

September 3, 2024

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

For: Marathon Oil Permian, LLC
990 Town and Country Blvd.
Houston, Texas 77024-2217

Sample: Urraca Federal 4H
First Stage Separator
Spot Gas Sample @ 84 psig & 102 °F

Date Sampled: 08/22/2024

Job Number: 243085.001

CHROMATOGRAPH EXTENDED ANALYSIS - GPA 2286

COMPONENT	MOL%	GPM
Hydrogen Sulfide*	< 0.001	
Nitrogen	1.766	
Carbon Dioxide	3.166	
Methane	68.665	
Ethane	13.270	3.636
Propane	7.993	2.256
Isobutane	1.008	0.338
n-Butane	2.294	0.741
2-2 Dimethylpropane	0.010	0.004
Isopentane	0.479	0.179
n-Pentane	0.474	0.176
Hexanes	0.330	0.139
Heptanes Plus	<u>0.545</u>	<u>0.211</u>
Totals	100.000	7.679

Computed Real Characteristics Of Heptanes Plus:

Specific Gravity ----- 3.199 (Air=1)
Molecular Weight ----- 92.25
Gross Heating Value ----- 4913 BTU/CF

Computed Real Characteristics Of Total Sample:

Specific Gravity ----- 0.826 (Air=1)
Compressibility (Z) ----- 0.9955
Molecular Weight ----- 23.82
Gross Heating Value
Dry Basis ----- 1353 BTU/CF
Saturated Basis ----- 1330 BTU/CF

*Hydrogen Sulfide tested on location by: Stain Tube Method (GPA 2377)
Results: 0.063 Gr/100 CF, 1.0 PPMV or 0.0001 Mol%

Base Conditions: 15.025 PSI & 60 Deg F

Sampled By: (16) Robert E.
Analyst: RG
Processor: HH
Cylinder ID: T-4636

Certified: FESCO, Ltd. - Alice, Texas

Conan Pierce 361-661-7015

FESCO, Ltd.

Job Number: 243085.001

CHROMATOGRAPH EXTENDED ANALYSIS - GPA 2286
TOTAL REPORT

COMPONENT	MOL %	GPM	WT %
Hydrogen Sulfide*	< 0.001		< 0.001
Nitrogen	1.766		2.077
Carbon Dioxide	3.166		5.850
Methane	68.665		46.246
Ethane	13.270	3.636	16.752
Propane	7.993	2.256	14.797
Isobutane	1.008	0.338	2.460
n-Butane	2.294	0.741	5.598
2,2 Dimethylpropane	0.010	0.004	0.030
Isopentane	0.479	0.179	1.451
n-Pentane	0.474	0.176	1.436
2,2 Dimethylbutane	0.004	0.002	0.014
Cyclopentane	0.000	0.000	0.000
2,3 Dimethylbutane	0.044	0.018	0.159
2 Methylpentane	0.107	0.045	0.387
3 Methylpentane	0.057	0.024	0.206
n-Hexane	0.118	0.050	0.427
Methylcyclopentane	0.065	0.024	0.230
Benzene	0.084	0.024	0.275
Cyclohexane	0.110	0.038	0.389
2-Methylhexane	0.015	0.007	0.063
3-Methylhexane	0.016	0.008	0.067
2,2,4 Trimethylpentane	0.000	0.000	0.000
Other C7's	0.044	0.020	0.183
n-Heptane	0.029	0.014	0.122
Methylcyclohexane	0.067	0.028	0.276
Toluene	0.046	0.016	0.178
Other C8's	0.042	0.020	0.194
n-Octane	0.007	0.004	0.034
Ethylbenzene	0.002	0.001	0.009
M & P Xylenes	0.005	0.002	0.022
O-Xylene	0.002	0.001	0.009
Other C9's	0.008	0.004	0.042
n-Nonane	0.002	0.001	0.011
Other C10's	0.001	0.001	0.006
n-Decane	0.000	0.000	0.000
Undecanes (11)	<u>0.000</u>	<u>0.000</u>	<u>0.000</u>
Totals	100.000	7.679	100.000

Computed Real Characteristics of Total Sample

Specific Gravity -----	0.826	(Air=1)
Compressibility (Z) -----	0.9955	
Molecular Weight -----	23.82	
Gross Heating Value		
Dry Basis -----	1353	BTU/CF
Saturated Basis -----	1330	BTU/CF

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 First Stage Separator
 Spot Gas Sample @ 84 psig & 102 °F

Date Sampled: 08/22/2024

Job Number: 243085.001

GLYCALC FORMAT

COMPONENT	MOL%	GPM	Wt %
Carbon Dioxide	3.166		5.850
Hydrogen Sulfide	< 0.001		< 0.001
Nitrogen	1.766		2.077
Methane	68.665		46.246
Ethane	13.270	3.636	16.752
Propane	7.993	2.256	14.797
Isobutane	1.008	0.338	2.460
n-Butane	2.304	0.745	5.628
Isopentane	0.479	0.179	1.451
n-Pentane	0.474	0.176	1.436
Cyclopentane	0.000	0.000	0.000
n-Hexane	0.118	0.050	0.427
Cyclohexane	0.110	0.038	0.389
Other C6's	0.212	0.090	0.766
Heptanes	0.169	0.072	0.665
Methylcyclohexane	0.067	0.028	0.276
2,2,4 Trimethylpentane	0.000	0.000	0.000
Benzene	0.084	0.024	0.275
Toluene	0.046	0.016	0.178
Ethylbenzene	0.002	0.001	0.009
Xylenes	0.007	0.003	0.031
Octanes Plus	<u>0.060</u>	<u>0.030</u>	<u>0.287</u>
Totals	100.000	7.679	100.000

Real Characteristics Of Octanes Plus:

Specific Gravity -----	3.952	(Air=1)
Molecular Weight -----	113.94	
Gross Heating Value -----	5915	BTU/CF

Real Characteristics Of Total Sample:

Specific Gravity -----	0.826	(Air=1)
Compressibility (Z) -----	0.9955	
Molecular Weight -----	23.82	
Gross Heating Value		
Dry Basis -----	1353	BTU/CF
Saturated Basis -----	1330	BTU/CF

Flaring/Venting Event Volume (MCF):	67
Flare or vent:	Vent
Date discovered:	4/7/2025
Date of event:	3/7/2025
Time event commenced:	7:47:00 AM
Time event terminated:	10:15:00 AM
Total Duration (hrs):	2.47

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
<https://www.emnrd.nm.gov/ocd/contact-us>

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

DEFINITIONS

Action 450873

DEFINITIONS

Operator: MARATHON OIL PERMIAN LLC 990 Town & Country Blvd. Houston, TX 77024	OGRID: 372098
	Action Number: 450873
	Action Type: [C-129] Venting and/or Flaring (C-129)

DEFINITIONS

<p>For the sake of brevity and completeness, please allow for the following in all groups of questions and for the rest of this application:</p> <ul style="list-style-type: none">• this application's operator, hereinafter "this operator";• venting and/or flaring, hereinafter "vent or flare";• any notification or report(s) of the C-129 form family, hereinafter "any C-129 forms";• the statements in (and/or attached to) this, hereinafter "the statements in this";• and the past tense will be used in lieu of mixed past/present tense questions and statements.

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QUESTIONS

Action 450873

QUESTIONS

Operator: MARATHON OIL PERMIAN LLC 990 Town & Country Blvd. Houston, TX 77024	OGRID: 372098
	Action Number: 450873
	Action Type: [C-129] Venting and/or Flaring (C-129)

QUESTIONS

Prerequisites <i>Any messages presented in this section, will prevent submission of this application. Please resolve these issues before continuing with the rest of the questions.</i>	
Incident Well	[30-025-41968] URRACA 11 SB FEDERAL #004H
Incident Facility	Unavailable.

Determination of Reporting Requirements <i>Answer all questions that apply. The Reason(s) statements are calculated based on your answers and may provide additional guidance.</i>	
Was this vent or flare caused by an emergency or malfunction	Yes
Did this vent or flare last eight hours or more cumulatively within any 24-hour period from a single event	No
Is this considered a submission for a vent or flare event	Yes, minor venting and/or flaring of natural gas.
<i>An operator shall file a form C-141 instead of a form C-129 for a release that, includes liquid during venting and/or flaring that is or may be a major or minor release under 19.15.29.7 NMAC.</i>	
Was there at least 50 MCF of natural gas vented and/or flared during this event	Yes
Did this vent or flare result in the release of ANY liquids (not fully and/or completely flared) that reached (or has a chance of reaching) the ground, a surface, a watercourse, or otherwise, with reasonable probability, endanger public health, the environment or fresh water	No
Was the vent or flare within an incorporated municipal boundary or within 300 feet from an occupied permanent residence, school, hospital, institution or church in existence	No

Equipment Involved	
Primary Equipment Involved	Dump Valve
Additional details for Equipment Involved. Please specify	A hung dump valve resulted in venting from tank thief hatches.

Representative Compositional Analysis of Vented or Flared Natural Gas <i>Please provide the mole percent for the percentage questions in this group.</i>	
Methane (CH4) percentage	69
Nitrogen (N2) percentage, if greater than one percent	2
Hydrogen Sulfide (H2S) PPM, rounded up	1
Carbon Dioxide (CO2) percentage, if greater than one percent	3
Oxygen (O2) percentage, if greater than one percent	0
<i>If you are venting and/or flaring because of Pipeline Specification, please provide the required specifications for each gas.</i>	
Methane (CH4) percentage quality requirement	Not answered.
Nitrogen (N2) percentage quality requirement	Not answered.
Hydrogen Sulfide (H2S) PPM quality requirement	Not answered.
Carbon Dioxide (CO2) percentage quality requirement	Not answered.
Oxygen (O2) percentage quality requirement	Not answered.

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QUESTIONS, Page 2

Action 450873

QUESTIONS (continued)

Operator: MARATHON OIL PERMIAN LLC 990 Town & Country Blvd. Houston, TX 77024	OGRID: 372098
	Action Number: 450873
	Action Type: [C-129] Venting and/or Flaring (C-129)

QUESTIONS

Date(s) and Time(s)	
Date vent or flare was discovered or commenced	03/07/2025
Time vent or flare was discovered or commenced	07:47 AM
Time vent or flare was terminated	10:15 AM
Cumulative hours during this event	2

Measured or Estimated Volume of Vented or Flared Natural Gas	
Natural Gas Vented (Mcf) Details	Cause: Other Dump Valve Natural Gas Vented Released: 67 Mcf Recovered: 0 Mcf Lost: 67 Mcf.
Natural Gas Flared (Mcf) Details	Not answered.
Other Released Details	Not answered.
Additional details for Measured or Estimated Volume(s). Please specify	A hung dump valve resulted in venting from tank thief hatches.
Is this a gas only submission (i.e. only significant Mcf values reported)	Yes, according to supplied volumes this appears to be a "gas only" report.

Venting or Flaring Resulting from Downstream Activity	
Was this vent or flare a result of downstream activity	No
Was notification of downstream activity received by this operator	Not answered.
Downstream OGRID that should have notified this operator	Not answered.
Date notified of downstream activity requiring this vent or flare	Not answered.
Time notified of downstream activity requiring this vent or flare	Not answered.

Steps and Actions to Prevent Waste	
For this event, this operator could not have reasonably anticipated the current event and it was beyond this operator's control.	True
Please explain reason for why this event was beyond this operator's control	The dump valve malfunctioned under normal operations resulting in excess gas being sent to storage vessels.
Steps taken to limit the duration and magnitude of vent or flare	The dump valve was repaired and returned to normal operations.
Corrective actions taken to eliminate the cause and reoccurrence of vent or flare	The dump valve was repaired and returned to normal operations.

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ACKNOWLEDGMENTS

Action 450873

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	Action Number: 450873
	Action Type: [C-129] Venting and/or Flaring (C-129)

ACKNOWLEDGMENTS

<input checked="" type="checkbox"/>	I acknowledge that I am authorized to submit a <i>Venting and/or Flaring</i> (C-129) report on behalf of this operator and understand that this report can be a complete C-129 submission per 19.15.27.8 and 19.15.28.8 NMAC.
<input checked="" type="checkbox"/>	I acknowledge that upon submitting this application, I will be creating a new incident file (assigned to this operator) to track any C-129 forms, pursuant to 19.15.27.7 and 19.15.28.8 NMAC and understand that this submission meets the notification requirements of Paragraph (1) of Subsection G and F respectively.
<input checked="" type="checkbox"/>	I hereby certify the statements in this report are true and correct to the best of my knowledge and acknowledge that any false statement may be subject to civil and criminal penalties under the Oil and Gas Act.
<input checked="" type="checkbox"/>	I acknowledge that the acceptance of any C-129 forms by the OCD does not relieve this operator of liability should their operations have failed to adequately investigate, report, and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment.
<input checked="" type="checkbox"/>	I acknowledge that OCD acceptance of any C-129 forms does not relieve this operator of responsibility for compliance with any other applicable federal, state, or local laws and/or regulations.

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CONDITIONS

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CONDITIONS

Operator: MARATHON OIL PERMIAN LLC 990 Town & Country Blvd. Houston, TX 77024	OGRID: 372098
	Action Number: 450873
	Action Type: [C-129] Venting and/or Flaring (C-129)

CONDITIONS

Created By	Condition	Condition Date
cswansonsteege	If the information provided in this report requires an amendment, submit a [C-129] Amend Venting and/or Flaring Incident (C-129A), utilizing your incident number from this event.	4/10/2025