



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

January 10, 2020

Alvin Dorsey
Western Refining Southwest, Gallup
92 Giant Crossing Road
Gallup, NM 87301
TEL: (505) 722-3833
FAX

RE: Carbon Canister WWTP

OrderNo.: 2001056

Dear Alvin Dorsey:

Hall Environmental Analysis Laboratory received 3 sample(s) on 1/3/2020 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a white background.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 2001056

Date Reported: 1/10/2020

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Carbon Canister

Project: Carbon Canister WWTP

Collection Date: 12/23/2019 8:00:00 AM

Lab ID: 2001056-001

Matrix: AQUEOUS

Received Date: 1/3/2020 9:00:00 AM

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE								
						Analyst: BRM		
Diesel Range Organics (DRO)	ND	0.71	1.0	H	mg/L	1	1/6/2020 12:30:30 PM	49618
Surr: DNOP	111	0	70-130	H	%Rec	1	1/6/2020 12:30:30 PM	49618
EPA METHOD 300.0: ANIONS								
						Analyst: MRA		
Fluoride	2.0	0.23	1.0		mg/L	10	1/3/2020 8:51:50 PM	A65559
Chloride	220	25	50		mg/L	100	1/3/2020 9:16:39 PM	A65559
Bromide	1.0	0.50	1.0	J	mg/L	10	1/3/2020 8:51:50 PM	A65559
Phosphorus, Orthophosphate (As P)	ND	2.5	5.0	H	mg/L	10	1/3/2020 8:51:50 PM	A65559
Sulfate	690	25	50		mg/L	100	1/3/2020 9:16:39 PM	A65559
Nitrate+Nitrite as N	ND	0.24	2.0		mg/L	10	1/6/2020 8:53:03 PM	R65595
EPA METHOD 200.7: TOTAL METALS								
						Analyst: bcv		
Calcium	41	0.027	1.0		mg/L	1	1/8/2020 1:12:39 PM	49635
Magnesium	9.1	0.010	1.0		mg/L	1	1/8/2020 1:12:39 PM	49635
Potassium	14	0.062	1.0		mg/L	1	1/8/2020 1:12:39 PM	49635
Sodium	490	4.7	10		mg/L	10	1/8/2020 1:33:46 PM	49635
EPA METHOD 8260: VOLATILES SHORT LIST								
						Analyst: DJF		
Benzene	ND	3.3	10		µg/L	20	1/4/2020 1:09:18 AM	SL6556
Toluene	ND	7.0	20		µg/L	20	1/4/2020 1:09:18 AM	SL6556
Ethylbenzene	ND	2.6	20		µg/L	20	1/4/2020 1:09:18 AM	SL6556
Methyl tert-butyl ether (MTBE)	ND	9.1	20		µg/L	20	1/4/2020 1:09:18 AM	SL6556
Xylenes, Total	ND	9.1	30		µg/L	20	1/4/2020 1:09:18 AM	SL6556
Surr: 1,2-Dichloroethane-d4	102	0	70-130		%Rec	20	1/4/2020 1:09:18 AM	SL6556
Surr: 4-Bromofluorobenzene	101	0	70-130		%Rec	20	1/4/2020 1:09:18 AM	SL6556
Surr: Dibromofluoromethane	124	0	70-130		%Rec	20	1/4/2020 1:09:18 AM	SL6556
Surr: Toluene-d8	102	0	70-130		%Rec	20	1/4/2020 1:09:18 AM	SL6556
SM2510B: SPECIFIC CONDUCTANCE								
						Analyst: JRR		
Conductivity	5200	5.0	5.0		µmhos/c	1	1/7/2020 12:07:15 PM	R65634
SM4500-H+B / 9040C: PH								
						Analyst: JRR		
pH	8.75			*H	pH units	1	1/7/2020 12:07:15 PM	R65634

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 2001056

Date Reported: 1/10/2020

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Carbon Canister

Project: Carbon Canister WWTP

Collection Date: 12/24/2019 8:00:00 AM

Lab ID: 2001056-002

Matrix: AQUEOUS

Received Date: 1/3/2020 9:00:00 AM

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE								
Analyst: BRM								
Diesel Range Organics (DRO)	ND	0.71	1.0	H	mg/L	1	1/6/2020 11:46:39 AM	49618
Surr: DNOP	115	0	70-130	H	%Rec	1	1/6/2020 11:46:39 AM	49618
EPA METHOD 300.0: ANIONS								
Analyst: MRA								
Fluoride	3.1	0.23	1.0		mg/L	10	1/6/2020 3:31:17 PM	R6559E
Chloride	320	25	50		mg/L	100	1/6/2020 3:57:00 PM	R6559E
Bromide	ND	0.50	1.0		mg/L	10	1/6/2020 3:31:17 PM	R6559E
Phosphorus, Orthophosphate (As P)	ND	2.5	5.0	H	mg/L	10	1/6/2020 3:31:17 PM	R6559E
Sulfate	820	25	50		mg/L	100	1/6/2020 3:57:00 PM	R6559E
Nitrate+Nitrite as N	ND	0.24	2.0		mg/L	10	1/6/2020 4:09:53 PM	R6559E
EPA METHOD 200.7: TOTAL METALS								
Analyst: bcv								
Calcium	48	0.027	1.0		mg/L	1	1/8/2020 1:14:43 PM	49635
Magnesium	15	0.010	1.0		mg/L	1	1/8/2020 1:14:43 PM	49635
Potassium	22	0.062	1.0		mg/L	1	1/8/2020 1:14:43 PM	49635
Sodium	770	4.7	10		mg/L	10	1/8/2020 2:27:43 PM	49635
EPA METHOD 8260: VOLATILES SHORT LIST								
Analyst: DJF								
Benzene	ND	3.3	10		µg/L	20	1/4/2020 1:38:06 AM	SL655E
Toluene	ND	7.0	20		µg/L	20	1/4/2020 1:38:06 AM	SL655E
Ethylbenzene	ND	2.6	20		µg/L	20	1/4/2020 1:38:06 AM	SL655E
Methyl tert-butyl ether (MTBE)	ND	9.1	20		µg/L	20	1/4/2020 1:38:06 AM	SL655E
Xylenes, Total	ND	9.1	30		µg/L	20	1/4/2020 1:38:06 AM	SL655E
Surr: 1,2-Dichloroethane-d4	102	0	70-130		%Rec	20	1/4/2020 1:38:06 AM	SL655E
Surr: 4-Bromofluorobenzene	105	0	70-130		%Rec	20	1/4/2020 1:38:06 AM	SL655E
Surr: Dibromofluoromethane	119	0	70-130		%Rec	20	1/4/2020 1:38:06 AM	SL655E
Surr: Toluene-d8	99.6	0	70-130		%Rec	20	1/4/2020 1:38:06 AM	SL655E
SM2510B: SPECIFIC CONDUCTANCE								
Analyst: JRR								
Conductivity	4900	5.0	5.0		µmhos/c	1	1/7/2020 12:11:37 PM	R65634
SM4500-H+B / 9040C: PH								
Analyst: JRR								
pH	9.43			*H	pH units	1	1/7/2020 12:11:37 PM	R65634

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 2001056

Date Reported: 1/10/2020

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Carbon Canister

Project: Carbon Canister WWTP

Collection Date: 12/25/2019 8:00:00 AM

Lab ID: 2001056-003

Matrix: AQUEOUS

Received Date: 1/3/2020 9:00:00 AM

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 8015M/D: DIESEL RANGE								
						Analyst: BRM		
Diesel Range Organics (DRO)	5.1	0.71	1.0	H	mg/L	1	1/6/2020 1:36:30 PM	49618
Surr: DNOP	113	0	70-130	H	%Rec	1	1/6/2020 1:36:30 PM	49618
EPA METHOD 300.0: ANIONS								
						Analyst: MRA		
Fluoride	1.6	0.23	1.0		mg/L	10	1/6/2020 2:01:14 PM	R6559E
Chloride	270	25	50		mg/L	100	1/6/2020 2:26:58 PM	R6559E
Bromide	ND	0.50	1.0		mg/L	10	1/6/2020 2:01:14 PM	R6559E
Phosphorus, Orthophosphate (As P)	ND	2.5	5.0	H	mg/L	10	1/6/2020 2:01:14 PM	R6559E
Sulfate	620	25	50		mg/L	100	1/6/2020 2:26:58 PM	R6559E
Nitrate+Nitrite as N	ND	0.24	2.0		mg/L	10	1/6/2020 2:39:49 PM	R6559E
EPA METHOD 200.7: TOTAL METALS								
						Analyst: bcv		
Calcium	47	0.027	1.0		mg/L	1	1/8/2020 1:16:48 PM	49635
Magnesium	10	0.010	1.0		mg/L	1	1/8/2020 1:16:48 PM	49635
Potassium	17	0.062	1.0		mg/L	1	1/8/2020 1:16:48 PM	49635
Sodium	590	4.7	10		mg/L	10	1/8/2020 1:38:01 PM	49635
EPA METHOD 8260: VOLATILES SHORT LIST								
						Analyst: DJF		
Benzene	3.6	3.3	10	J	µg/L	20	1/4/2020 2:06:53 AM	SL6556
Toluene	ND	7.0	20		µg/L	20	1/4/2020 2:06:53 AM	SL6556
Ethylbenzene	ND	2.6	20		µg/L	20	1/4/2020 2:06:53 AM	SL6556
Methyl tert-butyl ether (MTBE)	ND	9.1	20		µg/L	20	1/4/2020 2:06:53 AM	SL6556
Xylenes, Total	ND	9.1	30		µg/L	20	1/4/2020 2:06:53 AM	SL6556
Surr: 1,2-Dichloroethane-d4	103	0	70-130		%Rec	20	1/4/2020 2:06:53 AM	SL6556
Surr: 4-Bromofluorobenzene	99.5	0	70-130		%Rec	20	1/4/2020 2:06:53 AM	SL6556
Surr: Dibromofluoromethane	121	0	70-130		%Rec	20	1/4/2020 2:06:53 AM	SL6556
Surr: Toluene-d8	99.9	0	70-130		%Rec	20	1/4/2020 2:06:53 AM	SL6556
SM2510B: SPECIFIC CONDUCTANCE								
						Analyst: JRR		
Conductivity	4500	5.0	5.0		µmhos/c	1	1/7/2020 12:15:37 PM	R65634
SM4500-H+B / 9040C: PH								
						Analyst: JRR		
pH	9.21			*H	pH units	1	1/7/2020 12:15:37 PM	R65634

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2001056

10-Jan-20

Client: Western Refining Southwest, Gallup
Project: Carbon Canister WWTP

Sample ID: MB-49635	SampType: MBLK	TestCode: EPA Method 200.7: Total Metals								
Client ID: PBW	Batch ID: 49635	RunNo: 65666								
Prep Date: 1/6/2020	Analysis Date: 1/8/2020	SeqNo: 2255442	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	ND	1.0								
Magnesium	ND	1.0								
Potassium	ND	1.0								
Sodium	ND	1.0								

Sample ID: LCS-49635	SampType: LCS	TestCode: EPA Method 200.7: Total Metals								
Client ID: LCSW	Batch ID: 49635	RunNo: 65666								
Prep Date: 1/6/2020	Analysis Date: 1/8/2020	SeqNo: 2255449	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	50	1.0	50.00	0	99.9	85	115			
Magnesium	50	1.0	50.00	0	99.8	85	115			
Potassium	50	1.0	50.00	0	99.7	85	115			
Sodium	51	1.0	50.00	0	103	85	115			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Limit |
| S % Recovery outside of range due to dilution or matrix | |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2001056

10-Jan-20

Client: Western Refining Southwest, Gallup
Project: Carbon Canister WWTP

Sample ID: MB	SampType: mblk	TestCode: EPA Method 300.0: Anions								
Client ID: PBW	Batch ID: A65559	RunNo: 65559								
Prep Date:	Analysis Date: 1/3/2020	SeqNo: 2252086	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P)	ND	0.50								
Sulfate	ND	0.50								

Sample ID: LCS	SampType: ics	TestCode: EPA Method 300.0: Anions								
Client ID: LCSW	Batch ID: A65559	RunNo: 65559								
Prep Date:	Analysis Date: 1/3/2020	SeqNo: 2252087	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.51	0.10	0.5000	0	103	90	110			
Chloride	4.7	0.50	5.000	0	94.7	90	110			
Bromide	2.4	0.10	2.500	0	96.5	90	110			
Phosphorus, Orthophosphate (As P)	4.7	0.50	5.000	0	94.0	90	110			
Sulfate	9.5	0.50	10.00	0	95.1	90	110			

Sample ID: MB	SampType: mblk	TestCode: EPA Method 300.0: Anions								
Client ID: PBW	Batch ID: R65595	RunNo: 65595								
Prep Date:	Analysis Date: 1/6/2020	SeqNo: 2253004	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P)	ND	0.50								
Sulfate	ND	0.50								
Nitrate+Nitrite as N	ND	0.20								

Sample ID: LCS-B	SampType: ics	TestCode: EPA Method 300.0: Anions								
Client ID: LCSW	Batch ID: R65595	RunNo: 65595								
Prep Date:	Analysis Date: 1/6/2020	SeqNo: 2253012	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.50	0.10	0.5000	0	100	90	110			
Chloride	4.8	0.50	5.000	0	96.1	90	110			
Bromide	2.4	0.10	2.500	0	98.0	90	110			
Phosphorus, Orthophosphate (As P)	4.8	0.50	5.000	0	95.5	90	110			
Sulfate	9.6	0.50	10.00	0	96.3	90	110			
Nitrate+Nitrite as N	3.4	0.20	3.500	0	98.1	90	110			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2001056

10-Jan-20

Client: Western Refining Southwest, Gallup
Project: Carbon Canister WWTP

Sample ID: MB-49618	SampType: MBLK		TestCode: EPA Method 8015M/D: Diesel Range							
Client ID: PBW	Batch ID: 49618		RunNo: 65568							
Prep Date: 1/3/2020	Analysis Date: 1/6/2020		SeqNo: 2252406		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Surr: DNOP	1.1		1.000		109	70	130			

Sample ID: 2001056-001BMS	SampType: MS		TestCode: EPA Method 8015M/D: Diesel Range							
Client ID: Carbon Canister	Batch ID: 49618		RunNo: 65568							
Prep Date: 1/3/2020	Analysis Date: 1/6/2020		SeqNo: 2252719		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.1	1.0	5.000	0	103	68.1	137			H
Surr: DNOP	0.48		0.5000		95.6	70	130			H

Sample ID: 2001056-001BMSD	SampType: MSD		TestCode: EPA Method 8015M/D: Diesel Range							
Client ID: Carbon Canister	Batch ID: 49618		RunNo: 65568							
Prep Date: 1/3/2020	Analysis Date: 1/6/2020		SeqNo: 2252720		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	4.6	1.0	5.000	0	92.2	68.1	137	10.7	20	H
Surr: DNOP	0.43		0.5000		86.9	70	130	0	0	H

Sample ID: LCS-49618	SampType: LCS		TestCode: EPA Method 8015M/D: Diesel Range							
Client ID: LCSW	Batch ID: 49618		RunNo: 65568							
Prep Date: 1/3/2020	Analysis Date: 1/6/2020		SeqNo: 2252724		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.6	1.0	5.000	0	112	71.8	135			
Surr: DNOP	0.54		0.5000		109	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2001056

10-Jan-20

Client: Western Refining Southwest, Gallup
Project: Carbon Canister WWTP

Sample ID: rb	SampType: MBLK	TestCode: EPA Method 8260: Volatiles Short List								
Client ID: PBW	Batch ID: SL65565	RunNo: 65565								
Prep Date:	Analysis Date: 1/3/2020	SeqNo: 2252273			Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	8.5		10.00		85.1	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		102	70	130			
Surr: Dibromofluoromethane	9.6		10.00		95.8	70	130			
Surr: Toluene-d8	9.4		10.00		94.3	70	130			

Sample ID: 100ng lcs	SampType: LCS	TestCode: EPA Method 8260: Volatiles Short List								
Client ID: LCSW	Batch ID: SL65565	RunNo: 65565								
Prep Date:	Analysis Date: 1/3/2020	SeqNo: 2252275			Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	17	1.0	20.00	0	85.8	70	130			
Toluene	18	1.0	20.00	0	90.2	70	130			
Surr: 1,2-Dichloroethane-d4	8.5		10.00		85.4	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		101	70	130			
Surr: Dibromofluoromethane	9.3		10.00		93.0	70	130			
Surr: Toluene-d8	9.7		10.00		96.9	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2001056

10-Jan-20

Client: Western Refining Southwest, Gallup

Project: Carbon Canister WWTP

Sample ID: Ics-1 99.9uS eC	SampType: Ics		TestCode: SM2510B: Specific Conductance							
Client ID: LCSW	Batch ID: R65634		RunNo: 65634							
Prep Date:	Analysis Date: 1/7/2020		SeqNo: 2254575		Units: µmhos/cm					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Conductivity	100	5.0	99.90	0	100	85	115			

Sample ID: 2001056-003c dup	SampType: dup		TestCode: SM2510B: Specific Conductance							
Client ID: Carbon Canister	Batch ID: R65634		RunNo: 65634							
Prep Date:	Analysis Date: 1/7/2020		SeqNo: 2254579		Units: µmhos/cm					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Conductivity	4500	5.0						0.00224	20	

Sample ID: Ics-2 99.9uS eC	SampType: Ics		TestCode: SM2510B: Specific Conductance							
Client ID: LCSW	Batch ID: R65634		RunNo: 65634							
Prep Date:	Analysis Date: 1/7/2020		SeqNo: 2254601		Units: µmhos/cm					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Conductivity	100	5.0	99.90	0	101	85	115			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Limit |
| S % Recovery outside of range due to dilution or matrix | |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2001056

10-Jan-20

Client: Western Refining Southwest, Gallup

Project: Carbon Canister WWTP

Sample ID: 2001056-003c dup	SampType: dup	TestCode: SM4500-H+B / 9040C: pH								
Client ID: Carbon Canister	Batch ID: R65634	RunNo: 65634								
Prep Date:	Analysis Date: 1/7/2020	SeqNo: 2254615			Units: pH units					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
pH	9.21									*H

Qualifiers:

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
D Sample Diluted Due to Matrix	E Value above quantitation range
H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit	P Sample pH Not In Range
PQL Practical Quantitative Limit	RL Reporting Limit
S % Recovery outside of range due to dilution or matrix	

Sample Log-In Check List

Client Name: **Western Refining Gallup** Work Order Number: **2001056** RcptNo: **1**

Received By: **Yazmine Garduno** 1/3/2020 9:00:00 AM *[Signature]*
 Completed By: **Desiree Dominguez** 1/3/2020 11:13:31 AM *[Signature]*
 Reviewed By: **IO** *01/03/2020*

Chain of Custody

1. Is Chain of Custody sufficiently complete? Yes No Not Present
 2. How was the sample delivered? Courier

Log In

3. Was an attempt made to cool the samples? Yes No NA
 4. Were all samples received at a temperature of >0° C to 6.0°C Yes No NA
 5. Sample(s) in proper container(s)? Yes No
 6. Sufficient sample volume for indicated test(s)? Yes No
 7. Are samples (except VOA and ONG) properly preserved? Yes No
 8. Was preservative added to bottles? Yes No NA
 9. Received at least 1 vial with headspace <1/4" for AQ VOA? Yes No NA
 10. Were any sample containers received broken? Yes No
 11. Does paperwork match bottle labels? Yes No
 (Note discrepancies on chain of custody)
 12. Are matrices correctly identified on Chain of Custody? Yes No
 13. Is it clear what analyses were requested? Yes No
 14. Were all holding times able to be met? Yes No
 (If no, notify customer for authorization.)

of preserved bottles checked for pH: 4
 Adjusted? yes
 Checked by: YG 1/3/20

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes No NA

Person Notified:	<input type="text"/>	Date:	<input type="text"/>
By Whom:	<input type="text"/>	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<input type="text"/>		
Client Instructions:	<input type="text"/>		

16. Additional remarks: *added ~0.5ml of HNO3 to sample 001D, 002D & 003D for <2 pH*

17. Cooler Information *metals analysis. YG 1/3/20*

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	5.0	Good	Yes			

