

April 21, 2025



Submitted via STEERS

Texas Commission on Environmental Quality
Air Permits Initial Review Team (APIRT), MC 161
P.O. Box 13087
Austin, Texas 78711-3087

RE: Permit By Rule Revision
Scout Energy Management, LLC (CN605147479)
Cypert 48 Tank Battery (RN111346060)
PBR Revision No. 166641

To Whom it May Concern:

Scout Energy Management, LLC (Scout) owns and operates the Cypert 48 Tank Battery (the Battery) in Martin County, Texas. Scout is submitting this PBR revision under Texas Commission on Environmental Quality (TCEQ) Permit By Rule (PBR) §106.352 (I), §106.359, and §106.492 to update the emission representations (the Project) at the Battery.

If you have any questions concerning this registration or wish to discuss the information provided in this application, please contact me via email at citlalli.ordaz@scoutep.com or call my office number at (973) 456-9773.

Sincerely,

Citlalli Ordaz
Air Quality Specialist



972.277.1397 | www.scoutep.com

13800 Montfort Drive
Dallas, Texas 75240

Table 1(a) - Emission Sources

EPN	FIN	Name	Component or Air Contaminant Name	Air Contaminant Emission Rate		UTM Coordinates of EPN			Building Height	Height Above Ground	Stack Exit Data			Fugitives		
						Zone	East	West			Dia	Vel	Temp	Length	Width	Axis Degrees
				lb/hr	ton/yr		m	m	ft	ft	ft	ft/s	F	ft	ft	ft
HT-01	HT-01	Heater Treater	VOC (includes HAPs)	<0.01	0.01	14S	246740	3584235	20							
			NOx	0.05	0.22											
			CO	0.04	0.18											
			SO2	<0.01	<0.01											
			PM _{2.5&10}	<0.01	0.02											
			HAPs	<0.01	<0.01											
			CH2O	<0.01	<0.01											
BENZENE	<0.01	<0.01														
OST-01	OST-01	Oil Tank - 500 bbl	VOC (includes HAPs)	Emissions are represented at EPN FL-01												
			H2S													
			HAPs													
			BENZENE													
OST-02	OST-02	Oil Tank - 500 bbl	VOC (includes HAPs)	Emissions are represented at EPN FL-01												
			H2S													
			HAPs													
			BENZENE													
WST-01	WST-01	Water Tank - 500 bbl	VOC (includes HAPs)	Emissions are represented at EPN FL-01												
			H2S													
			HAPs													
			BENZENE													
OTL-01	OTL-01	Oil Loading	VOC (includes HAPs)	13.54	0.11	14S	246740	3584235								
			H2S	<0.01	<0.01											
			HAPs	0.29	<0.01											
			BENZENE	0.01	<0.01											
WTL-01	WTL-01	Produced Water Loading	VOC (includes HAPs)	0.42	0.02	14S	246740	3584235								
			H2S	<0.01	<0.01											
			HAPs	0.06	<0.01											
			BENZENE	0.02	<0.01											
FUG-01	FUG-01	Site Fugitives	VOC (includes HAPs)	0.32	1.41	14S	246740	3584235								
			H2S	<0.01	<0.01											
			HAPs	0.01	0.04											
			BENZENE	<0.01	<0.01											
FL-01, OST-01, OST-02, WST-01	FL-01	Flare	VOC (includes HAPs)	0.55	2.40	14S	246740	3584235	26.5		0.33	307	1800			
			H2S	<0.01	<0.01											
			NOx	0.34	1.51											
			CO	0.69	3.02											
			SO2	<0.01	0.06											
			HAPs	0.01	0.04											
			BENZENE	<0.01	<0.01											
MSS	MSS	Maintenance, Startup, Shutdown	VOC (includes HAPs)	100.00	2.23	14S	246740	3584235								
			H2S	0.02	<0.01											
			HAPs	7.47	0.24											
			BENZENE	7.47	0.24											

ATTACHMENT 1

PROJECT AND PROCESS DESCRIPTION

PERMIT BY RULE REVISION

SCOUT ENERGY MANAGEMENT LLC



Project Description

Scout Energy Management, LLC (Scout) is submitting this Permit By Rule (PBR) revision to update the represented equipment and potential emissions (the Project) at the Cypert 48 Tank Battery (the Battery) located, in Martin County, Texas.

Process Description

The facility consists of the following equipment:

- Two (2) 500 bbl oil tanks;
- One (1) 500 bbl water tank;
- One (1) 0.5 MMBtu heater treater;
- One (1) flare;
- Oil truck loading;
- Water truck loading; and
- Piping and fugitive components.

A mixture of oil and entrained gas enter the Battery from adjacent wells through a network of gathering pipelines. From inlet, the liquids and natural gas are routed to inlet separators and one (1) heater treater (EPN HT-01) where the liquids are separated into oil and water phase. Gas from the separators and heater treater are sent to sales. From separation, the oil is routed to two (2) oil storage tanks (FIN OST-01, OST-02) and produced water is routed to one (1) produced water tank (FIN WST-01). The oil storage tanks and the produced water tanks are controlled by the flare (EPN FL-01). The oil and produced water are transported off-site via truck loading (EPN OTL-01, WTL-01) operations.

The Battery also includes emissions from maintenance operations (EPN MSS) and VOC emissions from fugitive components (EPN FUG-01).

Emission rate calculations for each emission source located at the Battery are included in this application.

Alternate Operating Scenario

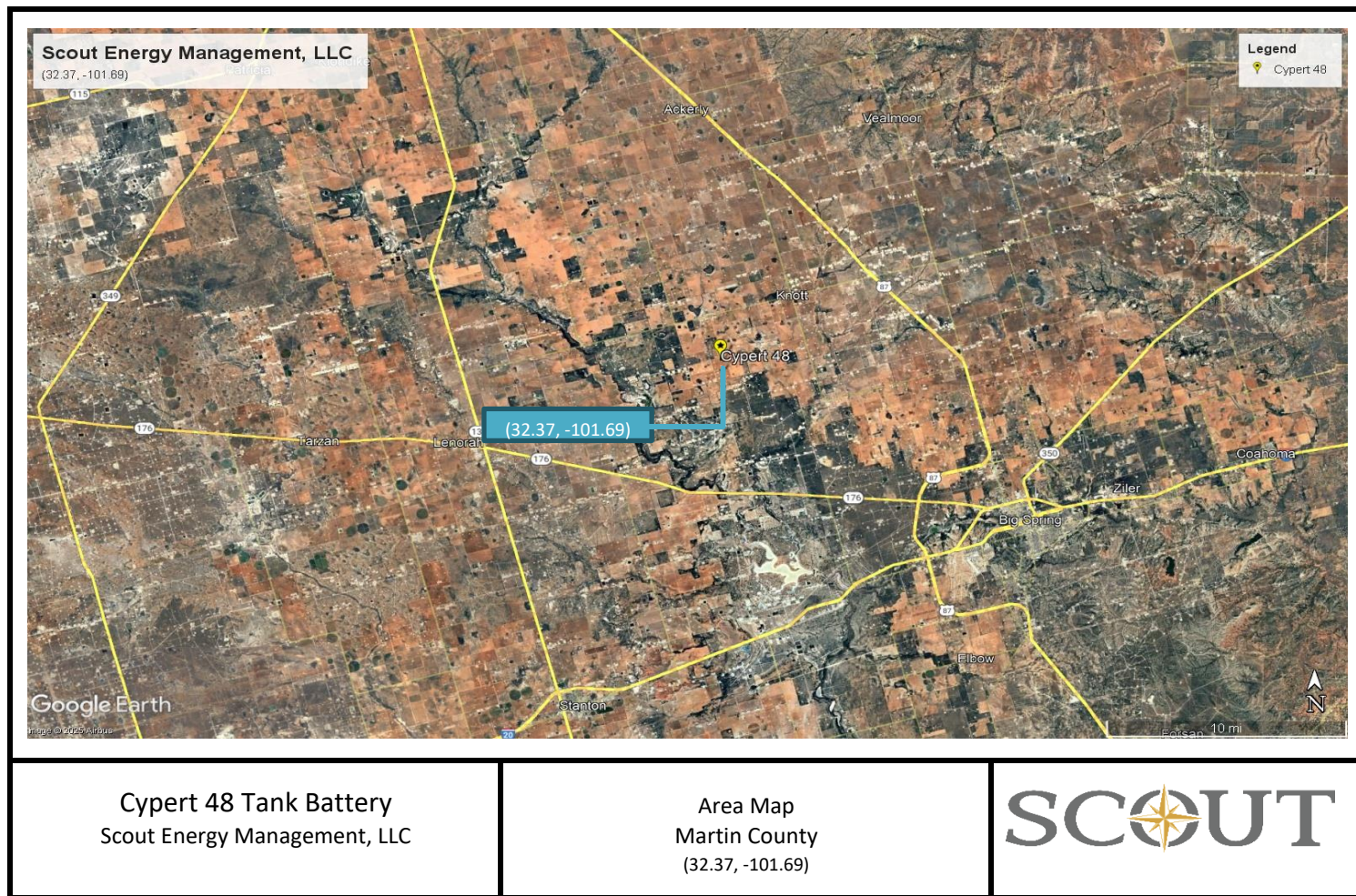
The flare (EPN FL-01) may control waste gas and maintenance events at the Battery. Scout is conservatively authorizing 8,760 hours for this AOS as the emissions of this scenario are greater than normal operation when the gas is sent to sales.

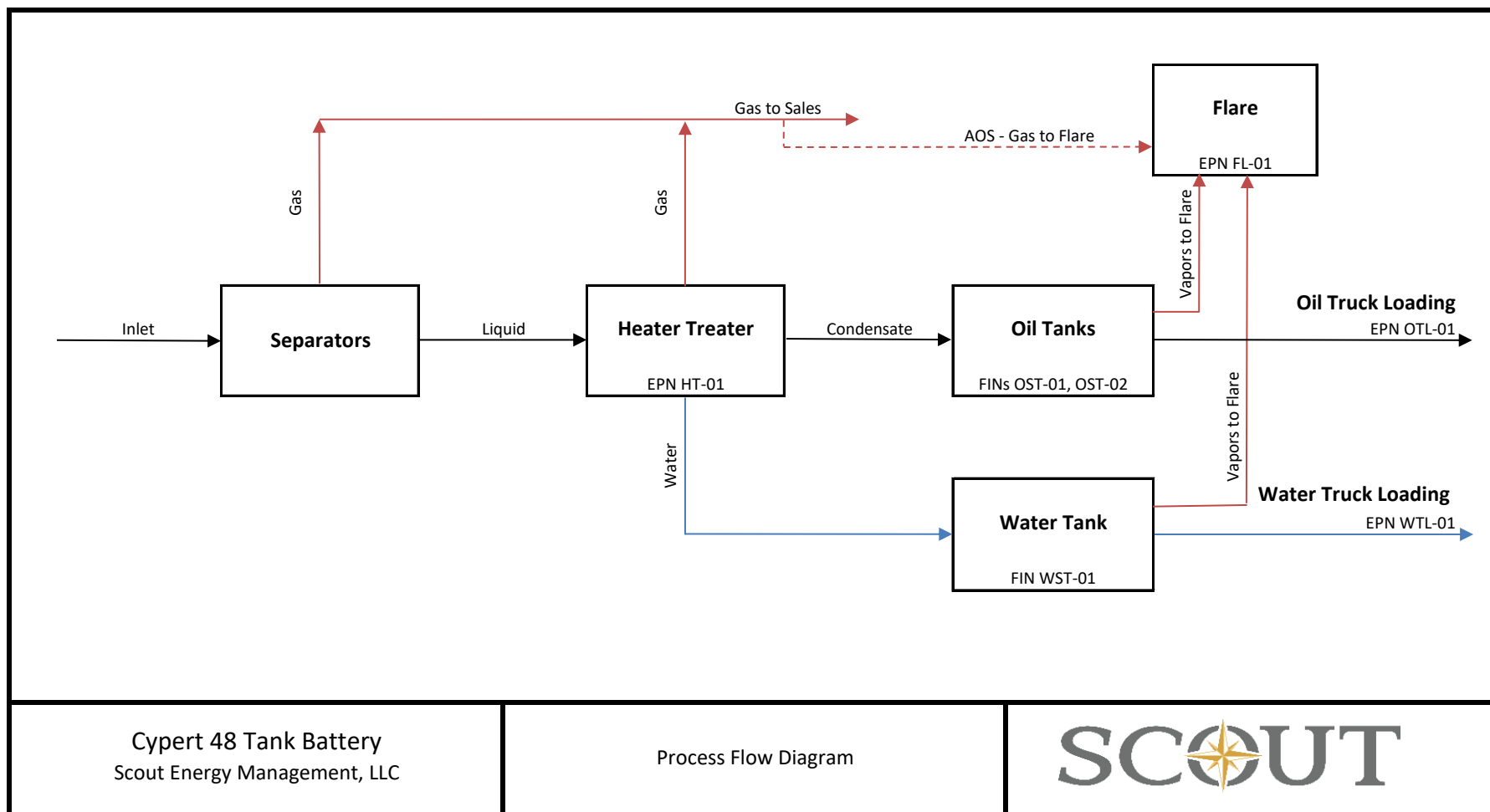
Facility Production Rates

Gas: 45.46 MSCFD, 16592.9 MSCFY

Oil: 9 BOPD, 3285 BOPY

Water: 80 BWPD, 29200 BWPY





ATTACHMENT 2
EMISSION CALCULATIONS
PERMIT BY RULE REVISION
SCOUT ENERGY MANAGEMENT LLC



Emission Summary

FIN	EPN	Description	VOC		NO _x		CO		SO ₂		PM _{2.5}		PM ₁₀		Total HAP		Benzene		Formaldehyde		H ₂ S	
			lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr
HT-01	HT-01	Heater Treater	2.70E-03	0.01	0.05	0.22	0.04	0.18	2.34E-04	1.02E-03	3.73E-03	0.02	3.73E-03	0.02	3.79E-05	1.66E-04	1.03E-06	4.52E-06	3.69E-05	1.61E-04	--	--
OST-01	OST-01	Oil Tank - 500 bbl	Emissions are represented at EPN FL-01																			
OST-02	OST-02	Oil Tank - 500 bbl	Emissions are represented at EPN FL-01																			
WST-01	WST-01	Water Tank - 500 bbl	Emissions are represented at EPN FL-01																			
OTL-01	OTL-01	Oil Loading	13.54	0.11	--	--	--	--	--	--	--	--	--	--	0.29	2.38E-03	0.01	1.23E-04	--	--	2.98E-04	1.47E-06
WTL-01	WTL-01	Produced Water Loading	0.42	0.02	--	--	--	--	--	--	--	--	--	--	0.06	1.45E-03	0.02	7.53E-05	--	--	2.38E-03	9.00E-05
FUG-01	FUG-01	Site Fugitives	0.32	1.41	--	--	--	--	--	--	--	--	--	--	0.01	0.04	2.00E-04	1.60E-03	--	--	1.00E-03	4.50E-03
FL-01, OST-01, OST-02, WST-01	FL-01	Flare	0.55	2.40	0.34	1.51	0.69	3.02	2.78E-03	0.06	--	--	--	--	0.01	0.04	5.49E-04	2.41E-03	--	--	3.48E-05	1.52E-04
MSS	MSS	Maintenance, Startup, Shutdown	100.00	2.23	--	--	--	--	--	--	--	--	--	--	7.47	0.24	7.47	0.24	--	--	0.02	4.10E-04
Total Emissions:			114.83	6.17	0.39	1.73	0.73	3.20	3.02E-03	0.06	3.73E-03	0.02	3.73E-03	0.02	7.83	0.33	7.50	0.24	3.69E-05	1.61E-04	0.02	0.01

Burner Calculations

EPN	FIN	Description	Rated Duty (MMBtu/hr)	Fuel Heating Value (Btu/scf)	Annual Operating Hours (hr/yr)	Fuel Correction Factor
HT-01	HT-01	Heater Treater 1	0.50	1,444.9	8,760	1.42

Pollutant	Emission Factor ^a		HT-01	
			lb/hr	ton/yr
CO	84	lb/MMscf	0.04	0.18
NO _x	100	lb/MMscf	0.05	0.22
PM ^b	7.6	lb/MMscf	3.73E-03	0.02
SO ₂ ^c	4.0	ppm S	2.34E-04	1.02E-03
VOC	5.5	lb/MMscf	2.70E-03	0.01
Benzene	0.0021	lb/MMscf	1.03E-06	4.52E-06
CH ₂ O	0.075	lb/MMscf	3.69E-05	1.61E-04

Calculation Methodology:

- ^a Unless otherwise noted, emission factors are from AP-42 Tables 1.4-1, 1.4-2, and 1.4-3 (dated 7/98).
- ^b All PM is assumed to be less than 2.5 microns in diameter per footnote "c" of AP-42 Table 1.4-2.
- ^c A material balance approach was used to estimate the SO₂ emission rates using the maximum sulfur concentration in the natural gas.
- ^d Example calculations for hourly emissions of CO and SO₂ for EPN HT-01 follow:

CO (lb/hr) = (Rated Duty, MMBtu/hr)*(Correction Factor)/(Fuel Heating Value, Btu/scf)*(Emission Factor, lb/MMscf)

CO (lb/hr) = (0.50 MMBtu/hr)*(1.42)/(1,444.9 Btu/scf)*(84 lb/MMscf)

= 0.04 lb/hr CO

SO₂ (lb/hr) = (Rated Duty, MMBtu/hr)/(Fuel Heating Value, Btu/scf)*(Sulfur, scf S/10⁶ scf gas)*(1 lb-mol/379 scf)*(32.06 lb S/lb-mol)*(64.06 lb SO₂/32.06 lb S)

SO₂ (lb/hr) = (0.50 MMBtu/hr)/(1,444.9 Btu/scf)*(4.0 scf S/10⁶ scf gas)*(1 lb-mol/379 scf)*(32.06 lb S/lb-mol)*(64.06 lb SO₂/32.06 lb S)

= 0.0002 lb/hr SO₂
- ^e An example calculation for annual emissions of CO for EPN HT-01 follows:

CO (T/yr) = (Hourly Emissions, lb/hr)*(Annual Operating Hours, hr/yr)/(2,000 lb/T)

CO (T/yr) = (0.04 lb/hr)*(8,760 hr/yr)/(2,000 lb/T)

= 0.18 T/yr CO

Flare Calculations - Hourly

	Pilot Gas	Oil Tank Emissions OST-01 - OST-02		Water Tank Emissions WST-01		Produced Gas	Total	DRE	Total Emissions (Controlled)
Promax Stream	Gas	OT Flash	OT W&B	WT Flash	WT W&B	Gas			
	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr	%	lb/hr
Water	0.02	0.01	0.01	2.14E-03	0.03	0.37	0.45	0%	0.45
H ₂ S	7.81E-05	2.00E-05	3.00E-05	1.00E-05	1.20E-04	1.48E-03	1.74E-03	98%	3.48E-05
CO ₂	0.03	3.55E-03	9.80E-04	2.02E-03	0.02	0.59	0.64	0%	0.64
Nitrogen	0.25	1.10E-03	4.00E-05	7.00E-04	1.40E-04	4.69	4.94	0%	4.94
Methane	3.21	0.07	0.01	0.03	0.01	60.72	64.04	98%	1.28
Ethane	0.84	0.15	0.11	0.02	0.01	15.98	17.11	98%	0.34
Propane	0.73	0.27	0.63	0.02	0.01	13.82	15.48	98%	0.31
i-Butane	0.08	0.04	0.09	1.52E-03	4.60E-04	1.50	1.70	98%	0.03
n-Butane	0.27	0.14	0.30	0.01	3.18E-03	5.05	5.76	98%	0.12
i-Pentane	0.06	0.03	0.07	1.29E-03	3.60E-04	1.09	1.25	98%	0.02
n-Pentane	0.06	0.04	0.08	8.90E-04	1.00E-04	1.20	1.37	98%	0.03
Cyclohexane	0.02	0.01	0.02	1.32E-03	1.95E-03	0.37	0.43	98%	0.01
n-Hexane	0.01	0.01	0.02	1.50E-04	1.00E-05	0.28	0.32	98%	0.01
Benzene	1.17E-03	6.90E-04	1.43E-03	1.20E-04	1.94E-03	0.02	0.03	98%	5.49E-04
Toluene	1.56E-03	9.40E-04	1.88E-03	1.80E-04	3.02E-03	0.03	0.04	98%	7.44E-04
Ethylbenzene	2.58E-04	1.60E-04	3.00E-04	3.00E-05	4.80E-04	4.89E-03	0.01	98%	1.22E-04
o-Xylene	4.80E-04	2.90E-04	5.60E-04	6.00E-05	9.40E-04	0.01	0.01	98%	2.29E-04
2,2,4-TMP	4.69E-03	2.75E-03	0.01	3.00E-05	0.00E+00	0.09	0.10	98%	2.04E-03
Heptane	0.03	0.02	0.03	2.00E-04	1.00E-05	0.49	0.56	98%	0.01
Octane	0.01	0.01	0.01	5.00E-05	0.00E+00	0.23	0.26	98%	0.01
Nonane	2.17E-03	1.30E-03	2.45E-03	1.00E-05	0.00E+00	0.04	0.05	98%	9.41E-04
Decane	2.11E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.00E-05	4.21E-05	98%	8.42E-07
C10+	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	98%	0.00E+00
Total	5.63	0.80	1.39	0.09	0.09	106.55	114.56		8.20
VOC	1.28	0.57	1.26	0.03	0.02	24.21	27.37		0.55
HAP	0.02	0.01	0.03	5.70E-04	0.01	0.43	0.50		0.01
MW (lb/lbmol)	21.35	38.65	48.22	25.98	25.50	21.35	--		
Gas Flow (scf/hr)	100.00	7.92	10.83	1.25	1.25	1,894	2,015		
LHV (BTU/scf)	1,114	1,993	2,490	1,328	646.59	1,114	1,125		
HHV (BTU/scf)	1,228	2,171	2,703	1,458	728.81	1,228	1,240		

Emission Factors		
NO _x	0.1380	lb/MMBTU
CO	0.2755	lb/MMBTU

34.08	H ₂ S	lb/lbmol
64.06	SO ₂	lb/lbmol
98%	Destruction Efficiency	

Combustion Emissions from Flare							
	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr
NO _x	0.02	2.37E-03	4.04E-03	2.51E-04	1.26E-04	0.32	0.34
CO	0.03	4.73E-03	0.01	5.02E-04	2.51E-04	0.64	0.69
SO ₂	1.47E-04	3.76E-05	5.64E-05	1.88E-05	2.26E-04	2.78E-03	3.27E-03

Calculation Methodology:

a Uncontrolled stream properties are determined via BR&E ProMax 6.0.

b Flare CO and NO_x emission factors are from TCEQ New Source Review (NSR) Emission Calculations Attachment A (dated 3/21) for other high-Btu flares. SO₂ emissions assume 100% conversion of H₂S to SO₂. Destruction efficiency is provided by manufacturer.

Flare Calculations - Annual

	Pilot Gas	Oil Tank Emissions OST-01 - OST-02		Water Tank Emissions WST-01		Produced Gas	Total	DRE	Total Emissions (Controlled)
<i>Promax Stream</i>	<i>Gas</i>	<i>OT Flash</i>	<i>OT W&B</i>	<i>WT Flash</i>	<i>WT W&B</i>	<i>Gas</i>			
	ton/yr	ton/yr	ton/yr	ton/yr	ton/yr	ton/yr	ton/yr	%	ton/yr
Water	0.09	0.06	0.06	0.01	0.14	1.61	1.96	0%	1.96
H ₂ S	3.42E-04	8.76E-05	1.31E-04	4.38E-05	5.26E-04	0.01	0.01	98%	1.52E-04
CO ₂	0.14	0.02	4.29E-03	0.01	0.07	2.57	2.80	0%	2.80
Nitrogen	1.09	4.82E-03	1.75E-04	3.07E-03	6.13E-04	20.56	21.66	0%	21.66
Methane	14.04	0.30	0.03	0.13	0.05	265.94	280.49	98%	5.61
Ethane	3.69	0.66	0.49	0.09	0.05	69.97	74.96	98%	1.50
Propane	3.20	1.20	2.75	0.08	0.04	60.53	67.80	98%	1.36
i-Butane	0.35	0.17	0.38	0.01	2.01E-03	6.56	7.46	98%	0.15
n-Butane	1.17	0.60	1.33	0.03	0.01	22.10	25.25	98%	0.50
i-Pentane	0.25	0.14	0.30	0.01	1.58E-03	4.77	5.47	98%	0.11
n-Pentane	0.28	0.16	0.33	3.90E-03	4.38E-04	5.24	6.01	98%	0.12
Cyclohexane	0.09	0.05	0.10	0.01	0.01	1.62	1.87	98%	0.04
n-Hexane	0.06	0.04	0.08	6.57E-04	4.38E-05	1.21	1.39	98%	0.03
Benzene	0.01	3.02E-03	0.01	5.26E-04	0.01	0.10	0.12	98%	2.41E-03
Toluene	0.01	4.12E-03	0.01	7.88E-04	0.01	0.13	0.16	98%	3.26E-03
Ethylbenzene	1.13E-03	7.01E-04	1.31E-03	1.31E-04	2.10E-03	0.02	0.03	98%	5.36E-04
o-Xylene	2.10E-03	1.27E-03	2.45E-03	2.63E-04	4.12E-03	0.04	0.05	98%	1.00E-03
2,2,4-TMP	0.02	0.01	0.02	1.31E-04	0.00E+00	0.39	0.45	98%	0.01
Heptane	0.11	0.07	0.13	8.76E-04	4.38E-05	2.15	2.46	98%	0.05
Octane	0.05	0.03	0.06	2.19E-04	0.00E+00	1.00	1.14	98%	0.02
Nonane	0.01	0.01	0.01	4.38E-05	0.00E+00	0.18	0.21	98%	4.12E-03
Decane	9.25E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.75E-04	1.84E-04	98%	3.69E-06
C10+	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	98%	0.00E+00
Total	24.64	3.51	6.10	0.38	0.42	466.70	501.75		35.93
VOC	5.60	2.48	5.52	0.14	0.09	106.04	119.87		2.40
HAP	0.10	0.06	0.12	2.50E-03	0.03	1.89	2.20		0.04
Operating Hours	8,760	8,760	8,760	8,760	8,760	8,760	--		
MW (lb/lbmol)	21.35	38.65	48.22	25.98	25.50	21.35	--		
Gas Flow (scf/hr)	100.00	7.92	10.83	1.25	1.25	1,894	2,015		
Gas Flow (MMscf/yr)	0.88	0.07	0.09	0.01	0.01	16.59	17.66		
LHV (BTU/scf)	1,114	1,993	2,490	1,328	646.59	1,114	1,125		
HHV (BTU/scf)	1,228	2,171	2,703	1,458	728.81	1,228	1,240		

	Combustion Emissions from Flare						
	ton/yr	ton/yr	ton/yr	ton/yr	ton/yr	ton/yr	ton/yr
NO _x	0.07	0.01	0.02	1.10E-03	5.51E-04	1.41	1.51
CO	0.15	0.02	0.04	2.20E-03	1.10E-03	2.81	3.02
SO ₂	2.82E-03	7.21E-04	1.08E-03	3.61E-04	4.33E-03	0.05	0.06

Emission Factors		
NO _x	0.1380	lb/MMBTU
CO	0.2755	lb/MMBTU

H ₂ S	34.08	lb/lbmol
SO ₂	64.06	lb/lbmol
98%	Destruction Efficiency	

Flare Verification		
Tip Diameter	4.00	in
Tip Area	0.09	ft ²
Gas Flow	2,015	scf/hr
Exhaust Flow	96,340	acf/hr
Exhaust Velocity	306.66	ft/s
Heating Value	1,125	BTU/scf

Calculation Methodology:

a Uncontrolled stream properties are determined via BR&E ProMax 6.0.

Flare CO and NO_x emission factors are from TCEQ New Source Review (NSR) Emission Calculations Attachment A (dated 3/21) for other high-Btu flares. SO₂ emissions assume 100% conversion of H₂S

b to SO₂.

Truck Loading Calculations

FIN	EPN	Description	Loading Calculation Parameters											
			Saturation Factor	Max. Vapor Pressure (psia) ^b	Avg. Vapor Pressure (psia) ^b	Vapor MW (lb/lb-mol) ^c	Max. Temp. (F) ^b	Avg. Temp (F) ^b	Hourly Throughput (Mgal/hr)	Annual Throughput (Mgal/yr)	Hydrocarbon Fraction (wt%) ^c	Max. Loading Loss (lb/Mgal) ^d	Avg. Loading Loss (lb/Mgal) ^d	Control Efficiency
OTL-01	OTL-01	Oil Loading	0.6000	2.5190	2.5900	48.2217	85.7400	66.5460	9.00	136	99.00%	1.6640	1.7733	0%
WTL-01	WTL-01	Produced Water Loading	0.6000	0.6200	0.3310	25.5000	85.7400	66.5460	9.00	1,230	47.85%	0.2166	0.1198	0%

	Uncontrolled Emissions					
	Oil Loading			Water Loading		
	wt% ^c	lb/hr	ton/yr	wt% ^c	lb/hr	ton/yr
VOC	90.41	13.54	0.11	21.70	0.42	0.02
H ₂ S	1.99E-03	2.98E-04	1.47E-06	0.12	2.38E-03	9.00E-05
Total HAP	1.97	0.29	2.38E-03	6.75	0.06	1.45E-03
n-Hexane	1.27	0.19	1.53E-03	0.01	1.11E-04	9.37E-04
Benzene	0.10	0.01	1.23E-04	2.05	0.02	7.53E-05
Toluene	0.13	0.02	1.63E-04	3.19	0.03	9.93E-05
Ethylbenzene	0.02	2.96E-03	2.61E-05	0.51	4.47E-03	1.59E-05
o-Xylene	0.04	0.01	4.83E-05	0.99	0.01	2.95E-05
2,2,4-TMP	0.40	0.05	4.82E-04	3.26E-03	2.88E-05	2.94E-04

Calculation Methodology:

a Calculation method per AP-42, Section 5.2, dated June 2008.

b True Vapor Pressures, Molecular Weights, and Temperatures are determined via BR&E ProMax 6.0.

c Component weight compositions and vapor molecular weights are taken from ProMax streams "OT W&B" and "WT W&B" respectively.

d Loading losses are calculated as follows:

Maximum Loading Loss = 12.46 * (Saturation Factor) * (Max. Vapor Pressure, psia) * (Vapor MW, lb/lb-mol) / (Max. Temp., R)

Maximum Loading Loss = 12.46 * (0.60) * (2.52 psia) * (48.2 lb/lb-mol) / (85.74 + 460) R = 1.6640 lb/Mgal

Average Loading Loss = 12.46 * (Saturation Factor) * (Avg. True Vapor Pressure, psia) * (Vapor MW, lb/lb-mol) / (Avg. Temp., R)

Average Loading Loss = 12.46 * (0.60) * (2.59 psia) * (48.2 lb/lb-mol) / (66.55 + 460) R = 1.7733 lb/Mgal

Fugitive Calculations

Service	Component	Count	Emission Factors ^a (lb/hr-component)	Annual Operating Hours (hr/yr)	Component Mass Fraction				LDAR Reduction Credit ^a (wt%)	Uncontrolled Emissions							
					VOC		H ₂ S			Benzene		Total HAP					
					Hourly ^b (lb/hr)	Annual ^c (ton/yr)	Hourly ^b (lb/hr)	Annual ^c (ton/yr)		Hourly ^b (lb/hr)	Annual ^c (ton/yr)	Hourly ^b (lb/hr)	Annual ^c (ton/yr)				
Valves	Gas Stream (Inlet Gas)	42	0.00992	8,760	23.313%	0.159%	0.029%	0.443%	0%	0.0971	0.4254	0.0007	0.0029	0.0001	0.0005	0.0018	0.0081
	Water/Light Liquid		0.000216	8,760	100.000%	0.000%	0.103%	0.000%	0%	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	Light Liquid	23	0.0055	8,760	99.606%	0.000%	0.103%	3.363%	0%	0.1260	0.5519	0.0000	0.0000	0.0001	0.0006	0.0043	0.0186
	Heavy Liquid		0.0000185	8,760	100.000%	0.000%	0.000%	0.000%	0%	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Relief Valves	Gas Stream (Inlet Gas)	8	0.0194	8,760	23.313%	0.159%	0.029%	0.443%	0%	0.0362	0.1585	0.0002	0.0011	0.0000	0.0002	0.0007	0.0030
	Light Liquid		0.0165	8,760	99.606%	0.000%	0.103%	3.363%	0%	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	Heavy Liquid		0.0000683	8,760	100.000%	0.000%	0.000%	0.000%	0%	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Pump Seals	Gas Stream (Inlet Gas)		0.00529	8,760	23.313%	0.159%	0.029%	0.443%	0%	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	Water/Light Liquid		0.000052	8,760	100.000%	0.000%	0.103%	0.000%	0%	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	Light Liquid	1	0.02866	8,760	99.606%	0.000%	0.103%	3.363%	0%	0.0285	0.1250	0.0000	0.0000	0.00003	0.0001	0.0010	0.0042
	Heavy Liquid		0.00113	8,760	100.000%	0.000%	0.000%	0.000%	0%	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Flanges	Gas Stream (Inlet Gas)	86	0.00086	8,760	23.313%	0.159%	0.029%	0.443%	0%	0.0172	0.0755	0.0001	0.0005	0.0000	0.0001	0.0003	0.0014
	Water/Light Liquid		0.000006	8,760	100.000%	0.000%	0.103%	0.000%	0%	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	Light Liquid	46	0.000243	8,760	99.606%	0.000%	0.103%	3.363%	0%	0.0111	0.0488	0.0000	0.0000	0.00001	0.0001	0.0004	0.0016
	Heavy Liquid		0.00000086	8,760	100.000%	0.000%	0.000%	0.000%	0%	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Connectors	Gas Stream (Inlet Gas)	11	0.00044	8,760	23.313%	0.159%	0.029%	0.443%	0%	0.0011	0.0049	0.0000	0.0000	0.00000	0.00001	0.0000	0.0001
	Water/Light Liquid		0.000243	8,760	100.000%	0.000%	0.103%	0.000%	0%	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	Light Liquid	10	0.000463	8,760	99.606%	0.000%	0.103%	3.363%	0%	0.0046	0.0202	0.0000	0.0000	0.000005	0.00002	0.0002	0.0007
	Heavy Liquid		0.0000165	8,760	100.000%	0.000%	0.000%	0.000%	0%	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Open Ended Lines	Gas Stream (Inlet Gas)		0.00441	8,760	23.313%	0.159%	0.029%	0.443%	0%	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	Water/Light Liquid		0.00055	8,760	100.000%	0.000%	0.103%	0.000%	0%	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	Light Liquid		0.00309	8,760	99.606%	0.000%	0.103%	3.363%	0%	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	Heavy Liquid		0.000309	8,760	100.000%	0.000%	0.000%	0.000%	0%	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Other	Gas Stream (Inlet Gas)		0.0194	8,760	23.313%	0.159%	0.029%	0.443%	0%	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	Water/Light Liquid		0.0309	8,760	100.000%	0.000%	0.103%	0.000%	0%	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	Light Liquid		0.0165	8,760	99.606%	0.000%	0.103%	3.363%	0%	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	Heavy Liquid		0.0000683	8,760	100.000%	0.000%	0.000%	0.000%	0%	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
							Gas Streams Total:			0.1516	0.6643	0.00100	0.0045	0.0001	0.0008	0.0028	0.0126
							Water/Light Liquid Total:			0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
							Light Liquid Streams Total:			0.1702	0.7459	0.0000	0.0000	0.0001	0.0008	0.0059	0.0251
							Heavy Streams Total:			0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
							Total:			0.3218	1.4102	0.00100	0.0045	0.0002	0.0016	0.0087	0.0377

Calculation Methodology :

a Fugitive Emission Factors are per TCEQ Technical Guidance Document for Equipment Leak Fugitives, dated June 2018. The emission factors are for total hydrocarbon.

b Hourly emission rates are calculated as follows:

(42 components) * (0.00992 lb/hr-component) * (23.3130% VOC) * (100% - 0% reduction credit) = 0.0971 lb/hr VOC

c Annual emission rates are calculated as follows:

(42 components) * (0.00992 lb/hr-component) * (8,760 hr/yr) * (23.3130% VOC) * (100% - 0% reduction credit) / (2,000 lb/ton) = 0.4254 ton/yr VOC

MSS Calculations

Emissions Summary

Pollutant	Hourly Max (lb/hr)	Annual Total (T/yr)
VOC	100.00	2.23
NOx	0.00	0.00
CO	0.00	0.00
H2S	0.015	0.00041
Benzene	7.47	0.24
PM	2.21	1.18
PM10	0.53	0.28
PM2.5	0.00	0.00

Activity	Description / Comments	Default Parameters		Equation Used		Input Parameters		Pollutant	Hourly Emissions (lb/hr)	Annual Emissions (T/yr)	Source for "Input Parameters"	
(b)(2) Heater Treater	-Calculations based on condensate (RVP 10) because it has higher vapor pressure than crude oil (RVP 5) and results in a more conservative emission estimate. -Emission estimates are based on a large site that typically has 4 heater treaters. -Assume all emissions from maintenance activity occur in one hour.	Temperature (°F)	100	Clingage Loss (lb/activity)	8.6913	Number of Heater Treaters	1	VOC	8.6913	0.0043	Site-Specific Data	
		Vapor pressure of material stored (psia)	10.5									
		Molecular weight (lb/lb-mole)	66									
		V _v Vessel volume (ft3) (2ft radii * 10 ft height)	125.6									
		Ideal gas constant (psia-ft3/lb-mol-°R)	10.73									
		Number of activities per year	1	Total (lb/yr/treater)	8.6913							
(b)(2) Aerosol Lubricants	-45-50% VOC by weight volatilizes. -Material specification per Lubricant MSDS (f). -VOC evaporation is based off standard engineering judgment consistent with product specification. - Standard Industrial Size Cans (oz.) 16 -Assume 4 cans used in an hour as a maximum				Pounds of Emissions per Can (lb/can)	0.5	Number of 16 oz Cans Used	100	VOC	2.0000	0.0250	TCEQ Default Value
(b)(3) Piping Components	-Calculations based on condensate (RVP 10) because it has higher vapor pressure than crude oil (RVP 5) and results in a more conservative emission estimate. -100 foot long pipe sections conservatively assumed for emission calculations. -Assume all emissions from maintenance activity occur in one hour.	Temperature (°F)	100	Clingage Loss (lb/activity)	5.4321	Number of 100 ft Piping Sections	10	VOC	5.4321	0.0272	TCEQ Default Value	
		Vapor pressure of material stored (psia)	10.5									
		Molecular weight (lb/lb-mole)	66									
		V _v Vessel volume (ft3) (0.5 ft radii * 100 ft height)	78.5									
		Ideal gas constant (psia-ft3/lb-mol-°R)	10.73									
		Number of activities per year	1	Total (lb/yr/section)	5.4321							
(b)(2) Calibration	-Per Monitoring Division's Laboratory and Quality Assurance Section - One cylinder of pentane or other calibration gas used per year and a typical cylinder contains 100 lbs. -Assume one cylinder emptied in an hour.				Pounds of pentane in one cylinder (lb/cylinder)	100	Number of Cylinders	1	VOC	100.0000	0.0500	TCEQ Default Value
(b)(6)	Safety factor to account for MSS activities with the same character and quantity of emissions as those listed in paragraphs (b) (1) - (5) of §106.359.						1	VOC	12.5000	0.0133	TCEQ Default Value	
(b)(10) Abrasive Blasting	-Blasting media usage rates provided by the site and includes a 25% factor of safety. Based on maximum of blasting with one nozzle at a time. -Based on worst-case PM/PM10 emissions factors from TCEQ's "Abrasive Blast Cleaning," Draft RG-169, March 2001.	PM10 Emission Factor (lb PM/lb usage)	0.0014			Number of Blasting Guns	1	PM10 PM	0.5250	0.2800	Site-Specific Data	
		PM Emission Factor (lb PM/lb usage)	0.0059						2.2125	1.1800		
		Hourly Blasting Media Usage (lb/hr)	375									
		Annual Blasting Media Usage (T/yr)	200									
(b)(8) Gas Pipeline Blowdown	-Based on an estimate of 100 scf of gas being degassed per event at 900 psi -Assume all emissions from maintenance activity occur in one hour. -Includes blocking and venting lines for minor repair and replacement.	Volume degassed (scf)	100	Volume degassed (at pressure) (scf)	6122.45			VOC	60.0827	1.2017	Site-Specific Data	
		Pressure at which stream is degassed (psi)	900					H2S	0.0000	0.00000		
		Air Molecular Weight (lb/lb-mol)	21.48	Stream Specific Gravity	0.7440			Benzene	7.4749	0.1495		
		Molar volume conversion (scf/(lb/mol))	379.4	Stream Density (lb/scf)	0.0421							
		Inlet stream VOC content (%)	23.31%									
		Inlet stream H ₂ S content (%)	0.00000%									
		Type of Control Equipment										
		Control Efficiency (%)	0.00%									
		Events per Hour	1									
		Events per Year	40									
(b)(7) Pigging Activities Receivers	-Based on an estimate of 40 scf of gas being degassed per event at 1000 psi -Assume all emissions from maintenance activity occur in one hour.	Volume degassed (scf)	40	Volume degassed (at pressure) (scf)	2721.09			VOC	26.7034	0.6943	Site-Specific Data	
		Pressure at which stream is degassed (psi)	1000					H2S	0.0000	0.00000		
		Air Molecular Weight (lb/lb-mol)	21.48	Stream Specific Gravity	0.7440			Benzene	3.3222	0.0864		
		Molar volume conversion (scf/(lb/mol))	379.4	Stream Density (lb/scf)	0.0421							
		Inlet stream VOC content (%)	23.31%									
		Inlet stream H ₂ S content (%)	0.00000%									
		Type of Control Equipment										
		Control Efficiency (%)	0.00%									
		Events per Hour	1									
		Events per Year	52									
(b)(9) Non-Condensate Tank Cleaning Activities	-For non-condensate tanks and storage vessels -Assumed volume drained was equal to 1% of the vessel volume -Assumed drained material is immediately placed in a closed vessel. To be conservative, this time is represented as 15 minutes -Assumed an average daily temperature of 95F, per TCEQ guidance. -Assume all emissions from opening, loading, and evaporation occur in three separate hours.	P, vapor pressure of material (psia)	0.33	V _v , volume of vessel (ft3)	2807.49	Number of Non-Oil Tanks	1	VOC	3.9672	0.0114	Site-Specific Data	
		Vessel Height (ft)	16					H2S	0.0079	0.0000227		
		Vessel Diameter (ft)	15.5									
		Vessel Volume (bbl)	500									
		Average Daily Temperature (F)	95	Lo, opening loss (lb/activity)	3.9672							
		Ideal gas constant (psia-ft3/lb-mol-°R)	10.73									
		MW _v , vapor molecular weight (lb/lb-mol)	25.50	Loading loss factor (lb/1000 gal loaded)	0.1889							
		Saturation Factor	1	V _l , volume of liquid drained (gallon/activity)	210.0003							
		U wind speed (mph)	3.52	Loading loss per activity (due to draining) (lb/activity)	0.0397							
		Surface Area A _p (m2)	1	Vapor Pressure P _v (Pa)	2275.2708							
		t, time material sits uncovered (hr)	0.25	Evaporation Loss (lb/activity)	0.5504							
		Events per Hour per tank	1	Total (lb/yr/tank)	22.7865							
		Events per Year per tank	5									
		(b)(9) Condensate Tank Cleaning Activities	-For condensate tanks and storage vessels -Assumed volume drained was equal to 1% of the vessel volume -Assumed drained material is immediately placed in a closed vessel. To be conservative, this time is represented as 15 minutes -Assumed an average daily temperature of 95F, per TCEQ guidance. -Assume all emissions from opening, loading, and evaporation occur in three separate hours.	P, vapor pressure of material (psia)	2.59			V _v , volume of vessel (ft3)	2807.49	Number of Oil Tanks		2
Vessel Height (ft)	16					H2S	0.0146	0.00039				
Vessel Diameter (ft)	15.5											
Vessel Volume (bbl)	500											
Average Daily Temperature (F)	95			Lo, opening loss (lb/activity)	58.8779							
Ideal gas constant (psia-ft3/lb-mol-°R)	10.73											
MW _v , vapor molecular weight (lb/lb-mol)	48.22			Loading loss factor (lb/1000 gal loaded)	2.8038							
Saturation Factor	1			V _l , volume of liquid drained (gallon/activity)	210.0003							
U wind speed (mph)	3.52			Loading loss per activity (due to draining) (lb/activity)	0.5888							
Surface Area A _p (m2)	1			Vapor Pressure P _v (Pa)	17857.4284							
t, time material sits uncovered (hr)	0.25			Evaporation Loss (lb/activity)	6.6195							
Condensate stream H ₂ S content (%)	0.1990%											
Type of Control Equipment	None											
Control Efficiency (%) (for opening losses only)	0.00%											
Event Duration (hours)	8			Total (lb/yr/tank)	198.2586							
Events per Year per tank	3											

ATTACHMENT 3
REGULATORY APPLICABILITY
PERMIT BY RULE REVISION
SCOUT ENERGY MANAGEMENT LLC



Federal Applicability	
Summary of Requirement	Demonstration of Compliance
NSPS Subpart A General Provisions	Not Applicable.
NSPS Subpart Kb Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984.	Not Applicable. The tanks on site have less than 420,000 gallon capacities and store oil prior to custody transfer.
NSPS Subpart JJJJ Standards of Performance for Stationary Spark Ignition Internal Combustion Engines	Not applicable. There are no engines on site.
NSPS Subpart OOOO Standards of Performance for Crude Oil and Natural Gas Production, Transmission, and Distribution for Which Construction, Modification, or Reconstruction Commenced After August 23, 2011 and on or Before September 18, 2015.	Not applicable. The Battery includes one (1) or more storage tanks that were constructed during the applicable dates of these subparts. However, the tank(s) do not have potential VOC emissions of six (6) T/yr or greater each; therefore, the tank(s) are not subject to these subparts.
NSPS Subpart OOOOa Standards of Performance for Crude Oil and Natural Gas Facilities for Which construction, Modification, or Reconstruction Commenced After September 18, 2015.	Not applicable. The Battery was not constructed, modified or reconstructed after September 18, 2015 and on or before December 6, 2022.
NSPS Subpart OOOOb Standards of Performance for Crude Oil and Natural Gas Facilities for Which Construction, Modification or Reconstruction Commenced After December 6, 2022.	Not applicable. The Battery was not constructed, modified or reconstructed after December 6, 2022.
MACT Subpart ZZZZ NESHAP for Stationary Reciprocating Internal Combustion Engines.	Not applicable. There are no engines on site.

RULE §106.4 - GENERAL REQUIREMENTS		
Citation	Summary of Requirement	Demonstration of Compliance
§106.4(a)	To qualify for a permit by rule, the following general requirements must be met.	
§106.4(a)(1)	Total actual emissions authorized under permit by rule from the facility shall not exceed the following limits, as applicable: (A) 250 tons per year (tpy) of carbon monoxide (CO) or nitrogen oxides (NOX); (B) 25 tpy of volatile organic compounds (VOC), sulfur dioxide (SO2), or inhalable particulate matter (PM); (D) 10 tpy of particulate matter with diameters of 2.5 microns or less (PM2.5); or (C) 15 tpy of particulate matter with diameters of 10 microns or less (PM10); (E) 25 tpy of any other air contaminant except: (i) water, nitrogen, ethane, hydrogen, and oxygen; and (ii) notwithstanding any provision in any specific permit by rule to the contrary, greenhouse gases as defined in §101.1 of this title (relating to Definitions).	As demonstrated in the Emission Summary table, the Battery will meet the requirements of this rule.
§106.4(a)(2)	Any facility or group of facilities, which constitutes a new major stationary source, as defined in §116.12 of this title (relating to Nonattainment and Prevention of Significant Deterioration Review Definitions), or any modification which constitutes a major modification, as defined in §116.12 of this title, under the new source review requirements of the Federal Clean Air Act (FCAA), Part D (Nonattainment) as amended by the FCAA Amendments of 1990, and regulations promulgated thereunder, must meet the permitting requirements of Chapter 116, Subchapter B of this title (relating to New Source Review Permits) and cannot qualify for a permit by rule under this chapter. Persons claiming a permit by rule under this chapter should see the requirements of §116.150 of this title (relating to New Major Source or Major Modification in Ozone Nonattainment Areas) to ensure that any applicable netting requirements have been satisfied.	The Battery is located in Martin County, which is classified as attainment; therefore, this rule does not apply.
§106.4(a)(3)	Any facility or group of facilities, which constitutes a new major stationary source, as defined in 40 Code of Federal Regulations (CFR) §52.21, or any change which constitutes a major modification, as defined in 40 CFR §52.21, under the new source review requirements of the FCAA, Part C (Prevention of Significant Deterioration) as amended by the FCAA Amendments of 1990, and regulations promulgated thereunder because of emissions of air contaminants other than greenhouse gases, must meet the permitting requirements of Chapter 116, Subchapter B of this title and cannot qualify for a permit by rule under this chapter. Notwithstanding any provision in any specific permit by rule to the contrary, a new major stationary source or major modification which is subject to Chapter 116, Subchapter B, Division 6 of this title due solely to emissions of greenhouse gases may use a permit by rule under this chapter for air contaminants that are not greenhouse gases. However, facilities or projects which require a prevention of significant deterioration permit due to emissions of greenhouse gases may not commence construction or operation until the prevention of significant deterioration permit is issued.	The Battery is not a new major source or major modification as those terms are defined in 40 CFR §52.21; therefore, this rule does not apply.
§106.4(a)(4)	Unless at least one facility at an account has been subject to public notification and comment as required in Chapter 116, Subchapter B or Subchapter D of this title (relating to New Source Review Permits or Permit Renewals), total actual emissions from all facilities permitted by rule at an account shall not exceed 250 tpy of CO or NOX ; or 25 tpy of VOC or SO2 or PM; or 15 tpy of PM10 ; or 10 tpy of PM2.5 ; or 25 tpy of any other air contaminant except water, nitrogen, ethane, hydrogen, oxygen, and GHGs (as specified in §106.2 of this title (relating to Applicability)).	The potential emissions associated with the Battery will remain below these limitations. Therefore, the requirements of this rule have been met. Refer to the emission calculations.
§106.4(a)(5)	Construction or modification of a facility commenced on or after the effective date of a revision of this section or the effective date of a revision to a specific permit by rule in this chapter must meet the revised requirements to qualify for a permit by rule.	This PBR application addresses the Battery's compliance with the most recent versions of 30 TAC §106.4, §106.352, §106.359, and §106.492. If another version of any of these PBR sections becomes effective before the commencement of construction of the Project, the Battery will comply with that version of the PBR section(s).
§106.4(a)(6)	A facility shall comply with all applicable provisions of the FCAA, §111 (Federal New Source Performance Standards) and §112 (Hazardous Air Pollutants), and the new source review requirements of the FCAA, Part C and Part D and regulations promulgated thereunder.	The Battery will comply with all applicable provisions of FCAA, §111 and §112. NSPS and National Emission Standards for Hazardous Air Pollutants (NESHAP) applicability is discussed in detail as follows. The Battery is not a major source and does not trigger Nonattainment or PSD Permitting Requirements. The Battery is not subject to any HAP control requirements listed in 40 CFR Part 61.
§106.4(a)(7)	There are no permits under the same commission account number that contain a condition or conditions precluding the use of a permit by rule under this chapter.	The Battery does not have an associated air permit prohibiting the use of a PBR. Therefore, this rule does not apply.
§106.4(a)(8)	The proposed facility or group of facilities shall obtain allowances for NOX if they are subject to Chapter 101, Subchapter H, Division 3 of this title (relating to Mass Emissions Cap and Trade Program).	The Battery is not located in the Houston/Galveston nonattainment area; therefore, this rule does not apply.
§106.4(b)	No person shall circumvent by artificial limitations the requirements of §116.110 of this title (relating to Applicability).	The emission rates for the Battery's sources are estimated based upon the anticipated worst-case operating configuration. Artificial limitations are not being taken for the Battery to avoid permitting under Chapter 116.
§106.4(c)	The emissions from the facility shall comply with all rules and regulations of the commission and with the intent of the Texas Clean Air Act (TCAA), including protection of health and property of the public, and all emissions control equipment shall be maintained in good condition and operated properly during operation of the facility.	The Battery is operated in compliance with the applicable state and federal air rules.
§106.4(d)	Facilities permitted by rule under this chapter are not exempted from any permits or registrations required by local air pollution control agencies. Any such requirements must be in accordance with Texas Health and Safety Code, §382.113 and any other applicable law.	The Battery is located in an area that does not have a local air regulatory agency; therefore, this rule does not apply.

RULE §106.352(I) - OIL AND GAS HANDLING AND PRODUCTION FACILITIES		
Citation	Summary of Requirement	Demonstration of Compliance
§106.352(a)(1)	The requirements in subsections (a) - (k) of this section are applicable only for new projects and related facilities located in the Barnett Shale (Cooke, Dallas, Denton, Ellis, Erath, Hill, Hood, Jack, Johnson, Montague, Palo Pinto, Parker, Somervell, Tarrant, and Wise Counties) on or after April 1, 2011. For all other new projects and related facilities in all other counties of the state, subsection (I) of this section is applicable.	The Battery is located in Martin County. The Battery will meet the requirements of §106.352(I).
§106.352(I)	The requirements in this subsection are applicable to new and modified facilities except those specified in subsection (a)(1) of this section. Any oil or gas production facility, carbon dioxide separation facility, or oil or gas pipeline facility consisting of one or more tanks, separators, dehydration units, free water knockouts, gunbarrels, heater treaters, natural gas liquids recovery units, or gas sweetening and other gas conditioning facilities, including sulfur recovery units at facilities conditioning produced gas containing less than two long tons per day of sulfur compounds as sulfur are permitted by rule, provided that the following conditions of this subsection are met. This subsection applies only to those facilities named which handle gases and liquids associated with the production, conditioning, processing, and pipeline transfer of fluids found in geologic formations beneath the earth's surface.	The gas contains less than two long tons per day of sulfur and meets the requirements of this rule.
§106.352(I)(1)	Compressors and flares shall meet the requirements of §106.492 and §106.512 of this title (relating to Flares; and Stationary Engines and Turbines, respectively). Oil and gas facilities which are authorized under historical standard exemptions and remain unchanged maintain that authorization and the remainder of this subsection does not apply.	The Battery operates a flare to control potential produced gas emissions. The flare at the Battery will comply with the requirements listed in §106.492. There are no compressors associated with the Battery.
§106.352(I)(2)	Total emissions, including process fugitives, combustion unit stacks, separator, or other process vents, tank vents, and loading emissions from all such facilities constructed at a site under this subsection shall not exceed 25 tpy each of SO ₂ , all other sulfur compounds combined, or all VOCs combined; and 250 tpy each of NO _x and CO. Emissions of VOC and sulfur compounds other than SO ₂ must include gas lost by equilibrium flash as well as gas lost by conventional evaporation.	As addressed previously, the emissions from the Battery are below the specified limits. Refer to the emissions calculations.
§106.352(I)(3)	Any facility handling sour gas shall be located at least one-quarter mile from any recreational area or residence or other structure not occupied or used solely by the owner or operator of the facility or the owner of the property upon which the facility is located.	The Battery handles sweet gas; therefore, the requirements of this rule does not apply.
§106.352(I)(4)	Total emissions of sulfur compounds, excluding sulfur oxides, from all vents shall not exceed 4.0 pounds per hour (lb/hr) and the height of each vent emitting sulfur compounds shall meet the following requirements, except in no case shall the height be less than 20 feet, where the total emission rate as H ₂ S, lb/hr, and minimum vent height (feet), and other values may be interpolated: (A) 0.27 lb/hr at 20 feet; (B) 0.60 lb/hr at 30 feet; (C) 1.94 lb/hr at 50 feet; (D) 3.00 lb/hr at 60 feet; and (E) 4.00 lb/hr at 68 feet.	The Battery's total emissions of sulfur compounds, excluding sulfur oxides, are less than 4.0 lb/hr. Also, the height of each vent emitting sulfur compounds, excluding sulfur oxides, meets the height requirements of this rule. Therefore, the requirements of this rule will be met.
§106.352(I)(5)	Before operation begins, facilities handling sour gas shall be registered with the executive director in Austin using Form PI-7 along with supporting documentation that all requirements of this subsection will be met. For facilities constructed under §106.353 of this title (relating to Temporary Oil and Gas Facilities), the registration is required before operation under this subsection can begin. If the facilities cannot meet this subsection, a permit under Chapter 116 of this title (relating to Control of Air Pollution by Permits for New Construction or Modification) is required prior to continuing operation of the facilities	The Battery handles sweet gas. Therefore, the requirements of this rule have been met.

RULE §106.359 - PLANNED MAINTENANCE, STARTUP, AND SHUTDOWN (MSS) AT OIL AND GAS HANDLING AND PRODUCTION FACILITIES		
Citation	Summary of Requirement	Demonstration of Compliance
§106.359(a)	Applicability. This section applies to certain authorized oil and gas handling or production facilities or sites, and authorizes emissions from planned maintenance, startup, and shutdown (MSS) facilities and activities, and any associated emission capture and control facilities, if all of the applicable requirements of this section are met.	The Battery is not authorized under 30 TAC §106.352(a) - (k), and the Battery meets the applicable requirements of 30 TAC §106.359; therefore, this rule is applicable.
§106.359(a)(1)	This section does not apply to oil and gas handling or production facilities or sites authorized under §106.352(a) - (k) of this title (relating to Oil and Gas Handling and Production Facilities), subsections (a) - (k) of the non-rule Air Quality Standard Permit for Oil and Gas Handling and Production Facilities, §106.355 of this title (relating to Pipeline Metering, Purging, and Maintenance), or Subchapter U of this chapter (relating to Tanks, Storage, and Loading).	
§106.359(a)(2)	This section may not be used to supersede an existing authorization for planned MSS under this chapter or §116.620 of this title (relating to Installation and/or Modification of Oil and Gas Facilities) unless any previously represented emission control methods, techniques, and devices remain in use and there is no resulting increase in hourly emissions.	The Battery does not have an existing authorization under §116.620.
§106.359(b)	Activities. Planned MSS activities and facilities authorized by this section include the following: (1) engine, compressor, turbine and other combustion facilities maintenance; (2) repair, adjustment, calibration, lubrication, and cleaning of site process equipment; (3) replacement of piping components, pneumatic controllers, boiler refractories, wet and dry seals, meters, instruments, analyzers, screens, and filters; (4) turbine or engine component swaps; (5) piping used to bypass a facility during maintenance; (6) planned MSS activities with the same character and quantity of emissions as listed in paragraphs (1) - (5) of this subsection; (7) pigging and purging of piping; (8) blowdowns; (9) emptying, purging, degassing, or refilling of process equipment, storage tanks and vessels (except landing floating roof tanks for convenience purposes), if paragraphs (A)-(C) of this paragraph are met; and, (A) all contents from process equipment or tanks must be removed to the maximum extent practicable prior to opening facilities to commence degassing and maintenance; (B) facilities must be degassed using best management practices to ensure air contaminants are removed from the system to the extent allowed by facility design; and, (C) tanks must be emptied or degassed by forced ventilation if: (i) only one vacuum truck is in use at a time; (ii) emissions are directed out the top of the tank; or (iii) emissions are routed through a closed system to a control device. (10) abrasive blasting, surface preparation, and surface coating of facilities and structures used at the site in oil and gas handling and production.	The planned MSS activities conducted at the Battery include storage tank cleaning operations and other maintenance operations.
§106.359(c)(1)	All facilities with the potential to emit air contaminants must be maintained in good condition and operated properly.	The Battery will develop and implement a program to maintain and repair facilities with potential to emit air contaminants, train personnel, and record planned MSS activities. The plan will be developed in accordance with best management practices or alternatively manufacturer's specifications and recommendations. Therefore, the requirements of this rule will be met.
§106.359(c)(2)	Each permit holder shall establish, implement, and update, as appropriate, a program to maintain and repair facilities as required by paragraph (1) of this subsection. The minimum requirements of this program must include: (A) a maintenance program developed by the permit holder for all facilities that is consistent with good air pollution control practices, or alternatively, manufacturer's specifications and recommended programs applicable to facility performance and the effect on emissions; (B) cleaning and routine inspection of all facilities; (C) repair of facilities on timeframes that minimize failures and maintain performance; (D) training of personnel who implement the maintenance program; and (E) records of conducted planned MSS activities.	

RULE §106.492 - FLARES		
Citation	Summary of Requirement	Demonstration of Compliance
§106.492(1)(A)	The flare shall be equipped with a flare tip designed to provide good mixing with air, flame stability, and a tip velocity less than 60 feet per second (ft/sec) for gases having a lower heating value less than 1,000 British thermal units per cubic foot (Btu/ft ³) or a tip velocity less than 400 ft/sec for gases having a lower heating value greater than 1,000 Btu/ft ³ .	The flare tip is designed to provide good mixing with air, flame stability, and will have a tip velocity of less than 400 ft/sec. The waste gas and fuel gas will have a lower heating value greater than 1,000 Btu/ft ³ . Therefore, the maximum calculated velocity meets the requirements of this rule
§106.492(1)(B)	The flare shall be equipped with a continuously burning pilot or other automatic ignition system that assures gas ignition and provides immediate notification of appropriate personnel when the ignition system ceases to function. A gas flare which emits no more than 4.0 pounds per hour (lb/hr) of reduced sulfur compounds, excluding sulfur oxides, is exempted from the immediate notification requirement, provided the emission point height meets the requirements of §106.352(4) of this title (relating to Oil and Gas Production Facilities).	The flare is equipped with a continuously burning pilot. The flare emits less than 4.0 lb/hr of reduced sulfur compounds, excluding sulfur oxides, and the flare emission point height meets the requirements of §106.352(l)(4). Therefore, the flare is exempt from the immediate notification requirement.
§106.492(1)(C)	A flare which burns gases containing more than 24 parts per million by volume (ppmv) of sulfur, chlorine, or compounds containing either element shall be located at least 1/4 mile from any recreational area or residence or other structure not occupied or used solely by the owner or operator of the flare or the owner of the property upon which the flare is located.	The flare at the Battery burns gases containing less than 24 ppmv of sulfur. Therefore, the requirements of this rule do not apply
§106.492(1)(D)	The heat release of a flare which emits sulfur dioxide (SO ₂) or hydrogen chloride (HCl) shall be greater than or equal to the following values:	The flare is not expected to emit hydrogen chloride. The heat release of the flare is greater than or equal to the minimum SO ₂ heat release limit (determined based on the lower heating value of SO ₂) of the flare. Therefore, the requirements of this rule have been met.
§106.492(2)(A)	The flare shall burn a combustible mixture of gases containing only carbon, hydrogen, nitrogen, oxygen, sulfur, chlorine, or compounds derived from these elements. When the gas stream to be burned has a net or lower heating value of more than 200 Btu/ft ³ prior to the addition of air, it may be considered combustible.	The flare at the Battery burns combustible gases that only contain the elements listed above or compounds derived from them, except the presence of chlorine in the flare gas is not anticipated. Therefore, the flare meets this requirement.
§106.492(2)(B)	A flare which burns gases containing more than 24 ppmv of sulfur, chlorine, or compounds containing either element shall be registered with the commission's Office of Permitting, Remediation, and Registration in Austin using Form PI-7 prior to construction of a new flare or prior to the use of an existing flare for the new service.	The Battery is a sweet facility and will not burn any gases containing more than 24 ppmv of sulfur, chlorine, or compounds containing either element.
§106.492(2)(C)	Under no circumstances shall liquids be burned in the flare.	The flare will not burn any liquids.

ATTACHMENT 4
SUPPOTING DOCUMENTATION
PERMIT BY RULE REVISION
SCOUT ENERGY MANAGEMENT LLC



ATTACHMENT 4	Guitar 5 Tank Battery
Date Sampled	2/21/2025
SUPPORTING DOCUMENTATION	Separator
Stream Sampled	Spot Gas

<i>FESCO Format</i>		
Components	Mol %	Wt %
Hydrogen Sulfide	0.000	0.000
Nitrogen	3.367	4.392
Carbon Dioxide	0.278	0.57
Methane	76.034	56.793
Ethane	10.666	14.932
Propane	6.257	12.846
Isobutane	0.522	1.413
n-Butane	1.735	4.695
2,2, Dimethylpropane	0.006	0.02
Isopentane	0.300	1.008
n-Pentane	0.321	1.078
2,2 Dimethylbutane	0.001	0.004
Cyclopentane	0.000	0.000
2,3 Dimethylbutane	0.034	0.136
2 Methylpentane	0.056	0.225
3 Methylpentane	0.037	0.148
n-Hexane	0.065	0.261
Methylcyclopentane	0.061	0.239
Benzene	0.008	0.029
Cyclohexane	0.034	0.133
2-Methylhexane	0.008	0.037
3-Methylhexane	0.012	0.056
2,2,4 Trimethylpentane	0.017	0.09
Other C7s	0.033	0.152
n-Heptane	0.020	0.093
Methylcyclohexane	0.033	0.151
Toluene	0.010	0.043
Other C8's	0.047	0.241
n-Octane	0.007	0.037
Ethylbenzene	0.004	0.02
M & P Xylenes	0.003	0.015
O-Xylene	0.001	0.005
Other C9's	0.017	0.1
n-Nonane	0.003	0.018
Other C10's	0.000	0
n-Decane	0.002	0.013
Undecanes (11)	0.001	0.007
Totals	100.000	100.00

Sample Conditions	
Pressure	60 F
Temperature	38 psig

Characteristics of Total Sample	
Specific Gravity	0.744 (Air = 1)
Compressibility (Z)	0.9964
Molecular Weight	21.48
Gross Heating Value	
Dry Basis	1239 BTU/CF
Saturated Basis	1218 BTU/CF

Gas Analysis

<i>ProMax Input</i>		
Components	Sampled Mol %	Normalized Mol Fraction
Water	0.000	0.00000
Hydrogen Sulfide	0.001	0.00001
Carbon Dioxide	0.278	0.00278
Nitrogen	3.367	0.03367
Methane	76.034	0.76034
Ethane	10.666	0.10666
Propane	6.257	0.06257
Isobutane	0.522	0.00522
n-Butane	1.735	0.01735
Isopentane	0.300	0.00300
n-Pentane	0.327	0.00327
Cyclohexane	0.223	0.00223
n-Hexane	0.065	0.00065
Benzene	0.008	0.00008
Toluene	0.010	0.00010
Ethylbenzene	0.004	0.00004
Xylenes	0.004	0.00004
2,2,4 Trimethylpentane	0.017	0.00017
Heptanes	0.106	0.00106
Octanes	0.054	0.00054
Nonanes	0.020	0.00020
Decane	0.002	0.00002
Decanes Plus	0.001	0.00001
	100.00	1.00

Sample Type	Representative
The analysis used in this application was taken from a representative facility. Both facilities produce hydrocarbons from the same formation and have similar equipment and site processes.	
A small amount of H2S is conservatively assumed for this application.	

ATTACHMENT 4	Guitar 5 Tank Battery
Date Sampled	2/21/2025
SUPPOTING DOCUMENTA	Separator
Stream Sampled	Hydrocarbon Liquid

<i>FESCO Format</i>		
Components	Mol %	Wt %
Carbon Dioxide	0.020	0.005
Nitrogen	0.019	0.003
Methane	1.020	0.092
Ethane	1.724	0.293
Propane	4.365	1.088
Isobutane	0.924	0.304
n-Butane	4.820	1.587
Isopentane	2.183	0.890
n-Pentane	3.263	1.330
Other C-6's	2.804	1.365
Heptanes	9.608	5.045
Octanes	12.678	7.681
Nonanes	6.587	4.713
Decanes Plus	43.889	72.240
Benzene	0.234	0.103
Toluene	0.895	0.466
E-Benzene	0.353	0.211
Xylenes	1.046	0.627
n-Hexane	2.196	1.069
2,2,4 Trimethylpentane	1.374	0.887
Totals	100.00	100.00

Sample Conditions	
Pressure	60 F
Temperature	38 psig

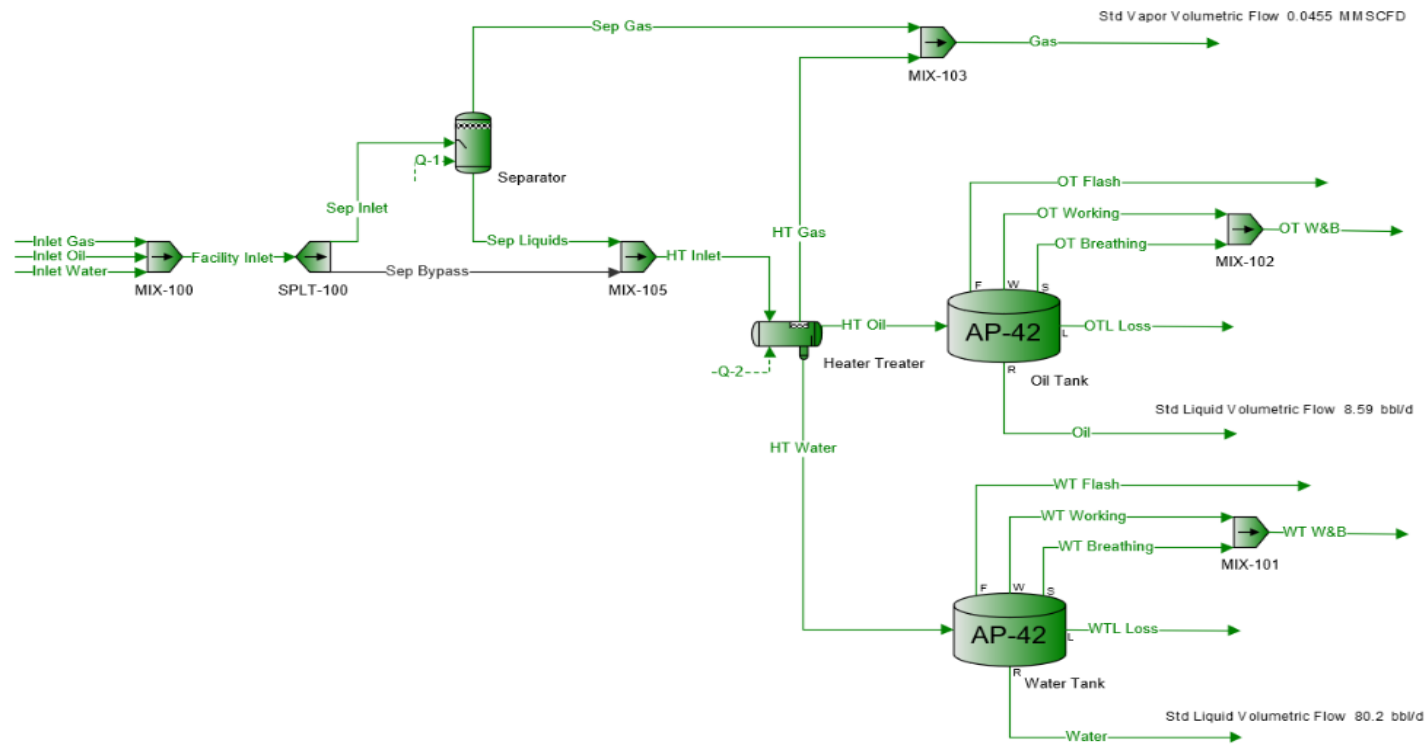
Characteristics of Total Sample	
Specific Gravity	0.821 (Water = 1)
API Gravity	40.86 @ 60F
Molecular Weight	176.98
Vapor Volume	14.722423 CF/Gal
Weight	6.8403621 Lbs/Gal

Liquid Analysis

<i>ProMax Input</i>		
Components	Sampled Mol %	Mol Fraction
Water	0.000	0.000
Hydrogen Sulfide	0.000	0.000
Carbon Dioxide	0.020	0.000
Nitrogen	0.019	0.000
Methane	1.020	0.010
Ethane	1.724	0.017
Propane	4.365	0.044
Isobutane	0.924	0.009
n-Butane	4.820	0.048
Isopentane	2.183	0.022
n-Pentane	3.263	0.033
Cyclohexane	2.804	0.028
n-Hexane	2.196	0.022
Benzene	0.234	0.002
Toluene	0.895	0.009
Ethylbenzene	0.353	0.004
Xylenes	1.046	0.010
2,2,4 Trimethylpentane	1.374	0.014
Heptanes	9.608	0.096
Octanes	12.678	0.127
Nonanes	6.587	0.066
Decane	0.000	0.000
Decanes Plus	43.889	0.439
	100.00	1.00

Characteristics of Decanes Plus	
Specific Gravity	0.8826 (Water = 1)
Molecular Weight	291.30

Characteristics of Atmospheric Sample	
RVP	10.05 psi



Cypert 48 Tank Battery
Scout Energy Management, LLC

ProMax Process Flow Diagram



Process Streams		Facility Inlet	Gas	HT Gas	HT Inlet	HT Oil	HT Water	Inlet Gas	Inlet Oil	Inlet Water	Oil	OT Breathing	OT Flash
Composition		Status: Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved
Phase: Total	From Block:	MIX-100	MIX-103	Heater Treater	MIX-105	Heater Treater	Heater Treater	--	--	--	Oil Tank	Oil Tank	Oil Tank
	To Block:	SPLT-100	--	MIX-103	Heater Treater	Oil Tank	Water Tank	MIX-100	MIX-100	MIX-100	--	MIX-102	--
Mole Fraction		%	%	%	%	%	%	%	%	%	%	%	%
Water		92.10770	0.40957	2.28891	99.05760	0.24355	99.99190	0*	0*	100*	0.00000	2.47819	3.49246
H2S		0.00007	0.00087	0.00196	0.00001	0.00025	0.00001	0.000999990*	0*	0*	0.00000	0.00281	0.00331
CO2		0.01963	0.26666	0.51621	0.00099	0.01740	0.00066	0.277997*	0*	0*	0.00000	0.07700	0.38868
Nitrogen		0.23772	3.35758	1.25310	0.00055	0.00688	0.00005	3.36697*	0*	0*	0.00000	0.00516	0.18891
Methane		5.37645	75.82460	54.33220	0.03012	0.78928	0.00405	76.0332*	1*	0*	0.00000	1.55873	20.32990
Ethane		0.76718	10.64410	17.38110	0.02103	1.47578	0.00165	10.6659*	1.7*	0*	0.00000	12.94350	24.04820
Propane		0.47837	6.27921	14.36340	0.04158	3.94931	0.00093	6.25694*	4.4*	0*	0.53550	49.26640	30.00120
i-Butane		0.04434	0.51600	1.40484	0.00891	0.92716	0.00005	0.521995*	0.9*	0*	0.61810	5.09972	3.18828
n-Butane		0.16243	1.73939	4.99050	0.04406	4.65698	0.00030	1.73498*	4.8*	0*	3.68581	18.04200	11.38180
i-Pentane		0.03949	0.30254	0.97354	0.01978	2.15094	0.00004	0.299997*	2.2*	0*	2.09059	3.29670	2.13151
n-Pentane		0.05054	0.33231	1.11873	0.02947	3.21964	0.00002	0.326997*	3.3*	0*	3.22771	3.66318	2.39119
Cyclohexane		0.03904	0.08795	0.34036	0.03542	3.90566	0.00006	0.222998*	2.8*	0*	4.18616	0.97682	0.65851
n-Hexane		0.02289	0.06447	0.25107	0.01981	2.18503	0.00000	0.0649994*	2.2*	0*	2.32883	0.71176	0.48105
Benzene		0.00223	0.00567	0.02151	0.00197	0.20368	0.00013	0.0079992*	0.2*	0*	0.21735	0.06313	0.04238
Toluene		0.00819	0.00645	0.02824	0.00833	0.90842	0.00013	0.00999990*	0.9*	0*	0.98600	0.07055	0.04904
Ethylbenzene		0.00361	0.00092	0.00458	0.00382	0.42086	0.00002	0.00399996*	0.4*	0*	0.45862	0.00982	0.00705
o-Xylene		0.00860	0.00172	0.00867	0.00913	1.00596	0.00005	0.00399996*	1*	0*	1.09664	0.01820	0.01313
2,2,4-Trimethylpentane		0.01285	0.01558	0.06529	0.01266	1.40023	0.00000	0.0169998*	1.4*	0*	1.51507	0.16863	0.11621
Heptane		0.08736	0.09795	0.42415	0.08667	9.58782	0.00000	0.105999*	9.6*	0*	10.38150	1.05976	0.73599
Octane		0.10948	0.04001	0.19576	0.11480	12.71420	0.00000	0.0539995*	12.7*	0*	13.84490	0.42178	0.30228
Nonane		0.05633	0.00643	0.03584	0.06012	6.66075	0.00000	0.0199998*	6.6*	0*	7.26555	0.06607	0.04896
Decane		0.00014	0.00001	0.00003	0.00015	0.01679	0.00000	0.00199998*	0*	0*	0.01832	0.00005	0.00004
C10+		0.36534	0.00000	0.00000	0.39303	43.55350	0.00000	0.000999990*	43.9*	0*	47.54340	0.00000	0.00000
Mass Fraction		%	%	%	%	%	%	%	%	%	%	%	%
Water		84.67440	0.34565	1.48206	91.67340	0.02460	99.98640	0*	0*	100*	0.00000	0.92583	1.62770
H2S		0.00012	0.00139	0.00240	0.00002	0.00005	0.00001	0.00159	0*	0*	0.00000	0.00199	0.00292
CO2		0.04408	0.54975	0.81652	0.00225	0.00429	0.00162	0.569572*	0*	0*	0.00000	0.07027	0.44253
Nitrogen		0.33981	4.40608	1.26168	0.00079	0.00108	0.00007	4.39103*	0*	0*	0.00000	0.00300	0.13691
Methane		4.40131	56.98250	31.32740	0.02482	0.07100	0.00361	56.7853*	0.0897791*	0*	0.00000	0.51856	8.43741
Ethane		1.17716	14.99300	18.78420	0.03248	0.24883	0.00276	14.9306*	0.286070*	0*	0.00000	8.07105	18.70700
Propane		1.07639	12.97060	22.76400	0.09418	0.97652	0.00228	12.8446*	1.08581*	0*	0.12388	45.05090	34.22440
i-Butane		0.13152	1.40491	2.93471	0.02660	0.30218	0.00017	1.41244*	0.292744*	0*	0.18847	6.14675	4.79403
n-Butane		0.48176	4.73586	10.42510	0.13155	1.51779	0.00095	4.69460*	1.56130*	0*	1.12384	21.74630	17.11410
i-Pentane		0.14537	1.02251	2.52453	0.07333	0.87021	0.00014	1.00765*	0.888292*	0*	0.79128	4.93248	3.97849
n-Pentane		0.18609	1.12314	2.90101	0.10921	1.30257	0.00008	1.09833*	1.33244*	0*	1.22167	5.48081	4.46319
Cyclohexane		0.16767	0.34676	1.02951	0.15314	1.84316	0.00028	0.873706*	1.31876*	0*	1.84820	1.70480	1.43374
n-Hexane		0.10068	0.26027	0.77762	0.08769	1.05586	0.00001	0.260768*	1.06099*	0*	1.05281	1.27197	1.07244
Benzene		0.00888	0.02075	0.06040	0.00792	0.08921	0.00056	0.0290914*	0.0874281*	0*	0.08907	0.10227	0.08563
Toluene		0.03853	0.02782	0.09353	0.03945	0.46934	0.00066	0.0428942*	0.464074*	0*	0.47659	0.13479	0.11690
Ethylbenzene		0.01956	0.00459	0.01746	0.02081	0.25054	0.00010	0.0197696*	0.237654*	0*	0.25542	0.02162	0.01936
o-Xylene		0.04661	0.00854	0.03308	0.04978	0.59886	0.00028	0.0197696*	0.594135*	0*	0.61077	0.04008	0.03605
2,2,4-Trimethylpentane		0.07490	0.08339	0.26807	0.07428	0.89689	0.00000	0.0904026*	0.894966*	0*	0.90790	0.39946	0.34341
Heptane		0.44669	0.45977	1.52752	0.44614	5.38717	0.00002	0.494469*	5.38334*	0*	5.45715	2.20213	1.90788
Octane		0.63817	0.21410	0.80371	0.67365	8.14381	0.00000	0.287161*	8.11862*	0*	8.29648	0.99912	0.89328
Nonane		0.36864	0.03861	0.16523	0.39610	4.79030	0.00000	0.119416*	4.73721*	0*	4.88848	0.17572	0.16246
Decane		0.00103	0.00003	0.00017	0.00111	0.01340	0.00000	0.0132476*	0*	0*	0.01368	0.00015	0.00015
C10+		5.4306	1.94811E-06	2.92030E-05	5.8813	71.1423	2.79194E-08	0.0135612*	71.5664*	0*	72.6543	6.36967E-06	8.22227E-06
Mass Flow		lb/h	lb/h	lb/h	lb/h	lb/h	lb/h	lb/h	lb/h	lb/h	lb/h	lb/h	lb/h
Water		1170.34000	0.36829	0.00944	1169.98000	0.02596	1169.95000	0*	0*	1170.34*	0.00000	0.01174	0.01306
H2S		0.00170	0.00148	0.00002	0.00024	0.00005	0.00017	0.00169708*	0*	0*	0.00000	0.00003	0.00002
CO2		0.60923	0.58577	0.00520	0.02866	0.00453	0.01893	0.609231*	0*	0*	0.00000	0.00089	0.00355
Nitrogen		4.69677	4.69479	0.00804	0.01002	0.00114	0.00084	4.69677*	0*	0*	0.00000	0.00004	0.00110
Methane		60.83340	60.71630	0.19961	0.31675	0.07491	0.04223	60.7393*	0.0941441*	0*	0.00000	0.00658	0.06769
Ethane		16.27020	15.97540	0.11969	0.41453	0.26254	0.03230	15.9703*	0.299979*	0*	0.00000	0.10235	0.15007
Propane		14.87750	13.82050	0.14505	1.20203	1.03030	0.02669	13.7389*	1.13860*	0*	0.12798	0.57128	0.27455
i-Butane		1.81776	1.49697	0.01870	0.33950	0.31882	0.00198	1.51079*	0.306977*	0*	0.19471	0.07795	0.03846
n-Butane		6.65870	5.04617	0.06643	1.67895	1.60138	0.01115	5.02149*	1.63721*	0*	1.16106	0.27576	0.13729
i-Pentane		2.00929	1.08951	0.01609	0.93587	0.91813	0.00165	1.07781*	0.931480*	0*	0.81748	0.06255	0.03192
n-Pentane		2.57203	1.19673	0.01848	1.39378	1.37431	0.00099	1.17481*	1.39722*	0*	1.26213	0.06950	0.03580
Cyclohexane		2.31742	0.36948	0.00656	1.95450	1.94467	0.00328	0.934542*	1.38288*	0*	1.90941	0.02162	0.01150
n-Hexane		1.39150	0.27732	0.00495	1.11913	1.11401	0.00017	0.278925*	1.11257*	0*	1.08768	0.01613	0.00860
Benzene		0.12280	0.02211	0.00038	0.10107	0.09413	0.00655	0.0311170*	0.0916788*	0*	0.09202	0.00130	0.00069
Toluene		0.53252	0.02964	0.00060	0.50347	0.49519	0.00768	0.0458809*	0.486637*	0*	0.49238	0.00171	0.00094
Ethylbenzene		0.27036	0.00489	0.00011	0.26558	0.26434	0.00012	0.0211462*	0.249209*	0*	0.26388	0.00027	0.00016
o-Xylene		0.64417	0.00910	0.00021	0.63528	0.63184	0.00323	0.0211462*	0.623022*	0*	0.63099	0.00051	0.00029
2,2,4-Trimethylpentane		1.03518	0.08885	0.00171	0.94803	0.94629	0.00004	0.0966973*	0.938479*	0*	0.93796	0.00507	0.00275
Heptane		6.17397	0.48989	0.00973	5.69381	5.68387	0.00021	0.528899*	5.64507*	0*	5.63787	0.02792	0.01531
Octane		8.82050	0.22813	0.00512	8.59749	8.59232	0.00005	0.307156*	8.51335*	0*	8.57123	0.01267	0.00717
Nonane		5.09526	0.04114	0.00105	5.05518	5.05412	0.00001	0.127731*	4.96753*	0*	5.05037	0.00223	0.00130
Decane		0.01417	0.00004	0.00000	0.01413	0.01413	0.00000	0.0141700*	0*	0*	0.01413	0.00000	0.00000
C10+		75.06040	0.00000	0.00000	75.06040	75.06040	0.00000	0.0145055*	75.0459*	0*	75.06040	0.00000	0.00000

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Process Streams	OT W&B	OT Working	OTL Loss	Sep Bypass	Sep Gas	Sep Inlet	Sep Liquids	Water	WT Breathing	WT Flash	WT W&B	WT Working	WTL Loss
Composition	Status:	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved	Solved
Phase: Total	From Block:	MIX-102	Oil Tank	Oil Tank	SPLT-100	Separator	SPLT-100	Separator	Water Tank	Water Tank	Water Tank	MIX-101	Water Tank
	To Block:	--	MIX-102	--	MIX-105	MIX-103	Separator	MIX-105	--	MIX-101	--	MIX-101	--
Mole Fraction	%	%	%	%	%	%	%	%	%	%	%	%	%
Water	2.47819	2.47819	0.00000	92.10770	0.40091	92.10770	99.05760	99.99980	48.18610	3.53801	48.18610	48.18610	97.44960
H2S	0.00281	0.00281	0.00000	0.00007	0.00086	0.00007	0.00001	0.00000	0.09135	0.00558	0.09135	0.09135	0.05579
CO2	0.07700	0.07700	0.00000	0.01963	0.26551	0.01963	0.00099	0.00000	10.33680	1.37322	10.33680	10.33680	0.00000
Nitrogen	0.00516	0.00516	0.00000	0.23772	3.36728	0.23772	0.00055	0.00000	0.13670	0.74662	0.13670	0.13670	0.00000
Methane	1.55873	1.55873	0.00000	5.37645	75.92370	5.37645	0.03012	0.00000	20.86480	55.42700	20.86480	20.86480	0.00000
Ethane	12.94350	12.94350	0.00000	0.76718	10.61300	0.76718	0.02103	0.00000	11.04180	19.81830	11.04180	11.04180	0.00000
Propane	49.26640	49.26640	23.46730	0.47837	6.24195	0.47837	0.04158	0.00000	4.94179	12.58380	4.94179	4.94179	0.00000
i-Butane	5.09972	5.09972	9.83424	0.04434	0.51190	0.04434	0.00891	0.00000	0.21160	0.78111	0.21160	0.21160	0.00000
n-Butane	18.04200	18.04200	39.59110	0.16243	1.72440	0.16243	0.04406	0.00000	1.47337	4.09051	1.47337	1.47337	0.00000
i-Pentane	3.29670	3.29670	8.31102	0.03949	0.29944	0.03949	0.01978	0.00000	0.13487	0.53336	0.13487	0.13487	0.00000
n-Pentane	3.66318	3.66318	9.39769	0.05054	0.32869	0.05054	0.02947	0.00000	0.03784	0.36911	0.03784	0.03784	0.00000
Cyclohexane	0.97682	0.97682	2.58852	0.03904	0.08679	0.03904	0.03542	0.00000	0.62413	0.46942	0.62413	0.62413	0.00000
n-Hexane	0.71176	0.71176	1.87970	0.02289	0.06361	0.02289	0.01981	0.00000	0.00372	0.05337	0.00372	0.00372	0.00000
Benzene	0.06313	0.06313	0.16698	0.00223	0.00560	0.00223	0.00197	0.00009	0.66961	0.04450	0.66961	0.66961	0.95287
Toluene	0.07055	0.07055	0.18537	0.00819	0.00635	0.00819	0.00833	0.00007	0.88218	0.05836	0.88218	0.88218	1.07020
Ethylbenzene	0.00982	0.00982	0.02550	0.00361	0.00091	0.00361	0.00382	0.00001	0.12154	0.00832	0.12154	0.12154	0.13651
o-Xylene	0.01820	0.01820	0.04718	0.00860	0.00169	0.00860	0.00913	0.00003	0.23774	0.01618	0.23774	0.23774	0.33500
2,2,4-Trimethylpentane	0.16863	0.16863	0.44543	0.01285	0.01535	0.01285	0.01266	0.00000	0.00073	0.00901	0.00073	0.00073	0.00000
Heptane	1.05976	1.05976	2.79042	0.08736	0.09645	0.08736	0.08667	0.00000	0.00303	0.05935	0.00303	0.00303	0.00000
Octane	0.42178	0.42178	1.09882	0.10948	0.03929	0.10948	0.11480	0.00000	0.00029	0.01333	0.00029	0.00029	0.00000
Nonane	0.06607	0.06607	0.17062	0.05633	0.00629	0.05633	0.06012	0.00000	0.00004	0.00162	0.00004	0.00004	0.00000
Decane	0.00005	0.00005	0.00013	0.00014	0.00001	0.00014	0.00015	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
C10+	0.00000	0.00000	0.00000	0.36534	0.00000	0.36534	0.39303	0.00000	0.00002	0.00000	0.00002	0.00002	0.00001
Mass Fraction	%	%	%	%	%	%	%	%	%	%	%	%	%
Water	0.92583	0.92583	0.00000	84.67440	0.33881	84.67440	91.67340	99.99900	34.04260	2.45355	34.04260	34.04260	88.63980
H2S	0.00199	0.00199	0.00000	0.00012	0.00138	0.00012	0.00002	0.00000	0.12209	0.00732	0.12209	0.12209	0.09599
CO2	0.07027	0.07027	0.00000	0.04408	0.54815	0.04408	0.00225	0.00000	17.83990	2.32638	17.83990	17.83990	0.00000
Nitrogen	0.00300	0.00300	0.00000	0.33981	4.42500	0.33981	0.00079	0.00000	0.15017	0.80512	0.15017	0.15017	0.00000
Methane	0.51856	0.51856	0.00000	4.40131	57.13680	4.40131	0.02482	0.00000	13.12640	34.22840	13.12640	13.12640	0.00000
Ethane	8.07105	8.07105	0.00000	1.17716	14.97020	1.17716	0.03248	0.00000	13.02030	22.93930	13.02030	13.02030	0.00000
Propane	45.05090	45.05090	17.01770	1.07639	12.91170	1.07639	0.09418	0.00000	8.54555	21.36000	8.54555	8.54555	0.00000
i-Butane	6.14675	6.14675	9.39995	0.13152	1.39571	0.13152	0.02660	0.00000	0.48230	1.74762	0.48230	0.48230	0.00000
n-Butane	21.74630	21.74630	37.84270	0.48176	4.70163	0.48176	0.13155	0.00000	3.35825	9.15196	3.35825	3.35825	0.00000
i-Pentane	4.93248	4.93248	9.86111	0.14537	1.01347	0.14537	0.07333	0.00000	0.38159	1.48131	0.38159	0.38159	0.00000
n-Pentane	5.48081	5.48081	11.15050	0.18609	1.11244	0.18609	0.10921	0.00000	0.10705	1.02513	0.10705	0.10705	0.00000
Cyclohexane	1.70480	1.70480	3.58260	0.16767	0.34265	0.16767	0.15314	0.00000	2.05985	1.52076	2.05985	2.05985	0.00000
n-Hexane	1.27197	1.27197	2.66388	0.10068	0.25716	0.10068	0.08769	0.00000	0.01257	0.17706	0.01257	0.01257	0.00000
Benzene	0.10227	0.10227	0.21449	0.00888	0.02052	0.00888	0.00792	0.00038	2.05115	0.13381	2.05115	2.05115	3.75799
Toluene	0.13479	0.13479	0.28087	0.03853	0.02743	0.03853	0.03945	0.00038	3.18754	0.20700	3.18754	3.18754	4.97867
Ethylbenzene	0.02162	0.02162	0.04452	0.01956	0.00451	0.01956	0.02081	0.00005	0.50602	0.03402	0.50602	0.50602	0.73174
o-Xylene	0.04008	0.04008	0.08237	0.04661	0.00839	0.04661	0.04978	0.00019	0.98977	0.06611	0.98977	0.98977	1.79570
2,2,4-Trimethylpentane	0.39946	0.39946	0.83676	0.07490	0.08228	0.07490	0.07428	0.00000	0.00326	0.03962	0.00326	0.00326	0.00000
Heptane	2.20213	2.20213	4.59821	0.44669	0.45334	0.44669	0.44614	0.00000	0.01191	0.22891	0.01191	0.01191	0.00000
Octane	0.99912	0.99912	2.06415	0.63817	0.21055	0.63817	0.67365	0.00000	0.00130	0.05860	0.00130	0.00130	0.00000
Nonane	0.17572	0.17572	0.35987	0.36864	0.03784	0.36864	0.39610	0.00000	0.00018	0.00799	0.00018	0.00018	0.00000
Decane	0.00015	0.00015	0.00031	0.00103	0.00003	0.00103	0.00111	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
C10+	6.36967E-06	6.36967E-06	1.12077E-05	5.4306	1.78415E-06	5.4306	5.8813	5.76E-09	0.000253642	2.17803E-05	0.000253642	0.000253642	0.000124968
Mass Flow	lb/h	lb/h	lb/h	lb/h	lb/h	lb/h	lb/h	lb/h	lb/h	lb/h	lb/h	lb/h	lb/h
Water	0.01290	0.00116	0.00000	0.00000	0.35885	1170.34000	1169.98000	1169.91000	0.01137	0.00214	0.03226	0.02089	0.00967
H2S	0.00003	0.00000	0.00000	0.00000	0.00146	0.00170	0.00024	0.00005	0.00004	0.00001	0.00012	0.00007	0.00001
CO2	0.00098	0.00009	0.00000	0.00000	0.58057	0.60923	0.02866	0.00000	0.00596	0.00202	0.01691	0.01095	0.00000
Nitrogen	0.00004	0.00000	0.00000	0.00000	4.68675	4.69677	0.01002	0.00000	0.00005	0.00070	0.00014	0.00009	0.00000
Methane	0.00723	0.00065	0.00000	0.00000	60.51670	60.83340	0.31675	0.00000	0.00438	0.02979	0.01244	0.00806	0.00000
Ethane	0.11247	0.01012	0.00000	0.00000	15.85570	16.27020	0.41453	0.00000	0.00435	0.01996	0.01234	0.00799	0.00000
Propane	0.62777	0.05649	0.00584	0.00000	13.67550	14.87750	1.20203	0.00000	0.00285	0.01859	0.00810	0.00524	0.00000
i-Butane	0.08565	0.00771	0.00323	0.00000	1.47827	1.81776	0.33950	0.00000	0.00016	0.001			

Oil Tank Inputs

Count	2
Height	16 ft
Diameter	15.5 ft
Volume	500 bbl
Color	Tan
Location	Midland, TX

Oil Tank Results for Liquid Loaded

Average true vapor pressure	2.590 psia
Average liquid temperature	66.546 F
Maximum true vapor pressure	2.519 psia
Maximum liquid temperature	85.740 F

Water Tank Inputs

Count	1
Height	16 ft
Diameter	15.5 ft
Volume	500 bbl
Color	Tan
Location	Midland, TX

Water Tank Results for Liquid Loaded

Average true vapor pressure	0.331 psia
Average liquid temperature	66.546 F
Maximum true vapor pressure	0.620 psia
Maximum liquid temperature	85.740 F

March 4, 2025

FESCO, Ltd.
1100 Fesco Ave. - Alice, Texas 78332

For: Scout Energy Management
13800 Montfort Drive, Suite 100
Dallas, Texas 75240-4344

Sample: Guitar 5 Tank Battery
First Stage Separator
Spot Gas Sample @ 38 psig & 60 °F

Date Sampled: 02/21/2025

Job Number: 251502.001

CHROMATOGRAPH EXTENDED ANALYSIS - GPA 2286

COMPONENT	MOL%	GPM
Hydrogen Sulfide*	< 0.001	
Nitrogen	3.367	
Carbon Dioxide	0.278	
Methane	76.034	
Ethane	10.666	2.846
Propane	6.257	1.720
Isobutane	0.522	0.170
n-Butane	1.735	0.546
2-2 Dimethylpropane	0.006	0.002
Isopentane	0.300	0.109
n-Pentane	0.321	0.116
Hexanes	0.193	0.079
Heptanes Plus	<u>0.321</u>	<u>0.134</u>
Totals	100.000	5.724

Computed Real Characteristics Of Heptanes Plus:

Specific Gravity ----- 3.433 (Air=1)
Molecular Weight ----- 99.08
Gross Heating Value ----- 5211 BTU/CF

Computed Real Characteristics Of Total Sample:

Specific Gravity ----- 0.744 (Air=1)
Compressibility (Z) ----- 0.9964
Molecular Weight ----- 21.48
Gross Heating Value
Dry Basis ----- 1239 BTU/CF
Saturated Basis ----- 1218 BTU/CF

*Hydrogen Sulfide tested on location by: Stain Tube Method (GPA 2377)
Results: 0.157 Gr/100 CF, 2.5 PPMV or 0.0003 Mol%

Base Conditions: 14.650 PSI & 60 Deg F

Sampled By: (14) C. Zuniga
Analyst: EP
Processor: KV
Cylinder ID: T-3391

Certified: FESCO, Ltd. - Alice, Texas

Conan Pierce 361-661-7015

CHROMATOGRAPH EXTENDED ANALYSIS - GPA 2286
TOTAL REPORT

COMPONENT	MOL %	GPM	WT %
Hydrogen Sulfide*	< 0.001		< 0.001
Nitrogen	3.367		4.392
Carbon Dioxide	0.278		0.570
Methane	76.034		56.793
Ethane	10.666	2.846	14.932
Propane	6.257	1.720	12.846
Isobutane	0.522	0.170	1.413
n-Butane	1.735	0.546	4.695
2,2 Dimethylpropane	0.006	0.002	0.020
Isopentane	0.300	0.109	1.008
n-Pentane	0.321	0.116	1.078
2,2 Dimethylbutane	0.001	0.000	0.004
Cyclopentane	0.000	0.000	0.000
2,3 Dimethylbutane	0.034	0.014	0.136
2 Methylpentane	0.056	0.023	0.225
3 Methylpentane	0.037	0.015	0.148
n-Hexane	0.065	0.027	0.261
Methylcyclopentane	0.061	0.022	0.239
Benzene	0.008	0.002	0.029
Cyclohexane	0.034	0.012	0.133
2-Methylhexane	0.008	0.004	0.037
3-Methylhexane	0.012	0.005	0.056
2,2,4 Trimethylpentane	0.017	0.009	0.090
Other C7's	0.033	0.014	0.152
n-Heptane	0.020	0.009	0.093
Methylcyclohexane	0.033	0.013	0.151
Toluene	0.010	0.003	0.043
Other C8's	0.047	0.022	0.241
n-Octane	0.007	0.004	0.037
Ethylbenzene	0.004	0.002	0.020
M & P Xylenes	0.003	0.001	0.015
O-Xylene	0.001	0.000	0.005
Other C9's	0.017	0.009	0.100
n-Nonane	0.003	0.002	0.018
Other C10's	0.000	0.000	0.000
n-Decane	0.002	0.001	0.013
Undecanes (11)	<u>0.001</u>	<u>0.001</u>	<u>0.007</u>
Totals	100.000	5.724	100.000

Computed Real Characteristics of Total Sample

Specific Gravity -----	0.744	(Air=1)
Compressibility (Z) -----	0.9964	
Molecular Weight -----	21.48	
Gross Heating Value		
Dry Basis -----	1239	BTU/CF
Saturated Basis -----	1218	BTU/CF

March 4, 2025

FESCO, Ltd.
1100 Fesco Ave. - Alice, Texas 78332

Sample: Guitar 5 Tank Battery
First Stage Separator
Spot Gas Sample @ 38 psig & 60 °F

Date Sampled: 02/21/2025

Job Number: 251502.001

GLYCALC FORMAT

COMPONENT	MOL%	GPM	Wt %
Carbon Dioxide	0.278		0.570
Hydrogen Sulfide	< 0.001		< 0.001
Nitrogen	3.367		4.392
Methane	76.034		56.793
Ethane	10.666	2.846	14.932
Propane	6.257	1.720	12.846
Isobutane	0.522	0.170	1.413
n-Butane	1.741	0.548	4.715
Isopentane	0.300	0.109	1.008
n-Pentane	0.321	0.116	1.078
Cyclopentane	0.000	0.000	0.000
n-Hexane	0.065	0.027	0.261
Cyclohexane	0.034	0.012	0.133
Other C6's	0.128	0.053	0.513
Heptanes	0.134	0.054	0.577
Methylcyclohexane	0.033	0.013	0.151
2,2,4 Trimethylpentane	0.017	0.009	0.090
Benzene	0.008	0.002	0.029
Toluene	0.010	0.003	0.043
Ethylbenzene	0.004	0.002	0.020
Xylenes	0.004	0.002	0.020
Octanes Plus	<u>0.077</u>	<u>0.038</u>	<u>0.416</u>
Totals	100.000	5.724	100.000

Real Characteristics Of Octanes Plus:

Specific Gravity -----	4.028	(Air=1)
Molecular Weight -----	116.25	
Gross Heating Value -----	5923	BTU/CF

Real Characteristics Of Total Sample:

Specific Gravity -----	0.744	(Air=1)
Compressibility (Z) -----	0.9964	
Molecular Weight -----	21.48	
Gross Heating Value -----		
Dry Basis -----	1239	BTU/CF
Saturated Basis -----	1218	BTU/CF

March 4, 2025

FESCO, Ltd.
1100 FESCO Avenue - Alice, Texas 78332

For: Scout Energy Management
13800 Montfort Drive, Suite 100
Dallas, Texas 75240-4344

Sample: Guitar 5 Tank Battery
First Stage Separator Hydrocarbon Liquid
Sampled @ 38 psig & 60 °F

Date Sampled: 02/21/2025

Job Number: 251502.002

CHROMATOGRAPH EXTENDED ANALYSIS - GPA 2186-M

COMPONENT	MOL %	LIQ VOL %	WT %
Nitrogen	0.019	0.003	0.003
Carbon Dioxide	0.020	0.005	0.005
Methane	1.020	0.253	0.092
Ethane	1.724	0.675	0.293
Propane	4.365	1.760	1.088
Isobutane	0.924	0.443	0.304
n-Butane	4.761	2.197	1.564
2,2 Dimethylpropane	0.059	0.033	0.024
Isopentane	2.183	1.169	0.890
n-Pentane	3.263	1.731	1.330
2,2 Dimethylbutane	0.036	0.022	0.018
Cyclopentane	0.000	0.000	0.000
2,3 Dimethylbutane	0.050	0.030	0.024
2 Methylpentane	1.840	1.118	0.896
3 Methylpentane	0.878	0.525	0.428
n-Hexane	2.196	1.322	1.069
Heptanes Plus	<u>76.664</u>	<u>88.715</u>	<u>91.974</u>
Totals:	100.000	100.000	100.000

Characteristics of Heptanes Plus:

Specific Gravity -----	0.8511 (Water=1)
°API Gravity -----	34.75 @ 60°F
Molecular Weight -----	212.3
Vapor Volume -----	12.72 CF/Gal
Weight -----	7.09 Lbs/Gal

Characteristics of Total Sample:

Specific Gravity -----	0.8210 (Water=1)
°API Gravity -----	40.86 @ 60°F
Molecular Weight -----	177.0
Vapor Volume -----	14.72 CF/Gal
Weight -----	6.84 Lbs/Gal

Base Conditions: 14.650 PSI & 60 °F

Certified: FESCO, Ltd. - Alice, Texas

Sampled By: (14) VZ
Analyst: JG
Processor: JGdjv
Cylinder ID: W-1053

Conan Pierce 361-661-7015

TANKS DATA INPUT REPORT - GPA 2186-M

COMPONENT	Mol %	LiqVol %	Wt %
Carbon Dioxide	0.020	0.005	0.005
Nitrogen	0.019	0.003	0.003
Methane	1.020	0.253	0.092
Ethane	1.724	0.675	0.293
Propane	4.365	1.760	1.088
Isobutane	0.924	0.443	0.304
n-Butane	4.820	2.230	1.587
Isopentane	2.183	1.169	0.890
n-Pentane	3.263	1.731	1.330
Other C-6's	2.804	1.694	1.365
Heptanes	9.608	5.706	5.045
Octanes	12.678	8.380	7.681
Nonanes	6.587	5.062	4.713
Decanes Plus	43.889	67.195	72.240
Benzene	0.234	0.096	0.103
Toluene	0.895	0.439	0.466
E-Benzene	0.353	0.199	0.211
Xylenes	1.046	0.592	0.627
n-Hexane	2.196	1.322	1.069
2,2,4 Trimethylpentane	<u>1.374</u>	<u>1.046</u>	<u>0.887</u>
Totals:	100.000	100.000	100.000

Characteristics of Total Sample:

Specific Gravity -----	0.8210	(Water=1)
°API Gravity -----	40.86	@ 60°F
Molecular Weight-----	177.0	
Vapor Volume -----	14.72	CF/Gal
Weight -----	6.84	Lbs/Gal

Characteristics of Decanes (C10) Plus:

Specific Gravity -----	0.8826	(Water=1)
Molecular Weight-----	291.3	

Characteristics of Atmospheric Sample:

°API Gravity -----	39.42	@ 60°F
Reid Vapor Pressure Equivalent (D-6377)-----	10.05	psi

QUALITY CONTROL CHECK		
	Sampling Conditions	Test Samples
Cylinder Number	-----	W-1053 -----
Pressure, PSIG	38	38 -----
Probe Temperature, °F	60	60 -----

* Sample used for analysis

TOTAL EXTENDED REPORT - GPA 2186-M

COMPONENT	Mol %	LiqVol %	Wt %
Nitrogen	0.019	0.003	0.003
Carbon Dioxide	0.020	0.005	0.005
Methane	1.020	0.253	0.092
Ethane	1.724	0.675	0.293
Propane	4.365	1.760	1.088
Isobutane	0.924	0.443	0.304
n-Butane	4.761	2.197	1.564
2,2 Dimethylpropane	0.059	0.033	0.024
Isopentane	2.183	1.169	0.890
n-Pentane	3.263	1.731	1.330
2,2 Dimethylbutane	0.036	0.022	0.018
Cyclopentane	0.000	0.000	0.000
2,3 Dimethylbutane	0.050	0.030	0.024
2 Methylpentane	1.840	1.118	0.896
3 Methylpentane	0.878	0.525	0.428
n-Hexane	2.196	1.322	1.069
Methylcyclopentane	2.374	1.230	1.129
Benzene	0.234	0.096	0.103
Cyclohexane	1.877	0.935	0.893
2-Methylhexane	0.688	0.468	0.390
3-Methylhexane	1.093	0.735	0.619
2,2,4 Trimethylpentane	1.374	1.046	0.887
Other C-7's	1.623	1.020	0.910
n-Heptane	1.952	1.318	1.105
Methylcyclohexane	3.770	2.218	2.091
Toluene	0.895	0.439	0.466
Other C-8's	7.062	4.777	4.398
n-Octane	1.847	1.385	1.192
E-Benzene	0.353	0.199	0.211
M & P Xylenes	0.832	0.472	0.499
O-Xylene	0.214	0.119	0.128
Other C-9's	5.332	4.029	3.804
n-Nonane	1.254	1.033	0.909
Other C-10's	5.036	4.181	4.020
n-decane	0.853	0.766	0.686
Undecanes(11)	4.770	4.064	3.962
Dodecanes(12)	3.653	3.361	3.323
Tridecanes(13)	3.500	3.453	3.461
Tetradecanes(14)	2.707	2.861	2.906
Pentadecanes(15)	2.215	2.507	2.578
Hexadecanes(16)	1.642	1.986	2.059
Heptadecanes(17)	1.506	1.927	2.017
Octadecanes(18)	1.442	1.942	2.044
Nonadecanes(19)	1.270	1.782	1.887
Eicosanes(20)	0.961	1.401	1.492
Heneicosanes(21)	0.817	1.255	1.344
Docosanes(22)	0.725	1.159	1.249
Tricosanes(23)	0.641	1.062	1.151
Tetracosanes(24)	0.556	0.955	1.040
Pentacosanes(25)	0.507	0.904	0.988
Hexacosanes(26)	0.450	0.830	0.912
Heptacosanes(27)	0.423	0.810	0.894
Octacosanes(28)	0.390	0.771	0.854
Nonacosanes(29)	0.353	0.721	0.801
Triacontanes(30)	0.318	0.671	0.748
Hentriacontanes Plus(31+)	<u>9.158</u>	<u>27.825</u>	<u>31.822</u>
Total	100.000	100.000	100.000