



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: A3D1107 - Gasco-MGP Only Mon. Wells 1Q 2023 Perf. Mon. - 000029-02.84 T-01.001E

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 A3D1107, which was received by the laboratory on 4/12/2023 at 7:58:00AM.

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](mailto: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.

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Cooler Receipt Information

(See Cooler Receipt Form for details)

Default Cooler      2.8      degC

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This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.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

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Darwin Thomas, Business Development Director



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Portland, OR 97219

Project: **Gasco-MGP Only Mon. Wells 1Q 2023 Perf. Mon.**

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

Project Manager: **John Renda**

**Report ID:**

**A3D1107 - 05 19 23 1241**

### ANALYTICAL REPORT FOR SAMPLES

#### SAMPLE INFORMATION

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
GS-041123-61	A3D1107-01	WG	04/11/23 11:10	04/12/23 07:58
GS-041123-62	A3D1107-02	WG	04/11/23 13:20	04/12/23 07:58
GS-041123-63	A3D1107-03	WG	04/11/23 14:25	04/12/23 07:58
GS-041123-64	A3D1107-04	WG	04/11/23 15:20	04/12/23 07:58
TB-041123	A3D1107-05	W	04/11/23 15:30	04/12/23 07:58

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Project: **Gasco-MGP Only Mon. Wells 1Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001E**Project Manager: **John Renda****Report ID:****A3D1107 - 05 19 23 1241****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
<b>GS-041123-61 (A3D1107-01)</b>		<b>Matrix: WG</b>			<b>Batch: 23D0933</b>			
Diesel	<b>2150</b>	96.2	192	ug/L	1	04/24/23 21:45	NWTPH-Dx	<b>F-13</b>
Oil	ND	192	385	ug/L	1	04/24/23 21:45	NWTPH-Dx	
<i>Surrogate: o-Terphenyl (Surr)</i>		<i>Recovery: 90 %</i>		<i>Limits: 50-150 %</i>	<i>1</i>	<i>04/24/23 21:45</i>	<i>NWTPH-Dx</i>	
<b>GS-041123-62 (A3D1107-02)</b>		<b>Matrix: WG</b>			<b>Batch: 23D0933</b>			
Diesel	<b>216</b>	94.3	189	ug/L	1	04/24/23 22:06	NWTPH-Dx	<b>F-13</b>
Oil	<b>344</b>	189	377	ug/L	1	04/24/23 22:06	NWTPH-Dx	<b>J</b>
<i>Surrogate: o-Terphenyl (Surr)</i>		<i>Recovery: 89 %</i>		<i>Limits: 50-150 %</i>	<i>1</i>	<i>04/24/23 22:06</i>	<i>NWTPH-Dx</i>	

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Project Number: 000029-02.84 T-01.001E

Project Manager: John Renda

Report ID:

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## 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-041123-61 (A3D1107-01RE1)		Matrix: WG		Batch: 23D0695				
Gasoline Range Organics	4480	50.0	100	ug/L	1	04/18/23 18:14	NWTPH-Gx (MS)	F-03
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery: 102 %	Limits: 50-150 %	1	04/18/23 18:14	NWTPH-Gx (MS)		
1,4-Difluorobenzene (Sur)		102 %	50-150 %	1	04/18/23 18:14	NWTPH-Gx (MS)		
GS-041123-62 (A3D1107-02RE1)		Matrix: WG		Batch: 23D0695				
Gasoline Range Organics	ND	50.0	100	ug/L	1	04/18/23 16:25	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery: 98 %	Limits: 50-150 %	1	04/18/23 16:25	NWTPH-Gx (MS)		
1,4-Difluorobenzene (Sur)		104 %	50-150 %	1	04/18/23 16:25	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
<b>GS-041123-61 (A3D1107-01RE1)</b>				<b>Matrix: WG</b>		<b>Batch: 23D0695</b>		
Acetone	ND	10.0	20.0	ug/L	1	04/18/23 18:14	EPA 8260D	
Acrylonitrile	ND	1.00	2.00	ug/L	1	04/18/23 18:14	EPA 8260D	
<b>Benzene</b>	<b>0.330</b>	0.100	0.200	ug/L	1	04/18/23 18:14	EPA 8260D	
Bromobenzene	ND	0.250	0.500	ug/L	1	04/18/23 18:14	EPA 8260D	
Bromochloromethane	ND	0.500	1.00	ug/L	1	04/18/23 18:14	EPA 8260D	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	04/18/23 18:14	EPA 8260D	
Bromoform	ND	0.500	1.00	ug/L	1	04/18/23 18:14	EPA 8260D	
Bromomethane	ND	5.00	5.00	ug/L	1	04/18/23 18:14	EPA 8260D	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	04/18/23 18:14	EPA 8260D	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	04/18/23 18:14	EPA 8260D	
<b>sec-Butylbenzene</b>	<b>0.930</b>	0.500	1.00	ug/L	1	04/18/23 18:14	EPA 8260D	<b>J</b>
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	04/18/23 18:14	EPA 8260D	
Carbon disulfide	ND	10.0	10.0	ug/L	1	04/18/23 18:14	EPA 8260D	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	04/18/23 18:14	EPA 8260D	
Chlorobenzene	ND	0.250	0.500	ug/L	1	04/18/23 18:14	EPA 8260D	
Chloroethane	ND	5.00	5.00	ug/L	1	04/18/23 18:14	EPA 8260D	
Chloroform	ND	0.500	1.00	ug/L	1	04/18/23 18:14	EPA 8260D	
Chloromethane	ND	2.50	5.00	ug/L	1	04/18/23 18:14	EPA 8260D	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	04/18/23 18:14	EPA 8260D	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	04/18/23 18:14	EPA 8260D	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	04/18/23 18:14	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	04/18/23 18:14	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	04/18/23 18:14	EPA 8260D	
Dibromomethane	ND	0.500	1.00	ug/L	1	04/18/23 18:14	EPA 8260D	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	04/18/23 18:14	EPA 8260D	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	04/18/23 18:14	EPA 8260D	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	04/18/23 18:14	EPA 8260D	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	04/18/23 18:14	EPA 8260D	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	04/18/23 18:14	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	04/18/23 18:14	EPA 8260D	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	04/18/23 18:14	EPA 8260D	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	04/18/23 18:14	EPA 8260D	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	04/18/23 18:14	EPA 8260D	

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Portland, OR 97219Project: **Gasco-MGP Only Mon. Wells 1Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001E**Project Manager: **John Renda****Report ID:****A3D1107 - 05 19 23 1241**

## ANALYTICAL SAMPLE RESULTS

## Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
<b>GS-041123-61 (A3D1107-01RE1)</b>		<b>Matrix: WG</b>		<b>Batch: 23D0695</b>				
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	04/18/23 18:14	EPA 8260D	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	04/18/23 18:14	EPA 8260D	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	04/18/23 18:14	EPA 8260D	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	04/18/23 18:14	EPA 8260D	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	04/18/23 18:14	EPA 8260D	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	04/18/23 18:14	EPA 8260D	
<b>Ethylbenzene</b>	<b>0.670</b>	0.250	0.500	ug/L	1	04/18/23 18:14	EPA 8260D	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	04/18/23 18:14	EPA 8260D	
2-Hexanone	ND	5.00	10.0	ug/L	1	04/18/23 18:14	EPA 8260D	
<b>Isopropylbenzene</b>	<b>22.2</b>	0.500	1.00	ug/L	1	04/18/23 18:14	EPA 8260D	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	04/18/23 18:14	EPA 8260D	
Methylene chloride	ND	5.00	10.0	ug/L	1	04/18/23 18:14	EPA 8260D	
4-Methyl-2-pentanone (MIBK)	ND	5.00	10.0	ug/L	1	04/18/23 18:14	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	04/18/23 18:14	EPA 8260D	
Naphthalene	ND	1.00	2.00	ug/L	1	04/18/23 18:14	EPA 8260D	
<b>n-Propylbenzene</b>	<b>6.48</b>	0.250	0.500	ug/L	1	04/18/23 18:14	EPA 8260D	
Styrene	ND	0.500	1.00	ug/L	1	04/18/23 18:14	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	04/18/23 18:14	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	04/18/23 18:14	EPA 8260D	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	04/18/23 18:14	EPA 8260D	
<b>Toluene</b>	<b>0.670</b>	0.500	1.00	ug/L	1	04/18/23 18:14	EPA 8260D	<b>J</b>
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	04/18/23 18:14	EPA 8260D	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	04/18/23 18:14	EPA 8260D	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	04/18/23 18:14	EPA 8260D	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	04/18/23 18:14	EPA 8260D	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	04/18/23 18:14	EPA 8260D	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	04/18/23 18:14	EPA 8260D	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	04/18/23 18:14	EPA 8260D	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	04/18/23 18:14	EPA 8260D	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	04/18/23 18:14	EPA 8260D	
Vinyl chloride	ND	0.200	0.400	ug/L	1	04/18/23 18:14	EPA 8260D	
<b>m,p-Xylene</b>	<b>1.56</b>	0.500	1.00	ug/L	1	04/18/23 18:14	EPA 8260D	
<b>o-Xylene</b>	<b>1.22</b>	0.250	0.500	ug/L	1	04/18/23 18:14	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
<b>GS-041123-61 (A3D1107-01RE1)</b>		<b>Matrix: WG</b>			<b>Batch: 23D0695</b>			
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery: 95 %	Limits: 80-120 %	1		04/18/23 18:14	EPA 8260D	
Toluene-d8 (Surr)		101 %	80-120 %	1		04/18/23 18:14	EPA 8260D	
4-Bromofluorobenzene (Surr)		95 %	80-120 %	1		04/18/23 18:14	EPA 8260D	
<b>GS-041123-62 (A3D1107-02RE1)</b>		<b>Matrix: WG</b>			<b>Batch: 23D0695</b>			
Acetone	ND	10.0	20.0	ug/L	1	04/18/23 16:25	EPA 8260D	
Acrylonitrile	ND	1.00	2.00	ug/L	1	04/18/23 16:25	EPA 8260D	
Benzene	ND	0.100	0.200	ug/L	1	04/18/23 16:25	EPA 8260D	
Bromobenzene	ND	0.250	0.500	ug/L	1	04/18/23 16:25	EPA 8260D	
Bromochloromethane	ND	0.500	1.00	ug/L	1	04/18/23 16:25	EPA 8260D	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	04/18/23 16:25	EPA 8260D	
Bromoform	ND	0.500	1.00	ug/L	1	04/18/23 16:25	EPA 8260D	
Bromomethane	ND	5.00	5.00	ug/L	1	04/18/23 16:25	EPA 8260D	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	04/18/23 16:25	EPA 8260D	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	04/18/23 16:25	EPA 8260D	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	04/18/23 16:25	EPA 8260D	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	04/18/23 16:25	EPA 8260D	
Carbon disulfide	ND	10.0	10.0	ug/L	1	04/18/23 16:25	EPA 8260D	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	04/18/23 16:25	EPA 8260D	
Chlorobenzene	ND	0.250	0.500	ug/L	1	04/18/23 16:25	EPA 8260D	
Chloroethane	ND	5.00	5.00	ug/L	1	04/18/23 16:25	EPA 8260D	
Chloroform	ND	0.500	1.00	ug/L	1	04/18/23 16:25	EPA 8260D	
Chloromethane	ND	2.50	5.00	ug/L	1	04/18/23 16:25	EPA 8260D	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	04/18/23 16:25	EPA 8260D	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	04/18/23 16:25	EPA 8260D	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	04/18/23 16:25	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	04/18/23 16:25	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	04/18/23 16:25	EPA 8260D	
Dibromomethane	ND	0.500	1.00	ug/L	1	04/18/23 16:25	EPA 8260D	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	04/18/23 16:25	EPA 8260D	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	04/18/23 16:25	EPA 8260D	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	04/18/23 16:25	EPA 8260D	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	04/18/23 16:25	EPA 8260D	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	04/18/23 16:25	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
<b>GS-041123-62 (A3D1107-02RE1)</b>				<b>Matrix: WG</b>		<b>Batch: 23D0695</b>		
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	04/18/23 16:25	EPA 8260D	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	04/18/23 16:25	EPA 8260D	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	04/18/23 16:25	EPA 8260D	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	04/18/23 16:25	EPA 8260D	
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	04/18/23 16:25	EPA 8260D	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	04/18/23 16:25	EPA 8260D	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	04/18/23 16:25	EPA 8260D	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	04/18/23 16:25	EPA 8260D	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	04/18/23 16:25	EPA 8260D	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	04/18/23 16:25	EPA 8260D	
Ethylbenzene	ND	0.250	0.500	ug/L	1	04/18/23 16:25	EPA 8260D	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	04/18/23 16:25	EPA 8260D	
2-Hexanone	ND	5.00	10.0	ug/L	1	04/18/23 16:25	EPA 8260D	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	04/18/23 16:25	EPA 8260D	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	04/18/23 16:25	EPA 8260D	
Methylene chloride	ND	5.00	10.0	ug/L	1	04/18/23 16:25	EPA 8260D	
4-Methyl-2-pentanone (MIBK)	ND	5.00	10.0	ug/L	1	04/18/23 16:25	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	04/18/23 16:25	EPA 8260D	
Naphthalene	ND	1.00	2.00	ug/L	1	04/18/23 16:25	EPA 8260D	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	04/18/23 16:25	EPA 8260D	
Styrene	ND	0.500	1.00	ug/L	1	04/18/23 16:25	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	04/18/23 16:25	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	04/18/23 16:25	EPA 8260D	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	04/18/23 16:25	EPA 8260D	
Toluene	ND	0.500	1.00	ug/L	1	04/18/23 16:25	EPA 8260D	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	04/18/23 16:25	EPA 8260D	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	04/18/23 16:25	EPA 8260D	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	04/18/23 16:25	EPA 8260D	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	04/18/23 16:25	EPA 8260D	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	04/18/23 16:25	EPA 8260D	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	04/18/23 16:25	EPA 8260D	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	04/18/23 16:25	EPA 8260D	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	04/18/23 16:25	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-MGP Only Mon. Wells 1Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001E**Project Manager: **John Renda****Report ID:****A3D1107 - 05 19 23 1241**

## ANALYTICAL SAMPLE RESULTS

## Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
<b>GS-041123-62 (A3D1107-02RE1)</b>		<b>Matrix: WG</b>			<b>Batch: 23D0695</b>			
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	04/18/23 16:25	EPA 8260D	
Vinyl chloride	ND	0.200	0.400	ug/L	1	04/18/23 16:25	EPA 8260D	
m,p-Xylene	ND	0.500	1.00	ug/L	1	04/18/23 16:25	EPA 8260D	
o-Xylene	ND	0.250	0.500	ug/L	1	04/18/23 16:25	EPA 8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 97 %</i>		<i>Limits: 80-120 %</i>	<i>1</i>	<i>04/18/23 16:25</i>	<i>EPA 8260D</i>	
<i>Toluene-d8 (Surr)</i>		<i>101 %</i>		<i>80-120 %</i>	<i>1</i>	<i>04/18/23 16:25</i>	<i>EPA 8260D</i>	
<i>4-Bromofluorobenzene (Surr)</i>		<i>105 %</i>		<i>80-120 %</i>	<i>1</i>	<i>04/18/23 16:25</i>	<i>EPA 8260D</i>	
<b>GS-041123-63 (A3D1107-03RE1)</b>		<b>Matrix: WG</b>			<b>Batch: 23D0695</b>			
Acetone	ND	10.0	20.0	ug/L	1	04/18/23 16:52	EPA 8260D	
Acrylonitrile	ND	1.00	2.00	ug/L	1	04/18/23 16:52	EPA 8260D	
Benzene	ND	0.100	0.200	ug/L	1	04/18/23 16:52	EPA 8260D	
Bromobenzene	ND	0.250	0.500	ug/L	1	04/18/23 16:52	EPA 8260D	
Bromochloromethane	ND	0.500	1.00	ug/L	1	04/18/23 16:52	EPA 8260D	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	04/18/23 16:52	EPA 8260D	
Bromoform	ND	0.500	1.00	ug/L	1	04/18/23 16:52	EPA 8260D	
Bromomethane	ND	5.00	5.00	ug/L	1	04/18/23 16:52	EPA 8260D	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	04/18/23 16:52	EPA 8260D	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	04/18/23 16:52	EPA 8260D	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	04/18/23 16:52	EPA 8260D	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	04/18/23 16:52	EPA 8260D	
Carbon disulfide	ND	10.0	10.0	ug/L	1	04/18/23 16:52	EPA 8260D	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	04/18/23 16:52	EPA 8260D	
Chlorobenzene	ND	0.250	0.500	ug/L	1	04/18/23 16:52	EPA 8260D	
Chloroethane	ND	5.00	5.00	ug/L	1	04/18/23 16:52	EPA 8260D	
Chloroform	ND	0.500	1.00	ug/L	1	04/18/23 16:52	EPA 8260D	
Chloromethane	ND	2.50	5.00	ug/L	1	04/18/23 16:52	EPA 8260D	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	04/18/23 16:52	EPA 8260D	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	04/18/23 16:52	EPA 8260D	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	04/18/23 16:52	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	04/18/23 16:52	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	04/18/23 16:52	EPA 8260D	
Dibromomethane	ND	0.500	1.00	ug/L	1	04/18/23 16:52	EPA 8260D	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	04/18/23 16:52	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-MGP Only Mon. Wells 1Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001E**Project Manager: **John Renda****Report ID:****A3D1107 - 05 19 23 1241****ANALYTICAL SAMPLE RESULTS****Volatile Organic Compounds by EPA 8260D**

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
<b>GS-041123-63 (A3D1107-03RE1)</b>		<b>Matrix: WG</b>			<b>Batch: 23D0695</b>			
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	04/18/23 16:52	EPA 8260D	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	04/18/23 16:52	EPA 8260D	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	04/18/23 16:52	EPA 8260D	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	04/18/23 16:52	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	04/18/23 16:52	EPA 8260D	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	04/18/23 16:52	EPA 8260D	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	04/18/23 16:52	EPA 8260D	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	04/18/23 16:52	EPA 8260D	
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	04/18/23 16:52	EPA 8260D	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	04/18/23 16:52	EPA 8260D	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	04/18/23 16:52	EPA 8260D	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	04/18/23 16:52	EPA 8260D	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	04/18/23 16:52	EPA 8260D	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	04/18/23 16:52	EPA 8260D	
Ethylbenzene	ND	0.250	0.500	ug/L	1	04/18/23 16:52	EPA 8260D	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	04/18/23 16:52	EPA 8260D	
2-Hexanone	ND	5.00	10.0	ug/L	1	04/18/23 16:52	EPA 8260D	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	04/18/23 16:52	EPA 8260D	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	04/18/23 16:52	EPA 8260D	
Methylene chloride	ND	5.00	10.0	ug/L	1	04/18/23 16:52	EPA 8260D	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	04/18/23 16:52	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	04/18/23 16:52	EPA 8260D	
Naphthalene	ND	1.00	2.00	ug/L	1	04/18/23 16:52	EPA 8260D	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	04/18/23 16:52	EPA 8260D	
Styrene	ND	0.500	1.00	ug/L	1	04/18/23 16:52	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	04/18/23 16:52	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	04/18/23 16:52	EPA 8260D	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	04/18/23 16:52	EPA 8260D	
Toluene	ND	0.500	1.00	ug/L	1	04/18/23 16:52	EPA 8260D	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	04/18/23 16:52	EPA 8260D	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	04/18/23 16:52	EPA 8260D	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	04/18/23 16:52	EPA 8260D	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	04/18/23 16:52	EPA 8260D	

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Darwin Thomas, Business Development Director



## ANALYTICAL REPORT

Apex Laboratories, LLC

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Tigard, OR 97223  
503-718-2323  
ORELAP ID: OR100062**Anchor QEA, LLC**6720 SW Macadam Ave. Suite 125  
Portland, OR 97219Project: **Gasco-MGP Only Mon. Wells 1Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001E**Project Manager: **John Renda****Report ID:****A3D1107 - 05 19 23 1241**

## ANALYTICAL SAMPLE RESULTS

## Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
<b>GS-041123-63 (A3D1107-03RE1)</b>		<b>Matrix: WG</b>			<b>Batch: 23D0695</b>			
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	04/18/23 16:52	EPA 8260D	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	04/18/23 16:52	EPA 8260D	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	04/18/23 16:52	EPA 8260D	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	04/18/23 16:52	EPA 8260D	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	04/18/23 16:52	EPA 8260D	
Vinyl chloride	ND	0.200	0.400	ug/L	1	04/18/23 16:52	EPA 8260D	
m,p-Xylene	ND	0.500	1.00	ug/L	1	04/18/23 16:52	EPA 8260D	
o-Xylene	ND	0.250	0.500	ug/L	1	04/18/23 16:52	EPA 8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 95 %</i>		<i>Limits: 80-120 %</i>	<i>1</i>	<i>04/18/23 16:52</i>	<i>EPA 8260D</i>	
<i>Toluene-d8 (Surr)</i>		<i>102 %</i>		<i>80-120 %</i>	<i>1</i>	<i>04/18/23 16:52</i>	<i>EPA 8260D</i>	
<i>4-Bromofluorobenzene (Surr)</i>		<i>106 %</i>		<i>80-120 %</i>	<i>1</i>	<i>04/18/23 16:52</i>	<i>EPA 8260D</i>	
<b>GS-041123-64 (A3D1107-04RE1)</b>		<b>Matrix: WG</b>			<b>Batch: 23D0695</b>			
Acetone	ND	20.0	20.0	ug/L	1	04/18/23 17:20	EPA 8260D	
Acrylonitrile	ND	1.00	2.00	ug/L	1	04/18/23 17:20	EPA 8260D	
Benzene	ND	0.100	0.200	ug/L	1	04/18/23 17:20	EPA 8260D	
Bromobenzene	ND	0.250	0.500	ug/L	1	04/18/23 17:20	EPA 8260D	
Bromochloromethane	ND	0.500	1.00	ug/L	1	04/18/23 17:20	EPA 8260D	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	04/18/23 17:20	EPA 8260D	
Bromoform	ND	0.500	1.00	ug/L	1	04/18/23 17:20	EPA 8260D	
Bromomethane	ND	5.00	5.00	ug/L	1	04/18/23 17:20	EPA 8260D	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	04/18/23 17:20	EPA 8260D	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	04/18/23 17:20	EPA 8260D	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	04/18/23 17:20	EPA 8260D	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	04/18/23 17:20	EPA 8260D	
Carbon disulfide	ND	10.0	10.0	ug/L	1	04/18/23 17:20	EPA 8260D	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	04/18/23 17:20	EPA 8260D	
Chlorobenzene	ND	0.250	0.500	ug/L	1	04/18/23 17:20	EPA 8260D	
Chloroethane	ND	5.00	5.00	ug/L	1	04/18/23 17:20	EPA 8260D	
Chloroform	ND	0.500	1.00	ug/L	1	04/18/23 17:20	EPA 8260D	
Chloromethane	ND	2.50	5.00	ug/L	1	04/18/23 17:20	EPA 8260D	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	04/18/23 17:20	EPA 8260D	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	04/18/23 17:20	EPA 8260D	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	04/18/23 17:20	EPA 8260D	

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Darwin Thomas, Business Development Director



## ANALYTICAL REPORT

Apex Laboratories, LLC

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Tigard, OR 97223  
503-718-2323  
ORELAP ID: OR100062**Anchor QEA, LLC**6720 SW Macadam Ave. Suite 125  
Portland, OR 97219Project: **Gasco-MGP Only Mon. Wells 1Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001E**Project Manager: **John Renda****Report ID:****A3D1107 - 05 19 23 1241**

## ANALYTICAL SAMPLE RESULTS

## Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
<b>GS-041123-64 (A3D1107-04RE1)</b>				<b>Matrix: WG</b>		<b>Batch: 23D0695</b>		
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	04/18/23 17:20	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	04/18/23 17:20	EPA 8260D	
Dibromomethane	ND	0.500	1.00	ug/L	1	04/18/23 17:20	EPA 8260D	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	04/18/23 17:20	EPA 8260D	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	04/18/23 17:20	EPA 8260D	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	04/18/23 17:20	EPA 8260D	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	04/18/23 17:20	EPA 8260D	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	04/18/23 17:20	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	04/18/23 17:20	EPA 8260D	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	04/18/23 17:20	EPA 8260D	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	04/18/23 17:20	EPA 8260D	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	04/18/23 17:20	EPA 8260D	
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	04/18/23 17:20	EPA 8260D	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	04/18/23 17:20	EPA 8260D	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	04/18/23 17:20	EPA 8260D	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	04/18/23 17:20	EPA 8260D	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	04/18/23 17:20	EPA 8260D	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	04/18/23 17:20	EPA 8260D	
Ethylbenzene	ND	0.250	0.500	ug/L	1	04/18/23 17:20	EPA 8260D	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	04/18/23 17:20	EPA 8260D	
2-Hexanone	ND	5.00	10.0	ug/L	1	04/18/23 17:20	EPA 8260D	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	04/18/23 17:20	EPA 8260D	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	04/18/23 17:20	EPA 8260D	
Methylene chloride	ND	5.00	10.0	ug/L	1	04/18/23 17:20	EPA 8260D	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	04/18/23 17:20	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	04/18/23 17:20	EPA 8260D	
Naphthalene	ND	1.00	2.00	ug/L	1	04/18/23 17:20	EPA 8260D	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	04/18/23 17:20	EPA 8260D	
Styrene	ND	0.500	1.00	ug/L	1	04/18/23 17:20	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	04/18/23 17:20	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	04/18/23 17:20	EPA 8260D	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	04/18/23 17:20	EPA 8260D	
Toluene	ND	0.500	1.00	ug/L	1	04/18/23 17:20	EPA 8260D	

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Darwin Thomas, Business Development Director



## ANALYTICAL REPORT

Apex Laboratories, LLC

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503-718-2323  
ORELAP ID: OR100062**Anchor QEA, LLC**6720 SW Macadam Ave. Suite 125  
Portland, OR 97219Project: **Gasco-MGP Only Mon. Wells 1Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001E**Project Manager: **John Renda****Report ID:****A3D1107 - 05 19 23 1241**

## ANALYTICAL SAMPLE RESULTS

## Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
<b>GS-041123-64 (A3D1107-04RE1)</b>		<b>Matrix: WG</b>			<b>Batch: 23D0695</b>			
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	04/18/23 17:20	EPA 8260D	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	04/18/23 17:20	EPA 8260D	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	04/18/23 17:20	EPA 8260D	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	04/18/23 17:20	EPA 8260D	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	04/18/23 17:20	EPA 8260D	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	04/18/23 17:20	EPA 8260D	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	04/18/23 17:20	EPA 8260D	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	04/18/23 17:20	EPA 8260D	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	04/18/23 17:20	EPA 8260D	
Vinyl chloride	ND	0.200	0.400	ug/L	1	04/18/23 17:20	EPA 8260D	
m,p-Xylene	ND	0.500	1.00	ug/L	1	04/18/23 17:20	EPA 8260D	
o-Xylene	ND	0.250	0.500	ug/L	1	04/18/23 17:20	EPA 8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 96 %</i>		<i>Limits: 80-120 %</i>	<i>1</i>	<i>04/18/23 17:20</i>	<i>EPA 8260D</i>	
<i>Toluene-d8 (Surr)</i>		<i>100 %</i>		<i>80-120 %</i>	<i>1</i>	<i>04/18/23 17:20</i>	<i>EPA 8260D</i>	
<i>4-Bromofluorobenzene (Surr)</i>		<i>103 %</i>		<i>80-120 %</i>	<i>1</i>	<i>04/18/23 17:20</i>	<i>EPA 8260D</i>	
<b>TB-041123 (A3D1107-05)</b>		<b>Matrix: W</b>			<b>Batch: 23D0628</b>			
Acetone	ND	10.0	20.0	ug/L	1	04/17/23 11:33	EPA 8260D	
Acrylonitrile	ND	1.00	2.00	ug/L	1	04/17/23 11:33	EPA 8260D	
Benzene	ND	0.100	0.200	ug/L	1	04/17/23 11:33	EPA 8260D	
Bromobenzene	ND	0.250	0.500	ug/L	1	04/17/23 11:33	EPA 8260D	
Bromochloromethane	ND	0.500	1.00	ug/L	1	04/17/23 11:33	EPA 8260D	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	04/17/23 11:33	EPA 8260D	
Bromoform	ND	0.500	1.00	ug/L	1	04/17/23 11:33	EPA 8260D	
Bromomethane	ND	5.00	5.00	ug/L	1	04/17/23 11:33	EPA 8260D	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	04/17/23 11:33	EPA 8260D	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	04/17/23 11:33	EPA 8260D	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	04/17/23 11:33	EPA 8260D	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	04/17/23 11:33	EPA 8260D	
Carbon disulfide	ND	5.00	10.0	ug/L	1	04/17/23 11:33	EPA 8260D	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	04/17/23 11:33	EPA 8260D	
Chlorobenzene	ND	0.250	0.500	ug/L	1	04/17/23 11:33	EPA 8260D	
Chloroethane	ND	5.00	5.00	ug/L	1	04/17/23 11:33	EPA 8260D	
Chloroform	ND	0.500	1.00	ug/L	1	04/17/23 11:33	EPA 8260D	

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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-MGP Only Mon. Wells 1Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001E**Project Manager: **John Renda****Report ID:****A3D1107 - 05 19 23 1241**

## ANALYTICAL SAMPLE RESULTS

## Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
<b>TB-041123 (A3D1107-05)</b>		<b>Matrix: W</b>			<b>Batch: 23D0628</b>			
Chloromethane	ND	2.50	5.00	ug/L	1	04/17/23 11:33	EPA 8260D	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	04/17/23 11:33	EPA 8260D	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	04/17/23 11:33	EPA 8260D	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	04/17/23 11:33	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	04/17/23 11:33	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	04/17/23 11:33	EPA 8260D	
Dibromomethane	ND	0.500	1.00	ug/L	1	04/17/23 11:33	EPA 8260D	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	04/17/23 11:33	EPA 8260D	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	04/17/23 11:33	EPA 8260D	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	04/17/23 11:33	EPA 8260D	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	04/17/23 11:33	EPA 8260D	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	04/17/23 11:33	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	04/17/23 11:33	EPA 8260D	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	04/17/23 11:33	EPA 8260D	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	04/17/23 11:33	EPA 8260D	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	04/17/23 11:33	EPA 8260D	
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	04/17/23 11:33	EPA 8260D	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	04/17/23 11:33	EPA 8260D	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	04/17/23 11:33	EPA 8260D	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	04/17/23 11:33	EPA 8260D	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	04/17/23 11:33	EPA 8260D	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	04/17/23 11:33	EPA 8260D	
Ethylbenzene	ND	0.250	0.500	ug/L	1	04/17/23 11:33	EPA 8260D	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	04/17/23 11:33	EPA 8260D	
2-Hexanone	ND	5.00	10.0	ug/L	1	04/17/23 11:33	EPA 8260D	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	04/17/23 11:33	EPA 8260D	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	04/17/23 11:33	EPA 8260D	
Methylene chloride	ND	5.00	10.0	ug/L	1	04/17/23 11:33	EPA 8260D	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	04/17/23 11:33	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	04/17/23 11:33	EPA 8260D	
Naphthalene	ND	1.00	2.00	ug/L	1	04/17/23 11:33	EPA 8260D	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	04/17/23 11:33	EPA 8260D	
Styrene	ND	0.500	1.00	ug/L	1	04/17/23 11:33	EPA 8260D	

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## ANALYTICAL REPORT

Apex Laboratories, LLC

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ORELAP ID: OR100062**Anchor QEA, LLC**6720 SW Macadam Ave. Suite 125  
Portland, OR 97219Project: **Gasco-MGP Only Mon. Wells 1Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001E**Project Manager: **John Renda****Report ID:****A3D1107 - 05 19 23 1241**

## ANALYTICAL SAMPLE RESULTS

## Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
<b>TB-041123 (A3D1107-05)</b>		<b>Matrix: W</b>			<b>Batch: 23D0628</b>			
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	04/17/23 11:33	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	04/17/23 11:33	EPA 8260D	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	04/17/23 11:33	EPA 8260D	
Toluene	ND	0.500	1.00	ug/L	1	04/17/23 11:33	EPA 8260D	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	04/17/23 11:33	EPA 8260D	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	04/17/23 11:33	EPA 8260D	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	04/17/23 11:33	EPA 8260D	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	04/17/23 11:33	EPA 8260D	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	04/17/23 11:33	EPA 8260D	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	04/17/23 11:33	EPA 8260D	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	04/17/23 11:33	EPA 8260D	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	04/17/23 11:33	EPA 8260D	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	04/17/23 11:33	EPA 8260D	
Vinyl chloride	ND	0.200	0.400	ug/L	1	04/17/23 11:33	EPA 8260D	
m,p-Xylene	ND	0.500	1.00	ug/L	1	04/17/23 11:33	EPA 8260D	
o-Xylene	ND	0.250	0.500	ug/L	1	04/17/23 11:33	EPA 8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 106 %</i>		<i>Limits: 80-120 %</i>	<i>1</i>	<i>04/17/23 11:33</i>	<i>EPA 8260D</i>	
<i>Toluene-d8 (Surr)</i>		<i>102 %</i>		<i>80-120 %</i>	<i>1</i>	<i>04/17/23 11:33</i>	<i>EPA 8260D</i>	
<i>4-Bromofluorobenzene (Surr)</i>		<i>101 %</i>		<i>80-120 %</i>	<i>1</i>	<i>04/17/23 11:33</i>	<i>EPA 8260D</i>	

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## ANALYTICAL REPORT

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Tigard, OR 97223  
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ORELAP ID: OR100062

## Anchor QEA, LLC

6720 SW Macadam Ave. Suite 125  
Portland, OR 97219

Project: Gasco-MGP Only Mon. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001E

Project Manager: John Renda

Report ID:

A3D1107 - 05 19 23 1241

## 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-041123-61 (A3D1107-01RE1)		Matrix: WG			Batch: 23D0506			
Acenaphthene	43.8	0.188	0.376	ug/L	10	04/13/23 19:43	EPA 8270E LVI	
Acenaphthylene	1.50	0.188	0.376	ug/L	10	04/13/23 19:43	EPA 8270E LVI	
Anthracene	1.08	0.188	0.376	ug/L	10	04/13/23 19:43	EPA 8270E LVI	
Benz(a)anthracene	0.117	0.0939	0.188	ug/L	10	04/13/23 19:43	EPA 8270E LVI	J
Benzo(a)pyrene	ND	0.0939	0.188	ug/L	10	04/13/23 19:43	EPA 8270E LVI	
Benzo(b)fluoranthene	ND	0.0939	0.188	ug/L	10	04/13/23 19:43	EPA 8270E LVI	
Benzo(k)fluoranthene	ND	0.0939	0.188	ug/L	10	04/13/23 19:43	EPA 8270E LVI	
Benzo(g,h,i)perylene	ND	0.188	0.376	ug/L	10	04/13/23 19:43	EPA 8270E LVI	
Chrysene	ND	0.0939	0.188	ug/L	10	04/13/23 19:43	EPA 8270E LVI	
Dibenz(a,h)anthracene	ND	0.0939	0.188	ug/L	10	04/13/23 19:43	EPA 8270E LVI	
Fluoranthene	1.09	0.188	0.376	ug/L	10	04/13/23 19:43	EPA 8270E LVI	
Fluorene	7.08	0.188	0.376	ug/L	10	04/13/23 19:43	EPA 8270E LVI	
Indeno(1,2,3-cd)pyrene	ND	0.0939	0.188	ug/L	10	04/13/23 19:43	EPA 8270E LVI	
1-Methylnaphthalene	28.4	0.376	0.751	ug/L	10	04/13/23 19:43	EPA 8270E LVI	
2-Methylnaphthalene	ND	0.376	0.751	ug/L	10	04/13/23 19:43	EPA 8270E LVI	
Naphthalene	0.695	0.376	0.751	ug/L	10	04/13/23 19:43	EPA 8270E LVI	J
Phenanthrene	ND	0.376	0.751	ug/L	10	04/13/23 19:43	EPA 8270E LVI	
Pyrene	1.30	0.188	0.376	ug/L	10	04/13/23 19:43	EPA 8270E LVI	
Carbazole	ND	0.188	0.376	ug/L	10	04/13/23 19:43	EPA 8270E LVI	
Dibenzofuran	ND	0.188	0.376	ug/L	10	04/13/23 19:43	EPA 8270E LVI	
Surrogate: Acenaphthylene-d8 (Surr)		Recovery: 98 %		Limits: 78-134 %	10	04/13/23 19:43	EPA 8270E LVI	S-05
Benzo(a)pyrene-d12 (Surr)		82 %		80-132 %	10	04/13/23 19:43	EPA 8270E LVI	S-05

## GS-041123-62 (A3D1107-02)

Matrix: WG

Batch: 23D0506

Acenaphthene	ND	0.0203	0.0406	ug/L	1	04/13/23 18:00	EPA 8270E LVI	
Acenaphthylene	0.0639	0.0203	0.0406	ug/L	1	04/13/23 18:00	EPA 8270E LVI	
Anthracene	0.132	0.0203	0.0406	ug/L	1	04/13/23 18:00	EPA 8270E LVI	
Benz(a)anthracene	0.0132	0.0101	0.0203	ug/L	1	04/13/23 18:00	EPA 8270E LVI	J
Benzo(a)pyrene	ND	0.0101	0.0203	ug/L	1	04/13/23 18:00	EPA 8270E LVI	
Benzo(b)fluoranthene	ND	0.0101	0.0203	ug/L	1	04/13/23 18:00	EPA 8270E LVI	
Benzo(k)fluoranthene	ND	0.0101	0.0203	ug/L	1	04/13/23 18:00	EPA 8270E LVI	
Benzo(g,h,i)perylene	ND	0.0203	0.0406	ug/L	1	04/13/23 18:00	EPA 8270E LVI	
Chrysene	ND	0.0101	0.0203	ug/L	1	04/13/23 18:00	EPA 8270E LVI	

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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-MGP Only Mon. Wells 1Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001E**Project Manager: **John Renda****Report ID:****A3D1107 - 05 19 23 1241**

## 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
<b>GS-041123-62 (A3D1107-02)</b>		<b>Matrix: WG</b>			<b>Batch: 23D0506</b>			
Dibenz(a,h)anthracene	ND	0.0101	0.0203	ug/L	1	04/13/23 18:00	EPA 8270E LVI	
Fluoranthene	ND	0.0203	0.0406	ug/L	1	04/13/23 18:00	EPA 8270E LVI	
Fluorene	ND	0.0406	0.0406	ug/L	1	04/13/23 18:00	EPA 8270E LVI	
Indeno(1,2,3-cd)pyrene	ND	0.0101	0.0203	ug/L	1	04/13/23 18:00	EPA 8270E LVI	
1-Methylnaphthalene	ND	0.0406	0.0812	ug/L	1	04/13/23 18:00	EPA 8270E LVI	
2-Methylnaphthalene	ND	0.190	0.190	ug/L	1	04/13/23 18:00	EPA 8270E LVI	R-02
<b>Naphthalene</b>	<b>0.0447</b>	0.0406	0.0812	ug/L	1	04/13/23 18:00	EPA 8270E LVI	<b>J</b>
Phenanthrene	ND	0.0406	0.0812	ug/L	1	04/13/23 18:00	EPA 8270E LVI	
Pyrene	ND	0.0203	0.0406	ug/L	1	04/13/23 18:00	EPA 8270E LVI	
Carbazole	ND	0.0203	0.0406	ug/L	1	04/13/23 18:00	EPA 8270E LVI	
Dibenzofuran	ND	0.0203	0.0406	ug/L	1	04/13/23 18:00	EPA 8270E LVI	
<i>Surrogate: Acenaphthylene-d8 (Surr)</i>		<i>Recovery:</i>		<i>123 %</i>	<i>Limits: 78-134 %</i>	<i>1</i>	<i>04/13/23 18:00</i>	<i>EPA 8270E LVI</i>
<i>Benzo(a)pyrene-d12 (Surr)</i>				<i>128 %</i>	<i>80-132 %</i>	<i>1</i>	<i>04/13/23 18:00</i>	<i>EPA 8270E LVI</i>
<b>GS-041123-63 (A3D1107-03)</b>		<b>Matrix: WG</b>			<b>Batch: 23D0506</b>			
Acenaphthene	ND	0.0175	0.0351	ug/L	1	04/13/23 18:33	EPA 8270E LVI	
<b>Acenaphthylene</b>	<b>0.172</b>	0.0175	0.0351	ug/L	1	04/13/23 18:33	EPA 8270E LVI	
<b>Anthracene</b>	<b>0.132</b>	0.0175	0.0351	ug/L	1	04/13/23 18:33	EPA 8270E LVI	
Benz(a)anthracene	ND	0.00877	0.0175	ug/L	1	04/13/23 18:33	EPA 8270E LVI	
Benzo(a)pyrene	ND	0.00877	0.0175	ug/L	1	04/13/23 18:33	EPA 8270E LVI	
Benzo(b)fluoranthene	ND	0.00877	0.0175	ug/L	1	04/13/23 18:33	EPA 8270E LVI	
Benzo(k)fluoranthene	ND	0.00877	0.0175	ug/L	1	04/13/23 18:33	EPA 8270E LVI	
Benzo(g,h,i)perylene	ND	0.0175	0.0351	ug/L	1	04/13/23 18:33	EPA 8270E LVI	
Chrysene	ND	0.00877	0.0175	ug/L	1	04/13/23 18:33	EPA 8270E LVI	
Dibenz(a,h)anthracene	ND	0.00877	0.0175	ug/L	1	04/13/23 18:33	EPA 8270E LVI	
Fluoranthene	ND	0.0175	0.0351	ug/L	1	04/13/23 18:33	EPA 8270E LVI	
Fluorene	ND	0.0175	0.0351	ug/L	1	04/13/23 18:33	EPA 8270E LVI	
Indeno(1,2,3-cd)pyrene	ND	0.00877	0.0175	ug/L	1	04/13/23 18:33	EPA 8270E LVI	
1-Methylnaphthalene	ND	0.0351	0.0702	ug/L	1	04/13/23 18:33	EPA 8270E LVI	
2-Methylnaphthalene	ND	0.0351	0.0702	ug/L	1	04/13/23 18:33	EPA 8270E LVI	
<b>Naphthalene</b>	<b>0.0465</b>	0.0351	0.0702	ug/L	1	04/13/23 18:33	EPA 8270E LVI	<b>J</b>
Phenanthrene	ND	0.0351	0.0702	ug/L	1	04/13/23 18:33	EPA 8270E LVI	
Pyrene	ND	0.0175	0.0351	ug/L	1	04/13/23 18:33	EPA 8270E LVI	

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Portland, OR 97219Project: **Gasco-MGP Only Mon. Wells 1Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001E**Project Manager: **John Renda****Report ID:****A3D1107 - 05 19 23 1241**

## 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
<b>GS-041123-63 (A3D1107-03)</b>		<b>Matrix: WG</b>			<b>Batch: 23D0506</b>			
Carbazole	ND	0.0175	0.0351	ug/L	1	04/13/23 18:33	EPA 8270E LVI	
Dibenzofuran	ND	0.0175	0.0351	ug/L	1	04/13/23 18:33	EPA 8270E LVI	
<i>Surrogate: Acenaphthylene-d8 (Surr)</i>		<i>Recovery: 122 %</i>		<i>Limits: 78-134 %</i>	<i>1</i>	<i>04/13/23 18:33</i>	<i>EPA 8270E LVI</i>	
<i>Benzo(a)pyrene-d12 (Surr)</i>		<i>128 %</i>		<i>80-132 %</i>	<i>1</i>	<i>04/13/23 18:33</i>	<i>EPA 8270E LVI</i>	
<b>GS-041123-64 (A3D1107-04)</b>		<b>Matrix: WG</b>			<b>Batch: 23D0506</b>			
Acenaphthene	ND	0.142	0.142	ug/L	1	04/13/23 19:06	EPA 8270E LVI	R-02
Acenaphthylene	ND	0.0174	0.0349	ug/L	1	04/13/23 19:06	EPA 8270E LVI	
Anthracene	ND	0.0174	0.0349	ug/L	1	04/13/23 19:06	EPA 8270E LVI	
Benz(a)anthracene	ND	0.00872	0.0174	ug/L	1	04/13/23 19:06	EPA 8270E LVI	
Benzo(a)pyrene	ND	0.00872	0.0174	ug/L	1	04/13/23 19:06	EPA 8270E LVI	
Benzo(b)fluoranthene	ND	0.00872	0.0174	ug/L	1	04/13/23 19:06	EPA 8270E LVI	
Benzo(k)fluoranthene	ND	0.00872	0.0174	ug/L	1	04/13/23 19:06	EPA 8270E LVI	
Benzo(g,h,i)perylene	ND	0.0174	0.0349	ug/L	1	04/13/23 19:06	EPA 8270E LVI	
Chrysene	ND	0.00872	0.0174	ug/L	1	04/13/23 19:06	EPA 8270E LVI	
Dibenz(a,h)anthracene	ND	0.00872	0.0174	ug/L	1	04/13/23 19:06	EPA 8270E LVI	
Fluoranthene	ND	0.0174	0.0349	ug/L	1	04/13/23 19:06	EPA 8270E LVI	
Fluorene	ND	0.0174	0.0349	ug/L	1	04/13/23 19:06	EPA 8270E LVI	
Indeno(1,2,3-cd)pyrene	ND	0.00872	0.0174	ug/L	1	04/13/23 19:06	EPA 8270E LVI	
<b>1-Methylnaphthalene</b>	<b>0.0732</b>	0.0349	0.0697	ug/L	1	04/13/23 19:06	EPA 8270E LVI	
<b>2-Methylnaphthalene</b>	<b>0.0985</b>	0.0349	0.0697	ug/L	1	04/13/23 19:06	EPA 8270E LVI	
<b>Naphthalene</b>	<b>0.345</b>	0.0349	0.0697	ug/L	1	04/13/23 19:06	EPA 8270E LVI	
Phenanthrene	ND	0.0349	0.0697	ug/L	1	04/13/23 19:06	EPA 8270E LVI	
Pyrene	ND	0.0174	0.0349	ug/L	1	04/13/23 19:06	EPA 8270E LVI	
Carbazole	ND	0.0174	0.0349	ug/L	1	04/13/23 19:06	EPA 8270E LVI	
Dibenzofuran	ND	0.0174	0.0349	ug/L	1	04/13/23 19:06	EPA 8270E LVI	
<i>Surrogate: Acenaphthylene-d8 (Surr)</i>		<i>Recovery: 129 %</i>		<i>Limits: 78-134 %</i>	<i>1</i>	<i>04/13/23 19:06</i>	<i>EPA 8270E LVI</i>	
<i>Benzo(a)pyrene-d12 (Surr)</i>		<i>126 %</i>		<i>80-132 %</i>	<i>1</i>	<i>04/13/23 19:06</i>	<i>EPA 8270E LVI</i>	

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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-MGP Only Mon. Wells 1Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001E**Project Manager: **John Renda****Report ID:****A3D1107 - 05 19 23 1241**

## ANALYTICAL SAMPLE RESULTS

## Total Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
<b>GS-041123-61 (A3D1107-01)</b>		<b>Matrix: WG</b>						
Batch: 23D0894								
Aluminum	ND	25.0	50.0	ug/L	1	04/22/23 02:58	EPA 6020B	
Antimony	ND	0.500	1.00	ug/L	1	04/22/23 02:58	EPA 6020B	
Arsenic	ND	0.500	1.00	ug/L	1	04/22/23 02:58	EPA 6020B	
Cadmium	ND	0.100	0.200	ug/L	1	04/22/23 02:58	EPA 6020B	
Chromium	ND	1.00	2.00	ug/L	1	04/22/23 02:58	EPA 6020B	
Copper	ND	1.00	2.00	ug/L	1	04/22/23 02:58	EPA 6020B	
<b>Iron</b>	<b>27000</b>	25.0	50.0	ug/L	1	04/22/23 02:58	EPA 6020B	<b>B</b>
Lead	ND	0.110	0.200	ug/L	1	04/22/23 02:58	EPA 6020B	
Mercury	ND	0.0400	0.0800	ug/L	1	04/22/23 02:58	EPA 6020B	
Nickel	ND	1.00	2.00	ug/L	1	04/22/23 02:58	EPA 6020B	
Selenium	ND	0.500	1.00	ug/L	1	04/22/23 02:58	EPA 6020B	
Silver	ND	0.100	0.200	ug/L	1	04/22/23 02:58	EPA 6020B	
Thallium	ND	0.100	0.200	ug/L	1	04/22/23 02:58	EPA 6020B	
Vanadium	ND	1.00	2.00	ug/L	1	04/22/23 02:58	EPA 6020B	
<b>GS-041123-61 (A3D1107-01RE1)</b>		<b>Matrix: WG</b>						
Batch: 23D0894								
<b>Barium</b>	<b>40.7</b>	1.00	2.00	ug/L	1	04/25/23 22:07	EPA 6020B	
Beryllium	ND	0.100	0.200	ug/L	1	04/25/23 22:07	EPA 6020B	
Zinc	ND	2.00	4.00	ug/L	1	04/25/23 22:07	EPA 6020B	
<b>GS-041123-61 (A3D1107-01RE2)</b>		<b>Matrix: WG</b>						
Batch: 23D0894								
<b>Manganese</b>	<b>3240</b>	5.00	10.0	ug/L	10	04/27/23 18:04	EPA 6020B	
<b>GS-041123-62 (A3D1107-02)</b>		<b>Matrix: WG</b>						
Batch: 23D0894								
<b>Aluminum</b>	<b>335</b>	25.0	50.0	ug/L	1	04/22/23 03:13	EPA 6020B	
Antimony	ND	0.500	1.00	ug/L	1	04/22/23 03:13	EPA 6020B	
<b>Arsenic</b>	<b>1.71</b>	0.500	1.00	ug/L	1	04/22/23 03:13	EPA 6020B	
Cadmium	ND	0.100	0.200	ug/L	1	04/22/23 03:13	EPA 6020B	
Chromium	ND	1.00	2.00	ug/L	1	04/22/23 03:13	EPA 6020B	
Copper	ND	1.00	2.00	ug/L	1	04/22/23 03:13	EPA 6020B	

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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-MGP Only Mon. Wells 1Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001E**Project Manager: **John Renda****Report ID:****A3D1107 - 05 19 23 1241**

## ANALYTICAL SAMPLE RESULTS

## Total Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-041123-62 (A3D1107-02)		Matrix: WG						
Lead	0.191	0.110	0.200	ug/L	1	04/22/23 03:13	EPA 6020B	J
Manganese	1630	0.500	1.00	ug/L	1	04/22/23 03:13	EPA 6020B	
Mercury	ND	0.0400	0.0800	ug/L	1	04/22/23 03:13	EPA 6020B	
Nickel	ND	1.00	2.00	ug/L	1	04/22/23 03:13	EPA 6020B	
Selenium	ND	0.500	1.00	ug/L	1	04/22/23 03:13	EPA 6020B	
Silver	ND	0.100	0.200	ug/L	1	04/22/23 03:13	EPA 6020B	
Thallium	ND	0.100	0.200	ug/L	1	04/22/23 03:13	EPA 6020B	
Vanadium	1.62	1.00	2.00	ug/L	1	04/22/23 03:13	EPA 6020B	J
GS-041123-62 (A3D1107-02RE1)		Matrix: WG						
Batch: 23D0894								
Barium	63.9	1.00	2.00	ug/L	1	04/25/23 22:32	EPA 6020B	
Beryllium	ND	0.100	0.200	ug/L	1	04/25/23 22:32	EPA 6020B	
Zinc	3.73	2.00	4.00	ug/L	1	04/25/23 22:32	EPA 6020B	J
GS-041123-62 (A3D1107-02RE2)		Matrix: WG						
Batch: 23D0894								
Iron	54500	250	500	ug/L	10	04/27/23 18:16	EPA 6020B	B
GS-041123-63 (A3D1107-03)		Matrix: WG						
Batch: 23D0894								
Aluminum	34.9	25.0	50.0	ug/L	1	04/22/23 03:18	EPA 6020B	J
Antimony	ND	0.500	1.00	ug/L	1	04/22/23 03:18	EPA 6020B	
Arsenic	0.803	0.500	1.00	ug/L	1	04/22/23 03:18	EPA 6020B	J
Cadmium	ND	0.100	0.200	ug/L	1	04/22/23 03:18	EPA 6020B	
Chromium	ND	1.00	2.00	ug/L	1	04/22/23 03:18	EPA 6020B	
Copper	ND	1.00	2.00	ug/L	1	04/22/23 03:18	EPA 6020B	
Lead	ND	0.110	0.200	ug/L	1	04/22/23 03:18	EPA 6020B	
Manganese	10.9	0.500	1.00	ug/L	1	04/22/23 03:18	EPA 6020B	
Mercury	ND	0.0400	0.0800	ug/L	1	04/22/23 03:18	EPA 6020B	
Nickel	129	1.00	2.00	ug/L	1	04/22/23 03:18	EPA 6020B	
Selenium	ND	0.500	1.00	ug/L	1	04/22/23 03:18	EPA 6020B	
Silver	ND	0.100	0.200	ug/L	1	04/22/23 03:18	EPA 6020B	
Thallium	ND	0.100	0.200	ug/L	1	04/22/23 03:18	EPA 6020B	

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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-MGP Only Mon. Wells 1Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001E**Project Manager: **John Renda****Report ID:****A3D1107 - 05 19 23 1241**

## ANALYTICAL SAMPLE RESULTS

## Total Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GS-041123-63 (A3D1107-03)				Matrix: WG				
Vanadium	60.4	1.00	2.00	ug/L	1	04/22/23 03:18	EPA 6020B	
GS-041123-63 (A3D1107-03RE1)				Matrix: WG				
Batch: 23D0894								
Barium	23.0	1.00	2.00	ug/L	1	04/25/23 22:37	EPA 6020B	
Beryllium	ND	0.100	0.200	ug/L	1	04/25/23 22:37	EPA 6020B	
Zinc	8.32	2.00	4.00	ug/L	1	04/25/23 22:37	EPA 6020B	
Batch: 23D1086								
Iron	122	25.0	50.0	ug/L	1	05/01/23 20:01	EPA 6020B	
GS-041123-64 (A3D1107-04)				Matrix: WG				
Batch: 23D0894								
Aluminum	ND	25.0	50.0	ug/L	1	04/22/23 03:23	EPA 6020B	
Antimony	ND	0.500	1.00	ug/L	1	04/22/23 03:23	EPA 6020B	
Arsenic	ND	0.500	1.00	ug/L	1	04/22/23 03:23	EPA 6020B	
Barium	ND	1.00	2.00	ug/L	1	04/22/23 03:23	EPA 6020B	
Cadmium	ND	0.100	0.200	ug/L	1	04/22/23 03:23	EPA 6020B	
Chromium	ND	1.00	2.00	ug/L	1	04/22/23 03:23	EPA 6020B	
Copper	ND	1.00	2.00	ug/L	1	04/22/23 03:23	EPA 6020B	
Iron	ND	25.0	50.0	ug/L	1	04/22/23 03:23	EPA 6020B	
Lead	ND	0.110	0.200	ug/L	1	04/22/23 03:23	EPA 6020B	
Manganese	ND	0.500	1.00	ug/L	1	04/22/23 03:23	EPA 6020B	
Mercury	ND	0.0400	0.0800	ug/L	1	04/22/23 03:23	EPA 6020B	
Nickel	ND	1.00	2.00	ug/L	1	04/22/23 03:23	EPA 6020B	
Selenium	ND	0.500	1.00	ug/L	1	04/22/23 03:23	EPA 6020B	
Silver	ND	0.100	0.200	ug/L	1	04/22/23 03:23	EPA 6020B	
Thallium	ND	0.100	0.200	ug/L	1	04/22/23 03:23	EPA 6020B	
Vanadium	ND	1.00	2.00	ug/L	1	04/22/23 03:23	EPA 6020B	
GS-041123-64 (A3D1107-04RE1)				Matrix: WG				
Batch: 23D0894								
Beryllium	ND	0.100	0.200	ug/L	1	04/25/23 22:42	EPA 6020B	
Zinc	ND	2.00	4.00	ug/L	1	04/25/23 22:42	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 97219

Project: **Gasco-MGP Only Mon. Wells 1Q 2023 Perf. Mon.**

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

Project Manager: **John Renda**

**Report ID:**

**A3D1107 - 05 19 23 1241**

## ANALYTICAL SAMPLE RESULTS

### Total Cyanide by Flow Analysis (Aqueous)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
<b>GS-041123-61 (A3D1107-01)</b>				<b>Matrix: WG</b>		<b>Batch: 23D0575</b>		
Total Cyanide	<b>0.148</b>	0.00500	0.00500	mg/L	1	04/14/23 16:03	EPA 335.4	
<b>GS-041123-62 (A3D1107-02RE2)</b>				<b>Matrix: WG</b>		<b>Batch: 23D0915</b>		
Total Cyanide	<b>0.609</b>	0.0100	0.0100	mg/L	2	04/25/23 10:52	EPA 335.4	
<b>GS-041123-63 (A3D1107-03)</b>				<b>Matrix: WG</b>		<b>Batch: 23D0575</b>		
Total Cyanide	<b>0.257</b>	0.00500	0.00500	mg/L	1	04/14/23 16:13	EPA 335.4	
<b>GS-041123-64 (A3D1107-04RE1)</b>				<b>Matrix: WG</b>		<b>Batch: 23D0915</b>		
Total Cyanide	ND	0.00500	0.00500	mg/L	1	04/25/23 10:56	EPA 335.4	

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# ANALYTICAL REPORT

Apex Laboratories, LLC

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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-MGP Only Mon. Wells 1Q 2023 Perf. Mon.**

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

Project Manager: **John Renda**

**Report ID:**

**A3D1107 - 05 19 23 1241**

## 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
<b>GS-041123-61 (A3D1107-01)</b>				<b>Matrix: WG</b>		<b>Batch: 23D0531</b>		
Available Cyanide	ND	0.00100	0.00200	mg/L	1	04/13/23 14:29	D6888-09	
<b>GS-041123-62 (A3D1107-02)</b>				<b>Matrix: WG</b>		<b>Batch: 23D0531</b>		
Available Cyanide	ND	0.00100	0.00200	mg/L	1	04/13/23 14:30	D6888-09	
<b>GS-041123-63 (A3D1107-03)</b>				<b>Matrix: WG</b>		<b>Batch: 23D0531</b>		
Available Cyanide	<b>0.00154</b>	0.00100	0.00200	mg/L	1	04/13/23 14:33	D6888-09	<b>J</b>
<b>GS-041123-64 (A3D1107-04)</b>				<b>Matrix: WG</b>		<b>Batch: 23D0531</b>		
Available Cyanide	ND	0.00100	0.00200	mg/L	1	04/13/23 14:38	D6888-09	

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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-MGP Only Mon. Wells 1Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001E**Project Manager: **John Renda****Report ID:****A3D1107 - 05 19 23 1241****ANALYTICAL SAMPLE RESULTS****Free Cyanide by Microdiffusion/Colorimetric Spectrophotometry**

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
<b>GS-041123-61 (A3D1107-01)</b>				<b>Matrix: WG</b>		<b>Batch: 23D0580</b>		<b>PRES</b>
Free Cyanide	ND	0.00250	0.00500	mg/L	1	04/14/23 16:43	D4282-02	
<b>GS-041123-62 (A3D1107-02)</b>				<b>Matrix: WG</b>		<b>Batch: 23D0580</b>		
Free Cyanide	ND	0.00250	0.00500	mg/L	1	04/14/23 16:48	D4282-02	
<b>GS-041123-63 (A3D1107-03)</b>				<b>Matrix: WG</b>		<b>Batch: 23D0580</b>		<b>PRES</b>
Free Cyanide	ND	0.00250	0.00500	mg/L	1	04/14/23 16:48	D4282-02	
<b>GS-041123-64 (A3D1107-04)</b>				<b>Matrix: WG</b>		<b>Batch: 23D0580</b>		
Free Cyanide	ND	0.00250	0.00500	mg/L	1	04/14/23 16:48	D4282-02	

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## 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 97219Project: **Gasco-MGP Only Mon. Wells 1Q 2023 Perf. Mon.**

Project Number: 000029-02.84 T-01.001E

Project Manager: John Renda

**Report ID:**

A3D1107 - 05 19 23 1241

## 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-041123-61 (A3D1107-01)			Matrix: WG			Batch: BLD0530		
Batch: BLD0530								
C5-C6 Aliphatics	ND	---	50	ug/L	1	04/19/23 17:03	WA VPH	U
>C6-C8 Aliphatics	ND	---	50	ug/L	1	04/19/23 17:03	WA VPH	U
>C8-C10 Aliphatics	ND	---	50	ug/L	1	04/19/23 17:03	WA VPH	U
>C10-C12 Aliphatics	541	---	50	ug/L	1	04/19/23 17:03	WA VPH	
C8-C10 Aromatics	52	---	50	ug/L	1	04/19/23 17:03	WA VPH	
>C10-C12 Aromatics	1240	---	50	ug/L	1	04/19/23 17:03	WA VPH	
>C12-C13 Aromatics	194	---	50	ug/L	1	04/19/23 17:03	WA VPH	
Methyl tert-butyl Ether	ND	---	5	ug/L	1	04/19/23 17:03	WA VPH	U
Benzene	ND	---	5	ug/L	1	04/19/23 17:03	WA VPH	U
Toluene	ND	---	5	ug/L	1	04/19/23 17:03	WA VPH	U
Ethylbenzene	ND	---	5	ug/L	1	04/19/23 17:03	WA VPH	U
1,2,3-Trimethylbenzene	ND	---	5	ug/L	1	04/19/23 17:03	WA VPH	U
m,p-Xylene	ND	---	10	ug/L	1	04/19/23 17:03	WA VPH	U
Naphthalene	ND	---	5	ug/L	1	04/19/23 17:03	WA VPH	U
1-Methylnaphthalene	37	---	5	ug/L	1	04/19/23 17:03	WA VPH	
o-Xylene	ND	---	5	ug/L	1	04/19/23 17:03	WA VPH	U
n-Pentane	ND	---	5	ug/L	1	04/19/23 17:03	WA VPH	U
n-Hexane	ND	---	5	ug/L	1	04/19/23 17:03	WA VPH	U
n-Octane	ND	---	5	ug/L	1	04/19/23 17:03	WA VPH	U
n-Decane	ND	---	5	ug/L	1	04/19/23 17:03	WA VPH	U
n-Dodecane	11	---	5	ug/L	1	04/19/23 17:03	WA VPH	
Batch: BLD0588								
C8-C10 Aliphatics	ND	---	40	ug/L	1	05/04/23 17:05	WA EPH	U
>C10-C12 Aliphatics	514	---	40	ug/L	1	05/04/23 17:05	WA EPH	
>C12-C16 Aliphatics	ND	---	40	ug/L	1	05/04/23 17:05	WA EPH	U
>C16-C21 Aliphatics	ND	---	40	ug/L	1	05/04/23 17:05	WA EPH	U
>C21-C34 Aliphatics	54	---	40	ug/L	1	05/04/23 17:05	WA EPH	
C8-C10 Aromatics	47	---	40	ug/L	1	05/04/23 19:34	WA EPH	
>C10-C12 Aromatics	ND	---	40	ug/L	1	05/04/23 19:34	WA EPH	U
>C12-C16 Aromatics	139	---	40	ug/L	1	05/04/23 19:34	WA EPH	
>C16-C21 Aromatics	92	---	40	ug/L	1	05/04/23 19:34	WA EPH	

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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-MGP Only Mon. Wells 1Q 2023 Perf. Mon.**

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

Project Manager: **John Renda**

**Report ID:**

**A3D1107 - 05 19 23 1241**

## 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
<b>GS-041123-61 (A3D1107-01)</b>		<b>Matrix: WG</b>		<b>Batch: BLD0588</b>				
>C21-C34 Aromatics Batch: BLD0530	ND	---	40	ug/L	1	05/04/23 19:34	WA EPH	U
Surrogate: PID: 2,5-Dibromotoluene		Recovery:	89.2 %	Limits:	60-140 %	1	04/19/23 17:03	WA VPH
FID: 2,5-Dibromotoluene			94.3 %		60-140 %	1	04/19/23 17:03	WA VPH
Batch: BLD0588								
o-Terphenyl			81.5 %		41-120 %	1	05/04/23 19:34	WA EPH
1-Chloro-octadecane			61.7 %		36-120 %	1	05/04/23 17:05	WA EPH

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Portland, OR 97219Project: **Gasco-MGP Only Mon. Wells 1Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001E**Project Manager: **John Renda****Report ID:****A3D1107 - 05 19 23 1241**

## 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 23D0933 - EPA 3510C (Fuels/Acid Ext.)						Water							
Blank (23D0933-BLK1)			Prepared: 04/24/23 10:32			Analyzed: 04/24/23 20:43							
NWTPH-Dx													
Diesel	ND	100	200	ug/L	1	---	---	---	---	---	---		
Oil	ND	200	400	ug/L	1	---	---	---	---	---	---		
Surr: o-Terphenyl (Surr)		Recovery: 84 %		Limits: 50-150 %		Dilution: 1x							
LCS (23D0933-BS1)			Prepared: 04/24/23 10:32			Analyzed: 04/24/23 21:03							
NWTPH-Dx													
Diesel	627	100	200	ug/L	1	1250	---	50	36-132%	---	---		
Surr: o-Terphenyl (Surr)		Recovery: 90 %		Limits: 50-150 %		Dilution: 1x							
LCS Dup (23D0933-BSD1)			Prepared: 04/24/23 10:32			Analyzed: 04/24/23 21:24							Q-19
NWTPH-Dx													
Diesel	637	100	200	ug/L	1	1250	---	51	36-132%	2	30%		
Surr: o-Terphenyl (Surr)		Recovery: 90 %		Limits: 50-150 %		Dilution: 1x							

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ORELAP ID: OR100062**Anchor QEA, LLC**6720 SW Macadam Ave. Suite 125  
Portland, OR 97219Project: **Gasco-MGP Only Mon. Wells 1Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001E**Project Manager: **John Renda****Report ID:****A3D1107 - 05 19 23 1241****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 23D0628 - EPA 5030C						Water						
Blank (23D0628-BLK1)			Prepared: 04/17/23 08:00    Analyzed: 04/17/23 11:11									
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	50.0	100	ug/L	1	---	---	---	---	---	---	
Surr: 4-Bromofluorobenzene (Sur)		Recovery: 94 %		Limits: 50-150 %		Dilution: 1x						
1,4-Difluorobenzene (Sur)		104 %		50-150 %		"						
LCS (23D0628-BS2)			Prepared: 04/17/23 08:00    Analyzed: 04/17/23 10:49									
NWTPH-Gx (MS)												
Gasoline Range Organics	488	50.0	100	ug/L	1	500	---	98	80-120%	---	---	
Surr: 4-Bromofluorobenzene (Sur)		Recovery: 92 %		Limits: 50-150 %		Dilution: 1x						
1,4-Difluorobenzene (Sur)		104 %		50-150 %		"						
Duplicate (23D0628-DUP1)			Prepared: 04/17/23 11:16    Analyzed: 04/17/23 16:44									
QC Source Sample: Non-SDG (A3D1231-01)												
Gasoline Range Organics	3080	500	1000	ug/L	10	---	3330	---	---	8	30%	
Surr: 4-Bromofluorobenzene (Sur)		Recovery: 92 %		Limits: 50-150 %		Dilution: 1x						
1,4-Difluorobenzene (Sur)		105 %		50-150 %		"						
Duplicate (23D0628-DUP2)			Prepared: 04/17/23 11:16    Analyzed: 04/17/23 18:14									
QC Source Sample: Non-SDG (A3D0975-07)												
Gasoline Range Organics	ND	500	1000	ug/L	10	---	ND	---	---	---	30%	
Surr: 4-Bromofluorobenzene (Sur)		Recovery: 93 %		Limits: 50-150 %		Dilution: 1x						
1,4-Difluorobenzene (Sur)		107 %		50-150 %		"						

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## ANALYTICAL REPORT

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ORELAP ID: OR100062

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Portland, OR 97219Project: Gasco-MGP Only Mon. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001E

Project Manager: John Renda

Report ID:

A3D1107 - 05 19 23 1241

## 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 23D0695 - EPA 5030C						Water							
Blank (23D0695-BLK1)			Prepared: 04/18/23 09:00		Analyzed: 04/18/23 12:21								
NWTPH-Gx (MS)													
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)		104 %		50-150 %		"							
LCS (23D0695-BS2)			Prepared: 04/18/23 09:00		Analyzed: 04/18/23 11:54								
NWTPH-Gx (MS)													
Gasoline Range Organics	491	50.0	100	ug/L	1	500	---	98	80-120%	---	---		
Surr: 4-Bromofluorobenzene (Sur)		Recovery: 102 %		Limits: 50-150 %		Dilution: 1x							
1,4-Difluorobenzene (Sur)		104 %		50-150 %		"							
Duplicate (23D0695-DUP1)			Prepared: 04/18/23 12:09		Analyzed: 04/18/23 13:16								
QC Source Sample: Non-SDG (A3D1257-04)													
Gasoline Range Organics	ND	50.0	100	ug/L	1	---	55.7	---	---	***	30%	Q-05	
Surr: 4-Bromofluorobenzene (Sur)		Recovery: 98 %		Limits: 50-150 %		Dilution: 1x							
1,4-Difluorobenzene (Sur)		103 %		50-150 %		"							
Duplicate (23D0695-DUP2)			Prepared: 04/18/23 12:09		Analyzed: 04/18/23 21:51								V-01
QC Source Sample: Non-SDG (A3D1267-01)													
Gasoline Range Organics	8320000	50000	100000	ug/L	1000	---	8670000	---	---	4	30%	F-12	
Surr: 4-Bromofluorobenzene (Sur)		Recovery: 102 %		Limits: 50-150 %		Dilution: 1x							
1,4-Difluorobenzene (Sur)		103 %		50-150 %		"							

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503-718-2323  
ORELAP ID: OR100062**Anchor QEA, LLC**6720 SW Macadam Ave. Suite 125  
Portland, OR 97219Project: **Gasco-MGP Only Mon. Wells 1Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001E**Project Manager: **John Renda****Report ID:****A3D1107 - 05 19 23 1241****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 23D0628 - EPA 5030C						Water						
Blank (23D0628-BLK1)			Prepared: 04/17/23 08:00		Analyzed: 04/17/23 11:11							
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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Darwin Thomas, Business Development Director



## ANALYTICAL REPORT

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Project Number: 000029-02.84 T-01.001E

Project Manager: John Renda

Report ID:

A3D1107 - 05 19 23 1241

## 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 23D0628 - EPA 5030C						Water						
Blank (23D0628-BLK1)						Prepared: 04/17/23 08:00 Analyzed: 04/17/23 11:11						
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: 104 % Limits: 80-120 % Dilution: 1x												

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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 23D0628 - EPA 5030C						Water						
Blank (23D0628-BLK1)			Prepared: 04/17/23 08:00		Analyzed: 04/17/23 11:11							
Surr: Toluene-d8 (Surr)		Recovery: 103 %		Limits: 80-120 %		Dilution: 1x						
4-Bromofluorobenzene (Surr)		100 %		80-120 %		"						
LCS (23D0628-BS1)			Prepared: 04/17/23 08:00		Analyzed: 04/17/23 10:04							
EPA 8260D												
Acetone	40.3	10.0	20.0	ug/L	1	40.0	---	101	80-120%	---	---	
Acrylonitrile	21.3	1.00	2.00	ug/L	1	20.0	---	107	80-120%	---	---	
Benzene	19.2	0.100	0.200	ug/L	1	20.0	---	96	80-120%	---	---	
Bromobenzene	17.6	0.250	0.500	ug/L	1	20.0	---	88	80-120%	---	---	
Bromochloromethane	24.5	0.500	1.00	ug/L	1	20.0	---	123	80-120%	---	---	Q-56
Bromodichloromethane	19.5	0.500	1.00	ug/L	1	20.0	---	97	80-120%	---	---	
Bromoform	18.5	0.500	1.00	ug/L	1	20.0	---	93	80-120%	---	---	
Bromomethane	25.5	5.00	5.00	ug/L	1	20.0	---	127	80-120%	---	---	Q-56
2-Butanone (MEK)	44.1	5.00	10.0	ug/L	1	40.0	---	110	80-120%	---	---	
n-Butylbenzene	20.0	0.500	1.00	ug/L	1	20.0	---	100	80-120%	---	---	
sec-Butylbenzene	19.8	0.500	1.00	ug/L	1	20.0	---	99	80-120%	---	---	
tert-Butylbenzene	17.9	0.500	1.00	ug/L	1	20.0	---	90	80-120%	---	---	
Carbon disulfide	21.9	5.00	10.0	ug/L	1	20.0	---	110	80-120%	---	---	
Carbon tetrachloride	19.0	0.500	1.00	ug/L	1	20.0	---	95	80-120%	---	---	
Chlorobenzene	18.6	0.250	0.500	ug/L	1	20.0	---	93	80-120%	---	---	
Chloroethane	24.2	5.00	5.00	ug/L	1	20.0	---	121	80-120%	---	---	Q-56
Chloroform	19.1	0.500	1.00	ug/L	1	20.0	---	95	80-120%	---	---	
Chloromethane	18.8	2.50	5.00	ug/L	1	20.0	---	94	80-120%	---	---	
2-Chlorotoluene	18.2	0.500	1.00	ug/L	1	20.0	---	91	80-120%	---	---	
4-Chlorotoluene	18.7	0.500	1.00	ug/L	1	20.0	---	93	80-120%	---	---	
Dibromochloromethane	19.2	0.500	1.00	ug/L	1	20.0	---	96	80-120%	---	---	
1,2-Dibromo-3-chloropropane	16.9	2.50	5.00	ug/L	1	20.0	---	85	80-120%	---	---	
1,2-Dibromoethane (EDB)	19.1	0.250	0.500	ug/L	1	20.0	---	95	80-120%	---	---	
Dibromomethane	19.2	0.500	1.00	ug/L	1	20.0	---	96	80-120%	---	---	
1,2-Dichlorobenzene	18.8	0.250	0.500	ug/L	1	20.0	---	94	80-120%	---	---	
1,3-Dichlorobenzene	19.0	0.250	0.500	ug/L	1	20.0	---	95	80-120%	---	---	
1,4-Dichlorobenzene	18.4	0.250	0.500	ug/L	1	20.0	---	92	80-120%	---	---	
Dichlorodifluoromethane	20.6	0.500	1.00	ug/L	1	20.0	---	103	80-120%	---	---	
1,1-Dichloroethane	20.5	0.200	0.400	ug/L	1	20.0	---	103	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-MGP Only Mon. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001E

Project Manager: John Renda

Report ID:

A3D1107 - 05 19 23 1241

## 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 23D0628 - EPA 5030C						Water						
LCS (23D0628-BS1)						Prepared: 04/17/23 08:00 Analyzed: 04/17/23 10:04						
1,2-Dichloroethane (EDC)	20.1	0.200	0.400	ug/L	1	20.0	---	100	80-120%	---	---	
1,1-Dichloroethene	21.7	0.200	0.400	ug/L	1	20.0	---	109	80-120%	---	---	
cis-1,2-Dichloroethene	19.9	0.200	0.400	ug/L	1	20.0	---	99	80-120%	---	---	
trans-1,2-Dichloroethene	20.5	0.200	0.400	ug/L	1	20.0	---	103	80-120%	---	---	
1,2-Dichloropropane	21.5	0.250	0.500	ug/L	1	20.0	---	107	80-120%	---	---	
1,3-Dichloropropane	19.7	0.500	1.00	ug/L	1	20.0	---	98	80-120%	---	---	
2,2-Dichloropropane	20.4	0.500	1.00	ug/L	1	20.0	---	102	80-120%	---	---	
1,1-Dichloropropene	19.7	0.500	1.00	ug/L	1	20.0	---	98	80-120%	---	---	
cis-1,3-Dichloropropene	19.3	0.500	1.00	ug/L	1	20.0	---	97	80-120%	---	---	
trans-1,3-Dichloropropene	19.7	0.500	1.00	ug/L	1	20.0	---	99	80-120%	---	---	
Ethylbenzene	18.9	0.250	0.500	ug/L	1	20.0	---	95	80-120%	---	---	
Hexachlorobutadiene	17.8	2.50	5.00	ug/L	1	20.0	---	89	80-120%	---	---	
2-Hexanone	40.0	5.00	10.0	ug/L	1	40.0	---	100	80-120%	---	---	
Isopropylbenzene	18.7	0.500	1.00	ug/L	1	20.0	---	93	80-120%	---	---	
4-Isopropyltoluene	18.8	0.500	1.00	ug/L	1	20.0	---	94	80-120%	---	---	
Methylene chloride	21.0	5.00	10.0	ug/L	1	20.0	---	105	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)	20.1	0.500	1.00	ug/L	1	20.0	---	101	80-120%	---	---	
Naphthalene	17.7	1.00	2.00	ug/L	1	20.0	---	89	80-120%	---	---	
n-Propylbenzene	19.3	0.250	0.500	ug/L	1	20.0	---	97	80-120%	---	---	
Styrene	19.0	0.500	1.00	ug/L	1	20.0	---	95	80-120%	---	---	
1,1,1,2-Tetrachloroethane	17.4	0.200	0.400	ug/L	1	20.0	---	87	80-120%	---	---	
1,1,2,2-Tetrachloroethane	19.6	0.250	0.500	ug/L	1	20.0	---	98	80-120%	---	---	
Tetrachloroethene (PCE)	18.2	0.200	0.400	ug/L	1	20.0	---	91	80-120%	---	---	
Toluene	18.8	0.500	1.00	ug/L	1	20.0	---	94	80-120%	---	---	
1,2,3-Trichlorobenzene	17.7	1.00	2.00	ug/L	1	20.0	---	88	80-120%	---	---	
1,2,4-Trichlorobenzene	17.7	1.00	2.00	ug/L	1	20.0	---	88	80-120%	---	---	
1,1,1-Trichloroethane	19.4	0.200	0.400	ug/L	1	20.0	---	97	80-120%	---	---	
1,1,2-Trichloroethane	18.5	0.250	0.500	ug/L	1	20.0	---	93	80-120%	---	---	
Trichloroethene (TCE)	19.2	0.200	0.400	ug/L	1	20.0	---	96	80-120%	---	---	
Trichlorofluoromethane	21.2	1.00	2.00	ug/L	1	20.0	---	106	80-120%	---	---	
1,2,3-Trichloropropane	18.6	0.500	1.00	ug/L	1	20.0	---	93	80-120%	---	---	
1,2,4-Trimethylbenzene	18.6	0.500	1.00	ug/L	1	20.0	---	93	80-120%	---	---	
1,3,5-Trimethylbenzene	18.8	0.500	1.00	ug/L	1	20.0	---	94	80-120%	---	---	

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Darwin Thomas, Business Development Director



## ANALYTICAL REPORT

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Project Number: 000029-02.84 T-01.001E

Project Manager: John Renda

Report ID:

A3D1107 - 05 19 23 1241

## 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 23D0628 - EPA 5030C						Water						
LCS (23D0628-BS1)			Prepared: 04/17/23 08:00		Analyzed: 04/17/23 10:04							
Vinyl chloride	21.0	0.200	0.400	ug/L	1	20.0	---	105	80-120%	---	---	
m,p-Xylene	37.9	0.500	1.00	ug/L	1	40.0	---	95	80-120%	---	---	
o-Xylene	18.2	0.250	0.500	ug/L	1	20.0	---	91	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 105 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		102 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		94 %		80-120 %		"						

## Duplicate (23D0628-DUP1)

Prepared: 04/17/23 11:16 Analyzed: 04/17/23 16:44

## QC Source Sample: Non-SDG (A3D1231-01)

Acetone	ND	100	200	ug/L	10	---	ND	---	---	---	30%
Acrylonitrile	ND	10.0	20.0	ug/L	10	---	ND	---	---	---	30%
Benzene	43.1	1.00	2.00	ug/L	10	---	47.8	---	---	10	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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Darwin Thomas, Business Development Director



## ANALYTICAL REPORT

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503-718-2323

ORELAP ID: OR100062

## Anchor QEA, LLC

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Project: Gasco-MGP Only Mon. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001E

Project Manager: John Renda

Report ID:

A3D1107 - 05 19 23 1241

## 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 23D0628 - EPA 5030C						Water						
Duplicate (23D0628-DUP1)			Prepared: 04/17/23 11:16		Analyzed: 04/17/23 16:44							
QC Source Sample: Non-SDG (A3D1231-01)												
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	ND	2.00	4.00	ug/L	10	---	ND	---	---	---	30%	
trans-1,2-Dichloroethene	ND	2.00	4.00	ug/L	10	---	ND	---	---	---	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	20.0	20.0	ug/L	10	---	ND	---	---	---	30%	R-06
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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Project Manager: John Renda

Report ID:

A3D1107 - 05 19 23 1241

## 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 23D0628 - EPA 5030C						Water						
Duplicate (23D0628-DUP1)			Prepared: 04/17/23 11:16   Analyzed: 04/17/23 16:44									
QC Source Sample: Non-SDG (A3D1231-01)												
Trichloroethene (TCE)	ND	2.00	4.00	ug/L	10	---	ND	---	---	---	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	ND	2.00	4.00	ug/L	10	---	ND	---	---	---	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: 105 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		103 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		99 %		80-120 %		"						

Duplicate (23D0628-DUP2) Prepared: 04/17/23 11:16 Analyzed: 04/17/23 18:14

QC Source Sample: Non-SDG (A3D0975-07)												
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%	

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Project: **Gasco-MGP Only Mon. Wells 1Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001E**Project Manager: **John Renda****Report ID:****A3D1107 - 05 19 23 1241**

## 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 23D0628 - EPA 5030C						Water						
Duplicate (23D0628-DUP2)			Prepared: 04/17/23 11:16    Analyzed: 04/17/23 18:14									
QC Source Sample: Non-SDG (A3D0975-07)												
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%	
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	ND	2.00	4.00	ug/L	10	---	ND	---	---	---	30%	
trans-1,2-Dichloroethene	ND	2.00	4.00	ug/L	10	---	ND	---	---	---	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%	

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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-MGP Only Mon. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001E

Project Manager: John Renda

Report ID:

A3D1107 - 05 19 23 1241

## 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 23D0628 - EPA 5030C						Water						
Duplicate (23D0628-DUP2)			Prepared: 04/17/23 11:16    Analyzed: 04/17/23 18:14									
QC Source Sample: Non-SDG (A3D0975-07)												
Tetrachloroethene (PCE)	ND	10.0	10.0	ug/L	10	---	ND	---	---	---	30%	R-06
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%	
Trichloroethene (TCE)	ND	2.00	4.00	ug/L	10	---	ND	---	---	---	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	ND	2.00	4.00	ug/L	10	---	ND	---	---	---	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: 106 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		105 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		100 %		80-120 %		"						

## Matrix Spike (23D0628-MS1)

Prepared: 04/17/23 11:16 Analyzed: 04/17/23 20:28

## QC Source Sample: GS-041123-64 (A3D1107-04)

## EPA 8260D

Acetone	2150	500	1000	ug/L	50	2000	ND	107	39-160%	---	---	Q-54a
Acrylonitrile	1150	50.0	100	ug/L	50	1000	ND	115	63-135%	---	---	
Benzene	1060	5.00	10.0	ug/L	50	1000	ND	106	79-120%	---	---	
Bromobenzene	964	12.5	25.0	ug/L	50	1000	ND	96	80-120%	---	---	
Bromochloromethane	1370	25.0	50.0	ug/L	50	1000	ND	137	78-123%	---	---	
Bromodichloromethane	1020	25.0	50.0	ug/L	50	1000	ND	102	79-125%	---	---	Q-54b
Bromoform	921	25.0	50.0	ug/L	50	1000	ND	92	66-130%	---	---	
Bromomethane	1430	250	250	ug/L	50	1000	ND	143	53-141%	---	---	
2-Butanone (MEK)	2330	250	500	ug/L	50	2000	ND	117	56-143%	---	---	
n-Butylbenzene	1130	25.0	50.0	ug/L	50	1000	ND	113	75-128%	---	---	
sec-Butylbenzene	1090	25.0	50.0	ug/L	50	1000	ND	109	77-126%	---	---	
tert-Butylbenzene	994	25.0	50.0	ug/L	50	1000	ND	99	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-MGP Only Mon. Wells 1Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001E**Project Manager: **John Renda****Report ID:****A3D1107 - 05 19 23 1241**

## 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 23D0628 - EPA 5030C						Water						
Matrix Spike (23D0628-MS1)			Prepared: 04/17/23 11:16   Analyzed: 04/17/23 20:28									
QC Source Sample: GS-041123-64 (A3D1107-04)												
Carbon disulfide	1230	250	500	ug/L	50	1000	ND	123	64-133%	---	---	Q-54
Carbon tetrachloride	1040	25.0	50.0	ug/L	50	1000	ND	104	72-136%	---	---	
Chlorobenzene	970	12.5	25.0	ug/L	50	1000	ND	97	80-120%	---	---	
Chloroethane	1390	250	250	ug/L	50	1000	ND	139	60-138%	---	---	
Chloroform	1050	25.0	50.0	ug/L	50	1000	ND	105	79-124%	---	---	
Chloromethane	1150	125	250	ug/L	50	1000	ND	115	50-139%	---	---	
2-Chlorotoluene	1000	25.0	50.0	ug/L	50	1000	ND	100	79-122%	---	---	
4-Chlorotoluene	1020	25.0	50.0	ug/L	50	1000	ND	102	78-122%	---	---	
Dibromochloromethane	942	25.0	50.0	ug/L	50	1000	ND	94	74-126%	---	---	
1,2-Dibromo-3-chloropropane	885	125	250	ug/L	50	1000	ND	88	62-128%	---	---	
1,2-Dibromoethane (EDB)	974	12.5	25.0	ug/L	50	1000	ND	97	77-121%	---	---	
Dibromomethane	1070	25.0	50.0	ug/L	50	1000	ND	107	79-123%	---	---	
1,2-Dichlorobenzene	1010	12.5	25.0	ug/L	50	1000	ND	101	80-120%	---	---	
1,3-Dichlorobenzene	1020	12.5	25.0	ug/L	50	1000	ND	102	80-120%	---	---	
1,4-Dichlorobenzene	996	12.5	25.0	ug/L	50	1000	ND	100	79-120%	---	---	
Dichlorodifluoromethane	1170	25.0	50.0	ug/L	50	1000	ND	117	32-152%	---	---	
1,1-Dichloroethane	1160	10.0	20.0	ug/L	50	1000	ND	116	77-125%	---	---	
1,2-Dichloroethane (EDC)	1020	10.0	20.0	ug/L	50	1000	ND	102	73-128%	---	---	
1,1-Dichloroethene	1230	10.0	20.0	ug/L	50	1000	ND	123	71-131%	---	---	
cis-1,2-Dichloroethene	1120	10.0	20.0	ug/L	50	1000	ND	112	78-123%	---	---	
trans-1,2-Dichloroethene	1140	10.0	20.0	ug/L	50	1000	ND	114	75-124%	---	---	
1,2-Dichloropropane	1180	12.5	25.0	ug/L	50	1000	ND	118	78-122%	---	---	
1,3-Dichloropropane	1030	25.0	50.0	ug/L	50	1000	ND	103	80-120%	---	---	
2,2-Dichloropropane	998	25.0	50.0	ug/L	50	1000	ND	100	60-139%	---	---	
1,1-Dichloropropene	1150	25.0	50.0	ug/L	50	1000	ND	115	79-125%	---	---	
cis-1,3-Dichloropropene	941	25.0	50.0	ug/L	50	1000	ND	94	75-124%	---	---	
trans-1,3-Dichloropropene	993	25.0	50.0	ug/L	50	1000	ND	99	73-127%	---	---	
Ethylbenzene	1020	12.5	25.0	ug/L	50	1000	ND	102	79-121%	---	---	
Hexachlorobutadiene	944	125	250	ug/L	50	1000	ND	94	66-134%	---	---	
2-Hexanone	2070	250	500	ug/L	50	2000	ND	103	57-139%	---	---	
Isopropylbenzene	1000	25.0	50.0	ug/L	50	1000	ND	100	72-131%	---	---	
4-Isopropyltoluene	1040	25.0	50.0	ug/L	50	1000	ND	104	77-127%	---	---	
Methylene chloride	1120	250	500	ug/L	50	1000	ND	112	74-124%	---	---	

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Darwin Thomas, Business Development Director



## ANALYTICAL REPORT

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Project Number: 000029-02.84 T-01.001E

Project Manager: John Renda

Report ID:

A3D1107 - 05 19 23 1241

## 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 23D0628 - EPA 5030C						Water						
Matrix Spike (23D0628-MS1)			Prepared: 04/17/23 11:16    Analyzed: 04/17/23 20:28									
QC Source Sample: GS-041123-64 (A3D1107-04)												
4-Methyl-2-pentanone (MiBK)	2080	250	500	ug/L	50	2000	ND	104	67-130%	---	---	
Methyl tert-butyl ether (MTBE)	1030	25.0	50.0	ug/L	50	1000	ND	103	71-124%	---	---	
Naphthalene	910	50.0	100	ug/L	50	1000	ND	91	61-128%	---	---	
n-Propylbenzene	1070	12.5	25.0	ug/L	50	1000	ND	107	76-126%	---	---	
Styrene	1000	25.0	50.0	ug/L	50	1000	ND	100	78-123%	---	---	
1,1,1,2-Tetrachloroethane	916	10.0	20.0	ug/L	50	1000	ND	92	78-124%	---	---	
1,1,2,2-Tetrachloroethane	1060	12.5	25.0	ug/L	50	1000	ND	106	71-121%	---	---	
Tetrachloroethene (PCE)	996	10.0	20.0	ug/L	50	1000	ND	100	74-129%	---	---	
Toluene	1010	25.0	50.0	ug/L	50	1000	ND	101	80-121%	---	---	
1,2,3-Trichlorobenzene	912	50.0	100	ug/L	50	1000	ND	91	69-129%	---	---	
1,2,4-Trichlorobenzene	916	50.0	100	ug/L	50	1000	ND	92	69-130%	---	---	
1,1,1-Trichloroethane	1030	10.0	20.0	ug/L	50	1000	ND	103	74-131%	---	---	
1,1,2-Trichloroethane	969	12.5	25.0	ug/L	50	1000	ND	97	80-120%	---	---	
Trichloroethene (TCE)	1060	10.0	20.0	ug/L	50	1000	ND	106	79-123%	---	---	
Trichlorofluoromethane	1160	50.0	100	ug/L	50	1000	ND	116	65-141%	---	---	
1,2,3-Trichloropropane	948	25.0	50.0	ug/L	50	1000	ND	95	73-122%	---	---	
1,2,4-Trimethylbenzene	1020	25.0	50.0	ug/L	50	1000	ND	102	76-124%	---	---	
1,3,5-Trimethylbenzene	1030	25.0	50.0	ug/L	50	1000	ND	103	75-124%	---	---	
Vinyl chloride	1250	10.0	20.0	ug/L	50	1000	ND	125	58-137%	---	---	
m,p-Xylene	2020	25.0	50.0	ug/L	50	2000	ND	101	80-121%	---	---	
o-Xylene	971	12.5	25.0	ug/L	50	1000	ND	97	78-122%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 107 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		102 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		96 %		80-120 %		"						

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Project Number: 000029-02.84 T-01.001E

Project Manager: John Renda

Report ID:

A3D1107 - 05 19 23 1241

## 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 23D0695 - EPA 5030C						Water						
Blank (23D0695-BLK1)			Prepared: 04/18/23 09:00		Analyzed: 04/18/23 12:21							
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	10.0	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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Project Manager: John Renda

Report ID:

A3D1107 - 05 19 23 1241

## 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 23D0695 - EPA 5030C						Water						
Blank (23D0695-BLK1)						Prepared: 04/18/23 09:00 Analyzed: 04/18/23 12:21						
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-MGP Only Mon. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001E

Project Manager: John Renda

Report ID:

A3D1107 - 05 19 23 1241

## 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 23D0695 - EPA 5030C						Water						
Blank (23D0695-BLK1)			Prepared: 04/18/23 09:00		Analyzed: 04/18/23 12:21							
Surr: Toluene-d8 (Surr)		Recovery: 102 %		Limits: 80-120 %		Dilution: 1x						
4-Bromofluorobenzene (Surr)		106 %		80-120 %		"						
LCS (23D0695-BS1)			Prepared: 04/18/23 09:00		Analyzed: 04/18/23 11:00							
EPA 8260D												
Acetone	40.3	10.0	20.0	ug/L	1	40.0	---	101	80-120%	---	---	
Acrylonitrile	19.7	1.00	2.00	ug/L	1	20.0	---	98	80-120%	---	---	
Benzene	19.2	0.100	0.200	ug/L	1	20.0	---	96	80-120%	---	---	
Bromobenzene	17.6	0.250	0.500	ug/L	1	20.0	---	88	80-120%	---	---	
Bromochloromethane	20.2	0.500	1.00	ug/L	1	20.0	---	101	80-120%	---	---	
Bromodichloromethane	19.4	0.500	1.00	ug/L	1	20.0	---	97	80-120%	---	---	
Bromoform	16.0	0.500	1.00	ug/L	1	20.0	---	80	80-120%	---	---	
Bromomethane	20.5	5.00	5.00	ug/L	1	20.0	---	102	80-120%	---	---	
2-Butanone (MEK)	41.4	5.00	10.0	ug/L	1	40.0	---	103	80-120%	---	---	
n-Butylbenzene	21.8	0.500	1.00	ug/L	1	20.0	---	109	80-120%	---	---	
sec-Butylbenzene	20.0	0.500	1.00	ug/L	1	20.0	---	100	80-120%	---	---	
tert-Butylbenzene	19.0	0.500	1.00	ug/L	1	20.0	---	95	80-120%	---	---	
Carbon disulfide	15.3	10.0	10.0	ug/L	1	20.0	---	76	80-120%	---	---	Q-55
Carbon tetrachloride	20.8	0.500	1.00	ug/L	1	20.0	---	104	80-120%	---	---	
Chlorobenzene	20.1	0.250	0.500	ug/L	1	20.0	---	101	80-120%	---	---	
Chloroethane	24.0	5.00	5.00	ug/L	1	20.0	---	120	80-120%	---	---	ICV-01
Chloroform	19.4	0.500	1.00	ug/L	1	20.0	---	97	80-120%	---	---	
Chloromethane	19.4	2.50	5.00	ug/L	1	20.0	---	97	80-120%	---	---	
2-Chlorotoluene	17.8	0.500	1.00	ug/L	1	20.0	---	89	80-120%	---	---	
4-Chlorotoluene	19.2	0.500	1.00	ug/L	1	20.0	---	96	80-120%	---	---	
Dibromochloromethane	19.1	0.500	1.00	ug/L	1	20.0	---	95	80-120%	---	---	
1,2-Dibromo-3-chloropropane	17.4	2.50	5.00	ug/L	1	20.0	---	87	80-120%	---	---	
1,2-Dibromoethane (EDB)	20.0	0.250	0.500	ug/L	1	20.0	---	100	80-120%	---	---	
Dibromomethane	19.6	0.500	1.00	ug/L	1	20.0	---	98	80-120%	---	---	
1,2-Dichlorobenzene	19.9	0.250	0.500	ug/L	1	20.0	---	100	80-120%	---	---	
1,3-Dichlorobenzene	19.3	0.250	0.500	ug/L	1	20.0	---	97	80-120%	---	---	
1,4-Dichlorobenzene	19.4	0.250	0.500	ug/L	1	20.0	---	97	80-120%	---	---	
Dichlorodifluoromethane	22.4	0.500	1.00	ug/L	1	20.0	---	112	80-120%	---	---	
1,1-Dichloroethane	19.8	0.200	0.400	ug/L	1	20.0	---	99	80-120%	---	---	

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Project Manager: John Renda

Report ID:

A3D1107 - 05 19 23 1241

## 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 23D0695 - EPA 5030C						Water						
LCS (23D0695-BS1)			Prepared: 04/18/23 09:00		Analyzed: 04/18/23 11:00							
1,2-Dichloroethane (EDC)	21.7	0.200	0.400	ug/L	1	20.0	---	109	80-120%	---	---	
1,1-Dichloroethene	21.2	0.200	0.400	ug/L	1	20.0	---	106	80-120%	---	---	
cis-1,2-Dichloroethene	20.4	0.200	0.400	ug/L	1	20.0	---	102	80-120%	---	---	
trans-1,2-Dichloroethene	20.0	0.200	0.400	ug/L	1	20.0	---	100	80-120%	---	---	
1,2-Dichloropropane	19.7	0.250	0.500	ug/L	1	20.0	---	98	80-120%	---	---	
1,3-Dichloropropane	20.6	0.500	1.00	ug/L	1	20.0	---	103	80-120%	---	---	
2,2-Dichloropropane	19.8	0.500	1.00	ug/L	1	20.0	---	99	80-120%	---	---	
1,1-Dichloropropene	20.4	0.500	1.00	ug/L	1	20.0	---	102	80-120%	---	---	
cis-1,3-Dichloropropene	19.5	0.500	1.00	ug/L	1	20.0	---	98	80-120%	---	---	
trans-1,3-Dichloropropene	20.2	0.500	1.00	ug/L	1	20.0	---	101	80-120%	---	---	
Ethylbenzene	20.4	0.250	0.500	ug/L	1	20.0	---	102	80-120%	---	---	
Hexachlorobutadiene	22.9	2.50	5.00	ug/L	1	20.0	---	115	80-120%	---	---	
2-Hexanone	41.3	5.00	10.0	ug/L	1	40.0	---	103	80-120%	---	---	
Isopropylbenzene	21.2	0.500	1.00	ug/L	1	20.0	---	106	80-120%	---	---	
4-Isopropyltoluene	20.8	0.500	1.00	ug/L	1	20.0	---	104	80-120%	---	---	
Methylene chloride	19.2	5.00	10.0	ug/L	1	20.0	---	96	80-120%	---	---	
4-Methyl-2-pentanone (MiBK)	42.2	5.00	10.0	ug/L	1	40.0	---	105	80-120%	---	---	
Methyl tert-butyl ether (MTBE)	18.2	0.500	1.00	ug/L	1	20.0	---	91	80-120%	---	---	
Naphthalene	18.1	1.00	2.00	ug/L	1	20.0	---	90	80-120%	---	---	
n-Propylbenzene	18.7	0.250	0.500	ug/L	1	20.0	---	93	80-120%	---	---	
Styrene	20.8	0.500	1.00	ug/L	1	20.0	---	104	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	18.0	0.250	0.500	ug/L	1	20.0	---	90	80-120%	---	---	
Tetrachloroethene (PCE)	19.8	0.200	0.400	ug/L	1	20.0	---	99	80-120%	---	---	
Toluene	19.1	0.500	1.00	ug/L	1	20.0	---	96	80-120%	---	---	
1,2,3-Trichlorobenzene	21.3	1.00	2.00	ug/L	1	20.0	---	106	80-120%	---	---	
1,2,4-Trichlorobenzene	21.5	1.00	2.00	ug/L	1	20.0	---	108	80-120%	---	---	
1,1,1-Trichloroethane	20.1	0.200	0.400	ug/L	1	20.0	---	100	80-120%	---	---	
1,1,2-Trichloroethane	19.3	0.250	0.500	ug/L	1	20.0	---	96	80-120%	---	---	
Trichloroethene (TCE)	19.3	0.200	0.400	ug/L	1	20.0	---	97	80-120%	---	---	
Trichlorofluoromethane	25.4	1.00	2.00	ug/L	1	20.0	---	127	80-120%	---	---	Q-56
1,2,3-Trichloropropane	19.2	0.500	1.00	ug/L	1	20.0	---	96	80-120%	---	---	
1,2,4-Trimethylbenzene	20.8	0.500	1.00	ug/L	1	20.0	---	104	80-120%	---	---	
1,3,5-Trimethylbenzene	20.3	0.500	1.00	ug/L	1	20.0	---	101	80-120%	---	---	

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Darwin Thomas, Business Development Director

Page 44 of 79



## 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-MGP Only Mon. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001E

Project Manager: John Renda

Report ID:

A3D1107 - 05 19 23 1241

## 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 23D0695 - EPA 5030C						Water						
LCS (23D0695-BS1)			Prepared: 04/18/23 09:00		Analyzed: 04/18/23 11:00							
Vinyl chloride	20.1	0.200	0.400	ug/L	1	20.0	---	100	80-120%	---	---	
m,p-Xylene	41.2	0.500	1.00	ug/L	1	40.0	---	103	80-120%	---	---	
o-Xylene	19.9	0.250	0.500	ug/L	1	20.0	---	99	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 97 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		98 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		89 %		80-120 %		"						
Duplicate (23D0695-DUP1)						Prepared: 04/18/23 12:09 Analyzed: 04/18/23 13:16						
QC Source Sample: Non-SDG (A3D1257-04)												
Acetone	ND	10.0	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	10.0	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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Project: **Gasco-MGP Only Mon. Wells 1Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001E**Project Manager: **John Renda****Report ID:****A3D1107 - 05 19 23 1241**

## 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 23D0695 - EPA 5030C						Water						
Duplicate (23D0695-DUP1)			Prepared: 04/18/23 12:09		Analyzed: 04/18/23 13:16							
QC Source Sample: Non-SDG (A3D1257-04)												
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	0.570	0.250	0.500	ug/L	1	---	0.590	---	---	3	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 23D0695 - EPA 5030C						Water							
Duplicate (23D0695-DUP1)			Prepared: 04/18/23 12:09		Analyzed: 04/18/23 13:16								
QC Source Sample: Non-SDG (A3D1257-04)													
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	0.910	0.500	1.00	ug/L	1	---	1.00	---	---	9	30%	J	
1,3,5-Trimethylbenzene	0.550	0.500	1.00	ug/L	1	---	0.580	---	---	5	30%	J	
Vinyl chloride	ND	0.200	0.400	ug/L	1	---	ND	---	---	---	30%		
m,p-Xylene	2.57	0.500	1.00	ug/L	1	---	2.67	---	---	4	30%		
o-Xylene	0.340	0.250	0.500	ug/L	1	---	0.350	---	---	3	30%	J	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 97 %		Limits: 80-120 %		Dilution: 1x							
Toluene-d8 (Surr)		102 %		80-120 %		"							
4-Bromofluorobenzene (Surr)		105 %		80-120 %		"							
Duplicate (23D0695-DUP2)			Prepared: 04/18/23 12:09		Analyzed: 04/18/23 21:51								V-01
QC Source Sample: Non-SDG (A3D1267-01)													
Acetone	ND	10000	20000	ug/L	1000	---	ND	---	---	---	30%		
Acrylonitrile	ND	1000	2000	ug/L	1000	---	ND	---	---	---	30%		
Benzene	ND	100	200	ug/L	1000	---	ND	---	---	---	30%		
Bromobenzene	ND	250	500	ug/L	1000	---	ND	---	---	---	30%		
Bromochloromethane	ND	500	1000	ug/L	1000	---	ND	---	---	---	30%		
Bromodichloromethane	ND	500	1000	ug/L	1000	---	ND	---	---	---	30%		
Bromoform	ND	500	1000	ug/L	1000	---	ND	---	---	---	30%		
Bromomethane	ND	5000	5000	ug/L	1000	---	ND	---	---	---	30%		
2-Butanone (MEK)	ND	5000	10000	ug/L	1000	---	ND	---	---	---	30%		
n-Butylbenzene	ND	500	1000	ug/L	1000	---	ND	---	---	---	30%		
sec-Butylbenzene	ND	92000	92000	ug/L	1000	---	ND	---	---	---	30%	R-02	
tert-Butylbenzene	ND	500	1000	ug/L	1000	---	ND	---	---	---	30%		
Carbon disulfide	ND	10000	10000	ug/L	1000	---	ND	---	---	---	30%		
Carbon tetrachloride	ND	500	1000	ug/L	1000	---	ND	---	---	---	30%		
Chlorobenzene	ND	250	500	ug/L	1000	---	ND	---	---	---	30%		
Chloroethane	ND	5000	5000	ug/L	1000	---	ND	---	---	---	30%		
Chloroform	ND	500	1000	ug/L	1000	---	ND	---	---	---	30%		
Chloromethane	ND	2500	5000	ug/L	1000	---	ND	---	---	---	30%		
2-Chlorotoluene	ND	500	1000	ug/L	1000	---	ND	---	---	---	30%		

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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-MGP Only Mon. Wells 1Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001E**Project Manager: **John Renda****Report ID:****A3D1107 - 05 19 23 1241**

## 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 23D0695 - EPA 5030C						Water						
Duplicate (23D0695-DUP2)			Prepared: 04/18/23 12:09    Analyzed: 04/18/23 21:51					V-01				
QC Source Sample: Non-SDG (A3D1267-01)												
4-Chlorotoluene	ND	500	1000	ug/L	1000	---	ND	---	---	---	30%	
Dibromochloromethane	ND	500	1000	ug/L	1000	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	2500	5000	ug/L	1000	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	250	500	ug/L	1000	---	ND	---	---	---	30%	
Dibromomethane	ND	500	1000	ug/L	1000	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	250	500	ug/L	1000	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	250	500	ug/L	1000	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	250	500	ug/L	1000	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	500	1000	ug/L	1000	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	200	400	ug/L	1000	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	200	400	ug/L	1000	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	200	400	ug/L	1000	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	ND	200	400	ug/L	1000	---	ND	---	---	---	30%	
trans-1,2-Dichloroethene	ND	200	400	ug/L	1000	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	250	500	ug/L	1000	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	500	1000	ug/L	1000	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	500	1000	ug/L	1000	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	500	1000	ug/L	1000	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	500	1000	ug/L	1000	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	500	1000	ug/L	1000	---	ND	---	---	---	30%	
Ethylbenzene	ND	250	500	ug/L	1000	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	2500	5000	ug/L	1000	---	ND	---	---	---	30%	
2-Hexanone	ND	5000	10000	ug/L	1000	---	ND	---	---	---	30%	
Isopropylbenzene	ND	500	1000	ug/L	1000	---	ND	---	---	---	30%	
4-Isopropyltoluene	14600	500	1000	ug/L	1000	---	14700	---	---	0.2	30%	
Methylene chloride	ND	5000	10000	ug/L	1000	---	ND	---	---	---	30%	
4-Methyl-2-pentanone (MiBK)	ND	5000	10000	ug/L	1000	---	ND	---	---	---	30%	
Methyl tert-butyl ether (MTBE)	ND	500	1000	ug/L	1000	---	ND	---	---	---	30%	
Naphthalene	ND	1000	2000	ug/L	1000	---	ND	---	---	---	30%	
n-Propylbenzene	ND	250	500	ug/L	1000	---	ND	---	---	---	30%	
Styrene	ND	500	1000	ug/L	1000	---	ND	---	---	---	30%	
1,1,1,2-Tetrachloroethane	ND	200	400	ug/L	1000	---	ND	---	---	---	30%	
1,1,2,2-Tetrachloroethane	ND	250	500	ug/L	1000	---	ND	---	---	---	30%	

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Project: **Gasco-MGP Only Mon. Wells 1Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001E**Project Manager: **John Renda****Report ID:****A3D1107 - 05 19 23 1241**

## 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 23D0695 - EPA 5030C						Water						
Duplicate (23D0695-DUP2)			Prepared: 04/18/23 12:09		Analyzed: 04/18/23 21:51		V-01					
QC Source Sample: Non-SDG (A3D1267-01)												
Tetrachloroethene (PCE)	ND	400	400	ug/L	1000	---	ND	---	---	---	30%	
Toluene	ND	500	1000	ug/L	1000	---	ND	---	---	---	30%	
1,2,3-Trichlorobenzene	ND	1000	2000	ug/L	1000	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	1000	2000	ug/L	1000	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	200	400	ug/L	1000	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	250	500	ug/L	1000	---	ND	---	---	---	30%	
Trichloroethene (TCE)	ND	200	400	ug/L	1000	---	ND	---	---	---	30%	
Trichlorofluoromethane	ND	1000	2000	ug/L	1000	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	500	1000	ug/L	1000	---	ND	---	---	---	30%	
1,2,4-Trimethylbenzene	ND	500	1000	ug/L	1000	---	ND	---	---	---	30%	
1,3,5-Trimethylbenzene	ND	500	1000	ug/L	1000	---	ND	---	---	---	30%	
Vinyl chloride	ND	200	400	ug/L	1000	---	ND	---	---	---	30%	
m,p-Xylene	ND	500	1000	ug/L	1000	---	ND	---	---	---	30%	
o-Xylene	ND	250	500	ug/L	1000	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 96 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		101 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		91 %		80-120 %		"						

## Matrix Spike (23D0695-MS1)

Prepared: 04/18/23 12:09 Analyzed: 04/18/23 19:35

## QC Source Sample: Non-SDG (A3D1105-01)

## EPA 8260D

Acetone	110	10.0	20.0	ug/L	1	40.0	70.8	99	39-160%	---	---
Acrylonitrile	20.8	1.00	2.00	ug/L	1	20.0	ND	104	63-135%	---	---
Benzene	20.1	0.100	0.200	ug/L	1	20.0	ND	101	79-120%	---	---
Bromobenzene	18.3	0.250	0.500	ug/L	1	20.0	ND	91	80-120%	---	---
Bromochloromethane	21.0	0.500	1.00	ug/L	1	20.0	ND	105	78-123%	---	---
Bromodichloromethane	20.2	0.500	1.00	ug/L	1	20.0	ND	101	79-125%	---	---
Bromoform	16.4	0.500	1.00	ug/L	1	20.0	ND	82	66-130%	---	---
Bromomethane	21.9	5.00	5.00	ug/L	1	20.0	ND	110	53-141%	---	---
2-Butanone (MEK)	46.5	5.00	10.0	ug/L	1	40.0	ND	116	56-143%	---	---
n-Butylbenzene	24.3	0.500	1.00	ug/L	1	20.0	ND	122	75-128%	---	---
sec-Butylbenzene	22.0	0.500	1.00	ug/L	1	20.0	ND	110	77-126%	---	---
tert-Butylbenzene	20.6	0.500	1.00	ug/L	1	20.0	ND	103	78-124%	---	---

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Darwin Thomas, Business Development Director



## ANALYTICAL REPORT

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Project Number: 000029-02.84 T-01.001E

Project Manager: John Renda

Report ID:

A3D1107 - 05 19 23 1241

## 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 23D0695 - EPA 5030C						Water						
Matrix Spike (23D0695-MS1)			Prepared: 04/18/23 12:09		Analyzed: 04/18/23 19:35							
QC Source Sample: Non-SDG (A3D1105-01)												
Carbon disulfide	15.8	10.0	10.0	ug/L	1	20.0	ND	79	64-133%	---	---	Q-54c
Carbon tetrachloride	22.8	0.500	1.00	ug/L	1	20.0	ND	114	72-136%	---	---	
Chlorobenzene	21.1	0.250	0.500	ug/L	1	20.0	ND	106	80-120%	---	---	
Chloroethane	27.7	5.00	5.00	ug/L	1	20.0	ND	139	60-138%	---	---	ICV-01
Chloroform	21.4	0.500	1.00	ug/L	1	20.0	0.980	102	79-124%	---	---	
Chloromethane	21.5	2.50	5.00	ug/L	1	20.0	ND	108	50-139%	---	---	
2-Chlorotoluene	18.8	0.500	1.00	ug/L	1	20.0	ND	94	79-122%	---	---	
4-Chlorotoluene	20.2	0.500	1.00	ug/L	1	20.0	ND	101	78-122%	---	---	
Dibromochloromethane	19.5	0.500	1.00	ug/L	1	20.0	ND	98	74-126%	---	---	
1,2-Dibromo-3-chloropropane	19.4	2.50	5.00	ug/L	1	20.0	ND	97	62-128%	---	---	
1,2-Dibromoethane (EDB)	20.4	0.250	0.500	ug/L	1	20.0	ND	102	77-121%	---	---	
Dibromomethane	19.7	0.500	1.00	ug/L	1	20.0	ND	99	79-123%	---	---	
1,2-Dichlorobenzene	20.8	0.250	0.500	ug/L	1	20.0	ND	104	80-120%	---	---	
1,3-Dichlorobenzene	20.2	0.250	0.500	ug/L	1	20.0	ND	101	80-120%	---	---	
1,4-Dichlorobenzene	20.4	0.250	0.500	ug/L	1	20.0	ND	102	79-120%	---	---	
Dichlorodifluoromethane	26.1	0.500	1.00	ug/L	1	20.0	ND	131	32-152%	---	---	
1,1-Dichloroethane	20.7	0.200	0.400	ug/L	1	20.0	ND	103	77-125%	---	---	
1,2-Dichloroethane (EDC)	22.4	0.200	0.400	ug/L	1	20.0	ND	112	73-128%	---	---	
1,1-Dichloroethene	23.1	0.200	0.400	ug/L	1	20.0	ND	116	71-131%	---	---	
cis-1,2-Dichloroethene	21.4	0.200	0.400	ug/L	1	20.0	ND	107	78-123%	---	---	
trans-1,2-Dichloroethene	21.2	0.200	0.400	ug/L	1	20.0	ND	106	75-124%	---	---	
1,2-Dichloropropane	20.6	0.250	0.500	ug/L	1	20.0	ND	103	78-122%	---	---	
1,3-Dichloropropane	21.2	0.500	1.00	ug/L	1	20.0	ND	106	80-120%	---	---	
2,2-Dichloropropane	17.6	0.500	1.00	ug/L	1	20.0	ND	88	60-139%	---	---	
1,1-Dichloropropene	21.6	0.500	1.00	ug/L	1	20.0	ND	108	79-125%	---	---	
cis-1,3-Dichloropropene	18.7	0.500	1.00	ug/L	1	20.0	ND	94	75-124%	---	---	
trans-1,3-Dichloropropene	20.2	0.500	1.00	ug/L	1	20.0	ND	101	73-127%	---	---	
Ethylbenzene	21.6	0.250	0.500	ug/L	1	20.0	ND	108	79-121%	---	---	
Hexachlorobutadiene	26.4	2.50	5.00	ug/L	1	20.0	ND	132	66-134%	---	---	
2-Hexanone	47.3	5.00	10.0	ug/L	1	40.0	ND	118	57-139%	---	---	
Isopropylbenzene	22.7	0.500	1.00	ug/L	1	20.0	ND	114	72-131%	---	---	
4-Isopropyltoluene	22.8	0.500	1.00	ug/L	1	20.0	ND	114	77-127%	---	---	
Methylene chloride	19.5	5.00	10.0	ug/L	1	20.0	ND	97	74-124%	---	---	

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Project Manager: John Renda

Report ID:

A3D1107 - 05 19 23 1241

## 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 23D0695 - EPA 5030C						Water						
Matrix Spike (23D0695-MS1)			Prepared: 04/18/23 12:09		Analyzed: 04/18/23 19:35							
QC Source Sample: Non-SDG (A3D1105-01)												
4-Methyl-2-pentanone (MiBK)	45.8	5.00	10.0	ug/L	1	40.0	ND	115	67-130%	---	---	Q-54b
Methyl tert-butyl ether (MTBE)	18.4	0.500	1.00	ug/L	1	20.0	ND	92	71-124%	---	---	
Naphthalene	21.5	1.00	2.00	ug/L	1	20.0	ND	108	61-128%	---	---	
n-Propylbenzene	19.9	0.250	0.500	ug/L	1	20.0	ND	100	76-126%	---	---	
Styrene	21.6	0.500	1.00	ug/L	1	20.0	ND	108	78-123%	---	---	
1,1,1,2-Tetrachloroethane	21.1	0.200	0.400	ug/L	1	20.0	ND	106	78-124%	---	---	
1,1,2,2-Tetrachloroethane	18.9	0.250	0.500	ug/L	1	20.0	ND	94	71-121%	---	---	
Tetrachloroethene (PCE)	21.2	0.200	0.400	ug/L	1	20.0	ND	106	74-129%	---	---	
Toluene	19.9	0.500	1.00	ug/L	1	20.0	ND	99	80-121%	---	---	
1,2,3-Trichlorobenzene	24.3	1.00	2.00	ug/L	1	20.0	ND	122	69-129%	---	---	
1,2,4-Trichlorobenzene	24.6	1.00	2.00	ug/L	1	20.0	ND	123	69-130%	---	---	
1,1,1-Trichloroethane	22.0	0.200	0.400	ug/L	1	20.0	ND	110	74-131%	---	---	
1,1,2-Trichloroethane	19.7	0.250	0.500	ug/L	1	20.0	ND	99	80-120%	---	---	
Trichloroethene (TCE)	20.0	0.200	0.400	ug/L	1	20.0	ND	100	79-123%	---	---	
Trichlorofluoromethane	28.9	1.00	2.00	ug/L	1	20.0	ND	144	65-141%	---	---	
1,2,3-Trichloropropane	19.7	0.500	1.00	ug/L	1	20.0	ND	99	73-122%	---	---	
1,2,4-Trimethylbenzene	22.4	0.500	1.00	ug/L	1	20.0	ND	112	76-124%	---	---	
1,3,5-Trimethylbenzene	21.5	0.500	1.00	ug/L	1	20.0	ND	108	75-124%	---	---	
Vinyl chloride	22.7	0.200	0.400	ug/L	1	20.0	ND	114	58-137%	---	---	
m,p-Xylene	43.6	0.500	1.00	ug/L	1	40.0	ND	109	80-121%	---	---	
o-Xylene	21.1	0.250	0.500	ug/L	1	20.0	ND	105	78-122%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		Recovery: 96 %		Limits: 80-120 %		Dilution: 1x						
Toluene-d8 (Surr)		98 %		80-120 %		"						
4-Bromofluorobenzene (Surr)		89 %		80-120 %		"						

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Project Number: 000029-02.84 T-01.001E

Project Manager: John Renda

Report ID:

A3D1107 - 05 19 23 1241

## 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 23D0506 - EPA 3511 (Bottle Extraction)						Water						
Blank (23D0506-BLK1)			Prepared: 04/13/23 08:43 Analyzed: 04/13/23 15:48									
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: 117 %		Limits: 78-134 %		Dilution: 1x						
Benzo(a)pyrene-d12 (Surr)		125 %		80-132 %		"						

LCS (23D0506-BS1)

Prepared: 04/13/23 08:43 Analyzed: 04/13/23 16:21

EPA 8270E LVI												
Acenaphthene	1.64	0.0160	0.0320	ug/L	1	1.60	---	103	80-120%	---	---	
Acenaphthylene	1.85	0.0160	0.0320	ug/L	1	1.60	---	116	80-124%	---	---	
Anthracene	1.76	0.0160	0.0320	ug/L	1	1.60	---	110	80-123%	---	---	
Benz(a)anthracene	1.92	0.00800	0.0160	ug/L	1	1.60	---	120	80-122%	---	---	
Benzo(a)pyrene	2.10	0.00800	0.0160	ug/L	1	1.60	---	131	80-129%	---	---	Q-29
Benzo(b)fluoranthene	1.97	0.00800	0.0160	ug/L	1	1.60	---	123	80-124%	---	---	
Benzo(k)fluoranthene	1.99	0.00800	0.0160	ug/L	1	1.60	---	124	80-125%	---	---	
Benzo(g,h,i)perylene	1.60	0.0160	0.0320	ug/L	1	1.60	---	100	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-MGP Only Mon. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001E

Project Manager: John Renda

Report ID:

A3D1107 - 05 19 23 1241

## 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 23D0506 - EPA 3511 (Bottle Extraction)						Water						
LCS (23D0506-BS1)			Prepared: 04/13/23 08:43		Analyzed: 04/13/23 16:21							
Chrysene	1.74	0.00800	0.0160	ug/L	1	1.60	---	108	80-120%	---	---	
Dibenz(a,h)anthracene	1.67	0.00800	0.0160	ug/L	1	1.60	---	104	80-120%	---	---	
Fluoranthene	1.67	0.0160	0.0320	ug/L	1	1.60	---	105	80-126%	---	---	
Fluorene	1.86	0.0160	0.0320	ug/L	1	1.60	---	116	77-127%	---	---	
Indeno(1,2,3-cd)pyrene	1.53	0.00800	0.0160	ug/L	1	1.60	---	96	80-121%	---	---	
1-Methylnaphthalene	1.81	0.0320	0.0640	ug/L	1	1.60	---	113	53-148%	---	---	
2-Methylnaphthalene	1.82	0.0320	0.0640	ug/L	1	1.60	---	114	48-150%	---	---	
Naphthalene	1.68	0.0320	0.0640	ug/L	1	1.60	---	105	78-120%	---	---	
Phenanthrene	1.59	0.0320	0.0640	ug/L	1	1.60	---	99	80-120%	---	---	
Pyrene	1.71	0.0160	0.0320	ug/L	1	1.60	---	107	80-125%	---	---	
Carbazole	2.18	0.0160	0.0320	ug/L	1	1.60	---	136	65-141%	---	---	Q-41
Dibenzofuran	1.86	0.0160	0.0320	ug/L	1	1.60	---	116	76-121%	---	---	
Surr: Acenaphthylene-d8 (Surr)		Recovery: 122 %		Limits: 78-134 %		Dilution: 1x						
Benzo(a)pyrene-d12 (Surr)		124 %		80-132 %		"						

LCS Dup (23D0506-BSD1)				Prepared: 04/13/23 08:43    Analyzed: 04/13/23 16:54								Q-19	
EPA 8270E LVI													
Acenaphthene	1.67	0.0160	0.0320	ug/L	1	1.60	---	104	80-120%	1	30%		
Acenaphthylene	1.82	0.0160	0.0320	ug/L	1	1.60	---	114	80-124%	2	30%		
Anthracene	1.77	0.0160	0.0320	ug/L	1	1.60	---	111	80-123%	0.8	30%		
Benz(a)anthracene	1.91	0.00800	0.0160	ug/L	1	1.60	---	119	80-122%	0.3	30%		
Benzo(a)pyrene	2.13	0.00800	0.0160	ug/L	1	1.60	---	133	80-129%	1	30%		Q-29
Benzo(b)fluoranthene	2.02	0.00800	0.0160	ug/L	1	1.60	---	126	80-124%	3	30%		Q-29
Benzo(k)fluoranthene	2.04	0.00800	0.0160	ug/L	1	1.60	---	128	80-125%	3	30%		Q-29
Benzo(g,h,i)perylene	1.59	0.0160	0.0320	ug/L	1	1.60	---	99	80-120%	0.4	30%		
Chrysene	1.76	0.00800	0.0160	ug/L	1	1.60	---	110	80-120%	1	30%		
Dibenz(a,h)anthracene	1.68	0.00800	0.0160	ug/L	1	1.60	---	105	80-120%	0.6	30%		
Fluoranthene	1.74	0.0160	0.0320	ug/L	1	1.60	---	109	80-126%	4	30%		
Fluorene	1.82	0.0160	0.0320	ug/L	1	1.60	---	114	77-127%	2	30%		
Indeno(1,2,3-cd)pyrene	1.53	0.00800	0.0160	ug/L	1	1.60	---	96	80-121%	0.3	30%		
1-Methylnaphthalene	1.78	0.0320	0.0640	ug/L	1	1.60	---	111	53-148%	1	30%		
2-Methylnaphthalene	1.78	0.0320	0.0640	ug/L	1	1.60	---	111	48-150%	2	30%		
Naphthalene	1.72	0.0320	0.0640	ug/L	1	1.60	---	107	78-120%	2	30%		
Phenanthrene	1.62	0.0320	0.0640	ug/L	1	1.60	---	101	80-120%	2	30%		

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Darwin Thomas, Business Development Director



ANALYTICAL REPORT

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503-718-2323  
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Anchor QEA, LLC

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Portland, OR 97219

Project: Gasco-MGP Only Mon. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001E

Project Manager: John Renda

Report ID:

A3D1107 - 05 19 23 1241

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 23D0506 - EPA 3511 (Bottle Extraction)						Water						
LCS Dup (23D0506-BSD1)			Prepared: 04/13/23 08:43 Analyzed: 04/13/23 16:54								Q-19	
Pyrene	1.71	0.0160	0.0320	ug/L	1	1.60	---	107	80-125%	0.2	30%	
Carbazole	2.20	0.0160	0.0320	ug/L	1	1.60	---	138	65-141%	1	30%	Q-41
Dibenzofuran	1.83	0.0160	0.0320	ug/L	1	1.60	---	114	76-121%	2	30%	
Surr: Acenaphthylene-d8 (Surr)		Recovery: 121 %		Limits: 78-134 %		Dilution: 1x						
Benzo(a)pyrene-d12 (Surr)		127 %		80-132 %		"						

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A3D1107 - 05 19 23 1241

## 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 23D0894 - EPA 3015A						Water						
Blank (23D0894-BLK1)			Prepared: 04/21/23 15:50   Analyzed: 04/22/23 02:48									
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	---	---	---	---	---	---	
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	50.5	25.0	50.0	ug/L	1	---	---	---	---	---	---	B
Lead	0.135	0.110	0.200	ug/L	1	---	---	---	---	---	---	B-02, J
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	---	---	---	---	---	---	
Blank (23D0894-BLK2)			Prepared: 04/21/23 15:50   Analyzed: 04/25/23 21:57									
EPA 6020B												
Beryllium	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	Q-16
Zinc	ND	2.00	4.00	ug/L	1	---	---	---	---	---	---	Q-16
LCS (23D0894-BS1)			Prepared: 04/21/23 15:50   Analyzed: 04/22/23 02:53									
EPA 6020B												
Aluminum	2860	25.0	50.0	ug/L	1	2780	---	103	80-120%	---	---	
Antimony	28.0	0.500	1.00	ug/L	1	27.8	---	101	80-120%	---	---	
Arsenic	55.5	0.500	1.00	ug/L	1	55.6	---	100	80-120%	---	---	
Cadmium	54.7	0.100	0.200	ug/L	1	55.6	---	98	80-120%	---	---	
Chromium	57.2	1.00	2.00	ug/L	1	55.6	---	103	80-120%	---	---	
Copper	57.1	1.00	2.00	ug/L	1	55.6	---	103	80-120%	---	---	
Iron	3150	25.0	50.0	ug/L	1	2780	---	113	80-120%	---	---	B
Lead	57.9	0.110	0.200	ug/L	1	55.6	---	104	80-120%	---	---	B-02
Manganese	58.0	0.500	1.00	ug/L	1	55.6	---	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 97219Project: **Gasco-MGP Only Mon. Wells 1Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001E**Project Manager: **John Renda****Report ID:****A3D1107 - 05 19 23 1241**

## 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
<b>Batch 23D0894 - EPA 3015A</b>												
<b>Water</b>												
<b>LCS (23D0894-BS1)</b>												
Prepared: 04/21/23 15:50 Analyzed: 04/22/23 02:53												
Mercury	1.06	0.0400	0.0800	ug/L	1	1.11	---	95	80-120%	---	---	
Nickel	58.4	1.00	2.00	ug/L	1	55.6	---	105	80-120%	---	---	
Selenium	27.0	0.500	1.00	ug/L	1	27.8	---	97	80-120%	---	---	
Silver	22.6	0.100	0.200	ug/L	1	27.8	---	82	80-120%	---	---	
Thallium	26.4	0.100	0.200	ug/L	1	27.8	---	95	80-120%	---	---	
Vanadium	58.6	1.00	2.00	ug/L	1	55.6	---	105	80-120%	---	---	
<b>LCS (23D0894-BS2)</b>												
Prepared: 04/21/23 15:50 Analyzed: 04/25/23 22:02												
<b>EPA 6020B</b>												
Barium	56.5	1.00	2.00	ug/L	1	55.6	---	102	80-120%	---	---	Q-16
Beryllium	26.6	0.100	0.200	ug/L	1	27.8	---	96	80-120%	---	---	Q-16
Zinc	56.7	2.00	4.00	ug/L	1	55.6	---	102	80-120%	---	---	Q-16
<b>Duplicate (23D0894-DUP1)</b>												
Prepared: 04/21/23 15:50 Analyzed: 04/22/23 03:03												
<b>QC Source Sample: GS-041123-61 (A3D1107-01)</b>												
<b>EPA 6020B</b>												
Aluminum	ND	25.0	50.0	ug/L	1	---	ND	---	---	---	20%	
Antimony	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	20%	
Arsenic	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	20%	
Cadmium	ND	0.100	0.200	ug/L	1	---	ND	---	---	---	20%	
Chromium	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	20%	
Copper	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	20%	
Iron	<b>26800</b>	25.0	50.0	ug/L	1	---	27000	---	---	0.7	20%	B
Lead	ND	0.110	0.200	ug/L	1	---	ND	---	---	---	20%	
Mercury	ND	0.0400	0.0800	ug/L	1	---	ND	---	---	---	20%	
Nickel	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	20%	
Selenium	ND	0.500	1.00	ug/L	1	---	ND	---	---	---	20%	
Silver	ND	0.100	0.200	ug/L	1	---	ND	---	---	---	20%	
Thallium	ND	0.100	0.200	ug/L	1	---	ND	---	---	---	20%	
Vanadium	ND	1.00	2.00	ug/L	1	---	ND	---	---	---	20%	

**Duplicate (23D0894-DUP2)**

Prepared: 04/21/23 15:50 Analyzed: 04/25/23 22:12

**QC Source Sample: GS-041123-61 (A3D1107-01RE1)**

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Darwin Thomas, Business Development Director





## ANALYTICAL REPORT

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Project: Gasco-MGP Only Mon. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001E

Project Manager: John Renda

Report ID:

A3D1107 - 05 19 23 1241

## 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 23D0894 - EPA 3015A						Water						
Duplicate (23D0894-DUP2)			Prepared: 04/21/23 15:50		Analyzed: 04/25/23 22:12							
QC Source Sample: GS-041123-61 (A3D1107-01RE1)												
EPA 6020B												
Barium	41.3	1.00	2.00	ug/L	1	---	40.7	---	---	1	20%	Q-16
Beryllium	ND	0.100	0.200	ug/L	1	---	ND	---	---	---	20%	Q-16
Zinc	ND	2.00	4.00	ug/L	1	---	ND	---	---	---	20%	Q-16

Duplicate (23D0894-DUP3)				Prepared: 04/21/23 15:50   Analyzed: 04/27/23 18:09								
<u>QC Source Sample: GS-041123-61 (A3D1107-01RE2)</u>												
<u>EPA 6020B</u>												
Manganese	3350	5.00	10.0	ug/L	10	---	3240	---	---	3	20%	Q-16

Matrix Spike (23D0894-MS1)					Prepared: 04/21/23 15:50    Analyzed: 04/22/23 03:08							
QC Source Sample: GS-041123-61 (A3D1107-01)												
EPA 6020B												
Aluminum	2810	25.0	50.0	ug/L	1	2780	ND	101	75-125%	---	---	
Antimony	27.5	0.500	1.00	ug/L	1	27.8	ND	99	75-125%	---	---	
Arsenic	54.7	0.500	1.00	ug/L	1	55.6	ND	99	75-125%	---	---	
Cadmium	54.7	0.100	0.200	ug/L	1	55.6	ND	99	75-125%	---	---	
Chromium	54.8	1.00	2.00	ug/L	1	55.6	ND	99	75-125%	---	---	
Copper	53.6	1.00	2.00	ug/L	1	55.6	ND	97	75-125%	---	---	
Iron	28800	25.0	50.0	ug/L	1	2780	27000	64	75-125%	---	---	B, Q-65
Lead	54.5	0.110	0.200	ug/L	1	55.6	ND	98	75-125%	---	---	B-02
Manganese	3390	0.500	1.00	ug/L	1	55.6	3470	-144	75-125%	---	---	E, Q-65
Mercury	0.992	0.0400	0.0800	ug/L	1	1.11	ND	89	75-125%	---	---	
Nickel	54.9	1.00	2.00	ug/L	1	55.6	ND	99	75-125%	---	---	
Selenium	26.4	0.500	1.00	ug/L	1	27.8	ND	95	75-125%	---	---	
Silver	21.6	0.100	0.200	ug/L	1	27.8	ND	78	75-125%	---	---	
Thallium	25.1	0.100	0.200	ug/L	1	27.8	ND	90	75-125%	---	---	
Vanadium	57.8	1.00	2.00	ug/L	1	55.6	ND	104	75-125%	---	---	

Matrix Spike (23D0894-MS2)										Prepared: 04/21/23 15:50   Analyzed: 04/25/23 22:27									
<u>QC Source Sample: GS-041123-61 (A3D1107-01RE1)</u>																			
EPA 6020B																			

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

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Portland, OR 97219

Project: **Gasco-MGP Only Mon. Wells 1Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001E**Project Manager: **John Renda****Report ID:****A3D1107 - 05 19 23 1241****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 23D0894 - EPA 3015A						Water						
Matrix Spike (23D0894-MS2)			Prepared: 04/21/23 15:50   Analyzed: 04/25/23 22:27									
QC Source Sample: GS-041123-61 (A3D1107-01RE1)												
Barium	99.9	1.00	2.00	ug/L	1	55.6	40.7	107	75-125%	---	---	Q-16
Beryllium	26.4	0.100	0.200	ug/L	1	27.8	ND	95	75-125%	---	---	Q-16
Zinc	55.6	2.00	4.00	ug/L	1	55.6	ND	100	75-125%	---	---	Q-16
Matrix Spike Dup (23D0894-MSD2)			Prepared: 04/21/23 15:50   Analyzed: 04/25/23 23:26									
QC Source Sample: GS-041123-61 (A3D1107-01RE1)												
EPA 6020B												
Barium	98.8	5.00	10.0	ug/L	5	55.6	40.7	105	75-125%	1	20%	Q-16, Q-58
Beryllium	27.2	0.500	1.00	ug/L	5	27.8	ND	98	75-125%	3	20%	Q-16, Q-58
Manganese	3060	2.50	5.00	ug/L	5	55.6	3000	108	75-125%	0.7	20%	Q-16, Q-58
Zinc	57.9	10.0	20.0	ug/L	5	55.6	ND	104	75-125%	4	20%	Q-16, Q-58

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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-MGP Only Mon. Wells 1Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001E**Project Manager: **John Renda****Report ID:****A3D1107 - 05 19 23 1241****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 23D1086 - EPA 3015A						Water						
Blank (23D1086-BLK1)			Prepared: 04/27/23 08:13    Analyzed: 05/01/23 19:50									
EPA 6020B												
Iron	ND	25.0	50.0	ug/L	1	---	---	---	---	---	---	
LCS (23D1086-BS1)			Prepared: 04/27/23 08:13    Analyzed: 05/01/23 19:55									
EPA 6020B												
Iron	2610	25.0	50.0	ug/L	1	2780	---	94	80-120%	---	---	
Duplicate (23D1086-DUP1)			Prepared: 04/27/23 08:13    Analyzed: 05/01/23 20:29									
QC Source Sample: Non-SDG (A3D1353-01)												
Iron	30100	25.0	50.0	ug/L	1	---	30600	---	---	2	20%	
Matrix Spike (23D1086-MS1)			Prepared: 04/27/23 08:13    Analyzed: 05/01/23 20:34									
QC Source Sample: Non-SDG (A3D1353-01)												
EPA 6020B												
Iron	33400	25.0	50.0	ug/L	1	2780	30600	98	75-125%	---	---	

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Project: Gasco-MGP Only Mon. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001E

Project Manager: John Renda

Report ID:

A3D1107 - 05 19 23 1241

## 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 23D0575 - Lachat Micro Dist - aqueous						Water						
Blank (23D0575-BLK1)			Prepared: 04/14/23 08:15   Analyzed: 04/14/23 15:07									
EPA 335.4												
Total Cyanide	ND	0.00500	0.00500	mg/L	1	---	---	---	---	---	---	
LCS (23D0575-BS1)			Prepared: 04/14/23 08:15   Analyzed: 04/14/23 15:09									
EPA 335.4												
Total Cyanide	0.227	0.00500	0.00500	mg/L	1	0.250	---	91	90-110%	---	---	
Duplicate (23D0575-DUP1)			Prepared: 04/14/23 08:15   Analyzed: 04/14/23 15:15									
QC Source Sample: Non-SDG (A3D1096-01)												
Total Cyanide	ND	0.00500	0.00500	mg/L	1	---	ND	---	---	---	10%	
Duplicate (23D0575-DUP2)			Prepared: 04/14/23 08:15   Analyzed: 04/14/23 16:05									
QC Source Sample: GS-041123-61 (A3D1107-01)												
EPA 335.4												
Total Cyanide	0.145	0.00500	0.00500	mg/L	1	---	0.148	---	---	2	10%	
Matrix Spike (23D0575-MS1)			Prepared: 04/14/23 08:15   Analyzed: 04/14/23 15:17									
QC Source Sample: Non-SDG (A3D1096-01)												
EPA 335.4												
Total Cyanide	0.213	0.00500	0.00500	mg/L	1	0.250	ND	85	90-110%	---	---	Q-01
Matrix Spike (23D0575-MS2)			Prepared: 04/14/23 08:15   Analyzed: 04/14/23 16:07									
QC Source Sample: GS-041123-61 (A3D1107-01)												
EPA 335.4												
Total Cyanide	0.376	0.00500	0.00500	mg/L	1	0.250	0.148	91	90-110%	---	---	

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Project Number: 000029-02.84 T-01.001E

Project Manager: John Renda

Report ID:

A3D1107 - 05 19 23 1241

## 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 23D0915 - Lachat Micro Dist - aqueous						Water						
Blank (23D0915-BLK1)			Prepared: 04/24/23 08:16    Analyzed: 04/25/23 10:24									
EPA 335.4												
Total Cyanide	ND	0.00500	0.00500	mg/L	1	---	---	---	---	---	---	
LCS (23D0915-BS1)			Prepared: 04/24/23 08:16    Analyzed: 04/25/23 10:26									
EPA 335.4												
Total Cyanide	0.250	0.00500	0.00500	mg/L	1	0.250	---	100	90-110%	---	---	
Matrix Spike (23D0915-MS1)			Prepared: 04/24/23 08:16    Analyzed: 04/25/23 10:30									
QC Source Sample: Non-SDG (A3D1208-05)												
EPA 335.4												
Total Cyanide	0.488	0.00500	0.00500	mg/L	1	0.250	0.260	91	90-110%	---	---	
Matrix Spike (23D0915-MS2)			Prepared: 04/24/23 08:16    Analyzed: 04/25/23 10:38									
QC Source Sample: Non-SDG (A3D1354-03)												
EPA 335.4												
Total Cyanide	0.303	0.00500	0.00500	mg/L	1	0.250	0.0623	96	90-110%	---	---	
Matrix Spike Dup (23D0915-MSD1)			Prepared: 04/24/23 08:16    Analyzed: 04/25/23 10:32									
QC Source Sample: Non-SDG (A3D1208-05)												
Total Cyanide	0.481	0.00500	0.00500	mg/L	1	0.250	0.260	88	90-110%	1	10%	Q-01
Matrix Spike Dup (23D0915-MSD2)			Prepared: 04/24/23 08:16    Analyzed: 04/25/23 10:48									
QC Source Sample: Non-SDG (A3D1354-03)												
Total Cyanide	0.275	0.00500	0.00500	mg/L	1	0.250	0.0623	85	90-110%	10	10%	Q-01

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ORELAP ID: OR100062**Anchor QEA, LLC**6720 SW Macadam Ave. Suite 125  
Portland, OR 97219Project: **Gasco-MGP Only Mon. Wells 1Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001E**Project Manager: **John Renda****Report ID:****A3D1107 - 05 19 23 1241****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 23D0531 - Method Prep: Aq						Water						
Blank (23D0531-BLK1)			Prepared: 04/13/23 12:03    Analyzed: 04/13/23 14:23									
D6888-09												
Available Cyanide	ND	0.00100	0.00200	mg/L	1	---	---	---	---	---	---	
LCS (23D0531-BS1)			Prepared: 04/13/23 12:03    Analyzed: 04/13/23 14:24									
D6888-09												
Available Cyanide	0.0253	0.00100	0.00200	mg/L	1	0.0250	---	101	90-117%	---	---	
Matrix Spike (23D0531-MS1)			Prepared: 04/13/23 12:03    Analyzed: 04/13/23 14:35									
QC Source Sample: GS-041123-63 (A3D1107-03)												
D6888-09												
Available Cyanide	0.0286	0.00101	0.00201	mg/L	1	0.0251	0.00154	108	82-130%	---	---	
Matrix Spike Dup (23D0531-MSD1)			Prepared: 04/13/23 12:03    Analyzed: 04/13/23 14:36									
QC Source Sample: GS-041123-63 (A3D1107-03)												
D6888-09												
Available Cyanide	0.0290	0.00101	0.00201	mg/L	1	0.0251	0.00154	109	82-130%	1	11%	

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Project Manager: John Renda

Report ID:

A3D1107 - 05 19 23 1241

## 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 23D0580 - Microdiffusion						Water						
Blank (23D0580-BLK1)			Prepared: 04/14/23 09:20    Analyzed: 04/14/23 16:37									
<u>D4282-02</u>												
Free Cyanide	ND	0.00250	0.00500	mg/L	1	---	---	---	---	---	---	
LCS (23D0580-BS1)			Prepared: 04/14/23 09:20    Analyzed: 04/14/23 16:37									
<u>D4282-02</u>												
Free Cyanide	0.0614	0.00250	0.00500	mg/L	1	0.0667	---	92	74-120%	---	---	
LCS Dup (23D0580-BSD1)			Prepared: 04/14/23 09:20    Analyzed: 04/14/23 16:42									
<u>D4282-02</u>												
Free Cyanide	0.0642	0.00250	0.00500	mg/L	1	0.0667	---	96	74-120%	5	20%	
Duplicate (23D0580-DUP1)			Prepared: 04/14/23 09:20    Analyzed: 04/14/23 16:43									
<u>QC Source Sample: GS-041123-61 (A3D1107-01)</u>												
<u>D4282-02</u>												
Free Cyanide	ND	0.00250	0.00500	mg/L	1	---	ND	---	---	---	20%	
Matrix Spike (23D0580-MS1)			Prepared: 04/14/23 09:20    Analyzed: 04/14/23 16:43									
<u>QC Source Sample: GS-041123-61 (A3D1107-01)</u>												
<u>D4282-02</u>												
Free Cyanide	0.0640	0.00250	0.00500	mg/L	1	0.0667	ND	96	74-120%	---	---	

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## ANALYTICAL REPORT

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Portland, OR 97219Project: **Gasco-MGP Only Mon. Wells 1Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001E**Project Manager: **John Renda****Report ID:****A3D1107 - 05 19 23 1241****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 BLD0530 - EPA 5030C (Purge and Trap)						Water						
Blank (BLD0530-BLK1)			Prepared: 04/19/23 15:30 Analyzed: 04/19/23 16:33									
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: 67.7 %		Limits: 60-140 %		Dilution: 1x						
FID: 2,5-Dibromotoluene		74.4 %		60-140 %		"						

**LCS (BLD0530-BS1)**

Prepared: 04/19/23 15:30 Analyzed: 04/19/23 15:32

<b>WAVPH</b>												
C5-C6 Aliphatics	94.9	---	50	ug/L	1	---	---	---	---	---	---	
>C6-C8 Aliphatics	50.4	---	50	ug/L	1	---	---	---	---	---	---	
>C8-C10 Aliphatics	51.3	---	50	ug/L	1	---	---	---	---	---	---	
>C10-C12 Aliphatics	88.5	---	50	ug/L	1	---	---	---	---	---	---	
C8-C10 Aromatics	309	---	50	ug/L	1	---	---	---	---	---	---	

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Project Number: **000029-02.84 T-01.001E**  
Project Manager: **John Renda**

**Report ID:**

**A3D1107 - 05 19 23 1241**

## 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 BLD0530 - EPA 5030C (Purge and Trap)						Water						
LCS (BLD0530-BS1)			Prepared: 04/19/23 15:30		Analyzed: 04/19/23 15:32							
>C10-C12 Aromatics	54.9	---	50	ug/L	1		---			---	---	
>C12-C13 Aromatics	ND	---	50	ug/L	1		---			---	---	U
Methyl tert-butyl Ether	53.1	---	5	ug/L	1	50.000	---	106	80-131%	---	---	
Benzene	57.3	---	5	ug/L	1	50.000	---	115	68-136%	---	---	
Toluene	53.2	---	5	ug/L	1	50.000	---	106	70-145%	---	---	
Ethylbenzene	46.9	---	5	ug/L	1	50.000	---	93.8	70-130%	---	---	
1,2,3-Trimethylbenzene	46.6	---	5	ug/L	1	50.000	---	93.2	70-130%	---	---	
m,p-Xylene	93.9	---	10	ug/L	1	100.00	---	93.9	70-133%	---	---	
Naphthalene	44.9	---	5	ug/L	1	50.000	---	89.8	70-130%	---	---	
1-Methylnaphthalene	41.0	---	5	ug/L	1	50.000	---	82.0	70-130%	---	---	
o-Xylene	50.6	---	5	ug/L	1	50.000	---	101	70-130%	---	---	
n-Pentane	46.6	---	5	ug/L	1	50.000	---	93.2	70-130%	---	---	
n-Hexane	47.6	---	5	ug/L	1	50.000	---	95.2	70-130%	---	---	
n-Octane	35.6	---	5	ug/L	1	50.000	---	71.2	56-120%	---	---	
n-Decane	37.9	---	5	ug/L	1	50.000	---	75.8	61-120%	---	---	
n-Dodecane	47.2	---	5	ug/L	1	50.000	---	94.4	70-130%	---	---	
Surr: PID: 2,5-Dibromotoluene		Recovery: 78.6 %		Limits: 60-140 %		Dilution: 1x						
FID: 2,5-Dibromotoluene		84.2 %		60-140 %		"						

**LCS Dup (BLD0530-BSD1)**

Prepared: 04/19/23 15:30 Analyzed: 04/19/23 16:02

<b>WAVPH</b>												
C5-C6 Aliphatics	86.2	---	50	ug/L	1	---	---	---	---	9.61	30%	U
>C6-C8 Aliphatics	ND	---	50	ug/L	1	---	---	---	---	11.8	30%	
>C8-C10 Aliphatics	52.2	---	50	ug/L	1	---	---	---	---	1.74	30%	
>C10-C12 Aliphatics	99.8	---	50	ug/L	1	---	---	---	---	12.0	30%	
C8-C10 Aromatics	305	---	50	ug/L	1	---	---	---	---	1.34	30%	
>C10-C12 Aromatics	56.7	---	50	ug/L	1	---	---	---	---	3.23	30%	
>C12-C13 Aromatics	ND	---	50	ug/L	1	---	---	---	---	5.23	30%	U
Methyl tert-butyl Ether	54.0	---	5	ug/L	1	50.000	---	108	80-131%	1.68	30%	
Benzene	56.6	---	5	ug/L	1	50.000	---	113	68-136%	1.23	30%	
Toluene	52.2	---	5	ug/L	1	50.000	---	104	70-145%	1.90	30%	
Ethylbenzene	46.2	---	5	ug/L	1	50.000	---	92.4	70-130%	1.50	30%	

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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 BLD0530 - EPA 5030C (Purge and Trap)						Water						
LCS Dup (BLD0530-BSD1)			Prepared: 04/19/23 15:30		Analyzed: 04/19/23 16:02							
1,2,3-Trimethylbenzene	45.9	---	5	ug/L	1	50.000	---	91.8	70-130%	1.51	30%	
m,p-Xylene	92.9	---	10	ug/L	1	100.00	---	92.9	70-133%	1.07	30%	
Naphthalene	46.5	---	5	ug/L	1	50.000	---	93.0	70-130%	3.50	30%	
1-Methylnaphthalene	43.2	---	5	ug/L	1	50.000	---	86.4	70-130%	5.23	30%	
o-Xylene	50.0	---	5	ug/L	1	50.000	---	100	70-130%	1.19	30%	
n-Pentane	46.4	---	5	ug/L	1	50.000	---	92.8	70-130%	0.430	30%	
n-Hexane	43.6	---	5	ug/L	1	50.000	---	87.2	70-130%	8.77	30%	
n-Octane	33.0	---	5	ug/L	1	50.000	---	66.0	56-120%	7.58	30%	
n-Decane	36.9	---	5	ug/L	1	50.000	---	73.8	61-120%	2.67	30%	
n-Dodecane	51.3	---	5	ug/L	1	50.000	---	103	70-130%	8.32	30%	
Surr: PID: 2,5-Dibromotoluene		Recovery: 76.4 %		Limits: 60-140 %		Dilution: 1x						
FID: 2,5-Dibromotoluene		84.0 %		60-140 %		"						

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Project Manager: John Renda

**Report ID:**

A3D1107 - 05 19 23 1241

## 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 BLD0588 - EPA 3510C SepF						Water						
Blank (BLD0588-BLK1)			Prepared: 04/24/23 18:45		Analyzed: 05/04/23 15:49							
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: 68.6 %		Limits: 36-120 %		Dilution: 1x						

Blank (BLD0588-BLK2)				Prepared: 04/24/23 18:45   Analyzed: 05/04/23 18:20								
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: 87.8 %		Limits: 41-120 %		Dilution: 1x						

LCS (BLD0588-BS1)				Prepared: 04/24/23 18:45   Analyzed: 05/04/23 16:14							
WAEPH											
C8-C10 Aliphatics	103	---	40	ug/L	1	300.00	---	34.3	12-130%	---	---
>C10-C12 Aliphatics	208	---	40	ug/L	1	300.00	---	69.3	10-130%	---	---
>C12-C16 Aliphatics	200	---	40	ug/L	1	300.00	---	66.7	35-130%	---	---
>C16-C21 Aliphatics	260	---	40	ug/L	1	300.00	---	86.8	45-130%	---	---
>C21-C34 Aliphatics	292	---	40	ug/L	1	300.00	---	97.4	19-130%	---	---
Surr: 1-Chloro-octadecane		Recovery: 64.9 %		Limits: 36-120 %		Dilution: 1x					

LCS (BLD0588-BS2)				Prepared: 04/24/23 18:45    Analyzed: 05/04/23 18:45							
<u>WA EPH</u>											
>C10-C12 Aromatics	76.6	---	40	ug/L	1	300.00	---	25.5	12-130%	---	---
>C12-C16 Aromatics	156	---	40	ug/L	1	300.00	---	51.9	31-130%	---	---
>C16-C21 Aromatics	551	---	40	ug/L	1	600.00	---	91.8	48-130%	---	---

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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-MGP Only Mon. Wells 1Q 2023 Perf. Mon.

Project Number: 000029-02.84 T-01.001E

Project Manager: John Renda

Report ID:

A3D1107 - 05 19 23 1241

## 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 BLD0588 - EPA 3510C SepF						Water						
LCS (BLD0588-BS2)			Prepared: 04/24/23 18:45		Analyzed: 05/04/23 18:45							
>C21-C34 Aromatics	250	---	40	ug/L	1	300.00	---	83.3	33-130%	---	---	
Surr: o-Terphenyl		Recovery: 87.4 %		Limits: 41-120 %		Dilution: 1x						
LCS Dup (BLD0588-BSD1)			Prepared: 04/24/23 18:45		Analyzed: 05/04/23 16:39							
WAEPH												
C8-C10 Aliphatics	121	---	40	ug/L	1	300.00	---	40.5	12-130%	16.6	30%	
>C10-C12 Aliphatics	181	---	40	ug/L	1	300.00	---	60.4	10-130%	13.8	30%	
>C12-C16 Aliphatics	201	---	40	ug/L	1	300.00	---	67.1	35-130%	0.498	30%	
>C16-C21 Aliphatics	259	---	40	ug/L	1	300.00	---	86.2	45-130%	0.694	30%	
>C21-C34 Aliphatics	295	---	40	ug/L	1	300.00	---	98.3	19-130%	0.954	30%	
Surr: 1-Chloro-octadecane		Recovery: 65.1 %		Limits: 36-120 %		Dilution: 1x						
LCS Dup (BLD0588-BSD2)			Prepared: 04/24/23 18:45		Analyzed: 05/04/23 19:10							
WAEPH												
>C10-C12 Aromatics	132	---	40	ug/L	1	300.00	---	44.1	12-130%	53.4	30%	
>C12-C16 Aromatics	174	---	40	ug/L	1	300.00	---	58.1	31-130%	11.3	30%	
>C16-C21 Aromatics	558	---	40	ug/L	1	600.00	---	93.0	48-130%	1.30	30%	
>C21-C34 Aromatics	255	---	40	ug/L	1	300.00	---	84.9	33-130%	1.98	30%	
Surr: o-Terphenyl		Recovery: 91.3 %		Limits: 41-120 %		Dilution: 1x						

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503-718-2323  
ORELAP ID: OR100062**Anchor QEA, LLC**6720 SW Macadam Ave. Suite 125  
Portland, OR 97219Project: **Gasco-MGP Only Mon. Wells 1Q 2023 Perf. Mon.**Project Number: **000029-02.84 T-01.001E**Project Manager: **John Renda****Report ID:****A3D1107 - 05 19 23 1241****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: 23D0933							
A3D1107-01	WG	NWTPH-Dx	04/11/23 11:10	04/24/23 10:32	1040mL/5mL	1000mL/5mL	0.96
A3D1107-02	WG	NWTPH-Dx	04/11/23 13:20	04/24/23 10:32	1060mL/5mL	1000mL/5mL	0.94

**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: 23D0695							
A3D1107-01RE1	WG	NWTPH-Gx (MS)	04/11/23 11:10	04/18/23 12:09	5mL/5mL	5mL/5mL	1.00
A3D1107-02RE1	WG	NWTPH-Gx (MS)	04/11/23 13:20	04/18/23 12:09	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: 23D0628							
A3D1107-05	W	EPA 8260D	04/11/23 15:30	04/17/23 11:16	5mL/5mL	5mL/5mL	1.00
Batch: 23D0695							
A3D1107-01RE1	WG	EPA 8260D	04/11/23 11:10	04/18/23 12:09	5mL/5mL	5mL/5mL	1.00
A3D1107-02RE1	WG	EPA 8260D	04/11/23 13:20	04/18/23 12:09	5mL/5mL	5mL/5mL	1.00
A3D1107-03RE1	WG	EPA 8260D	04/11/23 14:25	04/18/23 12:09	5mL/5mL	5mL/5mL	1.00
A3D1107-04RE1	WG	EPA 8260D	04/11/23 15:20	04/18/23 12:09	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: 23D0506							
A3D1107-01RE1	WG	EPA 8270E LVI	04/11/23 11:10	04/13/23 08:43	106.51mL/5mL	125mL/5mL	1.17
A3D1107-02	WG	EPA 8270E LVI	04/11/23 13:20	04/13/23 08:43	98.53mL/5mL	125mL/5mL	1.27
A3D1107-03	WG	EPA 8270E LVI	04/11/23 14:25	04/13/23 08:43	114.03mL/5mL	125mL/5mL	1.10
A3D1107-04	WG	EPA 8270E LVI	04/11/23 15:20	04/13/23 08:43	114.71mL/5mL	125mL/5mL	1.09

**Total Metals by EPA 6020B (ICPMS)**

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Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
<b>Batch: 23D0894</b>							
A3D1107-01	WG	EPA 6020B	04/11/23 11:10	04/21/23 15:50	45mL/50mL	45mL/50mL	1.00
A3D1107-01RE1	WG	EPA 6020B	04/11/23 11:10	04/21/23 15:50	45mL/50mL	45mL/50mL	1.00
A3D1107-01RE2	WG	EPA 6020B	04/11/23 11:10	04/21/23 15:50	45mL/50mL	45mL/50mL	1.00
A3D1107-02	WG	EPA 6020B	04/11/23 13:20	04/21/23 15:50	45mL/50mL	45mL/50mL	1.00
A3D1107-02RE1	WG	EPA 6020B	04/11/23 13:20	04/21/23 15:50	45mL/50mL	45mL/50mL	1.00
A3D1107-02RE2	WG	EPA 6020B	04/11/23 13:20	04/21/23 15:50	45mL/50mL	45mL/50mL	1.00
A3D1107-03	WG	EPA 6020B	04/11/23 14:25	04/21/23 15:50	45mL/50mL	45mL/50mL	1.00
A3D1107-03RE1	WG	EPA 6020B	04/11/23 14:25	04/21/23 15:50	45mL/50mL	45mL/50mL	1.00
A3D1107-04	WG	EPA 6020B	04/11/23 15:20	04/21/23 15:50	45mL/50mL	45mL/50mL	1.00
A3D1107-04RE1	WG	EPA 6020B	04/11/23 15:20	04/21/23 15:50	45mL/50mL	45mL/50mL	1.00
<b>Batch: 23D1086</b>							
A3D1107-03RE1	WG	EPA 6020B	04/11/23 14:25	04/27/23 08:13	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
<b>Batch: 23D0575</b>							
A3D1107-01	WG	EPA 335.4	04/11/23 11:10	04/14/23 08:15	6mL/6mL	6mL/6mL	1.00
A3D1107-03	WG	EPA 335.4	04/11/23 14:25	04/14/23 08:15	6mL/6mL	6mL/6mL	1.00
<b>Batch: 23D0915</b>							
A3D1107-02RE2	WG	EPA 335.4	04/11/23 13:20	04/24/23 08:16	6mL/6mL	6mL/6mL	1.00
A3D1107-04RE1	WG	EPA 335.4	04/11/23 15:20	04/24/23 08:16	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
<b>Batch: 23D0531</b>							
A3D1107-01	WG	D6888-09	04/11/23 11:10	04/13/23 12:03	5mL/5mL	5mL/5mL	1.00
A3D1107-02	WG	D6888-09	04/11/23 13:20	04/13/23 12:03	5mL/5mL	5mL/5mL	1.00
A3D1107-03	WG	D6888-09	04/11/23 14:25	04/13/23 12:03	5mL/5mL	5mL/5mL	1.00
A3D1107-04	WG	D6888-09	04/11/23 15:20	04/13/23 12:03	5mL/5mL	5mL/5mL	1.00

**Free Cyanide by Microdiffusion/Colorimetric Spectrophotometry**

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Project: **Gasco-MGP Only Mon. Wells 1Q 2023 Perf. Mon.**

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

Project Manager: **John Renda**

**Report ID:**

**A3D1107 - 05 19 23 1241**

SAMPLE PREPARATION INFORMATION

Free Cyanide by Microdiffusion/Colorimetric Spectrophotometry

Prep: Microdiffusion

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
<u>Batch: 23D0580</u>							
A3D1107-01	WG	D4282-02	04/11/23 11:10	04/14/23 09:20	3mL/3mL	3mL/3mL	1.00
A3D1107-02	WG	D4282-02	04/11/23 13:20	04/14/23 09:20	3mL/3mL	3mL/3mL	1.00
A3D1107-03	WG	D4282-02	04/11/23 14:25	04/14/23 09:20	3mL/3mL	3mL/3mL	1.00
A3D1107-04	WG	D4282-02	04/11/23 15:20	04/14/23 09:20	3mL/3mL	3mL/3mL	1.00

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Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
<b>Batch: BLD0588</b>							
A3D1107-01	WG	WA EPH	04/11/23 11:10	04/24/23 18:45	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
<b>Batch: BLD0530</b>							
A3D1107-01	WG	WA VPH	04/11/23 11:10	04/19/23 15:30	10mL/10ml	10mL/10ml	1.00

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Project Manager: **John Renda**

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**A3D1107 - 05 19 23 1241**

## QUALIFIER DEFINITIONS

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

#### Apex Laboratories

- B** Analyte detected in an associated blank at a level above the MRL. (See Notes and Conventions below.)
- B-02** Analyte detected in an associated blank at a level between one-half the MRL and the MRL. (See Notes and Conventions below.)
- E** Estimated Value. The result is above the calibration range of the instrument.
- F-03** The result for this hydrocarbon range is elevated due to the presence of individual analyte peaks in the quantitation range that are not representative of the fuel pattern reported.
- F-12** The result for this hydrocarbon range is primarily due to the presence of individual analyte peaks in the quantitation range. No fuel pattern detected.
- F-13** The chromatographic pattern does not resemble the fuel standard used for quantitation
- ICV-01** Estimated Result. Initial Calibration Verification (ICV) failed high. There is no effect on non-detect results.
- J** Estimated Result. Result detected below the lowest point of the calibration curve, but above the specified MDL.
- 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-05** Analyses are not controlled on RPD values from sample and duplicate concentrations that are below 5 times the reporting level.
- Q-16** Reanalysis of an original Batch QC sample.
- 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-41** Estimated Results. Recovery of Continuing Calibration Verification sample above upper control limit for this analyte. Results are likely 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 +3%. 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 +7%. 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 -4%. 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.
- Q-56** Daily CCV/LCS recovery for this analyte was above the +/-20% criteria listed in EPA 8260
- Q-58** Matrix Spike Duplicate QC Sample is actually a Serial Dilution of the Matrix Spike. Reported as MSD for calculation purposes only.

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- 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.
- R-06** Reporting level raised due to possible carryover from a previous 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).

Analytical Resources, LLC

- \* Flagged value is not within established control limits.
- 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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### 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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Project: **Gasco-MGP Only Mon. Wells 1Q 2023 Perf. Mon.**

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

Project Manager: **John Renda**

**Report ID:**

**A3D1107 - 05 19 23 1241**

### 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.

Apex Laboratories

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

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-MGP Only Mon. Wells 1Q 2023 Perf. Mon.**

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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
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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.

Apex Laboratories

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Darwin Thomas, Business Development Director





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## APEXLABS COOLER RECEIPT FORM

Client: Anchor QEA Element WO#: A3 D1107Project/Project #: Gasco-MGP only Mon. Wells 1Q 2023 Perf. Mon.

## Delivery Info:

Date/time received: 4/12/23 @ 758 By: JS RK  
Delivered by: Apex ☒ Client ☐ ESS ☐ FedEx ☐ UPS ☐ Radio ☐ Morgan ☐ SDS ☐ Evergreen ☐ Other ☐Cooler Inspection Date/time inspected: 4/12/23 @ 958 By: JSChain 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>2.8</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? ☒ 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: 4/12/23 @ 1045 By: JSAll 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:

## Additional information:

Labeled by: JSWitness: JSCooler Inspected by: JS

Form Y-003 R-00

Apex Laboratories

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