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April 04, 2023

Nikki Graber
Colorado Oil and Gas Conservation Commission
1120 Lincoln Street
Suite 801
Denver, CO 80203

Work Order: **HS23031705**

Laboratory Results for: **Sack 44-31 Flowline**

Dear Nikki Graber,

ALS Environmental received 2 sample(s) on Mar 29, 2023 for the analysis presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

Generated By: JUMOKE.LAWAL
Tyler Monroe

Client: Colorado Oil and Gas Conservation Commission
Project: Sack 44-31 Flowline
Work Order: HS23031705

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS23031705-01	South Ex GW	Groundwater		24-Mar-2023 15:54	29-Mar-2023 10:00	<input type="checkbox"/>
HS23031705-02	South Ex SS	Solid		24-Mar-2023 16:12	29-Mar-2023 10:00	<input type="checkbox"/>

Client: Colorado Oil and Gas Conservation Commission
Project: Sack 44-31 Flowline
Work Order: HS23031705

CASE NARRATIVE

GC Semivolatiles by Method SW8015M**Batch ID: 191720****Sample ID: South Ex SS (HS23031705-02MSD)**

- The recovery of the Matrix Spike Duplicate (MSD) associated to this analyte was outside of the established control limits. However, the LCS was within control limits. The failed recovery of the MSD may be due to sample matrix interference.

GC Volatiles by Method SW8015**Batch ID: R431387**

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

GCMS Volatiles by Method SW8260**Batch ID: R431335****Sample ID: HS23031675-02MS**

- MS and MSD are for an unrelated sample

Batch ID: R431379**Sample ID: South Ex SS (HS23031705-02MS)**

- The recovery of the Matrix Spike (MS) and or the Matrix Spike Duplicate (MSD) associated to these analytes were outside of the established control limits. However, the LCS was within control limits. The failed recovery of the MS/MSD may be due to sample matrix interference.

Batch ID: R431488

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.
-

Client: Colorado Oil and Gas Conservation Commission
Project: Sack 44-31 Flowline
Sample ID: South Ex GW
Collection Date: 24-Mar-2023 15:54

ANALYTICAL REPORT

WorkOrder:HS23031705
Lab ID:HS23031705-01
Matrix:Groundwater

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		Method:SW8260		Analyst: AKP			
1,2,4-Trimethylbenzene	12		0.30	1.0	ug/L	1	29-Mar-2023 16:16
1,3,5-Trimethylbenzene	3.5		0.30	1.0	ug/L	1	29-Mar-2023 16:16
Benzene	3.4		0.20	1.0	ug/L	1	29-Mar-2023 16:16
Ethylbenzene	4.6		0.30	1.0	ug/L	1	29-Mar-2023 16:16
Naphthalene	2.6		0.30	1.0	ug/L	1	29-Mar-2023 16:16
Toluene	20		0.20	1.0	ug/L	1	29-Mar-2023 16:16
Xylenes, Total	32		0.30	1.0	ug/L	1	29-Mar-2023 16:16
Surr: 1,2-Dichloroethane-d4	85.7			70-126	%REC	1	29-Mar-2023 16:16
Surr: 4-Bromofluorobenzene	102			77-113	%REC	1	29-Mar-2023 16:16
Surr: Dibromofluoromethane	88.1			77-123	%REC	1	29-Mar-2023 16:16
Surr: Toluene-d8	95.4			82-127	%REC	1	29-Mar-2023 16:16

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Colorado Oil and Gas Conservation Commission
 Project: Sack 44-31 Flowline
 Sample ID: South Ex SS
 Collection Date: 24-Mar-2023 16:12

ANALYTICAL REPORT

WorkOrder:HS23031705
 Lab ID:HS23031705-02
 Matrix:Solid

ANALYSES	RESULT	QUAL	MDL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
VOLATILES BY SW8260C		Method:SW8260				Analyst: PC	
1,2,4-Trimethylbenzene	2,300		44	220	ug/Kg	50	31-Mar-2023 06:08
1,3,5-Trimethylbenzene	78		0.70	4.4	ug/Kg	1	30-Mar-2023 11:47
Benzene	26		0.44	4.4	ug/Kg	1	30-Mar-2023 11:47
Ethylbenzene	82		0.61	4.4	ug/Kg	1	30-Mar-2023 11:47
Naphthalene	14		0.70	4.4	ug/Kg	1	30-Mar-2023 11:47
Toluene	1,600		26	220	ug/Kg	50	31-Mar-2023 06:08
Xylenes, Total	4,700		44	220	ug/Kg	50	31-Mar-2023 06:08
Surr: 1,2-Dichloroethane-d4	84.2			70-126	%REC	1	30-Mar-2023 11:47
Surr: 1,2-Dichloroethane-d4	83.9			70-126	%REC	50	31-Mar-2023 06:08
Surr: 4-Bromofluorobenzene	98.8			70-130	%REC	1	30-Mar-2023 11:47
Surr: 4-Bromofluorobenzene	98.5			70-130	%REC	50	31-Mar-2023 06:08
Surr: Dibromofluoromethane	89.6			70-130	%REC	1	30-Mar-2023 11:47
Surr: Dibromofluoromethane	86.1			70-130	%REC	50	31-Mar-2023 06:08
Surr: Toluene-d8	121			70-130	%REC	1	30-Mar-2023 11:47
Surr: Toluene-d8	102			70-130	%REC	50	31-Mar-2023 06:08
GASOLINE RANGE ORGANICS BY SW8015C		Method:SW8015				Analyst: PJM	
Gasoline Range Organics	270		0.46	2.3	mg/Kg	50	30-Mar-2023 10:39
Surr: 4-Bromofluorobenzene	112			70-123	%REC	50	30-Mar-2023 10:39
TPH DRO/ORO BY SW8015C		Method:SW8015M				Prep:SW3541 / 03-Apr-2023	Analyst: PPM
TPH (Diesel Range)	15		0.99	1.7	mg/Kg	1	03-Apr-2023 18:45
TPH (Motor Oil Range)	18		1.8	3.4	mg/Kg	1	03-Apr-2023 18:45
Surr: 2-Fluorobiphenyl	60.1			60-129	%REC	1	03-Apr-2023 18:45

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Weight / Prep Log

Client: Colorado Oil and Gas Conservation Commission

Project: Sack 44-31 Flowline

WorkOrder: HS23031705

Batch ID: 5852 Start Date: 30 Mar 2023 08:50 End Date: 30 Mar 2023 08:50

Method: GASOLINE RANGE ORGANICS BY SW8015C Prep Code:

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS23031705-02	1	5.377 (g)	5 (mL)	0.93	Bulk (5030B)

Batch ID: 5853 Start Date: 30 Mar 2023 09:44 End Date: 30 Mar 2023 09:44

Method: VOLATILES BY SW8260C

Sample ID	Container	Sample Wt/Vol	Final Volume	Weight Factor	Container Type
HS23031705-02	1	5.757 (g)	5 (mL)	0.87	Bulk (5030B)

Batch ID: 191544 Start Date: 30 Mar 2023 06:30 End Date: 30 Mar 2023 10:00

Method: SOPREP: 3541 TPH Prep Code: 8015SPR_LL

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS23031705-02		30.21 (g)	1 (mL)	0.0331	4-oz glass, Neat

Batch ID: 191720 Start Date: 03 Apr 2023 09:00 End Date: 03 Apr 2023 12:30

Method: SOPREP: 3541 TPH Prep Code: 8015SPR_LL

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor	
HS23031705-02		30.23 (g)	1 (mL)	0.03308	4-oz glass, Neat

Client: Colorado Oil and Gas Conservation Commission
Project: Sack 44-31 Flowline
WorkOrder: HS23031705

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: 191720 (0)		Test Name : TPH DRO/ORO BY SW8015C			Matrix: Solid	
HS23031705-02	South Ex SS	24 Mar 2023 16:12		03 Apr 2023 09:00	03 Apr 2023 18:45	1
Batch ID: R431335 (0)		Test Name : LOW LEVEL VOLATILES BY SW8260C			Matrix: Groundwater	
HS23031705-01	South Ex GW	24 Mar 2023 15:54			29 Mar 2023 16:16	1
Batch ID: R431379 (0)		Test Name : VOLATILES BY SW8260C			Matrix: Solid	
HS23031705-02	South Ex SS	24 Mar 2023 16:12			30 Mar 2023 11:47	1
Batch ID: R431387 (0)		Test Name : GASOLINE RANGE ORGANICS BY SW8015C			Matrix: Solid	
HS23031705-02	South Ex SS	24 Mar 2023 16:12			30 Mar 2023 10:39	50
Batch ID: R431488 (0)		Test Name : VOLATILES BY SW8260C			Matrix: Solid	
HS23031705-02	South Ex SS	24 Mar 2023 16:12			31 Mar 2023 06:08	50

Client: Colorado Oil and Gas Conservation Commission
Project: Sack 44-31 Flowline
WorkOrder: HS23031705

QC BATCH REPORT

Batch ID: 191720 (0)		Instrument: FID-8		Method: TPH DRO/ORO BY SW8015C					
MBLK	Sample ID: MBLK-191720	Units: mg/Kg		Analysis Date: 03-Apr-2023 17:52					
Client ID:	Run ID: FID-8_431689	SeqNo: 7212812		PrepDate: 03-Apr-2023		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
TPH (Diesel Range)	U	1.7							
TPH (Motor Oil Range)	U	3.4							
Surr: 2-Fluorobiphenyl	2.369	0.10	3.33	0	71.1	70 - 130			
LCS	Sample ID: LCS-191720	Units: mg/Kg		Analysis Date: 03-Apr-2023 18:19					
Client ID:	Run ID: FID-8_431689	SeqNo: 7212813		PrepDate: 03-Apr-2023		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
TPH (Diesel Range)	23.94	1.7	33.33	0	71.8	70 - 130			
TPH (Motor Oil Range)	31.96	3.4	33.33	0	95.9	70 - 130			
Surr: 2-Fluorobiphenyl	2.383	0.10	3.33	0	71.5	70 - 130			
MS	Sample ID: HS23031705-02MS	Units: mg/Kg		Analysis Date: 03-Apr-2023 19:12					
Client ID: South Ex SS	Run ID: FID-8_431689	SeqNo: 7212815		PrepDate: 03-Apr-2023		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
TPH (Diesel Range)	56.7	1.7	33.02	14.84	127	70 - 130			
TPH (Motor Oil Range)	53.36	3.4	33.02	18.02	107	70 - 130			
Surr: 2-Fluorobiphenyl	2.928	0.099	3.299	0	88.7	60 - 129			
MSD	Sample ID: HS23031705-02MSD	Units: mg/Kg		Analysis Date: 03-Apr-2023 19:38					
Client ID: South Ex SS	Run ID: FID-8_431689	SeqNo: 7212816		PrepDate: 03-Apr-2023		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
TPH (Diesel Range)	47.1	1.7	33.32	14.84	96.8	70 - 130	56.7	18.5	30
TPH (Motor Oil Range)	70.66	3.4	33.32	18.02	158	70 - 130	53.36	27.9	30 SE
Surr: 2-Fluorobiphenyl	3.419	0.10	3.329	0	103	60 - 129	2.928	15.5	30

The following samples were analyzed in this batch: HS23031705-02

Client: Colorado Oil and Gas Conservation Commission

Project: Sack 44-31 Flowline

WorkOrder: HS23031705

QC BATCH REPORT

Batch ID: R431387 (0)		Instrument: FID-20		Method: GASOLINE RANGE ORGANICS BY SW8015C						
MBLK	Sample ID: MBLKM-230330	Units: mg/Kg		Analysis Date: 30-Mar-2023 10:11						
Client ID:	Run ID: FID-20_431387	SeqNo: 7205315		PrepDate:		DF: 50				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Gasoline Range Organics	U	2.5								
Surr: 4-Bromofluorobenzene	5.497	0.25	5	0	110	75 - 121				

LCS	Sample ID: LCS-230330	Units: mg/Kg		Analysis Date: 30-Mar-2023 09:44						
Client ID:	Run ID: FID-20_431387	SeqNo: 7205313		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Gasoline Range Organics	1.038	0.050	1	0	104	72 - 121				
Surr: 4-Bromofluorobenzene	0.08514	0.0050	0.1	0	85.1	75 - 121				

LCSD	Sample ID: LCSD-230330	Units: mg/Kg		Analysis Date: 30-Mar-2023 09:58						
Client ID:	Run ID: FID-20_431387	SeqNo: 7205314		PrepDate:		DF: 1				
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Gasoline Range Organics	1.012	0.050	1	0	101	72 - 121	1.038	2.58	30	
Surr: 4-Bromofluorobenzene	0.08404	0.0050	0.1	0	84.0	75 - 121	0.08514	1.31	30	

The following samples were analyzed in this batch: HS23031705-02

Client: Colorado Oil and Gas Conservation Commission

Project: Sack 44-31 Flowline

WorkOrder: HS23031705

QC BATCH REPORT

Batch ID: R431335 (0)		Instrument: VOA7		Method: LOW LEVEL VOLATILES BY SW8260C					
MBLK		Sample ID: VBLKW-230329	Units: ug/L		Analysis Date: 29-Mar-2023 10:51				
Client ID:		Run ID: VOA7_431335		SeqNo: 7204316		PrepDate:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
1,2,4-Trimethylbenzene	U	1.0							
1,3,5-Trimethylbenzene	U	1.0							
Benzene	U	1.0							
Ethylbenzene	U	1.0							
Naphthalene	U	1.0							
Toluene	U	1.0							
Xylenes, Total	U	1.0							
Surr: 1,2-Dichloroethane-d4	47.33	1.0	50	0	94.7	70 - 123			
Surr: 4-Bromofluorobenzene	44.92	1.0	50	0	89.8	77 - 113			
Surr: Dibromofluoromethane	48.81	1.0	50	0	97.6	73 - 126			
Surr: Toluene-d8	48.62	1.0	50	0	97.2	81 - 120			

LCS		Sample ID: VLCSW-230329	Units: ug/L		Analysis Date: 29-Mar-2023 10:08				
Client ID:		Run ID: VOA7_431335		SeqNo: 7204315		PrepDate:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
1,2,4-Trimethylbenzene	18.17	1.0	20	0	90.8	73 - 121			
1,3,5-Trimethylbenzene	18.42	1.0	20	0	92.1	75 - 118			
Benzene	17.55	1.0	20	0	87.7	74 - 120			
Ethylbenzene	18.63	1.0	20	0	93.1	77 - 117			
Naphthalene	16.33	1.0	20	0	81.6	70 - 130			
Toluene	17.28	1.0	20	0	86.4	77 - 118			
Xylenes, Total	55.27	1.0	60	0	92.1	75 - 122			
Surr: 1,2-Dichloroethane-d4	48.1	1.0	50	0	96.2	70 - 123			
Surr: 4-Bromofluorobenzene	48.86	1.0	50	0	97.7	77 - 113			
Surr: Dibromofluoromethane	47.97	1.0	50	0	95.9	73 - 126			
Surr: Toluene-d8	48.14	1.0	50	0	96.3	81 - 120			

Client: Colorado Oil and Gas Conservation Commission
Project: Sack 44-31 Flowline
WorkOrder: HS23031705

QC BATCH REPORT

Batch ID: R431335 (0)		Instrument: VOA7		Method: LOW LEVEL VOLATILES BY SW8260C						
MS		Sample ID: HS23031675-02MS		Units: ug/L		Analysis Date: 29-Mar-2023 12:43				
Client ID:		Run ID: VOA7_431335		SeqNo: 7204320		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trimethylbenzene	78.89	1.0	20	66.01	64.4	70 - 125				S
1,3,5-Trimethylbenzene	42.9	1.0	20	27.39	77.6	70 - 126				
Benzene	254.1	1.0	20	195.1	295	70 - 127				SEO
Ethylbenzene	172.1	1.0	20	144.5	138	70 - 124				SO
Naphthalene	67.41	1.0	20	68.68	-6.38	70 - 130				S
Toluene	19	1.0	20	4.486	72.6	70 - 123				
Xylenes, Total	166.3	1.0	60	95.36	118	70 - 130				
Surr: 1,2-Dichloroethane-d4	53.57	1.0	50	0	107	70 - 126				
Surr: 4-Bromofluorobenzene	55.93	1.0	50	0	112	77 - 113				
Surr: Dibromofluoromethane	46.91	1.0	50	0	93.8	77 - 123				
Surr: Toluene-d8	42.57	1.0	50	0	85.1	82 - 127				

MSD		Sample ID: HS23031675-02MSD		Units: ug/L		Analysis Date: 29-Mar-2023 13:04				
Client ID:		Run ID: VOA7_431335		SeqNo: 7204321		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trimethylbenzene	74.4	1.0	20	66.01	41.9	70 - 125	78.89	5.87	20	S
1,3,5-Trimethylbenzene	40.27	1.0	20	27.39	64.4	70 - 126	42.9	6.31	20	S
Benzene	207.9	1.0	20	195.1	64.1	70 - 127	254.1	20	20	SEO
Ethylbenzene	164.5	1.0	20	144.5	100	70 - 124	172.1	4.53	20	O
Naphthalene	69.25	1.0	20	68.68	2.82	70 - 130	67.41	2.7	20	S
Toluene	21.22	1.0	20	4.486	83.7	70 - 123	19	11	20	
Xylenes, Total	160.3	1.0	60	95.36	108	70 - 130	166.3	3.64	20	
Surr: 1,2-Dichloroethane-d4	51.13	1.0	50	0	102	70 - 126	53.57	4.67	20	
Surr: 4-Bromofluorobenzene	57.8	1.0	50	0	116	77 - 113	55.93	3.28	20	S
Surr: Dibromofluoromethane	48.33	1.0	50	0	96.7	77 - 123	46.91	2.99	20	
Surr: Toluene-d8	48.94	1.0	50	0	97.9	82 - 127	42.57	13.9	20	

The following samples were analyzed in this batch: HS23031705-01

Client: Colorado Oil and Gas Conservation Commission
Project: Sack 44-31 Flowline
WorkOrder: HS23031705

QC BATCH REPORT

Batch ID: R431379 (0)		Instrument: VOA10		Method: VOLATILES BY SW8260C					
MBLK	Sample ID: VBLKS-230330	Units: ug/Kg		Analysis Date: 30-Mar-2023 10:46					
Client ID:	Run ID: VOA10_431379	SeqNo: 7205146		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
1,3,5-Trimethylbenzene	U	5.0							
Benzene	U	5.0							
Ethylbenzene	U	5.0							
Naphthalene	U	5.0							
Surr: 1,2-Dichloroethane-d4	46.2	0	50	0	92.4	76 - 125			
Surr: 4-Bromofluorobenzene	46.25	0	50	0	92.5	80 - 120			
Surr: Dibromofluoromethane	49.35	0	50	0	98.7	80 - 119			
Surr: Toluene-d8	55.68	0	50	0	111	81 - 118			

LCS	Sample ID: VLCSS-230330	Units: ug/Kg		Analysis Date: 30-Mar-2023 10:05					
Client ID:	Run ID: VOA10_431379	SeqNo: 7205145		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
1,3,5-Trimethylbenzene	41.82	5.0	50	0	83.6	76 - 126			
Benzene	46.19	5.0	50	0	92.4	75 - 124			
Ethylbenzene	44.69	5.0	50	0	89.4	70 - 123			
Naphthalene	40.58	5.0	50	0	81.2	71 - 128			
Surr: 1,2-Dichloroethane-d4	44.24	0	50	0	88.5	76 - 125			
Surr: 4-Bromofluorobenzene	47.31	0	50	0	94.6	80 - 120			
Surr: Dibromofluoromethane	48.08	0	50	0	96.2	80 - 119			
Surr: Toluene-d8	58.38	0	50	0	117	81 - 118			

MS	Sample ID: HS23031705-02MS	Units: ug/Kg		Analysis Date: 30-Mar-2023 12:08					
Client ID: South Ex SS	Run ID: VOA10_431379	SeqNo: 7205150		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
1,3,5-Trimethylbenzene	92.27	5.0	50	78.46	27.6	70 - 130			S
Benzene	93.25	5.0	50	26.04	134	70 - 130			S
Ethylbenzene	131.3	5.0	50	82.31	98.0	70 - 130			
Naphthalene	49.51	5.0	50	13.68	71.7	70 - 130			
Surr: 1,2-Dichloroethane-d4	42.22	0	50	0	84.4	70 - 126			
Surr: 4-Bromofluorobenzene	47.67	0	50	0	95.3	70 - 130			
Surr: Dibromofluoromethane	46.21	0	50	0	92.4	70 - 130			
Surr: Toluene-d8	58.35	0	50	0	117	70 - 130			

Client: Colorado Oil and Gas Conservation Commission

Project: Sack 44-31 Flowline

WorkOrder: HS23031705

QC BATCH REPORT

Batch ID: R431379 (0)		Instrument: VOA10		Method: VOLATILES BY SW8260C						
MSD		Sample ID: HS23031705-02MSD		Units: ug/Kg		Analysis Date: 30-Mar-2023 12:28				
Client ID: South Ex SS		Run ID: VOA10_431379		SeqNo: 7205151		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,3,5-Trimethylbenzene	102.3	5.0	49.5	78.46	48.1	70 - 130	92.27	10.3	30	S
Benzene	88.15	5.0	49.5	26.04	125	70 - 130	93.25	5.62	30	
Ethylbenzene	145.9	5.0	49.5	82.31	128	70 - 130	131.3	10.5	30	
Naphthalene	42.41	5.0	49.5	13.68	58.1	70 - 130	49.51	15.4	30	S
Surr: 1,2-Dichloroethane-d4	43.93	0	49.5	0	88.7	70 - 126	42.22	3.95	30	
Surr: 4-Bromofluorobenzene	48.48	0	49.5	0	97.9	70 - 130	47.67	1.68	30	
Surr: Dibromofluoromethane	45.52	0	49.5	0	92.0	70 - 130	46.21	1.51	30	
Surr: Toluene-d8	58.51	0	49.5	0	118	70 - 130	58.35	0.281	30	

The following samples were analyzed in this batch: HS23031705-02

Client: Colorado Oil and Gas Conservation Commission
Project: Sack 44-31 Flowline
WorkOrder: HS23031705

QC BATCH REPORT

Batch ID: R431488 (0)		Instrument: VOA11		Method: VOLATILES BY SW8260C					
MBLK	Sample ID: VBLKM-230330	Units: ug/Kg		Analysis Date: 30-Mar-2023 21:35					
Client ID:	Run ID: VOA11_431488	SeqNo: 7207641		PrepDate:		DF: 50			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
1,2,4-Trimethylbenzene	U	250							
Toluene	U	250							
Xylenes, Total	U	250							
Surr: 1,2-Dichloroethane-d4	2136	0	2500	0	85.4	76 - 125			
Surr: 4-Bromofluorobenzene	2510	0	2500	0	100	80 - 120			
Surr: Dibromofluoromethane	2273	0	2500	0	90.9	80 - 119			
Surr: Toluene-d8	2449	0	2500	0	98.0	81 - 118			

MS	Sample ID: HS23031801-02MS	Units: ug/L		Analysis Date: 30-Mar-2023 23:41					
Client ID:	Run ID: VOA11_431488	SeqNo: 7207639		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
1,2,4-Trimethylbenzene	18.08	5.0	20	0	90.4	70 - 125			
Toluene	17.21	5.0	20	0	86.1	70 - 123			
Xylenes, Total	55.02	5.0	60	0	91.7	70 - 130			
Surr: 1,2-Dichloroethane-d4	43.13	0	50	0	86.3	70 - 126			
Surr: 4-Bromofluorobenzene	49.18	0	50	0	98.4	82 - 124			
Surr: Dibromofluoromethane	46.28	0	50	0	92.6	77 - 123			
Surr: Toluene-d8	49.42	0	50	0	98.8	82 - 127			

MSD	Sample ID: HS23031801-02MSD	Units: ug/L		Analysis Date: 31-Mar-2023 00:02					
Client ID:	Run ID: VOA11_431488	SeqNo: 7207640		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
1,2,4-Trimethylbenzene	18.02	5.0	20	0	90.1	70 - 125	18.08	0.316	20
Toluene	16.6	5.0	20	0	83.0	70 - 123	17.21	3.62	20
Xylenes, Total	53.55	5.0	60	0	89.3	70 - 130	55.02	2.71	20
Surr: 1,2-Dichloroethane-d4	43.65	0	50	0	87.3	70 - 126	43.13	1.19	20
Surr: 4-Bromofluorobenzene	49.6	0	50	0	99.2	82 - 124	49.18	0.859	20
Surr: Dibromofluoromethane	47.16	0	50	0	94.3	77 - 123	46.28	1.89	20
Surr: Toluene-d8	49.13	0	50	0	98.3	82 - 127	49.42	0.587	20

The following samples were analyzed in this batch: HS23031705-02

Client: Colorado Oil and Gas Conservation Commission
Project: Sack 44-31 Flowline
WorkOrder: HS23031705

**QUALIFIERS,
ACRONYMS, UNITS**

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL/SDL

Acronym	Description
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
California	2919 2022-2023	30-Apr-2023
Dept of Defense	L21-682	31-Dec-2023
Florida	E87611-36	30-Jun-2023
Illinois	2000322022-9	09-May-2023
Kansas	E-10352; 2022-2023	31-Jul-2023
Kentucky	123043, 2022-2023	30-Apr-2023
Louisiana	03087, 2022-2023	30-Jun-2023
Maryland	343, 2022-2023	30-Jun-2023
North Carolina	624-2023	31-Dec-2023
North Dakota	R-193 2022-2023	30-Apr-2023
Oklahoma	2022-141	31-Aug-2023
Texas	T104704231-22-29	30-Apr-2023
Utah	TX026932022-13	31-Jul-2023

Sample Receipt Checklist

Work Order ID: HS23031705

Date/Time Received: 29-Mar-2023 10:00

Client Name: COGCC

Received by: Paresh M. Giga

Completed By: <u>/S/ Paresh M. Giga</u>	29-Mar-2023 13:44	Reviewed by: <u>/S/ Tyler Monroe</u>	30-Mar-2023 14:04
eSignature	Date/Time	eSignature	Date/Time

Matrices: **Soil/GW**Carrier name: **FedEx Priority Overnight**

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
VOA/TX1005/TX1006 Solids in hermetically sealed vials?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Not Present <input type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	1 Page(s)
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	COC IDs:none
Samplers name present on COC?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	1.6C/1.1C UI/C IR31		
Cooler(s)/Kit(s):	49244		
Date/Time sample(s) sent to storage:	3/29/23 13:50		
Water - VOA vials have zero headspace?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted by:			

Login Notes: Times differ : South Ex GW
 COC - 15:54 Labels - 16:12.
 Analytes & Codes created.
 Please correct \$.
 TPH soil jars not placed in freezer due to moisture content

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

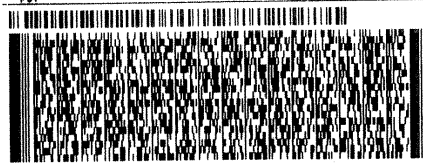
Corrective Action:

Spill Response Chain of Custody


[illegible]

Comments:	QC PACKAGE (check below)	PRINTED NAME	SIGNATURE	DATE	TIME
49214 UCC 1.62 #31 C (11-03)	<input checked="" type="checkbox"/> LEVEL II (Standard QC)	RELINQUISHED BY	Nikki Graves	3/27	1155
	<input type="checkbox"/> LEVEL III (Std QC + forms)	RECEIVED BY	[Signature]	3/27/23	1155
	<input type="checkbox"/> LEVEL IV (Std QC + forms + raw data)	RELINQUISHED BY	[Signature]	3/27/23	1520
	<input type="checkbox"/>	RECEIVED BY	[Signature]	3/29/23 10:00	
		RELINQUISHED BY			

INU: PO: DEPT:



FedEx
Express



J223022000001

TRK# 6182 5243 6735 TUE - 28 MAR 10:30A
0201 PRIORITY OVERNIGHT

NA SGRA 77099
TX-US IAH

Part # 167077-434/TW EXP 0822

