Form 3160-5
(June 2015)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB NO. 1004-0137
Expires: January 31, 2018

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other instructions on page 2

Carlsbad Field Office
OCD Hobbs
JUN 08 2018
RECEIVED

5. Lease Serial No.
NMNM0245247

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.

1. Type of Well
☒ Oil Well ☐ Gas Well ☐ Other

8. Well Name and No.
EDITH FEDERAL 1

2. Name of Operator
MCELVAIN ENERGY INC.
Contact: TONY G COOPER
E-Mail: tony.cooper@mcelvain.com

9. API Well No.
30-025-28856

3a. Address
1050 17TH ST STE. 2500
DENVER, CO 80265

3b. Phone No. (include area code)
Ph: 303-893-0933 Ext: 331

10. Field and Pool or Exploratory Area
DELAWARE

4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)*
Sec 25 T18S R33E Mer NMP 660FSL 2310FWL

11. County or Parish, State
LEA COUNTY COUNTY, NM

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other Venting and/or Flaring
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.

McElvain Energy Inc. recently purchased the vertical wells on the attached Well Listing sheet from Chevron USA. The gas from these wells was being sold to Frontier Field Services but is now considered non-marketable due to high N2 levels. In an effort to maximize oil production on these wells, McElvain is requesting permission to flare the associated natural gas. McElvain is asking that the flaring of the gas be considered non-royalty bearing due to the lack of marketability of the gas.

Flared gas volumes from the wells will be reported monthly using a GOR calculated from the historical reported well production. A small open flame style flare with auto-igniter will be installed on the two specified well pads.

I have attached a diagram of the wells and the above ground gas pipelines, a copy of the Sundry

14. I hereby certify that the foregoing is true and correct.

Electronic Submission #419864 verified by the BLM Well Information System
For MCELVAIN ENERGY INC., sent to the Hobbs
Committed to AFMSS for processing by DEBORAH MCKINNEY on 05/29/2018 ()

Name *(Printed/Typed)* KELLOFF JOE — Title VP PRODUCTION

Signature (Electronic Submission) — Date 05/11/2018

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By **/s/ Jonathon Shepard** — Title PETROLEUM ENGINEER — Date 5/31/18

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office CFO

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

**** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ****

MAB/OCD 6/11/2018

Additional data for EC transaction #419864 that would not fit on the form

32. Additional remarks, continued

approving the flaring of the McElvain wells in 2017, and the Frontier Field Services gas analysis for the wells showing the high N2 levels of the gas. Please see attachments for greater detail on the project.

Well Listing

Well Name	API	Lease Number	MCFD/BOPD	Comment
Dorothy Federal 1	30-025-28462	NMNM019448	18/5	install small open style flare with auto igniter
Dorothy Federal 2	30-025-35717	NMNM019448	18/12	route gas to Dorothy 1 flare via existing surface line
Archie Federal 1	30-025-36507	NMNM96242	5/2	route gas to Edith 3 flare via existing surface line
Edith Federal 3	30-025-29369	NMNM245247	12/3	install small open style flare with auto igniter
Edith Federal 1	30-025-28856	NMNM245247	28/13	Tie to existing 3 inch surface gas line to McElvain 4
Edith Federal 4	30-025-36058	NMNM245247	27/8	Tie to existing 2 inch surface gas line to McElvain 4

Note- the Edith Federal 1 and 4 surface flare lines will tie into an existing poly surface gas line that routes gas from several other McElvain wells to a 60 inch enclosed Cimarron combustor at the McElvain 4 well pad.

LABORATORY SERVICES
Natural Gas Analysis

www.permianls.com
575.397.3713 2609 W Marland Hobbs NM 88240

For:	Chevron USA	Sample: Sta#	2300250144
	Attention: Rafael Hernandez	Identification:	Archie Fed. #1
	1616 W. Bender Blvd	Company:	Chevron USA
	Hobbs, New Mexico 88240	Lease:	
		Plant:	

Sample Data:	Sample Date:	4/11/2017	Sampled by:	Rafael Hernandez
	Analysis Date:	4/12/2017	Analysis by:	Vicki McDaniel
	Sample Temp:	77.8 F	Atmos Temp:	72 F
	Sample Press.:	9.8 PSIA	Sample Time:	1:25 PM

H2S = 1.5 PPM Press. Base: 14.73

Component Analysis

		Mol Percent	GPM Real	GPM Ideal
Hydrogen Sulfide	H2S			
Nitrogen	N2	8.933		
Methane	C1	44.165		
Carbon Dioxide	CO2	0.095		
Ethane	C2	19.399	5.187	5.175
Propane	C3	20.250	5.577	5.565
I-Butane	IC4	2.106	0.689	0.687
N-Butane	NC4	3.042	0.959	0.957
I-Pentane	IC5	0.187	0.068	0.068
N-Pentane	NC5	0.153	0.066	0.055
Hexanes Plus	C6+	1.670	0.724	0.723
		100.000	13.270	13.230

Input in Ygnet
5-4-17 R.H

REAL BTU/CU.FT.

At 14.65	1566.5 Dry 1540.6 Wet
At 14.696	1571.4 Dry 1545.5 Wet
At 14.73	1575.0 Dry 1549.0 Wet

Specific Gravity:

Calculated (Real) 1.013
(Ideal) 1.007

Remarks:

LABORATORY SERVICES
Natural Gas Analysis

www.permianls.com
575.397.3713 2609 W Marland Hobbs NM 88240

For:	Chevron USA	Sample: Sta#	2300250147
	Attention: Rafael Hernandez	Identification:	Dorothy Fed. #2
	1616 W. Bender Blvd	Company:	Chevron USA
	Hobbs, New Mexico 88240	Lease:	
		Plant:	

Sample Data:	Sample Date:	4/11/2017	Sampled by:	Rafael Hernandez
	Analysis Date:	4/12/2017	Analysis by:	Vicki McDaniel
	Sample Temp:	85.1 F	Atmos Temp:	72 F
	Sample Press.:	50.4 PSIA	Sample Time:	1:45 PM

H2S = 19 PPM Press. Base: 14.73

Component Analysis

		Mol Percent	GPM Real	GPM Ideal
Hydrogen Sulfide	H2S	0.002		
Nitrogen	N2	16.207		
Methane	C1	66.135		
Carbon Dioxide	CO2	0.010		
Ethane	C2	8.613	2.303	2.298
Propane	C3	5.525	1.522	1.518
I-Butane	IC4	0.629	0.206	0.205
N-Butane	NC4	1.311	0.413	0.412
I-Pentane	IC5	0.299	0.108	0.109
N-Pentane	NC5	0.315	0.137	0.114
Hexanes Plus	C6+	0.954	0.414	0.413
		100.000	5.103	5.069

Input in system 5-4-17 R.H.

REAL BTU/CU.FT.

At 14.65	1096.6 Dry 1078.8 Wet
At 14.696	1100.0 Dry 1082.1 Wet
At 14.73	1102.6 Dry 1084.6 Wet

Specific Gravity:

Calculated (Real) 0.783 / (Ideal) 0.781

Remarks:

LABORATORY SERVICES
Natural Gas Analysis

www.permianls.com
575.397.3713 2609 W Marland Hobbs NM 88240

For:	Chevron USA	Sample: Sta#	2300250151
	Attention: Rafael Hernandez	Identification:	Edith Fed. #4
	1616 W. Bender Blvd	Company:	Chevron USA
	Hobbs, New Mexico 88240	Lease:	
		Plant:	

Sample Data:	Sample Date:	4/7/2017	Sampled by:	Rafael Hernandez
	Analysis Date:	4/10/2017	Analysis by:	Vicki McDaniel
	Sample Temp:	65.3 F	Atmos Temp:	50 F
	Sample Press.:	24.2 PSIA	Sample Time:	8:10 AM

H2S = 100 PPM Press. Base: 14.73

Component Analysis

		Mol Percent	GPM Real	GPM Ideal
Hydrogen Sulfide	H2S	0.010		
Nitrogen	N2	14.869		
Methane	C1	68.116		
Carbon Dioxide	CO2	0.051		
Ethane	C2	9.326	2.493	2.488
Propane	C3	5.010	1.380	1.377
I-Butane	IC4	0.519	0.170	0.169
N-Butane	NC4	1.155	0.364	0.363
I-Pentane	IC5	0.270	0.098	0.098
N-Pentane	NC5	0.235	0.102	0.085
Hexanes Plus	C6+	0.439	0.190	0.190
		100.000	4.797	4.770

Input in cygnet 5-4-17 R.H.

REAL BTU/CU.FT.

At 14.65	1076.8 Dry 1059.4 Wet
At 14.696	1080.2 Dry 1062.7 Wet
At 14.73	1082.7 Dry 1065.1 Wet

Specific Gravity:

Calculated (Real) 0.757 / (Ideal) 0.755

Remarks:

MANLEY GAS TESTING, INC.
P.O. DRAWER 193 ODESSA, TEXAS 79760
OFFICE(432)367-3024 FAX(432)367-1166 E-MAIL: MANLEYGAST@AOL.COM

CHARGE..... 150 - 0
REC. NO. 4
TEST NUMBER.. 13545

DATE SAMPLED..... 07-22-14
DATE RUN..... 08-01-14
EFFEC. DATE..... 08-01-14

STATION NO. ... 06035143

PRODUCER ..... CHEVRON

SAMPLE NAME.... CHESAPEAKE EDITH FED #3 TYPE: SPOT

RECEIVED FROM.. FRONTIER FIELD SERVICES LLC - MALJAMAR

FLOWING PRESSURE ..... 47.0 PSIA FLOWING TEMPERATURE ..... 92 F

SAMPLED BY: TH CYLINDER NO. ... 003

FRACTIONAL ANALYSIS
CALCULATED @ 14.650 PSIA AND 60F

	MOL%	GPM (REAL)	
HYDROGEN SULFIDE...	0.010		
NITROGEN.....	11.138		
CARBON DIOXIDE.....	0.036		
METHANE.....	61.103		
ETHANE.....	11.430	3.053	H2S PPMV = 100
PROPANE.....	8.687	2.391	
ISO-BUTANE.....	1.200	0.392	
NOR-BUTANE.....	3.087	0.972	
ISO-PENTANE.....	0.947	0.346	'Z' FACTOR (DRY) = 0.9954
NOR-PENTANE.....	0.847	0.306	'Z' FACTOR (WET) = 0.9950
HEXANES +.....	1.515	0.660	
TOTALS	100.000	8.120	CALC. MOL. WT. = 25.40

..CALCULATED SPECIFIC GRAVITIES..

REAL, DRY 0.8809

REAL, WET 0.8768

..CALCULATED GROSS HEATING VALUES..

BTU/CF - REAL, DRY 1329

BTU/CF - REAL, WET 1307

DISTRIBUTION AND REMARKS:

N

ANALYZED BY: JT
** R **

APPROVED:

MANLEY GAS TESTING, INC.
P.O. DRAWER 193 ODESSA, TEXAS 79760
OFFICE(432)367-3024 FAX(432)367-1166 E-MAIL: MANLEYGAST@AOL.COM

CHARGE..... 150 - 0
REC. NO. 3
TEST NUMBER.. 13544

DATE SAMPLED..... 07-22-14
DATE RUN..... 08-01-14
EFFEC. DATE..... 08-01-14

STATION NO. ... 06035140

PRODUCER ..... CHEVRON

SAMPLE NAME.... CHESAPEAKE EDITH FED #2 TYPE: SPOT

RECEIVED FROM.. FRONTIER FIELD SERVICES LLC - MALJAMAR

FLOWING PRESSURE ..... 42.6 PSIA FLOWING TEMPERATURE ..... 81 F

SAMPLED BY: TH CYLINDER NO. ... 013

FRACTIONAL ANALYSIS
CALCULATED @ 14.650 PSIA AND 60F

	MOL%	GPM (REAL)
HYDROGEN SULFIDE...	0.000	
NITROGEN.....	4.196	
CARBON DIOXIDE.....	0.219	
METHANE.....	66.578	
ETHANE.....	14.048	3.754
PROPANE.....	8.278	2.279
ISO-BUTANE.....	1.014	0.332
NOR-BUTANE.....	2.828	0.890
ISO-PENTANE.....	0.738	0.269
NOR-PENTANE.....	0.794	0.287
HEXANES +.....	1.307	0.570
TOTALS	100.000	8.381

'Z' FACTOR (DRY) = 0.9952
'Z' FACTOR (WET) = 0.9948

CALC. MOL. WT. = 24.38

..CALCULATED SPECIFIC GRAVITIES..

REAL, DRY 0.8456

REAL, WET 0.8421

..CALCULATED GROSS HEATING VALUES..

BTU/CF - REAL, DRY 1386

BTU/CF - REAL, WET 1362

DISTRIBUTION AND REMARKS:

N

ANALYZED BY: JT
** R **

APPROVED: MC

MANLEY GAS TESTING, INC.
P.O. DRAWER 193 ODESSA, TEXAS 79760
OFFICE(432)367-3024 FAX(432)367-1166 E-MAIL: MANLEYGAST@AOL.COM

CHARGE..... 150 - 0
REC. NO. 46
TEST NUMBER.. 14132

DATE SAMPLED..... 01-20-15
DATE RUN..... 01-30-15
EFFEC. DATE..... 02-01-15

STATION NO. ... 06035135

PRODUCER ..... CHEVRON

SAMPLE NAME.... CHESAPEAKE EDITH FED #1 TYPE: SPOT

RECEIVED FROM.. FRONTIER FIELD SERVICES LLC - MALJAMAR

FLOWING PRESSURE ..... 58.1 PSIA FLOWING TEMPERATURE ..... 76 F

SAMPLED BY: TH CYLINDER NO. ...

FRACTIONAL ANALYSIS
CALCULATED @ 14.650 PSIA AND 60F

	MOL%	GPM (REAL)	
HYDROGEN SULFIDE...	0.005		
NITROGEN.....	11.153		
CARBON DIOXIDE.....	0.016		
METHANE.....	63.467		
ETHANE.....	11.540	3.081	H2S PPMV = 50
PROPANE.....	8.048	2.214	
ISO-BUTANE.....	1.035	0.338	
NOR-BUTANE.....	2.549	0.802	
ISO-PENTANE.....	0.708	0.258	'Z' FACTOR (DRY) = 0.9960
NOR-PENTANE.....	0.608	0.220	'Z' FACTOR (WET) = 0.9956
HEXANES +.....	0.871	0.380	
TOTALS	100.000	7.293	CALC. MOL. WT. = 24.17

..CALCULATED SPECIFIC GRAVITIES..

REAL, DRY 0.8378

REAL, WET 0.8344

..CALCULATED GROSS HEATING VALUES..

BTU/CF - REAL, DRY 1263

BTU/CF - REAL, WET 1241

DISTRIBUTION AND REMARKS:

N

ANALYZED BY: AW
** R **

APPROVED:

MANLEY GAS TESTING, INC.
P.O. DRAWER 193 ODESSA, TEXAS 79760
OFFICE(432)367-3024 FAX(432)367-1166 E-MAIL: MANLEYGAST@AOL.COM

CHARGE..... 150 - 0
REC. NO. 44
TEST NUMBER.. 12980

DATE SAMPLED..... 01-22-14
DATE RUN..... 01-25-14
EFFEC. DATE..... 02-01-14

STATION NO. ... 06035519

PRODUCER ..... CHEVRON

SAMPLE NAME.... SV BOBWHITE FED TYPE: SPOT

RECEIVED FROM.. FRONTIER FIELD SERVICES LLC - MALJAMAR

FLOWING PRESSURE ..... 18.5 PSIA FLOWING TEMPERATURE ..... 65 F

SAMPLED BY: CM CYLINDER NO. ... 055

FRACTIONAL ANALYSIS
CALCULATED @ 14.650 PSIA AND 60F

	MOL%	GPM (REAL)	
HYDROGEN SULFIDE...	0.400		
NITROGEN.....	4.641		
CARBON DIOXIDE.....	3.401		
METHANE.....	67.626		
ETHANE.....	11.853	3.165	H2S PPMV = 4000
PROPANE.....	6.601	1.816	
ISO-BUTANE.....	0.776	0.253	
NOR-BUTANE.....	2.304	0.725	
ISO-PENTANE.....	0.731	0.267	'Z' FACTOR (DRY) = 0.9958
NOR-PENTANE.....	0.789	0.285	'Z' FACTOR (WET) = 0.9954
HEXANES +.....	0.878	0.383	
TOTALS	100.000	6.894	CALC. MOL. WT. = 23.96

..CALCULATED SPECIFIC GRAVITIES.. ..CALCULATED GROSS HEATING VALUES..

REAL, DRY ..... 0.8305 BTU/CF - REAL, DRY 1266

REAL, WET ..... 0.8272 BTU/CF - REAL, WET 1245

DISTRIBUTION AND REMARKS:

BLITZ
N

ANALYZED BY: BJ APPROVED:
** R **

MANLEY GAS TESTING, INC.
P.O. DRAWER 193 ODESSA, TEXAS 79760
OFFICE(432)367-3024 FAX(432)367-1166 E-MAIL: MANLEYGAST@AOL.COM

CHARGE..... 150 - 0
REC. NO. 24
TEST NUMBER.. 12960

DATE SAMPLED..... 01-22-14
DATE RUN..... 01-25-14
EFFEC. DATE..... 02-01-14

STATION NO. ... 06035132

PRODUCER ..... CHEVRON TEXACO

SAMPLE NAME.... CHESAPEAKE DOROTHY #1 TYPE: SPOT

RECEIVED FROM.. FRONTIER FIELD SERVICES LLC - MALJAMAR

FLOWING PRESSURE ..... 48.5 PSIA FLOWING TEMPERATURE ..... 65 F

SAMPLED BY: CM CYLINDER NO. ... 192

FRACTIONAL ANALYSIS
CALCULATED @ 14.650 PSIA AND 60F

	MOL%	GPM (REAL)
HYDROGEN SULFIDE...	0.004	
NITROGEN.....	14.462	
CARBON DIOXIDE.....	0.013	
METHANE.....	63.273	
ETHANE.....	10.024	2.675
PROPANE.....	7.608	2.091
ISO-BUTANE.....	0.986	0.322
NOR-BUTANE.....	2.094	0.658
ISO-PENTANE.....	0.523	0.191
NOR-PENTANE.....	0.382	0.138
HEXANES +.....	0.631	0.274
TOTALS	100.000	6.349

H2S PPMV = 40

'Z' FACTOR (DRY) = 0.9965
'Z' FACTOR (WET) = 0.9961

CALC. MOL. WT. = 23.60

..CALCULATED SPECIFIC GRAVITIES..

REAL, DRY 0.8176

REAL, WET 0.8146

..CALCULATED GROSS HEATING VALUES..

BTU/CF - REAL, DRY 1177

BTU/CF - REAL, WET 1157

DISTRIBUTION AND REMARKS:

BLITZ
N

ANALYZED BY: BJ
** R **

APPROVED:

LABORATORY SERVICES
Natural Gas Analysis

www.permianls.com
575.397.3713 2609 W Marland Hobbs NM 88240

For:	Chevron USA	Sample: Sta#	2300250144
	Attention: Rafael Hernandez	Identification:	Archie Fed. #1
	1616 W. Bender Blvd	Company:	Chevron USA
	Hobbs, New Mexico 88240	Lease:	
		Plant:	

Sample Data:	Sample Date:	4/11/2017	Sampled by:	Rafael Hernandez
	Analysis Date:	4/12/2017	Analysis by:	Vicki McDaniel
	Sample Temp:	77.8 F	Atmos Temp:	72 F
	Sample Press.:	9.8 PSIA	Sample Time:	1:25 PM

H2S = 1.5 PPM Press. Base: 14.73

Component Analysis

		Mol Percent	GPM Real	GPM Ideal
Hydrogen Sulfide	H2S			
Nitrogen	N2	8.933		
Methane	C1	44.165		
Carbon Dioxide	CO2	0.095		
Ethane	C2	19.399	5.187	5.175
Propane	C3	20.250	5.577	5.565
I-Butane	IC4	2.106	0.689	0.687
N-Butane	NC4	3.042	0.959	0.957
I-Pentane	IC5	0.187	0.068	0.068
N-Pentane	NC5	0.153	0.066	0.055
Hexanes Plus	C6+	1.670	0.724	0.723
		100.000	13.270	13.230

Input in Vyant
5-4-17 R.H

REAL BTU/CU.FT.

At 14.65	1566.5 Dry 1540.6 Wet
At 14.696	1571.4 Dry 1545.5 Wet
At 14.73	1575.0 Dry 1549.0 Wet

Specific Gravity:

Calculated	(Real)	1.013
	(Ideal)	1.007

Remarks:

LABORATORY SERVICES
Natural Gas Analysis

www.permianls.com
575.397.3713 2609 W Marland Hobbs NM 88240

For:	Chevron USA Attention: Rafael Hernandez 1616 W. Bender Blvd Hobbs, New Mexico 88240	Sample: Sta#	2300250147
		Identification:	Dorothy Fed. #2
		Company:	Chevron USA
		Lease:	
		Plant:	

Sample Data:	Sample Date:	4/11/2017	Sampled by:	Rafael Hernandez
	Analysis Date:	4/12/2017	Analysis by:	Vicki McDaniel
	Sample Temp:	85.1 F	Atmos Temp:	72 F
	Sample Press.:	50.4 PSIA	Sample Time:	1:45 PM

H2S = 19 PPM

Press. Base: 14.73

Component Analysis

		Mol Percent	GPM Real	GPM Ideal
Hydrogen Sulfide	H2S	0.002		
Nitrogen	N2	16.207		
Methane	C1	66.135		
Carbon Dioxide	CO2	0.010		
Ethane	C2	8.613	2.303	2.298
Propane	C3	5.525	1.522	1.518
I-Butane	IC4	0.629	0.206	0.205
N-Butane	NC4	1.311	0.413	0.412
I-Pentane	IC5	0.299	0.108	0.109
N-Pentane	NC5	0.315	0.137	0.114
Hexanes Plus	C6+	0.954	0.414	0.413
		100.000	5.103	5.069

Input in system 5-4-17 R.H.

REAL BTU/CU.FT.

At 14.65	1096.6 Dry 1078.8 Wet
At 14.696	1100.0 Dry 1082.1 Wet
At 14.73	1102.6 Dry 1084.6 Wet

Specific Gravity:

Calculated	(Real)	0.783
	(Ideal)	0.781

Remarks:

LABORATORY SERVICES
Natural Gas Analysis

www.permianls.com
575.397.3713 2609 W Marland Hobbs NM 88240

For:	Chevron USA	Sample: Sta#	2300250151
	Attention: Rafael Hernandez	Identification:	Edith Fed. #4
	1616 W. Bender Blvd	Company:	Chevron USA
	Hobbs, New Mexico 88240	Lease:	
		Plant:	

Sample Data:	Sample Date:	4/7/2017	Sampled by:	Rafael Hernandez
	Analysis Date:	4/10/2017	Analysis by:	Vicki McDaniel
	Sample Temp:	65.3 F	Atmos Temp:	50 F
	Sample Press.:	24.2 PSIA	Sample Time:	8:10 AM

H2S = 100 PPM Press. Base: 14.73

Component Analysis

		Mol Percent	GPM Real	GPM Ideal
Hydrogen Sulfide	H2S	0.010		
Nitrogen	N2	14.869		
Methane	C1	68.116		
Carbon Dioxide	CO2	0.051		
Ethane	C2	9.326	2.493	2.488
Propane	C3	5.010	1.380	1.377
I-Butane	IC4	0.519	0.170	0.169
N-Butane	NC4	1.155	0.364	0.363
I-Pentane	IC5	0.270	0.098	0.098
N-Pentane	NC5	0.235	0.102	0.085
Hexanes Plus	C6+	0.439	0.190	0.190
		100.000	4.797	4.770

Input in cygnet 5-4-17 R.H.

REAL BTU/CU.FT.

At 14.65	1076.8 Dry 1059.4 Wet
At 14.696	1080.2 Dry 1062.7 Wet
At 14.73	1082.7 Dry 1065.1 Wet

Specific Gravity:

Calculated (Real) 0.757 / (Ideal) 0.755

Remarks:

MANLEY GAS TESTING, INC.
P.O. DRAWER 193 ODESSA, TEXAS 79760
OFFICE(432)367-3024 FAX(432)367-1166 E-MAIL: MANLEYGAST@AOL.COM

CHARGE..... 150 - 0
REC. NO. 4
TEST NUMBER.. 13545

DATE SAMPLED..... 07-22-14
DATE RUN..... 08-01-14
EFFEC. DATE..... 08-01-14

STATION NO. ... 06035143

PRODUCER ..... CHEVRON

SAMPLE NAME.... CHESAPEAKE EDITH FED #3 TYPE: SPOT

RECEIVED FROM.. FRONTIER FIELD SERVICES LLC - MALJAMAR

FLOWING PRESSURE ..... 47.0 PSIA FLOWING TEMPERATURE ..... 92 F

SAMPLED BY: TH CYLINDER NO. ... 003

FRACTIONAL ANALYSIS
CALCULATED @ 14.650 PSIA AND 60F

	MOL%	GPM (REAL)	
HYDROGEN SULFIDE...	0.010		
NITROGEN.....	11.138		
CARBON DIOXIDE.....	0.036		
METHANE.....	61.103		
ETHANE.....	11.430	3.053	H2S PPMV = 100
PROPANE.....	8.687	2.391	
ISO-BUTANE.....	1.200	0.392	
NOR-BUTANE.....	3.087	0.972	
ISO-PENTANE.....	0.947	0.346	'Z' FACTOR (DRY) = 0.9954
NOR-PENTANE.....	0.847	0.306	'Z' FACTOR (WET) = 0.9950
HEXANES +.....	1.515	0.660	
TOTALS	100.000	8.120	CALC. MOL. WT. = 25.40

..CALCULATED SPECIFIC GRAVITIES..

REAL, DRY 0.8809

REAL, WET 0.8768

..CALCULATED GROSS HEATING VALUES..

BTU/CF - REAL, DRY 1329

BTU/CF - REAL, WET 1307

DISTRIBUTION AND REMARKS:

N

ANALYZED BY: JT
** R **

APPROVED:

MANLEY GAS TESTING, INC.
P.O. DRAWER 193 ODESSA, TEXAS 79760
OFFICE(432)367-3024 FAX(432)367-1166 E-MAIL: MANLEYGAST@AOL.COM

CHARGE..... 150 - 0
REC. NO. 3
TEST NUMBER.. 13544

DATE SAMPLED..... 07-22-14
DATE RUN..... 08-01-14
EFFEC. DATE..... 08-01-14

STATION NO. ... 06035140

PRODUCER ..... CHEVRON

SAMPLE NAME.... CHESAPEAKE EDITH FED #2 TYPE: SPOT

RECEIVED FROM.. FRONTIER FIELD SERVICES LLC - MALJAMAR

FLOWING PRESSURE ..... 42.6 PSIA FLOWING TEMPERATURE ..... 81 F

SAMPLED BY: TH CYLINDER NO. ... 013

FRACTIONAL ANALYSIS
CALCULATED @ 14.650 PSIA AND 60F

	MOL%	GPM (REAL)
HYDROGEN SULFIDE...	0.000	
NITROGEN.....	4.196	
CARBON DIOXIDE.....	0.219	
METHANE.....	66.578	
ETHANE.....	14.048	3.754
PROPANE.....	8.278	2.279
ISO-BUTANE.....	1.014	0.332
NOR-BUTANE.....	2.828	0.890
ISO-PENTANE.....	0.738	0.269
NOR-PENTANE.....	0.794	0.287
HEXANES +.....	1.307	0.570
TOTALS	100.000	8.381

'Z' FACTOR (DRY) = 0.9952
'Z' FACTOR (WET) = 0.9948

CALC. MOL. WT. = 24.38

..CALCULATED SPECIFIC GRAVITIES..

REAL, DRY 0.8456

REAL, WET 0.8421

..CALCULATED GROSS HEATING VALUES..

BTU/CF - REAL, DRY 1386

BTU/CF - REAL, WET 1362

DISTRIBUTION AND REMARKS:

N

ANALYZED BY: JT
** R **

APPROVED: MC

MANLEY GAS TESTING, INC.
P.O. DRAWER 193 ODESSA, TEXAS 79760
OFFICE(432)367-3024 FAX(432)367-1166 E-MAIL: MANLEYGAST@AOL.COM

CHARGE..... 150 - 0
REC. NO. 46
TEST NUMBER.. 14132

DATE SAMPLED..... 01-20-15
DATE RUN..... 01-30-15
EFFEC. DATE..... 02-01-15

STATION NO. ... 06035135

PRODUCER ..... CHEVRON

SAMPLE NAME.... CHESAPEAKE EDITH FED #1 TYPE: SPOT

RECEIVED FROM.. FRONTIER FIELD SERVICES LLC - MALJAMAR

FLOWING PRESSURE ..... 58.1 PSIA FLOWING TEMPERATURE ..... 76 F

SAMPLED BY: TH CYLINDER NO. ...

FRACTIONAL ANALYSIS
CALCULATED @ 14.650 PSIA AND 60F

	MOL%	GPM (REAL)
HYDROGEN SULFIDE...	0.005	
NITROGEN.....	11.153	
CARBON DIOXIDE.....	0.016	
METHANE.....	63.467	
ETHANE.....	11.540	3.081
PROPANE.....	8.048	2.214
ISO-BUTANE.....	1.035	0.338
NOR-BUTANE.....	2.549	0.802
ISO-PENTANE.....	0.708	0.258
NOR-PENTANE.....	0.608	0.220
HEXANES +.....	0.871	0.380
TOTALS	100.000	7.293

H2S PPMV = 50

'Z' FACTOR (DRY) = 0.9960
'Z' FACTOR (WET) = 0.9956

CALC. MOL. WT. = 24.17

..CALCULATED SPECIFIC GRAVITIES..

REAL, DRY 0.8378

REAL, WET 0.8344

..CALCULATED GROSS HEATING VALUES..

BTU/CF - REAL, DRY 1263

BTU/CF - REAL, WET 1241

DISTRIBUTION AND REMARKS:

N

ANALYZED BY: AW
** R **

APPROVED:

MANLEY GAS TESTING, INC.
P.O. DRAWER 193 ODESSA, TEXAS 79760
OFFICE(432)367-3024 FAX(432)367-1166 E-MAIL: MANLEYGAST@AOL.COM

CHARGE..... 150 - 0
REC. NO. 44
TEST NUMBER.. 12980

DATE SAMPLED..... 01-22-14
DATE RUN..... 01-25-14
EFFEC. DATE..... 02-01-14

STATION NO. ... 06035519

PRODUCER ..... CHEVRON

SAMPLE NAME.... SV BOBWHITE FED TYPE: SPOT

RECEIVED FROM.. FRONTIER FIELD SERVICES LLC - MALJAMAR

FLOWING PRESSURE ..... 18.5 PSIA FLOWING TEMPERATURE ..... 65 F

SAMPLED BY: CM CYLINDER NO. ... 055

FRACTIONAL ANALYSIS
CALCULATED @ 14.650 PSIA AND 60F

	MOL%	GPM (REAL)
HYDROGEN SULFIDE...	0.400	
NITROGEN.....	4.641	
CARBON DIOXIDE.....	3.401	
METHANE.....	67.626	
ETHANE.....	11.853	3.165
PROPANE.....	6.601	1.816
ISO-BUTANE.....	0.776	0.253
NOR-BUTANE.....	2.304	0.725
ISO-PENTANE.....	0.731	0.267
NOR-PENTANE.....	0.789	0.285
HEXANES +.....	0.878	0.383
TOTALS	100.000	6.894

H2S PPMV = 4000

'Z' FACTOR (DRY) = 0.9958
'Z' FACTOR (WET) = 0.9954

CALC. MOL. WT. = 23.96

..CALCULATED SPECIFIC GRAVITIES..

REAL, DRY 0.8305

REAL, WET 0.8272

..CALCULATED GROSS HEATING VALUES..

BTU/CF - REAL, DRY 1266

BTU/CF - REAL, WET 1245

DISTRIBUTION AND REMARKS:

BLITZ
N

ANALYZED BY: BJ
** R **

APPROVED:

MANLEY GAS TESTING, INC.
P.O. DRAWER 193 ODESSA, TEXAS 79760
OFFICE(432)367-3024 FAX(432)367-1166 E-MAIL: MANLEYGAST@AOL.COM

CHARGE..... 150 - 0
REC. NO. 24
TEST NUMBER.. 12960

DATE SAMPLED..... 01-22-14
DATE RUN..... 01-25-14
EFFEC. DATE..... 02-01-14

STATION NO. ... 06035132

PRODUCER ..... CHEVRON TEXACO

SAMPLE NAME.... CHESAPEAKE DOROTHY #1 TYPE: SPOT

RECEIVED FROM.. FRONTIER FIELD SERVICES LLC - MALJAMAR

FLOWING PRESSURE ..... 48.5 PSIA FLOWING TEMPERATURE ..... 65 F

SAMPLED BY: CM CYLINDER NO. ... 192

FRACTIONAL ANALYSIS
CALCULATED @ 14.650 PSIA AND 60F

	MOL%	GPM (REAL)
HYDROGEN SULFIDE...	0.004	
NITROGEN.....	14.462	
CARBON DIOXIDE.....	0.013	
METHANE.....	63.273	
ETHANE.....	10.024	2.675
PROPANE.....	7.608	2.091
ISO-BUTANE.....	0.986	0.322
NOR-BUTANE.....	2.094	0.658
ISO-PENTANE.....	0.523	0.191
NOR-PENTANE.....	0.382	0.138
HEXANES +.....	0.631	0.274
TOTALS	100.000	6.349

H2S PPMV = 40

'Z' FACTOR (DRY) = 0.9965
'Z' FACTOR (WET) = 0.9961

CALC. MOL. WT. = 23.60

..CALCULATED SPECIFIC GRAVITIES..

REAL, DRY 0.8176

REAL, WET 0.8146

..CALCULATED GROSS HEATING VALUES..

BTU/CF - REAL, DRY 1177

BTU/CF - REAL, WET 1157

DISTRIBUTION AND REMARKS:

BLITZ
N

ANALYZED BY: BJ
** R **

APPROVED:

BUREAU OF LAND MANAGEMENT
Carlsbad Field Office
620 East Greene Street
Carlsbad, New Mexico 88220
575-234-5972

Condition of Approval to Flare Gas

1. Approval not to exceed 180 days from date of submission unless otherwise specified in Sundry Notice.

2. All flaring under this request is considered to be "avoidably lost":
   Volumes flared beyond limits defined in 43 CFR 3179.7 are considered "avoidably lost" and will require payment of royalties, unless an exception is granted in accordance with 43 CFR 3179.
   Volumes for avoidably lost gas shall be reported on OGOR "B" reports as disposition code "08".

   Exceptions:
   a. The first 24 hours of a temporary emergency flare is considered "unavoidably lost" and is therefore royalty free. Flared volumes that are considered unavoidably lost are not to be included in Sundry Notice (Form 3160-5). These Volumes are not royalty bearing and shall be reported on OGOR "B" as either disposition code "21" or "22".
   b. If the operator believes that the flared volumes were "unavoidably lost", the operator can submit a request via Sundry Notice (Form 3160-5) with justification for an exception in accordance with 43 CFR 3179.4, 3179.103 - 3179.105.