	ug/L	1	20.0	ND	110	74-126%	---	---	
1,2-Dibromo-3-chloropropane	19.2	2.50	5.00	ug/L	1	20.0	ND	96	62-128%	---	---	
1,2-Dibromoethane (EDB)	20.6	0.250	0.500	ug/L	1	20.0	ND	103	77-121%	---	---	
Dibromomethane	20.7	0.500	1.00	ug/L	1	20.0	ND	104	79-123%	---	---	
1,2-Dichlorobenzene	19.8	0.250	0.500	ug/L	1	20.0	ND	99	80-120%	---	---	
1,3-Dichlorobenzene	20.6	0.250	0.500	ug/L	1	20.0	ND	103	80-120%	---	---	
1,4-Dichlorobenzene	19.3	0.250	0.500	ug/L	1	20.0	ND	97	79-120%	---	---	
Dichlorodifluoromethane	31.6	0.500	1.00	ug/L	1	20.0	ND	158	32-152%	---	---	Q-54j
1,1-Dichloroethane	22.4	0.200	0.400	ug/L	1	20.0	ND	112	77-125%	---	---	
1,2-Dichloroethane (EDC)	23.8	0.200	0.400	ug/L	1	20.0	ND	119	73-128%	---	---	
1,1-Dichloroethene	23.5	0.200	0.400	ug/L	1	20.0	ND	118	71-131%	---	---	
cis-1,2-Dichloroethene	20.6	0.200	0.400	ug/L	1	20.0	ND	103	78-123%	---	---	
trans-1,2-Dichloroethene	21.5	0.200	0.400	ug/L	1	20.0	ND	108	75-124%	---	---	
1,2-Dichloropropane	20.2	0.250	0.500	ug/L	1	20.0	ND	101	78-122%	---	---	
1,3-Dichloropropane	21.4	0.500	1.00	ug/L	1	20.0	ND	107	80-120%	---	---	
2,2-Dichloropropane	22.1	0.500	1.00	ug/L	1	20.0	ND	110	60-139%	---	---	Q-54k
1,1-Dichloropropene	22.4	0.500	1.00	ug/L	1	20.0	ND	112	79-125%	---	---	
cis-1,3-Dichloropropene	21.7	0.500	1.00	ug/L	1	20.0	ND	108	75-124%	---	---	
trans-1,3-Dichloropropene	24.1	0.500	1.00	ug/L	1	20.0	ND	120	73-127%	---	---	Q-54o
Ethylbenzene	22.5	0.250	0.500	ug/L	1	20.0	ND	113	79-121%	---	---	
Hexachlorobutadiene	21.3	2.50	5.00	ug/L	1	20.0	ND	106	66-134%	---	---	
2-Hexanone	31.4	5.00	10.0	ug/L	1	40.0	ND	79	57-139%	---	---	
Isopropylbenzene	23.2	0.500	1.00	ug/L	1	20.0	ND	116	72-131%	---	---	
4-Isopropyltoluene	23.0	0.500	1.00	ug/L	1	20.0	ND	115	77-127%	---	---	
Methylene chloride	19.6	5.00	10.0	ug/L	1	20.0	ND	98	74-124%	---	---	
4-Methyl-2-pentanone (MiBK)	47.0	5.00	10.0	ug/L	1	40.0	ND	118	67-130%	---	---	Q-54r
Methyl tert-butyl ether (MTBE)	20.5	0.500	1.00	ug/L	1	20.0	ND	103	71-124%	---	---	
Naphthalene	14.9	1.00	2.00	ug/L	1	20.0	ND	75	61-128%	---	---	
n-Propylbenzene	21.6	0.250	0.500	ug/L	1	20.0	ND	108	76-126%	---	---	
Styrene	23.3	0.500	1.00	ug/L	1	20.0	ND	116	78-123%	---	---	
1,1,1,2-Tetrachloroethane	21.1	0.200	0.400	ug/L	1	20.0	ND	106	78-124%	---	---	

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Page 101 of 135



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

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6720 SW Macadam Ave. Suite 125

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Project: Gasco-CMMA/TCE Mon. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001F

Project Manager: John Renda

Report ID:

A3C0788 - 05 19 23 0603

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C1174 - EPA 5030C						Water						
Matrix Spike (23C1174-MS1)			Prepared: 03/29/23 13:58		Analyzed: 03/30/23 02:15							
QC Source Sample: Non-SDG (A3C1021-02)												
1,1,2,2-Tetrachloroethane	20.6	0.250	0.500	ug/L	1	20.0	ND	103	71-121%	---	---	
Tetrachloroethene (PCE)	22.6	0.200	0.400	ug/L	1	20.0	ND	113	74-129%	---	---	
Toluene	20.6	0.500	1.00	ug/L	1	20.0	ND	103	80-121%	---	---	
1,2,3-Trichlorobenzene	20.4	1.00	2.00	ug/L	1	20.0	ND	102	69-129%	---	---	
1,2,4-Trichlorobenzene	18.2	1.00	2.00	ug/L	1	20.0	ND	91	69-130%	---	---	
1,1,1-Trichloroethane	23.9	0.200	0.400	ug/L	1	20.0	ND	119	74-131%	---	---	
1,1,2-Trichloroethane	20.5	0.250	0.500	ug/L	1	20.0	ND	103	80-120%	---	---	
Trichloroethene (TCE)	19.4	0.200	0.400	ug/L	1	20.0	ND	97	79-123%	---	---	
Trichlorofluoromethane	27.5	1.00	2.00	ug/L	1	20.0	ND	138	65-141%	---	---	Q-54q
1,2,3-Trichloropropane	21.0	0.500	1.00	ug/L	1	20.0	ND	105	73-122%	---	---	
1,2,4-Trimethylbenzene	23.2	0.500	1.00	ug/L	1	20.0	ND	116	76-124%	---	---	
1,3,5-Trimethylbenzene	23.1	0.500	1.00	ug/L	1	20.0	ND	116	75-124%	---	---	
Vinyl chloride	24.0	0.200	0.400	ug/L	1	20.0	ND	120	58-137%	---	---	
m,p-Xylene	48.9	0.500	1.00	ug/L	1	40.0	ND	122	80-121%	---	---	Q-54
o-Xylene	22.0	0.250	0.500	ug/L	1	20.0	ND	110	78-122%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 94 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		99 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		92 %		80-120 %		"						

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Page 102 of 135



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Project Number: 000029-02.84 T-01.001F

Project Manager: John Renda

Report ID:

A3C0788 - 05 19 23 0603

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D SIM

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C1096 - EPA 5030C						Water						
Blank (23C1096-BLK1)			Prepared: 03/28/23 12:00		Analyzed: 03/28/23 13:42							
EPA 8260D SIM												
1,1-Dichloroethene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
Vinyl chloride	ND	0.0100	0.0200	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 105 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		101 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		98 %		80-120 %		"						
LCS (23C1096-BS1)						Prepared: 03/28/23 12:00		Analyzed: 03/28/23 12:48				
EPA 8260D SIM												
1,1-Dichloroethene	0.214	0.0100	0.0200	ug/L	1	0.200	---	107	80-120%	---	---	
cis-1,2-Dichloroethene	0.214	0.0100	0.0200	ug/L	1	0.200	---	107	80-120%	---	---	
trans-1,2-Dichloroethene	0.214	0.0100	0.0200	ug/L	1	0.200	---	107	80-120%	---	---	
Trichloroethene (TCE)	0.188	0.0100	0.0200	ug/L	1	0.200	---	94	80-120%	---	---	
Vinyl chloride	0.242	0.0100	0.0200	ug/L	1	0.200	---	121	80-120%	---	---	Q-56
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 103 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		100 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		96 %		80-120 %		"						
Duplicate (23C1096-DUP1)						Prepared: 03/28/23 13:43		Analyzed: 03/28/23 14:38				
QC Source Sample: Non-SDG (A3C0601-02)												
1,1-Dichloroethene	ND	0.250	0.500	ug/L	25	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	ND	0.250	0.500	ug/L	25	---	ND	---	---	---	30%	
trans-1,2-Dichloroethene	ND	0.250	0.500	ug/L	25	---	ND	---	---	---	30%	
Trichloroethene (TCE)	ND	0.250	0.500	ug/L	25	---	ND	---	---	---	30%	
Vinyl chloride	ND	0.250	0.500	ug/L	25	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 104 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		100 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		94 %		80-120 %		"						
Matrix Spike (23C1096-MS1)						Prepared: 03/28/23 13:43		Analyzed: 03/28/23 15:59				

V-01

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Project Number: **000029-02.84 T-01.001F**

Project Manager: **John Renda**

Report ID:

A3C0788 - 05 19 23 0603

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D SIM

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C1096 - EPA 5030C						Water						
Matrix Spike (23C1096-MS1)			Prepared: 03/28/23 13:43 Analyzed: 03/28/23 15:59						V-01			
QC Source Sample: Non-SDG (A3C0670-03)												
EPA 8260D SIM												
1,1-Dichloroethene	5.74	0.250	0.500	ug/L	25	5.00	ND	115	71-131%	---	---	Q-54
cis-1,2-Dichloroethene	5.54	0.250	0.500	ug/L	25	5.00	ND	111	78-123%	---	---	
trans-1,2-Dichloroethene	5.63	0.250	0.500	ug/L	25	5.00	ND	113	75-124%	---	---	
Trichloroethene (TCE)	4.72	0.250	0.500	ug/L	25	5.00	ND	94	79-123%	---	---	
Vinyl chloride	6.52	0.250	0.500	ug/L	25	5.00	ND	130	58-137%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 104 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		100 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		93 %		80-120 %		"						

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A3C0788 - 05 19 23 0603

QUALITY CONTROL (QC) SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E (Large Volume Injection)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C0899 - EPA 3511 (Bottle Extraction)						Water						
Blank (23C0899-BLK1)			Prepared: 03/23/23 09:37 Analyzed: 03/23/23 13:14									
EPA 8270E LVI												
Acenaphthene	ND	0.0160	0.0320	ug/L	1	---	---	---	---	---	---	
Acenaphthylene	ND	0.0160	0.0320	ug/L	1	---	---	---	---	---	---	
Anthracene	ND	0.0160	0.0320	ug/L	1	---	---	---	---	---	---	
Benz(a)anthracene	ND	0.00800	0.0160	ug/L	1	---	---	---	---	---	---	
Benzo(a)pyrene	ND	0.00800	0.0160	ug/L	1	---	---	---	---	---	---	
Benzo(b)fluoranthene	ND	0.00800	0.0160	ug/L	1	---	---	---	---	---	---	
Benzo(k)fluoranthene	ND	0.00800	0.0160	ug/L	1	---	---	---	---	---	---	
Benzo(g,h,i)perylene	ND	0.0160	0.0320	ug/L	1	---	---	---	---	---	---	
Chrysene	ND	0.00800	0.0160	ug/L	1	---	---	---	---	---	---	
Dibenz(a,h)anthracene	ND	0.00800	0.0160	ug/L	1	---	---	---	---	---	---	
Fluoranthene	ND	0.0160	0.0320	ug/L	1	---	---	---	---	---	---	
Fluorene	ND	0.0160	0.0320	ug/L	1	---	---	---	---	---	---	
Indeno(1,2,3-cd)pyrene	ND	0.00800	0.0160	ug/L	1	---	---	---	---	---	---	
1-Methylnaphthalene	ND	0.0320	0.0640	ug/L	1	---	---	---	---	---	---	
2-Methylnaphthalene	ND	0.0320	0.0640	ug/L	1	---	---	---	---	---	---	
Naphthalene	ND	0.0320	0.0640	ug/L	1	---	---	---	---	---	---	
Phenanthrene	ND	0.0320	0.0640	ug/L	1	---	---	---	---	---	---	
Pyrene	ND	0.0160	0.0320	ug/L	1	---	---	---	---	---	---	
Carbazole	ND	0.0160	0.0320	ug/L	1	---	---	---	---	---	---	
Dibenzofuran	ND	0.0160	0.0320	ug/L	1	---	---	---	---	---	---	
Surr: Acenaphthylene-d8 (Surr)		Recovery: 119 %		Limits: 78-134 %		Dilution: 1x						
Benzo(a)pyrene-d12 (Surr)		125 %		80-132 %		"						

LCS (23C0899-BS1)

Prepared: 03/23/23 09:37 Analyzed: 03/23/23 13:48

EPA 8270E LVI												
Acenaphthene	1.61	0.0160	0.0320	ug/L	1	1.60	---	101	80-120%	---	---	
Acenaphthylene	1.75	0.0160	0.0320	ug/L	1	1.60	---	110	80-124%	---	---	
Anthracene	1.72	0.0160	0.0320	ug/L	1	1.60	---	108	80-123%	---	---	
Benz(a)anthracene	1.82	0.00800	0.0160	ug/L	1	1.60	---	114	80-122%	---	---	
Benzo(a)pyrene	2.03	0.00800	0.0160	ug/L	1	1.60	---	127	80-129%	---	---	
Benzo(b)fluoranthene	2.01	0.00800	0.0160	ug/L	1	1.60	---	125	80-124%	---	---	Q-29
Benzo(k)fluoranthene	1.97	0.00800	0.0160	ug/L	1	1.60	---	123	80-125%	---	---	
Benzo(g,h,i)perylene	1.76	0.0160	0.0320	ug/L	1	1.60	---	110	80-120%	---	---	

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Project Manager: John Renda

Report ID:

A3C0788 - 05 19 23 0603

QUALITY CONTROL (QC) SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E (Large Volume Injection)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C0899 - EPA 3511 (Bottle Extraction)						Water						
LCS (23C0899-BS1)						Prepared: 03/23/23 09:37 Analyzed: 03/23/23 13:48						
Chrysene	1.71	0.00800	0.0160	ug/L	1	1.60	---	107	80-120%	---	---	
Dibenz(a,h)anthracene	1.64	0.00800	0.0160	ug/L	1	1.60	---	102	80-120%	---	---	
Fluoranthene	1.66	0.0160	0.0320	ug/L	1	1.60	---	104	80-126%	---	---	
Fluorene	1.65	0.0160	0.0320	ug/L	1	1.60	---	103	77-127%	---	---	
Indeno(1,2,3-cd)pyrene	1.67	0.00800	0.0160	ug/L	1	1.60	---	104	80-121%	---	---	
1-Methylnaphthalene	1.52	0.0320	0.0640	ug/L	1	1.60	---	95	53-148%	---	---	
2-Methylnaphthalene	1.51	0.0320	0.0640	ug/L	1	1.60	---	94	48-150%	---	---	
Naphthalene	1.63	0.0320	0.0640	ug/L	1	1.60	---	102	78-120%	---	---	
Phenanthrene	1.57	0.0320	0.0640	ug/L	1	1.60	---	98	80-120%	---	---	
Pyrene	1.67	0.0160	0.0320	ug/L	1	1.60	---	104	80-125%	---	---	
Carbazole	1.80	0.0160	0.0320	ug/L	1	1.60	---	113	65-141%	---	---	
Dibenzofuran	1.72	0.0160	0.0320	ug/L	1	1.60	---	107	76-121%	---	---	
Surr: Acenaphthylene-d8 (Surr)		Recovery: 121 %		Limits: 78-134 %		Dilution: 1x						
Benzo(a)pyrene-d12 (Surr)		125 %		80-132 %		"						

Matrix Spike (23C0899-MS1)

Prepared: 03/23/23 09:37 Analyzed: 03/23/23 14:54

QC Source Sample: GS-032123-45 (A3C0788-07)

EPA 8270E LVI

Acenaphthene	60.5	1.95	3.91	ug/L	100	1.95	56.0	231	80-120%	---	---	Q-11
Acenaphthylene	5.08	1.95	3.91	ug/L	100	1.95	3.12	100	80-124%	---	---	
Anthracene	2.73	1.95	3.91	ug/L	100	1.95	ND	140	80-123%	---	---	Q-11, J
Benz(a)anthracene	1.66	0.976	1.95	ug/L	100	1.95	ND	85	80-122%	---	---	J
Benzo(a)pyrene	1.56	0.976	1.95	ug/L	100	1.95	ND	80	80-129%	---	---	J
Benzo(b)fluoranthene	1.51	0.976	1.95	ug/L	100	1.95	ND	78	80-124%	---	---	Q-11, J
Benzo(k)fluoranthene	1.51	0.976	1.95	ug/L	100	1.95	ND	78	80-125%	---	---	Q-11, J
Benzo(g,h,i)perylene	ND	1.95	3.91	ug/L	100	1.95	ND		80-120%	---	---	Q-11
Chrysene	1.56	0.976	1.95	ug/L	100	1.95	ND	80	80-120%	---	---	J
Dibenz(a,h)anthracene	1.71	0.976	1.95	ug/L	100	1.95	ND	87	80-120%	---	---	J
Fluoranthene	ND	1.95	3.91	ug/L	100	1.95	ND		80-126%	---	---	Q-11
Fluorene	11.7	1.95	3.91	ug/L	100	1.95	9.94	89	77-127%	---	---	
Indeno(1,2,3-cd)pyrene	1.76	0.976	1.95	ug/L	100	1.95	ND	90	80-121%	---	---	J
1-Methylnaphthalene	19.1	3.91	7.81	ug/L	100	1.95	16.4	141	53-148%	---	---	
2-Methylnaphthalene	7.27	3.91	7.81	ug/L	100	1.95	5.97	67	48-150%	---	---	J
Naphthalene	368	3.91	7.81	ug/L	100	1.95	355	645	78-120%	---	---	Q-11

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Darwin Thomas, Business Development Director



ANALYTICAL REPORT

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6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Anchor QEA, LLC

6720 SW Macadam Ave. Suite 125

Portland, OR 97219

Project: Gasco-CMMA/TCE Mon. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001F

Project Manager: John Renda

Report ID:

A3C0788 - 05 19 23 0603

QUALITY CONTROL (QC) SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E (Large Volume Injection)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes	
Batch 23C0899 - EPA 3511 (Bottle Extraction)						Water							
Matrix Spike (23C0899-MS1)			Prepared: 03/23/23 09:37 Analyzed: 03/23/23 14:54										
QC Source Sample: GS-032123-45 (A3C0788-07)													
Phenanthrene	8.54	3.91	7.81	ug/L	100	1.95	7.35	61	80-120%	---	---	Q-11	
Pyrene	ND	1.95	3.91	ug/L	100	1.95	ND		80-125%	---	---	Q-11	
Carbazole	17.7	1.95	3.91	ug/L	100	1.95	15.4	115	65-141%	---	---		
Dibenzofuran	7.23	1.95	3.91	ug/L	100	1.95	5.29	99	76-121%	---	---		
Surr: Acenaphthylene-d8 (Surr)		Recovery: 326 %		Limits: 78-134 %	Dilution: 100x						S-05		
Benzo(a)pyrene-d12 (Surr)		66 %		80-132 %		"						S-05	

Matrix Spike Dup (23C0899-MSD1)

Prepared: 03/23/23 09:37 Analyzed: 03/23/23 15:27

QC Source Sample: GS-032123-45 (A3C0788-07)												
EPA 8270E LVI												
Acenaphthene	55.9	2.00	4.01	ug/L	100	2.00	56.0	-2	80-120%	8	30%	Q-11, J
Acenaphthylene	5.01	2.00	4.01	ug/L	100	2.00	3.12	94	80-124%	1	30%	
Anthracene	2.56	2.00	4.01	ug/L	100	2.00	ND	128	80-123%	7	30%	Q-11, J
Benz(a)anthracene	1.35	1.00	2.00	ug/L	100	2.00	ND	67	80-122%	20	30%	Q-11, J
Benzo(a)pyrene	1.30	1.00	2.00	ug/L	100	2.00	ND	65	80-129%	18	30%	Q-11, J
Benzo(b)fluoranthene	1.45	1.00	2.00	ug/L	100	2.00	ND	72	80-124%	4	30%	Q-11, J
Benzo(k)fluoranthene	1.40	1.00	2.00	ug/L	100	2.00	ND	70	80-125%	8	30%	Q-11, J
Benzo(g,h,i)perylene	ND	2.00	4.01	ug/L	100	2.00	ND		80-120%		30%	Q-11, J
Chrysene	1.65	1.00	2.00	ug/L	100	2.00	ND	82	80-120%	6	30%	J
Dibenz(a,h)anthracene	1.70	1.00	2.00	ug/L	100	2.00	ND	85	80-120%	0.3	30%	J
Fluoranthene	ND	2.00	4.01	ug/L	100	2.00	ND		80-126%		30%	Q-11, J
Fluorene	10.7	2.00	4.01	ug/L	100	2.00	9.94	39	77-127%	8	30%	Q-11, J
Indeno(1,2,3-cd)pyrene	1.45	1.00	2.00	ug/L	100	2.00	ND	72	80-121%	19	30%	Q-11, J
1-Methylnaphthalene	18.9	4.01	8.02	ug/L	100	2.00	16.4	128	53-148%	1	30%	
2-Methylnaphthalene	7.37	4.01	8.02	ug/L	100	2.00	5.97	70	48-150%	1	30%	J
Naphthalene	346	4.01	8.02	ug/L	100	2.00	355	-468	78-120%	6	30%	Q-11, J
Phenanthrene	8.22	4.01	8.02	ug/L	100	2.00	7.35	43	80-120%	4	30%	Q-11, J
Pyrene	ND	2.00	4.01	ug/L	100	2.00	ND		80-125%		30%	Q-11, J
Carbazole	15.2	2.00	4.01	ug/L	100	2.00	15.4	-12	65-141%	15	30%	Q-11, J
Dibenzofuran	6.82	2.00	4.01	ug/L	100	2.00	5.29	76	76-121%	6	30%	
Surr: Acenaphthylene-d8 (Surr)		Recovery: 376 %		Limits: 78-134 %		Dilution: 100x		S-05				
Benzo(a)pyrene-d12 (Surr)		64 %		80-132 %		"		S-05				

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Darwin Thomas, Business Development Director

Page 107 of 135



ANALYTICAL REPORT

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503-718-2323

ORELAP ID: OR100062

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Portland, OR 97219

Project: Gasco-CMMA/TCE Mon. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001F

Project Manager: John Renda

Report ID:

A3C0788 - 05 19 23 0603

QUALITY CONTROL (QC) SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E (Large Volume Injection)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C1086 - EPA 3511 (Bottle Extraction)						Water						
Blank (23C1086-BLK1)			Prepared: 03/28/23 09:47 Analyzed: 03/28/23 15:10									
EPA 8270E LVI												
Acenaphthene	ND	0.0160	0.0320	ug/L	1	---	---	---	---	---	---	
Acenaphthylene	ND	0.0160	0.0320	ug/L	1	---	---	---	---	---	---	
Anthracene	ND	0.0160	0.0320	ug/L	1	---	---	---	---	---	---	
Benz(a)anthracene	ND	0.00800	0.0160	ug/L	1	---	---	---	---	---	---	
Benzo(a)pyrene	ND	0.00800	0.0160	ug/L	1	---	---	---	---	---	---	
Benzo(b)fluoranthene	ND	0.00800	0.0160	ug/L	1	---	---	---	---	---	---	
Benzo(k)fluoranthene	ND	0.00800	0.0160	ug/L	1	---	---	---	---	---	---	
Benzo(g,h,i)perylene	ND	0.0160	0.0320	ug/L	1	---	---	---	---	---	---	
Chrysene	ND	0.00800	0.0160	ug/L	1	---	---	---	---	---	---	
Dibenz(a,h)anthracene	ND	0.00800	0.0160	ug/L	1	---	---	---	---	---	---	
Fluoranthene	ND	0.0160	0.0320	ug/L	1	---	---	---	---	---	---	
Fluorene	ND	0.0160	0.0320	ug/L	1	---	---	---	---	---	---	
Indeno(1,2,3-cd)pyrene	ND	0.00800	0.0160	ug/L	1	---	---	---	---	---	---	
1-Methylnaphthalene	ND	0.0320	0.0640	ug/L	1	---	---	---	---	---	---	
2-Methylnaphthalene	ND	0.0320	0.0640	ug/L	1	---	---	---	---	---	---	
Naphthalene	ND	0.0320	0.0640	ug/L	1	---	---	---	---	---	---	
Phenanthrene	ND	0.0320	0.0640	ug/L	1	---	---	---	---	---	---	
Pyrene	ND	0.0160	0.0320	ug/L	1	---	---	---	---	---	---	
Carbazole	ND	0.0160	0.0320	ug/L	1	---	---	---	---	---	---	
Dibenzofuran	ND	0.0160	0.0320	ug/L	1	---	---	---	---	---	---	
Surr: Acenaphthylene-d8 (Surr)		Recovery: 121 %		Limits: 78-134 %		Dilution: 1x						
Benzo(a)pyrene-d12 (Surr)		128 %		80-132 %		"						

LCS (23C1086-BS1)

Prepared: 03/28/23 09:47 Analyzed: 03/28/23 15:43

EPA 8270E LVI												
Acenaphthene	1.59	0.0160	0.0320	ug/L	1	1.60	---	99	80-120%	---	---	
Acenaphthylene	1.78	0.0160	0.0320	ug/L	1	1.60	---	111	80-124%	---	---	
Anthracene	1.71	0.0160	0.0320	ug/L	1	1.60	---	107	80-123%	---	---	
Benz(a)anthracene	1.86	0.00800	0.0160	ug/L	1	1.60	---	116	80-122%	---	---	
Benzo(a)pyrene	2.07	0.00800	0.0160	ug/L	1	1.60	---	129	80-129%	---	---	
Benzo(b)fluoranthene	1.94	0.00800	0.0160	ug/L	1	1.60	---	121	80-124%	---	---	
Benzo(k)fluoranthene	1.97	0.00800	0.0160	ug/L	1	1.60	---	123	80-125%	---	---	
Benzo(g,h,i)perylene	1.57	0.0160	0.0320	ug/L	1	1.60	---	98	80-120%	---	---	

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Darwin Thomas, Business Development Director



ANALYTICAL REPORT

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503-718-2323

ORELAP ID: OR100062

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Portland, OR 97219

Project: Gasco-CMMA/TCE Mon. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001F

Project Manager: John Renda

Report ID:

A3C0788 - 05 19 23 0603

QUALITY CONTROL (QC) SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E (Large Volume Injection)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C1086 - EPA 3511 (Bottle Extraction)						Water						
LCS (23C1086-BS1)			Prepared: 03/28/23 09:47		Analyzed: 03/28/23 15:43							
Chrysene	1.70	0.00800	0.0160	ug/L	1	1.60	---	106	80-120%	---	---	
Dibenz(a,h)anthracene	1.65	0.00800	0.0160	ug/L	1	1.60	---	103	80-120%	---	---	
Fluoranthene	1.71	0.0160	0.0320	ug/L	1	1.60	---	107	80-126%	---	---	
Fluorene	1.71	0.0160	0.0320	ug/L	1	1.60	---	107	77-127%	---	---	
Indeno(1,2,3-cd)pyrene	1.53	0.00800	0.0160	ug/L	1	1.60	---	96	80-121%	---	---	
1-Methylnaphthalene	1.76	0.0320	0.0640	ug/L	1	1.60	---	110	53-148%	---	---	
2-Methylnaphthalene	1.76	0.0320	0.0640	ug/L	1	1.60	---	110	48-150%	---	---	
Naphthalene	1.64	0.0320	0.0640	ug/L	1	1.60	---	102	78-120%	---	---	
Phenanthrene	1.55	0.0320	0.0640	ug/L	1	1.60	---	97	80-120%	---	---	
Pyrene	1.72	0.0160	0.0320	ug/L	1	1.60	---	108	80-125%	---	---	
Carbazole	1.98	0.0160	0.0320	ug/L	1	1.60	---	124	65-141%	---	---	
Dibenzofuran	1.68	0.0160	0.0320	ug/L	1	1.60	---	105	76-121%	---	---	
Surr: Acenaphthylene-d8 (Surr)		Recovery: 123 %		Limits: 78-134 %		Dilution: 1x						
Benzo(a)pyrene-d12 (Surr)		129 %		80-132 %		"						

LCS Dup (23C1086-BSD1)				Prepared: 03/28/23 09:47 Analyzed: 03/28/23 16:17								Q-19	
EPA 8270E LVI													
Acenaphthene	1.67	0.0160	0.0320	ug/L	1	1.60	---	104	80-120%	5	30%		
Acenaphthylene	1.85	0.0160	0.0320	ug/L	1	1.60	---	116	80-124%	4	30%		
Anthracene	1.76	0.0160	0.0320	ug/L	1	1.60	---	110	80-123%	2	30%		
Benz(a)anthracene	1.85	0.00800	0.0160	ug/L	1	1.60	---	116	80-122%	0.3	30%		
Benzo(a)pyrene	2.12	0.00800	0.0160	ug/L	1	1.60	---	133	80-129%	2	30%		Q-29
Benzo(b)fluoranthene	2.00	0.00800	0.0160	ug/L	1	1.60	---	125	80-124%	3	30%		Q-29
Benzo(k)fluoranthene	2.03	0.00800	0.0160	ug/L	1	1.60	---	127	80-125%	3	30%		Q-29
Benzo(g,h,i)perylene	1.59	0.0160	0.0320	ug/L	1	1.60	---	100	80-120%	1	30%		
Chrysene	1.73	0.00800	0.0160	ug/L	1	1.60	---	108	80-120%	1	30%		
Dibenz(a,h)anthracene	1.64	0.00800	0.0160	ug/L	1	1.60	---	102	80-120%	0.6	30%		
Fluoranthene	1.76	0.0160	0.0320	ug/L	1	1.60	---	110	80-126%	2	30%		
Fluorene	1.77	0.0160	0.0320	ug/L	1	1.60	---	111	77-127%	4	30%		
Indeno(1,2,3-cd)pyrene	1.55	0.00800	0.0160	ug/L	1	1.60	---	97	80-121%	1	30%		
1-Methylnaphthalene	1.72	0.0320	0.0640	ug/L	1	1.60	---	107	53-148%	2	30%		
2-Methylnaphthalene	1.69	0.0320	0.0640	ug/L	1	1.60	---	105	48-150%	4	30%		
Naphthalene	1.69	0.0320	0.0640	ug/L	1	1.60	---	106	78-120%	3	30%		
Phenanthrene	1.61	0.0320	0.0640	ug/L	1	1.60	---	101	80-120%	4	30%		

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A3C0788 - 05 19 23 0603

QUALITY CONTROL (QC) SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E (Large Volume Injection)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C1086 - EPA 3511 (Bottle Extraction)						Water						
LCS Dup (23C1086-BSD1)			Prepared: 03/28/23 09:47 Analyzed: 03/28/23 16:17								Q-19	
Pyrene	1.76	0.0160	0.0320	ug/L	1	1.60	---	110	80-125%	2	30%	
Carbazole	2.04	0.0160	0.0320	ug/L	1	1.60	---	127	65-141%	3	30%	
Dibenzofuran	1.73	0.0160	0.0320	ug/L	1	1.60	---	108	76-121%	3	30%	
Surr: Acenaphthylene-d8 (Surr)		Recovery: 123 %		Limits: 78-134 %		Dilution: 1x						
Benzo(a)pyrene-d12 (Surr)		129 %		80-132 %		"						

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Project Manager: **John Renda**

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A3C0788 - 05 19 23 0603

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C1227 - EPA 3015A						Water						
Blank (23C1227-BLK1)			Prepared: 03/30/23 15:17 Analyzed: 04/01/23 00:46									
EPA 6020B												
Aluminum	ND	25.0	50.0	ug/L	1	---	---	---	---	---	---	
Antimony	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Arsenic	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Barium	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
Beryllium	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
Cadmium	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
Chromium	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
Copper	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
Iron	ND	25.0	50.0	ug/L	1	---	---	---	---	---	---	
Lead	ND	0.110	0.200	ug/L	1	---	---	---	---	---	---	
Manganese	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Mercury	ND	0.0400	0.0800	ug/L	1	---	---	---	---	---	---	
Nickel	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
Selenium	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Silver	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
Thallium	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
Vanadium	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
Zinc	ND	2.00	4.00	ug/L	1	---	---	---	---	---	---	

LCS (23C1227-BS1)

Prepared: 03/30/23 15:17 Analyzed: 04/01/23 00:51

EPA 6020B												
Aluminum	2920	25.0	50.0	ug/L	1	2780	---	105	80-120%	---	---	
Antimony	27.1	0.500	1.00	ug/L	1	27.8	---	98	80-120%	---	---	
Arsenic	54.6	0.500	1.00	ug/L	1	55.6	---	98	80-120%	---	---	
Barium	57.8	1.00	2.00	ug/L	1	55.6	---	104	80-120%	---	---	
Beryllium	27.3	0.100	0.200	ug/L	1	27.8	---	98	80-120%	---	---	
Cadmium	54.5	0.100	0.200	ug/L	1	55.6	---	98	80-120%	---	---	
Chromium	55.2	1.00	2.00	ug/L	1	55.6	---	99	80-120%	---	---	
Copper	57.4	1.00	2.00	ug/L	1	55.6	---	103	80-120%	---	---	
Iron	2890	25.0	50.0	ug/L	1	2780	---	104	80-120%	---	---	
Lead	53.8	0.110	0.200	ug/L	1	55.6	---	97	80-120%	---	---	
Manganese	57.5	0.500	1.00	ug/L	1	55.6	---	103	80-120%	---	---	
Mercury	1.04	0.0400	0.0800	ug/L	1	1.11	---	94	80-120%	---	---	

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Anchor QEA, LLC

6720 SW Macadam Ave. Suite 125

Portland, OR 97219

Project: Gasco-CMMA/TCE Mon. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001F

Project Manager: John Renda

Report ID:

A3C0788 - 05 19 23 0603

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C1227 - EPA 3015A						Water						
LCS (23C1227-BS1)			Prepared: 03/30/23 15:17		Analyzed: 04/01/23 00:51							
Nickel	56.9	1.00	2.00	ug/L	1	55.6	---	102	80-120%	---	---	
Selenium	26.8	0.500	1.00	ug/L	1	27.8	---	96	80-120%	---	---	
Silver	26.9	0.100	0.200	ug/L	1	27.8	---	97	80-120%	---	---	
Thallium	27.0	0.100	0.200	ug/L	1	27.8	---	97	80-120%	---	---	
Vanadium	54.3	1.00	2.00	ug/L	1	55.6	---	98	80-120%	---	---	
Zinc	58.5	2.00	4.00	ug/L	1	55.6	---	105	80-120%	---	---	
Matrix Spike (23C1227-MS1)			Prepared: 03/30/23 15:17		Analyzed: 04/01/23 01:40							
QC Source Sample: GS-032123-45 (A3C0788-07)												
EPA 6020B												
Aluminum	2980	25.0	50.0	ug/L	1	2780	178	101	75-125%	---	---	
Antimony	27.1	0.500	1.00	ug/L	1	27.8	ND	98	75-125%	---	---	
Arsenic	55.9	0.500	1.00	ug/L	1	55.6	1.76	97	75-125%	---	---	
Barium	94.2	1.00	2.00	ug/L	1	55.6	37.9	101	75-125%	---	---	
Beryllium	27.3	0.100	0.200	ug/L	1	27.8	ND	98	75-125%	---	---	
Cadmium	54.8	0.100	0.200	ug/L	1	55.6	ND	99	75-125%	---	---	
Chromium	53.7	1.00	2.00	ug/L	1	55.6	ND	97	75-125%	---	---	
Copper	55.5	1.00	2.00	ug/L	1	55.6	ND	100	75-125%	---	---	
Iron	9810	25.0	50.0	ug/L	1	2780	7300	90	75-125%	---	---	
Lead	52.3	0.110	0.200	ug/L	1	55.6	0.110	94	75-125%	---	---	
Manganese	4430	0.500	1.00	ug/L	1	55.6	4510	-161	75-125%	---	---	E, Q-65
Mercury	0.998	0.0400	0.0800	ug/L	1	1.11	ND	90	75-125%	---	---	
Nickel	54.5	1.00	2.00	ug/L	1	55.6	ND	98	75-125%	---	---	
Selenium	26.8	0.500	1.00	ug/L	1	27.8	ND	97	75-125%	---	---	
Silver	26.4	0.100	0.200	ug/L	1	27.8	ND	95	75-125%	---	---	
Thallium	26.5	0.100	0.200	ug/L	1	27.8	ND	95	75-125%	---	---	
Vanadium	54.8	1.00	2.00	ug/L	1	55.6	1.57	96	75-125%	---	---	
Zinc	58.4	2.00	4.00	ug/L	1	55.6	3.48	99	75-125%	---	---	
Matrix Spike Dup (23C1227-MSD1)			Prepared: 03/30/23 15:17		Analyzed: 04/01/23 01:45							
QC Source Sample: GS-032123-45 (A3C0788-07)												
EPA 6020B												
Aluminum	3040	25.0	50.0	ug/L	1	2780	178	103	75-125%	2	20%	
Antimony	27.3	0.500	1.00	ug/L	1	27.8	ND	98	75-125%	0.6	20%	

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Project Manager: John Renda

Report ID:

A3C0788 - 05 19 23 0603

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C1227 - EPA 3015A						Water						
Matrix Spike Dup (23C1227-MSD1)			Prepared: 03/30/23 15:17 Analyzed: 04/01/23 01:45									
QC Source Sample: GS-032123-45 (A3C0788-07)												
Arsenic	56.8	0.500	1.00	ug/L	1	55.6	1.76	99	75-125%	2	20%	E, Q-65
Barium	95.0	1.00	2.00	ug/L	1	55.6	37.9	103	75-125%	0.9	20%	
Beryllium	26.9	0.100	0.200	ug/L	1	27.8	ND	97	75-125%	1	20%	
Cadmium	55.3	0.100	0.200	ug/L	1	55.6	ND	100	75-125%	1	20%	
Chromium	54.8	1.00	2.00	ug/L	1	55.6	ND	99	75-125%	2	20%	
Copper	55.7	1.00	2.00	ug/L	1	55.6	ND	100	75-125%	0.4	20%	
Iron	9970	25.0	50.0	ug/L	1	2780	7300	96	75-125%	2	20%	
Lead	52.7	0.110	0.200	ug/L	1	55.6	0.110	95	75-125%	0.8	20%	
Manganese	4480	0.500	1.00	ug/L	1	55.6	4510	-54	75-125%	1	20%	
Mercury	1.01	0.0400	0.0800	ug/L	1	1.11	ND	91	75-125%	1	20%	
Nickel	55.6	1.00	2.00	ug/L	1	55.6	ND	100	75-125%	2	20%	
Selenium	26.9	0.500	1.00	ug/L	1	27.8	ND	97	75-125%	0.2	20%	
Silver	26.4	0.100	0.200	ug/L	1	27.8	ND	95	75-125%	0.06	20%	
Thallium	26.5	0.100	0.200	ug/L	1	27.8	ND	95	75-125%	0.02	20%	
Vanadium	56.0	1.00	2.00	ug/L	1	55.6	1.57	98	75-125%	2	20%	
Zinc	60.6	2.00	4.00	ug/L	1	55.6	3.48	103	75-125%	4	20%	

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Page 113 of 135



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Project Number: 000029-02.84 T-01.001F

Project Manager: John Renda

Report ID:

A3C0788 - 05 19 23 0603

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Cyanide by Flow Analysis (Aqueous)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C1090 - Lachat Micro Dist - aqueous						Water						
Blank (23C1090-BLK1)			Prepared: 03/28/23 10:33		Analyzed: 03/28/23 14:56							
EPA 335.4												
Total Cyanide	ND	0.00500	0.00500	mg/L	1	---	---	---	---	---	---	
LCS (23C1090-BS1)			Prepared: 03/28/23 10:33		Analyzed: 03/28/23 14:58							
EPA 335.4												
Total Cyanide	0.224	0.00500	0.00500	mg/L	1	0.250	---	90	90-110%	---	---	
Duplicate (23C1090-DUP1)			Prepared: 03/28/23 10:33		Analyzed: 03/28/23 15:10							
QC Source Sample: Non-SDG (A3C0634-23RE1)												
Total Cyanide	ND	0.00500	0.00500	mg/L	1	---	ND	---	---	---	10%	
Matrix Spike (23C1090-MS1)			Prepared: 03/28/23 10:33		Analyzed: 03/28/23 15:12							
QC Source Sample: Non-SDG (A3C0634-23RE1)												
EPA 335.4												
Total Cyanide	0.217	0.00500	0.00500	mg/L	1	0.250	ND	87	90-110%	---	---	Q-01
Matrix Spike (23C1090-MS2)			Prepared: 03/28/23 10:33		Analyzed: 03/28/23 15:20							
QC Source Sample: Non-SDG (A3C0670-02RE1)												
EPA 335.4												
Total Cyanide	0.228	0.00500	0.00500	mg/L	1	0.250	0.0105	87	90-110%	---	---	Q-01
Matrix Spike Dup (23C1090-MSD2)			Prepared: 03/28/23 10:33		Analyzed: 03/28/23 15:22							
QC Source Sample: Non-SDG (A3C0670-02RE1)												
Total Cyanide	0.234	0.00500	0.00500	mg/L	1	0.250	0.0105	89	90-110%	3	10%	Q-01

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Page 114 of 135



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Project Number: 000029-02.84 T-01.001F

Project Manager: John Renda

Report ID:

A3C0788 - 05 19 23 0603

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Cyanide by Flow Analysis (Aqueous)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23D0035 - Lachat Micro Dist - aqueous						Water						
Blank (23D0035-BLK1)			Prepared: 04/03/23 10:10 Analyzed: 04/03/23 13:59									
EPA 335.4												
Total Cyanide	ND	0.00500	0.00500	mg/L	1	---	---	---	---	---	---	
LCS (23D0035-BS1)			Prepared: 04/03/23 10:10 Analyzed: 04/03/23 14:01									
EPA 335.4												
Total Cyanide	0.239	0.00500	0.00500	mg/L	1	0.250	---	96	90-110%	---	---	
Duplicate (23D0035-DUP2)			Prepared: 04/03/23 10:10 Analyzed: 04/03/23 14:23									
QC Source Sample: Non-SDG (A3C0826-01)												
Total Cyanide	ND	0.00500	0.00500	mg/L	1	---	ND	---	---	---	10%	
Matrix Spike (23D0035-MS1)			Prepared: 04/03/23 10:10 Analyzed: 04/03/23 14:09									
QC Source Sample: GS-032123-45 (A3C0788-07)												
EPA 335.4												
Total Cyanide	0.239	0.00500	0.00500	mg/L	1	0.250	ND	96	90-110%	---	---	
Matrix Spike (23D0035-MS2)			Prepared: 04/03/23 10:10 Analyzed: 04/03/23 14:25									
QC Source Sample: Non-SDG (A3C0826-01)												
EPA 335.4												
Total Cyanide	0.252	0.00500	0.00500	mg/L	1	0.250	ND	101	90-110%	---	---	
Matrix Spike Dup (23D0035-MSD1)			Prepared: 04/03/23 10:10 Analyzed: 04/03/23 14:11									
QC Source Sample: GS-032123-45 (A3C0788-07)												
EPA 335.4												
Total Cyanide	0.239	0.00500	0.00500	mg/L	1	0.250	ND	96	90-110%	0.08	10%	

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QUALITY CONTROL (QC) SAMPLE RESULTS

Available Cyanide by FIA, Ligand Exchange and Amperometric Detection

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C0907 - Method Prep: Aq						Water						
Blank (23C0907-BLK1)			Prepared: 03/23/23 10:51 Analyzed: 03/23/23 15:32									
<u>D6888-09</u>												
Available Cyanide	ND	0.00100	0.00200	mg/L	1	---	---	---	---	---	---	
LCS (23C0907-BS1)			Prepared: 03/23/23 10:51 Analyzed: 03/23/23 15:33									
<u>D6888-09</u>												
Available Cyanide	0.0241	0.00100	0.00200	mg/L	1	0.0250	---	96	90-117%	---	---	
Matrix Spike (23C0907-MS1)			Prepared: 03/23/23 10:51 Analyzed: 03/23/23 16:00									
<u>QC Source Sample: GS-032123-45 (A3C0788-07)</u>												
<u>D6888-09</u>												
Available Cyanide	0.0259	0.00101	0.00201	mg/L	1	0.0251	ND	103	82-130%	---	---	
Matrix Spike (23C0907-MS2)			Prepared: 03/23/23 10:51 Analyzed: 03/23/23 16:20									
<u>QC Source Sample: Non-SDG (A3C0826-06)</u>												
<u>D6888-09</u>												
Available Cyanide	0.0221	0.00101	0.00201	mg/L	1	0.0251	0.00452	70	82-130%	---	---	Q-02
Matrix Spike Dup (23C0907-MSD1)			Prepared: 03/23/23 10:51 Analyzed: 03/23/23 16:02									
<u>QC Source Sample: GS-032123-45 (A3C0788-07)</u>												
<u>D6888-09</u>												
Available Cyanide	0.0268	0.00101	0.00201	mg/L	1	0.0251	ND	107	82-130%	3	11%	
Matrix Spike Dup (23C0907-MSD2)			Prepared: 03/23/23 10:51 Analyzed: 03/23/23 16:21									
<u>QC Source Sample: Non-SDG (A3C0826-06)</u>												
Available Cyanide	0.0218	0.00101	0.00201	mg/L	1	0.0251	0.00452	69	82-130%	1	11%	Q-02

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QUALITY CONTROL (QC) SAMPLE RESULTS

Free Cyanide by Microdiffusion/Colorimetric Spectrophotometry

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C1077 - Microdiffusion						Water						
Blank (23C1077-BLK1)			Prepared: 03/28/23 10:15		Analyzed: 03/28/23 15:45							
<u>D4282-02</u>												
Free Cyanide	ND	0.00250	0.00500	mg/L	1	---	---	---	---	---	---	
LCS (23C1077-BS1)			Prepared: 03/28/23 10:15		Analyzed: 03/28/23 15:45							
<u>D4282-02</u>												
Free Cyanide	0.0679	0.00250	0.00500	mg/L	1	0.0667	---	102	74-120%	---	---	
LCS Dup (23C1077-BSD1)			Prepared: 03/28/23 10:15		Analyzed: 03/28/23 15:50							
<u>D4282-02</u>												
Free Cyanide	0.0662	0.00250	0.00500	mg/L	1	0.0667	---	99	74-120%	3	20%	
Matrix Spike (23C1077-MS1)			Prepared: 03/28/23 10:15		Analyzed: 03/28/23 16:03							
<u>QC Source Sample: GS-032123-45 (A3C0788-07)</u>												
<u>D4282-02</u>												
Free Cyanide	0.0663	0.00250	0.00500	mg/L	1	0.0667	ND	99	74-120%	---	---	
Matrix Spike Dup (23C1077-MSD1)			Prepared: 03/28/23 10:15		Analyzed: 03/28/23 16:03							
<u>QC Source Sample: GS-032123-45 (A3C0788-07)</u>												
<u>D4282-02</u>												
Free Cyanide	0.0670	0.00250	0.00500	mg/L	1	0.0667	ND	101	74-120%	1	20%	

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Page 117 of 135



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Analytical Resources, LLC

QUALITY CONTROL (QC) SAMPLE RESULTS

Washington Department of Ecology Methods

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch BLC0652 - EPA 3510C SepF						Water						
Blank (BLC0652-BLK1)			Prepared: 03/27/23 11:57 Analyzed: 03/30/23 16:32									
WAEPH												
C8-C10 Aliphatics	ND	---	40	ug/L	1	---	---	---	---	---	---	U
>C10-C12 Aliphatics	ND	---	40	ug/L	1	---	---	---	---	---	---	U
>C12-C16 Aliphatics	ND	---	40	ug/L	1	---	---	---	---	---	---	U
>C16-C21 Aliphatics	ND	---	40	ug/L	1	---	---	---	---	---	---	U
>C21-C34 Aliphatics	ND	---	40	ug/L	1	---	---	---	---	---	---	U
Surr: 1-Chloro-octadecane		Recovery: 47.1 %		Limits: 36-120 %		Dilution: 1x						
Blank (BLC0652-BLK2)			Prepared: 03/27/23 11:57 Analyzed: 03/30/23 09:18									
WAEPH												
C8-C10 Aromatics	ND	---	40	ug/L	1	---	---	---	---	---	---	U
>C10-C12 Aromatics	ND	---	40	ug/L	1	---	---	---	---	---	---	U
>C12-C16 Aromatics	ND	---	40	ug/L	1	---	---	---	---	---	---	U
>C16-C21 Aromatics	ND	---	40	ug/L	1	---	---	---	---	---	---	U
>C21-C34 Aromatics	ND	---	40	ug/L	1	---	---	---	---	---	---	U
Surr: o-Terphenyl		Recovery: 78.2 %		Limits: 41-120 %		Dilution: 1x						
LCS (BLC0652-BS1)			Prepared: 03/27/23 11:57 Analyzed: 03/30/23 16:57									
WAEPH												
C8-C10 Aliphatics	111	---	40	ug/L	1	300.00	---	36.9	12-130%	---	---	
>C10-C12 Aliphatics	122	---	40	ug/L	1	300.00	---	40.7	10-130%	---	---	
>C12-C16 Aliphatics	160	---	40	ug/L	1	300.00	---	53.2	35-130%	---	---	
>C16-C21 Aliphatics	213	---	40	ug/L	1	300.00	---	71.0	45-130%	---	---	
>C21-C34 Aliphatics	206	---	40	ug/L	1	300.00	---	68.7	19-130%	---	---	
Surr: 1-Chloro-octadecane		Recovery: 42.7 %		Limits: 36-120 %		Dilution: 1x						
LCS (BLC0652-BS2)			Prepared: 03/27/23 11:57 Analyzed: 03/30/23 09:42									
WAEPH												
>C10-C12 Aromatics	167	---	40	ug/L	1	300.00	---	55.5	12-130%	---	---	
>C12-C16 Aromatics	159	---	40	ug/L	1	300.00	---	52.9	31-130%	---	---	
>C16-C21 Aromatics	464	---	40	ug/L	1	600.00	---	77.3	48-130%	---	---	

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Project: **Gasco-CMMA/TCE Mon. Wells 1Q 2023 Perf. Mon.**

Project Number: **000029-02.84 T-01.001F**

Project Manager: **John Renda**

Report ID:

A3C0788 - 05 19 23 0603

Analytical Resources, LLC

QUALITY CONTROL (QC) SAMPLE RESULTS

Washington Department of Ecology Methods

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch BLC0652 - EPA 3510C SepF						Water						
LCS (BLC0652-BS2)			Prepared: 03/27/23 11:57 Analyzed: 03/30/23 09:42									
>C21-C34 Aromatics	214	---	40	ug/L	1	300.00	---	71.5	33-130%	---	---	
Surr: o-Terphenyl		Recovery: 75.1 %		Limits: 41-120 %		Dilution: 1x						
LCS Dup (BLC0652-BSD1)			Prepared: 03/27/23 11:57 Analyzed: 03/30/23 17:21									
WAEPH												
C8-C10 Aliphatics	115	---	40	ug/L	1	300.00	---	38.4	12-130%	3.89	30%	
>C10-C12 Aliphatics	134	---	40	ug/L	1	300.00	---	44.7	10-130%	9.52	30%	
>C12-C16 Aliphatics	165	---	40	ug/L	1	300.00	---	55.1	35-130%	3.45	30%	
>C16-C21 Aliphatics	225	---	40	ug/L	1	300.00	---	74.9	45-130%	5.30	30%	
>C21-C34 Aliphatics	227	---	40	ug/L	1	300.00	---	75.6	19-130%	9.61	30%	
Surr: 1-Chloro-octadecane		Recovery: 43.8 %		Limits: 36-120 %		Dilution: 1x						
LCS Dup (BLC0652-BSD2)			Prepared: 03/27/23 11:57 Analyzed: 03/30/23 10:06									
WAEPH												
>C10-C12 Aromatics	179	---	40	ug/L	1	300.00	---	59.7	12-130%	7.18	30%	
>C12-C16 Aromatics	181	---	40	ug/L	1	300.00	---	60.3	31-130%	13.1	30%	
>C16-C21 Aromatics	545	---	40	ug/L	1	600.00	---	90.8	48-130%	16.1	30%	
>C21-C34 Aromatics	240	---	40	ug/L	1	300.00	---	79.9	33-130%	11.1	30%	
Surr: o-Terphenyl		Recovery: 85.9 %		Limits: 41-120 %		Dilution: 1x						

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Darwin Thomas, Business Development Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062**Anchor QEA, LLC**6720 SW Macadam Ave. Suite 125
Portland, OR 97219Project: **Gasco-CMMA/TCE Mon. Wells 1Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001F**Project Manager: **John Renda****Report ID:****A3C0788 - 05 19 23 0603****Analytical Resources, LLC****QUALITY CONTROL (QC) SAMPLE RESULTS****Washington Department of Ecology Methods**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch BLC0828 - EPA 5030C (Purge and Trap)						Water						
Blank (BLC0828-BLK1)			Prepared: 03/30/23 15:42 Analyzed: 03/30/23 16:57									
WAVPH												
C5-C6 Aliphatics	ND	---	50	ug/L	1	---	---	---	---	---	---	U
>C6-C8 Aliphatics	ND	---	50	ug/L	1	---	---	---	---	---	---	U
>C8-C10 Aliphatics	ND	---	50	ug/L	1	---	---	---	---	---	---	U
>C10-C12 Aliphatics	ND	---	50	ug/L	1	---	---	---	---	---	---	U
C8-C10 Aromatics	ND	---	50	ug/L	1	---	---	---	---	---	---	U
>C10-C12 Aromatics	ND	---	50	ug/L	1	---	---	---	---	---	---	U
>C12-C13 Aromatics	ND	---	50	ug/L	1	---	---	---	---	---	---	U
Methyl tert-butyl Ether	ND	---	5	ug/L	1	---	---	---	---	---	---	U
Benzene	ND	---	5	ug/L	1	---	---	---	---	---	---	U
Toluene	ND	---	5	ug/L	1	---	---	---	---	---	---	U
Ethylbenzene	ND	---	5	ug/L	1	---	---	---	---	---	---	U
1,2,3-Trimethylbenzene	ND	---	5	ug/L	1	---	---	---	---	---	---	U
m,p-Xylene	ND	---	10	ug/L	1	---	---	---	---	---	---	U
Naphthalene	ND	---	5	ug/L	1	---	---	---	---	---	---	U
1-Methylnaphthalene	ND	---	5	ug/L	1	---	---	---	---	---	---	U
o-Xylene	ND	---	5	ug/L	1	---	---	---	---	---	---	U
n-Pentane	ND	---	5	ug/L	1	---	---	---	---	---	---	U
n-Hexane	ND	---	5	ug/L	1	---	---	---	---	---	---	U
n-Octane	ND	---	5	ug/L	1	---	---	---	---	---	---	U
n-Decane	ND	---	5	ug/L	1	---	---	---	---	---	---	U
n-Dodecane	ND	---	5	ug/L	1	---	---	---	---	---	---	U
Surr: PID: 2,5-Dibromotoluene		Recovery: 74.0 %		Limits: 60-140 %		Dilution: 1x						
FID: 2,5-Dibromotoluene		76.6 %		60-140 %		"						

LCS (BLC0828-BS1)

Prepared: 03/30/23 15:42 Analyzed: 03/30/23 15:56

WAVPH												
C5-C6 Aliphatics	97.8	---	50	ug/L	1	---	---	---	---	---	---	
>C6-C8 Aliphatics	67.9	---	50	ug/L	1	---	---	---	---	---	---	
>C8-C10 Aliphatics	96.9	---	50	ug/L	1	---	---	---	---	---	---	
>C10-C12 Aliphatics	97.3	---	50	ug/L	1	---	---	---	---	---	---	
C8-C10 Aromatics	326	---	50	ug/L	1	---	---	---	---	---	---	

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Darwin Thomas, Business Development Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

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6720 SW Macadam Ave. Suite 125

Portland, OR 97219

Project: Gasco-CMMA/TCE Mon. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001F

Project Manager: John Renda

Report ID:

A3C0788 - 05 19 23 0603

Analytical Resources, LLC

QUALITY CONTROL (QC) SAMPLE RESULTS

Washington Department of Ecology Methods

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch BLC0828 - EPA 5030C (Purge and Trap)						Water						
LCS (BLC0828-BS1)			Prepared: 03/30/23 15:42		Analyzed: 03/30/23 15:56							
>C10-C12 Aromatics	59.7	---	50	ug/L	1		---			---	---	U
>C12-C13 Aromatics	ND	---	50	ug/L	1		---			---	---	
Methyl tert-butyl Ether	62.6	---	5	ug/L	1	50.000	---	125	80-131%	---	---	
Benzene	61.3	---	5	ug/L	1	50.000	---	123	68-136%	---	---	
Toluene	61.9	---	5	ug/L	1	50.000	---	124	70-145%	---	---	
Ethylbenzene	49.5	---	5	ug/L	1	50.000	---	99.0	70-130%	---	---	
1,2,3-Trimethylbenzene	50.2	---	5	ug/L	1	50.000	---	100	70-130%	---	---	
m,p-Xylene	101	---	10	ug/L	1	100.00	---	101	70-133%	---	---	
Naphthalene	48.5	---	5	ug/L	1	50.000	---	97.0	70-130%	---	---	
1-Methylnaphthalene	45.1	---	5	ug/L	1	50.000	---	90.2	70-130%	---	---	
o-Xylene	54.2	---	5	ug/L	1	50.000	---	108	70-130%	---	---	
n-Pentane	52.0	---	5	ug/L	1	50.000	---	104	70-130%	---	---	
n-Hexane	53.1	---	5	ug/L	1	50.000	---	106	70-130%	---	---	
n-Octane	41.1	---	5	ug/L	1	50.000	---	82.2	56-120%	---	---	
n-Decane	45.0	---	5	ug/L	1	50.000	---	90.0	61-120%	---	---	
n-Dodecane	55.4	---	5	ug/L	1	50.000	---	111	70-130%	---	---	
Surr: PID: 2,5-Dibromotoluene		Recovery: 87.0 %		Limits: 60-140 %		Dilution: 1x						
FID: 2,5-Dibromotoluene		89.4 %		60-140 %		"						

LCS Dup (BLC0828-BSD1)

Prepared: 03/30/23 15:42 Analyzed: 03/30/23 16:26

WAVPH												
C5-C6 Aliphatics	90.8	---	50	ug/L	1	---	---	---	---	7.42	30%	
>C6-C8 Aliphatics	62.7	---	50	ug/L	1	---	---	---	---	7.96	30%	
>C8-C10 Aliphatics	98.4	---	50	ug/L	1	---	---	---	---	1.54	30%	
>C10-C12 Aliphatics	98.3	---	50	ug/L	1	---	---	---	---	1.02	30%	
C8-C10 Aromatics	332	---	50	ug/L	1	---	---	---	---	1.88	30%	
>C10-C12 Aromatics	60.7	---	50	ug/L	1	---	---	---	---	1.66	30%	
>C12-C13 Aromatics	ND	---	50	ug/L	1	---	---	---	---	0.663	30%	U
Methyl tert-butyl Ether	64.1	---	5	ug/L	1	50.000	---	128	80-131%	2.37	30%	
Benzene	62.3	---	5	ug/L	1	50.000	---	125	68-136%	1.62	30%	
Toluene	60.8	---	5	ug/L	1	50.000	---	122	70-145%	1.79	30%	
Ethylbenzene	50.7	---	5	ug/L	1	50.000	---	101	70-130%	2.40	30%	

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Portland, OR 97219

Project: **Gasco-CMMA/TCE Mon. Wells 1Q 2023 Perf. Mon.**

Project Number: **000029-02.84 T-01.001F**

Project Manager: **John Renda**

Report ID:

A3C0788 - 05 19 23 0603

Analytical Resources, LLC

QUALITY CONTROL (QC) SAMPLE RESULTS

Washington Department of Ecology Methods

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch BLC0828 - EPA 5030C (Purge and Trap)						Water						
LCS Dup (BLC0828-BS01)			Prepared: 03/30/23 15:42		Analyzed: 03/30/23 16:26							
1,2,3-Trimethylbenzene	49.6	---	5	ug/L	1	50.000	---	99.2	70-130%	1.20	30%	
m,p-Xylene	104	---	10	ug/L	1	100.00	---	104	70-133%	2.83	30%	
Naphthalene	49.3	---	5	ug/L	1	50.000	---	98.6	70-130%	1.64	30%	
1-Methylnaphthalene	45.4	---	5	ug/L	1	50.000	---	90.8	70-130%	0.663	30%	
o-Xylene	55.2	---	5	ug/L	1	50.000	---	110	70-130%	1.83	30%	
n-Pentane	54.3	---	5	ug/L	1	50.000	---	109	70-130%	4.33	30%	
n-Hexane	49.5	---	5	ug/L	1	50.000	---	99.0	70-130%	7.02	30%	
n-Octane	40.6	---	5	ug/L	1	50.000	---	81.2	56-120%	1.22	30%	
n-Decane	44.9	---	5	ug/L	1	50.000	---	89.8	61-120%	0.222	30%	
n-Dodecane	57.6	---	5	ug/L	1	50.000	---	115	70-130%	3.89	30%	
Surr: PID: 2,5-Dibromotoluene		Recovery: 84.9 %		Limits: 60-140 %		Dilution: 1x						
FID: 2,5-Dibromotoluene		86.6 %		60-140 %		"						

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SAMPLE PREPARATION INFORMATION

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Prep: EPA 3510C (Fuels/Acid Ext.)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 23D0047							
A3C0788-01	WG	NWTPH-Dx	03/21/23 10:30	04/03/23 12:28	1050mL/5mL	1000mL/5mL	0.95
A3C0788-02	WG	NWTPH-Dx	03/21/23 10:35	04/03/23 12:28	1050mL/5mL	1000mL/5mL	0.95
A3C0788-03	WG	NWTPH-Dx	03/21/23 10:50	04/03/23 12:28	1050mL/5mL	1000mL/5mL	0.95
A3C0788-04	WG	NWTPH-Dx	03/21/23 12:30	04/03/23 12:28	1050mL/5mL	1000mL/5mL	0.95
A3C0788-05	WG	NWTPH-Dx	03/21/23 12:40	04/03/23 12:28	1050mL/5mL	1000mL/5mL	0.95
A3C0788-06	WG	NWTPH-Dx	03/21/23 13:30	04/03/23 15:49	1060mL/5mL	1000mL/5mL	0.94
A3C0788-07	WG	NWTPH-Dx	03/21/23 14:40	04/03/23 15:49	1050mL/5mL	1000mL/5mL	0.95

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Prep: EPA 5030C

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 23C0997							
A3C0788-01	WG	NWTPH-Gx (MS)	03/21/23 10:30	03/24/23 15:45	5mL/5mL	5mL/5mL	1.00
A3C0788-02	WG	NWTPH-Gx (MS)	03/21/23 10:35	03/24/23 15:45	5mL/5mL	5mL/5mL	1.00
Batch: 23C1008							
A3C0788-06	WG	NWTPH-Gx (MS)	03/21/23 13:30	03/25/23 16:51	5mL/5mL	5mL/5mL	1.00
A3C0788-07	WG	NWTPH-Gx (MS)	03/21/23 14:40	03/25/23 16:51	5mL/5mL	5mL/5mL	1.00
Batch: 23C1041							
A3C0788-04RE1	WG	NWTPH-Gx (MS)	03/21/23 12:30	03/27/23 14:13	5mL/5mL	5mL/5mL	1.00
A3C0788-05RE1	WG	NWTPH-Gx (MS)	03/21/23 12:40	03/27/23 14:13	5mL/5mL	5mL/5mL	1.00
Batch: 23C1174							
A3C0788-03RE2	WG	NWTPH-Gx (MS)	03/21/23 10:50	03/29/23 13:58	5mL/5mL	5mL/5mL	1.00

Volatile Organic Compounds by EPA 8260D

Prep: EPA 5030C

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 23C0997							
A3C0788-01	WG	EPA 8260D	03/21/23 10:30	03/24/23 15:45	5mL/5mL	5mL/5mL	1.00
A3C0788-02	WG	EPA 8260D	03/21/23 10:35	03/24/23 15:45	5mL/5mL	5mL/5mL	1.00
Batch: 23C1008							
A3C0788-06	WG	EPA 8260D	03/21/23 13:30	03/25/23 16:51	5mL/5mL	5mL/5mL	1.00
A3C0788-07	WG	EPA 8260D	03/21/23 14:40	03/25/23 16:51	5mL/5mL	5mL/5mL	1.00

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Page 123 of 135

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503-718-2323
ORELAP ID: OR100062**Anchor QEA, LLC**6720 SW Macadam Ave. Suite 125
Portland, OR 97219Project: **Gasco-CMMA/TCE Mon. Wells 1Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001F**Project Manager: **John Renda****Report ID:****A3C0788 - 05 19 23 0603****SAMPLE PREPARATION INFORMATION****Volatile Organic Compounds by EPA 8260D****Prep: EPA 5030C**

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
A3C0788-08	W	EPA 8260D	03/21/23 16:15	03/25/23 16:51	5mL/5mL	5mL/5mL	1.00
Batch: 23C1023							
A3C0788-07RE1	WG	EPA 8260D	03/21/23 14:40	03/27/23 10:00	5mL/5mL	5mL/5mL	1.00
Batch: 23C1041							
A3C0788-04RE1	WG	EPA 8260D	03/21/23 12:30	03/27/23 14:13	5mL/5mL	5mL/5mL	1.00
A3C0788-05RE1	WG	EPA 8260D	03/21/23 12:40	03/27/23 14:13	5mL/5mL	5mL/5mL	1.00
Batch: 23C1174							
A3C0788-03RE2	WG	EPA 8260D	03/21/23 10:50	03/29/23 13:58	5mL/5mL	5mL/5mL	1.00

Volatile Organic Compounds by EPA 8260D SIM**Prep: EPA 5030C**

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 23C1096							
A3C0788-04	WG	EPA 8260D SIM	03/21/23 12:30	03/28/23 13:43	5mL/5mL	5mL/5mL	1.00

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E (Large Volume Injection)**Prep: EPA 3511 (Bottle Extraction)**

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 23C0899							
A3C0788-02	WG	EPA 8270E LVI	03/21/23 10:35	03/23/23 09:37	101.79mL/5mL	125mL/5mL	1.23
A3C0788-03	WG	EPA 8270E LVI	03/21/23 10:50	03/23/23 09:37	97.05mL/5mL	125mL/5mL	1.29
A3C0788-05	WG	EPA 8270E LVI	03/21/23 12:40	03/23/23 09:37	103.35mL/5mL	125mL/5mL	1.21
A3C0788-05RE1	WG	EPA 8270E LVI	03/21/23 12:40	03/23/23 09:37	103.35mL/5mL	125mL/5mL	1.21
A3C0788-06	WG	EPA 8270E LVI	03/21/23 13:30	03/23/23 09:37	118.08mL/5mL	125mL/5mL	1.06
A3C0788-07	WG	EPA 8270E LVI	03/21/23 14:40	03/23/23 09:37	94.59mL/5mL	125mL/5mL	1.32
Batch: 23C1086							
A3C0788-01RE2	WG	EPA 8270E LVI	03/21/23 10:30	03/28/23 09:47	97.71mL/5mL	125mL/5mL	1.28
A3C0788-04RE2	WG	EPA 8270E LVI	03/21/23 12:30	03/28/23 09:47	91.01mL/5mL	125mL/5mL	1.37
A3C0788-04RE3	WG	EPA 8270E LVI	03/21/23 12:30	03/28/23 09:47	91.01mL/5mL	125mL/5mL	1.37

Total Metals by EPA 6020B (ICPMS)

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SAMPLE PREPARATION INFORMATION

Total Metals by EPA 6020B (ICPMS)

Prep: EPA 3015A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
<u>Batch: 23C1227</u>							
A3C0788-01	WG	EPA 6020B	03/21/23 10:30	03/30/23 15:17	45mL/50mL	45mL/50mL	1.00
A3C0788-01RE1	WG	EPA 6020B	03/21/23 10:30	03/30/23 15:17	45mL/50mL	45mL/50mL	1.00
A3C0788-02	WG	EPA 6020B	03/21/23 10:35	03/30/23 15:17	45mL/50mL	45mL/50mL	1.00
A3C0788-02RE1	WG	EPA 6020B	03/21/23 10:35	03/30/23 15:17	45mL/50mL	45mL/50mL	1.00
A3C0788-03	WG	EPA 6020B	03/21/23 10:50	03/30/23 15:17	45mL/50mL	45mL/50mL	1.00
A3C0788-03RE1	WG	EPA 6020B	03/21/23 10:50	03/30/23 15:17	45mL/50mL	45mL/50mL	1.00
A3C0788-04RE1	WG	EPA 6020B	03/21/23 12:30	03/30/23 15:17	45mL/50mL	45mL/50mL	1.00
A3C0788-04RE2	WG	EPA 6020B	03/21/23 12:30	03/30/23 15:17	45mL/50mL	45mL/50mL	1.00
A3C0788-05	WG	EPA 6020B	03/21/23 12:40	03/30/23 15:17	45mL/50mL	45mL/50mL	1.00
A3C0788-06	WG	EPA 6020B	03/21/23 13:30	03/30/23 15:17	45mL/50mL	45mL/50mL	1.00
A3C0788-06RE1	WG	EPA 6020B	03/21/23 13:30	03/30/23 15:17	45mL/50mL	45mL/50mL	1.00
A3C0788-07	WG	EPA 6020B	03/21/23 14:40	03/30/23 15:17	45mL/50mL	45mL/50mL	1.00
A3C0788-07RE1	WG	EPA 6020B	03/21/23 14:40	03/30/23 15:17	45mL/50mL	45mL/50mL	1.00

Total Cyanide by Flow Analysis (Aqueous)

Prep: Lachat Micro Dist - aqueous

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
<u>Batch: 23C1090</u>							
A3C0788-01RE1	WG	EPA 335.4	03/21/23 10:30	03/28/23 10:33	6mL/6mL	6mL/6mL	1.00
A3C0788-02RE1	WG	EPA 335.4	03/21/23 10:35	03/28/23 10:33	6mL/6mL	6mL/6mL	1.00
A3C0788-03RE1	WG	EPA 335.4	03/21/23 10:50	03/28/23 10:33	6mL/6mL	6mL/6mL	1.00
A3C0788-04RE2	WG	EPA 335.4	03/21/23 12:30	03/28/23 10:33	6mL/6mL	6mL/6mL	1.00
A3C0788-05RE1	WG	EPA 335.4	03/21/23 12:40	03/28/23 10:33	6mL/6mL	6mL/6mL	1.00
<u>Batch: 23D0035</u>							
A3C0788-06	WG	EPA 335.4	03/21/23 13:30	04/03/23 10:10	6mL/6mL	6mL/6mL	1.00
A3C0788-07	WG	EPA 335.4	03/21/23 14:40	04/03/23 10:10	6mL/6mL	6mL/6mL	1.00

Available Cyanide by FIA, Ligand Exchange and Amperometric Detection

Prep: Method Prep: Aq

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
<u>Batch: 23C0907</u>							
A3C0788-01	WG	D6888-09	03/21/23 10:30	03/23/23 10:51	5mL/5mL	5mL/5mL	1.00
A3C0788-02	WG	D6888-09	03/21/23 10:35	03/23/23 10:51	5mL/5mL	5mL/5mL	1.00
A3C0788-03	WG	D6888-09	03/21/23 10:50	03/23/23 10:51	5mL/5mL	5mL/5mL	1.00

Apex Laboratories

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Darwin Thomas, Business Development Director

**ANALYTICAL REPORT****Apex Laboratories, LLC**

6700 S.W. Sandburg Street

Tigard, OR 97223

503-718-2323

ORELAP ID: OR100062

Anchor QEA, LLC

6720 SW Macadam Ave. Suite 125

Portland, OR 97219

Project: **Gasco-CMMA/TCE Mon. Wells 1Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001F**Project Manager: **John Renda****Report ID:****A3C0788 - 05 19 23 0603****SAMPLE PREPARATION INFORMATION****Available Cyanide by FIA, Ligand Exchange and Amperometric Detection****Prep: Method Prep: Ag**

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
A3C0788-04RE1	WG	D6888-09	03/21/23 12:30	03/23/23 10:51	5mL/5mL	5mL/5mL	1.00
A3C0788-05	WG	D6888-09	03/21/23 12:40	03/23/23 10:51	5mL/5mL	5mL/5mL	1.00
A3C0788-06	WG	D6888-09	03/21/23 13:30	03/23/23 10:51	5mL/5mL	5mL/5mL	1.00
A3C0788-07	WG	D6888-09	03/21/23 14:40	03/23/23 10:51	5mL/5mL	5mL/5mL	1.00

Free Cyanide by Microdiffusion/Colorimetric Spectrophotometry**Prep: Microdiffusion**

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 23C1077							
A3C0788-01	WG	D4282-02	03/21/23 10:30	03/28/23 10:15	3mL/3mL	3mL/3mL	1.00
A3C0788-02	WG	D4282-02	03/21/23 10:35	03/28/23 10:15	3mL/3mL	3mL/3mL	1.00
A3C0788-03	WG	D4282-02	03/21/23 10:50	03/28/23 10:15	3mL/3mL	3mL/3mL	1.00
A3C0788-04	WG	D4282-02	03/21/23 12:30	03/28/23 10:15	3mL/3mL	3mL/3mL	1.00
A3C0788-05	WG	D4282-02	03/21/23 12:40	03/28/23 10:15	3mL/3mL	3mL/3mL	1.00
A3C0788-06	WG	D4282-02	03/21/23 13:30	03/28/23 10:15	3mL/3mL	3mL/3mL	1.00
A3C0788-07	WG	D4282-02	03/21/23 14:40	03/28/23 10:15	3mL/3mL	3mL/3mL	1.00

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Project Manager: **John Renda**

Report ID:

A3C0788 - 05 19 23 0603

Analytical Resources, LLC

SAMPLE PREPARATION INFORMATION

Washington Department of Ecology Methods

Prep: EPA 3510C SepF

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: BLC0652							
A3C0788-01	WG	WA EPH	03/21/23 10:30	03/27/23 11:57	500mL/1mL	500mL/1mL	1.00
A3C0788-02	WG	WA EPH	03/21/23 10:35	03/27/23 11:57	500mL/1mL	500mL/1mL	1.00
A3C0788-03	WG	WA EPH	03/21/23 10:50	03/27/23 11:57	500mL/1mL	500mL/1mL	1.00
A3C0788-05	WG	WA EPH	03/21/23 12:40	03/27/23 11:57	500mL/1mL	500mL/1mL	1.00

Prep: EPA 5030C (Purge and Trap)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: BLC0828							
A3C0788-01	WG	WA VPH	03/21/23 10:30	03/30/23 15:42	10mL/10ml	10mL/10ml	1.00
A3C0788-02	WG	WA VPH	03/21/23 10:35	03/30/23 15:42	10mL/10ml	10mL/10ml	1.00
A3C0788-03	WG	WA VPH	03/21/23 10:50	03/30/23 15:42	10mL/10ml	10mL/10ml	1.00
A3C0788-05	WG	WA VPH	03/21/23 12:40	03/30/23 15:42	10mL/10ml	10mL/10ml	1.00

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A3C0788 - 05 19 23 0603

QUALIFIER DEFINITIONS

Client Sample and Quality Control (QC) Sample Qualifier Definitions:

Apex Laboratories

- E** Estimated Value. The result is above the calibration range of the instrument.
- F-13** The chromatographic pattern does not resemble the fuel standard used for quantitation
- J** Estimated Result. Result detected below the lowest point of the calibration curve, but above the specified MDL.
- M-05** Estimated results. Peak separation for structural isomers is insufficient for accurate quantification.
- PRES** Incomplete field preservation. Additional preservative was added to adjust the pH within the appropriate range for this analysis.
- Q-01** Spike recovery and/or RPD is outside acceptance limits.
- Q-02** Spike recovery is outside of established control limits due to matrix interference.
- Q-03** Spike recovery and/or RPD is outside control limits due to the high concentration of analyte present in the sample.
- Q-11** Spike recovery is estimated due to sample dilution required for high analyte concentration and/or matrix interference.
- Q-17** RPD between original and duplicate sample is outside of established control limits.
- Q-19** Blank Spike Duplicate (BSD) sample analyzed in place of Matrix Spike/Duplicate samples due to limited sample amount available for analysis.
- Q-29** Recovery for Lab Control Spike (LCS) is above the upper control limit. Data may be biased high.
- Q-54** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +1%. The results are reported as Estimated Values.
- Q-54a** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +10%. The results are reported as Estimated Values.
- Q-54aa** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by -9%. The results are reported as Estimated Values.
- Q-54b** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +11%. The results are reported as Estimated Values.
- Q-54c** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +12%. The results are reported as Estimated Values.
- Q-54d** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +13%. The results are reported as Estimated Values.
- Q-54e** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +18%. The results are reported as Estimated Values.
- Q-54f** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +2%. The results are reported as Estimated Values.
- Q-54g** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +20%. The results are reported as Estimated Values.

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A3C0788 - 05 19 23 0603

- Q-54h** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +23%. The results are reported as Estimated Values.
- Q-54i** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +27%. The results are reported as Estimated Values.
- Q-54j** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +29%. The results are reported as Estimated Values.
- Q-54k** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +3%. The results are reported as Estimated Values.
- Q-54l** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +35%. The results are reported as Estimated Values.
- Q-54m** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +4%. The results are reported as Estimated Values.
- Q-54n** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +5%. The results are reported as Estimated Values.
- Q-54o** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +6%. The results are reported as Estimated Values.
- Q-54p** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +7%. The results are reported as Estimated Values.
- Q-54q** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +8%. The results are reported as Estimated Values.
- Q-54r** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +9%. The results are reported as Estimated Values.
- Q-54s** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by -1%. The results are reported as Estimated Values.
- Q-54t** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by -10%. The results are reported as Estimated Values.
- Q-54u** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by -17%. The results are reported as Estimated Values.
- Q-54v** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by -2%. The results are reported as Estimated Values.
- Q-54w** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by -20%. The results are reported as Estimated Values.
- Q-54x** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by -27%. The results are reported as Estimated Values.
- Q-54y** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by -4%. The results are reported as Estimated Values.
- Q-54z** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by -7%. The results are reported as Estimated Values.
- Q-55** Daily CCV/LCS recovery for this analyte was below the +/-20% criteria listed in EPA 8260, however there is adequate sensitivity to ensure detection at the reporting level.

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- Q-56** Daily CCV/LCS recovery for this analyte was above the +/-20% criteria listed in EPA 8260
- Q-65** Spike recovery is estimated due to the high analyte concentration of the source sample.
- R-02** The Reporting Limit for this analyte has been raised to account for interference from coeluting organic compounds present in the sample.
- S-05** Surrogate recovery is estimated due to sample dilution required for high analyte concentration and/or matrix interference.
- V-01** Sample aliquot taken from VOA vial with headspace (air bubble greater than 6 mm diameter).
- V-25** SIM Analysis was not performed due to the high analyte concentration in this sample.

Analytical Resources, LLC

- U** This analyte is not detected above the reporting limit (RL) or if noted, not detected above the limit of detection (LOD).

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Report ID:

A3C0788 - 05 19 23 0603

REPORTING NOTES AND CONVENTIONS:

Abbreviations:

DET Analyte DETECTED at or above the detection or reporting limit.
ND Analyte NOT DETECTED at or above the detection or reporting limit.
NR Result Not Reported
RPD Relative Percent Difference. RPDs for Matrix Spikes and Matrix Spike Duplicates are based on concentration, not recovery.

Detection Limits: Limit of Detection (LOD)

Limits of Detection (LODs) are normally set at a level of one half the validated Limit of Quantitation (LOQ).
If no value is listed ("-----"), then the data has not been evaluated below the Reporting Limit.

Reporting Limits: Limit of Quantitation (LOQ)

Validated Limits of Quantitation (LOQs) are reported as the Reporting Limits for all analyses where the LOQ, MRL, PQL or CRL are requested. The LOQ represents a level at or above the low point of the calibration curve, that has been validated according to Apex Laboratories' comprehensive LOQ policies and procedures.

Reporting Conventions:

Basis: Results for soil samples are generally reported on a 100% dry weight basis.

The Result Basis is listed following the units as "dry", "wet", or " " (blank) designation.

"dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")

See Percent Solids section for details of dry weight analysis.

"wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.

" " Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

Results for Volatiles analyses on soils and sediments that are reported on a "dry weight" basis include the water miscible solvent (WMS) correction referenced in the EPA 8000 Method guidance documents. Solid and Liquid samples reported on an "As Received" basis do not have the WMS correction applied, as dry weight was not performed.

QC Source:

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.

Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) may not be included in this report. Please request a Full QC report if this data is required.

Miscellaneous Notes:

" --- " QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

" *** " Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

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REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks:

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to ½ the Reporting Limit (RL).

-For Blank hits falling between ½ the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.

-For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.

For further details, please request a copy of this document.

-Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the sample results are less than ten times the level found in the blank for inorganic analyses, or less than five times the level found in the blank for organic analyses.

'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level, if results are not reported to the MDL.

Preparation Notes:

Mixed Matrix Samples:

Water Samples:

Water samples containing significant amounts of sediment are decanted or separated prior to extraction, and only the water portion analyzed, unless otherwise directed by the client.

Soil and Sediment Samples:

Soil and Sediment samples containing significant amounts of water are decanted prior to extraction, and only the solid portion analyzed, unless otherwise directed by the client.

Sampling and Preservation Notes:

Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) within a short time window. In addition, sample matrix spikes are required for some analyses, and sufficient volume must be provided, and billable site specific QC requested, if this is required. All regulatory permits should be reviewed to ensure that these requirements are being met.

Data users should be aware of which regulations pertain to the samples they submit for testing. If related sample collection activities are not approved for a particular regulatory program, results should be considered estimates. Apex Laboratories will qualify these analytes according to the most stringent requirements, however results for samples that are for non-regulatory purposes may be acceptable.

Samples that have been filtered and preserved at Apex Laboratories per client request are listed in the preparation section of the report with the date and time of filtration listed.

Apex Laboratories maintains detailed records on sample receipt, including client label verification, cooler temperature, sample preservation, hold time compliance and field filtration. Data is qualified as necessary, and the lack of qualification indicates compliance with required parameters.

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LABORATORY ACCREDITATION INFORMATION

ORELAP Certification ID: OR100062 (Primary Accreditation) -

EPA ID: OR01039

All methods and analytes reported from work performed at Apex Laboratories are included on Apex Laboratories' ORELAP Scope of Certification, with the exception of any analyte(s) listed below:

Apex Laboratories

Matrix	Analysis	TNI_ID	Analyte	TNI_ID	Accreditation
--------	----------	--------	---------	--------	---------------

All reported analytes are included in Apex Laboratories' current ORELAP scope.

Secondary Accreditations

Apex Laboratories also maintains reciprocal accreditation with non-TNI states (Washington DOE), as well as other state specific accreditations not listed here.

Subcontract Laboratory Accreditations

Subcontracted data falls outside of Apex Laboratories' Scope of Accreditation.
Please see the Subcontract Laboratory report for full details, or contact your Project Manager for more information.

Field Testing Parameters

Results for Field Tested data are provided by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

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Project Manager: John Renda

Report ID:

A3C0788 - 05 19 23 0603

APEX LABS COOLER RECEIPT FORM

Client: Anchor QEA Element WO#: A3 ~~000~~ A3C0788Project/Project #: Gasco-CMMA/TCE Mon. Wells 1Q 2023 Perf. Mon.
000029-02-84 T-01.001F

Delivery Info:

Date/time received: 3/22/23 @ 0802 By: RRDelivered by: Apex ☒ Client ☐ ESS ☐ FedEx ☐ UPS ☐ Radio ☐ Morgan ☐ SDS ☐ Evergreen ☐ Other ☐Cooler Inspection Date/time inspected: 3/22/23 @ 1046 By: KWChain of Custody included? Yes ☒ No ☐Signed/dated by client? Yes ☒ No ☐

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	<u>4.8</u>	<u>5.9</u>	<u>4.9</u>				
Custody seals? (Y/N)	<u>N</u>						
Received on ice? (Y/N)	<u>Y</u>						
Temp. blanks? (Y/N)	<u>Y</u>						
Ice type: (Gel/Real/Other)	<u>Real</u>						
Condition (In/Out):	<u>In</u>						

Cooler out of temp? (Y/N) Possible reason why:

Green dots applied to out of temperature samples? Yes ☒ No ☐Out of temperature samples form initiated? Yes ☒ No ☐Sample Inspection: Date/time inspected: 3/22/23 @ 1145 By: KWAll samples intact? Yes ☒ No ☐ Comments:Bottle labels/COCs agree? Yes ☒ No ☐ Comments: TB #3255COC/container discrepancies form initiated? Yes ☐ No ☒Containers/volumes received appropriate for analysis? Yes ☒ No ☐ Comments:Do VOA vials have visible headspace? Yes ☐ No ☒ NA ☐

Comments:

Water samples: pH checked: Yes ☒ No ☐ NA ☐ pH appropriate? Yes ☐ No ☒ NA ☐Comments: pH 9 on 125 ml brown poly's G5-39, 40, 41, 42, 43, 44.

Additional information:

Labeled by: L

Witness:

AKC
3/22/23 RR JBCooler Inspected by: KW

Form Y-003 R-00

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