



Apex Laboratories, LLC
6700 SW Sandburg St. Tigard, Oregon 97223
503.718.2323

**Level IV Data Package for
Anchor QEA, LLC
Gasco PreRD_DG 2019 – 4a-b DOC-CAP Testing Cores
Apex Laboratories Work Order #:
A0J0298**

The information contained in this Data Package is intended solely for the purpose of validating client sample results submitted under the associated Chain of Custody(ies). An effort has been made to remove all traceable non-client data. Any incidental inclusion of non-client data is considered privileged and confidential information. The use of this information for any purpose other than data validation is strictly prohibited, and constitutes a breach of contract.

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Wet Chem October 2020
Extractions October 2020

Analytical Case Narrative

Analytical Case Narrative

Client: Anchor QEA, LLC
Project: Gasco PreRD_DG 2019 – 4a-b. DOC-CAP Testing Cores
Apex Work Order Number: A0J0298

Date: 10/15/2020

This data package contains data associated with analysis of samples for the above referenced Apex work order numbers. The data package Table of Contents, along with the PDF bookmarks, allow for ease of navigation and location of items within the data deliverable.

The Sample Receipt Documentation section of this package contains sample receipt information, including sample temperature and condition of receipt documented on Cooler Receipt Form(s). Apex analyzed the samples by the methods indicated on the Chain of Custody. Any additional analyses requested are indicated on the Apex Work Order.

If any anomalies were encountered during analysis that could potentially impact data quality, sample results are qualified and/or a separate Case Narrative is included in the Analytical Report. Please refer to the Notes and Definition section of the Analytical Report(s) for Qualifier explanations, Conventions, and the Blank Policy.

Data represented in this package are in compliance with the referenced method(s), both technically and for completeness, for all conditions other than those stated above and/or noted by qualification of the reported data. The signature below verifies that the Laboratory Director or his designee has authorized release of this data package.



Estella Rieben,
Quality Systems Manager
Apex Laboratories, LLC

Analytical Report



Thursday, October 15, 2020

Ryan Barth
Anchor QEA, LLC
6720 SW Macadam Ave. Suite 125
Portland, OR 97219

RE: A0J0298 - Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores - [none]

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 A0J0298, which was received by the laboratory on 10/10/2019 at 10:05:00AM.

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

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

Cooler Receipt Information

(See Cooler Receipt Form for details)

Cooler #1 -20.0 degC

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

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



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Anchor QEA, LLC
6720 SW Macadam Ave. Suite 125
Portland, OR 97219

Project: Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores
Project Number: [none]
Project Manager: Ryan Barth

Report ID:
A0J0298 - 10 15 20 1009

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
PDI-016SC-B-00-02-191009	A0J0298-01	SE	10/09/19 09:53	10/10/19 10:05
PDI-016SC-B-02-04-191009	A0J0298-02	SE	10/09/19 09:57	10/10/19 10:05
PDI-016SC-B-04-06-191009	A0J0298-03	SE	10/09/19 09:58	10/10/19 10:05
PDI-023SC-B-00-02-191009	A0J0298-04	SE	10/09/19 12:01	10/10/19 10:05
PDI-023SC-B-02-04-191009	A0J0298-05	SE	10/09/19 12:02	10/10/19 10:05
PDI-023SC-B-04-06-191009	A0J0298-06	SE	10/09/19 12:03	10/10/19 10:05
PDI-023SC-B-06-08-191009	A0J0298-07	SE	10/09/19 12:04	10/10/19 10:05
PDI-026SC-B-00-02-191014	A0J0298-08	SE	10/14/19 11:04	10/10/19 10:05
PDI-026SC-B-02-04-191014	A0J0298-09	SE	10/14/19 11:05	10/10/19 10:05
PDI-026SC-B-04-06-191014	A0J0298-10	SE	10/14/19 11:05	10/10/19 10:05
PDI-026SC-B-06-08-191014	A0J0298-11	SE	10/14/19 11:06	10/10/19 10:05
PDI-031SC-B-00-02-191017	A0J0298-12	SE	10/17/19 09:06	10/10/19 10:05
PDI-031SC-B-02-04-191017	A0J0298-13	SE	10/17/19 09:06	10/10/19 10:05
PDI-031SC-B-04-06-191017	A0J0298-14	SE	10/17/19 09:06	10/10/19 10:05
PDI-031SC-B-06-08-191017	A0J0298-15	SE	10/17/19 09:06	10/10/19 10:05
PDI-034SC-B-00-02-191022	A0J0298-16	SE	10/22/19 08:31	10/10/19 10:05
PDI-034SC-B-02-04-191022	A0J0298-17	SE	10/22/19 08:34	10/10/19 10:05
PDI-034SC-B-04-06-191022	A0J0298-18	SE	10/22/19 08:35	10/10/19 10:05
PDI-034SC-D-06-08-191022	A0J0298-19	SE	10/22/19 08:36	10/10/19 10:05
PDI-041SC-B-00-02-191010	A0J0298-20	SE	10/10/19 09:50	10/10/19 10:05
PDI-041SC-B-02-04-191010	A0J0298-21	SE	10/10/19 09:51	10/10/19 10:05
PDI-041SC-B-04-06-191010	A0J0298-22	SE	10/10/19 09:52	10/10/19 10:05
PDI-045SC-B-00-02-191010	A0J0298-23	SE	10/10/19 16:56	10/10/19 10:05
PDI-045SC-B-02-04-191010	A0J0298-24	SE	10/10/19 16:58	10/10/19 10:05
PDI-045SC-B-04-06-191010	A0J0298-25	SE	10/10/19 17:01	10/10/19 10:05
PDI-045SC-B-06-08-191010	A0J0298-26	SE	10/10/19 17:01	10/10/19 10:05
PDI-051SC-C-00-6.9-200511	A0J0298-27	SE	05/11/20 15:15	10/10/19 10:05
PDI-060SC-C-00-6.8-200511	A0J0298-28	SE	05/11/20 14:15	10/10/19 10:05
PDI-058SC-C-00-10.3-200512	A0J0298-29	SE	05/12/20 08:50	10/10/19 10:05
PDI-080SC-C-00-8.6-200507	A0J0298-30	SE	05/07/20 14:00	10/10/19 10:05
PDI-171SC-B-00-02-200521	A0J0298-31	SE	05/21/20 15:00	10/10/19 10:05
PDI-171SC-B-02-04-200521	A0J0298-32	SE	05/21/20 15:00	10/10/19 10:05
PDI-171SC-B-04-06-200521	A0J0298-33	SE	05/21/20 15:00	10/10/19 10:05

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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 PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores Project Number: [none] Project Manager: Ryan Barth	Report ID: A0J0298 - 10 15 20 1009
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ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
PDI-171SC-B-06-08-200521	A0J0298-34	SE	05/21/20 15:00	10/10/19 10:05
PDI-171SC-B-08-10-200521	A0J0298-35	SE	05/21/20 15:00	10/10/19 10:05
PDI-171SC-B-10-12-200521	A0J0298-36	SE	05/21/20 15:00	10/10/19 10:05
PDI-171SC-B-12-13.5-200521	A0J0298-37	SE	05/21/20 15:00	10/10/19 10:05
PDI-041SC-B-06-08-191010	A0J0298-38	SE	10/10/19 09:52	10/10/19 10:05

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Anchor QEA, LLC 6720 SW Macadam Ave. Suite 125 Portland, OR 97219	Project: Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores Project Number: [none] Project Manager: Ryan Barth	Report ID: A0J0298 - 10 15 20 1009
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ANALYTICAL SAMPLE RESULTS

Demand Parameters								
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PDI-016SC-B-00-02-191009 (A0J0298-01)				Matrix: SE				
Batch: 0100332								
Total Organic Carbon	1.1	0.020	0.020	% by Weight	1	10/12/20 23:51	SM 5310 B MOD	H-08
PDI-016SC-B-02-04-191009 (A0J0298-02)				Matrix: SE				
Batch: 0100332								
Total Organic Carbon	0.24	0.020	0.020	% by Weight	1	10/13/20 00:13	SM 5310 B MOD	H-08
PDI-016SC-B-04-06-191009 (A0J0298-03)				Matrix: SE				
Batch: 0100332								
Total Organic Carbon	0.60	0.020	0.020	% by Weight	1	10/13/20 00:23	SM 5310 B MOD	H-08
PDI-023SC-B-00-02-191009 (A0J0298-04)				Matrix: SE				
Batch: 0100332								
Total Organic Carbon	2.4	0.020	0.020	% by Weight	1	10/13/20 00:34	SM 5310 B MOD	H-08
PDI-023SC-B-02-04-191009 (A0J0298-05)				Matrix: SE				
Batch: 0100332								
Total Organic Carbon	1.6	0.020	0.020	% by Weight	1	10/13/20 00:45	SM 5310 B MOD	H-08
PDI-023SC-B-04-06-191009 (A0J0298-06)				Matrix: SE				
Batch: 0100332								
Total Organic Carbon	0.97	0.020	0.020	% by Weight	1	10/13/20 00:56	SM 5310 B MOD	H-08
PDI-023SC-B-06-08-191009 (A0J0298-07)				Matrix: SE				
Batch: 0100332								
Total Organic Carbon	0.057	0.020	0.020	% by Weight	1	10/13/20 01:07	SM 5310 B MOD	H-08
PDI-026SC-B-00-02-191014 (A0J0298-08)				Matrix: SE				
Batch: 0100332								
Total Organic Carbon	2.0	0.020	0.020	% by Weight	1	10/13/20 01:18	SM 5310 B MOD	H-08
PDI-026SC-B-02-04-191014 (A0J0298-09)				Matrix: SE				
Batch: 0100332								
Total Organic Carbon	3.5	0.020	0.020	% by Weight	1	10/13/20 01:29	SM 5310 B MOD	H-08
PDI-026SC-B-04-06-191014 (A0J0298-10)				Matrix: SE				
Batch: 0100332								

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ANALYTICAL SAMPLE RESULTS

Demand Parameters

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PDI-026SC-B-04-06-191014 (A0J0298-10)				Matrix: SE				
Total Organic Carbon	0.19	0.020	0.020	% by Weight	1	10/13/20 02:01	SM 5310 B MOD	H-08
PDI-026SC-B-06-08-191014 (A0J0298-11)				Matrix: SE				
Batch: 0100332								
Total Organic Carbon	0.22	0.020	0.020	% by Weight	1	10/13/20 02:12	SM 5310 B MOD	H-08
PDI-031SC-B-00-02-191017 (A0J0298-12)				Matrix: SE				
Batch: 0100332								
Total Organic Carbon	2.4	0.020	0.020	% by Weight	1	10/13/20 02:23	SM 5310 B MOD	H-08
PDI-031SC-B-02-04-191017 (A0J0298-13)				Matrix: SE				
Batch: 0100332								
Total Organic Carbon	2.7	0.020	0.020	% by Weight	1	10/13/20 02:34	SM 5310 B MOD	H-08
PDI-031SC-B-04-06-191017 (A0J0298-14)				Matrix: SE				
Batch: 0100332								
Total Organic Carbon	0.048	0.020	0.020	% by Weight	1	10/13/20 02:45	SM 5310 B MOD	H-08
PDI-031SC-B-06-08-191017 (A0J0298-15)				Matrix: SE				
Batch: 0100332								
Total Organic Carbon	0.027	0.020	0.020	% by Weight	1	10/13/20 02:56	SM 5310 B MOD	H-08
PDI-034SC-B-00-02-191022 (A0J0298-16)				Matrix: SE				
Batch: 0100332								
Total Organic Carbon	3.0	0.020	0.020	% by Weight	1	10/13/20 03:07	SM 5310 B MOD	H-08
PDI-034SC-B-02-04-191022 (A0J0298-17)				Matrix: SE				
Batch: 0100332								
Total Organic Carbon	0.27	0.020	0.020	% by Weight	1	10/13/20 03:18	SM 5310 B MOD	H-08
PDI-034SC-B-04-06-191022 (A0J0298-18)				Matrix: SE				
Batch: 0100332								
Total Organic Carbon	0.032	0.020	0.020	% by Weight	1	10/13/20 03:29	SM 5310 B MOD	H-08
PDI-034SC-D-06-08-191022 (A0J0298-19)				Matrix: SE				
Batch: 0100332								

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Anchor QEA, LLC
6720 SW Macadam Ave. Suite 125
Portland, OR 97219

Project: **Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores**
Project Number: [none]
Project Manager: **Ryan Barth**

Report ID:
A0J0298 - 10 15 20 1009

ANALYTICAL SAMPLE RESULTS

Demand Parameters

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PDI-034SC-D-06-08-191022 (A0J0298-19)				Matrix: SE				
Total Organic Carbon	0.077	0.020	0.020	% by Weight	1	10/13/20 03:39	SM 5310 B MOD	H-08
PDI-041SC-B-00-02-191010 (A0J0298-20)				Matrix: SE				
Batch: 0100333								
Total Organic Carbon	1.1	0.020	0.020	% by Weight	1	10/13/20 22:04	SM 5310 B MOD	H-08
PDI-041SC-B-02-04-191010 (A0J0298-21)				Matrix: SE				
Batch: 0100333								
Total Organic Carbon	0.085	0.020	0.020	% by Weight	1	10/13/20 22:37	SM 5310 B MOD	H-08
PDI-041SC-B-04-06-191010 (A0J0298-22)				Matrix: SE				
Batch: 0100333								
Total Organic Carbon	0.028	0.020	0.020	% by Weight	1	10/13/20 22:48	SM 5310 B MOD	H-08
PDI-045SC-B-00-02-191010 (A0J0298-23)				Matrix: SE				
Batch: 0100333								
Total Organic Carbon	2.0	0.020	0.020	% by Weight	1	10/13/20 22:58	SM 5310 B MOD	H-08
PDI-045SC-B-02-04-191010 (A0J0298-24)				Matrix: SE				
Batch: 0100333								
Total Organic Carbon	1.7	0.020	0.020	% by Weight	1	10/13/20 23:09	SM 5310 B MOD	H-08
PDI-045SC-B-04-06-191010 (A0J0298-25)				Matrix: SE				
Batch: 0100333								
Total Organic Carbon	0.035	0.020	0.020	% by Weight	1	10/13/20 23:20	SM 5310 B MOD	H-08
PDI-045SC-B-06-08-191010 (A0J0298-26)				Matrix: SE				
Batch: 0100333								
Total Organic Carbon	0.023	0.020	0.020	% by Weight	1	10/13/20 23:31	SM 5310 B MOD	H-08
PDI-051SC-C-00-6.9-200511 (A0J0298-27RE1)				Matrix: SE				
Batch: 0100333								
Total Organic Carbon	8.7	0.020	0.020	% by Weight	1	10/14/20 10:28	SM 5310 B MOD	H-08
PDI-060SC-C-00-6.8-200511 (A0J0298-28)				Matrix: SE				
Batch: 0100333								

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Anchor QEA, LLC 6720 SW Macadam Ave. Suite 125 Portland, OR 97219	Project: Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores Project Number: [none] Project Manager: Ryan Barth	Report ID: A0J0298 - 10 15 20 1009
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ANALYTICAL SAMPLE RESULTS

Demand Parameters

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PDI-060SC-C-00-6.8-200511 (A0J0298-28)				Matrix: SE				
Total Organic Carbon	4.0	0.020	0.020	% by Weight	1	10/14/20 00:14	SM 5310 B MOD	H-08
PDI-058SC-C-00-10.3-200512 (A0J0298-29RE1)				Matrix: SE				
Batch: 0100333								
Total Organic Carbon	6.3	0.020	0.020	% by Weight	1	10/14/20 10:39	SM 5310 B MOD	H-08
PDI-080SC-C-00-8.6-200507 (A0J0298-30)				Matrix: SE				
Batch: 0100333								
Total Organic Carbon	1.8	0.020	0.020	% by Weight	1	10/14/20 00:36	SM 5310 B MOD	H-08
PDI-171SC-B-00-02-200521 (A0J0298-31)				Matrix: SE				
Batch: 0100333								
Total Organic Carbon	1.8	0.020	0.020	% by Weight	1	10/14/20 00:57	SM 5310 B MOD	H-08
PDI-171SC-B-02-04-200521 (A0J0298-32)				Matrix: SE				
Batch: 0100333								
Total Organic Carbon	2.5	0.020	0.020	% by Weight	1	10/14/20 01:08	SM 5310 B MOD	H-08
PDI-171SC-B-04-06-200521 (A0J0298-33)				Matrix: SE				
Batch: 0100333								
Total Organic Carbon	1.3	0.020	0.020	% by Weight	1	10/14/20 01:19	SM 5310 B MOD	H-08
PDI-171SC-B-06-08-200521 (A0J0298-34)				Matrix: SE				
Batch: 0100333								
Total Organic Carbon	1.6	0.020	0.020	% by Weight	1	10/14/20 01:30	SM 5310 B MOD	H-08
PDI-171SC-B-08-10-200521 (A0J0298-35)				Matrix: SE				
Batch: 0100333								
Total Organic Carbon	3.0	0.020	0.020	% by Weight	1	10/14/20 01:41	SM 5310 B MOD	H-08
PDI-171SC-B-10-12-200521 (A0J0298-36)				Matrix: SE				
Batch: 0100333								
Total Organic Carbon	2.1	0.020	0.020	% by Weight	1	10/14/20 02:13	SM 5310 B MOD	H-08
PDI-171SC-B-12-13.5-200521 (A0J0298-37)				Matrix: SE				
Batch: 0100333								

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ANALYTICAL SAMPLE RESULTS

Demand Parameters

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PDI-171SC-B-12-13.5-200521 (A0J0298-37)				Matrix: SE				
Total Organic Carbon	1.5	0.020	0.020	% by Weight	1	10/14/20 02:24	SM 5310 B MOD	H-08
PDI-041SC-B-06-08-191010 (A0J0298-38)				Matrix: SE				
Batch: 0100333								
Total Organic Carbon	0.036	0.020	0.020	% by Weight	1	10/14/20 02:35	SM 5310 B MOD	H-08

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Anchor QEA, LLC 6720 SW Macadam Ave. Suite 125 Portland, OR 97219	Project: Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores Project Number: [none] Project Manager: Ryan Barth	Report ID: A0J0298 - 10 15 20 1009
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ANALYTICAL SAMPLE RESULTS

Solid and Moisture Determinations

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PDI-034SC-D-06-08-191022 (A0J0298-19)				Matrix: SE				
Batch: 0100376								
Total Solids	86.6	1.00	1.00	% by Weight	1	10/13/20 15:26	SM 2540 G	H-08

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QUALITY CONTROL (QC) SAMPLE RESULTS

Demand Parameters

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0100332 - PSEP-5310B TOC						Soil						
Blank (0100332-BLK1)			Prepared: 10/09/20 14:00 Analyzed: 10/12/20 17:44									
<u>SM 5310 B MOD</u>												
Total Organic Carbon	ND	0.020	0.020	% by Weight	1	---	---	---	---	---	---	
LCS (0100332-BS1)			Prepared: 10/09/20 14:00 Analyzed: 10/12/20 17:55									
<u>SM 5310 B MOD</u>												
Total Organic Carbon	9500			mg/kg	1	10000	---	95	88-111%	---	---	
Duplicate (0100332-DUP1)			Prepared: 10/09/20 14:00 Analyzed: 10/12/20 23:08									
<u>QC Source Sample: Non-SDG (A0J0281-06)</u>												
Total Organic Carbon	2.8	0.020	0.020	% by Weight	1	---	2.8	---	---	3	27%	
Duplicate (0100332-DUP2)			Prepared: 10/09/20 14:00 Analyzed: 10/12/20 23:19									
<u>QC Source Sample: Non-SDG (A0J0281-06)</u>												
Total Organic Carbon	2.9	0.020	0.020	% by Weight	1	---	2.8	---	---	7	27%	
Duplicate (0100332-DUP3)			Prepared: 10/09/20 14:00 Analyzed: 10/13/20 00:02									
<u>QC Source Sample: PDI-016SC-B-00-02-191009 (A0J0298-01)</u>												
<u>SM 5310 B MOD</u>												
Total Organic Carbon	1.1	0.020	0.020	% by Weight	1	---	1.1	---	---	4	27%	H-08
Batch 0100333 - PSEP-5310B TOC						Soil						
Blank (0100333-BLK1)			Prepared: 10/09/20 14:02 Analyzed: 10/13/20 17:56									
<u>SM 5310 B MOD</u>												
Total Organic Carbon	ND	0.020	0.020	% by Weight	1	---	---	---	---	---	---	
LCS (0100333-BS1)			Prepared: 10/09/20 14:02 Analyzed: 10/13/20 18:07									
<u>SM 5310 B MOD</u>												
Total Organic Carbon	9300			mg/kg	1	10000	---	93	88-111%	---	---	
Duplicate (0100333-DUP1)			Prepared: 10/09/20 14:02 Analyzed: 10/13/20 22:15									
<u>QC Source Sample: PDI-041SC-B-00-02-191010 (A0J0298-20)</u>												
<u>SM 5310 B MOD</u>												

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Anchor QEA, LLC 6720 SW Macadam Ave. Suite 125 Portland, OR 97219	Project: Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores Project Number: [none] Project Manager: Ryan Barth	Report ID: A0J0298 - 10 15 20 1009
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QUALITY CONTROL (QC) SAMPLE RESULTS

Demand Parameters

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0100333 - PSEP-5310B TOC						Soil						
Duplicate (0100333-DUP1)			Prepared: 10/09/20 14:02 Analyzed: 10/13/20 22:15									
<u>QC Source Sample: PDI-041SC-B-00-02-191010 (A0J0298-20)</u>												
Total Organic Carbon	1.1	0.020	0.020	% by Weight	1	---	1.1	---	---	5	27%	H-08
Duplicate (0100333-DUP2)			Prepared: 10/09/20 14:02 Analyzed: 10/13/20 22:26									
<u>QC Source Sample: PDI-041SC-B-00-02-191010 (A0J0298-20)</u>												
<u>SM 5310 B MOD</u>												
Total Organic Carbon	1.0	0.020	0.020	% by Weight	1	---	1.1	---	---	4	27%	H-08
Duplicate (0100333-DUP3)			Prepared: 10/09/20 14:02 Analyzed: 10/14/20 00:46									
<u>QC Source Sample: PDI-080SC-C-00-8.6-200507 (A0J0298-30)</u>												
<u>SM 5310 B MOD</u>												
Total Organic Carbon	1.4	0.020	0.020	% by Weight	1	---	1.8	---	---	21	27%	H-08

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 ORELAP ID: OR100062

Anchor QEA, LLC 6720 SW Macadam Ave. Suite 125 Portland, OR 97219	Project: Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores Project Number: [none] Project Manager: Ryan Barth	Report ID: A0J0298 - 10 15 20 1009
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QUALITY CONTROL (QC) SAMPLE RESULTS

Solid and Moisture Determinations

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0100376 - Total Solids (SM2540G/PSEP)						Sediment						
Duplicate (0100376-DUP1)						Prepared: 10/12/20 10:19 Analyzed: 10/13/20 15:26						
QC Source Sample: Non-SDG (A0J0344-01)												
Total Solids	35.8	1.00	1.00	% by Weight	1	---	35.8	---	---	0.04	10%	
Duplicate (0100376-DUP2)						Prepared: 10/12/20 10:19 Analyzed: 10/13/20 15:26						
QC Source Sample: PDI-034SC-D-06-08-191022 (A0J0298-19)												
SM 2540 G												
Total Solids	87.0	1.00	1.00	% by Weight	1	---	86.6	---	---	0.4	10%	

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SAMPLE PREPARATION INFORMATION

Demand Parameters

Prep: PSEP-5310B TOC

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
<u>Batch: 0100332</u>							
A0J0298-01	SE	SM 5310 B MOD	10/09/19 09:53	10/09/20 14:00			NA
A0J0298-02	SE	SM 5310 B MOD	10/09/19 09:57	10/09/20 14:00			NA
A0J0298-03	SE	SM 5310 B MOD	10/09/19 09:58	10/09/20 14:00			NA
A0J0298-04	SE	SM 5310 B MOD	10/09/19 12:01	10/09/20 14:00			NA
A0J0298-05	SE	SM 5310 B MOD	10/09/19 12:02	10/09/20 14:00			NA
A0J0298-06	SE	SM 5310 B MOD	10/09/19 12:03	10/09/20 14:00			NA
A0J0298-07	SE	SM 5310 B MOD	10/09/19 12:04	10/09/20 14:00			NA
A0J0298-08	SE	SM 5310 B MOD	10/14/19 11:04	10/09/20 14:00			NA
A0J0298-09	SE	SM 5310 B MOD	10/14/19 11:05	10/09/20 14:00			NA
A0J0298-10	SE	SM 5310 B MOD	10/14/19 11:05	10/09/20 14:00			NA
A0J0298-11	SE	SM 5310 B MOD	10/14/19 11:06	10/09/20 14:00			NA
A0J0298-12	SE	SM 5310 B MOD	10/17/19 09:06	10/09/20 14:00			NA
A0J0298-13	SE	SM 5310 B MOD	10/17/19 09:06	10/09/20 14:00			NA
A0J0298-14	SE	SM 5310 B MOD	10/17/19 09:06	10/09/20 14:00			NA
A0J0298-15	SE	SM 5310 B MOD	10/17/19 09:06	10/09/20 14:00			NA
A0J0298-16	SE	SM 5310 B MOD	10/22/19 08:31	10/09/20 14:00			NA
A0J0298-17	SE	SM 5310 B MOD	10/22/19 08:34	10/09/20 14:00			NA
A0J0298-18	SE	SM 5310 B MOD	10/22/19 08:35	10/09/20 14:00			NA
A0J0298-19	SE	SM 5310 B MOD	10/22/19 08:36	10/09/20 14:00			NA
<u>Batch: 0100333</u>							
A0J0298-20	SE	SM 5310 B MOD	10/10/19 09:50	10/09/20 14:02			NA
A0J0298-21	SE	SM 5310 B MOD	10/10/19 09:51	10/09/20 14:02			NA
A0J0298-22	SE	SM 5310 B MOD	10/10/19 09:52	10/09/20 14:02			NA
A0J0298-23	SE	SM 5310 B MOD	10/10/19 16:56	10/09/20 14:02			NA
A0J0298-24	SE	SM 5310 B MOD	10/10/19 16:58	10/09/20 14:02			NA
A0J0298-25	SE	SM 5310 B MOD	10/10/19 17:01	10/09/20 14:02			NA
A0J0298-26	SE	SM 5310 B MOD	10/10/19 17:01	10/09/20 14:02			NA
A0J0298-27RE1	SE	SM 5310 B MOD	05/11/20 15:15	10/09/20 14:02			NA
A0J0298-28	SE	SM 5310 B MOD	05/11/20 14:15	10/09/20 14:02			NA
A0J0298-29RE1	SE	SM 5310 B MOD	05/12/20 08:50	10/09/20 14:02			NA
A0J0298-30	SE	SM 5310 B MOD	05/07/20 14:00	10/09/20 14:02			NA
A0J0298-31	SE	SM 5310 B MOD	05/21/20 15:00	10/09/20 14:02			NA
A0J0298-32	SE	SM 5310 B MOD	05/21/20 15:00	10/09/20 14:02			NA
A0J0298-33	SE	SM 5310 B MOD	05/21/20 15:00	10/09/20 14:02			NA
A0J0298-34	SE	SM 5310 B MOD	05/21/20 15:00	10/09/20 14:02			NA
A0J0298-35	SE	SM 5310 B MOD	05/21/20 15:00	10/09/20 14:02			NA

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SAMPLE PREPARATION INFORMATION

Demand Parameters

Prep: PSEP-5310B TOC

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
A0J0298-36	SE	SM 5310 B MOD	05/21/20 15:00	10/09/20 14:02			NA
A0J0298-37	SE	SM 5310 B MOD	05/21/20 15:00	10/09/20 14:02			NA
A0J0298-38	SE	SM 5310 B MOD	10/10/19 09:52	10/09/20 14:02			NA

Solid and Moisture Determinations

Prep: Total Solids (SM2540G/PSEP)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
<u>Batch: 0100376</u>							
A0J0298-19	SE	SM 2540 G	10/22/19 08:36	10/12/20 10:19			NA

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QUALIFIER DEFINITIONS

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

Apex Laboratories

H-08 Sample hold time extended by freezing at -18 degrees C. Total time at 4 degrees C was less than the standard hold time.

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Anchor QEA, LLC

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Portland, OR 97219

Project: Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores

Project Number: [none]
Project Manager: Ryan Barth

Report ID:
A0J0298 - 10 15 20 1009

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'.

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).

Blanks:

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to 1/2 the Reporting Limit (RL).
-For Blank hits falling between 1/2 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.

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Anchor QEA, LLC 6720 SW Macadam Ave. Suite 125 Portland, OR 97219	Project: Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores Project Number: [none] Project Manager: Ryan Barth	Report ID: A0J0298 - 10 15 20 1009
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REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks (Cont.):

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.

Preparation Notes:

Mixed Matrix Samples:

Water Samples:

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

Soil and Sediment Samples:

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

Sampling and Preservation Notes:

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

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

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

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

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503-718-2323
ORELAP ID: OR100062

<u>Anchor QEA, LLC</u> 6720 SW Macadam Ave. Suite 125 Portland, OR 97219	Project: <u>Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores</u> Project Number: [none] Project Manager: Ryan Barth	Report ID: A0J0298 - 10 15 20 1009
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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
<u>All reported analytes are included in Apex Laboratories' current ORELAP scope.</u>					

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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Anchor QEA, LLC Project: **Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores**
 6720 SW Macadam Ave. Suite 125 Project Number: [none] Report ID: A0J0298 - 10 15 20 1009
 Portland, OR 97219 Project Manager: Ryan Barth

1/14

A0J0298
A0J0300

COC ID: APEX1-20191009-171243
 Sample Custodian: CO, SN, BJ, DL
 Lab: Apex - Archive

ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY

POC: Delaney Peterson (360-715-2707) Project: Gasco PDI Client: NW Natural
 1605 Cornwell Avenue, Bellingham, WA 98225

COC Sample Number	Field Sample ID	Sample Type	Matrix	Collected Date	Time	Containers	Lab OC*	Test Request	Method	TAT**	Preservative
011	POI-016SC-A-10-11-191009	N	SE	10/09/2019	9:48	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
012	POI-016SC-A-11-12-191009	N	SE	10/09/2019	9:48	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
013	POI-016SC-A-12-13-191009	N	SE	10/09/2019	9:48	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
014	POI-016SC-A-13-14-191009	N	SE	10/09/2019	9:48	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
015	POI-016SC-B-02-04-191009	N	SE	10/09/2019	9:53	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
016	POI-016SC-B-02-04-191009	N	SE	10/09/2019	9:57	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
017	POI-016SC-B-04-06-191009	N	SE	10/09/2019	9:58	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
018	POI-016SC-B-06-08-191009	N	SE	10/09/2019	9:41	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
019	POI-023SC-A-00-01-191009	N	SE	10/09/2019	12:14	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
020	POI-023SC-A-01-02-191009	N	SE	10/09/2019	12:14	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
021	POI-023SC-A-02-03-191009	N	SE	10/09/2019	12:14	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C

Comment:

Requested By	Signature	Print Name	Company	Date/Time	Requested By	Signature	Print Name	Company	Date/Time
Requested By	[Signature]	Print Name	Company	Date/Time	Requested By	[Signature]	Print Name	Company	Date/Time
Requested By	[Signature]	Print Name	Company	Date/Time	Requested By	[Signature]	Print Name	Company	Date/Time

Date Printed: 10/09/2019

* Lab OC Requested for sample when box is checked ** TAT = Turn Around Time in DAYS # POC = Project Point of Contact

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6720 SW Macadam Ave. Suite 125
Portland, OR 97219

Project: **Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores**
Project Number: [none]
Project Manager: **Ryan Barth**

Report ID:
A0J0298 - 10 15 20 1009

A0J0298
2/14
A0J0360

ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY



POC: Delaney Peterson (360-715-2707)
1805 Cornwell Avenue, Bellingham, WA 98225
Project: Gasco PDI
Client: NW Natural

COC ID: APEX1-20191009-171243
Sample Custodian: CO, SN, B1, DL
Lab: Apex - Archival

COC Sample Number	Field Sample ID	Sample Type	Matrix	Collected Date	Time	Containers	Lab OC*	Test Request	Method	TAT**	Preservative
021	PDI-0235C-A-02-05-191009	N	SE	10/09/2019	12:14	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
022	PDI-0235C-A-05-06-191009	N	SE	10/09/2019	12:14	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
023	PDI-0235C-A-04-05-191009	N	SE	10/09/2019	12:14	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
024	PDI-0235C-A-05-06-191009	N	SE	10/09/2019	12:14	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
025	PDI-0235C-A-06-07-191009	N	SE	10/09/2019	12:14	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
026	PDI-0235C-A-07-08-191009	N	SE	10/09/2019	12:14	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
027	PDI-0235C-A-08-09-191009	N	SE	10/09/2019	12:14	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
028	PDI-0235C-A-09-10-191009	N	SE	10/09/2019	12:14	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
029	PDI-0235C-A-10-11-191009	N	SE	10/09/2019	12:14	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
030	PDI-0235C-B-00-02-191009	N	SE	10/09/2019	12:01	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
031	PDI-0235C-B-02-04-191009	N	SE	10/09/2019	12:02	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C

Requested By	Signature	Print Name	Company	Date/Time	Requested By	Signature	Print Name	Company	Date/Time
[Signature]	[Signature]	[Print Name]	[Company]	[Date/Time]	[Signature]	[Signature]	[Print Name]	[Company]	[Date/Time]
[Signature]	[Signature]	[Print Name]	[Company]	[Date/Time]	[Signature]	[Signature]	[Print Name]	[Company]	[Date/Time]
[Signature]	[Signature]	[Print Name]	[Company]	[Date/Time]	[Signature]	[Signature]	[Print Name]	[Company]	[Date/Time]

Date Printed: 10/09/2019
* Lab OC Requested for sample when box is checked ** TAT = Turn Around Time in DAYS # POC = Project Point of Contact
Page 3 of 6

Darwin Thomas



Anchor QEA, LLC
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Portland, OR 97219

Project: **Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores**
Project Number: [none]
Project Manager: **Ryan Barth**

Report ID:
A0J0298 - 10 15 20 1009

3/14
A0J0298
A0J0300

ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY



POC: Delaney Peterson (360-715-2707)
1605 Cornwall Avenue, Bellingham, WA 98225

Project: Gasco PDI
Client: NW Natural

COC ID: APEX1-20191009-171243
Sample Custodian: CO, SN, BJ, DL
Lab: Apex - Archive

COC Sample Number	Field Sample ID	Sample Type	Matrix	Collected Date	Time	# Containers	Lab OC*	Test Request	Method	TAT**	Preservative
031	PDI-0295C-B-04-06-191009	N	SE	10/09/2019	12:02	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
032	PDI-0295C-B-04-06-191009	N	SE	10/09/2019	12:03	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
033	PDI-0295C-B-06-08-191009	N	SE	10/09/2019	12:04	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
034	PDI-0295C-A-00-01-191009	N	SE	10/09/2019	14:39	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
035	PDI-0295C-A-01-02-191009	N	SE	10/09/2019	14:39	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
036	PDI-0295C-A-02-03-191009	N	SE	10/09/2019	14:39	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
037	PDI-0295C-A-03-04-191009	N	SE	10/09/2019	14:39	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
038	PDI-0295C-A-04-05-191009	N	SE	10/09/2019	14:39	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
039	PDI-0295C-A-05-06-191009	N	SE	10/09/2019	14:39	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
040	PDI-0295C-A-06-07-191009	N	SE	10/09/2019	14:39	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
041	PDI-0295C-A-07-08-191009	N	SE	10/09/2019	14:39	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C

Requested By:	Requested By:	Requested By:	Requested By:
Signature	Signature	Signature	Signature
Print Name	Print Name	Print Name	Print Name
Company	Company	Company	Company
Date/Time	Date/Time	Date/Time	Date/Time
Ryan Barth	Ryan Barth	Ryan Barth	Ryan Barth
Anchor QEA	Anchor QEA	Anchor QEA	Anchor QEA
10-10-19	10-10-19	10-10-19	10-10-19

* Lab OC Requested for sample when box is checked ** TAT = Turn Around Time in DAYS # POC = Project Point of Contact

Apex Laboratories

Darwin Thomas

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.



Anchor QEA, LLC

6720 SW Macadam Ave. Suite 125
Portland, OR 97219

Project: Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores

Project Number: [none]

Project Manager: Ryan Barth

Report ID:

A0J0298 - 10 15 20 1009

4/14
A0J0298
A0J0594

ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY

POC: * Delaney Peterson (360-715-2707) Project: Gasco PDI
 1605 Cornwell Avenue, Bellingham, WA 98225 Client: NW Natural

COC ID: APEX1-20191014-145320
 Sample Custodian: CO, SN, BJ, DL
 Lab: Apex - Archive

COC Sample Number	Field Sample ID	Matrix Type	Sample Type	Matrix	Collected Date	Time	Containers	Lab #	OC	Test Request	Method	TAT**	Preservative
011	PDI-026SC-A-10-11-191014	N	SE		10/14/2019	11:01	1			Archive (APEX)	ARCHIVE	-1	-10°C
012	PDI-026SC-B-00-02-191014	N	SE		10/14/2019	11:04	1			Archive (APEX)	ARCHIVE	-1	-10°C
013	PDI-026SC-B-02-04-191014	N	SE		10/14/2019	11:05	1			Archive (APEX)	ARCHIVE	-1	-10°C
014	PDI-026SC-B-04-06-191014	N	SE		10/14/2019	11:05	1			Archive (APEX)	ARCHIVE	-1	-10°C
015	PDI-026SC-B-06-08-191014	N	SE		10/14/2019	11:06	1			Archive (APEX)	ARCHIVE	-1	-10°C
016	PDI-077SC-A-00-01-191014	N	SE		10/14/2019	8:36	1			Archive (APEX)	ARCHIVE	-1	-10°C
017	PDI-077SC-A-01-02-191014	N	SE		10/14/2019	8:36	1			Archive (APEX)	ARCHIVE	-1	-10°C
018	PDI-077SC-A-02-03-191014	N	SE		10/14/2019	8:36	1			Archive (APEX)	ARCHIVE	-1	-10°C
019	PDI-077SC-A-03-04-191014	N	SE		10/14/2019	8:36	1			Archive (APEX)	ARCHIVE	-1	-10°C
020	PDI-077SC-A-04-05-191014	N	SE		10/14/2019	8:36	1			Archive (APEX)	ARCHIVE	-1	-10°C
021	PDI-077SC-A-05-06-191014	N	SE		10/14/2019	8:36	1			Archive (APEX)	ARCHIVE	-1	-10°C

Requested By: [Signature] Received By: [Signature]
 Print Name: Eli Jomoi Print Name: [Signature]
 Company: APEX LABS Company: [Signature]
 Date/Time: 10/15/19 1010 Date/Time: [Signature]

Date Printed: 10/14/2019

* Lab OC Requested for sample when box is checked ** TAT = Turn Around Time in DAYS # POC = Project Point of Contact

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Anchor QEA, LLC
6720 SW Macadam Ave. Suite 125
Portland, OR 97219

Project: **Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores**
Project Number: [none]
Project Manager: **Ryan Barth**

Report ID:
A0J0298 - 10 15 20 1009

A0J0718
 H00098 5/14

ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY



COC ID: APEX1-20191017-123936
Sample Custodian: SN
Lab: Apex - Archive

POC: Delaney Peterson (360-715-2707)
1605 Cornwall Avenue, Bellingham, WA 98225
Project: Gasco PDI
Client: NW Natural

COC Sample Number	Field Sample ID	Sample Type	Matrix	Collected Date	Time	Containers	Lab *OC*	Test Request	Method	TAT**	Preservative
011	PD-031SC-A-10-11-191017	N	SE	10/17/2019	9:04	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
012	PD-031SC-B-06-08-191017	N	SE	10/17/2019	9:06	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
013	PD-031SC-B-02-04-191017	N	SE	10/17/2019	9:06	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
014	PD-031SC-B-04-08-191017	N	SE	10/17/2019	9:06	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
015	PD-031SC-B-06-08-191017	N	SE	10/17/2019	9:06	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
016	PD-097SC-B-00-02-191017	N	SE	10/17/2019	10:46	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
017	PD-097SC-B-02-04-191017	N	SE	10/17/2019	10:46	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
018	PD-097SC-B-04-06-191017	N	SE	10/17/2019	10:46	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
019	PD-097SC-B-06-08-191017	N	SE	10/17/2019	10:46	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C

Requested By:	Requested By:	Requested By:	Requested By:
Signature: <i>[Signature]</i>	Signature: <i>[Signature]</i>	Signature: <i>[Signature]</i>	Signature: <i>[Signature]</i>
Print Name: COLETTA	Print Name: M. KADINHIT	Print Name: [Blank]	Print Name: [Blank]
Company: AR	Company: APEX LABS	Company: [Blank]	Company: [Blank]
Date/Time: 10/17/19 1410	Date/Time: 10-17-19 1410	Date/Time: [Blank]	Date/Time: [Blank]

* Lab QC Requested for sample when box is checked ** TAT = Turn Around Time in DAYS # POC = Project Point of Contact

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[Signature]

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Anchor QEA, LLC

6720 SW Macadam Ave. Suite 125
Portland, OR 97219

Project: Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores

Project Number: [none]
Project Manager: Ryan Barth

Report ID:

A0J0298 - 10 15 20 1009

ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY

POC: * Delaney Peterson (360-716-2707) Project: Gasco PDI Client: NW Natural
 1605 Cornwell Avenue, Bellingham, WA 98225

COC ID: APEX1-20191022-162549
 Sample Custodian: CO, SN, BJ, SS
 Lab: Apex - Archive

A0J0298 6/14
A0J0801

COC Sample Number	Field Sample ID	Sample Type	Matrix	Collected Date	Time	Containers	Lab GC	Test Request	Method	TAT**	Preservative
011	PDI-094SC-A-11-12-191022	N	SE	10/22/2019	8:26	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
012	PDI-094SC-B-02-02-191022	N	SE	10/22/2019	8:31	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
013	PDI-094SC-B-02-04-191022	N	SE	10/22/2019	8:34	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
014	PDI-094SC-B-04-06-191022	N	SE	10/22/2019	8:35	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
015	PDI-094SC-D-06-08-191022	N	SE	10/22/2019	8:36	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
016	PDI-093SC-A-00-01-191022	N	SE	10/22/2019	14:07	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
017	PDI-093SC-A-01-02-191022	N	SE	10/22/2019	14:07	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
018	PDI-093SC-A-02-03-191022	N	SE	10/22/2019	14:07	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
019	PDI-093SC-A-05-04-191022	N	SE	10/22/2019	14:07	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
020	PDI-093SC-A-04-05-191022	N	SE	10/22/2019	14:07	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
021	PDI-093SC-A-05-06-191022	N	SE	10/22/2019	14:07	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C

Received By: [Signature] Date/Time: 10/23/19 09:50

Subscribed By: [Signature] Date/Time: 10/23/19 15:58

Print Name: E. DEMO Company: APEX LABS

Date Printed: 10/22/2019

* Lab GC Requested for sample when box is checked ** TAT = Turn Around Time in DAYS # POC = Project Point of Contact

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Anchor QEA, LLC

6720 SW Macadam Ave. Suite 125
Portland, OR 97219

Project: Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores

Project Number: [none]

Project Manager: Ryan Barth

Report ID:

A0J0298 - 10 15 20 1009

A0J0298
7/14
A0J0463

ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY



POC: Delaney Peterson (360-715-2707)

Project: Gasco PDI

COC ID: APEX1-20191010-175168

1605 Cornwall Avenue, Bellingham, WA 98225

Client: NW Natural

Sample Custodian: CO, SN, BJ, DL

Lab: Apex - Archive

COC Sample Number	Field Sample ID	Sample Type	Matrix	Collected Date	Time	Containers	Lab GC	Test Request	Method	TAI**	Preservative
031	PDJ-041SC-A-10-11-191010	N	SE	10/10/2019	9:56	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
032	PDJ-041SC-A-11-12-191010	N	SE	10/10/2019	9:56	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
033	PDJ-041SC-B-09-02-191010	N	SE	10/10/2019	9:50	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
034	PDJ-041SC-B-02-04-191010	N	SE	10/10/2019	9:51	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
035	PDJ-041SC-B-04-06-191010	N	SE	10/10/2019	9:52	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
036	PDJ-041SC-B-06-08-191010	N	SE	10/10/2019	9:52	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
037	PDJ-045SC-A-05-01-191010	N	SE	10/10/2019	17:36	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
038	PDJ-045SC-A-01-02-191010	N	SE	10/10/2019	17:36	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
039	PDJ-045SC-A-02-03-191010	N	SE	10/10/2019	17:36	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
040	PDJ-045SC-A-03-04-191010	N	SE	10/10/2019	17:36	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C

Requested By:	Requested By:	Requested By:	Requested By:
Signature	Signature	Signature	Signature
Print Name: DELANEY PETERSON	Print Name: RYAN BARTH	Print Name: DELANEY PETERSON	Print Name: RYAN BARTH
Company: APEX	Company: APEX	Company: APEX	Company: APEX
Date/Time: 10/11/19 11:09	Date/Time: 10/11/19 11:09	Date/Time: 10/11/19 11:09	Date/Time: 10/11/19 11:09

* Lab OC Requested for sample when box is checked ** TAI = Turn Around Time in DAYS # POC = Project Point of Contact

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Anchor QEA, LLC

6720 SW Macadam Ave. Suite 125
Portland, OR 97219

Project: Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores

Project Number: [none]

Project Manager: Ryan Barth

Report ID:

A0J0298 - 10 15 20 1009

A0J0298 8/14
A9J0463

ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY



POC: Delaney Peterson (360-715-2707)

Project: Gasco PDI

COC ID: APEX1-20191010-175158

1605 Cornwall Avenue, Bellingham, WA 98225

Sample Custodian: CO, SN, BJ, DL

Lab: Apex - Archive

COC Sample Number	Field Sample ID	Sample Type	Matrix	Collected Date	Time	Containers	Lab #	Temp	Test Request	Method	TAT**	Preservative
041	PDI-0455C-A-04-05-191010	N	SE	10/10/2019	17:36	1			Archive (APEX)	ARCHIVE	-1	-10°C
042	PDI-0455C-A-06-08-191010	N	SE	10/10/2019	17:36	1			Archive (APEX)	ARCHIVE	-1	-10°C
043	PDI-0455C-A-06-07-191010	N	SE	10/10/2019	17:36	1			Archive (APEX)	ARCHIVE	-1	-10°C
044	PDI-0455C-A-07-08-191010	N	SE	10/10/2019	17:36	1			Archive (APEX)	ARCHIVE	-1	-10°C
045	PDI-0455C-A-06-08-191010	N	SE	10/10/2019	17:36	1			Archive (APEX)	ARCHIVE	-1	-10°C
046	PDI-0455C-A-06-10-191010	N	SE	10/10/2019	17:35	1			Archive (APEX)	ARCHIVE	-1	-10°C
047	PDI-0455C-A-10-11-191010	N	SE	10/10/2019	17:36	1			Archive (APEX)	ARCHIVE	-1	-10°C
048	PDI-0455C-A-11-12-191010	N	SE	10/10/2019	17:36	1			Archive (APEX)	ARCHIVE	-1	-10°C
049	PDI-0455C-B-00-02-191010	N	SE	10/10/2019	16:56	1			Archive (APEX)	ARCHIVE	-1	-10°C
050	PDI-0455C-B-02-04-191010	N	SE	10/10/2019	16:56	1			Archive (APEX)	ARCHIVE	-1	-10°C

Requested By	Signature	Print Name	Company	Date/Time	Requested By	Signature	Print Name	Company	Date/Time
Requested By	<i>[Signature]</i>	Print Name	Company	Date/Time	Requested By	<i>[Signature]</i>	Print Name	Company	Date/Time
Requested By	<i>[Signature]</i>	Print Name	Company	Date/Time	Requested By	<i>[Signature]</i>	Print Name	Company	Date/Time
Requested By	<i>[Signature]</i>	Print Name	Company	Date/Time	Requested By	<i>[Signature]</i>	Print Name	Company	Date/Time
Requested By	<i>[Signature]</i>	Print Name	Company	Date/Time	Requested By	<i>[Signature]</i>	Print Name	Company	Date/Time
Requested By	<i>[Signature]</i>	Print Name	Company	Date/Time	Requested By	<i>[Signature]</i>	Print Name	Company	Date/Time
Requested By	<i>[Signature]</i>	Print Name	Company	Date/Time	Requested By	<i>[Signature]</i>	Print Name	Company	Date/Time
Requested By	<i>[Signature]</i>	Print Name	Company	Date/Time	Requested By	<i>[Signature]</i>	Print Name	Company	Date/Time
Requested By	<i>[Signature]</i>	Print Name	Company	Date/Time	Requested By	<i>[Signature]</i>	Print Name	Company	Date/Time
Requested By	<i>[Signature]</i>	Print Name	Company	Date/Time	Requested By	<i>[Signature]</i>	Print Name	Company	Date/Time

Page 5 of 7

* Lab QC Requested for sample when box is checked ** TAT = Turn Around Time in DAYS # POC = Project Point of Contact

Date Printed: 10/10/2019

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[Signature]

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Anchor QEA, LLC

6720 SW Macadam Ave. Suite 125
Portland, OR 97219

Project: Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores

Project Number: [none]
Project Manager: Ryan Barth

Report ID:

A0J0298 - 10 15 20 1009

A0J0298
9/14
A0J0463

ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY



POC: Delaney Peterson (360-715-2707)

Project: Gasco PDI
Client: NW Natural

1605 Cornwell Avenue, Bellingham, WA 98225

COC ID: APEX1-20191010-175158
Sample Custodian: CO, SN, BJ, DL
Lab: Apex - Archive

COC Sample Number	Field Sample ID	Sample Type	Matrix	Collected Date	Time	Containers	Lab OC*	Test Request	Method	TAT**	Preservative
051	PDI-0455C-B-04-06-191010	N	SE	10/10/2019	17:01	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
052	PDI-0455C-B-06-191010	N	SE	10/10/2019	17:01	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
053	PDI-067SC-A-00-01-191010	N	SE	10/10/2019	15:59	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
054	PDI-067SC-A-01-02-191010	N	SE	10/10/2019	15:59	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
055	PDI-067SC-A-02-03-191010	N	SE	10/10/2019	15:59	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
056	PDI-067SC-A-03-04-191010	N	SE	10/10/2019	15:59	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
057	PDI-067SC-A-04-05-191010	N	SE	10/10/2019	15:59	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
058	PDI-067SC-A-05-06-191010	N	SE	10/10/2019	15:59	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
059	PDI-067SC-A-06-07-191010	N	SE	10/10/2019	15:59	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
060	PDI-067SC-A-07-08-191010	N	SE	10/10/2019	15:59	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C

Requested By	Requested By Signature	Requested By Print Name	Requested By Company	Requested By Date/Time	Released By	Released By Signature	Released By Print Name	Released By Company	Released By Date/Time
Delaney Peterson		Delaney Peterson	Anchor QEA	10/11/19 10:11:19					
Delaney Peterson		Delaney Peterson	Anchor QEA	10/11/19 11:00					

* Lab OC Requested for sample when box is checked ** TAT = Turn-Around Time in DAYS # POC = Project Point of Contact

Date Printed: 10/10/2019

Page 6 of 7

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Anchor QEA, LLC

6720 SW Macadam Ave. Suite 125
Portland, OR 97219

Project: **Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores**

Project Number: [none]

Project Manager: Ryan Barth

Report ID:

A0J0298 - 10 15 20 1009

A0J0298 W14
A0E0310

ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY



POC: Delaney Peterson (360-715-2707)
1605 Cornwell Avenue, Bellingham, WA 98225

Project: Gasco PDI
Client: NW Natural

COC ID: APEX-20200511-155734
Sample Custodian: CO
Lab: Apex

COC Sample Number	Field Sample ID	Sample Type	Matrix	Collected Date	Time	Containers	Lab QC	Test Request	Method	TAT**	Preservative
001	PDI-0615C-C-00-8-200511	N	SE	05/11/2020	15:15	5	<input type="checkbox"/>	Metals (QAPP 4c) Pesticides (QAPP 4c) SVOCs (QAPP 4c) TCLP Metals TCLP Pesticides TCLP SVOCs TCLP VOCs Total solids (APEX) VOCs (QAPP 4c)	SW6020A SW6081B SW6270D SW6020A SW6081B SW6270D SW6260C SM2540G SW6260C	30 30 30 30 30 30 30 30 30	4°C 4°C 4°C 4°C 4°C MeOH MeOH 4°C MeOH
002	PDI-0615C-C-00-8-200511	N	SE	05/11/2020	14:15	5	<input type="checkbox"/>	Metals (QAPP 4c) Pesticides (QAPP 4c) SVOCs (QAPP 4c) TCLP Metals TCLP Pesticides TCLP SVOCs TCLP VOCs Total solids (APEX) VOCs (QAPP 4c)	SW6020A SW6081B SW6270D SW6020A SW6081B SW6270D SW6260C SM2540G SW6260C	30 30 30 30 30 30 30 30 30	4°C 4°C 4°C 4°C 4°C MeOH MeOH 4°C MeOH
003	PDI-0875C-BB-05-97-200511	N	SE	05/11/2020	13:10	3	<input type="checkbox"/>	Total solids (APEX) VOCs (QAPP 3/4b)	SM2540G SW6260C	30 30	4°C MeOH
004	PDI-TB-2005111337	TB	SQ	05/11/2020	13:37	2	<input type="checkbox"/>				

Requested By	Relinquished By	Requested By	Relinquished By
Signature: [Signature]	Signature: [Signature]	Signature: [Signature]	Signature: [Signature]
Print Name: LUGAS HENRY	Print Name: [Name]	Print Name: [Name]	Print Name: [Name]
Company: APEX LABS	Company: [Company]	Company: [Company]	Company: [Company]
Date/Time: 5/12/2020 08:15	Date/Time: 5/12/20 1008	Date/Time: [Date/Time]	Date/Time: [Date/Time]

Date Printed: 5/11/2020
* Lab QC Requested for sample when box is checked ** TAT = Turn Around Time in DAYS # POC = Project Point of Contact

Darwin Thomas



Anchor QEA, LLC

6720 SW Macadam Ave. Suite 125
Portland, OR 97219

Project: **Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores**

Project Number: [none]
Project Manager: **Ryan Barth**

Report ID:

A0J0298 - 10 15 20 1009

114
A0J0298
A0J0298

ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY

POC: **Anchor QEA**
1201 SW Avenue, Suite 2000, Seattle, WA 98121

POC: **Delaney Peterson (360-715-2707)**
1805 Cornwell Avenue, Bellingham, WA 98225

Project: **Gasco PDI**
Client: **NW Natural**

COC ID: **APEX-20200512-094017**
Sample Custodian: **CO**
Lab: **Apex**

COC Sample Number	Field Sample ID	Sample Type	Matrix	Collected Date	Time	Containers	Lab #	Lab CC*	Test Request	Method	TAT**	Preservative
001	PDI-0985C-C-00-10-3-200812	N	SE	05/12/2020	8:50	5		<input type="checkbox"/>	Metals (QAPP 4c) Pesticides (QAPP 4c) SVOCs (QAPP 4c) TCLP Metals TCLP Pesticides TCLP SVOCs TCLP VOCs Total Solids (APEX) VOCs (QAPP 4c)	SW6020A SW6081B SW8270D SW6020A SW6081B SW8270D SW8260C SM2540G SW8260C	30 30 30 30 30 30 30 30 30	4C 4C 4C 4C MeOH MeOH 4C MeOH
002	PDI-1B-2005120905	TB	WQ	05/12/2020	9:05	2		<input type="checkbox"/>	VOCs (QAPP 4c)	SW8260C	30	

Comment:

Requested By:	Requested By:	Requested By:	Requested By:
Signature	Signature	Signature	Signature
Print Name	Print Name	Print Name	Print Name
Company	Company	Company	Company
Date/Time	Date/Time	Date/Time	Date/Time
5/12/20 09:15	5/12/20 1008		

* Lab CC Requested for sample when box is checked ** TAT = Turn Around Time in DAYS # POC = Project Point of Contact

Date Printed: 6/12/2020

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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.

Anchor QEA, LLC

6720 SW Macadam Ave. Suite 125
Portland, OR 97219

Project: Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores

Project Number: [none]
Project Manager: Ryan Barth

Report ID:

A0J0298 - 10 15 20 1009

ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY

Anchor QEA
 1201 SW Vermont, Suite 200, Seaside, WA 98101
 POC: * Delaney Peterson (360-715-2707)
 1805 Cornwell Avenue, Bellingham, WA 98225 Client: NW Natural
 Project: Gasco PDI
 1805 Cornwell Avenue, Bellingham, WA 98225 Client: NW Natural

COC ID: APEX-20200507-145042
 Sample Custodian: SN
 Lab: Apex

A0J0298 12/14

A0E0204 205
5/14/20

COC Sample Number	Field Sample ID	Matrix Type	Sample Type	Matrix	Collected Date	Time	Lab QC Containers	Test Request	Method	TAT**	Preservative
001	PDI-FB-2005071044	FB	WQ	WQ	05/07/2020	10:44	8	LR Pesticides Arsenic PAH VOCs (QAPP 3/4b)	SW6081B SW6020A SW6270D SW6280C	30 30 30 30	4°C 4°C 4°C HIGHT < 2µMFC
002	PDI-RB-2005071082	RB	WQ	WQ	05/07/2020	10:52	8	LR Pesticides Arsenic PAH VOCs (QAPP 3/4b)	SW6081B SW6020A SW6270D SW6280C	30 30 30 30	4°C 4°C 4°C HIGHT < 2µMFC
003	PDI-TB-2005070953	TB	WQ	WQ	05/07/2020	8:53	2	VOCs (QAPP 3/4b)	SW6280C	30	HIGHT < 2µMFC
004	PDI-0605SC-C-00-A-B-200507	N	SE	SE	05/07/2020	14:00	6.5	Herbicides Metals (QAPP 4c) Pesticides (QAPP 4c) PAH SVOCs (QAPP 4c) TCLP Herbicides TCLP Metals TCLP Pesticides TCLP SVOCs Total Solids (APEX)	SW6694B SW6020A SW6081B SW6245D SW6270D SW6454A SW6020A SW6081B SW6270D SW6280C SW2540G	30 30 30 30 30 30 30 30 30 30 30	4°C 4°C 4°C 4°C 4°C 4°C 4°C 4°C 4°C 4°C 4°C

Requested By: [Signature] **Requested By:** [Signature]
Print Name: [Name] **Print Name:** [Name]
Company: [Company] **Company:** [Company]
Date/Time: 5/18/20 14:11 **Date/Time:** 5/18/20 15:40

* Lab QC Requested for sample when box is checked. ** TAT = Turn Around Time in DAYS # POC = Project Point of Contact

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Apex Laboratories

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Anchor QEA, LLC
6720 SW Macadam Ave. Suite 125
Portland, OR 97219

Project: **Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores**
Project Number: [none]
Project Manager: **Ryan Barth**

Report ID:
A0J0298 - 10 15 20 1009

ACCUYS 13/14
 ACCU 72

ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY



POC: **Deane Peterson (360-715-2707)** Project: **Gasco PDI**
1805 Cornwall Avenue, Bellingham, WA 98225 Client: **NW Natural**

COC ID: **APEX-20200521-162125**
Sample Custodian: **CO**
Lab: **Apex**

COC Sample Number	Field Sample ID	Matrix Type	Sample Type	Matrix	Collected Date	Time	Lab Containers	Lab QC	Test Request	Method	TAT**	Preservative
005	PDI-171SC-A-13-13-5-200521	N	SE		05/21/2020	15:15	1		TOC	SM5310B	30	4°C
									LR Pesticides	SW6081B	30	4°C
									PAH	SW8270D	30	4°C
									PCB Aroclors	SW8082A	30	4°C
									Total solids (APEX)	SM2540G	30	4°C
006	PDI-171SC-B-06-06-200521	N	SE		05/21/2020	15:00	3		Total solids (APEX)	SM2540G	30	4°C
									VOCs (QAPP 3/4b)	SW8260C	30	MeOH
007	PDI-171SC-B-02-04-200521	N	SE		05/21/2020	15:00	3		Total solids (APEX)	SM2540G	30	4°C
									VOCs (QAPP 3/4b)	SW8260C	30	MeOH
008	PDI-171SC-B-04-06-200521	N	SE		05/21/2020	15:00	3		Total solids (APEX)	SM2540G	30	4°C
									VOCs (QAPP 3/4b)	SW8260C	30	MeOH
009	PDI-171SC-B-06-06-200521	N	SE		05/21/2020	15:00	3		Total solids (APEX)	SM2540G	30	4°C
									VOCs (QAPP 3/4b)	SW8260C	30	MeOH
010	PDI-171SC-B-08-10-200521	N	SE		05/21/2020	15:00	3		Total solids (APEX)	SM2540G	30	4°C
									VOCs (QAPP 3/4b)	SW8260C	30	MeOH
011	FC-171SC-B-10-12-200521	N	SE		05/21/2020	15:00	3		Total solids (APEX)	SM2540G	30	4°C

Requested By	Signature	Print Name	Company	Date/Time	Requested By	Signature	Print Name	Company	Date/Time
Requested By	<i>[Signature]</i>	Lucas Henry	Apex Labs	5/21/20 1100	Requested By	<i>[Signature]</i>	Print Name	Company	Date/Time
Signature		Print Name	Company	Date/Time	Signature		Print Name	Company	Date/Time
Print Name		Company	Date/Time	Print Name		Company	Date/Time	Print Name	Date/Time
Company		Date/Time	Company	Date/Time	Company		Date/Time	Company	Date/Time
Date/Time		Date/Time	Date/Time	Date/Time	Date/Time		Date/Time	Date/Time	Date/Time

* Lab QC Requested for sample when box is checked ** TAT = Turn Around Time in DAYS # POC = Project Point of Contact

Date Printed: 5/21/2020

Apex Laboratories

[Signature]

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Anchor QEA, LLC

6720 SW Macadam Ave. Suite 125
Portland, OR 97219

Project: Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores

Project Number: [none]
Project Manager: Ryan Barth

Report ID:

A0J0298 - 10 15 20 1009

A0J0298
14/14
A0J0298

ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY



POC: Delaney Peterson (360-715-2707) Project: Gasco PDI Client: NW Natural
1605 Cornwell Avenue, Bellingham, WA 98225

COC ID: APEX-20200521-162125
Sample Custodian: CO
Lab: Apex

COC Sample Number	Field Sample ID	Sample Type	Matrix	Collected Date	Time	Containers	Lab OC*	Test Request	Method	TAT**	Preservative
011	PDH-1715C-B-10-12-200521	N	SE	05/21/2020	15:00	3		VOCs (QAPP 3/4b)	SW8260C	30	MeOH
012	PDH-1715C-B-12-13-200521	N	SE	05/21/2020	15:00	3		Total solids (APEX) VOCs (QAPP 3/4b)	SM2540G SW8260C	30 30	4°C MeOH
013	PDH-TB-2005211520	TB	WQ	05/21/2020	15:20	2		VOCs (QAPP 3/4b)	SW8260C	30	HC200 + 24°C
014	PDH-1735C-A-00-01-200521	N	SE	05/21/2020	11:45	1		TOC LR Pesticides PAH Total solids (APEX)	SM5310B SW8081B SW8270D SM2540G	30 30 30 30	4°C 4°C 4°C 4°C
015	PDH-1735C-A-04-05-200521	N	SE	05/21/2020	11:45	1		TOC LR Pesticides PAH PCB Aroclors Total solids (APEX)	SM5310B SW8081B SW8270D SW8082A SM2540G	30 30 30 30 30	4°C 4°C 4°C 4°C 4°C
016	PDH-1735C-A-05-06-200521	N	SE	05/21/2020	11:45	1		TOC LR Pesticides PAH PCB Aroclors	SM5310B SW8081B SW8270D SW8082A	30 30 30 30	4°C 4°C 4°C 4°C

Requested By:	Requested By:	Requested By:	Requested By:	Requested By:
Signature: <i>[Signature]</i>	Signature: <i>[Signature]</i>	Signature: <i>[Signature]</i>	Signature: <i>[Signature]</i>	Signature: <i>[Signature]</i>
Print Name: LUCAS HENRY	Print Name: ETT JONES	Print Name: ETT JONES	Print Name: ETT JONES	Print Name: ETT JONES
Company: APEX LABS	Company: APEX LABS	Company: APEX LABS	Company: APEX LABS	Company: APEX LABS
Date/Time: 5/22/20 10:00	Date/Time: 5/22/20 12:20	Date/Time: 5/22/20 12:20	Date/Time: 5/22/20 12:20	Date/Time: 5/22/20 12:20

* Lab OC Requested for sample when box is checked ** TAT = Turn Around Time in DAYS # POC = Project Point of Contact

Date Printed: 5/21/2020

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[Signature]

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.

**Sample Receipt Documentation
(Work orders, Chain of Custody & Cooler Receipt Forms)**

A0J0298

Apex Laboratories

Client: Anchor QEA, LLC	Project Manager: Darwin Thomas
Project: Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores	Project Number: [none]

Report To:	Invoice To:
Anchor QEA, LLC	Anchor QEA, LLC Seattle
Ryan Barth	Accounts Payable
6720 SW Macadam Ave. Suite 125	1201 3rd Avenue, Suite 2600
Portland, OR 97219	Seattle, WA 98101
Phone: (503) 670-1108	Phone : (206) 287-9130
Fax: na	Fax: (206) 287-9131

Date Due:	10/14/20 17:00 (256 day TAT)	Date Received:	10/10/19 10:05
Received By:	Eli S. Joyner	Date Logged In:	10/09/20 10:34
Logged In By:	Susan L. Treat		

Cooler #1 received at -20.0°C									
Custody Seals	Yes	Containers Intact	Yes	COC/Labels Agree	Yes	PH Confirmed	No	Received On Ice	Yes
Temperature OK	Yes								

Analysis	Due	TAT	Expires	Comments
A0J0298-01 PDI-016SC-B-00-02-191009 [Sediment] Sampled 10/09/19				
09:53 (GMT-08:00) Pacific Time (US & Canada) 1 Containers				
Project Mgmt				
Data Package	11/06/20 17:00	20	01/16/20 09:53	Copy/relog of A9J0360-15
Wet Chem				
Total Organic Carbon - Soil (5310 B)	10/14/20 17:00	3	11/06/19 09:53	
A0J0298-02 PDI-016SC-B-02-04-191009 [Sediment] Sampled 10/09/19				
09:57 (GMT-08:00) Pacific Time (US & Canada) 1 Containers				
Wet Chem				
Total Organic Carbon - Soil (5310 B)	10/14/20 17:00	3	11/06/19 09:57	Copy/relog of A9J0360-16
A0J0298-03 PDI-016SC-B-04-06-191009 [Sediment] Sampled 10/09/19				
09:58 (GMT-08:00) Pacific Time (US & Canada) 1 Containers				
Wet Chem				
Total Organic Carbon - Soil (5310 B)	10/14/20 17:00	3	11/06/19 09:58	Copy/relog of A9J0360-17
A0J0298-04 PDI-023SC-B-00-02-191009 [Sediment] Sampled 10/09/19				
12:01 (GMT-08:00) Pacific Time (US & Canada) 1 Containers				
Wet Chem				
Total Organic Carbon - Soil (5310 B)	10/14/20 17:00	3	11/06/19 12:01	Copy/relog of A9J0360-30
A0J0298-05 PDI-023SC-B-02-04-191009 [Sediment] Sampled 10/09/19				
12:02 (GMT-08:00) Pacific Time (US & Canada) 1 Containers				
Wet Chem				
Total Organic Carbon - Soil (5310 B)	10/14/20 17:00	3	11/06/19 12:02	Copy/relog of A9J0360-31
A0J0298-06 PDI-023SC-B-04-06-191009 [Sediment] Sampled 10/09/19				
12:03 (GMT-08:00) Pacific Time (US & Canada) 1 Containers				
Wet Chem				
Total Organic Carbon - Soil (5310 B)	10/14/20 17:00	3	11/06/19 12:03	Copy/relog of A9J0360-32

A0J0298

Apex Laboratories

Client: Anchor QEA, LLC	Project Manager: Darwin Thomas
Project: Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores	Project Number: [none]

Analysis	Due	TAT	Expires	Comments
A0J0298-07 PDI-023SC-B-06-08-191009 [Sediment] Sampled 10/09/19 12:04 (GMT-08:00) Pacific Time (US & Canada) 1 Containers				Copy/relog of A9J0360-33
Wet Chem				
Total Organic Carbon - Soil (5310 B)	10/14/20 17:00	3	11/06/19 12:04	
A0J0298-08 PDI-026SC-B-00-02-191014 [Sediment] Sampled 10/14/19 11:04 (GMT-08:00) Pacific Time (US & Canada) 1 Containers				Copy/relog of A9J0594-12
Wet Chem				
Total Organic Carbon - Soil (5310 B)	10/14/20 17:00	3	11/11/19 11:04	
A0J0298-09 PDI-026SC-B-02-04-191014 [Sediment] Sampled 10/14/19 11:05 (GMT-08:00) Pacific Time (US & Canada) 1 Containers				Copy/relog of A9J0594-13
Wet Chem				
Total Organic Carbon - Soil (5310 B)	10/14/20 17:00	3	11/11/19 11:05	
A0J0298-10 PDI-026SC-B-04-06-191014 [Sediment] Sampled 10/14/19 11:05 (GMT-08:00) Pacific Time (US & Canada) 1 Containers				Copy/relog of A9J0594-14
Wet Chem				
Total Organic Carbon - Soil (5310 B)	10/14/20 17:00	3	11/11/19 11:05	
A0J0298-11 PDI-026SC-B-06-08-191014 [Sediment] Sampled 10/14/19 11:06 (GMT-08:00) Pacific Time (US & Canada) 1 Containers				Copy/relog of A9J0594-15
Wet Chem				
Total Organic Carbon - Soil (5310 B)	10/14/20 17:00	3	11/11/19 11:06	
A0J0298-12 PDI-031SC-B-00-02-191017 [Sediment] Sampled 10/17/19 09:06 (GMT-08:00) Pacific Time (US & Canada) 1 Containers				Copy/relog of A9J0718-12
Wet Chem				
Total Organic Carbon - Soil (5310 B)	10/14/20 17:00	3	11/14/19 09:06	
A0J0298-13 PDI-031SC-B-02-04-191017 [Sediment] Sampled 10/17/19 09:06 (GMT-08:00) Pacific Time (US & Canada) 1 Containers				Copy/relog of A9J0718-13
Wet Chem				
Total Organic Carbon - Soil (5310 B)	10/14/20 17:00	3	11/14/19 09:06	
A0J0298-14 PDI-031SC-B-04-06-191017 [Sediment] Sampled 10/17/19 09:06 (GMT-08:00) Pacific Time (US & Canada) 1 Containers				Copy/relog of A9J0718-14
Wet Chem				
Total Organic Carbon - Soil (5310 B)	10/14/20 17:00	3	11/14/19 09:06	
A0J0298-15 PDI-031SC-B-06-08-191017 [Sediment] Sampled 10/17/19 09:06 (GMT-08:00) Pacific Time (US & Canada) 1 Containers				Copy/relog of A9J0718-15
Wet Chem				
Total Organic Carbon - Soil (5310 B)	10/14/20 17:00	3	11/14/19 09:06	

A0J0298

Apex Laboratories

Client: Anchor QEA, LLC	Project Manager: Darwin Thomas
Project: Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores	Project Number: [none]

Analysis	Due	TAT	Expires	Comments
A0J0298-16 PDI-034SC-B-00-02-191022 [Sediment] Sampled 10/22/19				
08:31 (GMT-08:00) Pacific Time (US & Canada) 1 Containers				
Wet Chem				
Total Organic Carbon - Soil (5310 B)	10/14/20 17:00	3	11/19/19 08:31	Copy/relog of A9J0861-12
A0J0298-17 PDI-034SC-B-02-04-191022 [Sediment] Sampled 10/22/19				
08:34 (GMT-08:00) Pacific Time (US & Canada) 1 Containers				
Wet Chem				
Total Organic Carbon - Soil (5310 B)	10/14/20 17:00	3	11/19/19 08:34	Copy/relog of A9J0861-13
A0J0298-18 PDI-034SC-B-04-06-191022 [Sediment] Sampled 10/22/19				
08:35 (GMT-08:00) Pacific Time (US & Canada) 1 Containers				
Wet Chem				
Total Organic Carbon - Soil (5310 B)	10/14/20 17:00	3	11/19/19 08:35	Copy/relog of A9J0861-14
A0J0298-19 PDI-034SC-D-06-08-191022 [Sediment] Sampled 10/22/19				
08:36 (GMT-08:00) Pacific Time (US & Canada) 1 Containers				
Wet Chem				
Solids, Total (SM 2540 G,B)	10/14/20 17:00	3	04/19/20 08:36	Use Results for Dry Weight (Not for Waters)
Total Organic Carbon - Soil (5310 B)	10/14/20 17:00	3	11/19/19 08:36	
A0J0298-20 PDI-041SC-B-00-02-191010 [Sediment] Sampled 10/10/19				
09:50 (GMT-08:00) Pacific Time (US & Canada) 1 Containers				
Wet Chem				
Total Organic Carbon - Soil (5310 B)	10/14/20 17:00	3	11/07/19 09:50	Copy/relog of A9J0463-33
A0J0298-21 PDI-041SC-B-02-04-191010 [Sediment] Sampled 10/10/19				
09:51 (GMT-08:00) Pacific Time (US & Canada) 1 Containers				
Wet Chem				
Total Organic Carbon - Soil (5310 B)	10/14/20 17:00	3	11/07/19 09:51	Copy/relog of A9J0463-34
A0J0298-22 PDI-041SC-B-04-06-191010 [Sediment] Sampled 10/10/19				
09:52 (GMT-08:00) Pacific Time (US & Canada) 1 Containers				
Wet Chem				
Total Organic Carbon - Soil (5310 B)	10/14/20 17:00	3	11/07/19 09:52	Copy/relog of A9J0463-35
A0J0298-23 PDI-045SC-B-00-02-191010 [Sediment] Sampled 10/10/19				
16:56 (GMT-08:00) Pacific Time (US & Canada) 1 Containers				
Wet Chem				
Total Organic Carbon - Soil (5310 B)	10/14/20 17:00	3	11/07/19 16:56	Copy/relog of A9J0463-49

A0J0298

Apex Laboratories

Client: Anchor QEA, LLC	Project Manager: Darwin Thomas
Project: Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores	Project Number: [none]

Analysis	Due	TAT	Expires	Comments
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A0J0298-24 PDI-045SC-B-02-04-191010 [Sediment] Sampled 10/10/19 Copy/relog of A9J0463-50
16:58 (GMT-08:00) Pacific Time (US & Canada) 1 Containers
Wet Chem
 Total Organic Carbon - Soil (5310 B) 10/14/20 17:00 3 11/07/19 16:58

A0J0298-25 PDI-045SC-B-04-06-191010 [Sediment] Sampled 10/10/19 Copy/relog of A9J0463-51
17:01 (GMT-08:00) Pacific Time (US & Canada) 1 Containers
Wet Chem
 Total Organic Carbon - Soil (5310 B) 10/14/20 17:00 3 11/07/19 17:01

A0J0298-26 PDI-045SC-B-06-08-191010 [Sediment] Sampled 10/10/19 Copy/relog of A9J0463-52
17:01 (GMT-08:00) Pacific Time (US & Canada) 1 Containers
Wet Chem
 Total Organic Carbon - Soil (5310 B) 10/14/20 17:00 3 11/07/19 17:01

A0J0298-27 PDI-051SC-C-00-6.9-200511 [Sediment] Sampled 05/11/20 Copy/relog of A0E0310-01
15:15 (GMT-08:00) Pacific Time (US & Canada) 1 Containers
Wet Chem
 Total Organic Carbon - Soil (5310 B) 10/14/20 17:00 3 06/08/20 15:15

A0J0298-28 PDI-060SC-C-00-6.8-200511 [Sediment] Sampled 05/11/20 Copy/relog of A0E0310-02
14:15 (GMT-08:00) Pacific Time (US & Canada) 1 Containers
Wet Chem
 Total Organic Carbon - Soil (5310 B) 10/14/20 17:00 3 06/08/20 14:15

A0J0298-29 PDI-058SC-C-00-10.3-200512 [Sediment] Sampled 05/12/20 Copy/relog of A0E0314-01
08:50 (GMT-08:00) Pacific Time (US & Canada) 1 Containers
Wet Chem
 Total Organic Carbon - Soil (5310 B) 10/14/20 17:00 3 06/09/20 08:50

A0J0298-30 PDI-080SC-C-00-8.6-200507 [Sediment] Sampled 05/07/20 Copy/relog of A0E0265-01
14:00 (GMT-08:00) Pacific Time (US & Canada) 1 Containers
Wet Chem
 Total Organic Carbon - Soil (5310 B) 10/14/20 17:00 3 06/04/20 14:00

A0J0298-31 PDI-171SC-B-00-02-200521 [Sediment] Sampled 05/21/20 Copy/relog of A0E0672-06
15:00 (GMT-08:00) Pacific Time (US & Canada) 1 Containers
Wet Chem
 Total Organic Carbon - Soil (5310 B) 10/14/20 17:00 3 06/18/20 15:00

A0J0298-32 PDI-171SC-B-02-04-200521 [Sediment] Sampled 05/21/20 Copy/relog of A0E0672-07
15:00 (GMT-08:00) Pacific Time (US & Canada) 1 Containers
Wet Chem
 Total Organic Carbon - Soil (5310 B) 10/14/20 17:00 3 06/18/20 15:00

A0J0298

Apex Laboratories

Client: Anchor QEA, LLC	Project Manager: Darwin Thomas
Project: Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores	Project Number: [none]

Analysis	Due	TAT	Expires	Comments
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A0J0298-33 PDI-171SC-B-04-06-200521 [Sediment] Sampled 05/21/20 15:00 (GMT-08:00) Pacific Time (US & Canada) 1 Containers Wet Chem Total Organic Carbon - Soil (5310 B)	10/14/20 17:00	3	06/18/20 15:00	Copy/relog of A0E0672-08
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A0J0298-34 PDI-171SC-B-06-08-200521 [Sediment] Sampled 05/21/20 15:00 (GMT-08:00) Pacific Time (US & Canada) 1 Containers Wet Chem Total Organic Carbon - Soil (5310 B)	10/14/20 17:00	3	06/18/20 15:00	Copy/relog of A0E0672-09
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A0J0298-35 PDI-171SC-B-08-10-200521 [Sediment] Sampled 05/21/20 15:00 (GMT-08:00) Pacific Time (US & Canada) 1 Containers Wet Chem Total Organic Carbon - Soil (5310 B)	10/14/20 17:00	3	06/18/20 15:00	Copy/relog of A0E0672-10
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A0J0298-36 PDI-171SC-B-10-12-200521 [Sediment] Sampled 05/21/20 15:00 (GMT-08:00) Pacific Time (US & Canada) 1 Containers Wet Chem Total Organic Carbon - Soil (5310 B)	10/14/20 17:00	3	06/18/20 15:00	Copy/relog of A0E0672-11
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A0J0298-37 PDI-171SC-B-12-13.5-200521 [Sediment] Sampled 05/21/20 15:00 (GMT-08:00) Pacific Time (US & Canada) 1 Containers Wet Chem Total Organic Carbon - Soil (5310 B)	10/14/20 17:00	3	06/18/20 15:00	Copy/relog of A0E0672-12
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A0J0298-38 PDI-041SC-B-06-08-191010 [Sediment] Sampled 10/10/19 09:52 (GMT-08:00) Pacific Time (US & Canada) 1 Containers Wet Chem Total Organic Carbon - Soil (5310 B)	10/14/20 17:00	3	11/07/19 09:52	Copy/relog of A9J0463-36
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ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY

A0J0298
 A0E0310
 10/14

POC: Delaney Peterson (360-715-2707)
 1605 Cornwall Avenue, Bellingham, WA 98225

Project: Gasco PDI
Client: NW Natural

COC ID: APEX-20200511-155734
Sample Custodian: CO
Lab: Apex

COC Sample Number	Field Sample ID	Sample Type	Matrix	Collected		Containers *	Lab QC*	Test Request	Method	TAT**	Preservative
				Date	Time						
001	PDI-051SC-C-00-6.9-200511	N	SE	05/11/2020	15:15	5	<input type="checkbox"/>	Metals (QAPP 4c)	SW6020A	30	4°C
								Pesticides (QAPP 4c)	SW8081B	30	4°C
								SVOCs (QAPP 4c)	SW8270D	30	4°C
								TCLP Metals	SW6020A	30	4°C
								TCLP Pesticides	SW8081B	30	4°C
								TCLP SVOCs	SW8270D	30	MeOH
								TCLP VOCs	SW8260C	30	MeOH
								Total solids (APEX)	SM2540G	30	4°C
								VOCs (QAPP 4c)	SW8260C	30	MeOH
002	PDI-060SC-C-00-6.8-200511	N	SE	05/11/2020	14:15	5	<input type="checkbox"/>	Metals (QAPP 4c)	SW6020A	30	4°C
								Pesticides (QAPP 4c)	SW8081B	30	4°C
								SVOCs (QAPP 4c)	SW8270D	30	4°C
								TCLP Metals	SW6020A	30	4°C
								TCLP Pesticides	SW8081B	30	4°C
								TCLP SVOCs	SW8270D	30	MeOH
								TCLP VOCs	SW8260C	30	MeOH
								Total solids (APEX)	SM2540G	30	4°C
								VOCs (QAPP 4c)	SW8260C	30	MeOH
003	PDI-087SC-BB-05-07-200511	N	SE	05/11/2020	13:10	3	<input type="checkbox"/>	Total solids (APEX)	SM2540G	30	4°C
								VOCs (QAPP 3/4b)	SW8260C	30	MeOH
004	PDI-TB-2005111337	TB	SQ	05/11/2020	13:37	2	<input type="checkbox"/>				

Comment:

Relinquished By:	Received By:	Relinquished By:	Received By:	Relinquished By:	Received By:
Signature: <i>[Signature]</i>	Signature: <i>[Signature]</i>	Signature: <i>[Signature]</i>	Signature: <i>[Signature]</i>	Signature: <i>[Signature]</i>	Signature: <i>[Signature]</i>
Print Name: Lucas Henry	Print Name: Eric [Signature]	Print Name:	Print Name:	Print Name:	Print Name:
Company: AG	Company: APEX LABS	Company:	Company:	Company:	Company:
Date/Time: 5/12/2020/09:15	Date/Time: 5/12/20 1008	Date/Time:	Date/Time:	Date/Time:	Date/Time:

Date Printed: 5/11/2020

* Lab QC Requested for sample when box is checked ** TAT = Turn Around Time in DAYS # POC = Project Point of Contact

ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY

AOE0314 A0J0498 11/14

POC: Delaney Peterson (360-715-2707)
1605 Cornwall Avenue, Bellingham, WA 98225

Project: Gasco PDI
Client: NW Natural

COC ID: APEX-20200512-094017
Sample Custodian: CO
Lab: Apex

COC Sample Number	Field Sample ID	Sample Type	Matrix	Collected		Containers #	Lab QC*	Test Request	Method	TAT**	Preservative
				Date	Time						
001	PDI-058SC-C-00-10.3-200512	N	SE	05/12/2020	8:50	5	<input type="checkbox"/>				
								Metals (QAPP 4c)	SW6020A	30	4°C
								Pesticides (QAPP 4c)	SW8081B	30	4°C
								SVOCs (QAPP 4c)	SW8270D	30	4°C
								TCLP Metals	SW6020A	30	4°C
								TCLP Pesticides	SW8081B	30	4°C
								TCLP SVOCs	SW8270D	30	MeOH
								TCLP VOCs	SW8260C	30	MeOH
								Total solids (APEX)	SM2540G	30	4°C
								VOCs (QAPP 4c)	SW8260C	30	MeOH
002	PDI-TB-2005120905	TB	WQ	05/12/2020	9:05	2	<input type="checkbox"/>				
								VOCs (QAPP 4c)	SW8260C	30	

Comment:					
Relinquished By	Received By	Relinquished By	Received By	Relinquished By	Received By
Signature	Signature	Signature	Signature	Signature	Signature
Print Name	Print Name	Print Name	Print Name	Print Name	Print Name
Company	Company	Company	Company	Company	Company
Date/Time	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time
<i>[Signature]</i>	<i>[Signature]</i>				
Seshadri	EN Joyner				
Anchor QEA	APEX LABS				
5/12/20 0743	5/12/20 1008				

Date Printed: 5/12/2020

* Lab QC Requested for sample when box is checked ** TAT = Turn Around Time in DAYS # POC = Project Point of Contact

Page 1 of 1

ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY

A0J0298 12/14

A0E0104 265
5/19/20

POC: Delaney Peterson (360-715-2707)
1605 Cornwall Avenue, Bellingham, WA 98225

Project: Gasco PDI
Client: NW Natural

COC ID: APEX-20200507-145042
Sample Custodian: SN
Lab: Apex

COC Sample Number	Field Sample ID	Sample Type	Matrix	Collected Date	Time	Containers	Lab QC*	Test Request	Method	TAT**	Preservative
001	PDI-FB-2005071044	FB	WQ	05/07/2020	10:44	8	<input type="checkbox"/>	LR Pesticides Arsenic PAH VOCs (QAPP 3/4b)	SW8081B SW6020A SW8270D SW8260C	30 30 30 30	4°C 4°C HCl(pH < 2)/4°C
002	PDI-RB-2005071062	RB	WQ	05/07/2020	10:52	8	<input type="checkbox"/>	LR Pesticides Arsenic PAH VOCs (QAPP 3/4b)	SW8081B SW6020A SW8270D SW8260C	30 30 30 30	4°C 4°C HCl(pH < 2)/4°C
003	PDI-TB-2005070853	TB	WQ	05/07/2020	8:53	2	<input type="checkbox"/>	VOCs (QAPP 3/4b)	SW8260C	30	HCl(pH < 2)/4°C
004	PDI-080SC-C-00-8.8-200507	N	SE	05/07/2020	14:00	8.5	<input type="checkbox"/>	Herbicides Metals (QAPP 4c) Pesticides (QAPP 4c) pH SVOCs (QAPP 4c) TCLP Herbicides TCLP Metals TCLP Pesticides TCLP SVOCs TCLP VOCs Total solids (APEX)	SW8081B SW6020A SW8081B SW9045D SW8270D SW8161A SW8081B SW8270D SW8260C SW8270D SW8260C SM2540G	30 30 30 30 30 30 30 30 30 30	4°C 4°C 4°C 4°C 4°C 4°C 4°C 4°C MeOH MeOH 4°C

5/19/20
W
W

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Signature: <i>[Signature]</i>	Signature: <i>[Signature]</i>	Signature: <i>[Signature]</i>	Signature: <i>[Signature]</i>	Signature: <i>[Signature]</i>	Signature: <i>[Signature]</i>
Print Name: <i>[Name]</i>	Print Name: <i>[Name]</i>	Print Name: <i>[Name]</i>	Print Name: <i>[Name]</i>	Print Name: <i>[Name]</i>	Print Name: <i>[Name]</i>
Company: <i>[Company]</i>	Company: <i>[Company]</i>	Company: <i>[Company]</i>	Company: <i>[Company]</i>	Company: <i>[Company]</i>	Company: <i>[Company]</i>
Date/Time: <i>[Date/Time]</i>	Date/Time: <i>[Date/Time]</i>	Date/Time: <i>[Date/Time]</i>	Date/Time: <i>[Date/Time]</i>	Date/Time: <i>[Date/Time]</i>	Date/Time: <i>[Date/Time]</i>

Date Printed: 5/7/2020

* Lab QC Requested for sample when box is checked ** TAT = Turn Around Time in DAYS # POC = Project Point of Contact

ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY

AOE0672
A030298 13/14

POC: Dejaney Peterson (360-715-2707)
1605 Cornwall Avenue, Bellingham, WA 98225

Project: Gasco PDI
Client: NW Natural

COC ID: APEX-20200521-162125
Sample Custodian: CO
Lab: Apex

COC Sample Number	Field Sample ID	Sample Type	Matrix	Collected Date	Time	Containers #	Lab QC*	Test Request	Method	TAT**	Preservative
005	PDI-171SC-A-13-13-5-200521	N	SE	05/21/2020	15:15	1	<input type="checkbox"/>	TOC LR Pesticides PAH PCB Aroclors Total solids (APEX)	SM5310B SW8081B SW8270D SW8082A SM2540G	30 30 30 30 30	4°C 4°C 4°C 4°C 4°C
006	PDI-171SC-B-00-02-200521	N	SE	05/21/2020	15:00	3	<input type="checkbox"/>	Total solids (APEX) VOCs (QAPP 3/4b)	SM2540G SW8260C	30 30	4°C MeOH
007	PDI-171SC-B-02-04-200521	N	SE	05/21/2020	15:00	3	<input type="checkbox"/>	Total solids (APEX) VOCs (QAPP 3/4b)	SM2540G SW8260C	30 30	4°C MeOH
008	PDI-171SC-B-04-06-200521	N	SE	05/21/2020	15:00	3	<input type="checkbox"/>	Total solids (APEX) VOCs (QAPP 3/4b)	SM2540G SW8260C	30 30	4°C MeOH
009	PDI-171SC-B-06-08-200521	N	SE	05/21/2020	15:00	3	<input type="checkbox"/>	Total solids (APEX) VOCs (QAPP 3/4b)	SM2540G SW8260C	30 30	4°C MeOH
010	PDI-171SC-B-08-10-200521	N	SE	05/21/2020	15:00	3	<input type="checkbox"/>	Total solids (APEX) VOCs (QAPP 3/4b)	SM2540G SW8260C	30 30	4°C MeOH
011	PDI-171SC-B-10-12-200521	N	SE	05/21/2020	15:00	3	<input type="checkbox"/>	Total solids (APEX)	SM2540G	30	4°C

Comment:

Relinquished By	Received By	Relinquished By	Received By	Relinquished By	Received By
Signature	Signature	Signature	Signature	Signature	Signature
Print Name	Print Name	Print Name	Print Name	Print Name	Print Name
Company	Company	Company	Company	Company	Company
Date/Time	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time

Date Printed: 5/21/2020

* Lab QC Requested for sample when box is checked ** TAT = Turn Around Time in DAYS # POC = Project Point of Contact

ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY

AOJ0248
AOE0672
14/14

POC: * Delaney Peterson (360-715-2707)
1605 Cornwall Avenue, Bellingham, WA 98225

Project: Gasco PDI
Client: NW Natural

COC ID: APEX-20200521-162125
Sample Custodian: CO
Lab: Apex

COC Sample Number	Field Sample ID	Sample Type	Matrix	Collected Date	Time	Containers	Lab QC*	Test Request	Method	TAT**	Preservative
011	PDI-171SC-B-10-12-200521	N	SE	05/21/2020	15:00	3	<input type="checkbox"/>	VOCs (QAPP 3/4b)	SW8260C	30	MeOH
012	PDI-171SC-B-12-13.5-200521	N	SE	05/21/2020	15:00	3	<input type="checkbox"/>	Total solids (APEX)	SM2540G	30	4°C
								VOCs (QAPP 3/4b)	SW8260C	30	MeOH
013	PDI-TB-2005211520	TB	WQ	05/21/2020	15:20	2	<input type="checkbox"/>	VOCs (QAPP 3/4b)	SW8260C	30	HCl(pH < 2)/4°C
014	PDI-173SC-A-00-01-200521	N	SE	05/21/2020	11:45	1	<input type="checkbox"/>	TOC	SM5310B	30	4°C
								LR Pesticides	SW8081B	30	4°C
								PAH	SW8270D	30	4°C
								Total solids (APEX)	SM2540G	30	4°C
015	PDI-173SC-A-04-05-200521	N	SE	05/21/2020	11:45	1	<input type="checkbox"/>	TOC	SM5310B	30	4°C
								LR Pesticides	SW8081B	30	4°C
								PAH	SW8270D	30	4°C
								PCB Aroclors	SW8082A	30	4°C
								Total solids (APEX)	SM2540G	30	4°C
016	PDI-173SC-A-05-06-200521	N	SE	05/21/2020	11:45	1	<input type="checkbox"/>	TOC	SM5310B	30	4°C
								LR Pesticides	SW8081B	30	4°C
								PAH	SW8270D	30	4°C
								PCB Aroclors	SW8082A	30	4°C

Comment:

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Signature: <i>[Signature]</i>	Signature: <i>[Signature]</i>	Signature:	Signature:	Signature:	Signature:
Print Name: Lucas Henry	Print Name: ETT	Print Name:	Print Name:	Print Name:	Print Name:
Company: AQ	Company: APEX LABS	Company:	Company:	Company:	Company:
Date/Time: 5/22/2020/1100	Date/Time: 5/22/20 1220	Date/Time:	Date/Time:	Date/Time:	Date/Time:

ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY

A0J0298
A9J0360
1/14

POC: Delaney Peterson (360-715-2707)
1605 Cornwall Avenue, Bellingham, WA 98225

Project: Gasco PDI
Client: NW Natural

COC ID: APEX1-20191009-171243
Sample Custodian: CO, SN, BJ, DL
Lab: Apex - Archive

COC Sample Number	Field Sample ID	Sample Type	Matrix	Collected		Containers #	Lab QC*	Test Request	Method	TAT**	Preservative
				Date	Time						
011	PDI-016SC-A-10-11-191009	N	SE	10/09/2019	9:48	1	<input type="checkbox"/>				
012	PDI-016SC-A-11-12-191009	N	SE	10/09/2019	9:48	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
013	PDI-016SC-A-12-13-191009	N	SE	10/09/2019	9:48	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
014	PDI-016SC-A-13-14-191009	N	SE	10/09/2019	9:48	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
015	PDI-016SC-B-00-02-191009	N	SE	10/09/2019	9:53	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
016	PDI-016SC-B-02-04-191009	N	SE	10/09/2019	9:57	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
017	PDI-016SC-B-04-06-191009	N	SE	10/09/2019	9:58	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
018	PDI-016SC-B-06-08-191009	N	SE	10/09/2019	9:41	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
019	PDI-023SC-A-00-01-191009	N	SE	10/09/2019	12:14	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
020	PDI-023SC-A-01-02-191009	N	SE	10/09/2019	12:14	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
021	PDI-023SC-A-02-03-191009	N	SE	10/09/2019	12:14	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C

Comment:

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Signature: <i>[Signature]</i>	Signature: <i>[Signature]</i>	Signature:	Signature:	Signature:	Signature:
Print Name: C. ORRILL	Print Name: E. Joyner	Print Name:	Print Name:	Print Name:	Print Name:
Company: AQ	Company: APEX LABS	Company:	Company:	Company:	Company:
Date/Time: 10/10/19 1005	Date/Time: 10-10-19 1005	Date/Time:	Date/Time:	Date/Time:	Date/Time:

Date Printed: 10/9/2019

* Lab QC Requested for sample when box is checked ** TAT = Turn Around Time in DAYS # POC = Project Point of Contact

ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY

A0J0298
 A9J0360
 2/14

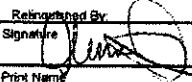
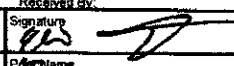
POC: Delaney Peterson (360-715-2707)
 1605 Cornwall Avenue, Bellingham, WA 98225

Project: Gasco PDI
Client: NW Natural

COC ID: APEX1-20191009-171243
Sample Custodian: CO, SN, BJ, DL
Lab: Apex - Archive

COC Sample Number	Field Sample ID	Sample Type	Matrix	Collected Date	Time	Containers #	Lab QC*	Test Request	Method	TAT**	Preservative
021	PDI-023SC-A-02-03-191009	N	SE	10/09/2019	12:14	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
022	PDI-023SC-A-03-04-191009	N	SE	10/09/2019	12:14	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
023	PDI-023SC-A-04-05-191009	N	SE	10/09/2019	12:14	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
024	PDI-023SC-A-05-06-191009	N	SE	10/09/2019	12:14	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
025	PDI-023SC-A-06-07-191009	N	SE	10/09/2019	12:14	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
026	PDI-023SC-A-07-08-191009	N	SE	10/09/2019	12:14	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
027	PDI-023SC-A-08-09-191009	N	SE	10/09/2019	12:14	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
028	PDI-023SC-A-09-10-191009	N	SE	10/09/2019	12:14	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
029	PDI-023SC-A-10-11-191009	N	SE	10/09/2019	12:14	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
030	PDI-023SC-B-00-02-191009	N	SE	10/09/2019	12:01	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
031	PDI-023SC-B-02-04-191009	N	SE	10/09/2019	12:02	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C

Comment:

Relinquished By: Signature: 	Received By: Signature: 	Relinquished By: Signature:	Received By: Signature:	Relinquished By: Signature:	Received By: Signature:
Print Name: C. O'NEIL	Print Name: Erik Joyce	Print Name:	Print Name:	Print Name:	Print Name:
Company: AQ	Company: APEX LABS	Company:	Company:	Company:	Company:
Date/Time: 10/10/19 1005	Date/Time: 10-10-19 1005	Date/Time:	Date/Time:	Date/Time:	Date/Time:

Date Printed: 10/9/2019

* Lab QC Requested for sample when box is checked ** TAT = Turn Around Time in DAYS # POC = Project Point of Contact

ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY

AOJ0298
 A9J0360
 3/14

POC: Delaney Peterson (360-715-2707)

Project: Gasco PDI

COC ID:

APEX1-20191009-171243

1605 Cornwall Avenue, Bellingham, WA 98225

Client: NW Natural

Sample Custodian:

CO, SN, BJ, DL

Lab:

Apex - Archive

COC Sample Number	Field Sample ID	Sample Type	Matrix	Collected		Containers #	Lab QC*	Test Request	Method	TAT**	Preservative
				Date	Time						
031	PDI-023SC-B-02-04-191009	N	SE	10/09/2019	12:02	1	<input type="checkbox"/>				
032	PDI-023SC-B-04-06-191009	N	SE	10/09/2019	12:03	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
033	PDI-023SC-B-06-08-191009	N	SE	10/09/2019	12:04	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
034	PDI-029SC-A-00-01-191009	N	SE	10/09/2019	14:39	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
035	PDI-029SC-A-01-02-191009	N	SE	10/09/2019	14:39	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
036	PDI-029SC-A-02-03-191009	N	SE	10/09/2019	14:39	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
037	PDI-029SC-A-03-04-191009	N	SE	10/09/2019	14:39	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
038	PDI-029SC-A-04-05-191009	N	SE	10/09/2019	14:39	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
039	PDI-029SC-A-05-06-191009	N	SE	10/09/2019	14:39	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
040	PDI-029SC-A-06-07-191009	N	SE	10/09/2019	14:39	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
041	PDI-029SC-A-07-08-191009	N	SE	10/09/2019	14:39	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C

Comment:

Relinquished By:	Received By:	Relinquished By:	Received By:	Relinquished By:	Received By:
Signature:	Signature:	Signature:	Signature:	Signature:	Signature:
Print Name: C. G. S.	Print Name: E. J. Jones	Print Name:	Print Name:	Print Name:	Print Name:
Company: CH2M HILL	Company: APEX LABS	Company:	Company:	Company:	Company:
Date/Time: 10/10/19 1005	Date/Time: 10-10-19 1005	Date/Time:	Date/Time:	Date/Time:	Date/Time:

Date Printed: 10/9/2019

* Lab QC Requested for sample when box is checked ** TAT = Turn Around Time in DAYS # POC = Project Point of Contact

ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY

A030290
 A9J0594
 4/14

POC: * Delaney Peterson (360-715-2707)
 1605 Cornwall Avenue, Bellingham, WA 98225

Project: Gasco PDI
Client: NW Natural

COC ID: APEX1-20191014-145320
Sample Custodian: CO, SN, BJ, DL
Lab: Apex - Archive

COC Sample Number	Field Sample ID	Sample Type	Matrix	Collected		Containers #	Lab QC*	Test Request	Method	TAT**	Preservative
				Date	Time						
011	PDI-026SC-A-10-11-191014	N	SE	10/14/2019	11:01	1	<input type="checkbox"/>				
012	PDI-026SC-B-00-02-191014	N	SE	10/14/2019	11:04	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
013	PDI-026SC-B-02-04-191014	N	SE	10/14/2019	11:05	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
014	PDI-026SC-B-04-06-191014	N	SE	10/14/2019	11:05	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
015	PDI-026SC-B-06-08-191014	N	SE	10/14/2019	11:06	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
016	PDI-077SC-A-00-01-191014	N	SE	10/14/2019	8:36	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
017	PDI-077SC-A-01-02-191014	N	SE	10/14/2019	8:36	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
018	PDI-077SC-A-02-03-191014	N	SE	10/14/2019	8:36	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
019	PDI-077SC-A-03-04-191014	N	SE	10/14/2019	8:36	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
020	PDI-077SC-A-04-05-191014	N	SE	10/14/2019	8:36	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
021	PDI-077SC-A-05-06-191014	N	SE	10/14/2019	8:36	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C

Comment:

Relinquished By:					Received By:					Relinquished By:					Received By:				
Signature					Signature					Signature					Signature				
Print Name					Print Name					Print Name					Print Name				
Company					Company					Company					Company				
Date/Time					Date/Time					Date/Time					Date/Time				
C. ORECO					Eli Jovno					APEX LABS									
10/15/19 0955					10/15/19 1010														

Date Printed: 10/14/2019

* Lab QC Requested for sample when box is checked ** TAT = Turn Around Time in DAYS # POC = Project Point of Contact

ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY

AGJ 0718
A030298 5/14

POC: Delaney Peterson (360-715-2707)
1605 Cornwall Avenue, Bellingham, WA 98225

Project: Gasco PDI
Client: NW Natural

COC ID: APEX1-20191017-123936
Sample Custodian: SN
Lab: Apex - Archive

COC Sample Number	Field Sample ID	Sample Type	Matrix	Collected Date	Time	Containers #	Lab QC*	Test Request	Method	TAT**	Preservative
011	PDI-031SC-A-10-11-191017	N	SE	10/17/2019	9:04	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
012	PDI-031SC-B-00-02-191017	N	SE	10/17/2019	9:06	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
013	PDI-031SC-B-02-04-191017	N	SE	10/17/2019	9:06	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
014	PDI-031SC-B-04-06-191017	N	SE	10/17/2019	9:06	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
015	PDI-031SC-B-06-08-191017	N	SE	10/17/2019	9:06	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
016	PDI-097SC-B-00-02-191017	N	SE	10/17/2019	10:46	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
017	PDI-097SC-B-02-04-191017	N	SE	10/17/2019	10:46	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
018	PDI-097SC-B-04-06-191017	N	SE	10/17/2019	10:46	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
019	PDI-097SC-B-06-08-191017	N	SE	10/17/2019	10:46	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C

Comment:

Relinquished By	Received By	Relinquished By	Received By	Relinquished By	Received By
Signature: <i>[Signature]</i>	Signature: <i>[Signature]</i>	Signature:	Signature:	Signature:	Signature:
Print Name: COBEIRO	Print Name: M. Kladnik	Print Name:	Print Name:	Print Name:	Print Name:
Company: AQ	Company: Apex Labs	Company:	Company:	Company:	Company:
Date/Time: 10/17/19 1410	Date/Time: 10-17-19 1410	Date/Time:	Date/Time:	Date/Time:	Date/Time:

Date Printed: 10/17/2019

* Lab QC Requested for sample when box is checked ** TAT = Turn Around Time in DAYS # POC = Project Point of Contact

ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY

AQJ0861 A0J0298 6/14

POC: * Delaney Peterson (360-715-2707)
 1605 Cornwall Avenue, Bellingham, WA 98225

Project: Gasco PDI
Client: NW Natural

COC ID: APEX1-20191022-162549
Sample Custodian: CO, SN, BJ, SS
Lab: Apex - Archive

COC Sample Number	Field Sample ID	Sample Type	Matrix	Collected Date	Time	Containers *	Lab QC*	Test Request	Method	TAT**	Preservative
011	PDI-034SC-A-11-12-191022	N	SE	10/22/2019	8:26	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
012	PDI-034SC-B-00-02-191022	N	SE	10/22/2019	8:31	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
013	PDI-034SC-B-02-04-191022	N	SE	10/22/2019	8:34	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
014	PDI-034SC-B-04-06-191022	N	SE	10/22/2019	8:35	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
015	PDI-034SC-D-06-08-191022	N	SE	10/22/2019	8:36	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
016	PDI-083SC-A-00-01-191022	N	SE	10/22/2019	14:07	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
017	PDI-083SC-A-01-02-191022	N	SE	10/22/2019	14:07	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
018	PDI-083SC-A-02-03-191022	N	SE	10/22/2019	14:07	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
019	PDI-083SC-A-03-04-191022	N	SE	10/22/2019	14:07	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
020	PDI-083SC-A-04-05-191022	N	SE	10/22/2019	14:07	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
021	PDI-083SC-A-05-06-191022	N	SE	10/22/2019	14:07	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C

Comment:

Relinquished By	Received By	Relinquished By	Received By	Relinquished By	Received By
Signature: <i>[Signature]</i>	Signature: <i>[Signature]</i>	Signature:	Signature:	Signature:	Signature:
Print Name: E. OBEIRO	Print Name: E. JOHNSON	Print Name:	Print Name:	Print Name:	Print Name:
Company: AQ	Company: APEX LABS	Company:	Company:	Company:	Company:
Date/Time: 10/23/19 0950	Date/Time: 10/23/19 158	Date/Time:	Date/Time:	Date/Time:	Date/Time:

Date Printed: 10/22/2019

* Lab QC Requested for sample when box is checked ** TAT = Turn Around Time in DAYS # POC = Project Point of Contact

Page 2 of 4

ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY

A0J0298 7/14
 A9J0463

POC: Delaney Peterson (360-715-2707)
 1605 Cornwall Avenue, Bellingham, WA 98225

Project: Gasco PDI
Client: NW Natural

COC ID: APEX1-20191010-175158
Sample Custodian: CO, SN, BJ, DL
Lab: Apex - Archive

COC Sample Number	Field Sample ID	Sample Type	Matrix	Collected		Containers	Lab QC*	Test Request	Method	TAT**	Preservative
				Date	Time						
031	PDI-041SC-A-10-11-191010	N	SE	10/10/2019	9:56	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
032	PDI-041SC-A-11-12-191010	N	SE	10/10/2019	9:56	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
033	PDI-041SC-B-00-02-191010	N	SE	10/10/2019	9:50	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
034	PDI-041SC-B-02-04-191010	N	SE	10/10/2019	9:51	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
035	PDI-041SC-B-04-06-191010	N	SE	10/10/2019	9:52	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
036	PDI-041SC-B-06-08-191010	N	SE	10/10/2019	9:52	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
037	PDI-045SC-A-00-01-191010	N	SE	10/10/2019	17:36	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
038	PDI-045SC-A-01-02-191010	N	SE	10/10/2019	17:36	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
039	PDI-045SC-A-02-03-191010	N	SE	10/10/2019	17:36	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
040	PDI-045SC-A-03-04-191010	N	SE	10/10/2019	17:36	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C

Comment:

Relinquished By:	Received By:	Relinquished By:	Received By:	Relinquished By:	Received By:
Signature: <i>[Signature]</i>	Signature: <i>[Signature]</i>	Signature:	Signature:	Signature:	Signature:
Print Name: COREYKO	Print Name: Eli Joyce	Print Name:	Print Name:	Print Name:	Print Name:
Company: AQ	Company: APEX	Company:	Company:	Company:	Company:
Date/Time: 10/11/19 2:10p	Date/Time: 10-11-19 1:00	Date/Time:	Date/Time:	Date/Time:	Date/Time:

Date Printed: 10/10/2019

* Lab QC Requested for sample when box is checked ** TAT = Turn Around Time in DAYS # POC = Project Point of Contact

ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY

A0J0298
A9J0463
8/14

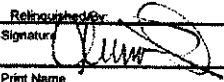
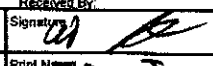
POC: Delaney Peterson (360-715-2707)
1605 Cornwall Avenue, Bellingham, WA 98225

Project: Gasco PDI
Client: NW Natural

COC ID: APEX1-20191010-175158
Sample Custodian: CO, SN, BJ, DL
Lab: Apex - Archive

COC Sample Number	Field Sample ID	Sample Type	Matrix	Collected		Containers #	Lab QC*	Test Request	Method	TAT**	Preservative
				Date	Time						
041	PDI-045SC-A-04-05-191010	N	SE	10/10/2019	17:36	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
042	PDI-045SC-A-05-08-191010	N	SE	10/10/2019	17:36	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
043	PDI-045SC-A-08-07-191010	N	SE	10/10/2019	17:36	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
044	PDI-045SC-A-07-08-191010	N	SE	10/10/2019	17:36	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
045	PDI-045SC-A-08-09-191010	N	SE	10/10/2019	17:36	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
046	PDI-045SC-A-09-10-191010	N	SE	10/10/2019	17:36	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
047	PDI-045SC-A-10-11-191010	N	SE	10/10/2019	17:36	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
048	PDI-045SC-A-11-12-191010	N	SE	10/10/2019	17:36	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
049	PDI-045SC-B-00-02-191010	N	SE	10/10/2019	16:56	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
050	PDI-045SC-B-02-04-191010	N	SE	10/10/2019	16:58	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C

Comment:

Relinquished By:	Received By:	Relinquished By:	Received By:	Relinquished By:	Received By:
Signature: 	Signature: 	Signature:	Signature:	Signature:	Signature:
Print Name: C. O'BRIEN	Print Name: Eli Joyner	Print Name:	Print Name:	Print Name:	Print Name:
Company: AQ	Company: APEX	Company:	Company:	Company:	Company:
Date/Time: 10/10/19 @ 11:00	Date/Time: 10-11-19 11:00	Date/Time:	Date/Time:	Date/Time:	Date/Time:

Date Printed: 10/10/2019

* Lab QC Requested for sample when box is checked ** TAT = Turn Around Time in DAYS # POC = Project Point of Contact

ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY

A0J0298 9/14
 A0J0463

POC: Delaney Peterson (360-715-2707)
 1605 Cornwall Avenue, Bellingham, WA 98225

Project: Gasco PDI
Client: NW Natural

COC ID: APEX1-20191010-175158
Sample Custodian: CO, SN, BJ, DL
Lab: Apex - Archive

COC Sample Number	Field Sample ID	Sample Type	Matrix	Collected		Containers #	Lab QC*	Test Request	Method	TAT**	Preservative
				Date	Time						
051	PDI-045SC-B-04-06-191010	N	SE	10/10/2019	17:01	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
052	PDI-045SC-B-06-08-191010	N	SE	10/10/2019	17:01	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
053	PDI-067SC-A-00-01-191010	N	SE	10/10/2019	15:59	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
054	PDI-067SC-A-01-02-191010	N	SE	10/10/2019	15:59	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
055	PDI-067SC-A-02-03-191010	N	SE	10/10/2019	15:59	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
056	PDI-067SC-A-03-04-191010	N	SE	10/10/2019	15:59	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
057	PDI-067SC-A-04-05-191010	N	SE	10/10/2019	15:59	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
058	PDI-067SC-A-05-06-191010	N	SE	10/10/2019	15:59	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
059	PDI-067SC-A-06-07-191010	N	SE	10/10/2019	15:59	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C
060	PDI-067SC-A-07-08-191010	N	SE	10/10/2019	15:59	1	<input type="checkbox"/>	Archive (APEX)	ARCHIVE	-1	-10°C

Comment:

Relinquished By:	Received By:	Relinquished By:	Received By:	Relinquished By:	Received By:
Signature: <i>[Signature]</i>	Signature: <i>[Signature]</i>	Signature:	Signature:	Signature:	Signature:
Print Name: C. DELAYCO	Print Name: Eli Jones	Print Name:	Print Name:	Print Name:	Print Name:
Company: AQ	Company: APEX	Company:	Company:	Company:	Company:
Date/Time: 10/11/19 2:10a	Date/Time: 10-11-19 1100	Date/Time:	Date/Time:	Date/Time:	Date/Time:

Date Printed: 10/10/2019

* Lab QC Requested for sample when box is checked ** TAT = Turn Around Time in DAYS # POC = Project Point of Contact

CLP-Like Forms

Apex Laboratories

SDG: Gasco PreRD_DG 2019

CLASS: WET

METHOD: SM 5310 B MOD

ANALYSES DATA PACKAGE COVER PAGE

SM 5310 B MOD

Laboratory: Apex Laboratories

SDG: Gasco PreRD_DG 2019

Client: Anchor QEA, LLC

Project: Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Testing Co

Client Sample Id:	Lab Sample Id:	Matrix
<u>PDI-016SC-B-00-02-191009</u>	<u>A0J0298-01</u>	<u>SE</u>
<u>PDI-016SC-B-02-04-191009</u>	<u>A0J0298-02</u>	<u>SE</u>
<u>PDI-016SC-B-04-06-191009</u>	<u>A0J0298-03</u>	<u>SE</u>
<u>PDI-023SC-B-00-02-191009</u>	<u>A0J0298-04</u>	<u>SE</u>
<u>PDI-023SC-B-02-04-191009</u>	<u>A0J0298-05</u>	<u>SE</u>
<u>PDI-023SC-B-04-06-191009</u>	<u>A0J0298-06</u>	<u>SE</u>
<u>PDI-023SC-B-06-08-191009</u>	<u>A0J0298-07</u>	<u>SE</u>
<u>PDI-026SC-B-00-02-191014</u>	<u>A0J0298-08</u>	<u>SE</u>
<u>PDI-026SC-B-02-04-191014</u>	<u>A0J0298-09</u>	<u>SE</u>
<u>PDI-026SC-B-04-06-191014</u>	<u>A0J0298-10</u>	<u>SE</u>
<u>PDI-026SC-B-06-08-191014</u>	<u>A0J0298-11</u>	<u>SE</u>
<u>PDI-031SC-B-00-02-191017</u>	<u>A0J0298-12</u>	<u>SE</u>
<u>PDI-031SC-B-02-04-191017</u>	<u>A0J0298-13</u>	<u>SE</u>
<u>PDI-031SC-B-04-06-191017</u>	<u>A0J0298-14</u>	<u>SE</u>
<u>PDI-031SC-B-06-08-191017</u>	<u>A0J0298-15</u>	<u>SE</u>
<u>PDI-034SC-B-00-02-191022</u>	<u>A0J0298-16</u>	<u>SE</u>
<u>PDI-034SC-B-02-04-191022</u>	<u>A0J0298-17</u>	<u>SE</u>
<u>PDI-034SC-B-04-06-191022</u>	<u>A0J0298-18</u>	<u>SE</u>
<u>PDI-034SC-D-06-08-191022</u>	<u>A0J0298-19</u>	<u>SE</u>
<u>PDI-041SC-B-00-02-191010</u>	<u>A0J0298-20</u>	<u>SE</u>
<u>PDI-041SC-B-02-04-191010</u>	<u>A0J0298-21</u>	<u>SE</u>
<u>PDI-041SC-B-04-06-191010</u>	<u>A0J0298-22</u>	<u>SE</u>
<u>PDI-045SC-B-00-02-191010</u>	<u>A0J0298-23</u>	<u>SE</u>
<u>PDI-045SC-B-02-04-191010</u>	<u>A0J0298-24</u>	<u>SE</u>
<u>PDI-045SC-B-04-06-191010</u>	<u>A0J0298-25</u>	<u>SE</u>
<u>PDI-045SC-B-06-08-191010</u>	<u>A0J0298-26</u>	<u>SE</u>
<u>PDI-051SC-C-00-6.9-200511</u>	<u>A0J0298-27</u>	<u>SE</u>
<u>PDI-060SC-C-00-6.8-200511</u>	<u>A0J0298-28</u>	<u>SE</u>
<u>PDI-058SC-C-00-10.3-200512</u>	<u>A0J0298-29</u>	<u>SE</u>
<u>PDI-080SC-C-00-8.6-200507</u>	<u>A0J0298-30</u>	<u>SE</u>
<u>PDI-171SC-B-00-02-200521</u>	<u>A0J0298-31</u>	<u>SE</u>
<u>PDI-171SC-B-02-04-200521</u>	<u>A0J0298-32</u>	<u>SE</u>

ANALYSES DATA PACKAGE COVER PAGE

SM 5310 B MOD

Laboratory: Apex Laboratories

SDG: Gasco PreRD_DG 2019

Client: Anchor QEA, LLC

Project: Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Testing Co

<u>PDI-171SC-B-04-06-200521</u>	<u>A0J0298-33</u>	<u>SE</u>
<u>PDI-171SC-B-06-08-200521</u>	<u>A0J0298-34</u>	<u>SE</u>
<u>PDI-171SC-B-08-10-200521</u>	<u>A0J0298-35</u>	<u>SE</u>
<u>PDI-171SC-B-10-12-200521</u>	<u>A0J0298-36</u>	<u>SE</u>
<u>PDI-171SC-B-12-13.5-200521</u>	<u>A0J0298-37</u>	<u>SE</u>
<u>PDI-041SC-B-06-08-191010</u>	<u>A0J0298-38</u>	<u>SE</u>

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures.

Signature: _____



Name: _____

David G. Jack

Forms Created: _____

10/15/2020 1:07PM

Title: _____

Technical Manager

METHOD DETECTION AND REPORTING LIMITS

SM 5310 B MOD

Laboratory: Apex Laboratories

SDG: Gasco PreRD_DG 2019

Client: Anchor QEA, LLC

Project: Gasco PreRD_DG 2019 - 4a-b, DOC-CAP

Batch Matrix: Soil

Analyte	MDL	MRL	Units
Total Organic Carbon	0.020	0.020	% by Weight

Note: MDLs are listed only if the corresponding analyte was evaluated to the MDL in this report .

INORGANIC ANALYSIS DATA SHEET
SM 5310 B MOD

PDI-016SC-B-00-02-191009

Laboratory: Apex Laboratories

SDG: Gasco PreRD DG 2019

Client: Anchor QEA, LLC

Project: Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores

Matrix: SE

Laboratory ID: A0J0298-01

File ID: 0J12061.txt-041

Sampled: 10/09/19 09:53

Prepared: 10/09/20 14:00

Analyzed: 10/12/20 23:51

Solids: N/A

Preparation: PSEP-5310B TOC

Initial/Final: 0.2 N/A / 0.2 N/A

Batch: 0100332

Sequence: 0J12061

Calibration: A0H1904

Instrument: TOC6

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TOC	Total Organic Carbon	1.1	1		SM 5310 B MOD

INORGANIC ANALYSIS DATA SHEET
SM 5310 B MOD

PDI-016SC-B-02-04-191009

Laboratory: Apex Laboratories

SDG: Gasco PreRD_DG 2019

Client: Anchor QEA, LLC

Project: Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores

Matrix: SE

Laboratory ID: A0J0298-02

File ID: 0J12061.txt-043

Sampled: 10/09/19 09:57

Prepared: 10/09/20 14:00

Analyzed: 10/13/20 00:13

Solids: N/A

Preparation: PSEP-5310B TOC

Initial/Final: 0.2 N/A / 0.2 N/A

Batch: 0100332

Sequence: 0J12061

Calibration: A0H1904

Instrument: TOC6

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TOC	Total Organic Carbon	0.24	1		SM 5310 B MOD

INORGANIC ANALYSIS DATA SHEET
SM 5310 B MOD

PDI-016SC-B-04-06-191009

Laboratory: <u>Apex Laboratories</u>	SDG: <u>Gasco PreRD_DG 2019</u>
Client: <u>Anchor QEA, LLC</u>	Project: <u>Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores</u>
Matrix: <u>SE</u>	Laboratory ID: <u>A0J0298-03</u>
Sampled: <u>10/09/19 09:58</u>	Prepared: <u>10/09/20 14:00</u>
Solids: <u>N/A</u>	Preparation: <u>PSEP-5310B TOC</u>
Batch: <u>0100332</u>	Sequence: <u>0J12061</u>
	Calibration: <u>A0H1904</u>
	Instrument: <u>TOC6</u>
	File ID: <u>0J12061.txt-044</u>
	Analyzed: <u>10/13/20 00:23</u>
	Initial/Final: <u>0.2 N/A / 0.2 N/A</u>

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TOC	Total Organic Carbon	0.60	1		SM 5310 B MOD

INORGANIC ANALYSIS DATA SHEET
SM 5310 B MOD

PDI-023SC-B-00-02-191009

Laboratory: Apex Laboratories

SDG: Gasco PreRD_DG 2019

Client: Anchor QEA, LLC

Project: Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing

Matrix: SE

Laboratory ID: A0J0298-04

Cores

File ID: 0J12061.txt-045

Sampled: 10/09/19 12:01

Prepared: 10/09/20 14:00

Analyzed: 10/13/20 00:34

Solids: N/A

Preparation: PSEP-5310B TOC

Initial/Final: 0.2 N/A / 0.2 N/A

Batch: 0100332

Sequence: 0J12061

Calibration: A0H1904

Instrument: TOC6

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TOC	Total Organic Carbon	2.4	1		SM 5310 B MOD

INORGANIC ANALYSIS DATA SHEET
SM 5310 B MOD

PDI-023SC-B-02-04-191009

Laboratory: Apex Laboratories

SDG: Gasco PreRD_DG 2019

Client: Anchor QEA, LLC

Project: Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores

Matrix: SE

Laboratory ID: A0J0298-05

File ID: 0J12061.txt-046

Sampled: 10/09/19 12:02

Prepared: 10/09/20 14:00

Analyzed: 10/13/20 00:45

Solids: N/A

Preparation: PSEP-5310B TOC

Initial/Final: 0.2 N/A / 0.2 N/A

Batch: 0100332

Sequence: 0J12061

Calibration: A0H1904

Instrument: TOC6

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TOC	Total Organic Carbon	1.6	1		SM 5310 B MOD

INORGANIC ANALYSIS DATA SHEET
SM 5310 B MOD

PDI-023SC-B-04-06-191009

Laboratory: Apex Laboratories

SDG: Gasco PreRD_DG 2019

Client: Anchor QEA, LLC

Project: Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores

Matrix: SE

Laboratory ID: A0J0298-06

File ID: 0J12061.txt-047

Sampled: 10/09/19 12:03

Prepared: 10/09/20 14:00

Analyzed: 10/13/20 00:56

Solids: N/A

Preparation: PSEP-5310B TOC

Initial/Final: 0.2 N/A / 0.2 N/A

Batch: 0100332

Sequence: 0J12061

Calibration: A0H1904

Instrument: TOC6

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TOC	Total Organic Carbon	0.97	1		SM 5310 B MOD

INORGANIC ANALYSIS DATA SHEET

SM 5310 B MOD

PDI-023SC-B-06-08-191009

Laboratory: Apex Laboratories

SDG: Gasco PreRD_DG 2019

Client: Anchor QEA, LLC

Project: Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores

Matrix: SE

Laboratory ID: A0J0298-07

File ID: 0J12061.txt-048

Sampled: 10/09/19 12:04

Prepared: 10/09/20 14:00

Analyzed: 10/13/20 01:07

Solids: N/A

Preparation: PSEP-5310B TOC

Initial/Final: 0.2 N/A / 0.2 N/A

Batch: 0100332

Sequence: 0J12061

Calibration: A0H1904

Instrument: TOC6

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TOC	Total Organic Carbon	0.057	1		SM 5310 B MOD

INORGANIC ANALYSIS DATA SHEET

SM 5310 B MOD

PDI-026SC-B-00-02-191014

Laboratory: Apex Laboratories

SDG: Gasco PreRD_DG 2019

Client: Anchor QEA, LLC

Project: Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores

Matrix: SE

Laboratory ID: A0J0298-08

File ID: 0J12061.txt-049

Sampled: 10/14/19 11:04

Prepared: 10/09/20 14:00

Analyzed: 10/13/20 01:18

Solids: N/A

Preparation: PSEP-5310B TOC

Initial/Final: 0.2 N/A / 0.2 N/A

Batch: 0100332

Sequence: 0J12061

Calibration: A0H1904

Instrument: TOC6

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TOC	Total Organic Carbon	2.0	1		SM 5310 B MOD

INORGANIC ANALYSIS DATA SHEET
SM 5310 B MOD

PDI-026SC-B-02-04-191014

Laboratory: Apex Laboratories

SDG: Gasco PreRD_DG 2019

Client: Anchor QEA, LLC

Project: Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores

Matrix: SE

Laboratory ID: A0J0298-09

File ID: 0J12061.txt-050

Sampled: 10/14/19 11:05

Prepared: 10/09/20 14:00

Analyzed: 10/13/20 01:29

Solids: N/A

Preparation: PSEP-5310B TOC

Initial/Final: 0.2 N/A / 0.2 N/A

Batch: 0100332

Sequence: 0J12061

Calibration: A0H1904

Instrument: TOC6

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TOC	Total Organic Carbon	3.5	1		SM 5310 B MOD

INORGANIC ANALYSIS DATA SHEET
SM 5310 B MOD

PDI-026SC-B-04-06-191014

Laboratory: Apex Laboratories

SDG: Gasco PreRD_DG 2019

Client: Anchor QEA, LLC

Project: Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores

Matrix: SE

Laboratory ID: A0J0298-10

File ID: 0J12061.txt-053

Sampled: 10/14/19 11:05

Prepared: 10/09/20 14:00

Analyzed: 10/13/20 02:01

Solids: N/A

Preparation: PSEP-5310B TOC

Initial/Final: 0.2 N/A / 0.2 N/A

Batch: 0100332

Sequence: 0J12061

Calibration: A0H1904

Instrument: TOC6

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TOC	Total Organic Carbon	0.19	1		SM 5310 B MOD

INORGANIC ANALYSIS DATA SHEET
SM 5310 B MOD

PDI-026SC-B-06-08-191014

Laboratory: Apex Laboratories

SDG: Gasco PreRD_DG 2019

Client: Anchor QEA, LLC

Project: Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores

Matrix: SE

Laboratory ID: A0J0298-11

File ID: 0J12061.txt-054

Sampled: 10/14/19 11:06

Prepared: 10/09/20 14:00

Analyzed: 10/13/20 02:12

Solids: N/A

Preparation: PSEP-5310B TOC

Initial/Final: 0.2 N/A / 0.2 N/A

Batch: 0100332

Sequence: 0J12061

Calibration: A0H1904

Instrument: TOC6

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TOC	Total Organic Carbon	0.22	1		SM 5310 B MOD

INORGANIC ANALYSIS DATA SHEET
SM 5310 B MOD

PDI-031SC-B-00-02-191017

Laboratory: Apex Laboratories

SDG: Gasco PreRD_DG 2019

Client: Anchor QEA, LLC

Project: Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores

Matrix: SE

Laboratory ID: A0J0298-12

File ID: 0J12061.txt-055

Sampled: 10/17/19 09:06

Prepared: 10/09/20 14:00

Analyzed: 10/13/20 02:23

Solids: N/A

Preparation: PSEP-5310B TOC

Initial/Final: 0.2 N/A / 0.2 N/A

Batch: 0100332

Sequence: 0J12061

Calibration: A0H1904

Instrument: TOC6

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TOC	Total Organic Carbon	2.4	1		SM 5310 B MOD

INORGANIC ANALYSIS DATA SHEET

SM 5310 B MOD

PDI-031SC-B-02-04-191017

Laboratory: Apex Laboratories

SDG: Gasco PreRD_DG 2019

Client: Anchor QEA, LLC

Project: Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores

Matrix: SE

Laboratory ID: A0J0298-13

File ID: 0J12061.txt-056

Sampled: 10/17/19 09:06

Prepared: 10/09/20 14:00

Analyzed: 10/13/20 02:34

Solids: N/A

Preparation: PSEP-5310B TOC

Initial/Final: 0.2 N/A / 0.2 N/A

Batch: 0100332

Sequence: 0J12061

Calibration: A0H1904

Instrument: TOC6

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TOC	Total Organic Carbon	2.7	1		SM 5310 B MOD

INORGANIC ANALYSIS DATA SHEET

SM 5310 B MOD

PDI-031SC-B-04-06-191017

Laboratory: Apex Laboratories

SDG: Gasco PreRD_DG 2019

Client: Anchor QEA, LLC

Project: Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores

Matrix: SE

Laboratory ID: A0J0298-14

File ID: 0J12061.txt-057

Sampled: 10/17/19 09:06

Prepared: 10/09/20 14:00

Analyzed: 10/13/20 02:45

Solids: N/A

Preparation: PSEP-5310B TOC

Initial/Final: 0.2 N/A / 0.2 N/A

Batch: 0100332

Sequence: 0J12061

Calibration: A0H1904

Instrument: TOC6

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TOC	Total Organic Carbon	0.048	1		SM 5310 B MOD

INORGANIC ANALYSIS DATA SHEET
SM 5310 B MOD

PDI-031SC-B-06-08-191017

Laboratory: Apex Laboratories

SDG: Gasco PreRD_DG 2019

Client: Anchor QEA, LLC

Project: Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores

Matrix: SE

Laboratory ID: A0J0298-15

File ID: 0J12061.txt-058

Sampled: 10/17/19 09:06

Prepared: 10/09/20 14:00

Analyzed: 10/13/20 02:56

Solids: N/A

Preparation: PSEP-5310B TOC

Initial/Final: 0.2 N/A / 0.2 N/A

Batch: 0100332

Sequence: 0J12061

Calibration: A0H1904

Instrument: TOC6

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TOC	Total Organic Carbon	0.027	1		SM 5310 B MOD

INORGANIC ANALYSIS DATA SHEET

SM 5310 B MOD

PDI-034SC-B-00-02-191022

Laboratory: Apex Laboratories

SDG: Gasco PreRD_DG 2019

Client: Anchor QEA, LLC

Project: Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores

Matrix: SE

Laboratory ID: A0J0298-16

File ID: 0J12061.txt-059

Sampled: 10/22/19 08:31

Prepared: 10/09/20 14:00

Analyzed: 10/13/20 03:07

Solids: N/A

Preparation: PSEP-5310B TOC

Initial/Final: 0.2 N/A / 0.2 N/A

Batch: 0100332

Sequence: 0J12061

Calibration: A0H1904

Instrument: TOC6

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TOC	Total Organic Carbon	3.0	1		SM 5310 B MOD

INORGANIC ANALYSIS DATA SHEET
SM 5310 B MOD

PDI-034SC-B-02-04-191022

Laboratory: Apex Laboratories

SDG: Gasco PreRD_DG 2019

Client: Anchor QEA, LLC

Project: Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores

Matrix: SE

Laboratory ID: A0J0298-17

File ID: 0J12061.txt-060

Sampled: 10/22/19 08:34

Prepared: 10/09/20 14:00

Analyzed: 10/13/20 03:18

Solids: N/A

Preparation: PSEP-5310B TOC

Initial/Final: 0.2 N/A / 0.2 N/A

Batch: 0100332

Sequence: 0J12061

Calibration: A0H1904

Instrument: TOC6

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TOC	Total Organic Carbon	0.27	1		SM 5310 B MOD

INORGANIC ANALYSIS DATA SHEET
SM 5310 B MOD

PDI-034SC-B-04-06-191022

Laboratory: <u>Apex Laboratories</u>	SDG: <u>Gasco PreRD_DG 2019</u>
Client: <u>Anchor QEA, LLC</u>	Project: <u>Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores</u>
Matrix: <u>SE</u>	Laboratory ID: <u>A0J0298-18</u> File ID: <u>0J12061.txt-061</u>
Sampled: <u>10/22/19 08:35</u>	Prepared: <u>10/09/20 14:00</u> Analyzed: <u>10/13/20 03:29</u>
Solids: <u>N/A</u>	Preparation: <u>PSEP-5310B TOC</u> Initial/Final: <u>0.2 N/A / 0.2 N/A</u>
Batch: <u>0100332</u>	Sequence: <u>0J12061</u> Calibration: <u>A0H1904</u> Instrument: <u>TOC6</u>

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TOC	Total Organic Carbon	0.032	1		SM 5310 B MOD

INORGANIC ANALYSIS DATA SHEET
SM 5310 B MOD

PDI-034SC-D-06-08-191022

Laboratory: Apex Laboratories

SDG: Gasco PreRD_DG 2019

Client: Anchor QEA, LLC

Project: Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Testing

Matrix: SE

Laboratory ID: A0J0298-19

Cores File ID: 0J12061.txt-062

Sampled: 10/22/19 08:36

Prepared: 10/09/20 14:00

Analyzed: 10/13/20 03:39

Solids: 86.64

Preparation: PSEP-5310B TOC

Initial/Final: 0.2 N/A / 0.2 N/A

Batch: 0100332

Sequence: 0J12061

Calibration: A0H1904

Instrument: TOC6

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TOC	Total Organic Carbon	0.077	1		SM 5310 B MOD

INORGANIC ANALYSIS DATA SHEET
SM 5310 B MOD

PDI-041SC-B-00-02-191010

Laboratory: Apex Laboratories

SDG: Gasco PreRD_DG 2019

Client: Anchor QEA, LLC

Project: Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores

Matrix: SE

Laboratory ID: A0J0298-20

File ID: 0J13056.txt-030

Sampled: 10/10/19 09:50

Prepared: 10/09/20 14:02

Analyzed: 10/13/20 22:04

Solids: N/A

Preparation: PSEP-5310B TOC

Initial/Final: 0.2 N/A / 0.2 N/A

Batch: 0100333

Sequence: 0J13056

Calibration: A0H1904

Instrument: TOC6

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TOC	Total Organic Carbon	1.1	1		SM 5310 B MOD

INORGANIC ANALYSIS DATA SHEET
SM 5310 B MOD

PDI-041SC-B-02-04-191010

Laboratory: Apex Laboratories

SDG: Gasco PreRD_DG 2019

Client: Anchor QEA, LLC

Project: Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores

Matrix: SE

Laboratory ID: A0J0298-21

File ID: 0J13056.txt-033

Sampled: 10/10/19 09:51

Prepared: 10/09/20 14:02

Analyzed: 10/13/20 22:37

Solids: N/A

Preparation: PSEP-5310B TOC

Initial/Final: 0.2 N/A / 0.2 N/A

Batch: 0100333

Sequence: 0J13056

Calibration: A0H1904

Instrument: TOC6

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TOC	Total Organic Carbon	0.085	1		SM 5310 B MOD

INORGANIC ANALYSIS DATA SHEET

SM 5310 B MOD

PDI-041SC-B-04-06-191010

Laboratory: Apex Laboratories

SDG: Gasco PreRD_DG 2019

Client: Anchor QEA, LLC

Project: Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores

Matrix: SE

Laboratory ID: A0J0298-22

File ID: 0J13056.txt-034

Sampled: 10/10/19 09:52

Prepared: 10/09/20 14:02

Analyzed: 10/13/20 22:48

Solids: N/A

Preparation: PSEP-5310B TOC

Initial/Final: 0.2 N/A / 0.2 N/A

Batch: 0100333

Sequence: 0J13056

Calibration: A0H1904

Instrument: TOC6

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TOC	Total Organic Carbon	0.028	1		SM 5310 B MOD

INORGANIC ANALYSIS DATA SHEET
SM 5310 B MOD

PDI-045SC-B-00-02-191010

Laboratory: Apex Laboratories

SDG: Gasco PreRD_DG 2019

Client: Anchor QEA, LLC

Project: Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores

Matrix: SE

Laboratory ID: A0J0298-23

File ID: 0J13056.txt-035

Sampled: 10/10/19 16:56

Prepared: 10/09/20 14:02

Analyzed: 10/13/20 22:58

Solids: N/A

Preparation: PSEP-5310B TOC

Initial/Final: 0.2 N/A / 0.2 N/A

Batch: 0100333

Sequence: 0J13056

Calibration: A0H1904

Instrument: TOC6

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TOC	Total Organic Carbon	2.0	1		SM 5310 B MOD

INORGANIC ANALYSIS DATA SHEET
SM 5310 B MOD

PDI-045SC-B-02-04-191010

Laboratory: Apex Laboratories

SDG: Gasco PreRD_DG 2019

Client: Anchor QEA, LLC

Project: Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores

Matrix: SE

Laboratory ID: A0J0298-24

File ID: 0J13056.txt-036

Sampled: 10/10/19 16:58

Prepared: 10/09/20 14:02

Analyzed: 10/13/20 23:09

Solids: N/A

Preparation: PSEP-5310B TOC

Initial/Final: 0.2 N/A / 0.2 N/A

Batch: 0100333

Sequence: 0J13056

Calibration: A0H1904

Instrument: TOC6

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TOC	Total Organic Carbon	1.7	1		SM 5310 B MOD

INORGANIC ANALYSIS DATA SHEET
SM 5310 B MOD

PDI-045SC-B-04-06-191010

Laboratory: Apex Laboratories

SDG: Gasco PreRD_DG 2019

Client: Anchor QEA, LLC

Project: Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores

Matrix: SE

Laboratory ID: A0J0298-25

File ID: 0J13056.txt-037

Sampled: 10/10/19 17:01

Prepared: 10/09/20 14:02

Analyzed: 10/13/20 23:20

Solids: N/A

Preparation: PSEP-5310B TOC

Initial/Final: 0.2 N/A / 0.2 N/A

Batch: 0100333

Sequence: 0J13056

Calibration: A0H1904

Instrument: TOC6

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TOC	Total Organic Carbon	0.035	1		SM 5310 B MOD

INORGANIC ANALYSIS DATA SHEET

SM 5310 B MOD

PDI-045SC-B-06-08-191010

Laboratory: Apex LaboratoriesSDG: Gasco PreRD_DG 2019Client: Anchor QEA, LLCProject: Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Testing CoresMatrix: SELaboratory ID: A0J0298-26File ID: 0J13056.txt-038Sampled: 10/10/19 17:01Prepared: 10/09/20 14:02Analyzed: 10/13/20 23:31Solids: N/APreparation: PSEP-5310B TOCInitial/Final: 0.2 N/A / 0.2 N/ABatch: 0100333Sequence: 0J13056Calibration: A0H1904Instrument: TOC6

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TOC	Total Organic Carbon	0.023	1		SM 5310 B MOD

INORGANIC ANALYSIS DATA SHEET
SM 5310 B MOD

PDI-051SC-C-00-6.9-200511

Laboratory: Apex Laboratories

SDG: Gasco PreRD_DG 2019

Client: Anchor QEA, LLC

Project: Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores

Matrix: SE

Laboratory ID: A0J0298-27RE1

File ID: 0J14041.txt-005

Sampled: 05/11/20 15:15

Prepared: 10/09/20 14:02

Analyzed: 10/14/20 10:28

Solids: N/A

Preparation: PSEP-5310B TOC

Initial/Final: 0.2 N/A / 0.2 N/A

Batch: 0100333

Sequence: 0J14041

Calibration: A0H1904

Instrument: TOC6

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TOC	Total Organic Carbon	8.7	1	E	SM 5310 B MOD

INORGANIC ANALYSIS DATA SHEET
SM 5310 B MOD

PDI-060SC-C-00-6.8-200511

Laboratory: Apex Laboratories

SDG: Gasco PreRD_DG 2019

Client: Anchor QEA, LLC

Project: Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores

Matrix: SE

Laboratory ID: A0J0298-28

File ID: 0J13056.txt-042

Sampled: 05/11/20 14:15

Prepared: 10/09/20 14:02

Analyzed: 10/14/20 00:14

Solids: N/A

Preparation: PSEP-5310B TOC

Initial/Final: 0.2 N/A / 0.2 N/A

Batch: 0100333

Sequence: 0J13056

Calibration: A0H1904

Instrument: TOC6

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TOC	Total Organic Carbon	4.0	1		SM 5310 B MOD

INORGANIC ANALYSIS DATA SHEET
SM 5310 B MOD

PDI-058SC-C-00-10.3-200512

Laboratory: Apex Laboratories

SDG: Gasco PreRD_DG 2019

Client: Anchor QEA, LLC

Project: Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores

Matrix: SE

Laboratory ID: A0J0298-29RE1

File ID: 0J14041.txt-006

Sampled: 05/12/20 08:50

Prepared: 10/09/20 14:02

Analyzed: 10/14/20 10:39

Solids: N/A

Preparation: PSEP-5310B TOC

Initial/Final: 0.2 N/A / 0.2 N/A

Batch: 0100333

Sequence: 0J14041

Calibration: A0H1904

Instrument: TOC6

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TOC	Total Organic Carbon	6.3	1	E	SM 5310 B MOD

INORGANIC ANALYSIS DATA SHEET

SM 5310 B MOD

PDI-080SC-C-00-8.6-200507

Laboratory: Apex Laboratories

SDG: Gasco PreRD_DG 2019

Client: Anchor QEA, LLC

Project: Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores

Matrix: SE

Laboratory ID: A0J0298-30

File ID: 0J13056.txt-044

Sampled: 05/07/20 14:00

Prepared: 10/09/20 14:02

Analyzed: 10/14/20 00:36

Solids: N/A

Preparation: PSEP-5310B TOC

Initial/Final: 0.2 N/A / 0.2 N/A

Batch: 0100333

Sequence: 0J13056

Calibration: A0H1904

Instrument: TOC6

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TOC	Total Organic Carbon	1.8	1		SM 5310 B MOD

INORGANIC ANALYSIS DATA SHEET
SM 5310 B MOD

PDI-171SC-B-00-02-200521

Laboratory: Apex Laboratories

SDG: Gasco PreRD_DG 2019

Client: Anchor QEA, LLC

Project: Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores

Matrix: SE

Laboratory ID: A0J0298-31

File ID: 0J13056.txt-046

Sampled: 05/21/20 15:00

Prepared: 10/09/20 14:02

Analyzed: 10/14/20 00:57

Solids: N/A

Preparation: PSEP-5310B TOC

Initial/Final: 0.2 N/A / 0.2 N/A

Batch: 0100333

Sequence: 0J13056

Calibration: A0H1904

Instrument: TOC6

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TOC	Total Organic Carbon	1.8	1		SM 5310 B MOD

INORGANIC ANALYSIS DATA SHEET
SM 5310 B MOD

PDI-171SC-B-02-04-200521

Laboratory: Apex Laboratories

SDG: Gasco PreRD_DG 2019

Client: Anchor QEA, LLC

Project: Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Testing

Matrix: SE

Laboratory ID: A0J0298-32

Cores File ID: 0J13056.txt-047

Sampled: 05/21/20 15:00

Prepared: 10/09/20 14:02

Analyzed: 10/14/20 01:08

Solids: N/A

Preparation: PSEP-5310B TOC

Initial/Final: 0.2 N/A / 0.2 N/A

Batch: 0100333

Sequence: 0J13056

Calibration: A0H1904

Instrument: TOC6

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TOC	Total Organic Carbon	2.5	1		SM 5310 B MOD

INORGANIC ANALYSIS DATA SHEET
SM 5310 B MOD

PDI-171SC-B-04-06-200521

Laboratory: Apex Laboratories

SDG: Gasco PreRD_DG 2019

Client: Anchor QEA, LLC

Project: Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores

Matrix: SE

Laboratory ID: A0J0298-33

File ID: 0J13056.txt-048

Sampled: 05/21/20 15:00

Prepared: 10/09/20 14:02

Analyzed: 10/14/20 01:19

Solids: N/A

Preparation: PSEP-5310B TOC

Initial/Final: 0.2 N/A / 0.2 N/A

Batch: 0100333

Sequence: 0J13056

Calibration: A0H1904

Instrument: TOC6

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TOC	Total Organic Carbon	1.3	1		SM 5310 B MOD

INORGANIC ANALYSIS DATA SHEET
SM 5310 B MOD

PDI-171SC-B-06-08-200521

Laboratory: Apex Laboratories

SDG: Gasco PreRD_DG 2019

Client: Anchor QEA, LLC

Project: Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores

Matrix: SE

Laboratory ID: A0J0298-34

File ID: 0J13056.txt-049

Sampled: 05/21/20 15:00

Prepared: 10/09/20 14:02

Analyzed: 10/14/20 01:30

Solids: N/A

Preparation: PSEP-5310B TOC

Initial/Final: 0.2 N/A / 0.2 N/A

Batch: 0100333

Sequence: 0J13056

Calibration: A0H1904

Instrument: TOC6

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TOC	Total Organic Carbon	1.6	1		SM 5310 B MOD

INORGANIC ANALYSIS DATA SHEET

SM 5310 B MOD

PDI-171SC-B-08-10-200521

Laboratory: Apex Laboratories

SDG: Gasco PreRD_DG 2019

Client: Anchor QEA, LLC

Project: Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores

Matrix: SE

Laboratory ID: A0J0298-35

File ID: 0J13056.txt-050

Sampled: 05/21/20 15:00

Prepared: 10/09/20 14:02

Analyzed: 10/14/20 01:41

Solids: N/A

Preparation: PSEP-5310B TOC

Initial/Final: 0.2 N/A / 0.2 N/A

Batch: 0100333

Sequence: 0J13056

Calibration: A0H1904

Instrument: TOC6

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TOC	Total Organic Carbon	3.0	1		SM 5310 B MOD

INORGANIC ANALYSIS DATA SHEET

SM 5310 B MOD

PDI-171SC-B-10-12-200521

Laboratory: Apex Laboratories

SDG: Gasco PreRD_DG 2019

Client: Anchor QEA, LLC

Project: Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Testing

Matrix: SE

Laboratory ID: A0J0298-36

Cores File ID: 0J13056.txt-053

Sampled: 05/21/20 15:00

Prepared: 10/09/20 14:02

Analyzed: 10/14/20 02:13

Solids: N/A

Preparation: PSEP-5310B TOC

Initial/Final: 0.2 N/A / 0.2 N/A

Batch: 0100333

Sequence: 0J13056

Calibration: A0H1904

Instrument: TOC6

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TOC	Total Organic Carbon	2.1	1		SM 5310 B MOD

INORGANIC ANALYSIS DATA SHEET
SM 5310 B MOD

PDI-171SC-B-12-13.5-200521

Laboratory: Apex Laboratories

SDG: Gasco PreRD_DG 2019

Client: Anchor QEA, LLC

Project: Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores

Matrix: SE

Laboratory ID: A0J0298-37

File ID: 0J13056.txt-054

Sampled: 05/21/20 15:00

Prepared: 10/09/20 14:02

Analyzed: 10/14/20 02:24

Solids: N/A

Preparation: PSEP-5310B TOC

Initial/Final: 0.2 N/A / 0.2 N/A

Batch: 0100333

Sequence: 0J13056

Calibration: A0H1904

Instrument: TOC6

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TOC	Total Organic Carbon	1.5	1		SM 5310 B MOD

INORGANIC ANALYSIS DATA SHEET
SM 5310 B MOD

PDI-041SC-B-06-08-191010

Laboratory: Apex Laboratories

SDG: Gasco PreRD_DG 2019

Client: Anchor QEA, LLC

Project: Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores

Matrix: SE

Laboratory ID: A0J0298-38

File ID: 0J13056.txt-055

Sampled: 10/10/19 09:52

Prepared: 10/09/20 14:02

Analyzed: 10/14/20 02:35

Solids: N/A

Preparation: PSEP-5310B TOC

Initial/Final: 0.2 N/A / 0.2 N/A

Batch: 0100333

Sequence: 0J13056

Calibration: A0H1904

Instrument: TOC6

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TOC	Total Organic Carbon	0.036	1		SM 5310 B MOD

PREPARATION BATCH SUMMARY

SM 5310 B MOD

Laboratory: Apex Laboratories

SDG: Gasco PreRD_DG 2019

Client: Anchor QEA, LLC

Project: Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cc

Batch: 0100332 Batch Matrix: Soil

Preparation: PSEP-5310B TOC

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
Blank	0100332-BLK1	OJ12061.txt-007	10/09/20 14:00	
LCS	0100332-BS1	OJ12061.txt-008	10/09/20 14:00	
PDI-016SC-B-00-02-191009 (Dup)	0100332-DUP3	OJ12061.txt-042	10/09/20 14:00	
PDI-016SC-B-00-02-191009	A0J0298-01	OJ12061.txt-041	10/09/20 14:00	
PDI-016SC-B-02-04-191009	A0J0298-02	OJ12061.txt-043	10/09/20 14:00	
PDI-016SC-B-04-06-191009	A0J0298-03	OJ12061.txt-044	10/09/20 14:00	
PDI-023SC-B-00-02-191009	A0J0298-04	OJ12061.txt-045	10/09/20 14:00	
PDI-023SC-B-02-04-191009	A0J0298-05	OJ12061.txt-046	10/09/20 14:00	
PDI-023SC-B-04-06-191009	A0J0298-06	OJ12061.txt-047	10/09/20 14:00	
PDI-023SC-B-06-08-191009	A0J0298-07	OJ12061.txt-048	10/09/20 14:00	
PDI-026SC-B-00-02-191014	A0J0298-08	OJ12061.txt-049	10/09/20 14:00	
PDI-026SC-B-02-04-191014	A0J0298-09	OJ12061.txt-050	10/09/20 14:00	
PDI-026SC-B-04-06-191014	A0J0298-10	OJ12061.txt-053	10/09/20 14:00	
PDI-026SC-B-06-08-191014	A0J0298-11	OJ12061.txt-054	10/09/20 14:00	
PDI-031SC-B-00-02-191017	A0J0298-12	OJ12061.txt-055	10/09/20 14:00	
PDI-031SC-B-02-04-191017	A0J0298-13	OJ12061.txt-056	10/09/20 14:00	
PDI-031SC-B-04-06-191017	A0J0298-14	OJ12061.txt-057	10/09/20 14:00	
PDI-031SC-B-06-08-191017	A0J0298-15	OJ12061.txt-058	10/09/20 14:00	
PDI-034SC-B-00-02-191022	A0J0298-16	OJ12061.txt-059	10/09/20 14:00	
PDI-034SC-B-02-04-191022	A0J0298-17	OJ12061.txt-060	10/09/20 14:00	
PDI-034SC-B-04-06-191022	A0J0298-18	OJ12061.txt-061	10/09/20 14:00	
PDI-034SC-D-06-08-191022	A0J0298-19	OJ12061.txt-062	10/09/20 14:00	

Note: Client samples are listed only if they are included in this report.

Duplicates and Matrix Spike/Duplicates QC Samples are only listed if sourced from a sample included in this report.

PREPARATION BATCH SUMMARY

SM 5310 B MOD

Laboratory: Apex Laboratories

SDG: Gasco PreRD_DG 2019

Client: Anchor QEA, LLC

Project: Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cc

Batch: 0100333 Batch Matrix: Soil

Preparation: PSEP-5310B TOC

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
Blank	0100333-BLK1	OJ13056.txt-007	10/09/20 14:02	
LCS	0100333-BS1	OJ13056.txt-008	10/09/20 14:02	
PDI-041SC-B-00-02-191010 (Dup)	0100333-DUP1	OJ13056.txt-031	10/09/20 14:02	
PDI-041SC-B-00-02-191010 (Dup)	0100333-DUP2	OJ13056.txt-032	10/09/20 14:02	
PDI-080SC-C-00-8.6-200507 (Dup)	0100333-DUP3	OJ13056.txt-045	10/09/20 14:02	
PDI-041SC-B-00-02-191010	A0J0298-20	OJ13056.txt-030	10/09/20 14:02	
PDI-041SC-B-02-04-191010	A0J0298-21	OJ13056.txt-033	10/09/20 14:02	
PDI-041SC-B-04-06-191010	A0J0298-22	OJ13056.txt-034	10/09/20 14:02	
PDI-045SC-B-00-02-191010	A0J0298-23	OJ13056.txt-035	10/09/20 14:02	
PDI-045SC-B-02-04-191010	A0J0298-24	OJ13056.txt-036	10/09/20 14:02	
PDI-045SC-B-04-06-191010	A0J0298-25	OJ13056.txt-037	10/09/20 14:02	
PDI-045SC-B-06-08-191010	A0J0298-26	OJ13056.txt-038	10/09/20 14:02	
PDI-051SC-C-00-6.9-200511	A0J0298-27RE1	OJ14041.txt-005	10/09/20 14:02	
PDI-060SC-C-00-6.8-200511	A0J0298-28	OJ13056.txt-042	10/09/20 14:02	
PDI-058SC-C-00-10.3-200512	A0J0298-29RE1	OJ14041.txt-006	10/09/20 14:02	
PDI-080SC-C-00-8.6-200507	A0J0298-30	OJ13056.txt-044	10/09/20 14:02	
PDI-171SC-B-00-02-200521	A0J0298-31	OJ13056.txt-046	10/09/20 14:02	
PDI-171SC-B-02-04-200521	A0J0298-32	OJ13056.txt-047	10/09/20 14:02	
PDI-171SC-B-04-06-200521	A0J0298-33	OJ13056.txt-048	10/09/20 14:02	
PDI-171SC-B-06-08-200521	A0J0298-34	OJ13056.txt-049	10/09/20 14:02	
PDI-171SC-B-08-10-200521	A0J0298-35	OJ13056.txt-050	10/09/20 14:02	
PDI-171SC-B-10-12-200521	A0J0298-36	OJ13056.txt-053	10/09/20 14:02	
PDI-171SC-B-12-13.5-200521	A0J0298-37	OJ13056.txt-054	10/09/20 14:02	
PDI-041SC-B-06-08-191010	A0J0298-38	OJ13056.txt-055	10/09/20 14:02	

Note: Client samples are listed only if they are included in this report.

Duplicates and Matrix Spike/Duplicates QC Samples are only listed if sourced from a sample included in this report.

METHOD BLANK DATA SHEET
SM 5310 B MOD

Laboratory: <u>Apex Laboratories</u>	SDG: <u>Gasco PreRD_DG 2019</u>	
Client: <u>Anchor QEA, LLC</u>	Project: <u>Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Testing C</u>	
Matrix: <u>Soil</u>	Laboratory ID: <u>0100332-BLK1</u>	File ID: <u>0J12061.txt-007</u>
Prepared: <u>10/09/20 14:00</u>	Preparation: <u>PSEP-5310B TOC</u>	Initial/Final: <u>0.2 N/A / 0.2 N/A</u>
Analyzed: <u>10/12/20 17:44</u>	Instrument: <u>TOC6</u>	
Batch: <u>0100332</u>	Sequence: <u>0J12061</u>	Calibration: <u>A0H1904</u>

CAS NO.	COMPOUND	CONC. (% by Weight)	Q
TOC	Total Organic Carbon	0.020	U

METHOD BLANK DATA SHEET
SM 5310 B MOD

Laboratory: <u>Apex Laboratories</u>	SDG: <u>Gasco PreRD_DG 2019</u>	
Client: <u>Anchor QEA, LLC</u>	Project: <u>Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Testing C</u>	
Matrix: <u>Soil</u>	Laboratory ID: <u>0100333-BLK1</u>	File ID: <u>0J13056.txt-007</u>
Prepared: <u>10/09/20 14:02</u>	Preparation: <u>PSEP-5310B TOC</u>	Initial/Final: <u>0.2 N/A / 0.2 N/A</u>
Analyzed: <u>10/13/20 17:56</u>	Instrument: <u>TOC6</u>	
Batch: <u>0100333</u>	Sequence: <u>0J13056</u>	Calibration: <u>A0H1904</u>

CAS NO.	COMPOUND	CONC. (% by Weight)	Q
TOC	Total Organic Carbon	0.020	U

LCS / LCS DUPLICATE RECOVERY

SM 5310 B MOD

Laboratory: Apex Laboratories

SDG: Gasco PreRD_DG 2019

Client: Anchor QEA, LLC

Project: Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Testing Co

Matrix: Soil

Batch: 0100332

Laboratory ID: 0100332-BS1

Preparation: PSEP-5310B TOC

Initial/Final: 0.2 N/A / 0.2 N/A

COMPOUND	SPIKE ADDED (mg/kg)	LCS CONCENTRATION (mg/kg)	LCS % REC. (*=Out)	QC LIMITS REC.
Total Organic Carbon	10000	9500	95	88 - 111

* = Values outside of QC limits

LCS / LCS DUPLICATE RECOVERY

SM 5310 B MOD

Laboratory: Apex Laboratories

SDG: Gasco PreRD_DG 2019

Client: Anchor QEA, LLC

Project: Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Testing Co

Matrix: Soil

Batch: 0100333

Laboratory ID: 0100333-BS1

Preparation: PSEP-5310B TOC

Initial/Final: 0.2 N/A / 0.2 N/A

COMPOUND	SPIKE ADDED (mg/kg)	LCS CONCENTRATION (mg/kg)	LCS % REC. (* = Out)	QC LIMITS REC.
Total Organic Carbon	10000	9300	93	88 - 111

* = Values outside of QC limits

DUPLICATES
SM 5310 B MOD

PDI-016SC-B-00-02-191009

Laboratory: Apex Laboratories

SDG: Gasco PreRD_DG 2019

Client: Anchor QEA, LLC

Project: Gasco PreRD_DG 2019 - 4a-b. DOC-CAP

Matrix: Soil

Laboratory ID: 0100332-DUP3

Batch: 0100332

Lab Source ID: A0J0298-01

Preparation: PSEP-5310B TOC

Initial/Final: 0.2 N/A / 0.2 N/A

Source Sample Name: PDI-016SC-B-00-02-191009

% Solids:

ANALYTE	CONTROL LIMIT	SAMPLE CONCENTRATION (% by Weight)	C	DUPLICATE CONCENTRATION (% by Weight)	C	RPD %	Q	METHOD
Total Organic Carbon	27	1.1		1.1		4		SM 5310 B MOD

* Values outside of QC limits

DUPLICATES
SM 5310 B MOD

PDI-041SC-B-00-02-191010

Laboratory: Apex Laboratories

SDG: Gasco PreRD_DG 2019

Client: Anchor QEA, LLC

Project: Gasco PreRD_DG 2019 - 4a-b. DOC-CAP

Matrix: Soil

Laboratory ID: 0100333-DUP1

Batch: 0100333

Lab Source ID: A0J0298-20

Preparation: PSEP-5310B TOC

Initial/Final: 0.2 N/A / 0.2 N/A

Source Sample Name: PDI-041SC-B-00-02-191010

% Solids:

ANALYTE	CONTROL LIMIT	SAMPLE CONCENTRATION (% by Weight)	C	DUPLICATE CONCENTRATION (% by Weight)	C	RPD %	Q	METHOD
Total Organic Carbon	27	1.1		1.1		5		SM 5310 B MOD

* Values outside of QC limits

DUPLICATES
SM 5310 B MOD

PDI-041SC-B-00-02-191010

Laboratory: Apex Laboratories

SDG: Gasco PreRD DG 2019

Client: Anchor QEA, LLC

Project: Gasco PreRD DG 2019 - 4a-b. DOC-CAP

Matrix: Soil

Laboratory ID: 0100333-DUP2

Batch: 0100333

Lab Source ID: A0J0298-20

Preparation: PSEP-5310B TOC

Initial/Final: 0.2 N/A / 0.2 N/A

Source Sample Name: PDI-041SC-B-00-02-191010

% Solids:

ANALYTE	CONTROL LIMIT	SAMPLE CONCENTRATION (% by Weight)	C	DUPLICATE CONCENTRATION (% by Weight)	C	RPD %	Q	METHOD
Total Organic Carbon	27	1.1		1.0		4		SM 5310 B MOD

* Values outside of QC limits

DUPLICATES
SM 5310 B MOD

PDI-080SC-C-00-8.6-200507

Laboratory: Apex Laboratories

SDG: Gasco PreRD DG 2019

Client: Anchor QEA, LLC

Project: Gasco PreRD DG 2019 - 4a-b. DOC-CAP

Matrix: Soil

Laboratory ID: 0100333-DUP3

Batch: 0100333

Lab Source ID: A0J0298-30

Preparation: PSEP-5310B TOC

Initial/Final: 0.2 N/A / 0.2 N/A

Source Sample Name: PDI-080SC-C-00-8.6-200507

% Solids:

ANALYTE	CONTROL LIMIT	SAMPLE CONCENTRATION (% by Weight)	C	DUPLICATE CONCENTRATION (% by Weight)	C	RPD %	Q	METHOD
Total Organic Carbon	27	1.8		1.4		21		SM 5310 B MOD

* Values outside of QC limits

ANALYSIS BATCH (SEQUENCE) SUMMARY

SM 5310 B MOD

Laboratory: <u>Apex Laboratories</u>	SDG: <u>Gasco PreRD_DG 2019</u>
Client: <u>Anchor QEA, LLC</u>	Project: <u>Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Testing C</u>
Sequence: <u>0H18059</u>	Instrument: <u>TOC6</u>
Matrix: <u>Soil</u>	Calibration: <u>A0H1904</u>

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Cal Standard	0H18059-CAL2	0H18059.txt-005	08/18/20 17:43
Cal Standard	0H18059-CAL3	0H18059.txt-006	08/18/20 17:53
Cal Standard	0H18059-CAL4	0H18059.txt-007	08/18/20 18:04
Cal Standard	0H18059-CAL5	0H18059.txt-008	08/18/20 18:15
Cal Standard	0H18059-CAL6	0H18059.txt-009	08/18/20 18:26
Cal Standard	0H18059-CAL7	0H18059.txt-010	08/18/20 18:37
Cal Standard	0H18059-CAL8	0H18059.txt-011	08/18/20 18:47
Cal Standard	0H18059-CAL9	0H18059.txt-012	08/18/20 18:58
Initial Cal Check	0H18059-ICV1	0H18059.txt-014	08/18/20 19:20
Initial Cal Blank	0H18059-ICB1	0H18059.txt-015	08/18/20 19:31

Note: Client samples are listed only if they are included in this report.
 Duplicates and Matrix Spike/Duplicates QC Samples are only listed if sourced from a sample included in this report.

ANALYSIS BATCH (SEQUENCE) SUMMARY

SM 5310 B MOD

Laboratory: <u>Apex Laboratories</u>	SDG: <u>Gasco PreRD_DG 2019</u>
Client: <u>Anchor QEA, LLC</u>	Project: <u>Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Testing C</u>
Sequence: <u>0J12061</u>	Instrument: <u>TOC6</u>
Matrix: <u>Soil</u>	Calibration: <u>A0H1904</u>

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Calibration Check	0J12061-CCV1	0J12061.txt-003	10/12/20 17:01
Calibration Blank	0J12061-CCB1	0J12061.txt-004	10/12/20 17:11
Blank	0100332-BLK1	0J12061.txt-007	10/12/20 17:44
LCS	0100332-BS1	0J12061.txt-008	10/12/20 17:55
Calibration Check	0J12061-CCV2	0J12061.txt-015	10/12/20 19:10
Calibration Blank	0J12061-CCB2	0J12061.txt-016	10/12/20 19:21
Calibration Check	0J12061-CCV3	0J12061.txt-027	10/12/20 21:20
Calibration Blank	0J12061-CCB3	0J12061.txt-028	10/12/20 21:30
Calibration Check	0J12061-CCV4	0J12061.txt-039	10/12/20 23:29
Calibration Blank	0J12061-CCB4	0J12061.txt-040	10/12/20 23:40
PDI-016SC-B-00-02-191009	A0J0298-01	0J12061.txt-041	10/12/20 23:51
PDI-016SC-B-00-02-191009 (Dup)	0100332-DUP3	0J12061.txt-042	10/13/20 00:02
PDI-016SC-B-02-04-191009	A0J0298-02	0J12061.txt-043	10/13/20 00:13
PDI-016SC-B-04-06-191009	A0J0298-03	0J12061.txt-044	10/13/20 00:23
PDI-023SC-B-00-02-191009	A0J0298-04	0J12061.txt-045	10/13/20 00:34
PDI-023SC-B-02-04-191009	A0J0298-05	0J12061.txt-046	10/13/20 00:45
PDI-023SC-B-04-06-191009	A0J0298-06	0J12061.txt-047	10/13/20 00:56
PDI-023SC-B-06-08-191009	A0J0298-07	0J12061.txt-048	10/13/20 01:07
PDI-026SC-B-00-02-191014	A0J0298-08	0J12061.txt-049	10/13/20 01:18
PDI-026SC-B-02-04-191014	A0J0298-09	0J12061.txt-050	10/13/20 01:29
Calibration Check	0J12061-CCV5	0J12061.txt-051	10/13/20 01:40
Calibration Blank	0J12061-CCB5	0J12061.txt-052	10/13/20 01:50
PDI-026SC-B-04-06-191014	A0J0298-10	0J12061.txt-053	10/13/20 02:01
PDI-026SC-B-06-08-191014	A0J0298-11	0J12061.txt-054	10/13/20 02:12
PDI-031SC-B-00-02-191017	A0J0298-12	0J12061.txt-055	10/13/20 02:23
PDI-031SC-B-02-04-191017	A0J0298-13	0J12061.txt-056	10/13/20 02:34
PDI-031SC-B-04-06-191017	A0J0298-14	0J12061.txt-057	10/13/20 02:45
PDI-031SC-B-06-08-191017	A0J0298-15	0J12061.txt-058	10/13/20 02:56
PDI-034SC-B-00-02-191022	A0J0298-16	0J12061.txt-059	10/13/20 03:07
PDI-034SC-B-02-04-191022	A0J0298-17	0J12061.txt-060	10/13/20 03:18
PDI-034SC-B-04-06-191022	A0J0298-18	0J12061.txt-061	10/13/20 03:29
PDI-034SC-D-06-08-191022	A0J0298-19	0J12061.txt-062	10/13/20 03:39
Calibration Check	0J12061-CCV6	0J12061.txt-063	10/13/20 03:50

ANALYSIS BATCH (SEQUENCE) SUMMARY
SM 5310 B MOD

Laboratory: <u>Apex Laboratories</u>	SDG: <u>Gasco PreRD_DG 2019</u>
Client: <u>Anchor QEA, LLC</u>	Project: <u>Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Testing Co</u>
Sequence: <u>0J12061</u>	Instrument: <u>TOC6</u>
Matrix: <u>Soil</u>	Calibration: <u>A0H1904</u>

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Calibration Blank	0J12061-CCB6	0J12061.txt-064	10/13/20 04:01

Note: Client samples are listed only if they are included in this report.
 Duplicates and Matrix Spike/Duplicates QC Samples are only listed if sourced from a sample included in this report.

ANALYSIS BATCH (SEQUENCE) SUMMARY

SM 5310 B MOD

Laboratory: Apex Laboratories

SDG: Gasco PreRD_DG 2019

Client: Anchor QEA, LLC

Project: Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Testing C

Sequence: 0J13056

Instrument: TOC6

Matrix: Soil

Calibration: A0H1904

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Calibration Check	0J13056-CCV1	0J13056.txt-003	10/13/20 17:13
Calibration Blank	0J13056-CCB1	0J13056.txt-004	10/13/20 17:24
Blank	0100333-BLK1	0J13056.txt-007	10/13/20 17:56
LCS	0100333-BS1	0J13056.txt-008	10/13/20 18:07
Calibration Check	0J13056-CCV2	0J13056.txt-015	10/13/20 19:22
Calibration Blank	0J13056-CCB2	0J13056.txt-016	10/13/20 19:33
Calibration Check	0J13056-CCV3	0J13056.txt-027	10/13/20 21:32
Calibration Blank	0J13056-CCB3	0J13056.txt-028	10/13/20 21:43
PDI-041SC-B-00-02-191010	A0J0298-20	0J13056.txt-030	10/13/20 22:04
PDI-041SC-B-00-02-191010 (Dup)	0100333-DUP1	0J13056.txt-031	10/13/20 22:15
PDI-041SC-B-00-02-191010 (Dup)	0100333-DUP2	0J13056.txt-032	10/13/20 22:26
PDI-041SC-B-02-04-191010	A0J0298-21	0J13056.txt-033	10/13/20 22:37
PDI-041SC-B-04-06-191010	A0J0298-22	0J13056.txt-034	10/13/20 22:48
PDI-045SC-B-00-02-191010	A0J0298-23	0J13056.txt-035	10/13/20 22:58
PDI-045SC-B-02-04-191010	A0J0298-24	0J13056.txt-036	10/13/20 23:09
PDI-045SC-B-04-06-191010	A0J0298-25	0J13056.txt-037	10/13/20 23:20
PDI-045SC-B-06-08-191010	A0J0298-26	0J13056.txt-038	10/13/20 23:31
Calibration Check	0J13056-CCV4	0J13056.txt-039	10/13/20 23:41
Calibration Blank	0J13056-CCB4	0J13056.txt-040	10/13/20 23:52
PDI-060SC-C-00-6.8-200511	A0J0298-28	0J13056.txt-042	10/14/20 00:14
PDI-080SC-C-00-8.6-200507	A0J0298-30	0J13056.txt-044	10/14/20 00:36
PDI-080SC-C-00-8.6-200507 (Dup)	0100333-DUP3	0J13056.txt-045	10/14/20 00:46
PDI-171SC-B-00-02-200521	A0J0298-31	0J13056.txt-046	10/14/20 00:57
PDI-171SC-B-02-04-200521	A0J0298-32	0J13056.txt-047	10/14/20 01:08
PDI-171SC-B-04-06-200521	A0J0298-33	0J13056.txt-048	10/14/20 01:19
PDI-171SC-B-06-08-200521	A0J0298-34	0J13056.txt-049	10/14/20 01:30
PDI-171SC-B-08-10-200521	A0J0298-35	0J13056.txt-050	10/14/20 01:41
Calibration Check	0J13056-CCV5	0J13056.txt-051	10/14/20 01:52
Calibration Blank	0J13056-CCB5	0J13056.txt-052	10/14/20 02:03
PDI-171SC-B-10-12-200521	A0J0298-36	0J13056.txt-053	10/14/20 02:13
PDI-171SC-B-12-13.5-200521	A0J0298-37	0J13056.txt-054	10/14/20 02:24
PDI-041SC-B-06-08-191010	A0J0298-38	0J13056.txt-055	10/14/20 02:35
Calibration Check	0J13056-CCV6	0J13056.txt-056	10/14/20 02:46

ANALYSIS BATCH (SEQUENCE) SUMMARY

SM 5310 B MOD

Laboratory: Apex Laboratories

SDG: Gasco PreRD_DG 2019

Client: Anchor QEA, LLC

Project: Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Testing C

Sequence: 0J13056

Instrument: TOC6

Matrix: Soil

Calibration: A0H1904

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Calibration Blank	0J13056-CCB6	0J13056.txt-057	10/14/20 02:57

Note: Client samples are listed only if they are included in this report.

Duplicates and Matrix Spike/Duplicates QC Samples are only listed if sourced from a sample included in this report.

ANALYSIS BATCH (SEQUENCE) SUMMARY

SM 5310 B MOD

Laboratory: <u>Apex Laboratories</u>	SDG: <u>Gasco PreRD_DG 2019</u>
Client: <u>Anchor QEA, LLC</u>	Project: <u>Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Testing Co</u>
Sequence: <u>0J14041</u>	Instrument: <u>TOC6</u>
Matrix: <u>Soil</u>	Calibration: <u>A0H1904</u>

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Calibration Check	0J14041-CCV1	0J14041.txt-003	10/14/20 10:06
Calibration Blank	0J14041-CCB1	0J14041.txt-004	10/14/20 10:17
PDI-051SC-C-00-6.9-200511	A0J0298-27RE1	0J14041.txt-005	10/14/20 10:28
PDI-058SC-C-00-10.3-200512	A0J0298-29RE1	0J14041.txt-006	10/14/20 10:39
Calibration Check	0J14041-CCV2	0J14041.txt-007	10/14/20 10:50
Calibration Blank	0J14041-CCB2	0J14041.txt-008	10/14/20 11:00

Note: Client samples are listed only if they are included in this report.
 Duplicates and Matrix Spike/Duplicates QC Samples are only listed if sourced from a sample included in this report.

INITIAL CALIBRATION DATA (Summary)

SM 5310 B MOD

Laboratory: Apex Laboratories

SDG: Gasco PreRD DG 2019

Client: Anchor QEA, LLC

Project: Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Testing

Calibration: A0H1904

Date: 08/19/20 16:15

Instrument: TOC6

Compound	Mean RF	FIT	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
Total Organic Carbon	138.9486	Lin	5.543524			0.99974			

Note: ** Quad COD may be incorrect if weighting (1/a) or (1/a²) used. Weighting not shown here. Please see instrument calibration printouts for validation.

INITIAL CALIBRATION DATA
SM 5310 B MOD

Laboratory: Apex Laboratories

SDG: Gasco PreRD DG 2019

Client: Anchor QEA, LLC

Project: Gasco PreRD DG 2019 - 4a-b. DOC-CAP Te

Calibration: A0H1904

Instrument: TOC6

Calibration Date: 08/19/20 16:15

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	mg/kg	RF	mg/kg	RF	mg/kg	RF	mg/kg	RF	mg/kg	RF	mg/kg	RF
Total Organic Carbon	200	152.6808	500	143.8895	1000	143.7313	2500	130.8668	5000	130.5313	12500	139.2529

INITIAL CALIBRATION DATA (Continued)

SM 5310 B MOD

Laboratory: Apex Laboratories

SDG: Gasco PreRD_DG 2019

Client: Anchor QEA, LLC

Project: Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Te

Calibration: A0H1904

Instrument: TOC6

Matrix:

Calibration Date: 08/19/20 16:15

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	mg/kg	RF	mg/kg	RF	mg/kg	RF	mg/kg	RF	mg/kg	RF	mg/kg	RF
Total Organic Carbon	25000	138.2198	50000	132.4167								

INITIAL AND CONTINUING CALIBRATION CHECK

SM 5310 B MOD

Laboratory: Apex Laboratories

SDG: Gasco PreRD_DG 2019

Client: Anchor QEA, LLC

Project: Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Testing Co

Instrument ID: TOC6

Calibration: A0H1904

Control Limit: +/- 10.00%

Sequence: 0H18059

Lab Sample ID	Analyte	True	Found	%R	Units	Method
0H18059-ICV1	Total Organic Carbon	10000	9800	98	mg/kg	SM 5310 B MOD

* Values outside of QC limits

INITIAL AND CONTINUING CALIBRATION CHECK

SM 5310 B MOD

Laboratory: Apex Laboratories

SDG: Gasco PreRD_DG 2019

Client: Anchor QEA, LLC

Project: Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Testing Co

Instrument ID: TOC6

Calibration: A0H1904

Control Limit: +/- 10.00%

Sequence: 0J12061

Lab Sample ID	Analyte	True	Found	%R	Units	Method
0J12061-CCV1	Total Organic Carbon	10000	10000	104	mg/kg	SM 5310 B MOD
0J12061-CCV2	Total Organic Carbon	10000	9100	91	mg/kg	SM 5310 B MOD
0J12061-CCV3	Total Organic Carbon	10000	9400	94	mg/kg	SM 5310 B MOD
0J12061-CCV4	Total Organic Carbon	10000	9500	95	mg/kg	SM 5310 B MOD
0J12061-CCV5	Total Organic Carbon	10000	9500	95	mg/kg	SM 5310 B MOD
0J12061-CCV6	Total Organic Carbon	10000	9100	91	mg/kg	SM 5310 B MOD

* Values outside of OC limits

INITIAL AND CONTINUING CALIBRATION CHECK

SM 5310 B MOD

Laboratory: Apex Laboratories

SDG: Gasco PreRD_DG 2019

Client: Anchor QEA, LLC

Project: Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Testing Co

Instrument ID: TOC6

Calibration: A0H1904

Control Limit: +/- 10.00%

Sequence: 0J13056

Lab Sample ID	Analyte	True	Found	%R	Units	Method
0J13056-CCV1	Total Organic Carbon	10000	11000	106	mg/kg	SM 5310 B MOD
0J13056-CCV2	Total Organic Carbon	10000	9600	96	mg/kg	SM 5310 B MOD
0J13056-CCV3	Total Organic Carbon	10000	9700	97	mg/kg	SM 5310 B MOD
0J13056-CCV4	Total Organic Carbon	10000	9500	95	mg/kg	SM 5310 B MOD
0J13056-CCV5	Total Organic Carbon	10000	9600	96	mg/kg	SM 5310 B MOD
0J13056-CCV6	Total Organic Carbon	10000	9400	94	mg/kg	SM 5310 B MOD

* Values outside of OC limits

INITIAL AND CONTINUING CALIBRATION CHECK

SM 5310 B MOD

Laboratory: Apex Laboratories

SDG: Gasco PreRD_DG 2019

Client: Anchor QEA, LLC

Project: Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Testing Co

Instrument ID: TOC6

Calibration: A0H1904

Control Limit: +/- 10.00%

Sequence: 0J14041

Lab Sample ID	Analyte	True	Found	%R	Units	Method
0J14041-CCV1	Total Organic Carbon	10000	11000	109	mg/kg	SM 5310 B MOD
0J14041-CCV2	Total Organic Carbon	10000	9800	98	mg/kg	SM 5310 B MOD

* Values outside of OC limits

INSTRUMENT BLANKS
SM 5310 B MOD

Laboratory: Apex Laboratories

SDG: Gasco PreRD DG 2019

Client: Anchor QEA, LLC

Instrument ID: TOC6

Project: Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores

Sequence: 0H18059

Calibration: A0H1904

Lab Sample ID	Analyte	Found	RL	Units	C	Method
0H18059-ICB1	Total Organic Carbon	ND	200 (Inst)	mg/kg		SM 5310 B MOD

(Inst) indicates on-Instrument Result and Reporting Level. Used for non-digested Instrument Blanks.

INSTRUMENT BLANKS
SM 5310 B MOD

Laboratory: Apex Laboratories

SDG: Gasco PreRD DG 2019

Client: Anchor QEA, LLC

Instrument ID: TOC6

Project: Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores

Sequence: 0J12061

Calibration: A0H1904

Lab Sample ID	Analyte	Found	RL	Units	C	Method
0J12061-CCB1	Total Organic Carbon	ND	200 (Inst)	mg/kg		SM 5310 B MOD
0J12061-CCB2	Total Organic Carbon	ND	200 (Inst)	mg/kg		SM 5310 B MOD
0J12061-CCB3	Total Organic Carbon	ND	200 (Inst)	mg/kg		SM 5310 B MOD
0J12061-CCB4	Total Organic Carbon	ND	200 (Inst)	mg/kg		SM 5310 B MOD
0J12061-CCB5	Total Organic Carbon	ND	200 (Inst)	mg/kg		SM 5310 B MOD
0J12061-CCB6	Total Organic Carbon	ND	200 (Inst)	mg/kg		SM 5310 B MOD

(Inst) indicates on-Instrument Result and Reporting Level. Used for non-digested Instrument Blanks.

INSTRUMENT BLANKS
SM 5310 B MOD

Laboratory: Apex Laboratories

SDG: Gasco PreRD DG 2019

Client: Anchor QEA, LLC

Instrument ID: TOC6

Project: Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores

Sequence: 0J13056

Calibration: A0H1904

Lab Sample ID	Analyte	Found	RL	Units	C	Method
0J13056-CCB1	Total Organic Carbon	ND	200 (Inst)	mg/kg		SM 5310 B MOD
0J13056-CCB2	Total Organic Carbon	ND	200 (Inst)	mg/kg		SM 5310 B MOD
0J13056-CCB3	Total Organic Carbon	ND	200 (Inst)	mg/kg		SM 5310 B MOD
0J13056-CCB4	Total Organic Carbon	ND	200 (Inst)	mg/kg		SM 5310 B MOD
0J13056-CCB5	Total Organic Carbon	ND	200 (Inst)	mg/kg		SM 5310 B MOD
0J13056-CCB6	Total Organic Carbon	ND	200 (Inst)	mg/kg		SM 5310 B MOD

(Inst) indicates on-Instrument Result and Reporting Level. Used for non-digested Instrument Blanks.

INSTRUMENT BLANKS
SM 5310 B MOD

Laboratory: Apex Laboratories

SDG: Gasco PreRD DG 2019

Client: Anchor QEA, LLC

Instrument ID: TOC6

Project: Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores

Sequence: 0J14041

Calibration: A0H1904

Lab Sample ID	Analyte	Found	RL	Units	C	Method
0J14041-CCB1	Total Organic Carbon	ND	200 (Inst)	mg/kg		SM 5310 B MOD
0J14041-CCB2	Total Organic Carbon	ND	200 (Inst)	mg/kg		SM 5310 B MOD

(Inst) indicates on-Instrument Result and Reporting Level. Used for non-digested Instrument Blanks.

HOLDING TIME SUMMARY
SM 5310 B MOD

Laboratory: Apex Laboratories

SDG: Gasco PreRD DG 2019

Client: Anchor QEA, LLC

Project: Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing C

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
PDI-016SC-B-00-02-191009	10/09/19 09:53	10/10/19 10:05	10/09/20 14:00	366.17	28.00	10/12/20 23:51	369.58	28.00	*
PDI-016SC-B-02-04-191009	10/09/19 09:57	10/10/19 10:05	10/09/20 14:00	366.17	28.00	10/13/20 00:13	369.59	28.00	*
PDI-016SC-B-04-06-191009	10/09/19 09:58	10/10/19 10:05	10/09/20 14:00	366.17	28.00	10/13/20 00:23	369.60	28.00	*
PDI-023SC-B-00-02-191009	10/09/19 12:01	10/10/19 10:05	10/09/20 14:00	366.08	28.00	10/13/20 00:34	369.52	28.00	*
PDI-023SC-B-02-04-191009	10/09/19 12:02	10/10/19 10:05	10/09/20 14:00	366.08	28.00	10/13/20 00:45	369.53	28.00	*
PDI-023SC-B-04-06-191009	10/09/19 12:03	10/10/19 10:05	10/09/20 14:00	366.08	28.00	10/13/20 00:56	369.54	28.00	*
PDI-023SC-B-06-08-191009	10/09/19 12:04	10/10/19 10:05	10/09/20 14:00	366.08	28.00	10/13/20 01:07	369.54	28.00	*
PDI-026SC-B-00-02-191014	10/14/19 11:04	10/10/19 10:05	10/09/20 14:00	361.12	28.00	10/13/20 01:18	364.59	28.00	*
PDI-026SC-B-02-04-191014	10/14/19 11:05	10/10/19 10:05	10/09/20 14:00	361.12	28.00	10/13/20 01:29	364.60	28.00	*
PDI-026SC-B-04-06-191014	10/14/19 11:05	10/10/19 10:05	10/09/20 14:00	361.12	28.00	10/13/20 02:01	364.62	28.00	*
PDI-026SC-B-06-08-191014	10/14/19 11:06	10/10/19 10:05	10/09/20 14:00	361.12	28.00	10/13/20 02:12	364.63	28.00	*
PDI-031SC-B-00-02-191017	10/17/19 09:06	10/10/19 10:05	10/09/20 14:00	358.20	28.00	10/13/20 02:23	361.72	28.00	*
PDI-031SC-B-02-04-191017	10/17/19 09:06	10/10/19 10:05	10/09/20 14:00	358.20	28.00	10/13/20 02:34	361.73	28.00	*
PDI-031SC-B-04-06-191017	10/17/19 09:06	10/10/19 10:05	10/09/20 14:00	358.20	28.00	10/13/20 02:45	361.74	28.00	*
PDI-031SC-B-06-08-191017	10/17/19 09:06	10/10/19 10:05	10/09/20 14:00	358.20	28.00	10/13/20 02:56	361.74	28.00	*
PDI-034SC-B-00-02-191022	10/22/19 08:31	10/10/19 10:05	10/09/20 14:00	353.23	28.00	10/13/20 03:07	356.78	28.00	*
PDI-034SC-B-02-04-191022	10/22/19 08:34	10/10/19 10:05	10/09/20 14:00	353.23	28.00	10/13/20 03:18	356.78	28.00	*
PDI-034SC-B-04-06-191022	10/22/19 08:35	10/10/19 10:05	10/09/20 14:00	353.23	28.00	10/13/20 03:29	356.79	28.00	*
PDI-034SC-D-06-08-191022	10/22/19 08:36	10/10/19 10:05	10/09/20 14:00	353.23	28.00	10/13/20 03:39	356.79	28.00	*
PDI-041SC-B-00-02-191010	10/10/19 09:50	10/10/19 10:05	10/09/20 14:02	365.18	28.00	10/13/20 22:04	369.51	28.00	*
PDI-041SC-B-02-04-191010	10/10/19 09:51	10/10/19 10:05	10/09/20 14:02	365.17	28.00	10/13/20 22:37	369.53	28.00	*
PDI-041SC-B-04-06-191010	10/10/19 09:52	10/10/19 10:05	10/09/20 14:02	365.17	28.00	10/13/20 22:48	369.54	28.00	*
PDI-045SC-B-00-02-191010	10/10/19 16:56	10/10/19 10:05	10/09/20 14:02	364.88	28.00	10/13/20 22:58	369.25	28.00	*
PDI-045SC-B-02-04-191010	10/10/19 16:58	10/10/19 10:05	10/09/20 14:02	364.88	28.00	10/13/20 23:09	369.26	28.00	*

HOLDING TIME SUMMARY

SM 5310 B MOD

Laboratory: Apex Laboratories

SDG: Gasco PreRD DG 2019

Client: Anchor QEA, LLC

Project: Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing C

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
PDI-045SC-B-04-06-191010	10/10/19 17:01	10/10/19 10:05	10/09/20 14:02	364.88	28.00	10/13/20 23:20	369.26	28.00	*
PDI-045SC-B-06-08-191010	10/10/19 17:01	10/10/19 10:05	10/09/20 14:02	364.88	28.00	10/13/20 23:31	369.27	28.00	*
PDI-051SC-C-00-6.9-200511	05/11/20 15:15	10/10/19 10:05	10/09/20 14:02	150.95	28.00	10/14/20 10:28	155.80	28.00	*
PDI-060SC-C-00-6.8-200511	05/11/20 14:15	10/10/19 10:05	10/09/20 14:02	150.99	28.00	10/14/20 00:14	155.42	28.00	*
PDI-058SC-C-00-10.3-200512	05/12/20 08:50	10/10/19 10:05	10/09/20 14:02	150.22	28.00	10/14/20 10:39	155.08	28.00	*
PDI-080SC-C-00-8.6-200507	05/07/20 14:00	10/10/19 10:05	10/09/20 14:02	155.00	28.00	10/14/20 00:36	159.44	28.00	*
PDI-171SC-B-00-02-200521	05/21/20 15:00	10/10/19 10:05	10/09/20 14:02	140.96	28.00	10/14/20 00:57	145.42	28.00	*
PDI-171SC-B-02-04-200521	05/21/20 15:00	10/10/19 10:05	10/09/20 14:02	140.96	28.00	10/14/20 01:08	145.42	28.00	*
PDI-171SC-B-04-06-200521	05/21/20 15:00	10/10/19 10:05	10/09/20 14:02	140.96	28.00	10/14/20 01:19	145.43	28.00	*
PDI-171SC-B-06-08-200521	05/21/20 15:00	10/10/19 10:05	10/09/20 14:02	140.96	28.00	10/14/20 01:30	145.44	28.00	*
PDI-171SC-B-08-10-200521	05/21/20 15:00	10/10/19 10:05	10/09/20 14:02	140.96	28.00	10/14/20 01:41	145.45	28.00	*
PDI-171SC-B-10-12-200521	05/21/20 15:00	10/10/19 10:05	10/09/20 14:02	140.96	28.00	10/14/20 02:13	145.47	28.00	*
PDI-171SC-B-12-13.5-200521	05/21/20 15:00	10/10/19 10:05	10/09/20 14:02	140.96	28.00	10/14/20 02:24	145.48	28.00	*
PDI-041SC-B-06-08-191010	10/10/19 09:52	10/10/19 10:05	10/09/20 14:02	365.17	28.00	10/14/20 02:35	369.70	28.00	*

Apex Laboratories

SDG: Gasco PreRD_DG 2019

CLASS: WET

METHOD: SM 2540 G

ANALYSES DATA PACKAGE COVER PAGE

SM 2540 G

Laboratory: Apex Laboratories

SDG: Gasco PreRD_DG 2019

Client: Anchor QEA, LLC

Project: Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Testing Co

Client Sample Id:

Lab Sample Id:

Matrix

PDI-034SC-D-06-08-191022

A0J0298-19

SE

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures.

Signature: _____



Name: _____

David G. Jack

Forms Created: _____

10/15/2020 1:07PM

Title: _____

Technical Manager

METHOD DETECTION AND REPORTING LIMITS

SM 2540 G

Laboratory: Apex Laboratories

SDG: Gasco PreRD_DG 2019

Client: Anchor QEA, LLC

Project: Gasco PreRD_DG 2019 - 4a-b, DOC-CAP

Batch Matrix: Sediment

Analyte	MDL	MRL	Units
Total Solids	1.00	1.00	% by Weight

Note: MDLs are listed only if the corresponding analyte was evaluated to the MDL in this report .

INORGANIC ANALYSIS DATA SHEET

SM 2540 G

PDI-034SC-D-06-08-191022

Laboratory: Apex Laboratories

SDG: Gasco PreRD DG 2019

Client: Anchor QEA, LLC

Project: Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Cores

Matrix: SE

Laboratory ID: A0J0298-19

Sampled: 10/22/19 08:36

Prepared: 10/12/20 10:19

Analyzed: 10/13/20 15:26

Solids: 86.64

Preparation: Total Solids (SM2540G/PSEP)

Initial/Final: 1 N/A / 1 N/A

Batch: 0100376

Calibration:

Instrument: Wet Chem Balance 1

CAS NO.	Analyte	Concentration (% by Weight)	Dilution Factor	Q	Method
TS	Total Solids	86.6	1		SM 2540 G

PREPARATION BATCH SUMMARY

SM 2540 G

Laboratory: Apex Laboratories

SDG: Gasco PreRD_DG 2019

Client: Anchor QEA, LLC

Project: Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing Co

Batch: 0100376

Batch Matrix: Sediment

Preparation: Total Solids (SM2540G/PSEP)

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
PDI-034SC-D-06-08-191022 (Dup)	0100376-DUP2		10/12/20 10:19	
PDI-034SC-D-06-08-191022	A0J0298-19		10/12/20 10:19	

Note: Client samples are listed only if they are included in this report.

Duplicates and Matrix Spike/Duplicates QC Samples are only listed if sourced from a sample included in this report.

DUPLICATES

PDI-034SC-D-06-08-191022

SM 2540 G

Laboratory: Apex Laboratories

SDG: Gasco PreRD_DG 2019

Client: Anchor QEA, LLC

Project: Gasco PreRD_DG 2019 - 4a-b. DOC-CAP

Matrix: Sediment

Laboratory ID: 0100376-DUP2

Batch: 0100376

Lab Source ID: A0J0298-19

Preparation: Total Solids (SM2540G/PSEP)

Initial/Final: 1 N/A / 1 N/A

Source Sample Name: PDI-034SC-D-06-08-191022

% Solids: 86.64

ANALYTE	CONTROL LIMIT	SAMPLE CONCENTRATION (% by Weight)	C	DUPLICATE CONCENTRATION (% by Weight)	C	RPD %	Q	METHOD
Total Solids	10	86.6		87.0		0.4		SM 2540 G

* Values outside of QC limits

HOLDING TIME SUMMARY

SM 2540 G

Laboratory: Apex Laboratories

SDG: Gasco PreRD DG 2019

Client: Anchor QEA, LLC

Project: Gasco PreRD DG 2019 - 4a-b. DOC-CAP Testing C

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
PDI-034SC-D-06-08-191022	10/22/19 08:36	10/10/19 10:05	10/12/20 10:19	356.07	180.00	10/13/20 15:26	1.21		*

Raw Data

Conventional Chemistry Parameters

Total Organic Carbon- Soil (5310 B) Benchsheet & Analysis Sequence Data

Batch 0100332

Sequence 0112061 (A0J0298-01,02,03,04,05,06,07,08,09,10,11,12,
13,14,15,16,17,18,19)



Apex Laboratories
PREPARATION BENCH SHEET

OCT 15 2020

BATCH #: 0100332 (Soil)

Prep Method: PSEP-5310B TOC

#	Lab Number	Analysis	Prepared	Initial (N/A)	Final (N/A)	Spike ID	Source ID	ul Spike	ul Surr.	Sample ID	Extraction Comments	pH		
												<2	2-8	>11
	0100332-BLK1	QC	10/09/20 14:00	0.2	0.2									
	0100332-BS1	QC	10/09/20 14:00	0.2	0.2	A20I375		1	-					
	A0J0281-06	A Total Organic Carbon - Soil (5310 B)	10/09/20 14:00	0.2	0.2					USMPDI-1048S G-201007				
	0100332-DUP1	QC	10/09/20 14:00	0.2	0.2		A0J0281-06							
	0100332-DUP2	QC	10/09/20 14:00	0.2	0.2		A0J0281-06							
	A0J0298-01	A Total Organic Carbon - Soil (5310 B)	10/09/20 14:00	0.2	0.2					PDI-016SC-B-00 -02-191009				
	0100332-DUP3	QC	10/09/20 14:00	0.2	0.2		A0J0298-01							
	A0J0298-02	A Total Organic Carbon - Soil (5310 B)	10/09/20 14:00	0.2	0.2					PDI-016SC-B-02 -04-191009				
	A0J0298-03	A Total Organic Carbon - Soil (5310 B)	10/09/20 14:00	0.2	0.2					PDI-016SC-B-04 -06-191009				
	A0J0298-04	A Total Organic Carbon - Soil (5310 B)	10/09/20 14:00	0.2	0.2					PDI-023SC-B-00 -02-191009				
	A0J0298-05	A Total Organic Carbon - Soil (5310 B)	10/09/20 14:00	0.2	0.2					PDI-023SC-B-02 -04-191009				
	A0J0298-06	A Total Organic Carbon - Soil (5310 B)	10/09/20 14:00	0.2	0.2					PDI-023SC-B-04 -06-191009				
	A0J0298-07	A Total Organic Carbon - Soil (5310 B)	10/09/20 14:00	0.2	0.2					PDI-023SC-B-06 -08-191009				
	A0J0298-08	A Total Organic Carbon - Soil (5310 B)	10/09/20 14:00	0.2	0.2					PDI-026SC-B-00 -02-191014				
	A0J0298-09	A Total Organic Carbon - Soil (5310 B)	10/09/20 14:00	0.2	0.2					PDI-026SC-B-02 -04-191014				
	A0J0298-10	A Total Organic Carbon - Soil (5310 B)	10/09/20 14:00	0.2	0.2					PDI-026SC-B-04 -06-191014				
	A0J0298-11	A Total Organic Carbon - Soil (5310 B)	10/09/20 14:00	0.2	0.2					PDI-026SC-B-06 -08-191014				
	A0J0298-12	A Total Organic Carbon - Soil (5310 B)	10/09/20 14:00	0.2	0.2					PDI-031SC-B-00 -02-191017				
	A0J0298-13	A Total Organic Carbon - Soil (5310 B)	10/09/20 14:00	0.2	0.2					PDI-031SC-B-02 -04-191017				
	A0J0298-14	A Total Organic Carbon - Soil (5310 B)	10/09/20 14:00	0.2	0.2					PDI-031SC-B-04 -06-191017				

MMO

10/12/20

COMM 10/13/2020

Prepared By:

Date

Reviewed By:

Date

Apex Laboratories
PREPARATION BENCH SHEET

BATCH #: 0100332 (Soil)

Prep Method: PSEP-5310B TOC

#	Lab Number	Analysis	Prepared	Initial (N/A)	Final (N/A)	Spike ID	Source ID	ul Spike	ul Surr.	Sample ID	Extraction Comments	pH		
												<2	5-8	>11
	A0J0298-15	A Total Organic Carbon - Soil (5310 B)	10/09/20 14:00	0.2	0.2					PDI-031SC-B-06-08-191017				
	A0J0298-16	A Total Organic Carbon - Soil (5310 B)	10/09/20 14:00	0.2	0.2					PDI-034SC-B-00-02-191022				
	A0J0298-17	A Total Organic Carbon - Soil (5310 B)	10/09/20 14:00	0.2	0.2					PDI-034SC-B-02-04-191022				
	A0J0298-18	A Total Organic Carbon - Soil (5310 B)	10/09/20 14:00	0.2	0.2					PDI-034SC-B-04-06-191022				
	A0J0298-19	A Total Organic Carbon - Soil (5310 B)	10/09/20 14:00	0.2	0.2					PDI-034SC-D-06-08-191022				

Standards/Reagents

Reagent(s)			Analyte Spike(s)			Surrogate(s)		
Std ID	Exp. Date	Description	Std ID	Exp. Date	Description	Std ID	Exp. Date	Description
A13L220	11/30/23	Wet Chem Balance 1	A20I375	03/24/21	TOC 10k ppm secondary ✓			
A19F020	06/03/29	TOC Soil Drying Oven @70oC						
A19J023	11/30/23	Wet Chem Balance 4						
A19J145	05/30/22	TOC Soil Blank Matrix ✓						
A19K369	11/27/24	VWR002V						
A20F100	12/08/20	10% Phosphoric Acid						

Prepared By: _____ Date _____

Reviewed By: _____ Date _____

Batch: 0100332		TOC PSEP Preweigh					Analyst: has	
Date/Time:	(n/a)	(n/a)	10/12/20 10:22	10/12/2020				Effervesces?
T(°C) IN / OUT:	(n/a)	(n/a)	69.8/68.1	70.2/71.2	/	/	/	
Sample ID	Tare (g)	Wet+tare wt (g)	Wt 1(g)	Wt 2(g)	Wt 3(g)	Wt 4(g)	Wt 5(g)	(yes/no)
A0J0281-06	1.2945	12.1132	5.8476	5.8427	X			NO
0100332-DUP1	1.3063	12.0367	5.7324	5.7282	X			NO
A0J0298-01	1.298	11.8704	8.4649	8.46	X			NO
0100332-DUP2 <i>3 ure</i>	1.3079	11.2873	8.3018	8.2981	X			NO
A0J0298-02 <i>10/19/2020</i>	1.3101	11.3136	8.9241	8.9229	X			NO
A0J0298-03	1.296	11.6094	8.6968	8.6936	X			NO
A0J0298-04	1.2782	12.3355	8.6645	8.6641	X			NO
A0J0298-05	1.3017	12.0117	9.5394	9.5356	X			NO
A0J0298-06	1.2987	12.1177	9.851	9.8473	X			NO
A0J0298-07	1.2815	11.7705	9.4093	9.4061	X			NO
A0J0298-08	1.3137	11.7552	7.0756	7.0711	X			NO
A0J0298-09	1.3009	11.9415	7.6516	7.6474	X			NO
A0J0298-10	1.2991	11.3962	9.3348	9.33	X			NO
A0J0298-11	1.2998	11.7904	8.9896	8.9848	X			NO
A0J0298-12	1.3041	11.7791	7.0437	7.0396	X			NO
A0J0298-13	1.3044	12.3638	9.0263	9.0218	X			NO
A0J0298-14	1.2935	11.7208	10.3111	10.3065	X			NO
A0J0298-15	1.3026	11.9035	9.4915	9.4918	X			NO
A0J0298-16	1.3128	12.3645	8.0532	8.0523	X			NO
A0J0298-17	1.3017	12.2799	9.465	9.4606	X			NO
A0J0298-18	1.3043	12.1525	11.0195	11.0155	X			NO
A0J0298-19	1.3121	11.9804	10.7236	10.7206	X			NO
Pre-drying sample aliquot > 10g			Constant Weight = change < 0.005 g					



ELEMENT SEQUENCE LOG

Apex Laboratories

OCT 15 2020

Sequence: **OJ12061** Instrument: **TOC6**
 Date: **10/12/20 15:00** Calibration: **A0H1904 ✓**

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
1	OJ12061-CCV1	Soil	QC	QC				A20I376 ✓
2	OJ12061-CCB1	Soil	QC	QC				
3	0100306-BLK1	Soil	QC	QC		0100306		
4	0100306-BS1	Soil	QC	QC		0100306		
5	0100332-BLK1	Soil	QC	QC		0100332		
6	0100332-BS1	Soil	QC	QC		0100332		
7	A0J0236-01	Soil	Total Organic Carbon - Sediment (PS)		10/21/20	0100306		
8	"	Soil	Total Organic Carbon - Soil (5310 B)	(QC Source)		0100306		
9	0100306-DUP1	Soil	QC	QC		0100306		
10	0100306-DUP2	Soil	QC	QC		0100306		
11	A0J0236-02	Soil	Total Organic Carbon - Sediment (PS)		10/21/20	0100306		
12	A0J0236-03	Soil	Total Organic Carbon - Sediment (PS)		10/21/20	0100306		
13	A0J0236-04	Soil	Total Organic Carbon - Sediment (PS)		10/21/20	0100306		
14	OJ12061-CCV2	Soil	QC	QC				A20I376 ✓
15	OJ12061-CCB2	Soil	QC	QC				
16	A0J0236-05	Soil	Total Organic Carbon - Sediment (PS)		10/21/20	0100306		
17	A0J0236-06	Soil	Total Organic Carbon - Sediment (PS)		10/21/20	0100306		
18	A0J0236-07	Soil	Total Organic Carbon - Sediment (PS)		10/21/20	0100306		
19	A0J0236-08	Soil	Total Organic Carbon - Sediment (PS)		10/21/20	0100306		
20	A0J0236-09	Soil	Total Organic Carbon - Sediment (PS)		10/21/20	0100306		
21	A0J0236-10	Soil	Total Organic Carbon - Sediment (PS)		10/21/20	0100306		
22	A0J0236-11	Soil	Total Organic Carbon - Sediment (PS)		10/21/20	0100306		
23	A0J0236-12	Soil	Total Organic Carbon - Sediment (PS)		10/21/20	0100306		
24	A0J0269-01	Soil	Total Organic Carbon - Sediment (PS)	Anchor QEA, LLC	10/20/20	0100306		
25	A0J0269-02	Soil	Total Organic Carbon - Sediment (PS)	Anchor QEA, LLC	10/20/20	0100306		
26	OJ12061-CCV3	Soil	QC	QC				A20I376 ✓
27	OJ12061-CCB3 ✓	Soil	QC	QC				
28	A0J0273-01	Soil	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/20/20	0100306		
29	A0J0281-01	Soil	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/21/20	0100306		
30	A0J0281-02	Soil	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/21/20	0100306		
31	A0J0281-03	Soil	Total Organic Carbon - Sediment (PS)	(QC Source)		0100306		
32	"	Soil	Total Organic Carbon - Soil (5310 B)	"	10/21/20	0100306		
33	0100306-DUP3	Soil	QC	QC		0100306		
34	A0J0281-04	Soil	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/21/20	0100306		
35	A0J0281-05	Soil	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/21/20	0100306		
36	A0J0281-06	Soil	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/21/20	0100332		
37	0100332-DUP1	Soil	QC	QC		0100332		
38	0100332-DUP2	Soil	QC	QC		0100332		
39	OJ12061-CCV4	Soil	QC	QC				A20I376 ✓
40	OJ12061-CCB4	Soil	QC	QC				
41	A0J0298-01	Soil	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/14/20	0100332		
42	0100332-DUP3	Soil	QC	QC		0100332		
43	A0J0298-02	Soil	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/14/20	0100332		
44	A0J0298-03	Soil	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/14/20	0100332		
45	A0J0298-04	Soil	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/14/20	0100332		
46	A0J0298-05	Soil	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/14/20	0100332		
47	A0J0298-06	Soil	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/14/20	0100332		
48	A0J0298-07	Soil	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/14/20	0100332		
49	A0J0298-08	Soil	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/14/20	0100332		
50	A0J0298-09	Soil	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/14/20	0100332		
51	OJ12061-CCV5	Soil	QC	QC				A20I376 ✓

Sequence:

0J12061

Instrument:

TOC6

Date:

10/12/20 15:00

Calibration:

A0H1904

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
52	0J12061-CCB5	Soil	QC	QC				
53	A0J0298-10	Soil	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/14/20	0100332		
54	A0J0298-11	Soil	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/14/20	0100332		
55	A0J0298-12	Soil	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/14/20	0100332		
56	A0J0298-13	Soil	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/14/20	0100332		
57	A0J0298-14	Soil	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/14/20	0100332		
58	A0J0298-15	Soil	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/14/20	0100332		
59	A0J0298-16	Soil	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/14/20	0100332		
60	A0J0298-17	Soil	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/14/20	0100332		
61	A0J0298-18	Soil	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/14/20	0100332		
62	A0J0298-19	Soil	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/14/20	0100332		
63	0J12061-CCV6	Soil	QC	QC				
64	0J12061-CCB6	Soil	QC	QC				A201376

Data Entered By/Date: MWD 10/12/20

Comments:

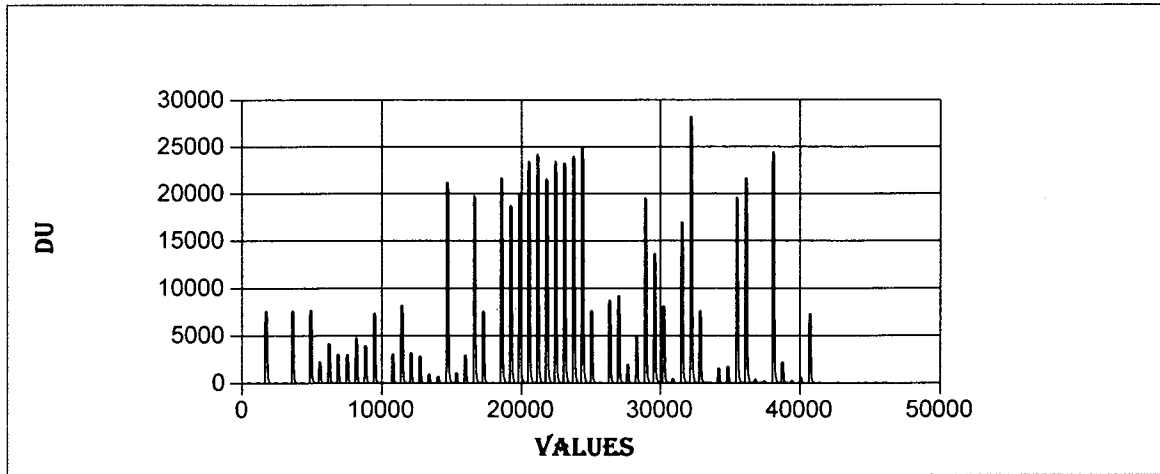
Data Reviewed By/Date: CUM 10/13/2020
10/16/20 - Anchor QEA, LLC - Gasco PreRD_DG 2019 - 4a-b. DOC-CAP Testing Cores Page 143 of 174

Method: TCDirect Run Start Time: 10/12/2020 4:38:47
 Method Type: TC_DIRECT Run End Time: 10/13/2020 5:33:54
 Table: OJ12061 Device ID: TOC6
 Analyst: Administrator Run Name: SN10020201012A2

Cup Position	Sample ID	Weight (mg)	Final Result (mg/kg)	Result mg C abs	Peak Area	Analysed Date and time
A100	PRIME	200	74.357	0.015	9950.48	10/12/2020 4:38:57 PM
A2	BLANK	200	39.061	0.008	5227.14	10/12/2020 4:50:12 PM
A1	OJ12061-CCV1	200	10378.728 ✓	2.076	1388891.12	10/12/2020 5:01:05 PM
A2	OJ12061-CCB1	200	49.873 ✓	0.01	6674.105	10/12/2020 5:11:52 PM
A3	0100306-BLK1	210.9	57.228 ✓	0.012	8075.68	10/12/2020 5:22:39 PM
A4	0100306-BS1	200	9428.668 ✓	1.886	1261753.18	10/12/2020 5:33:27 PM
A5	0100332-BLK1	211.6	73.992 ✓	0.016	10475.99	10/12/2020 5:44:14 PM
A6	0100332-BS1	200	9515.895 ✓	1.903	1273425.92	10/12/2020 5:55:01 PM
A7	A0J0236-01	204.1	2720.973 ✓	0.555	371587.74	10/12/2020 6:05:48 PM
A8	0100306-DUP1	204.1	5026.921 ✓	1.026	686497.74	10/12/2020 6:16:35 PM
A9	0100306-DUP2	212.4	3548.205 ✓	0.754	504263.18	10/12/2020 6:27:22 PM
A10	A0J0236-02	207.8	3577.656 ✓	0.743	497437.165	10/12/2020 6:38:09 PM
A11	A0J0236-03	205.4	5673.267 ✓	1.165	779700.29	10/12/2020 6:48:56 PM
A12	A0J0236-04	205.2	4768.866 ✓	0.979	654766.645	10/12/2020 6:59:43 PM
A13	OJ12061-CCV2	200	9054.739 ✓	1.811	1211713.68	10/12/2020 7:10:31 PM
A2	OJ12061-CCB2	200	51.231 ✓	0.01	6855.765	10/12/2020 7:21:17 PM
A14	A0J0236-05	203.1	3760.675 ✓	0.764	511057.53	10/12/2020 7:32:11 PM
A15	A0J0236-06	211.3	9547.817 ✓	2.017	1349887.74	10/12/2020 7:43:05 PM
A16	A0J0236-07	204	3894.314 ✓	0.794	531563.62	10/12/2020 7:53:52 PM
A17	A0J0236-08	205.6	3418.24 ✓	0.703	470240.2	10/12/2020 8:04:39 PM
A18	A0J0236-09	208.7	1136.295 ✓	0.237	158674.685	10/12/2020 8:15:26 PM
A19	A0J0236-10	207.8	892.465 ✓	0.185	124088.32	10/12/2020 8:26:13 PM
A20	A0J0236-11	202.4	25743.142 ✓	5.21	3486311.085	10/12/2020 8:37:00 PM
A21	A0J0236-12	207.2	1348.828 ✓	0.279	186999.48	10/12/2020 8:47:47 PM
A22	A0J0269-01	208.3	3522.842 ✓	0.734	490994.32	10/12/2020 8:58:34 PM
A23	A0J0269-02	207.9	23366.374 ✓	4.858	3250423	10/12/2020 9:09:21 PM
A24	OJ12061-CCV3	200	9388.749 ✓	1.878	1256411.22	10/12/2020 9:20:08 PM
A2	OJ12061-CCB3	200	63.733 ✓	0.013	8528.81	10/12/2020 9:30:55 PM
A25	<i>WVVO</i> A0J0273-01	203.2	26237.89 ✓	5.332	3567357.87	10/12/2020 9:41:49 PM
A26	<i>10/12/20</i> A0H0281-01	205.5	22462.471 ✓	4.616	3088612.565	10/12/2020 9:52:43 PM
A27	A0H0281-02	206.1	23916.042 ✓	4.929	3298081.385	10/12/2020 10:03:30 PM
A28	A0H0281-03	204.4	28203.248 ✓	5.765	3857217.1	10/12/2020 10:14:17 PM
A29	0100306-DUP3	205.9	28929.411 ✓	5.957	3985565.97	10/12/2020 10:25:04 PM

A30	A0H0281-04	202.4	26083.759	5.279	3532439.705	10/12/2020 10:35:51 PM
A31	A0H0281-05	206.1	27903.919	5.751	3848019.49	10/12/2020 10:46:39 PM
A32	A0H0281-06	206.9	27596.156	5.71	3820349.935	10/12/2020 10:57:26 PM
A33	0100332-DUP1	207.6	28346.296	5.885	3937474.4	10/12/2020 11:08:14 PM
A34	0100332-DUP2	208	29488.751	6.134	4104060.72	10/12/2020 11:19:01 PM
A35	0J12061-CCV4	200	9487.987	1.898	1269691.355	10/12/2020 11:29:48 PM
A2	0J12061-CCB4	200	85.114	0.017	11390.075	10/12/2020 11:40:35 PM
A36	A0J0298-01	202.5	10611.967	2.149	1437854.65	10/12/2020 11:51:28 PM
A37	0100332-DUP3	204.7	11046.836	2.261	1513037.89	10/13/2020 12:02:21 AM
A38	A0J0298-02	207.5	2351.703	0.488	326508.6	10/13/2020 12:13:07 AM
A39	A0J0298-03	200.6	6034.71	1.211	809993.25	10/13/2020 12:23:54 AM
A40	A0J0298-04	202.6	23731.746	4.808	3217089.99	10/13/2020 12:34:40 AM
A41	A0J0298-05	208	16159.007	3.361	2248910.03	10/13/2020 12:45:27 AM
A42	A0J0298-06	207.2	9682.491	2.006	1342365.97	10/13/2020 12:56:27 AM
A43	A0J0298-07	207.3	570.167	0.118	79085.22	10/13/2020 1:07:21 AM
A44	A0J0298-08	203.5	20450.363	4.162	2784578.79	10/13/2020 1:18:14 AM
A45	A0J0298-09	201.2	34688.911	6.979	4669955.235	10/13/2020 1:29:08 AM
A46	0J12061-CCV5	200	9469.876	1.894	1267267.7	10/13/2020 1:40:01 AM
A2	0J12061-CCB5	200	74.477	0.015	9966.63	10/13/2020 1:50:54 AM
A47	A0J0298-10	202.6	1904.929	0.386	258233.3	10/13/2020 2:01:47 AM
A48	A0J0298-11	203.1	2150.386	0.437	292227.085	10/13/2020 2:12:41 AM
A49	A0J0298-12	202.1	23840.296	4.818	3223829.195	10/13/2020 2:23:34 AM
A50	A0J0298-13	195.9	27277.297	5.344	3575442.8	10/13/2020 2:34:28 AM
A51	A0J0298-14	208	480.464	0.1	66867.96	10/13/2020 2:45:22 AM
A52	A0J0298-15	206.8	269.51	0.056	37292.26	10/13/2020 2:56:16 AM
A53	A0J0298-16	202.4	29751.548	6.022	4029156.53	10/13/2020 3:07:11 AM
A54	A0J0298-17	204.8	2685.974	0.55	368066.14	10/13/2020 3:18:05 AM
A55	A0J0298-18	201.8	317.396	0.064	42856.565	10/13/2020 3:29:00 AM
A56	A0J0298-19	204.9	765.993	0.157	105017.29	10/13/2020 3:39:53 AM
A57	0J12061-CCV6	200	9094.058	1.819	1216975.4	10/13/2020 3:50:46 AM
A2	0J12061-CCB6	200	50.476	0.01	6754.79	10/13/2020 4:01:40 AM
A4	CLEAN4	200	38.532	0.008	5156.36	10/13/2020 4:12:34 AM
A6	CLEAN6	200	57.375	0.011	7677.91	10/13/2020 4:23:21 AM
A13	CLEAN13	200	41.12	0.008	5502.7	10/13/2020 4:34:07 AM
A24	CLEAN24	200	0	0	0	10/13/2020 4:45:01 AM
A35	CLEAN35	200	51.555	0.01	6899.13	10/13/2020 4:55:54 AM
A46	CLEAN46	200	23.096	0.005	3090.74	10/13/2020 5:06:48 AM
A57	CLEAN57	200	59.673	0.012	7985.525	10/13/2020 5:17:49 AM

memo
10/13/20



Done 10/13/2020

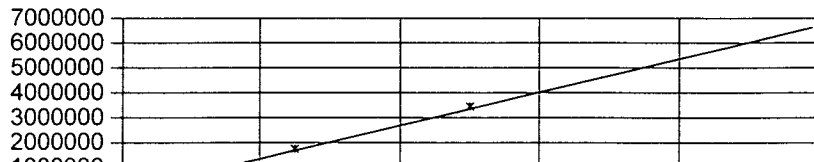
SNACCESS

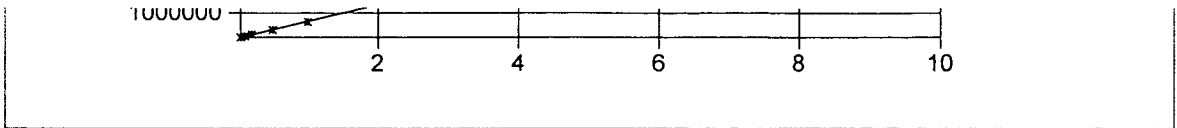
RUN NAME : SN10020200818AS METHOD NAME : TCDIRECT CALIBRATION TYPE : I

ORDER FORCED THRO ZERO GROUP : 1

A = 0.0000000000000000 B = 669104.68364697200000 R = 0.99973664180877 R-

SQUARED = 0.99942005573222





Batch 0100306

Sample Drying

Analyst WVO

Conversion from dried @ 70 °C to "as received" TOC conversion from dried @ 70 °C to "as received"

Sequence: 0J12061

Analyst: WVO

Sample ID	Tare (g)	initial + tare(g)	dried + tare(g)	correction factor	Skalar TOC (mg/kg)	Result for Element
A0J0236-01	1.3089	11.7070	9.7289	0.8098	2720.973	2203.3 ✓
0100306-DUP1	1.3078	11.8069	9.6261	0.7923	5026.921	3982.8 ✓
0100306-DUP2	1.3078	11.8069	9.6261	0.7923	3548.205	2811.2 ✓
A0J0236-02	1.3037	11.4391	9.5132	0.8100	3577.656	2897.8 ✓
A0J0236-03	1.3048	11.5305	9.4173	0.7933	5673.267	4500.9 ✓
A0J0236-04	1.2949	11.6947	9.4858	0.7876	4768.866	3756.0 ✓
A0J0236-05	1.3062	11.9995	10.6522	0.8740	3760.675	3286.8 ✓
A0J0236-06	1.3057	11.7860	8.8912	0.7238	9547.817	6910.6 ✓
A0J0236-07	1.3084	11.7391	11.0429	0.9333	3894.314	3634.4 ✓
A0J0236-08	1.2903	11.8491	9.6067	0.7876	3418.24	2692.3 ✓
A0J0236-09	1.3116	11.8335	10.3370	0.8578	1136.295	974.7 ✓
A0J0236-10	1.3051	11.7921	10.4476	0.8718	892.465	778.0 ✓
A0J0236-11	1.3072	11.7841	7.7893	0.6187	25743.142	15927.4 ✓
A0J0236-12	1.3108	11.9189	11.1721	0.9296	1348.828	1253.9 ✓
A0J0269-01	1.3115	11.6393	8.7257	0.7179	3522.842	2529.0 ✓
A0J0269-02	1.2976	11.9838	6.0162	0.4416	23366.374	10317.7 ✓
A0J0273-01	1.3101	11.5720	5.2833	0.3872	26237.89	10158.8 ✓
A0J0281-01	1.3019	11.6970	6.3124	0.4820	22462.471	10827.0 ✓
A0J0281-02	1.3088	11.6652	5.5645	0.4109	23916.042	9827.7 ✓
A0J0281-03	1.3085	11.4671	5.3498	0.3978	28203.248	11219.8 ✓
0100306-DUP3	1.3081	11.4872	5.3651	0.3986	28929.411	11530.2 ✓
A0J0281-04	1.3098	12.2476	5.3788	0.3720	26083.759	9703.5 ✓
A0J0281-05	1.3154	11.9821	5.8288	0.4231	27903.919	11807.0 ✓

Report Skalar data. No corr. to 70°C per DT. Comp 10/17/2020

Batch 0100332

Sample Drying

Analyst WVO

Conversion from dried @ 70 °C to "as received" TOC conversion from dried @ 70 °C to "as received"

Sequence: OJ12061

Analyst: WVO

Sample ID	Tare (g)	initial + tare(g)	dried + tare(g)	correction factor	Skalar TOC (mg/kg)	Result for Element
A0J0281-06	1.2945	12.1132	5.8427	0.4204	27596.156	11601.5
0100332-DUP1	1.3063	12.0367	5.7282	0.4121	28346.296	11681.3
0100332-DUP2	1.3063	12.0367	5.7282	0.4121	29488.751	12152.0
A0J0298-01	1.2980	11.8704	8.4600	0.6774	10611.967	7188.8
0100332-DUP3	1.3079	11.2873	8.2981	0.7005	11046.836	7737.9
A0J0298-02	1.3101	11.3136	8.9229	0.7610	2351.703	1789.7
A0J0298-03	1.2960	11.6094	8.6936	0.7173	6034.71	4328.6
A0J0298-04	1.2782	12.3355	8.6641	0.6680	23731.746	15852.0
A0J0298-05	1.3017	12.0117	9.5356	0.7688	16159.007	12423.1
A0J0298-06	1.2987	12.1177	9.8473	0.7901	9682.491	7650.6
A0J0298-07	1.2815	11.7705	9.4061	0.7746	570.167	441.6
A0J0298-08	1.3137	11.7552	7.0711	0.5514	20450.363	11276.2
A0J0298-09	1.3009	11.9415	7.6474	0.5964	34688.911	20689.9
A0J0298-10	1.2991	11.3962	9.3300	0.7954	1904.929	1515.1
A0J0298-11	1.2998	11.7904	8.9848	0.7326	2150.386	1575.3
A0J0298-12	1.3041	11.7791	7.0396	0.5475	23840.296	13053.6
A0J0298-13	1.3044	12.3638	9.0218	0.6978	27277.297	19034.5
A0J0298-14	1.2935	11.7208	10.3065	0.8644	480.464	415.3
A0J0298-15	1.3026	11.9035	9.4915	0.7725	269.51	208.2
A0J0298-16	1.3128	12.3645	8.0523	0.6098	29751.548	18143.0
A0J0298-17	1.3017	12.2799	9.4606	0.7432	2685.974	1996.2
A0J0298-18	1.3043	12.1525	11.0155	0.8952	317.396	284.1
A0J0298-19	1.3121	11.9804	10.7206	0.8819	765.993	675.5
				#DIV/0!		
				#DIV/0!		
				#DIV/0!		

Report Skalar data. No 70° corr. per dt.

WVO 10/14/2020

Conventional Chemistry Parameters

Total Organic Carbon- Soil (5310 B) Benchsheet & Analysis Sequence Data

Batch 0100333

Sequence 0J13056 (A0J0298-20,21,22,23,24,25,26,28,30,31,32,33,34,
35,36,37,38)



Apex Laboratories
PREPARATION BENCH SHEET

OCT 15 2020

BATCH #: 0100333 (Soil)

Prep Method: PSEP-5310B TOC

#	Lab Number	Analysis	Prepared	Initial (N/A)	Final (N/A)	Spike ID	Source ID	ul Spike	ul Surr.	Sample ID	Extraction Comments	pH		
												<2	2-8	>11
	0100333-BLK1	QC	10/09/20 14:02	0.2	0.2									
	0100333-BS1	QC	10/09/20 14:02	0.2	0.2	A201375								
	A0J0298-20	A Total Organic Carbon - Soil (5310 B)	10/09/20 14:02	0.2	0.2					PDI-041SC-B-00-02-191010				
	0100333-DUP1	QC	10/09/20 14:02	0.2	0.2		A0J0298-20							
	0100333-DUP2	QC	10/09/20 14:02	0.2	0.2		A0J0298-20							
	A0J0298-21	A Total Organic Carbon - Soil (5310 B)	10/09/20 14:02	0.2	0.2					PDI-041SC-B-02-04-191010				
	A0J0298-22	A Total Organic Carbon - Soil (5310 B)	10/09/20 14:02	0.2	0.2					PDI-041SC-B-04-06-191010				
	A0J0298-23	A Total Organic Carbon - Soil (5310 B)	10/09/20 14:02	0.2	0.2					PDI-045SC-B-00-02-191010				
	A0J0298-24	A Total Organic Carbon - Soil (5310 B)	10/09/20 14:02	0.2	0.2					PDI-045SC-B-02-04-191010				
	A0J0298-25	A Total Organic Carbon - Soil (5310 B)	10/09/20 14:02	0.2	0.2					PDI-045SC-B-04-06-191010				
	A0J0298-26	A Total Organic Carbon - Soil (5310 B)	10/09/20 14:02	0.2	0.2					PDI-045SC-B-06-08-191010				
	A0J0298-27	A Total Organic Carbon - Soil (5310 B)	10/09/20 14:02	0.2	0.2					PDI-051SC-C-00-6.9-200511				
	A0J0298-28	A Total Organic Carbon - Soil (5310 B)	10/09/20 14:02	0.2	0.2					PDI-060SC-C-00-6.8-200511				
	A0J0298-29	A Total Organic Carbon - Soil (5310 B)	10/09/20 14:02	0.2	0.2					PDI-058SC-C-00-10.3-200512				
	A0J0298-30	A Total Organic Carbon - Soil (5310 B)	10/09/20 14:02	0.2	0.2					PDI-080SC-C-00-8.6-200507				
	0100333-DUP3	QC	10/09/20 14:02	0.2	0.2		A0J0298-30							
	A0J0298-31	A Total Organic Carbon - Soil (5310 B)	10/09/20 14:02	0.2	0.2					PDI-171SC-B-00-02-200521				
	A0J0298-32	A Total Organic Carbon - Soil (5310 B)	10/09/20 14:02	0.2	0.2					PDI-171SC-B-02-04-200521				
	A0J0298-33	A Total Organic Carbon - Soil (5310 B)	10/09/20 14:02	0.2	0.2					PDI-171SC-B-04-06-200521				
	A0J0298-34	A Total Organic Carbon - Soil (5310 B)	10/09/20 14:02	0.2	0.2					PDI-171SC-B-06-08-200521				

1
10/14/2020

Prepared By: *MMO* Date: *10/14/20*

Reviewed By: *CMR* Date: *10/14/2020*

Apex Laboratories
PREPARATION BENCH SHEET

BATCH #: 0100333 (Soil)

Prep Method: PSEP-5310B TOC

#	Lab Number	Analysis	Prepared	Initial (N/A)	Final (N/A)	Spike ID	Source ID	ul Spike	ul Surr.	Sample ID	Extraction Comments	pH		
												<2	5-9	>11
	A0J0298-35	A Total Organic Carbon - Soil (5310 B)	10/09/20 14:02	0.2	0.2					PDI-171SC-B-08-10-200521				
	A0J0298-36	A Total Organic Carbon - Soil (5310 B)	10/09/20 14:02	0.2	0.2					PDI-171SC-B-10-12-200521				
	A0J0298-37	A Total Organic Carbon - Soil (5310 B)	10/09/20 14:02	0.2	0.2					PDI-171SC-B-12-13.5-200521				
	A0J0298-38	A Total Organic Carbon - Soil (5310 B)	10/09/20 14:02	0.2	0.2					PDI-041SC-B-06-08-191010				

Standards/Reagents

Reagent(s)			Analyte Spike(s)			Surrogate(s)		
Std ID	Exp. Date	Description	Std ID	Exp. Date	Description	Std ID	Exp. Date	Description
A13L220	11/30/23	Wet Chem Balance 1	A20I375	03/24/21	TOC 10k ppm secondary ✓			
A19F020	06/03/29	TOC Soil Drying Oven @70oC						
A19J023	11/30/23	Wet Chem Balance 4 ✓						
A19J145	05/30/22	TOC Soil Blank Matrix						
A19K369	11/27/24	VWR002V						
A20F100	12/08/20	10% Phosphoric Acid						

Prepared By: _____ Date _____

Reviewed By: _____ Date _____

Batch: 0100333		TOC PSEP Preweigh					Analyst:	has
Date/Time:	(n/a)	(n/a)	10/13/2020	10/13/2020	10/13/2020 0:00			Effervesces?
T(°C) IN / OUT:	(n/a)	(n/a)	70.0/69.5	70.0/70.0	69.9/70.0	/	/	
Sample ID	Tare (g)	Wet+tare wt (g)	Wt 1(g)	Wt 2(g)	Wt 3(g)	Wt 4(g)	Wt 5(g)	(yes/no)
A0J0298-20	1.3041	11.6198	8.7693	8.7696 X				NO
0100333-DUP1	1.3095	11.6398	8.7131	8.7173 X				NO
A0J0298-21	1.305	12.2434	10.7777	10.7756 X				NO
A0J0298-22	1.2991	11.6876	10.2871	10.287 X				NO
A0J0298-23	1.2954	11.3844	7.1955	7.22	7.2157 X			NO
A0J0298-24	1.3081	11.7117	8.8473	8.8422	8.8411 X			NO
A0J0298-25	1.2904	11.5061	10.6954	10.6935 X				NO
A0J0298-26	1.3089	11.9252	11.0814	11.0836 X				NO
A0J0298-27	1.3021	11.7091	6.6568	6.6566 X				NO
A0J0298-28	1.3038	11.5814	7.9274	7.9217	7.9239 X			NO
A0J0298-29	1.2995	11.5206	8.0327	8.0383	8.0393 X			NO
A0J0298-30	1.3009	11.595	8.255	8.2516 X				NO
0100333-DUP3	1.2992	11.9809	8.639	8.6412 X				NO
A0J0298-31	1.3056	11.9442	6.8156	6.8196 X				NO
A0J0298-32	1.3056	11.4635	6.4651	6.4661 X				NO
A0J0298-33	1.2987	11.6732	7.9383	7.9374 X				NO
A0J0298-34	1.311	12.2152	7.8502	7.8579	7.8584 X			NO
A0J0298-35	1.2989	11.9373	7.2489	7.2492 X				NO
A0J0298-36	1.3018	11.6213	7.4425	7.4482	7.4459 X			NO
A0J0298-37	1.3068	12.2375	8.2241	8.2215 X				NO
A0J0298-38	1.2873	12.1701	11.2142	11.2158 X				NO
		Pre-drying sample aliquot > 10g			Constant Weight = change < 0.005 g			



ELEMENT SEQUENCE LOG

Apex Laboratories

OCT 15 2020

Sequence: OJ13056 -

Instrument: TOC6

Date: 10/13/20 15:10

Calibration: AOH1904 -

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
1	OJ13056-CCV1	Soil	QC	QC				A201376 -
2	OJ13056-CCB1	Soil	QC	QC				
3	0100381-BLK1	Soil	QC	QC		0100381		
4	0100381-BS1	Soil	QC	QC		0100381		
5	0100333-BLK1	Soil	QC	QC		0100333		
6	0100333-BS1	Soil	QC	QC		0100333		
7	A0J0343-01	Soil	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/22/20	0100381		
8	0100381-DUP1	Soil	QC	QC		0100381		
9	0100381-DUP2	Soil	QC	QC		0100381		
10	A0J0343-02	Soil	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/22/20	0100381		
11	A0J0343-03	Soil	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/22/20	0100381		
12	A0J0343-04	Soil	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/22/20	0100381		
13	OJ13056-CCV2	Soil	QC	QC				A201376 -
14	OJ13056-CCB2	Soil	QC	QC				
15	A0J0343-05	Soil	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/22/20	0100381		
16	A0J0343-06	Soil	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/22/20	0100381		
17	A0J0343-07	Soil	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/22/20	0100381		
18	A0J0344-01	Soil	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/23/20	0100381		
19	0100381-DUP3	Soil	QC	QC		0100381		
20	A0J0344-02	Soil	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/23/20	0100381		
21	A0J0344-03	Soil	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/23/20	0100381		
22	A0J0344-04	Soil	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/23/20	0100381		
23	A0J0344-05	Soil	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/23/20	0100381		
24	A0J0344-06	Soil	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/23/20	0100381		
25	OJ13056-CCV3	Soil	QC	QC				A201376 -
26	OJ13056-CCB3	Soil	QC	QC				
27	A0J0344-07	Soil	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/23/20	0100381		
28	A0J0298-20	Soil	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/14/20	0100333		
29	0100333-DUP1	Soil	QC	QC		0100333		
30	0100333-DUP2	Soil	QC	QC		0100333		
31	A0J0298-21	Soil	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/14/20	0100333		
32	A0J0298-22	Soil	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/14/20	0100333		
33	A0J0298-23	Soil	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/14/20	0100333		
34	A0J0298-24	Soil	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/14/20	0100333		
35	A0J0298-25	Soil	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/14/20	0100333		
36	A0J0298-26	Soil	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/14/20	0100333		
37	OJ13056-CCV4	Soil	QC	QC				A201376 -
38	OJ13056-CCB4	Soil	QC	QC				
39	A0J0298-27	Soil	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/14/20	0100333		
40	A0J0298-28	Soil	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/14/20	0100333		
41	A0J0298-29	Soil	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/14/20	0100333		
42	A0J0298-30	Soil	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/14/20	0100333		
43	0100333-DUP3	Soil	QC	QC		0100333		
44	A0J0298-31	Soil	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/14/20	0100333		
45	A0J0298-32	Soil	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/14/20	0100333		
46	A0J0298-33	Soil	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/14/20	0100333		
47	A0J0298-34	Soil	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/14/20	0100333		
48	A0J0298-35	Soil	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/14/20	0100333		
49	OJ13056-CCV5	Soil	QC	QC				A201376 -
50	OJ13056-CCB5	Soil	QC	QC				
51	A0J0298-36	Soil	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/14/20	0100333		

Sequence:

0J13056

Instrument:

TOC6

Date:

10/13/20 15:10

Calibration:

A0H1904

#	<u>Lab Number</u>	<u>Matrix</u>	<u>Analysis</u>	<u>Client</u>	<u>Due</u>	<u>Batch</u>	<u>ISTD ID</u>	<u>STD ID</u>
52	A0J0298-37	Soil	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/14/20	0100333		
53	A0J0298-38	Soil	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/14/20	0100333		
54	0J13056-CCV6	Soil	QC	QC				A201376 ✓
55	0J13056-CCB6	Soil	QC	QC				

Data Entered By/Date: MWD 10/14/20

Comments:

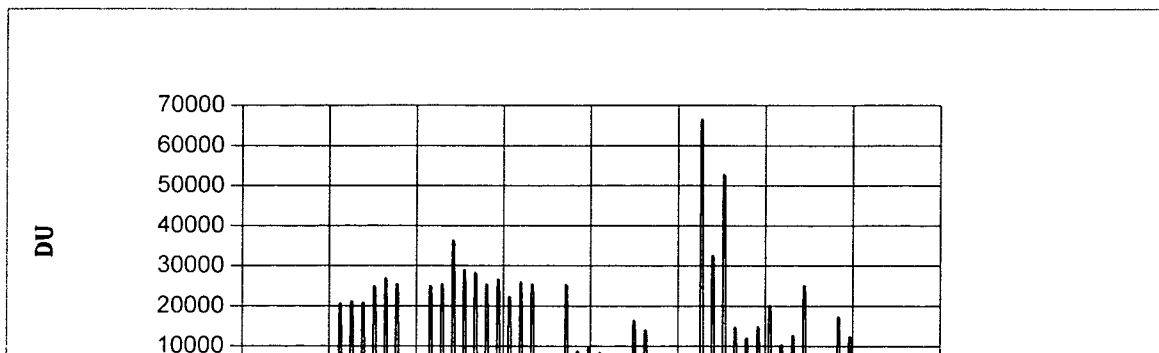
Data Reviewed By/Date: CMT 10/14/2020

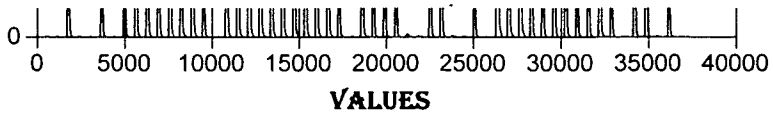
Method: TCDirect Run Start Time: 10/13/2020 4:49:13
Method Type: TC_DIRECT Run End Time: 10/14/2020 3:13:30
Table: OJ13056 Device ID: TOC6
Analyst: Administrator Run Name: SN10020201013A1

Cup Position	Sample ID	Weight (mg)	Final Result (mg/kg)	Result mg C abs	Peak Area	Analysed Date and time
A100	PRIME	200	75.519	0.015	10105.96	10/13/2020 4:50:38 PM
A2	BLANK	200	39.001	0.008	5219.19	10/13/2020 5:02:27 PM
A1	OJ13056-CCV1	200	10622.88 ✓	2.125	1421563.695	10/13/2020 5:13:20 PM
A2	OJ13056-CCB1	200	48.391 ✓	0.01	6475.765	10/13/2020 5:24:06 PM
A3	0100381-BLK1	212.8	49.486 ✓	0.011	7046.06	10/13/2020 5:34:53 PM
A4	0100381-BS1	200	9477.922 ✓	1.896	1268344.345	10/13/2020 5:45:41 PM
A5	0100333-BLK1	213.1	79.661 ✓	0.017	11358.53	10/13/2020 5:56:27 PM
A6	0100333-BS1	200	9273.661 ✓	1.855	1241009.99	10/13/2020 6:07:13 PM
A7	A0J0343-01	206.6	24457.622 ✓	5.053	3380948.935	10/13/2020 6:18:00 PM
A8	0100381-DUP1	203.4	25352.065 ✓	5.157	3450311.92	10/13/2020 6:28:47 PM
A9	0100381-DUP2	212.7	23992.394 ✓	5.103	3414563.11	10/13/2020 6:39:34 PM
A10	A0J0343-02	205	29915.29 ✓	6.133	4103374.5	10/13/2020 6:50:21 PM
A11	A0J0343-03	202.6	32650.103 ✓	6.615	4426067.91	10/13/2020 7:01:08 PM
A12	A0J0343-04	205.5	30620.789 ✓	6.293	4210389.54	10/13/2020 7:11:55 PM
A13	OJ13056-CCV2	200	9626.59 ✓	1.925	1288239.24	10/13/2020 7:22:42 PM
A2	OJ13056-CCB2	200	83.724 ✓	0.017	11203.96	10/13/2020 7:33:29 PM
A14	A0J0343-05	206.4	29954.104 ✓	6.183	4136757.825	10/13/2020 7:44:23 PM
A15	A0J0343-06	203.8	30994.483 ✓	6.317	4226517.29	10/13/2020 7:55:17 PM
A16	A0J0343-07	202	44404.606 ✓	8.97	6001688.625	10/13/2020 8:06:04 PM
A17	A0J0344-01	204.8	34913.968 ✓	7.15	4784353.145	10/13/2020 8:16:51 PM
A18	0100381-DUP3	205.4	34079.33 ✓	7	4683662.06	10/13/2020 8:27:38 PM
A19	A0J0344-02	204.3	30720.375 ✓	6.276	4199416.545	10/13/2020 8:38:25 PM
A20	A0J0344-03	203.5	32317.626 ✓	6.577	4400458.57	10/13/2020 8:49:12 PM
A21	A0J0344-04	203	27161.967 ✓	5.514	3689362.43	10/13/2020 8:59:59 PM
A22	A0J0344-05	200.6	31961.558 ✓	6.411	4289957.02	10/13/2020 9:10:46 PM
A23	A0J0344-06	203	31052.529 ✓	6.304	4217810.76	10/13/2020 9:21:33 PM
A24	OJ13056-CCV3	200	9691.625 ✓	1.938	1296942.35	10/13/2020 9:32:19 PM
A2	OJ13056-CCB3	200	88.949 ✓	0.018	11903.245	10/13/2020 9:43:06 PM
A25	A0J0344-07	207.5	30125.714 ✓	6.251	4182630.73	10/13/2020 9:54:01 PM
A26	A0J0298-20	201.3	10803.059 ✓	2.175	1455072.31	10/13/2020 10:04:54 PM
A27	0100333-DUP1	205.5	11359.453 ✓	2.334	1561936.27	10/13/2020 10:15:42 PM
A28	0100333-DUP2	202.4	10367.705 ✓	2.098	1404065.015	10/13/2020 10:26:29 PM
A29	A0J0298-21	204.8	845.781 ✓	0.173	115899.64	10/13/2020 10:37:15 PM

A30	A0J0298-22	200.4	283.687 -	0.057	38039.21	10/13/2020 10:48:02 PM
A31	A0J0298-23	203	19834.764 -	4.026	2694121.275	10/13/2020 10:58:48 PM
A32	A0J0298-24	205	16882.989 -	3.461	2315779.8	10/13/2020 11:09:35 PM
A33	A0J0298-25	206.2	349.026 -	0.072	48154.91	10/13/2020 11:20:21 PM
A34	A0J0298-26	207.2	230.326 ✓	0.048	31932.03	10/13/2020 11:31:08 PM
A35	OJ13056-CCV4	200	9465.993 ✓	1.893	1266748.1	10/13/2020 11:41:54 PM
A2	OJ13056-CCB4	200	54.041 -	0.011	7231.87	10/13/2020 11:52:40 PM
A36	A0J0298-27	200	81696.162 -	16.339	10932656.94	10/14/2020 12:03:34 AM
A37	A0J0298-28	199.6	40218.566 -	8.028	5371322.015	10/14/2020 12:14:27 AM
A38	A0J0298-29	199.6	65064.413 -	12.987	8689566.675	10/14/2020 12:25:14 AM
A39	A0J0298-30	206.1	17745.358 -	3.657	2447128.76	10/14/2020 12:36:00 AM
A40	O100333-DUP3	205.8	14339.362 -	2.951	1974555.15	10/14/2020 12:46:47 AM
A41	A0J0298-31	204.2	17958.933 ✓	3.667	2453750.09	10/14/2020 12:57:33 AM
A42	A0J0298-32	197.2	25246.205 -	4.979	3331172.2	10/14/2020 1:08:33 AM
A43	A0J0298-33	203.9	12532.34 -	2.555	1709792.69	10/14/2020 1:19:26 AM
A44	A0J0298-34	200.3	15770.163 -	3.159	2113543.585	10/14/2020 1:30:20 AM
A45	A0J0298-35	203.8	30432.703 ✓	6.202	4149910.99	10/14/2020 1:41:13 AM
A46	OJ13056-CCV5	200	9601.549 ✓	1.92	1284888.295	10/14/2020 1:52:07 AM
A2	OJ13056-CCB5	200	80.137 -	0.016	10723.995	10/14/2020 2:03:01 AM
A47	A0J0298-36	204.4	21007.775 -	4.294	2873128.31	10/14/2020 2:13:54 AM
A48	A0J0298-37	200.8	15285.09 ✓	3.069	2053646.92	10/14/2020 2:24:48 AM
A49	A0J0298-38	200	362.405 ✓	0.072	48497.31	10/14/2020 2:35:42 AM
A50	OJ13056-CCV6	200	9381.75 ✓	1.876	1255474.57	10/14/2020 2:46:35 AM
A2	OJ13056-CCB6	200	56.275 ✓	0.011	7530.71	10/14/2020 2:57:28 AM

RR-2
 10/14/2020
 RR-2





done 10/19/2020

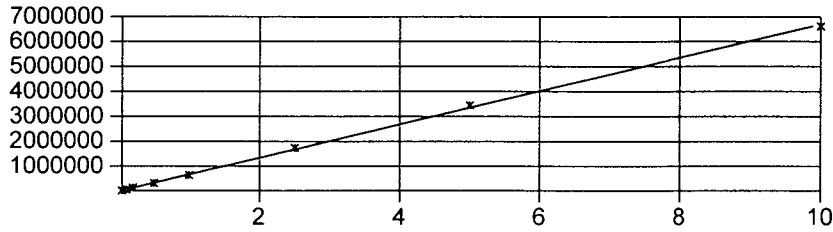
SNACCESS

RUN NAME : SN10020200818AS METHOD NAME : TCDIRECT CALIBRATION TYPE : I

ORDER FORCED THRO ZERO GROUP : 1

A = 0.0000000000000000 B = 669104.68364697200000 R = 0.99973664180877 R-

SQUARED = 0.99942005573222



Conventional Chemistry Parameters

**Total Organic Carbon- Soil (5310 B)
Benchsheet & Analysis Sequence Data**

Sequence 0J14041 (A0J0298-27RE1,29RE1)



ELEMENT SEQUENCE LOG

Apex Laboratories

OCT 15 2020

Sequence: 0J14041 Instrument: TOC6
 Date: 10/14/20 09:22 Calibration: A0H1904 ✓

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
1	0J14041-CCV1	Soil	QC	QC				A201376 ✓
2	0J14041-CCB1	Soil	QC	QC				
3	A0J0298-27RE1	Soil	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/14/20	0100333		
4	A0J0298-29RE1	Soil	Total Organic Carbon - Soil (5310 B)	Anchor QEA, LLC	10/14/20	0100333		
5	0J14041-CCV2	Soil	QC	QC				A201376 ✓
6	0J14041-CCB2	Soil	QC	QC				

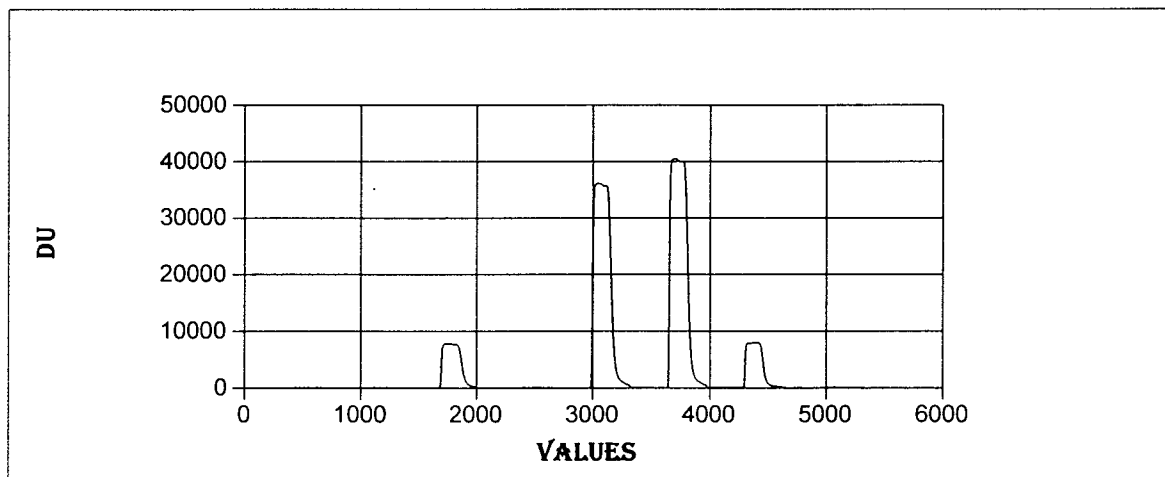
Data Entered By/Date: WMO 10/14/20

Data Reviewed By/Date: CLM 10/14/2020

Comments:

Method:	TCDirect	Run Start Time:	10/14/2020 9:31:29
Method Type:	TC_DIRECT	Run End Time:	10/14/2020 11:17:04
Table:	OJ14041	Device ID:	TOC6
Analyst:	Administrator	Run Name:	SN10020201014A0

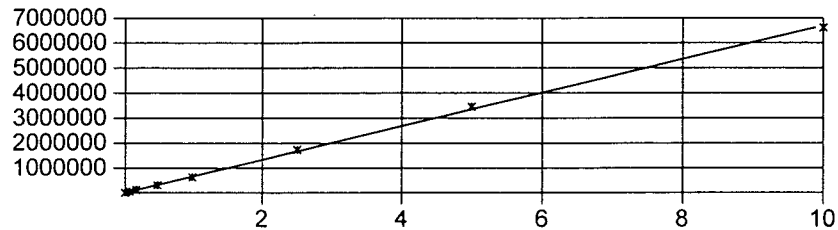
Cup Position	Sample ID	Weight (mg)	Final Result (mg/kg)	Result mg C abs	Peak Area	Analysed Date and time
A100	PRIME	200	75.01	0.015	10037.96	10/14/2020 9:43:37 AM
A2	BLANK	200	37.98	0.008	5082.485	10/14/2020 9:55:20 AM
A80	OJ14041-CCV1	200	10868.301 ✓	2.174	1454406.17	10/14/2020 10:06:14 AM
A2	OJ14041-CCB1	200	54.074 ✓	0.011	7236.235	10/14/2020 10:17:15 AM
A81	A0J0298-27RE1	103.7	87095.921 ✓	9.032	6043251.14	10/14/2020 10:28:09 AM
A82	A0J0298-29RE1	156.8	63329.048 ✓	9.93	6644206.03	10/14/2020 10:39:10 AM
A83	OJ14041-CCV2	200	9833.897 ✓	1.967	1315981.36	10/14/2020 10:50:04 AM
A2	OJ14041-CCB2	200	83.864 ✓	0.017	11222.79	10/14/2020 11:00:58 AM



Done 10/14/2020

SNACCESS

**RUN NAME : SN10020200818A3 METHOD NAME : TCDIRECT CALIBRATION TYPE : I
ORDER FORCED THRO ZERO GROUP : 1
A = 0.0000000000000000 B = 669104.68364697200000 R = 0.99973664180877 R-
SQUARED = 0.99942005573222 ✓**



Conventional Chemistry Parameters

**Total Organic Carbon- Soil (5310 B)
Calibration Data**

Sequence 0H18059 (Cal ID A0H1904) TOC6



ELEMENT SEQUENCE LOG

Apex Laboratories

AUG 24 2020

Sequence: 0H18059 -

Instrument: TOC6

Date: 08/18/20 16:37

Calibration: AOH1804

AOH1904 mo 8/19/20

#	Lab Number	Matrix	Analysis	Client	Due	Batch	ISTD ID	STD ID
1	0H18059-CAL1	Sediment	QC	QC				
2	0H18059-CAL2	Sediment	QC	QC				A20H281 ✓
3	0H18059-CAL3	Sediment	QC	QC				A20H282 ✓
4	0H18059-CAL4	Sediment	QC	QC				A20H283 ✓
5	0H18059-CAL5	Sediment	QC	QC				A20H284 ✓
6	0H18059-CAL6	Sediment	QC	QC				A20H285 ✓
7	0H18059-CAL7	Sediment	QC	QC				A20H286 ✓
8	0H18059-CAL8	Sediment	QC	QC				A20H287 ✓
9	0H18059-CAL9	Sediment	QC	QC				A20H288 ✓
10	0H18059-ICV1	Sediment	QC	QC				A20E110 ✓
11	0H18059-ICB1	Sediment	QC	QC				

Data Entered By/Date: *WVO 8/18/20*

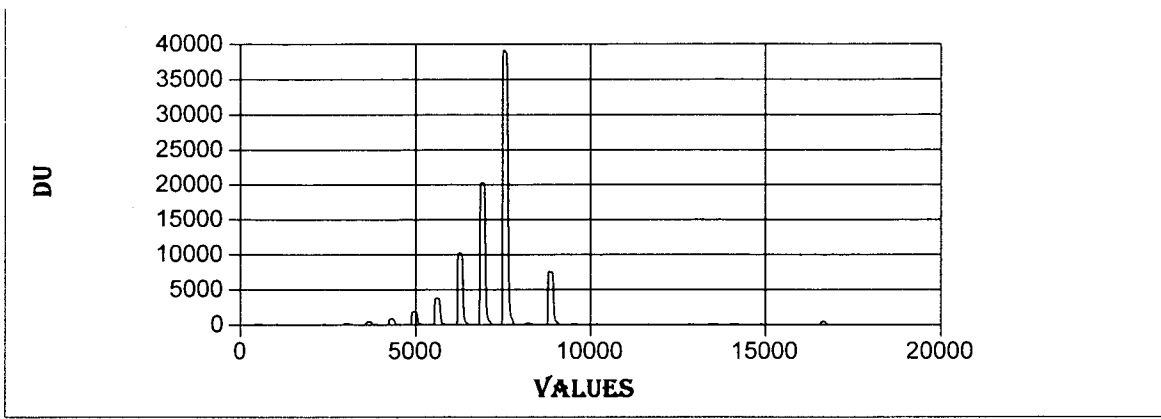
Comments:

Data Reviewed By/Date: *AWZ 8/19/2020*

Method: TCDirect Run Start Time: 8/18/2020 4:59:13 P
 Method Type: TC_DIRECT Run End Time: 8/18/2020 9:46:17 P
 Table: OH18059 Device ID: TOC6
 Analyst: Administrator Run Name: SN10020200818A3

Cup Position	Sample ID	Weight (mg)	Final Result (mg/kg)	Result mg C abs	Peak Area	Analysed Date and time
A98	prime	200	105.248	0.021	14084.43	8/18/2020 4:59:24 PM
A18	blank	200	0	0	0	8/18/2020 5:10:25 PM
A2	blank	200	19.356	0.004	2590.265	8/18/2020 5:21:20 PM
A18	OH18059-CAL1	200	0	0	0	8/18/2020 5:32:13 PM
A19	OH18059-CAL2	40	1140.934	0.046	30536.16	8/18/2020 5:43:07 PM
A20	OH18059-CAL3	100	1075.239	0.108	71944.735	8/18/2020 5:53:54 PM
A21	OH18059-CAL4	200	1074.057	0.215	143731.35	8/18/2020 6:04:42 PM
A22	OH18059-CAL5	50	9779.244	0.489	327166.91	8/18/2020 6:15:28 PM
A23	OH18059-CAL6	100	9754.176	0.975	652656.49	8/18/2020 6:26:14 PM
A24	OH18059-CAL7	250	10405.909	2.601	1740660.62	8/18/2020 6:37:07 PM
A25	OH18059-CAL8	500	10328.711	5.164	3455494.44	8/18/2020 6:47:54 PM
A26	OH18059-CAL9	1000	9895.069	9.895	6620837.05	8/18/2020 6:58:40 PM
A98	OH18059-IBL1	200	251.829	0.05	33699.97	8/18/2020 7:09:26 PM
A27	OH18059-ICV1	200	9819.341 ✓	1.964	1314033.455	8/18/2020 7:20:27 PM
A2	OH18059-ICB1	200	162.52 ✓	0.033	21748.54	8/18/2020 7:31:13 PM
A19	CLEAN19	200	85.855	0.017	11489.14	8/18/2020 7:42:06 PM
A20	CLEAN20	200	62.561	0.013	8372.015	8/18/2020 7:53:00 PM
A21	CLEAN21	200	48.713	0.01	6518.76	8/18/2020 8:03:53 PM
A22	CLEAN22	200	48.015	0.01	6425.385	8/18/2020 8:14:46 PM
A23	CLEAN23	200	69.557	0.014	9308.23	8/18/2020 8:25:32 PM
A24	CLEAN24	200	46.695	0.009	6248.81	8/18/2020 8:36:19 PM
A25	CLEAN25	200	89.279	0.018	11947.395	8/18/2020 8:47:05 PM
A26	CLEAN26	200	49.395	0.01	6610.08	8/18/2020 8:57:52 PM
A27	CLEAN27	200	50.304	0.01	6731.79	8/18/2020 9:08:38 PM
A28	CLEAN28	200	23.025	0.005	3081.205	8/18/2020 9:19:31 PM
A30	CLEAN30	200	558.249	0.112	74705.365	8/18/2020 9:30:18 PM

Handwritten notes:
 WWS 8/19/20
 2445 = 0.489
 4875 = 0.975
 13,005 = 2.601
 49475 = 9.895
 -230 -
 -540 -
 -1075 -
 0.0002
 25,820
 49475
 WWS 8/19/20

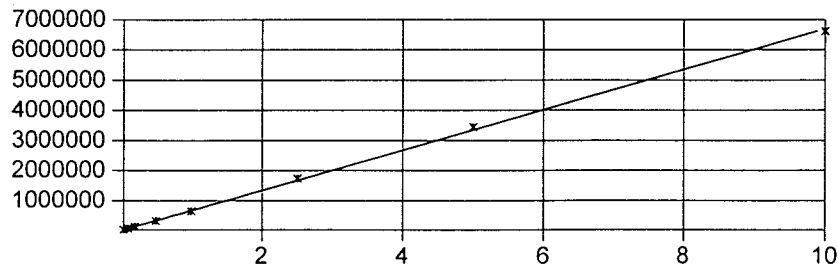


SNACCESS

METHOD NAME : TCDIRECT CALIBRATION TYPE : 1 ORDER FORCED THRO ZERO GROUP : 1

A = 0.0000000000000000 B = 669104.68364697200000 R = 0.99973664180877 R-

SQUARED = 0.99942005573222



Date : 8/19/2020

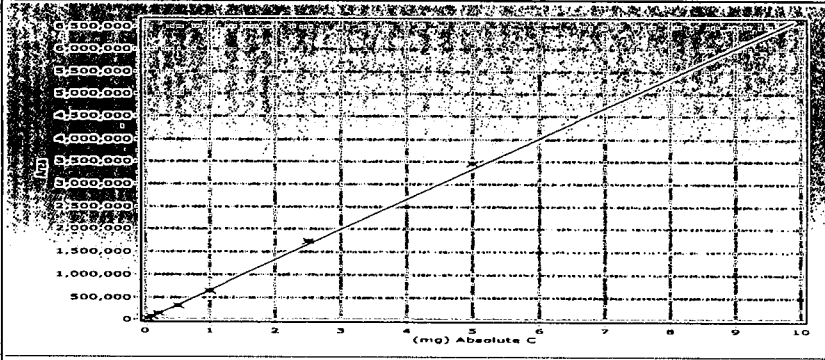
Run start date time : 8/18/2020 4:59:13 PM

Run end date : 8/18/2020 9:46:13 PM

Run Display Name : 0H18059

Run DB : SN10020200818A3

Created User : Administrator



Method Name	TCDirect		
Type	Order Forced thro Zero	Group =	
a =	0	r =	0.99973664180877
b =	669104.683646972	R-Squared =	0.99942005573222

Serial No.	Position	Type	Identity	Weight	Peak Area	Residuals
5	A19	S	0H18059-CAL2	40	30536.1600	12.3525
6	A20	S	0H18059-CAL3	100	71944.7350	6.9974
7	A21	S	0H18059-CAL4	200	143731.3500	6.8951
8	A22	S	0H18059-CAL5	50	327166.9100	2.2574
9	A23	S	0H18059-CAL6	100	652656.4900	2.5202
10	A24	S	0H18059-CAL7	250	1740660.6200	3.9008
11	A25	S	0H18059-CAL8	500	3455494.4400	3.1825
12	A26	S	0H18059-CAL9	1000	6620837.0500	1.0604

OK
 8/19/2020
 ↓

**Total Solids by SM2540G
Benchsheet Data**

Batch 0100376 (A0J0298-19)



Apex Laboratories
PREPARATION BENCH SHEET

OCT 15 2020

Percent Solids + Dry Weight Worksheet

BATCH #: 0100376 (Matrix: Sediment)

Lab Number	Analysis	QC Source ID	Prepared (Time In)	Weighed (Time Out)	Tare Wt. (g)	Wet Weight (+Tare) (g)	Dry Weight (+Tare) (g)	% Solids (Calc)	LogComments
A0J0298-19	Dry Weight		10/12/20 10:19		1.2929 ✓	27.7284 ✓	24.1968 ✓	86.6 ✓	BatchQC
A0J0298-19	Solids, Total (SM 254)		10/12/20 10:19		1.2929 ✓	27.7284 ✓	24.1968 ✓	86.6 ✓	Use Results for Dry Weight (Not for Waters)
0100376-DUP2	QC	A0J0298-19	10/12/20 10:19		1.2971 ✓	27.3662 ✓	23.9751 ✓	87.0 ✓	
A0J0343-01	Dry Weight		10/12/20 10:19		1.3036 ✓	28.9454 ✓	13.1352 ✓	42.8 ✓	use TS data, make non-reportable
A0J0343-01	Solids, Total (SM 254)		10/12/20 10:19		1.3036 ✓	28.9454 ✓	13.1352 ✓	42.8 ✓	enter TS data in dry wt
A0J0343-02	Dry Weight		10/12/20 10:19		1.2976 ✓	27.9948 ✓	11.9763 ✓	40.0 ✓	use TS data, make non-reportable
A0J0343-02	Solids, Total (SM 254)		10/12/20 10:19		1.2976 ✓	27.9948 ✓	11.9763 ✓	40.0 ✓	enter TS data in dry wt
A0J0343-03	Dry Weight		10/12/20 10:19		1.2821 ✓	27.7154 ✓	11.1291 ✓	37.3 ✓	use TS data, make non-reportable
A0J0343-03	Solids, Total (SM 254)		10/12/20 10:19		1.2821 ✓	27.7154 ✓	11.1291 ✓	37.3 ✓	enter TS data in dry wt
A0J0343-04	Dry Weight		10/12/20 10:19		1.3056 ✓	27.3291 ✓	10.9138 ✓	36.9 ✓	use TS data, make non-reportable
A0J0343-04	Solids, Total (SM 254)		10/12/20 10:19		1.3056 ✓	27.3291 ✓	10.9138 ✓	36.9 ✓	enter TS data in dry wt
A0J0343-05	Dry Weight		10/12/20 10:19		1.2849 ✓	26.5817 ✓	10.4694 ✓	36.3 ✓	use TS data, make non-reportable
A0J0343-05	Solids, Total (SM 254)		10/12/20 10:19		1.2849 ✓	26.5817 ✓	10.4694 ✓	36.3 ✓	enter TS data in dry wt
A0J0343-06	Dry Weight		10/12/20 10:19		1.2919 ✓	27.5796 ✓	11.1798 ✓	37.6 ✓	use TS data, make non-reportable
A0J0343-06	Solids, Total (SM 254)		10/12/20 10:19		1.2919 ✓	27.5796 ✓	11.1798 ✓	37.6 ✓	enter TS data in dry wt
A0J0343-07	Dry Weight		10/12/20 10:19		1.2878 ✓	27.7499 ✓	13.8151 ✓	47.3 ✓	use TS data, make non-reportable
A0J0343-07	Solids, Total (SM 254)		10/12/20 10:19		1.2878 ✓	27.7499 ✓	13.8151 ✓	47.3 ✓	enter TS data in dry wt
A0J0344-01	Dry Weight		10/12/20 10:19		1.3001 ✓	27.1164 ✓	10.5358 ✓	35.8 ✓	use TS data, make non-reportable
A0J0344-01	Solids, Total (SM 254)		10/12/20 10:19		1.3001 ✓	27.1164 ✓	10.5358 ✓	35.8 ✓	enter TS data in dry wt
0100376-DUP1	QC	A0J0344-01	10/12/20 10:19		1.2929 ✓	27.8308 ✓	10.783 ✓	35.8 ✓	
A0J0344-02	Dry Weight		10/12/20 10:19		1.3028 ✓	28.0994 ✓	11.4973 ✓	38.0 ✓	use TS data, make non-reportable

Prepared By: amb Date: 10/13/20

Reviewed By: clm Date: 10/14/2020



Apex Laboratories
PREPARATION BENCH SHEET

Percent Solids + Dry Weight Worksheet

BATCH #: 0100376 (Matrix: Sediment)

Lab Number	Analysis	QC Source ID	Prepared (Time In)	Weighed (Time Out)	Tare Wt. (g)	Wet Weight (+Tare) (g)	Dry Weight (+Tare) (g)	% Solids (Calc)	LogComments
A0J0344-02	Solids, Total (SM 254)		10/12/20 10:19		1.3028 ✓	28.0994 -	11.4973 ✓	38.0 ✓	enter TS data in dry wt
A0J0344-03	Dry Weight		10/12/20 10:19		1.2939 ✓	26.8535 -	10.4355 -	35.8 ✓	use TS data, make non-reportable
A0J0344-03	Solids, Total (SM 254)		10/12/20 10:19		1.2939 ✓	26.8535 ✓	10.4355 ✓	35.8 ✓	enter TS data in dry wt
A0J0344-04	Dry Weight		10/12/20 10:19		1.2889 -	29.7232 -	12.0311 ✓	37.8 ✓	use TS data, make non-reportable
A0J0344-04	Solids, Total (SM 254)		10/12/20 10:19		1.2889 ✓	29.7232 ✓	12.0311 ✓	37.8 ✓	enter TS data in dry wt
A0J0344-05	Dry Weight		10/12/20 10:19		1.3109 -	27.6679 ✓	10.6017 -	35.2 -	use TS data, make non-reportable
A0J0344-05	Solids, Total (SM 254)		10/12/20 10:19		1.3109 ✓	27.6679 ✓	10.6017 ✓	35.2 ✓	enter TS data in dry wt
A0J0344-06	Dry Weight		10/12/20 10:19		1.3054 ✓	27.8536 -	10.9358 -	36.3 -	use TS data, make non-reportable
A0J0344-06	Solids, Total (SM 254)		10/12/20 10:19		1.3054 ✓	27.8536 ✓	10.9358 ✓	36.3 ✓	enter TS data in dry wt
A0J0344-07	Dry Weight		10/12/20 10:19		1.3055 -	27.9835 ✓	11.6437 -	38.8 -	use TS data, make non-reportable
A0J0344-07	Solids, Total (SM 254)		10/12/20 10:19		1.3055 ✓	27.9835 ✓	11.6437 ✓	38.8 ✓	enter TS data in dry wt

Prepared By: AmB Date: 10/13/20

Reviewed By: _____ Date: _____

Total Solids Worksheet

Analyst: HAS

Date: 10/12/20

Batch: 0100376

Sample ID	Vessel ID	Tare Weight (g)	Wet+ Tare Weight (g)	Dry Weight (g)		Comments
				1st weighing	2nd weighing	
A0J0298-19	298-19	1.2929	27.7284	24.2183	24.1968	
0100376-DUP2	298-19 DUP	1.2971	27.3662	23.9904	23.9751	A0J0298-19
A0J0343-01	343-01	1.3036	28.9454	13.1365	13.1352	
A0J0343-02	343-02	1.2976	27.9948	11.9842	11.9763	
A0J0343-03	343-03	1.2821	27.7154	11.1335	11.1291	
A0J0343-04	343-04	1.3056	27.3291	10.9212	10.9138	
A0J0343-05	343-05	1.2849	26.5817	10.4705	10.4694	
A0J0343-06	343-06	1.2919	27.5796	11.1959	11.1798	
A0J0343-07	343-07	1.2878	27.7499	13.8281	13.8151	
A0J0344-01	344-01	1.3001	27.1164	10.5416	10.5358	
A0100376-DUP1	344-01 DUP	1.2929	27.8308	10.7907	10.783	A0J0344-01
A0J0344-02	344-02	1.3028	28.0994	11.5015	11.4973	
A0J0344-03	344-03	1.2939	26.8535	10.4418	10.4355	
A0J0344-04	344-04	1.2889	29.7232	12.0329	12.0311	
A0J0344-05	344-05	1.3109	27.6679	10.6133	10.6017	
A0J0344-06	344-06	1.3054	27.8536	10.9433	10.9358	
A0J0344-07	344-07	1.3055	27.9835	11.6494	11.6437	

Oven Temp at Sample Introduction	103.6 °C	103.9 °C	*Constant weight = +/- 50 mg.
Oven Temp at sample removal	103.9 °C	103.4 °C	
Time/date	10/13 1118	10/13 1418	

Balance Checksheets

Extractions October 2020
Wet Chem October 2020

Balance Challenge Log

Extractions
AND FX-2000
ID# 5210177

Weight ID

weight (g)

acceptance range (g)

=/ $<1g$

$\pm 0.02g$

$>1g$

$\pm 2\%$

10077

0.5g

0.48

0.52

1000143395

300g

294.00

306.00

If other than as listed above, the weight and tracking ID of the mass used to challenge the balance must be recorded.

Alternate Weight/ID used:

Date Range:

Month: October
Year: 2020

Day/Time	Initials
1 0648	SLG
2 0650	SLG
3	
4	
5 0655	SLG
6 0650	SLG
7 0647	SLG
8 0647	SLG
9 0653	SLG
10 0848	SLG
11	
12 0650	SLG
13 0650	SLG
14 0750	RSJ
15 0735	AJJ
16	
17	
18	
19	
20	
21	
22	
23	
24	
25	
26	
27	
28	
29	
30	
31	

Weight One	Observed
0.50g	0.50
	0.50
	0.50
	0.50
	0.50
	0.50
	0.50
	0.50
	0.50
	0.50
	0.50
	0.50
	0.50
	0.50
	0.50
	0.50
	0.50
	0.50
	0.50
	0.50
	0.50
	0.50
	0.50
	0.50

Weight Two	Observed
300.00g	300.02
	300.02
	300.01
	300.04
	300.04
	300.04
	300.04
	300.04
	300.04
	300.04
	300.02
	300.02
	300.00
	300.04

Balance Challenge Log

Wet Chem Balance 1

Ohaus Adventurer Pro
ID# 8C30461093

Weight ID	weight (g)	acceptance range (g)	
	<0.5000g	± 0.5mg	
	>=0.5000g	± 0.1%	
1000015949	0.005g	0.0045	0.0055
66067	0.100g	0.0995	0.1005
66067	100g	99.9000	100.1000

If other than as listed above, the weight and tracking ID of the mass used to challenge the balance must be recorded.

Month: October
Year: 2020

Alternate Weight/ID used: _____
Date Range: _____

Day/Time	Initials
1	1116 AMB
2	923 HAS
3	
4	
5	1026 HAS
6	0839 MVD
7	0849 MVD
8	0833 JKP
9	1056 HAS
10	
11	
12	0920 HAS
13	0828 MVD
14	1028 HAS
15	1048 AMB
16	
17	
18	
19	
20	
21	
22	
23	
24	

Weight 1	Observed
	100.0004
	100.0012
	100.0015
	100.0012
	100.0014
	100.0014
	100.0018
	100.0013
	100.0027
	100.0017
	100.0016
100.0000g	

Weight 2	Observed
	0.1001
	0.1002
	0.0999
	0.1001
	0.0999
	0.1000
HAS 10/9/20	0.1010 0.1001
	0.0999
	0.1002
	0.1000
	0.1002
0.1000g	

Weight 3	Observed
	0.0048
	0.0049
	0.0051
	0.0050
	0.0049
	0.0051
	0.0054
	0.0053
	0.0049 0.0050
	0.0049
	0.0051
.0050g	