



Certificate of Analysis

Number: 6030-24100642-001A

Artesia Laboratory

200 E Main St.

Artesia, NM 88210

Phone 575-746-3481

Field:
 Station Name: Bell Lake Mid- Inlet to the Dehy
 Station Number:
 Station Location: MPLX
 Sample Point: The Gas to the Contactor
 Meter Number:
 Method: GPA 2286
 Cylinder No: 1111-009719
 Instrument: 6030_GC2 (Agilent GC-7890B)
 Last Inst. Cal.: 10/08/2024 07:06:35
 Analyzed: 10/18/2024 07:44:54 by EBH

Report Date: 10/18/2024
 Sampled By: Anthony Olivas
 Sample Of: Gas
 Sample Type: Spot
 Sample Date: 10/16/2024 12:00
 Sample Conditions: 1115 psig, @ 62 °F Ambient: 62 °F
 Received Date: 10/17/2024
 Login Date: 10/17/2024
 Effective Date: 10/16/2024 12:00
 Flow Rate:
 Sampling Method:
 Heating Method:

Analytical Data

Components	Un-normalized Mol %	Mol. %	Wt. %	GPM at 14.73 psia		
Hydrogen Sulfide	0.0000	0.0000	0.0000		GPM TOTAL C2+	10.706
Nitrogen	1.4910	1.5010	1.4760		GPM TOTAL C3+	7.705
Methane	62.9520	63.3610	35.6770		GPM TOTAL iC5+	3.122
Carbon Dioxide	0.3290	0.3310	0.5110			
Ethane	11.0720	11.1440	11.7610	3.001		
Propane	8.5230	8.5780	13.2760	2.379		
Iso-butane	1.7320	1.7430	3.5560	0.574		
n-Butane	5.1030	5.1360	10.4780	1.630		
Iso-pentane	1.7540	1.7650	4.4700	0.649		
n-Pentane	2.1590	2.1730	5.5030	0.793		
Hexanes Plus	4.2400	4.2680	13.2920	1.680		
	99.3550	100.0000	100.0000	10.706		

Calculated Physical Properties

	Total	C6+
Relative Density Real Gas	0.9904	3.0653
Calculated Molecular Weight	28.49	88.78
Compressibility Factor	0.9930	

GPA 2172 Calculation:

Calculated Gross BTU per ft³ @ 14.73 psia & 60°F

Real Gas Dry BTU	1654.0	4782.0
Water Sat. Gas Base BTU	1625.2	4698.8
Ideal, Gross HV - Dry at 14.73 psia	1642.4	4782.0
Ideal, Gross HV - Wet	1613.8	0.000

Comments: H2S Field Content: 0 %

Hydrocarbon Laboratory Manager

Quality Assurance: The above analyses are performed in accordance with ASTM, UOP, GPA guidelines for quality assurance, unless otherwise stated. The test results apply to the sample as received.



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Field:
 Station Name: Bell Lake Mid- Inlet to the Dehy
 Station Number:
 Station Location: MPLX
 Sample Point: The Gas to the Contactor
 Meter Number:
 Instrument 1: 6030_GC1, HP7890 Signal 1
 Instrument 2: 6030_GC2, HP7890 Signal 1
 Analyzed: 10/18/2024 07:43:03 by EBH

Report Date: 10/18/2024
 Sampled By: Anthony Olivas
 Sample Of: Gas Spot
 Sample Date: 10/16/2024 12:00
 Sample Conditions: 1115 psig, @ 62 °F
 Received Date: 10/17/2024
 Login Date: 10/17/2024
 Method: GPA 2286
 Cylinder No: 1111-009719

Analytical Data

Components	Mol. %	Wt. %	GPM at 14.73 psia
Hydrogen Sulfide	0.000	0.000	
Nitrogen	1.501	1.476	
Methane	63.361	35.677	
Carbon Dioxide	0.331	0.511	
Ethane	11.144	11.761	3.001
Propane	8.578	13.276	2.379
Iso-Butane	1.743	3.556	0.574
n-Butane	5.136	10.478	1.630
Iso-Pentane	1.765	4.470	0.649
n-Pentane	2.173	5.503	0.793
i-Hexanes	1.290	3.813	0.518
n-Hexane	0.732	2.216	0.304
Benzene	0.284	0.779	0.080
Cyclohexane	0.480	1.422	0.164
i-Heptanes	0.750	2.411	0.300
n-Heptane	0.136	0.480	0.063
Toluene	0.136	0.441	0.046
i-Octanes	0.366	1.303	0.158
n-Octane	0.015	0.066	0.008
Ethylbenzene	0.008	0.025	0.003
Xylenes	0.020	0.063	0.007
i-Nonanes	0.031	0.136	0.015
n-Nonane	0.004	0.016	0.002
Decanes Plus	0.016	0.121	0.012
	<u>100.000</u>	<u>100.000</u>	<u>10.706</u>



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Field:

Station Name: Bell Lake Mid- Inlet to the Dehy

Station Number:

Station Location: MPLX

Sample Point: The Gas to the Contactor

Meter Number:

Instrument 1: 6030_GC1, HP7890 Signal 1

Instrument 2: 6030_GC2, HP7890 Signal 1

Analyzed: 10/18/2024 07:43:03 by EBH

Report Date: 10/18/2024

Sampled By: Anthony Olivas

Sample Of: Gas Spot

Sample Date: 10/16/2024 12:00

Sample Conditions: 1115 psig, @ 62 °F

Received Date: 10/17/2024

Login Date: 10/17/2024

Method: GPA 2286

Cylinder No: 1111-009719

Calculated Physical Properties

Calculated Molecular Weight

Total

28.49

C10+

191.38

GPA 2172 Calculation:**Calculated Gross BTU per ft³ @ 14.73 psia & 60°F**

Real Gas Dry BTU

1654.0

10453.1

Water Sat. Gas Base BTU

1625.2

10199.1

Relative Density Real Gas

0.9904

6.6077

Compressibility Factor

0.9930

Ideal, Gross HV - Wet

1613.8

Ideal, Gross HV - Dry at 14.73 psia

1642.4

Net BTU Dry Gas - real gas

1512

Net BTU Wet Gas - real gas

1485

Comments: H2S Field Content: 0 %

Hydrocarbon Laboratory Manager

Quality Assurance:

The above analyses are performed in accordance with ASTM, UOP, GPA guidelines for quality assurance, unless otherwise stated. The test results apply to the sample as received.

Breakdown of MidBell Lake Compressor Station

Compressor Packages					
Tag #	Manufacturer	Engine Size	Initial Mass (lb)	Emissions (scf)	Volume (ft ³)
CM-0500, ENG-1	Caterpillar	3608	199	3,200	150
CM-700, ENG-2	Caterpillar	3608	189	3034	146
CM-900, ENG-3	Caterpillar	3516LE	189	3034	146
CM-1100, ENG-4	Caterpillar	3516LE	189		124
CM-1300, ENG-5	Caterpillar	3516LE	189	3056	124
CM-1500, ENG-6	Caterpillar	3516LE	189	3056	124
CM-1700, ENG-7	Caterpillar	3516LE	183	2929	142
CM-1900, ENG-8	Caterpillar	3516J	183	2929	142
Total			1,510	21,238	1,098

Lines and Equipment			
Description	Initial Mass (lb)	Emissions (scf)	Volume (ft ³)
Piping	3,809	35,077	1,758
Equipment	27,949	80,952	3,601
Total	31,758	116,029	5,359

Station Volume Total **6,457** ft³

Station Initial Mass Total **33,268** lb

Station Emission Total **137,267** scf

Comments and Assumptions

- 1) For compressor packages: connection line volumes to and from the suction and discharge headers were included. This is due to the main isolation valves being located next to the main header
- 2) Equipment volumes were determined from dimensions from the P&IDs and/or Equipment Drawings
- 3) Piping lengths and schedules were pulled from the as-built 3D models of the compressor station.
- 4) Initial Hydrocarbon Mass was calculated from using the simulated mass density in VMG.
- 5) Emissions for single phase vapor streams are calculated by using Equation W-14A of 40 CFR Part 98, Section 233, Paragraph (i) and the station is not assumed to be purged.
- 6) Emissions for two phase or liquid streams are calculated by flash calculations in VMG.

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 424635

DEFINITIONS

Operator: MarkWest Energy West Texas Gas Company, L.L.C 1515 Arapahoe Street Denver, CO 80202	OGRID: 329252
	Action Number: 424635
	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 424635

QUESTIONS

Operator: MarkWest Energy West Texas Gas Company, L.L.C 1515 Arapahoe Street Denver, CO 80202	OGRID: 329252
	Action Number: 424635
	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	Unavailable.
Incident Facility	[fAPP2125136221] Permian Natural Gas Gathering System

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	Gas Compressor Station
Additional details for Equipment Involved. Please specify	Emissions came from natural gas compressor station

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	63
Nitrogen (N2) percentage, if greater than one percent	2
Hydrogen Sulfide (H2S) PPM, rounded up	0
Carbon Dioxide (CO2) percentage, if greater than one percent	1
Oxygen (O2) percentage, if greater than one percent	2
<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 424635

QUESTIONS (continued)

Operator: MarkWest Energy West Texas Gas Company, L.L.C 1515 Arapahoe Street Denver, CO 80202	OGRID: 329252
	Action Number: 424635
	Action Type: [C-129] Venting and/or Flaring (C-129)

QUESTIONS

Date(s) and Time(s)	
Date vent or flare was discovered or commenced	01/10/2025
Time vent or flare was discovered or commenced	10:45 AM
Time vent or flare was terminated	10:48 AM
Cumulative hours during this event	0

Measured or Estimated Volume of Vented or Flared Natural Gas	
Natural Gas Vented (Mcf) Details	Cause: Other Gas Compressor Station Natural Gas Vented Released: 137 Mcf Recovered: 0 Mcf Lost: 137 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	Operator started unit. Starter failed in the open position. Bled air supply off station which shifted ESD valves open, causing the facility blowdown.
Steps taken to limit the duration and magnitude of vent or flare	Proper notifications were made and immediate fixes were implemented
Corrective actions taken to eliminate the cause and reoccurrence of vent or flare	Reported to Maintenance department, created work order to replace starter, and reset the system.

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ACKNOWLEDGMENTS

Action 424635

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	Action Number: 424635
	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

Action 424635

CONDITIONS

Operator: MarkWest Energy West Texas Gas Company, L.L.C 1515 Arapahoe Street Denver, CO 80202	OGRID: 329252
	Action Number: 424635
	Action Type: [C-129] Venting and/or Flaring (C-129)

CONDITIONS

Created By	Condition	Condition Date
mtyler	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.	1/24/2025