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## Technical Report for

**Occidental Petroleum Corporation**

**GWA\_NGL\_Water\_Well**

**FID:755053 Reg:Vol. Freq.:A**

**SGS Job Number: DA63507**

**Sampling Date: 04/04/24**

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**ATTN: Distribution6**

**Total number of pages in report: 48**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable unless noted in the narrative, comments or footnotes.



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Certifications: CO (CO00049), ND (R-027), UT (NELAP CO00049), LA (LA150028), TX (T104704511), WY (8TMS-L) HI (CO00049), NJ (CO011), NV (CO00049), AK (CO00049), CA (3076), and NC (08701)

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Test results relate only to samples analyzed.

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Sample Summary

Occidental Petroleum Corporation

Job No: DA63507

GWA\_NGL\_Water\_Well  
Project No: FID:755053 Reg:Vol. Freq.:A

Sample Number	Collected		Matrix		Client	
	Date	Time By	Received	Code Type	Sample ID	

This report contains results reported as ND = Not detected. The following applies:  
Organics ND = Not detected above the MDL

DA63507-1	04/04/24	15:33 DZ	04/05/24	AQ	Ground Water	BW_NGL_78801_F_R SESE_30_3N_65W
DA63507-1A	04/04/24	15:33 DZ	04/05/24	AQ	Ground Water	BW_NGL_78801_F_R SESE_30_3N_65W
DA63507-1B	04/04/24	15:33 DZ	04/05/24	AQ	Ground Water	BW_NGL_78801_F_R SESE_30_3N_65W
DA63507-1F	04/04/24	15:33 DZ	04/05/24	AQ	Groundwater Filtered	BW_NGL_78801_F_R SESE_30_3N_65W

## CASE NARRATIVE / CONFORMANCE SUMMARY

**Client:** Occidental Petroleum Corporation

**Job No:** DA63507

**Site:** GWA\_NGL\_Water\_Well

**Report Date** 4/29/2024 8:09:53 AM

On 04/05/2024, 1 sample(s), 0 Trip Blank(s), 0 Equip. Blanks and 0 Field Blank(s) were received at SGS North America Inc. (SGS) at a temperature of 5 °C. The samples were intact and properly preserved, unless noted below. An SGS Job Number of DA63507 was assigned to the project. The lab sample ID, client sample ID, and date of sample collection are detailed in the report's Results Summary.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

### MS Volatiles By Method SW846 8260B

**Matrix:** AQ

**Batch ID:** V5V3954

- All samples were analyzed within the recommended method holding time.
- Sample(s) DA63486-4MS, DA63486-4MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

### GC Volatiles By Method RSK175 MOD

**Matrix:** AQ

**Batch ID:** GFK347

- All samples were analyzed within the recommended method holding time.
- Sample(s) DA63506-1AMS, DA63506-1AMSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- DA63507-1A: The pH of the sample was >2 at time of analysis. Bottles marked as unpreserved.

### GC Volatiles By Method SW846 8015D

**Matrix:** AQ

**Batch ID:** GGA2862

- All samples were analyzed within the recommended method holding time.
- Sample(s) DA63486-23MS, DA63486-23MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

### GC/LC Semi-volatiles By Method SW846 8015D

**Matrix:** AQ

**Batch ID:** N:OP53706

- The data for SW846 8015D meets quality control requirements.
- DA63507-1: Analysis performed at SGS Dayton, NJ.

### Metals Analysis By Method EPA 200.8

**Matrix:** AQ

**Batch ID:** MP39182

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) DA63525-3AMS, DA63525-3AMSD were used as the QC samples for the metals analysis.
- The matrix spike (MS) recovery(s) of Calcium, Sodium are outside control limits. Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

Monday, April 29, 2024

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## General Chemistry By Method EPA 300.0

**Matrix:** AQ

**Batch ID:** GP36326

- All samples were prepared within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) DA63506-1MS, DA63506-1MSD were used as the QC samples for the Bromide, Chloride, Fluoride, Nitrogen, Nitrate, Nitrogen, Nitrite, Sulfate, Bromide analysis.
- DA63507-1 for Nitrogen, Nitrite: Elevated detection limit due to matrix interference.
- DA63507-1 for Nitrogen, Nitrate: Elevated detection limit due to matrix interference.

**Matrix:** AQ

**Batch ID:** R62977

- The data for EPA 300.0 meets quality control requirements.
- DA63507-1 for Nitrogen, Nitrate + Nitrite: Calculated as: (Nitrogen, Nitrate) + (Nitrogen, Nitrite)

## General Chemistry By Method EPA 365.1

**Matrix:** AQ

**Batch ID:** GP36366

- All samples were prepared within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) DA63589-1DUP, DA63589-1MSD were used as the QC samples for the Phosphorus, Total analysis.
- The matrix spike (MS) recovery(s) of Phosphorus, Total are outside control limits. Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

## General Chemistry By Method HACH IRB-BART-NOCERT

**Matrix:** AQ

**Batch ID:** MB1748

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) DA63422-1BDUP were used as the QC samples for the Iron-Related Bacteria analysis.
- DA63507-1B for Iron-Related Bacteria: Certification for this test is not offered.

## General Chemistry By Method HC SLYM-BART-NO CERT

**Matrix:** AQ

**Batch ID:** MB1750

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) DA63422-1BDUP were used as the QC samples for the Slime Forming Bacteria analysis.
- DA63507-1B for Slime Forming Bacteria: Certification for this test is not offered.

## General Chemistry By Method HC SRB-BART-NO CERT

**Matrix:** AQ

**Batch ID:** MB1749

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) DA63422-1BDUP were used as the QC samples for the Sulfate Reducing Bacteria analysis.
- DA63507-1B for Sulfate Reducing Bacteria: Certification for this test is not offered.

## General Chemistry By Method SM 2320B-2011

**Matrix:** AQ

**Batch ID:** GN63068

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) DA63473-1DUP, DA63473-1MS, DA63473-1MSD were used as the QC samples for the Alkalinity, Total as CaCO<sub>3</sub> analysis.

**Matrix:** AQ

**Batch ID:** GN63069

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.

**Matrix:** AQ

**Batch ID:** GN63070

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.

## General Chemistry By Method SM 2510B-2011

**Matrix:** AQ

**Batch ID:** GP36363

- Sample(s) DA63507-1DUP were used as the QC samples for the Specific Conductivity analysis.

## General Chemistry By Method SM 2540C-2011

**Matrix:** AQ

**Batch ID:** GN63062

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) DA63507-1DUP were used as the QC samples for the Solids, Total Dissolved analysis.

## General Chemistry By Method SM1030E-2011

**Matrix:** AQ

**Batch ID:** GN63241

- The data for SM1030E-2011 meets quality control requirements.

## General Chemistry By Method SM4500HB+-2011/9040C

**Matrix:** AQ

**Batch ID:** GN63071

- The data for SM4500HB+-2011/9040C meets quality control requirements.
- The following samples were run outside of holding time for method SM4500HB+-2011/9040C: DA63507-1 Analysis performed past recommended hold time.

## Field Data By Method FIELD

**Matrix:** AQ

**Batch ID:** R62980

- The data for FIELD meets quality control requirements.

SGS certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting SGS's Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SGS is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. This report is authorized by SGS indicated via signature on the report cover.

CASE NARRATIVE / CONFORMANCE SUMMARY

**Client:**SGS Wheat Ridge, CO

**Job No:**DA63507

**Site:**ANADACOD: GWA\_NGL\_Water\_Well

**Report Date**4/11/2024 8:31:28 AM

On 04/09/2024, 1 sample(s), 0 Trip Blank(s), 0 Equip. Blank(s) and 0 Field Blank(s) were received at SGS North America Inc. (SGS) at a temperature of 1.5 °C. The samples were intact and properly preserved, unless noted below. An SGS Job Number of DA63507 was assigned to the project. The lab sample ID, client sample ID, and date of sample collection are detailed in the report's Results Summary.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

GC/LC Semi-volatiles By Method SW846 8015D

<b>Matrix:</b> AQ	<b>Batch ID:</b> OP53706
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- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) DA63506-1MS, DA63506-1MSD were used as the QC samples indicated.

SGS certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting SGS's Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SGS is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. This report is authorized by SGS indicated via signature on the report cover.

## Summary of Hits

Job Number: DA63507  
 Account: Occidental Petroleum Corporation  
 Project: GWA\_NGL\_Water\_Well  
 Collected: 04/04/24

Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
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DA63507-1 BW\_NGL\_78801\_F\_R SESE\_30\_3N\_65W

Fluoride	1.7	0.20		mg/l	EPA 300.0
Chloride	134	13		mg/l	EPA 300.0
Bromide	0.92	0.10		mg/l	EPA 300.0
Sulfate	141	13		mg/l	EPA 300.0
Alkalinity, Bicarbonate as CaCO3	475	5.0		mg/l	SM 2320B-2011
Alkalinity, Carbonate	40.0	5.0		mg/l	SM 2320B-2011
Alkalinity, Total as CaCO3	515	5.0		mg/l	SM 2320B-2011
Cation Anion Balance	1.6			%	SM1030E-2011
Phosphorus, Total	0.036	0.010		mg/l	EPA 365.1
Solids, Total Dissolved	976	10		mg/l	SM 2540C-2011
Specific Conductivity	1680	1.0		umhos/cm	SM 2510B-2011
pH <sup>a</sup>	8.59			su	SM4500HB+ -2011/9040C
Specific Conductivity (Field)	1606.6	0.50		umhos/cm	FIELD
pH (Field)	8.19			su	FIELD
Temperature (Field)	19			Deg. C	FIELD
Turbidity	0.02			NTU	FIELD
Oxygen, Dissolved (Field)	0.37			mg/l	FIELD

DA63507-1A BW\_NGL\_78801\_F\_R SESE\_30\_3N\_65W

Methane <sup>b</sup>	4.67	0.0080	0.0070	mg/l	RSK175 MOD
Ethane <sup>b</sup>	0.0414	0.0016	0.0010	mg/l	RSK175 MOD
Propane <sup>b</sup>	0.0058	0.0022	0.0017	mg/l	RSK175 MOD

DA63507-1B BW\_NGL\_78801\_F\_R SESE\_30\_3N\_65W

Iron-Related Bacteria <sup>c</sup>	2200	25		CFU/ml	HACH IRB-BART-NOCERT
Slime Forming Bacteria <sup>c</sup>	2500	500		CFU/ml	HC SLYM-BART-NO CERT
Sulfate Reducing Bacteria <sup>c</sup>	27000	200		CFU/ml	HC SRB-BART-NO CERT

DA63507-1F BW\_NGL\_78801\_F\_R SESE\_30\_3N\_65W

Barium	0.0552	0.0020		mg/l	EPA 200.8
Boron	0.204	0.040		mg/l	EPA 200.8
Calcium	13.1	0.40		mg/l	EPA 200.8
Magnesium	3.59	0.10		mg/l	EPA 200.8
Manganese	0.0110	0.0010		mg/l	EPA 200.8
Potassium	1.99	0.20		mg/l	EPA 200.8
Sodium	360	10		mg/l	EPA 200.8
Strontium	0.386	0.020		mg/l	EPA 200.8

(a) Analysis performed past recommended hold time.

(b) The pH of the sample was > 2 at time of analysis. Bottles marked as unpreserved.

Summary of Hits

Job Number: DA63507  
Account: Occidental Petroleum Corporation  
Project: GWA\_NGL\_Water\_Well  
Collected: 04/04/24



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Analyte						

(c) Certification for this test is not offered.

## Sample Results

## Report of Analysis

Report of Analysis

Client Sample ID:	BW_NGL_78801_F_R SESE_30_3N_65W	Date Sampled:	04/04/24
Lab Sample ID:	DA63507-1	Date Received:	04/05/24
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	GWA_NGL_Water_Well		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5V80632.D	1	04/05/24 22:32	MB	n/a	n/a	V5V3954
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.60	ug/l	
108-88-3	Toluene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
1330-20-7	Xylene (total)	ND	1.0	1.0	ug/l	
	m,p-Xylene	ND	1.0	0.96	ug/l	
95-47-6	o-Xylene	ND	1.0	0.60	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		70-130%
17060-07-0	1,2-Dichloroethane-D4	96%		70-130%
2037-26-5	Toluene-D8	97%		70-130%
460-00-4	4-Bromofluorobenzene	100%		70-130%

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
RL = Reporting Limit      B = Indicates analyte found in associated method blank  
E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BW_NGL_78801_F_R SESE_30_3N_65W					Date Sampled:	04/04/24
Lab Sample ID:	DA63507-1					Date Received:	04/05/24
Matrix:	AQ - Ground Water					Percent Solids:	n/a
Method:	SW846 8015D						
Project:	GWA_NGL_Water_Well						

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	GA64798.D	1	04/13/24 02:03	JC	n/a	n/a	GGA2862

Run #1	Purge Volume
Run #2	5.0 ml

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	0.050	0.040	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
120-82-1	1,2,4-Trichlorobenzene	123%		60-140%		

ND = Not detected

MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	BW_NGL_78801_F_R SESE_30_3N_65W				
Lab Sample ID:	DA63507-1			Date Sampled:	04/04/24
Matrix:	AQ - Ground Water			Date Received:	04/05/24
Method:	SW846 8015D SW846 3511			Percent Solids:	n/a
Project:	GWA_NGL_Water_Well				

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	0Z10306.D	1	04/11/24 04:15	ANJ	04/10/24 11:00	N:OP53706	N:G0Z287
Run #2							

	Initial Volume	Final Volume
Run #1	50.3 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	ND	0.080	0.038	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	88%		70-130%		
438-22-2	5a-Androstane	85%		70-130%		

(a) Analysis performed at SGS Dayton, NJ.

ND = Not detected	MDL = Method Detection Limit	J = Indicates an estimated value
RL = Reporting Limit		B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range		N = Indicates presumptive evidence of a compound

## Report of Analysis

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Client Sample ID:	BW_NGL_78801_F_R SESE_30_3N_65W	Date Sampled:	04/04/24
Lab Sample ID:	DA63507-1	Date Received:	04/05/24
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	GWA_NGL_Water_Well		

## General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
<b>300.0</b>							
Fluoride	1.7	0.20	mg/l	2	04/05/24 17:11	CS	EPA 300.0
Chloride	134	13	mg/l	25	04/05/24 17:19	CS	EPA 300.0
Nitrogen, Nitrite <sup>a</sup>	< 0.10	0.10	mg/l	25	04/05/24 17:19	CS	EPA 300.0
Bromide	0.92	0.10	mg/l	2	04/05/24 17:11	CS	EPA 300.0
Nitrogen, Nitrate <sup>a</sup>	< 0.020	0.020	mg/l	2	04/05/24 17:11	CS	EPA 300.0
Sulfate	141	13	mg/l	25	04/05/24 17:19	CS	EPA 300.0
<b>300.0 NO2 + NO3O</b>							
Nitrogen, Nitrate + Nitrite <sup>b</sup>	< 0.12	0.12	mg/l	1	04/05/24 17:19	CS	EPA 300.0
Alkalinity, Bicarbonate as CaC	475	5.0	mg/l	1	04/09/24 10:00	JW	SM 2320B-2011
Alkalinity, Carbonate	40.0	5.0	mg/l	1	04/09/24 10:00	JW	SM 2320B-2011
Alkalinity, Total as CaCO3	515	5.0	mg/l	1	04/09/24 10:00	JW	SM 2320B-2011
Cation Anion Balance	1.6		%	1	04/26/24	MB	SM1030E-2011
Phosphorus, Total	0.036	0.010	mg/l	1	04/11/24 17:51	KH	EPA 365.1
Solids, Total Dissolved	976	10	mg/l	1	04/08/24 07:00	JW	SM 2540C-2011
Specific Conductivity	1680	1.0	umhos/cm	1	04/11/24 10:00	JW	SM 2510B-2011
pH <sup>c</sup>	8.59		su	1	04/09/24 11:00	JW	SM4500HB+ -2011/9040C

## Field Parameters

Oxygen, Dissolved (Field)	0.37		mg/l	1	04/04/24 15:33	SUB	FIELD
Redox Potential Vs H2	-83.2		mv	1	04/04/24 15:33	SUB	FIELD
Specific Conductivity (Field)	1606.6	0.50	umhos/cm	1	04/04/24 15:33	SUB	FIELD
Temperature (Field)	19		Deg. C	1	04/04/24 15:33	SUB	FIELD
Turbidity	0.02		NTU	1	04/04/24 15:33	SUB	FIELD
pH (Field)	8.19		su	1	04/04/24 15:33	SUB	FIELD

(a) Elevated detection limit due to matrix interference.

(b) Calculated as: (Nitrogen, Nitrate) + (Nitrogen, Nitrite)

(c) Analysis performed past recommended hold time.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	BW_NGL_78801_F_R SESE_30_3N_65W					Date Sampled:	04/04/24
Lab Sample ID:	DA63507-1A					Date Received:	04/05/24
Matrix:	AQ - Ground Water					Percent Solids:	n/a
Method:	RSK175 MOD						
Project:	GWA_NGL_Water_Well						

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	FK4745.D	1	04/10/24 13:30	JC	n/a	n/a	GFK347
Run #2 <sup>a</sup>	FK4746.D	10	04/10/24 13:39	JC	n/a	n/a	GFK347

	Initial Volume	Headspace Volume	Volume Injected	Temperature
Run #1	39.0 ml	4.0 ml	500 ul	22.5 Deg. C
Run #2	39.0 ml	4.0 ml	500 ul	22.5 Deg. C

Methane, Ethane and Propane

CAS No.	Compound	Result	RL	MDL	Units	Q
74-82-8	Methane	4.67 <sup>b</sup>	0.0080	0.0070	mg/l	
74-84-0	Ethane	0.0414	0.0016	0.0010	mg/l	
74-98-6	Propane	0.0058	0.0022	0.0017	mg/l	

(a) The pH of the sample was > 2 at time of analysis. Bottles marked as unpreserved.

(b) Result is from Run# 2

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
RL = Reporting Limit      B = Indicates analyte found in associated method blank  
E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.2  
4

Report of Analysis

Client Sample ID:	BW_NGL_78801_F_R SESE_30_3N_65W	Date Sampled:	04/04/24
Lab Sample ID:	DA63507-1B	Date Received:	04/05/24
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	GWA_NGL_Water_Well		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Not certifiable							
Iron-Related Bacteria <sup>a</sup>	2200	25	CFU/ml	1	04/23/24	CS	HACH IRB-BART-NOCERT
Slime Forming Bacteria <sup>a</sup>	2500	500	CFU/ml	1	04/13/24 08:00	CS	HC SLYM-BART-NO CERT
Sulfate Reducing Bacteria <sup>a</sup>	27000	200	CFU/ml	1	04/23/24 08:00	CS	HC SRB-BART-NO CERT

(a) Certification for this test is not offered.

RL = Reporting Limit

4.3  
4

Report of Analysis

Client Sample ID:	BW_NGL_78801_F_R SESE_30_3N_65W	Date Sampled:	04/04/24
Lab Sample ID:	DA63507-1F	Date Received:	04/05/24
Matrix:	AQ - Groundwater Filtered	Percent Solids:	n/a
Project:	GWA_NGL_Water_Well		

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Barium	0.0552	0.0020	mg/l	1	04/15/24	04/16/24	DU EPA 200.8 <sup>1</sup>	EPA 200.8 <sup>4</sup>
Boron	0.204	0.040	mg/l	1	04/15/24	04/16/24	DU EPA 200.8 <sup>1</sup>	EPA 200.8 <sup>4</sup>
Calcium	13.1	0.40	mg/l	1	04/15/24	04/16/24	DU EPA 200.8 <sup>1</sup>	EPA 200.8 <sup>4</sup>
Iron	< 0.020	0.020	mg/l	1	04/15/24	04/18/24	DU EPA 200.8 <sup>2</sup>	EPA 200.8 <sup>4</sup>
Magnesium	3.59	0.10	mg/l	1	04/15/24	04/16/24	DU EPA 200.8 <sup>1</sup>	EPA 200.8 <sup>4</sup>
Manganese	0.0110	0.0010	mg/l	1	04/15/24	04/16/24	DU EPA 200.8 <sup>1</sup>	EPA 200.8 <sup>4</sup>
Potassium	1.99	0.20	mg/l	1	04/15/24	04/16/24	DU EPA 200.8 <sup>1</sup>	EPA 200.8 <sup>4</sup>
Selenium	< 0.00040	0.00040	mg/l	1	04/15/24	04/16/24	DU EPA 200.8 <sup>1</sup>	EPA 200.8 <sup>4</sup>
Sodium	360	10	mg/l	20	04/15/24	04/23/24	DU EPA 200.8 <sup>3</sup>	EPA 200.8 <sup>4</sup>
Strontium	0.386	0.020	mg/l	1	04/15/24	04/16/24	DU EPA 200.8 <sup>1</sup>	EPA 200.8 <sup>4</sup>

- (1) Instrument QC Batch: MA17841
- (2) Instrument QC Batch: MA17846
- (3) Instrument QC Batch: MA17862
- (4) Prep QC Batch: MP39182

RL = Reporting Limit

4.4  
4

**Misc. Forms**

5

**Custody Documents and Other Forms**

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**Includes the following where applicable:**

- Chain of Custody



## CHAIN OF CUSTODY

Page 1 of 1

4036 Youngfield Street, Wheat Ridge, CO 80033  
TEL: 303-425-6021 FAX: 303-425-6854  
www.accutest.com

Bottle Order Control #	FED-EX Tracking #
SGS Quote #	SGS Job # <b>DA 63507</b>
<b>Client / Reporting Information</b>	
Company: Kerr-McGee Oil and Gas Onshore LP	
Project Name: GWA_NGL_Water_Well Frequency: A	
Street: 1099 18th Street	
City/State: Denver, CO 80202	
Project Contact: Joel Mason	
Phone: 307-262-8975	
Email: joel.mason@absarokasolutions.com	
Sampler(s) Name(s): Devin Zalace	
Project Manager: Joel Mason	
Attention: Erik Mickelson User ID: fvv451	
<b>Project Information</b>	
Regulation: Voluntary	
Facility ID: 755053	
Company: Occidental Petroleum Corporation (OXY)	
EQUS Facility Code: 0089019-AN-GWABWQ	
Client Purchase Order #: 4501812370 Line Item: 50	
Street Address: 1201 Lake Robbins Drive	
City, State ZIP: The Woodlands, TX 77380	
<b>Requested Analysis (see TEST CODE sheet)</b>	
PH, SCOR, TDS	
XCARBICALK	
BRO, CHL, F, NO2, XNO3O, NO32, SO4	
TP04	
Dissolved Metals - Lab Filtered*	
VRSK175DGMPEP	
V8280BTX	
B8015DRO	
V8015GRO	
IRBAC, SFBAC, SO4RBAC	
CABAL	
<b>Matrix Codes</b>	
DW - Drinking Water	
GW - Ground Water	
WW - Water	
SW - Surface Water	
SO - Soil	
SL - Sludge	
SED - Sediment	
OI - Oil	
LIQ - Other Liquid	
AIR - Air	
SOL - Other Solid	
WP - Wipe	
FB - Field Blank	
EB - Equipment Blank	
RB - Rinse Blank	
TB - Trip Blank	
<b>LAB USE ONLY</b>	
Field ID / Point of Collection	
Date	
Time	
Sampled by	
Matrix	
# of bottles	
NONE	
HCl	
NaOH	
HNO3	
H2SO4	
DI Water	
MEOH	
ENCODE	
Na2SO4	
Other	
BW_NGL_78801_F_R	
4/4/2024	
15:33	
DZ	
GW	
17	
9	
6	
1	
1	
SESE_30_3N_65W	
Temperature, field	
19.0 °C	
pH, field	
8.19 s.u.	
Specific Conductivity, field	
1606.6 uS/cm	
Oxidation Reduction Potential, field	
-83.2 mV	
Dissolved Oxygen, field	
0.37 mg/L	
Turbidity, field	
0.02 NTU	
<b>Turnaround Time (Business days)</b>	
<input checked="" type="checkbox"/> Std. 10 Business Days	
<input type="checkbox"/> 5 Day RUSH	
<input type="checkbox"/> 3 Day Emergency	
<input type="checkbox"/> 2 Day Emergency	
<input type="checkbox"/> 1 Day Emergency	
<b>Special Reporting Instructions</b>	
<input type="checkbox"/> Report in PPB	
<input type="checkbox"/> Report in PPM	
<input type="checkbox"/> Report MDLs	
<b>Data Deliverable Information</b>	
<input type="checkbox"/> Commercial "A" (Level 1, Results Only)	
<input type="checkbox"/> Commercial "B" (Level 2, Results + QC Summary)	
<input type="checkbox"/> COMMBN (Results/QC/Narrative)	
<input type="checkbox"/> COMMBN+ (Results/QC/Narrative (+ chromatograms))	
<input type="checkbox"/> REDT2	
<input type="checkbox"/> FULT1	
<input checked="" type="checkbox"/> EDD Format: COGCC Compatible	
<b>Comments / Special Instructions</b>	
*Dissolved Metals (200.7/200.8): BaMS, B, Ca, Fe, Mg, Mn, K, SeMS, Na, Sr	
Please also send reports to Michelle.Henry@absarokasolutions.com and Jordan.Fleming@absarokasolutions.com	
<b>Sample Custody must be documented below each time samples change possession, including courier delivery.</b>	
Relinquished By: 1 <i>DM</i>	
Date/Time: 4-4-24 18:00	
Received By: 1 <i>DM</i>	
Date/Time: 4-4-24 18:00	
Relinquished By: 2	
Date/Time:	
Received By: 3	
Date/Time:	
Relinquished By: 4	
Date/Time:	
Received By: 4	
Date/Time:	
Custody Seal #	
Intact <input checked="" type="checkbox"/> Not intact <input type="checkbox"/> Absent <input type="checkbox"/>	
Preserved where applicable <input checked="" type="checkbox"/>	
Cooler Temp. °C: 5.0	
Therm. ID: 1122	
On Ice <input checked="" type="checkbox"/>	
Form MSGA 064-01, RV 6/19/17	
<a href="http://www.sgs.com/terms-and-conditions">http://www.sgs.com/terms-and-conditions</a>	

DA63507: Chain of Custody

Page 1 of 2



## SGS Sample Receipt Summary

Job Number: da63507

Client: ABSAROKA

Project: GWA

Date / Time Received: 4/5/2024 1:45:00 PM

Delivery Method: co

Airbill #'s: \_\_\_\_\_

Cooler Temps (Raw Measured) °C: Cooler 1: (5.0);

Cooler Temps (Corrected) °C: Cooler 1: (5.0);

### Cooler Information

Y or N

- |                              |                                     |                          |
|------------------------------|-------------------------------------|--------------------------|
| 1. Custody Seals Present:    | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Custody Seals Intact:     | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Temp criteria achieved:   | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 4. Cooler temp verification: | IR Gun                              |                          |
| 5. Cooler media:             | Ice (Bag)                           |                          |

### Trip Blank Information

Y or N N/A

- |                                 |                                     |                          |                          |
|---------------------------------|-------------------------------------|--------------------------|--------------------------|
| 1. Trip Blank present / cooler: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Trip Blank listed on COC:    | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

W or S N/A

- |                        |                                     |                          |                          |
|------------------------|-------------------------------------|--------------------------|--------------------------|
| 3. Type of TB Received | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
|------------------------|-------------------------------------|--------------------------|--------------------------|

### Sample Information

Y or N N/A

- |   |                                     |                                     |                                     |
|---|-------------------------------------|-------------------------------------|-------------------------------------|
| 1. Sample labels present on bottles:                | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |                                     |
| 2. Samples presented properly                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |                                     |
| 3. Sufficient volume/containers recv'd for analysis | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |                                     |
| 4. Condition of sample:                             | Intact                              |                                     |                                     |
| 5. Sample recv'd within HT                          | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |                                     |
| 6. Dates/Times/IDs on COC match sample label        | <input type="checkbox"/>            | <input type="checkbox"/>            |                                     |
| 7. VOCs have headspace                              | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| 8. Bottles received for unspecified tests           | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |                                     |
| 9. Compositing instructions clear                   | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 10. Voa Soil Kits/Jars received past 48hrs?         | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |
| 11. % Solids Jar Received?                          | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |
| 12. Residual Chlorine Present?                      | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |

### Misc Information

Number of Encores: 25 Gram 5 Gram

Number of Lab Filtered Metals:

Test Strip Lot #: pH 0-3: \_\_\_\_\_

pH 10-12: \_\_\_\_\_ Other: (Specify) \_\_\_\_\_

Residual Chlorine Test Strip Lot #: \_\_\_\_\_

Comments

SM001

Rev. Date 05/04/17

Technician: JEREMYD

Date: 4/5/2024 1:54:10 PM

Reviewer: \_\_\_\_\_

Date: \_\_\_\_\_

DA63507: Chain of Custody

Page 2 of 2

**MS Volatiles****QC Data Summaries**

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**Includes the following where applicable:**

- **Method Blank Summaries**
- **Blank Spike Summaries**
- **Matrix Spike and Duplicate Summaries**

## Method Blank Summary

Page 1 of 1

Job Number: DA63507

Account: ANADACOD Occidental Petroleum Corporation

Project: GWA\_NGL\_Water\_Well

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5V3954-MB	5V80608.D	1	04/05/24	MB	n/a	n/a	V5V3954

The QC reported here applies to the following samples:

Method: SW846 8260B

DA63507-1

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.60	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.60	ug/l	
108-88-3	Toluene	ND	1.0	0.50	ug/l	
	m,p-Xylene	ND	1.0	0.96	ug/l	
95-47-6	o-Xylene	ND	1.0	0.60	ug/l	
1330-20-7	Xylene (total)	ND	1.0	1.0	ug/l	

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	95% 70-130%
17060-07-0	1,2-Dichloroethane-D4	98% 70-130%
2037-26-5	Toluene-D8	98% 70-130%
460-00-4	4-Bromofluorobenzene	100% 70-130%

## Blank Spike Summary

Page 1 of 1

Job Number: DA63507

Account: ANADACOD Occidental Petroleum Corporation

Project: GWA\_NGL\_Water\_Well

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5V3954-BS	5V80606.D	1	04/05/24	MB	n/a	n/a	V5V3954

The QC reported here applies to the following samples:

Method: SW846 8260B

DA63507-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	50	47.9	96	70-130
100-41-4	Ethylbenzene	50	51.2	102	70-130
108-88-3	Toluene	50	49.2	98	70-130
	m,p-Xylene	100	106	106	70-130
95-47-6	o-Xylene	50	52.5	105	70-130
1330-20-7	Xylene (total)	150	159	106	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	98%	70-130%
17060-07-0	1,2-Dichloroethane-D4	97%	70-130%
2037-26-5	Toluene-D8	98%	70-130%
460-00-4	4-Bromofluorobenzene	97%	70-130%

\* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: DA63507  
Account: ANADACOD Occidental Petroleum Corporation  
Project: GWA\_NGL\_Water\_Well

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
DA63486-4MS	5V80610.D	1	04/05/24	MB	n/a	n/a	V5V3954
DA63486-4MSD	5V80611.D	1	04/05/24	MB	n/a	n/a	V5V3954
DA63486-4	5V80609.D	1	04/05/24	MB	n/a	n/a	V5V3954

The QC reported here applies to the following samples: Method: SW846 8260B

DA63507-1

CAS No.	Compound	DA63486-4 ug/l	Spike Q ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND	50	47.9	96	50	42.9	86	11	70-130/30
100-41-4	Ethylbenzene	ND	50	52.0	104	50	45.1	90	14	70-130/30
108-88-3	Toluene	ND	50	48.8	98	50	43.6	87	11	70-130/30
	m,p-Xylene	ND	100	106	106	100	91.6	92	15	70-130/30
95-47-6	o-Xylene	ND	50	51.7	103	50	45.9	92	12	70-130/30
1330-20-7	Xylene (total)	ND	150	157	105	150	137	91	14	70-130/30

CAS No.	Surrogate Recoveries	MS	MSD	DA63486-4	Limits
1868-53-7	Dibromofluoromethane	98%	97%	94%	70-130%
17060-07-0	1,2-Dichloroethane-D4	97%	97%	97%	70-130%
2037-26-5	Toluene-D8	97%	99%	98%	70-130%
460-00-4	4-Bromofluorobenzene	98%	99%	100%	70-130%

\* = Outside of Control Limits.

**GC Volatiles****QC Data Summaries**

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**Includes the following where applicable:**

- **Method Blank Summaries**
- **Blank Spike Summaries**
- **Matrix Spike and Duplicate Summaries**

Method Blank Summary

Job Number: DA63507  
Account: ANADACOD Occidental Petroleum Corporation  
Project: GWA\_NGL\_Water\_Well

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGA2862-MB	GA64782.D	1	04/12/24	JC	n/a	n/a	GGA2862

The QC reported here applies to the following samples: Method: SW846 8015D

DA63507-1

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	0.050	0.040	mg/l	

CAS No.	Surrogate Recoveries	Limits
120-82-1	1,2,4-Trichlorobenzene	121% 60-140%

Method Blank Summary

Job Number: DA63507  
Account: ANADACOD Occidental Petroleum Corporation  
Project: GWA\_NGL\_Water\_Well

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GFK347-MB	FK4741.D	1	04/10/24	JC	n/a	n/a	GFK347

The QC reported here applies to the following samples: Method: RSK175 MOD

DA63507-1A

CAS No.	Compound	Result	RL	MDL	Units	Q
74-82-8	Methane	ND	0.00080	0.00070	mg/l	
74-84-0	Ethane	ND	0.0016	0.0010	mg/l	
74-98-6	Propane	ND	0.0022	0.0017	mg/l	

Blank Spike Summary

Job Number: DA63507  
Account: ANADACOD Occidental Petroleum Corporation  
Project: GWA\_NGL\_Water\_Well

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGA2862-BS	GA64780.D	1	04/12/24	JC	n/a	n/a	GGA2862

The QC reported here applies to the following samples: Method: SW846 8015D

DA63507-1

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	Limits
	TPH-GRO (C6-C10)	2.2	2.05	93	64-130

CAS No.	Surrogate Recoveries	BSP	Limits
120-82-1	1,2,4-Trichlorobenzene	116%	60-140%

\* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: DA63507  
Account: ANADACOD Occidental Petroleum Corporation  
Project: GWA\_NGL\_Water\_Well

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GFK347-BS	FK4742.D	10	04/10/24	JC	n/a	n/a	GFK347
GFK347-BSD	FK4744.D	10	04/10/24	JC	n/a	n/a	GFK347

The QC reported here applies to the following samples: Method: RSK175 MOD

DA63507-1A

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	BSD mg/l	BSD %	RPD	Limits Rec/RPD
74-82-8	Methane	0.512	0.529	103	0.567	111	7	70-135/30
74-84-0	Ethane	0.923	1.04	113	1.11	120	7	70-147/30
74-98-6	Propane	1.38	1.48	107	1.59	115	7	70-140/30

\* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: DA63507  
Account: ANADACOD Occidental Petroleum Corporation  
Project: GWA\_NGL\_Water\_Well

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
DA63486-23MS	GA64783.D	1	04/12/24	JC	n/a	n/a	GGA2862
DA63486-23MSD	GA64784.D	1	04/12/24	JC	n/a	n/a	GGA2862
DA63486-23	GA64785.D	1	04/12/24	JC	n/a	n/a	GGA2862

The QC reported here applies to the following samples: Method: SW846 8015D

DA63507-1

CAS No.	Compound	DA63486-23 Spike mg/l	Q	Spike mg/l	MS mg/l	MS %	Spike mg/l	MSD mg/l	MSD %	RPD	Limits Rec/RPD
	TPH-GRO (C6-C10)	ND		2.2	1.91	87	2.2	1.93	88	1	49-130/30

CAS No.	Surrogate Recoveries	MS	MSD	DA63486-23	Limits
120-82-1	1,2,4-Trichlorobenzene	118%	120%	121%	60-140%

\* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: DA63507  
Account: ANADACOD Occidental Petroleum Corporation  
Project: GWA\_NGL\_Water\_Well

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
DA63506-1AMS <sup>a</sup>	FK4748.D	10	04/10/24	JC	n/a	n/a	GFK347
DA63506-1AMSD <sup>a</sup>	FK4749.D	10	04/10/24	JC	n/a	n/a	GFK347
DA63506-1A <sup>a</sup>	FK4747.D	1	04/10/24	JC	n/a	n/a	GFK347

The QC reported here applies to the following samples: Method: RSK175 MOD

DA63507-1A

CAS No.	Compound	DA63506-1A Spike		MS	MS	Spike	MSD	MSD	RPD	Limits
		mg/l	Q	mg/l	%	mg/l	mg/l	%		Rec/RPD
74-82-8	Methane	ND	0.512	0.571	112	0.512	0.590	115	3	15-200/30
74-84-0	Ethane	ND	0.923	1.13	122	0.923	1.16	126	3	64-147/30
74-98-6	Propane	ND	1.38	1.61	117	1.38	1.66	120	3	63-140/30

(a) The pH of the sample was > 2 at time of analysis. Bottles marked as unpreserved.

\* = Outside of Control Limits.

## Metals Analysis

### QC Data Summaries



Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY  
Part 2 - Method Blanks

Login Number: DA63507  
Account: ANADACOD - Occidental Petroleum Corporation  
Project: GWA\_NGL\_Water\_Well

QC Batch ID: MP39182  
Matrix Type: AQUEOUS

Methods: EPA 200.8  
Units: ug/l

Prep Date: 04/15/24

Metal	RL	IDL	MDL	MB raw	final
Aluminum	50	.52	13		
Antimony	0.40	.01	.3		
Arsenic	0.20	.05	.05		
Barium	2.0	.096	.25	0.039	<2.0
Beryllium	0.20	.077	.1		
Boron	40	18	20	2.4	<40
Cadmium	0.10	.03	.04		
Calcium	400	25	100	3.2	<400
Chromium	2.0	.087	.25		
Cobalt	0.20	.04	.05		
Copper	2.0	.05	.81		
Iron	20	1.6	10	8.4	<20
Lead	0.50	.094	.13		
Magnesium	100	10	25	-0.57	<100
Manganese	1.0	.079	.51	0.0081	<1.0
Molybdenum	1.0	.037	.27		
Nickel	2.0	.098	.35		
Phosphorus	60	7.6	25		
Potassium	200	2	50	-17	<200
Selenium	0.40	.05	.1	0.014	<0.40
Silver	0.10	.0081	.025		
Sodium	500	10	130	4.1	<500
Strontium	20	.1	5	0.021	<20
Thallium	0.20	.032	.05		
Tin	10	.22	2.5		
Titanium	2.0	.05	.37		
Uranium	0.20	.015	.05		
Vanadium	1.0	.14	.2		
Zinc	10	.05	2.1		

Associated samples MP39182: DA63507-1F

Results < IDL are shown as zero for calculation purposes  
(\*) Outside of QC limits  
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: DA63507  
 Account: ANADACOD - Occidental Petroleum Corporation  
 Project: GWA\_NGL\_Water\_Well

QC Batch ID: MP39182  
 Matrix Type: AQUEOUS

Methods: EPA 200.8  
 Units: ug/l

Prep Date: 04/15/24

Metal	DA63525-3A Original MS		SpikeLot ICPMS5	% Rec	QC Limits
Aluminum					
Antimony					
Arsenic	anr				
Barium	102	497	400	98.8	70-130
Beryllium					
Boron	109	529	400	105.0	70-130
Cadmium	anr				
Calcium	70800	77800	5000	140.0(a)	70-130
Chromium	anr				
Cobalt					
Copper	anr				
Iron	8.4	994	1000	98.6	70-130
Lead	anr				
Magnesium	22700	28100	5000	108.0	70-130
Manganese	1.7	201	200	99.7	70-130
Molybdenum					
Nickel	anr				
Phosphorus					
Potassium	3190	7840	5000	93.0	70-130
Selenium	1.2	201	200	99.9	70-130
Silver	anr				
Sodium	141000	135000	5000	-120.0(a)	70-130
Strontium	767	868	100	101.0	70-130
Thallium	anr				
Tin					
Titanium					
Uranium	anr				
Vanadium					
Zinc	anr				

Associated samples MP39182: DA63507-1F

Results < IDL are shown as zero for calculation purposes

(\*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

(a) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: DA63507  
Account: ANADACOD - Occidental Petroleum Corporation  
Project: GWA\_NGL\_Water\_Well

QC Batch ID: MP39182  
Matrix Type: AQUEOUS

Methods: EPA 200.8  
Units: ug/l

Prep Date: 04/15/24

Metal	DA63525-3A Original MSD		Spikelet ICPMS5	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony						
Arsenic	anr					
Barium	102	507	400	101.3	2.0	20
Beryllium						
Boron	109	544	400	108.8	2.8	20
Cadmium	anr					
Calcium	70800	81200	5000	208.0(a)	4.3	20
Chromium	anr					
Cobalt						
Copper	anr					
Iron	8.4	1030	1000	102.2	1.0	20
Lead	anr					
Magnesium	22700	28900	5000	124.0	2.8	20
Manganese	1.7	205	200	101.7	2.0	20
Molybdenum						
Nickel	anr					
Phosphorus						
Potassium	3190	8020	5000	96.6	2.3	20
Selenium	1.2	201	200	99.9	0.0	20
Silver	anr					
Sodium	141000	137000	5000	-80.0(a)	6.8	20
Strontium	767	868	100	101.0	0.0	20
Thallium	anr					
Tin						
Titanium						
Uranium	anr					
Vanadium						
Zinc	anr					

Associated samples MP39182: DA63507-1F

Results < IDL are shown as zero for calculation purposes

(\*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

(a) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

## SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: DA63507

Account: ANADACOD - Occidental Petroleum Corporation

Project: GWA\_NGL\_Water\_Well

QC Batch ID: MP39182

Methods: EPA 200.8

Matrix Type: AQUEOUS

Units: ug/l

Prep Date:

04/15/24

Metal	BSP Result	Spikelot ICPMS5	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic	anr			
Barium	410	400	102.5	85-115
Beryllium				
Boron	431	400	107.8	85-115
Cadmium	anr			
Calcium	4880	5000	97.6	85-115
Chromium	anr			
Cobalt				
Copper	anr			
Iron	1020	1000	102.0	85-115
Lead	anr			
Magnesium	4730	5000	94.6	85-115
Manganese	205	200	102.5	85-115
Molybdenum				
Nickel	anr			
Phosphorus				
Potassium	4930	5000	98.6	85-115
Selenium	205	200	102.5	85-115
Silver	anr			
Sodium	4880	5000	97.6	85-115
Strontium	101	100	101.0	85-115
Thallium	anr			
Tin				
Titanium				
Uranium	anr			
Vanadium				
Zinc	anr			

Associated samples MP39182: DA63507-1F

Results &lt; IDL are shown as zero for calculation purposes

(\*) Outside of QC limits

(anr) Analyte not requested

## General Chemistry

### QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY  
GENERAL CHEMISTRY

Login Number: DA63507  
Account: ANADACOD - Occidental Petroleum Corporation  
Project: GWA\_NGL\_Water\_Well

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Alkalinity, Bicarbonate as CaC	GN63069	5.0	0.0	mg/l	100	98.8	98.8	90-110%
Alkalinity, Carbonate	GN63070	5.0	0.0	mg/l	100	98.8	98.8	90-110%
Alkalinity, Total as CaCO3	GN63068	5.0	0.0	mg/l	100	98.8	98.8	90-110%
Bromide	GP36326/GN63051	0.050	0.0	mg/l	0.5	0.511	102.2	90-110%
Chloride	GP36326/GN63051	0.50	0.0	mg/l	5	5.07	101.4	90-110%
Fluoride	GP36326/GN63051	0.10	0.0	mg/l	1	1.03	103.0	90-110%
Iron-Related Bacteria	MB1748	25	0	CFU/ml				
Nitrogen, Nitrate	GP36326/GN63051	0.010	0.0	mg/l	0.1	0.102	102.0	90-110%
Nitrogen, Nitrite	GP36326/GN63051	0.0040	0.0	mg/l	0.05	0.0514	102.8	90-110%
Phosphorus, Total	GP36366/GN63108	0.010	0.0	mg/l	0.2	0.212	106.0	90-110%
Slime Forming Bacteria	MB1750	500	0	CFU/ml				
Solids, Total Dissolved	GN63062	10	0.0	mg/l	250	272	108.8	90-110%
Specific Conductivity	GP36363/GN63097			umhos/cm	10000	1460	103.8	90-110%
Sulfate	GP36326/GN63051	0.50	0.0	mg/l	5	5.05	101.0	90-110%
Sulfate Reducing Bacteria	MB1749	200	0	CFU/ml				

Associated Samples:

Batch MB1748: DA63507-1B  
Batch MB1749: DA63507-1B  
Batch MB1750: DA63507-1B  
Batch GN63062: DA63507-1  
Batch GN63068: DA63507-1  
Batch GN63069: DA63507-1  
Batch GN63070: DA63507-1  
Batch GP36326: DA63507-1  
Batch GP36363: DA63507-1  
Batch GP36366: DA63507-1  
(\*) Outside of QC limits

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DUPLICATE RESULTS SUMMARY  
GENERAL CHEMISTRY

Login Number: DA63507  
Account: ANADACOD - Occidental Petroleum Corporation  
Project: GWA\_NGL\_Water\_Well

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Alkalinity, Total as CaCO3	GN63068	DA63473-1	mg/l	345	348	0.7	0-20%
Iron-Related Bacteria	MB1748	DA63422-1B	CFU/ml	2200	2200	0.0	0-%
Phosphorus, Total	GP36366/GN63108	DA63589-1	mg/l	96.9	96.5	0.4	0-20%
Slime Forming Bacteria	MB1750	DA63422-1B	CFU/ml	<500	<500	0.0	0-%
Solids, Total Dissolved	GN63062	DA63507-1	mg/l	976	988	1.2	0-5.44%
Specific Conductivity	GP36363/GN63097	DA63507-1	umhos/cm	1680	1690	0.3	0-20%
Sulfate Reducing Bacteria	MB1749	DA63422-1B	CFU/ml	<200	<200	0.0	0-%

Associated Samples:

Batch MB1748: DA63507-1B  
Batch MB1749: DA63507-1B  
Batch MB1750: DA63507-1B  
Batch GN63062: DA63507-1  
Batch GN63068: DA63507-1  
Batch GP36363: DA63507-1  
Batch GP36366: DA63507-1  
(\*) Outside of QC limits

MATRIX SPIKE RESULTS SUMMARY  
GENERAL CHEMISTRY

Login Number: DA63507  
Account: ANADACOD - Occidental Petroleum Corporation  
Project: GWA\_NGL\_Water\_Well

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Alkalinity, Total as CaCO <sub>3</sub>	GN63068	DA63473-1	mg/l	345	100	445	100.0	80-120%
Bromide	GP36326/GN63051	DA63506-1	mg/l	1.6	25	26.1	98.0	80-120%
Chloride	GP36326/GN63051	DA63506-1	mg/l	198	250	455	102.8	80-120%
Fluoride	GP36326/GN63051	DA63506-1	mg/l	0.35	50	50.3	99.9	80-120%
Nitrogen, Nitrate	GP36326/GN63051	DA63506-1	mg/l	1.3	5	6.2	98.0	80-120%
Nitrogen, Nitrite	GP36326/GN63051	DA63506-1	mg/l	0.081	2.5	2.6	100.8	80-120%
Phosphorus, Total	GP36366/GN63108	DA63589-1	mg/l	96.9	0.2	95.1	-900.0(a)	90-110%
Sulfate	GP36326/GN63051	DA63506-1	mg/l	1690	250	1940	100.0	80-120%
Sulfate	GP36326/GN63051	DA63506-1	mg/l	1000	250	1940	100.0	80-120%

Associated Samples:

Batch GN63068: DA63507-1

Batch GP36326: DA63507-1

Batch GP36366: DA63507-1

(\*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(a) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

9.3

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MATRIX SPIKE DUPLICATE RESULTS SUMMARY  
GENERAL CHEMISTRY

Login Number: DA63507  
Account: ANADACOD - Occidental Petroleum Corporation  
Project: GWA\_NGL\_Water\_Well

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MSD Result	RPD	QC Limit
Alkalinity, Total as CaCO <sub>3</sub>	GN63068	DA63473-1	mg/l	345	100	445	0.0	20%
Bromide	GP36326/GN63051	DA63506-1	mg/l	1.6	25	26.3	0.8	20%
Chloride	GP36326/GN63051	DA63506-1	mg/l	198	250	458	0.7	20%
Fluoride	GP36326/GN63051	DA63506-1	mg/l	0.35	50	50.9	1.2	20%
Nitrogen, Nitrate	GP36326/GN63051	DA63506-1	mg/l	1.3	5	6.2	0.0	20%
Nitrogen, Nitrite	GP36326/GN63051	DA63506-1	mg/l	0.081	2.5	2.6	0.0	20%
Phosphorus, Total	GP36366/GN63108	DA63589-1	mg/l	96.9	0.2	95.0	0.1	20%
Sulfate	GP36326/GN63051	DA63506-1	mg/l	1690	250	1940	0.0	20%
Sulfate	GP36326/GN63051	DA63506-1	mg/l	1000	250	1940	0.0	20%

Associated Samples:

Batch GN63068: DA63507-1

Batch GP36326: DA63507-1

Batch GP36366: DA63507-1

(\*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

9.4

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**Misc. Forms****Custody Documents and Other Forms**

(SGS Dayton, NJ)

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**Includes the following where applicable:**

- Chain of Custody



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**CHAIN OF CUSTODY**  
SGS North America Inc. - Wheat Ridge  
4036 Youngfield Street, Wheat Ridge, CO 80033  
TEL: 303-425-6021 FAX: 303-425-6854  
www.sgs.com/ehsusa

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FED-EX Tracking #		Bottle Order Control #																																	
SGS Quote #		SGS Job # <b>DA63507</b>																																	
Requested Analysis ( see TEST CODE sheet)										Matrix Codes																									
										DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB-Field Blank ES-Equipment Blank RB- Rinse Blank TB-Trip Blank																									
										LAB USE ONLY																									
Turnaround Time ( Business days)												Data Deliverable Information												Comments / Special Instructions											
<input type="checkbox"/> Standard 10 Day (business) <input type="checkbox"/> 5 Business Days RUSH <input type="checkbox"/> 3 Business Days RUSH <input type="checkbox"/> 2 Business Days RUSH <input type="checkbox"/> 1 Business Day EMERGENCY <input checked="" type="checkbox"/> other Due 4/12/2024												Approved By (SGS PM): / Date: _____												<input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> REDT1 (Level 3) <input type="checkbox"/> FULT1 (Level 4) <input type="checkbox"/> Commercial "C" <input type="checkbox"/> State Forms <input type="checkbox"/> EDD Format <input type="checkbox"/> Other <input checked="" type="checkbox"/> R.L.0.19 MG/L REQUIRED <b>Initial Assessment</b> <u>28/K</u> <b>Label Verification</b> _____ <a href="http://www.sgs.com/en/terms-and-conditions">http://www.sgs.com/en/terms-and-conditions</a>											
Sample Custody must be documented below each time samples change possession, including courier delivery.																																			
Relinquished by Sampler: <u>7L</u>				Date Time: <u>4/11/24</u>				Received By: <u>FEDEX</u>				Relinquished By: <u>FEDEX</u>				Date Time: <u>4/19/24 1000</u>				Received By: <u>[Signature]</u>															
Relinquished by Sampler:				Date Time:				Received By:				Relinquished By:				Date Time:				Received By:															
Relinquished by:				Date Time:				Received By:				Custody Seal #				<input type="checkbox"/> Intact <input type="checkbox"/> Not intact				Therm. ID: <u>0.8, 0.9, 1.1</u>															

DA63507: Chain of Custody

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SGS Dayton, NJ



## SGS Sample Receipt Summary

**Job Number:** DA63507

**Client:** SGS NORTH AMERICA INC.

**Project:** GWA\_NGL\_WATER\_WELL

**Date / Time Received:** 4/9/2024 10:00:00 AM

**Delivery Method:** FEDEX

**Airbill #s:**

**Cooler Temps (Raw Measured) °C:** Cooler 1: (0.8); Cooler 2: (0.9); Cooler 3: (1.1);

**Cooler Temps (Corrected) °C:** Cooler 1: (1.2); Cooler 2: (1.3); Cooler 3: (1.5);

### Cooler Security

Y or N

Y or N

- |  |  |
|--|--|
| 1. Custody Seals Present: <input checked="" type="checkbox"/> <input type="checkbox"/> | 3. COC Present: <input checked="" type="checkbox"/> <input type="checkbox"/>       |
| 2. Custody Seals Intact: <input checked="" type="checkbox"/> <input type="checkbox"/>  | 4. Smpl Dates/Time OK <input checked="" type="checkbox"/> <input type="checkbox"/> |

### Cooler Temperature

Y or N

- |   |  |
|---|--|
| 1. Temp criteria achieved: <input checked="" type="checkbox"/> <input type="checkbox"/> |  |
| 2. Cooler temp verification: IR-50  |  |
| 3. Cooler media: Ice (Bag)  |  |
| 4. No. Coolers: 3   |  |

### Quality Control Preservation

Y or N

N/A

- |   |  |
|---|--|
| 1. Trip Blank present / cooler: <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> |  |
| 2. Trip Blank listed on COC: <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>    |  |
| 3. Samples preserved properly: <input checked="" type="checkbox"/> <input type="checkbox"/>                           |  |
| 4. VOCs headspace free: <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>         |  |

### Sample Integrity - Documentation

Y or N

- |   |  |
|---|--|
| 1. Sample labels present on bottles: <input checked="" type="checkbox"/> <input type="checkbox"/>   |  |
| 2. Container labeling complete: <input checked="" type="checkbox"/> <input type="checkbox"/>        |  |
| 3. Sample container label / COC agree: <input checked="" type="checkbox"/> <input type="checkbox"/> |  |

### Sample Integrity - Condition

Y or N

- |   |  |
|---|--|
| 1. Sample recvd within HT: <input checked="" type="checkbox"/> <input type="checkbox"/>       |  |
| 2. All containers accounted for: <input checked="" type="checkbox"/> <input type="checkbox"/> |  |
| 3. Condition of sample: Intact  |  |

### Sample Integrity - Instructions

Y or N

N/A

- |  |  |
|--|--|
| 1. Analysis requested is clear: <input checked="" type="checkbox"/> <input type="checkbox"/>                             |  |
| 2. Bottles received for unspecified tests: <input type="checkbox"/> <input checked="" type="checkbox"/>                  |  |
| 3. Sufficient volume recvd for analysis: <input checked="" type="checkbox"/> <input type="checkbox"/>                    |  |
| 4. Compositing instructions clear: <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> |  |
| 5. Filtering instructions clear: <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>   |  |

Test Strip Lot #s: pH 1-12: 231619 pH 12+: 203117A Other: (Specify)

Comments

SM089-03  
Rev. Date 12/7/17

DA63507: Chain of Custody

Page 2 of 2

**GC/LC Semi-volatiles****QC Data Summaries**

(SGS Dayton, NJ)

**Includes the following where applicable:**

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: DA63507  
Account: ALMS SGS Wheat Ridge, CO  
Project: ANADACOD: GWA\_NGL\_Water\_Well

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP53706-MB1	OZ10301.D	1	04/11/24	TL	04/10/24	OP53706	G0Z287

The QC reported here applies to the following samples: Method: SW846 8015D

DA63507-1

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	ND	0.080	0.039	mg/l	

CAS No.	Surrogate Recoveries	Limits
84-15-1	o-Terphenyl	85% 70-130%
438-22-2	5a-Androstane	88% 70-130%

11.1.1  
11

Blank Spike Summary

Job Number: DA63507  
Account: ALMS SGS Wheat Ridge, CO  
Project: ANADACOD: GWA\_NGL\_Water\_Well

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP53706-BS1	OZ10302.D	1	04/11/24	TL	04/10/24	OP53706	G0Z287

The QC reported here applies to the following samples: Method: SW846 8015D

DA63507-1

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	Limits
	TPH-DRO (C10-C28)	1.97	1.71	87	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
84-15-1	o-Terphenyl	95%	70-130%
438-22-2	5a-Androstane	93%	70-130%

\* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: DA63507  
Account: ALMS SGS Wheat Ridge, CO  
Project: ANADACOD: GWA\_NGL\_Water\_Well

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP53706-MS	0Z10304.D	1	04/11/24	TL	04/10/24	OP53706	G0Z287
OP53706-MSD	0Z10305.D	1	04/11/24	TL	04/10/24	OP53706	G0Z287
DA63506-1	0Z10303.D	1	04/11/24	TL	04/10/24	OP53706	G0Z287

The QC reported here applies to the following samples: Method: SW846 8015D

DA63507-1

CAS No.	Compound	DA63506-1 mg/l	Spike Q mg/l	MS mg/l	MS %	Spike mg/l	MSD mg/l	MSD %	RPD	Limits Rec/RPD
	TPH-DRO (C10-C28)	ND	1.97	1.84	93	1.98	1.87	95	2	70-130/30

CAS No.	Surrogate Recoveries	MS	MSD	DA63506-1	Limits
84-15-1	o-Terphenyl	94%	95%	87%	70-130%
438-22-2	5a-Androstane	92%	93%	84%	70-130%

\* = Outside of Control Limits.