

AKM MEASUREMENT SERVICES

Natural Gas Analysis Report

GPA 2172-09/API 14.5 Report with GPA 2145-16 Physical Properties

Sample Information

Sample Information	
Sample Name	CULEBRA BLUFF CTB 2 SALES 4-22-2022
Effective/Start Date	12-1-2021
WELL NAME	
Laboratory	D RICO
Analyzer Type	NAT. GAS ANALYZER
Analyzer Make & Model	INFICON MICRO GC
Last Calibration/Validation Date	2-28-2022
Sampling Flow Rate	
Air Temperature	67
Heat Tracing	Heated Hose & Gasifier
Type of Sample	SPOT PORTABLE GC
Sampling Method	FILL AND EMPTY
Company Collecting Sample	AKM Measurement
Method Name	C9
Injection Date	2022-04-22 06:55:49
Report Date	2022-04-22 07:08:42
EZReporter Configuration File	BLM Onshore.Extended.GPA 2145-16.FlowCal.H2S.cfgx
Source Data File	d0b8d407-3c9c-4924-9442-a0b39fe6196c
NGA Phys. Property Data Source	GPA Standard 2145-16 (FPS)
Data Source	INFICON Fusion Connector

Component Results

Component Name	Peak Area	Raw Amount	Response Factor	Norm Mole%	Gross HV (Dry) (BTU / Ideal cu.ft.)	Relative Gas Density (Dry)	GPM (Dry) (Gal. / 1000 cu.ft.)
Nitrogen	13397.2	0.9343	0.00006974	0.9423	0.0	0.00911	0.000
Methane	860846.8	77.0115	0.00008946	77.6716	786.3	0.43022	0.000
CO2	1742.5	0.0993	0.00005696	0.1001	0.0	0.00152	0.000
Ethane	206204.4	11.4333	0.00005545	11.5313	204.5	0.11972	3.095
H2S	0.0	0.0001	0.00000000	0.0001	0.0	0.00000	0.000
Propane	129842.5	5.2708	0.00004059	5.3160	134.1	0.08094	1.470
iso-butane	47385.2	0.8170	0.00001724	0.8240	26.9	0.01654	0.271
n-Butane	105472.7	1.8157	0.00001722	1.8313	59.9	0.03675	0.579
iso-pentane	31449.2	0.4717	0.00001500	0.4758	19.1	0.01185	0.175
n-Pentane	35199.1	0.5203	0.00001478	0.5247	21.1	0.01307	0.191
hexanes	31684.0	0.3736	0.00001179	0.3768	18.0	0.01121	0.156
heptanes	26768.0	0.2560	0.00000956	0.2582	14.2	0.00893	0.120
octanes	15725.0	0.1233	0.00000784	0.1244	7.8	0.00491	0.064
nonanes+	3159.0	0.0232	0.00000735	0.0234	1.6	0.00104	0.013
Total:		99.1502		100.0000	1293.4	0.74581	6.133

Results Summary

Result	Dry	Sat.
Total Un-Normalized Mole%	99.1502	
Pressure Base (psia)	14.730	
Temperature Base (Deg. F)	60.00	
Flowing Temperature (Deg. F)	110.0	
Flowing Pressure (psia)	167.0	
Gross Heating Value (BTU / Ideal cu.ft.)	1293.4	1270.9
Gross Heating Value (BTU / Real cu.ft.)	1298.5	1276.4
Relative Density (G), Real	0.7484	0.7465

Monitored Parameter Report

Natural Gas Analysis Report

Production Date	Site Name	Meter Description	Sum of Volume	Notes
8/2/2022	Astrodog Pad S CTB	LP Flare Meter	371	
8/2/2022	Culebra Bluff CTB 2	LP Flare Meter	91	
8/2/2022	Rana Salada FC Pad E CTB	RS Pad E LP Flare M	51	
8/4/2022	Astrodog Pad S CTB	LP Flare Meter	317	
8/4/2022	Culebra Bluff CTB 2	LP Flare Meter	51	
8/5/2022	Astrodog Pad S CTB	LP Flare Meter	316	
8/5/2022	Culebra Bluff CTB 2	LP Flare Meter	50	
8/5/2022	Rana Salada FC Pad L CTB	LP Flare Meter	96	
8/6/2022	Astrodog Pad S CTB	LP Flare Meter	447	
8/6/2022	Culebra Bluff CTB 2	LP Flare Meter	53	
8/6/2022	Rana Salada FC Pad L CTB	LP Flare Meter	157	
8/7/2022	Astrodog Pad S CTB	HP Flare Meter	845	
8/7/2022	Astrodog Pad S CTB	LP Flare Meter	526	
8/7/2022	Culebra Bluff CTB 2	LP Flare Meter	99	
8/7/2022	Culebra Bluff CTB 3	LP Flare Meter	56	
8/7/2022	Rana Salada FC Pad L CTB	HP Flare Meter	230	
8/7/2022	Rana Salada FC Pad L CTB	LP Flare Meter	150	
8/8/2022	Astrodog Pad S CTB	HP Flare Meter	75	
8/8/2022	Astrodog Pad S CTB	LP Flare Meter	218	
8/8/2022	Culebra Bluff CTB 2	LP Flare Meter	102	
8/8/2022	Rana Salada FC Pad L CTB	LP Flare Meter	159	
8/9/2022	Astrodog Pad S CTB	HP Flare Meter	427	
8/9/2022	Astrodog Pad S CTB	LP Flare Meter	162	
8/9/2022	Culebra Bluff CTB 2	LP Flare Meter	100	
8/9/2022	Rana Salada FC Pad L CTB	LP Flare Meter	140	
8/10/2022	Culebra Bluff CTB 2	LP Flare Meter	115	
8/10/2022	Rana Salada FC Pad L CTB	LP Flare Meter	157	
8/11/2022	Astrodog Pad S CTB	LP Flare Meter	58	
8/11/2022	Culebra Bluff CTB 2	LP Flare Meter	64	
8/11/2022	Rana Salada FC Pad L CTB	LP Flare Meter	187	
8/12/2022	Astrodog Pad S CTB	HP Flare Meter	94	

8/12/2022	Astrodog Pad S CTB	LP Flare Meter	102
8/12/2022	Culebra Bluff CTB 2	LP Flare Meter	80
8/12/2022	Rana Salada FC Pad L CTB	LP Flare Meter	211
8/13/2022	Astrodog Pad S CTB	HP Flare Meter	123
8/13/2022	Astrodog Pad S CTB	LP Flare Meter	85
8/13/2022	Culebra Bluff CTB 2	LP Flare Meter	85
8/14/2022	Culebra Bluff CTB 2	LP Flare Meter	76

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State of New Mexico
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Oil Conservation Division
1220 S. St Francis Dr.
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DEFINITIONS

Action 135894

DEFINITIONS

Operator: NOVO OIL & GAS NORTHERN DELAWARE, LLC 1001 West Wilshire Blvd Oklahoma City, OK 73116	OGRID: 372920
	Action Number: 135894
	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: • 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 135894

QUESTIONS

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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	Not answered.
Incident Facility	[fAPP2200639309] Culebra Bluff CTB #2

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	Yes
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 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	
<i>Please provide the mole percent for the percentage questions in this group.</i>	
Methane (CH4) percentage	77
Nitrogen (N2) percentage, if greater than one percent	0
Hydrogen Sulfide (H2S) PPM, rounded up	0
Carbon Dioxide (CO2) percentage, if greater than one percent	0
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 135894

QUESTIONS (continued)

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

QUESTIONS

Date(s) and Time(s)	
Date vent or flare was discovered or commenced	08/07/2022
Time vent or flare was discovered or commenced	08:00 AM
Time vent or flare was terminated	08:00 AM
Cumulative hours during this event	24

Measured or Estimated Volume of Vented or Flared Natural Gas	
Natural Gas Vented (Mcf) Details	Not answered.
Natural Gas Flared (Mcf) Details	Cause: Other Other (Specify) Natural Gas Flared Released: 99 Mcf Recovered: 0 Mcf Lost: 99 Mcf]
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	VRU ISSUES
Steps taken to limit the duration and magnitude of vent or flare	MONITORED
Corrective actions taken to eliminate the cause and reoccurrence of vent or flare	WAIT ON VRU REPAIR PLANS

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ACKNOWLEDGMENTS

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ACKNOWLEDGMENTS

☒	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.
☒	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.
☒	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.
☒	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.
☒	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

Created By	Condition	Condition Date
bwheaton	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.	8/19/2022