

Atchafalaya Measurement, Inc.

416 East Main Street Artesia, NM 88210 575-746-3481

Sample Information

	Sample Information
Sample Name	Marathon__Black River 15-10 State 1H__GC1-121817-19
Station Number	7780048
Lease Name	Black River 15-10 State 1H
Analysis for	Marathon Oil
Producer	Marathon Oil
Field Name	Loving Black River
County	Eddy
State	NM
Frequency	Quarterly
Sample Deg F	100.7
Atmos Deg F	50
Flow Rate	1355.7856
LinePSIG	90.05
Date Sampled	12-17-17
Sampled By	Destry Moore
Analysis By	Pat Silvas
Report Date	2017-12-18 14:02:24

Component Results

Component Name	Ret. Time	Peak Area	Norm%	PPMV	GPM (Dry) (Gal. / 1000 cu.ft.)
Nitrogen	22.000	5163.5	1.00317	10031.700	0.111
H2S	46.000	0.0	0.00000	0.000	0.000
Methane	22.840	289547.4	72.33277	723327.700	12.314
Carbon Dioxide	26.560	778.9	0.12680	1268.000	0.022
Ethane	36.860	90979.7	13.59151	135915.100	3.650
Propane	78.960	66875.7	7.44271	74427.100	2.059
i-Butane	28.700	66560.6	0.96302	9630.200	0.316
n-Butane	30.260	177371.2	2.47260	24726.000	0.783
i-Pentane	35.380	48040.4	0.56814	5681.400	0.209
n-Pentane	37.460	58850.5	0.67744	6774.400	0.247
Hexanes Plus	120.000	72845.0	0.82184	8218.400	0.358
Total:			100.00000	1000000.000	20.068

Results Summary

Result	Dry	Sat. (Base)
Total Raw Mole% (Dry)	101.31093	
Total Amount PPM (Mole/Vol.)	1000000.000	
Pressure Base (psia)	14.730	
Temperature Base	60.0	
Gross Heating Value (BTU / Ideal cu.ft.)	1365.5	1341.8
Gross Heating Value (BTU / Real cu.ft.)	1371.6	1348.3
Relative Density (G), Ideal	0.7931	0.7901
Relative Density (G), Real	0.7963	0.7937
Compressibility (Z) Factor	0.9956	0.9952

June 14, 2018

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

For: Marathon Oil Permian, LLC
5555 San Felipe Street
Houston, Texas 77056

Sample: Black River No. 4H
First Stage Separator Hydrocarbon Liquid
Sampled @ 93 psig & 128 °F

Date Sampled: 05/05/18

Job Number: 82371.002

CHROMATOGRAPH EXTENDED ANALYSIS - GPA 2186-M

COMPONENT	MOL %	LIQ VOL %	WT %
Nitrogen	0.023	0.004	0.004
Carbon Dioxide	0.011	0.003	0.003
Methane	1.730	0.459	0.174
Ethane	1.944	0.814	0.367
Propane	3.524	1.520	0.976
Isobutane	1.068	0.547	0.390
n-Butane	3.877	1.914	1.415
2,2 Dimethylpropane	0.062	0.037	0.028
Isopentane	2.115	1.211	0.958
n-Pentane	3.210	1.822	1.454
2,2 Dimethylbutane	0.035	0.023	0.019
Cyclopentane	0.000	0.000	0.000
2,3 Dimethylbutane	0.271	0.174	0.146
2 Methylpentane	1.251	0.813	0.677
3 Methylpentane	0.742	0.475	0.402
n-Hexane	2.298	1.480	1.244
Heptanes Plus	<u>77.840</u>	<u>88.705</u>	<u>91.743</u>
Totals:	100.000	100.000	100.000

Characteristics of Heptanes Plus:

Specific Gravity -----	0.8172 (Water=1)
°API Gravity -----	41.65 @ 60°F
Molecular Weight -----	187.7
Vapor Volume -----	13.47 CF/Gal
Weight -----	6.81 Lbs/Gal

Characteristics of Total Sample:

Specific Gravity -----	0.7902 (Water=1)
°API Gravity -----	47.58 @ 60°F
Molecular Weight -----	159.2
Vapor Volume -----	15.35 CF/Gal
Weight -----	6.58 Lbs/Gal

Base Conditions: 15.025 PSI & 60 °F

Certified: FESCO, Ltd. - Alice, Texas

Sampled By: N. Garcia
Analyst: XG
Processor: XG
Cylinder ID: W-2350

David Dannhaus 361-661-7015

FESCO, Ltd.

Job Number: 82371.002

TANKS DATA INPUT REPORT - GPA 2186-M

COMPONENT	Mol %	LiqVol %	Wt %
Carbon Dioxide	0.011	0.003	0.003
Nitrogen	0.023	0.004	0.004
Methane	1.730	0.459	0.174
Ethane	1.944	0.814	0.367
Propane	3.524	1.520	0.976
Isobutane	1.068	0.547	0.390
n-Butane	3.939	1.951	1.443
Isopentane	2.115	1.211	0.958
n-Pentane	3.210	1.822	1.454
Other C-6's	2.298	1.484	1.244
Heptanes	9.475	6.158	5.601
Octanes	11.664	8.376	7.850
Nonanes	6.375	5.382	5.076
Decanes Plus	47.671	67.277	71.546
Benzene	0.178	0.078	0.087
Toluene	0.771	0.404	0.446
E-Benzene	0.225	0.136	0.150
Xylenes	1.482	0.894	0.988
n-Hexane	2.298	1.480	1.244
2,2,4 Trimethylpentane	0.000	0.000	0.000
Totals:	100.000	100.000	100.000

Characteristics of Total Sample:		
Specific Gravity -----	0.7902	(Water=1)
°API Gravity -----	47.58	@ 60°F
Molecular Weight-----	159.2	
Vapor Volume -----	15.35	CF/Gal
Weight -----	6.58	Lbs/Gal

Characteristics of Decanes (C10) Plus:		
Specific Gravity -----	0.8403	(Water=1)
Molecular Weight-----	239.0	

Characteristics of Atmospheric Sample:		
°API Gravity -----	45.38	@ 60°F
Reid Vapor Pressure Equivalent (D-6377)-----	8.07	psi

QUALITY CONTROL CHECK		
	Sampling Conditions	Test Samples
Cylinder Number	-----	W-2350* -----
Pressure, PSIG	93	86 -----
Temperature, °F	128	128 -----

* Sample used for analysis

FESCO, Ltd.

Job Number: 82371.002

TOTAL EXTENDED REPORT - GPA 2186-M

COMPONENT	Mol %	LiqVol %	Wt %
Nitrogen	0.023	0.004	0.004
Carbon Dioxide	0.011	0.003	0.003
Methane	1.730	0.459	0.174
Ethane	1.944	0.814	0.367
Propane	3.524	1.520	0.976
Isobutane	1.068	0.547	0.390
n-Butane	3.877	1.914	1.415
2,2 Dimethylpropane	0.062	0.037	0.028
Isopentane	2.115	1.211	0.958
n-Pentane	3.210	1.822	1.454
2,2 Dimethylbutane	0.035	0.023	0.019
Cyclopentane	0.000	0.000	0.000
2,3 Dimethylbutane	0.271	0.174	0.146
2 Methylpentane	1.251	0.813	0.677
3 Methylpentane	0.742	0.475	0.402
n-Hexane	2.298	1.480	1.244
Methylcyclopentane	1.491	0.826	0.788
Benzene	0.178	0.078	0.087
Cyclohexane	1.967	1.048	1.039
2-Methylhexane	0.852	0.620	0.536
3-Methylhexane	0.827	0.594	0.520
2,2,4 Trimethylpentane	0.000	0.000	0.000
Other C-7's	2.002	1.381	1.247
n-Heptane	2.337	1.688	1.470
Methylcyclohexane	3.663	2.306	2.259
Toluene	0.771	0.404	0.446
Other C-8's	5.879	4.368	4.069
n-Octane	2.122	1.703	1.522
E-Benzene	0.225	0.136	0.150
M & P Xylenes	0.972	0.591	0.648
O-Xylene	0.510	0.304	0.340
Other C-9's	4.576	3.797	3.627
n-Nonane	1.799	1.585	1.449
Other C-10's	4.917	4.484	4.362
n-decane	1.262	1.213	1.127
Undecanes(11)	5.217	4.882	4.816
Dodecanes(12)	4.062	4.106	4.107
Tridecanes(13)	4.026	4.363	4.424
Tetradecanes(14)	3.309	3.841	3.947
Pentadecanes(15)	2.981	3.707	3.856
Hexadecanes(16)	2.379	3.162	3.317
Heptadecanes(17)	2.163	3.040	3.219
Octadecanes(18)	2.155	3.188	3.396
Nonadecanes(19)	1.832	2.823	3.025
Eicosanes(20)	1.547	2.479	2.672
Heneicosanes(21)	1.384	2.332	2.528
Docosanes(22)	1.102	1.936	2.110
Tricosanes(23)	1.155	2.104	2.307
Tetracosanes(24)	0.895	1.688	1.860
Pentacosanes(25)	0.919	1.798	1.990
Hexacosanes(26)	0.667	1.353	1.504
Heptacosanes(27)	0.759	1.596	1.782
Octacosanes(28)	0.710	1.545	1.731
Nonacosanes(29)	0.611	1.372	1.543
Triacontanes(30)	0.503	1.164	1.313
Hentriacontanes Plus(31+)	<u>3.117</u>	<u>9.100</u>	<u>10.608</u>
Total	100.000	100.000	100.000

June 14, 2018

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

For: Marathon Oil Permian, LLC
5555 San Felipe Street
Houston, Texas 77056

Date Sampled: 05/05/18

Date Analyzed: 05/29/18

Sample: Black River No. 4H

Job Number: J82371

FLASH LIBERATION OF HYDROCARBON LIQUID		
	Separator HC Liquid	Stock Tank
Pressure, psig	93	0
Temperature, °F	128	70
Gas Oil Ratio (1)	-----	32.7
Gas Specific Gravity (2)	-----	1.234
Separator Volume Factor (3)	1.0537	1.000

STOCK TANK FLUID PROPERTIES	
Shrinkage Recovery Factor (4)	0.9490
Oil API Gravity at 60 °F	45.38
Reid Vapor Pressure Equivalent (D-6377), psi (5)	8.07

Quality Control Check			
	Sampling Conditions	Test Samples	
Cylinder No.	-----	W-2350*	-----
Pressure, psig	93	86	-----
Temperature, °F	128	128	-----

(1) - Scf of flashed vapor per barrel of stock tank oil

(2) - Air = 1.000

(3) - Separator volume / Stock tank volume

(4) - Fraction of first stage separator liquid

(5) - Absolute pressure at 100 deg F

Analyst: J.L.

* Sample used for flash study

Base Conditions: 15.025 PSI & 60 °F

Certified: FESCO, Ltd. - Alice, Texas

David Dannhaus 361-661-7015

TANKS 4.0.9d
Emissions Report - Detail Format
Tank Identification and Physical Characteristics

Identification

User Identification:	Madera 19 Fed Com 5H-1H-2H-6H Oil Tanks Hourly
City:	Lea County
State:	New Mexico
Company:	Marathon Oil Permian LLC
Type of Tank:	Vertical Fixed Roof Tank
Description:	(8) 750 bbl oil storage tanks, 875 BOPD per tank

Tank Dimensions

Shell Height (ft):	24.00
Diameter (ft):	15.50
Liquid Height (ft) :	22.50
Avg. Liquid Height (ft):	12.00
Volume (gallons):	31,500.00
Turnovers:	425.83
Net Throughput(gal/yr):	13,413,750.00
Is Tank Heated (y/n):	N

Paint Characteristics

Shell Color/Shade:	Red/Primer
Shell Condition	Good
Roof Color/Shade:	Red/Primer
Roof Condition:	Good

Roof Characteristics

Type:	Cone
Height (ft)	0.00
Slope (ft/ft) (Cone Roof)	0.06

Breather Vent Settings

Vacuum Settings (psig):	-0.03
Pressure Settings (psig)	0.03

Meteorological Data used in Emissions Calculations: Roswell, New Mexico (Avg Atmospheric Pressure = 12.73 psia)

Calculations for the total Mcf flared

End Meter Volume – the Begin Meter Volume.

***Composition for the gas has been entered into the question portion of the C-129.

If further back up is needed please let us know and will provide requested data.

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1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
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 393604

DEFINITIONS

Operator: 3R Operating, LLC 20405 State Highway 249 Houston, TX 77070	OGRID: 331569
	Action Number: 393604
	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 393604

QUESTIONS

Operator: 3R Operating, LLC 20405 State Highway 249 Houston, TX 77070	OGRID: 331569
	Action Number: 393604
	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	[fAPP2419851024] Thunderbird Facility

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	No
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.
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	72
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	0
Oxygen (02) 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 (02) percentage quality requirement	Not answered.

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QUESTIONS, Page 2

Action 393604

QUESTIONS (continued)

Operator: 3R Operating, LLC 20405 State Highway 249 Houston, TX 77070	OGRID: 331569
	Action Number: 393604
	Action Type: [C-129] Venting and/or Flaring (C-129)

QUESTIONS

Date(s) and Time(s)	
Date vent or flare was discovered or commenced	10/16/2024
Time vent or flare was discovered or commenced	12:00 AM
Time vent or flare was terminated	11:59 PM
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: Midstream Scheduled Maintenance Producing Well Natural Gas Flared Released: 200 Mcf Recovered: 0 Mcf Lost: 200 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	Yes
Was notification of downstream activity received by this operator	Yes
Downstream OGRID that should have notified this operator	[24650] TARGA MIDSTREAM SERVICES LLC
Date notified of downstream activity requiring this vent or flare	10/02/2024
Time notified of downstream activity requiring this vent or flare	12:06 PM

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	Curtailed by gas purchaser for maintenance at midstream facility.
Steps taken to limit the duration and magnitude of vent or flare	Standard emission control of equipment downtime. Working with midstream to coordinate service time and minimize downtime.
Corrective actions taken to eliminate the cause and reoccurrence of vent or flare	No way to avoid periodic downtime for repairs to address unforeseen conditions. Process equipment emissions controlled by flare.

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ACKNOWLEDGMENTS

Action 393604

ACKNOWLEDGMENTS

Operator: 3R Operating, LLC 20405 State Highway 249 Houston, TX 77070	OGRID: 331569
	Action Number: 393604
	Action Type: [C-129] Venting and/or Flaring (C-129)

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

Action 393604

CONDITIONS

Operator: 3R Operating, LLC 20405 State Highway 249 Houston, TX 77070	OGRID: 331569
	Action Number: 393604
	Action Type: [C-129] Venting and/or Flaring (C-129)

CONDITIONS

Created By	Condition	Condition Date
cforrest	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.	10/17/2024