

**Volumetrics Inc.**

3710 East Rio Grande St, Victoria, TX-77901

Phone: 361-827-4024

Company: MARATHON OIL
Field/Location : PERMIAN
Station Name : GRAMA RIDGE ST COM SC
Station Number : 37660SC
Sample Date: 9/6/2023
Analysis Date: 9/20/2023

Job ID: 2309201317
Sampled by: JR
Sample Type : SPOT, GAS
Sample Temperature (F): 114.77
Sample Pressure (PSIG): 203.23
Cylinder No: 1317

NATURAL GAS EXTENDED ANALYSIS: GPA 2286

Components	Mol%	GPM 14.650	GPM 14.730	GPM 15.025
Hydrogen Sulfide	0.0003			
Nitrogen	1.4995			
Methane	73.6378			
Carbon Dioxide	0.6024			
Ethane	13.2609	3.541	3.560	3.631
Propane	6.6256	1.822	1.832	1.869
Isobutane	0.8255	0.270	0.271	0.277
N-butane	1.9088	0.601	0.604	0.616
Isopentane	0.4250	0.155	0.156	0.159
N-Pentane	0.4290	0.155	0.156	0.159
Hexanes Plus	0.7852	0.306	0.308	0.314
Total	100.0000			

Physical Properties (Calculated)	14.650 psia	14.730 psia	15.025 psia
Total GPM Ethane+	6.850	6.887	7.025
Total GPM Iso-Pentane+	0.616	0.620	0.632
Compressibility (Z)	0.9959	0.9959	0.9958
Specific Gravity (Air=1) @ 60 °F	0.7737	0.7737	0.7738
Molecular Weight	22.322	22.322	22.322

Gross Heating Value	14.650 psia	14.730 psia	15.025 psia
Dry, Real (BTU/Ft ³)	1307.5	1314.7	1341.2
Wet, Real (BTU/Ft ³)	1284.7	1291.7	1317.7

Comment: FIELD H2S = 2.5 PPM

Verified by

Mostaq Ahammad
Petroleum Chemist

Approved by

Deann Friend

Deann Friend
Laboratory Manager

NATURAL GAS EXTENDED ANALYSIS: GPA 2286

Components	MOL%	GPM	WT%
		14.650 psia	
Hydrogen Sulfide	0.0003		0.0005
Nitrogen	1.4995		1.8818
Carbon Dioxide	0.6024		1.1877
Methane	73.6378		52.9222
Ethane	13.2609	3.5407	17.8632
Propane	6.6256	1.8224	13.0884
Isobutane	0.8255	0.2697	2.1494
N-butane	1.9088	0.6008	4.9701
Isopentane	0.4250	0.1552	1.3737
N-Pentane	0.4290	0.1553	1.3866
2,2-Dimethylbutane	0.0035	0.0015	0.0135
2,3-Dimethylbutane & Cyclopentane	0.0476	0.0195	0.1667
2-Methylpentane	0.0851	0.0352	0.3285
3-Methylpentane	0.0534	0.0217	0.2062
N-Hexane	0.0960	0.0394	0.3706
Methylcyclopentane	0.0628	0.0222	0.2368
Benzene	0.0800	0.0223	0.2800
Cyclohexane	0.0803	0.0273	0.3028
2-Methylhexane	0.0129	0.0060	0.0579
2,3-Dimethylpentane	0.0065	0.0029	0.0292
3-Methylhexane	0.0196	0.0090	0.0880
2,2,4-trimethylpentane	0.0102	0.0053	0.0522
Other C-7's	0.0071	0.0029	0.0312
N-Heptane	0.0265	0.0122	0.1190
Methylcyclohexane	0.0581	0.0233	0.2556
Toluene	0.0550	0.0184	0.2270
Other C-8's	0.0094	0.0048	0.0481
N-Octane	0.0136	0.0070	0.0696
Ethylbenzene	0.0097	0.0037	0.0461
M & P-Xylene	0.0238	0.0092	0.1132
O-Xylene	0.0054	0.0020	0.0257
Other C-9's	0.0064	0.0036	0.0368
N-Nonane	0.0107	0.0060	0.0615
Decanes Plus (C10+)	0.0016	0.0010	0.0102
Total	100.0000	6.8505	100.0000

Additional BTEX Data

<u>Components</u>	<u>MOL%</u>	<u>GPM</u>	<u>WT%</u>
Benzene	0.0800	0.0223	0.2800
Toluene	0.0550	0.0184	0.2270
Ethylbenzene	0.0097	0.0037	0.0461
M & P-Xylene	0.0238	0.0092	0.1132
O-Xylene	0.0054	0.0020	0.0257

Flaring/Venting Event Volume (MCF):	105
Flare or vent:	Vent
Date:	3/11/2024
Time discovered:	2:32:00 PM
Time terminated:	6:57:00 PM
Total Duration (hrs):	4.25

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District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

DEFINITIONS

Action 323430

DEFINITIONS

Operator: MARATHON OIL PERMIAN LLC 990 Town & Country Blvd. Houston, TX 77024	OGRID: 372098
	Action Number: 323430
	Action Type: [C-129] Venting and/or Flaring (C-129)

DEFINITIONS

For the sake of brevity and completeness, please allow for the following in all groups of questions and for the rest of this application: <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 323430

QUESTIONS

Operator: MARATHON OIL PERMIAN LLC 990 Town & Country Blvd. Houston, TX 77024	OGRID: 372098
	Action Number: 323430
	Action Type: [C-129] Venting and/or Flaring (C-129)

QUESTIONS

Prerequisites Any messages presented in this section, will prevent submission of this application. Please resolve these issues before continuing with the rest of the questions.	
Incident Well	Unavailable.
Incident Facility	[fAPP2328277312] GRAMA RIDGE 116 STATE CTB TB

Determination of Reporting Requirements Answer all questions that apply. The Reason(s) statements are calculated based on your answers and may provide additional guidance.	
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.
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.	
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 withing 300 feet from an occupied permanent residence, school, hospital, institution or church in existence	No

Equipment Involved	
Primary Equipment Involved	Not answered.
Additional details for Equipment Involved. Please specify	Not answered.

Representative Compositional Analysis of Vented or Flared Natural Gas Please provide the mole percent for the percentage questions in this group.	
Methane (CH4) percentage	74
Nitrogen (N2) percentage, if greater than one percent	1
Hydrogen Sulfide (H2S) PPM, rounded up	0
Carbon Dioxide (C02) percentage, if greater than one percent	1
Oxygen (O2) percentage, if greater than one percent	0
If you are venting and/or flaring because of Pipeline Specification, please provide the required specifications for each gas.	
Methane (CH4) percentage quality requirement	Not answered.
Nitrogen (N2) percentage quality requirement	Not answered.
Hydrogen Sufide (H2S) PPM quality requirement	Not answered.
Carbon Dioxide (C02) percentage quality requirement	Not answered.
Oxygen (O2) percentage quality requirement	Not answered.

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QUESTIONS, Page 2

Action 323430

QUESTIONS (continued)

Operator: MARATHON OIL PERMIAN LLC 990 Town & Country Blvd. Houston, TX 77024	OGRID: 372098
	Action Number: 323430
	Action Type: [C-129] Venting and/or Flaring (C-129)

QUESTIONS

Date(s) and Time(s)	
Date vent or flare was discovered or commenced	03/11/2024
Time vent or flare was discovered or commenced	02:32 PM
Time vent or flare was terminated	06:57 PM
Cumulative hours during this event	4

Measured or Estimated Volume of Vented or Flared Natural Gas	
Natural Gas Vented (Mcf) Details	Cause: Equipment Failure Flow Line - Production Natural Gas Vented Released: 105 Mcf Recovered: 0 Mcf Lost: 105 Mcf.
Natural Gas Flared (Mcf) Details	Not answered.
Other Released Details	Not answered.
Additional details for Measured or Estimated Volume(s). Please specify	Not answered.
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	Equipment Malfunction/Failure
Steps taken to limit the duration and magnitude of vent or flare	As soon as flaring/venting due to an equipment failure was identified, leak was isolated, and repairs were made as soon as practicable.
Corrective actions taken to eliminate the cause and reoccurrence of vent or flare	As soon as the equipment failure was found, leak was isolated, and repairs were made.

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ACKNOWLEDGMENTS

Action 323430

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	Action Number: 323430
	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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	Action Number: 323430
	Action Type: [C-129] Venting and/or Flaring (C-129)

CONDITIONS

Created By	Condition	Condition Date
icastro	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.	3/14/2024