

State of New Mexico
Energy, Minerals and Natural Resources Department

Michelle Lujan Grisham
Governor

Sarah Cottrell Propst
Cabinet Secretary

Todd E. Leahy, JD, PhD
Deputy Secretary

Adrienne Sandoval, Division Director
Oil Conservation Division



4/16/2020

Operator Notice Regarding
C-104 Denial and Request for Information

OCD is providing notice to operators that it will deny your C-104 – *Request for Allowable and Authorization to Transport* if it fails to provide complete and accurate information, including:

Test Allowable, New Well and Recompleted Well

30-015-43377

****Amend C-104**

****Please see attached**

- ☐ C-103 (or BLM equivalent) for all casing strings
 - ☐ Spud Notice
 - ☐ Surface Casing
 - ☐ Intermediate Casing (if applicable)
 - ☐ Additional Intermediate Casing (if applicable)
 - ☐ Production Casing or Liner

☐ Applicable Order (NSL, NSP, Other _____)

☐ Deviation Survey for Vertical Wells

☒ Directional Survey

with

☒ C-102 (As-Drilled Plat for Horizontal Well)

New Well and Recompleted Well Only

☒ C-103 Completion Sundry (or BLM equivalent)

☒ C-105 Completion Report (or BLM equivalent) **-Amend**

☒ All Logs Run on Well

The sale or transport of product without an approved C-104 violates the Oil and Gas Act and the implementing rules, including 19.15.7.15 and 19.15.16.19 NMAC. If OCD determines that your C-104 is incomplete or inaccurate, it will give you notice to resubmit your C-104 within 30 days. Failure to comply with this notice may result in enforcement action.

If you have any questions, please contact the local OCD District Office.

**Once Amended and complete, please electronically submit through
e-docs; ASAP.**

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

RECEIVED

Form C-104
Revised August 1, 2011

FEB 05 2020
Submit one copy to appropriate District Office

EMNRD-OCDA ARTESIA
DENIED REPORT

I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT

¹ Operator name and Address Cimarex Energy Co. 600 N. Marienfeld St. Suite 600 Midland, TX 7901		² OGRID Number 215099
		³ Reason for Filing Code/ Effective Date NW
⁴ API Number 30-015-43377	⁵ Pool Name Purple Sage; Wolfcamp (Gas)	⁶ Pool Code 98220
⁷ Property Code 315262	⁸ Property Name Black River 25 Federal Com	⁹ Well Number 2H

II. ¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South Line	Feet from the	East/West line	County
N	25	24S	26E		192	South	2167	West	Eddy

¹¹ Bottom Hole Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	24	24S	26E		362	North	2080	East	Eddy

¹² Lse Code	¹³ Producing Method Code	¹⁴ Gas Connection Date	¹⁵ C-129 Permit Number	¹⁶ C-129 Effective Date	¹⁷ C-129 Expiration Date
F	P	12/9/19			

III. Oil and Gas Transporters

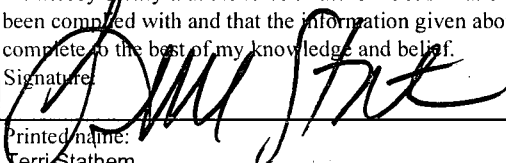
¹⁸ Transporter OGRID	¹⁹ Transporter Name and Address	²⁰ O/G/W
21778	Sunoco R&M PO Box 2039 Tulsa OK 74102	O
372406	Sendero Midstream 1000 Louisiana Street, Suite 6900 Houston, Texas 77002	G

IV. Well Completion Data

²¹ Spud Date 7/24/19	²² Ready Date 12/9/19	²³ TD 18644	²⁴ PBTD 18590	²⁵ Perforations 9025-18550	²⁶ DHC, MC
²⁷ Hole Size	²⁸ Casing & Tubing Size	²⁹ Depth Set	³⁰ Sacks Cement		
17-1/2"	13-3/8"	412'		480 sx - TOC 0	
12-1/4"	9-5/8"	1970		730 sx - TOC 0	
8-3/4" & 8-1/2"	7"/5-1/2"	18590'		3120 sx - TOC 0	
Tubing	3-1/2"	7226'			

V. Well Test Data

³¹ Date New Oil	³² Gas Delivery Date	³³ Test Date	³⁴ Test Length	³⁵ Tbg. Pressure	³⁶ Csg. Pressure
12/16/19	12/16/19	12/21/19	24	0	938
³⁷ Choke Size	³⁸ Oil	³⁹ Water	⁴⁰ Gas		⁴¹ Test Method
	598	9463	1391		P

⁴² I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.
Signature: 

Printed name:
Terri Stathem

Title:
Regulatory

E-mail Address:
tstathem@cimarex.com

Date:
12/21/19

Phone:
(432) 620-1936

OIL CONSERVATION DIVISION

Approved by:

Title:

Approval Date:

"Denied"

RECEIVED

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (505) 393-6161 Fax: (505) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (505) 748-1283 Fax: (505) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis
Santa Fe, NM 87505

Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office
EMNRD-OCD ARTESIA

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number 30-015-43377		2 Pool Code 98220		3 Pool Name Purple Sage, Wolfcamp (Gas)	
4 Property Code 315262		5 Property Name BLACK RIVER 25 FEDERAL COM		6 Well Number 2H	
7 CHUB No. 215099		8 Operator Name CIMAREX ENERGY CO.		9 Elevation 3312.8'	

10 Surface Location

11 Ul. or lot no.	12 Section	13 Township	14 Range	15 Lot Idn	16 Feet from the	17 North/South line	18 Feet from the	19 East/West line	20 County
N	25	24 S	26 E		192	SOUTH	2167	WEST	EDDY

11 Bottom Hole Location If Different From Surface

11 Ul. or lot no.	12 Section	13 Township	14 Range	15 Lot Idn	16 Feet from the	17 North/South line	18 Feet from the	19 East/West line	20 County
B	24	24 S	26 E		362	NORTH	2080	EAST	EDDY
12 Dedicated Acres 640		13 Joint or Infill		14 Consolidation Code		15 Order No.			

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

LINE TABLE		
LINE	DIRECTION	LENGTH
L1	S89°47'43"E	1042.45'

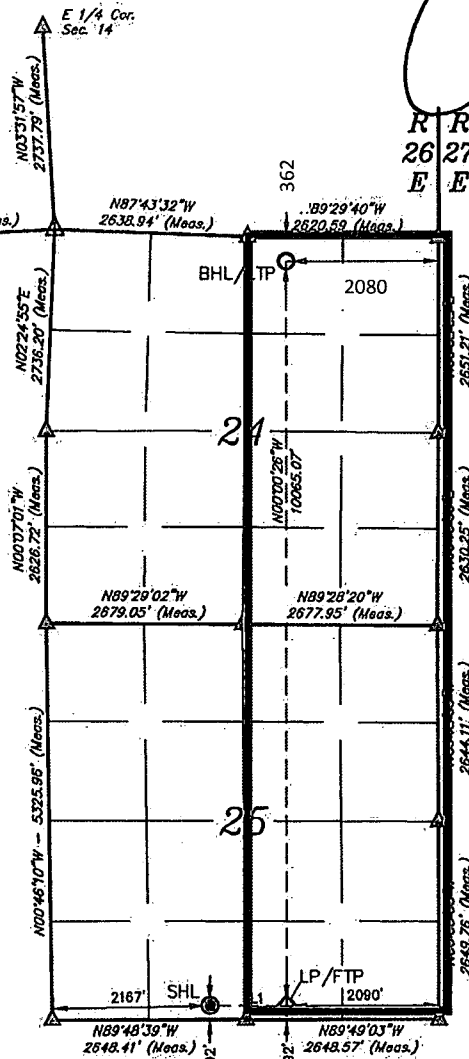
NOTE:
• Distances referenced on plat to section lines are perpendicular.
• Basis of Bearing is a Transverse Mercator Projection with a Central Meridian of W103°07'02.74"

- ⊙ = SURFACE HOLE LOCATION
- ◇ = LANDING POINT/FIRST TAKE POINT
- = BOTTOM HOLE LOCATION/ LAST TAKE POINT

NAD 83 (SURFACE HOLE LOCATION)	
LATITUDE =	32°10'53.05" (32.181411)
LONGITUDE =	104°14'53.23" (104.248119)
NAD 27 (SURFACE HOLE LOCATION)	
LATITUDE =	32°10'52.65" (32.181292)
LONGITUDE =	104°14'51.43" (104.247619)
STATE PLANE NAD 83 (N.M. EAST)	
N:	429742.53 E: 567700.99
STATE PLANE NAD 27 (N.M. EAST)	
N:	429684.89 E: 526518.33



REV: 2 06-18-19 D.J.S. (BHL CHANGE)
△ = SECTION CORNERS LOCATED.
△ = SECTION CORNERS RE-ESTABLISHED.
(Not Set on Ground.)



12 OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or this a right to drill this well and I hereby warrant to connect with an owner of such mineral or working interest, or a voluntary pooling agreement or compulsory pooling order, hereto submitted by the operator.

12/23/19

Terri Stathem
Printed Name

stathem@cimarex.com

E-mail Address

13 SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

August 22, 2014

Date of Survey
Signature and Seal of Professional Surveyor:



Certificate Number:

Intent ☐ As Drilled ☒

API #
30-015-43377

Operator Name: Cimarex Energy Co. of Colorado	Property Name: Black River 25 Federal com	Well Number 2H
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Kick Off Point (KOP)

UL N	Section 25	Township 24S	Range 26E	Lot	Feet 196	From N/S South	Feet 2146	From E/W East	County Eddy
Latitude 32.181411					Longitude -104.244933			NAD 83	

First Take Point (FTP)

UL N	Section 25	Township 24S	Range 26E	Lot	Feet 639	From N/S South	Feet 2130	From E/W East	County Eddy
Latitude 32.182631					Longitude -104.244881			NAD 83	

Last Take Point (LTP)

UL b	Section 24	Township 24S	Range 26E	Lot	Feet 531	From N/S North	Feet 2081	From E/W East	County Eddy
Latitude 32.208961					Longitude -104.244725			NAD 83	

Is this well the defining well for the Horizontal Spacing Unit? ☐ Yes

Is this well an infill well? ☐ No

If infill is yes please provide API if available, Operator Name and well number for Defining well for Horizontal Spacing Unit.

API #

Operator Name:	Property Name:	Well Number
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KZ 06/29/2018

Borehole:	Well:	Field:	Structure:
Original Borehole	Cimarex Black River 25 Federal Com 2H	NM Eddy County (NAD 83)	Cimarex Black River 25 Federal Com 2H

Gravity & Magnetic Parameters	Surface Location	NAD83 New Mexico State Plane, Eastern Zone, US Feet	Miscellaneous
Model: HDGM 2019	Lat: N 32 10 63.08	Northings: 429742.63NUS	Cimarex Black River 25 Federal Com 2H
MagDec: 7.262°	Lon: W 104 14 63.23	Eastings: 587700.89NUS	Final Survey - Cimarex Black River 25 Federal Com 2H 06-18644R (Sucon Corrected)
Dip: 59.823°		Grid Conv: 0.0454°	TVD Ref: RKB(3338.8R above MSL)
FB: 47792.761N/T		Scale Fact: 0.9999089	
Date: 14-Aug-2019			
Gravity FB: 958.44mg (8.80655 Based)			

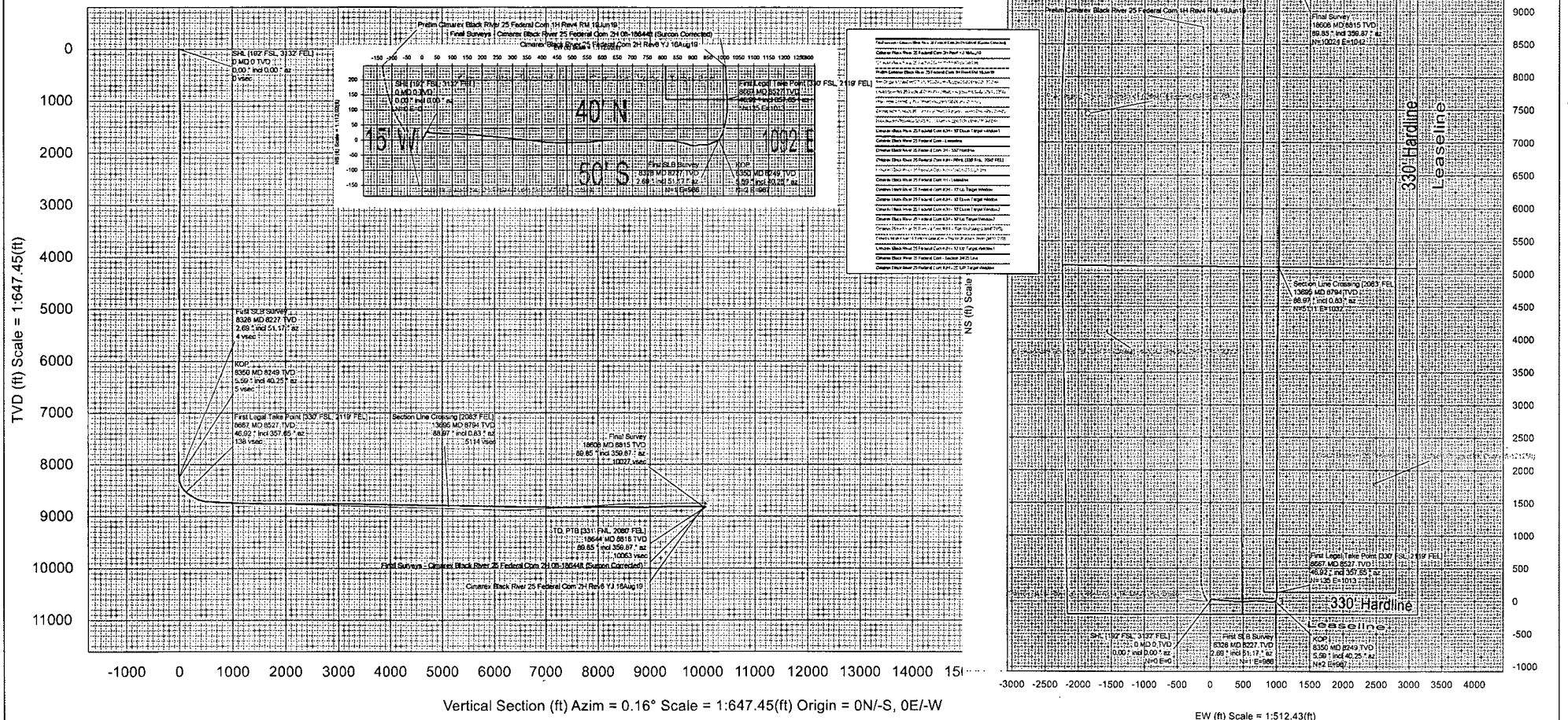
Critical Points

Critical Point	MD	INCL	AZIM	TVD	VSEC	N(+)/S(-)	E(+)/W(-)	DLS
SHE (192° FSL, 3137° FEL)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
First SLB Survey	8328.00	2.69	51.17	8227.17	4.04	1.24	985.71	0.88
KOP	8349.72	5.59	40.25	8248.83	5.17	2.36	986.79	13.77
First Legal Take Point (330° FSL, 2119° FEL)	8667.10	46.92	357.65	8527.34	138.17	135.29	1012.90	10.45
Section Line Crossing (2083° FEL)	13894.69	88.97	0.83	8783.60	5114.35	5111.43	1032.43	1.27
Final Survey	18608.00	89.85	359.87	8815.49	10026.85	10023.92	1041.81	0.94
TD, PTB (331° FSL, 2080° FEL)	18644.00	89.85	359.87	8815.58	10067.85	10059.92	1041.73	0.00



Grid North
Tot Cor (M-G 7.217°)
Mag Dec (7.262°)
Grid Conv (0.045°)

CONTROLLED	
Plan of	THIS SURVEY IS CONTROLLED BY THE FOLLOWING COM 2H 06-18644R (Sucon Corrected)
Drawing ref	
Survey number	43
Date	21-Aug-2019
Client	
Drawn	
Checked	
Reviewed	
Copy number	for



EW (ft) Scale = 1:512.43(ft)

Final Surveys - Cimarex Black River 25 Federal Com 2H 0ft-18644ft (Surcon Corrected) Survey Geodetic Report

(Def Survey)



Report Date:	August 21, 2019 - 02:21 PM	Survey / DLS Computation:	Minimum Curvature / Lubinski
Client:	Cimarex	Vertical Section Azimuth:	0.163 ° (Grid North)
Field:	NM Eddy County (NAD 83)	Vertical Section Origin:	0.000 ft, 0.000 ft
Structure / Slot:	Cimarex Black River 25 Federal Com 2H / Cimarex Black River 25 Federal Com 2H	TVD Reference Datum:	RKB
Well:	Cimarex Black River 25 Federal Com 2H	TVD Reference Elevation:	3338.800 ft above MSL
Borehole:	Original Borehole	Seabed / Ground Elevation:	3312.800 ft above MSL
UWI / API#:	Unknown / Unknown	Magnetic Declination:	7.262 °
Survey Name:	Final Surveys - Cimarex Black River 25 Federal Com 2H 0ft-18644ft (Surcon Corrected)	Total Gravity Field Strength:	998.4396mgn (9.80665 Based)
Survey Date:	August 06, 2019	Gravity Model:	GARM
Tort / AHD / DDI / ERD Ratio:	236.916 ° / 11074.479 ft / 6.744 / 1.254	Total Magnetic Field Strength:	47792.761 nT
Coordinate Reference System:	NAD83 New Mexico State Plane, Eastern Zone, US Feet	Magnetic Dip Angle:	59.823 °
Location Lat / Long:	N 32° 10' 53.08041", W 104° 14' 53.22605"	Declination Date:	August 14, 2019
Location Grid N/E Y/X:	N 429742.530 ftUS, E 567700.990 ftUS	Magnetic Declination Model:	HDGM 2019
CRS Grid Convergence Angle:	0.0454 °	North Reference:	Grid North
Grid Scale Factor:	0.99990989	Grid Convergence Used:	0.0454 °
Version / Patch:	2.10.760.0	Total Corr Mag North->Grid North:	7.2167 °
		Local Coord Referenced To:	Structure Reference Point

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (RUS)	Easting (RUS)	Latitude (N/S ° ' '')	Longitude (E/W ° ' '')	Closure Azimuth (°)	Closure (ft)
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	429742.53	567700.99	N 32 10 53.08	W 104 14 53.23	0.00	0.00
	160.00	0.60	54.90	160.00	0.48	0.48	0.69	0.38	429743.01	567701.68	N 32 10 53.09	W 104 14 53.22	54.90	0.84
	372.00	1.60	24.90	371.96	3.81	3.80	2.84	0.53	429746.33	567703.83	N 32 10 53.12	W 104 14 53.19	36.74	4.75
	569.00	1.57	22.72	568.88	8.80	8.79	5.04	0.03	429751.32	567706.03	N 32 10 53.17	W 104 14 53.17	29.83	10.13
	660.00	1.60	25.82	659.85	11.10	11.08	6.07	0.10	429753.61	567707.06	N 32 10 53.19	W 104 14 53.16	28.73	12.64
	750.00	1.65	32.13	749.81	13.33	13.31	7.31	0.21	429755.84	567708.30	N 32 10 53.21	W 104 14 53.14	28.78	15.19
	841.00	1.73	25.68	840.77	15.68	15.66	8.60	0.23	429758.19	567709.59	N 32 10 53.24	W 104 14 53.13	28.79	17.87
	935.00	1.68	23.10	934.73	18.23	18.20	9.76	0.10	429760.73	567710.75	N 32 10 53.26	W 104 14 53.11	28.19	20.65
	1029.00	1.59	22.79	1028.69	20.70	20.67	10.80	0.10	429763.20	567711.79	N 32 10 53.28	W 104 14 53.10	27.59	23.33
	1123.00	1.84	30.40	1122.65	23.21	23.18	12.07	0.36	429765.71	567713.06	N 32 10 53.31	W 104 14 53.09	27.52	26.13
	1218.00	0.93	30.75	1217.62	25.19	25.16	13.24	0.96	429767.68	567714.23	N 32 10 53.33	W 104 14 53.07	27.76	28.43
	1312.00	0.28	26.00	1311.61	26.06	26.02	13.73	0.69	429768.55	567714.72	N 32 10 53.34	W 104 14 53.07	27.82	29.42
	1406.00	1.23	94.50	1405.61	26.19	26.15	14.84	1.23	429768.67	567715.83	N 32 10 53.34	W 104 14 53.05	29.57	30.06
	1501.00	1.31	92.37	1500.58	26.07	26.02	16.94	0.10	429768.55	567717.93	N 32 10 53.34	W 104 14 53.03	33.06	31.05
	1595.00	1.36	93.17	1594.56	25.97	25.91	19.13	0.06	429768.44	567720.11	N 32 10 53.34	W 104 14 53.00	36.43	32.21
	1689.00	1.96	103.70	1688.52	25.53	25.47	21.80	0.71	429768.00	567722.79	N 32 10 53.33	W 104 14 52.97	40.56	33.53
	1783.00	2.47	97.12	1782.45	24.91	24.84	25.37	0.61	429767.37	567726.36	N 32 10 53.33	W 104 14 52.93	45.61	35.51
	1885.00	2.46	100.37	1884.35	24.26	24.17	29.71	0.14	429766.70	567730.69	N 32 10 53.32	W 104 14 52.88	50.86	38.30
	2060.00	2.30	91.49	2059.20	23.51	23.41	36.91	0.23	429765.93	567737.90	N 32 10 53.31	W 104 14 52.80	57.62	43.71
	2154.00	2.59	90.87	2153.12	23.44	23.32	40.92	0.31	429765.85	567741.91	N 32 10 53.31	W 104 14 52.75	60.32	47.10
	2248.00	2.98	92.01	2247.01	23.34	23.21	45.49	0.42	429765.73	567746.47	N 32 10 53.31	W 104 14 52.70	62.97	51.06
	2343.00	4.00	92.49	2341.83	23.12	22.98	51.26	1.07	429765.50	567752.25	N 32 10 53.31	W 104 14 52.63	65.86	56.18
	2437.00	5.36	93.78	2435.51	22.71	22.54	58.92	1.45	429765.07	567759.91	N 32 10 53.30	W 104 14 52.54	69.06	63.09
	2532.00	7.34	94.70	2529.93	21.95	21.75	69.40	2.09	429764.28	567770.38	N 32 10 53.30	W 104 14 52.42	72.60	72.73
	2626.00	9.14	92.54	2622.95	21.17	20.93	82.84	1.94	429763.46	567783.82	N 32 10 53.29	W 104 14 52.26	75.82	85.45
	2720.00	11.35	92.07	2715.45	20.55	20.27	99.55	2.35	429762.79	567800.53	N 32 10 53.28	W 104 14 52.07	78.49	101.59
	2815.00	13.76	90.53	2808.17	20.17	19.82	120.19	2.56	429762.35	567821.17	N 32 10 53.28	W 104 14 51.83	80.63	121.81
	2909.00	16.06	92.85	2899.00	19.48	19.07	144.36	2.53	429761.60	567845.33	N 32 10 53.27	W 104 14 51.55	82.47	145.61
	3003.00	17.46	93.80	2989.00	17.98	17.49	171.42	1.52	429760.02	567872.39	N 32 10 53.25	W 104 14 51.23	84.17	172.31
	3098.00	18.11	94.97	3079.46	15.84	15.27	200.35	0.78	429757.80	567901.32	N 32 10 53.23	W 104 14 50.89	85.64	200.93
	3192.00	18.88	95.53	3168.61	13.19	12.54	230.04	0.84	429755.07	567931.01	N 32 10 53.20	W 104 14 50.55	86.88	230.38
	3286.00	17.77	96.25	3257.84	10.25	9.51	259.44	1.21	429752.04	567960.40	N 32 10 53.17	W 104 14 50.21	87.90	259.61
	3381.00	16.34	95.72	3348.66	7.42	6.60	287.15	1.51	429749.13	567988.11	N 32 10 53.14	W 104 14 49.88	88.68	287.22
	3475.00	16.37	95.15	3438.86	4.99	4.09	313.50	0.17	429746.62	568014.46	N 32 10 53.12	W 104 14 49.58	89.25	313.52

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")	Closure Azimuth (°)	Closure (ft)
	3570.00	16.57	95.45	3529.96	2.57	1.61	340.31	0.23	429744.14	568041.27	N 32 10 53.09	W 104 14 49.27	89.73	340.32
	3664.00	17.20	96.23	3619.90	-0.13	-1.18	367.47	0.71	429741.35	568068.43	N 32 10 53.07	W 104 14 48.95	90.18	367.48
	3758.00	16.83	96.55	3709.79	-3.11	-4.24	394.81	0.41	429738.29	568095.76	N 32 10 53.04	W 104 14 48.63	90.61	394.83
	3852.00	15.46	95.88	3800.08	-5.88	-7.07	420.79	1.47	429735.46	568121.74	N 32 10 53.01	W 104 14 48.33	90.96	420.85
	3947.00	13.78	92.49	3892.00	-7.60	-8.86	444.69	1.98	429733.67	568145.64	N 32 10 52.99	W 104 14 48.05	91.14	444.78
	4041.00	12.84	89.05	3983.48	-7.85	-9.17	466.32	1.31	429733.36	568167.27	N 32 10 52.99	W 104 14 47.80	91.13	466.41
	4135.00	12.82	89.47	4075.13	-7.52	-8.90	487.19	0.10	429733.63	568188.14	N 32 10 52.99	W 104 14 47.56	91.05	487.28
	4229.00	12.29	88.67	4166.88	-7.13	-8.58	507.62	0.59	429733.95	568208.57	N 32 10 52.99	W 104 14 47.32	90.97	507.70
	4324.00	12.36	88.65	4259.69	-6.60	-8.10	527.90	0.07	429734.43	568228.84	N 32 10 53.00	W 104 14 47.08	90.88	527.96
	4419.00	11.66	87.01	4352.61	-5.80	-7.36	547.65	0.82	429735.17	568248.59	N 32 10 53.00	W 104 14 46.85	90.77	547.70
	4513.00	11.84	84.76	4444.65	-4.37	-5.99	566.74	0.52	429736.55	568267.68	N 32 10 53.02	W 104 14 46.63	90.61	566.77
	4607.00	12.84	83.37	4536.47	-2.23	-3.90	586.72	1.11	429738.63	568287.65	N 32 10 53.04	W 104 14 46.40	90.38	586.73
	4702.00	13.83	86.19	4628.91	-0.19	-1.93	608.53	1.25	429740.60	568309.47	N 32 10 53.06	W 104 14 46.15	90.18	608.54
	4796.00	14.09	88.29	4720.14	0.96	-0.84	631.18	0.61	429741.69	568332.11	N 32 10 53.07	W 104 14 45.88	90.08	631.18
	4890.00	13.31	88.93	4811.46	1.56	-0.29	653.44	0.85	429742.24	568354.37	N 32 10 53.07	W 104 14 45.62	90.03	653.44
	4989.00	12.41	89.54	4907.98	1.93	0.00	675.47	0.92	429742.53	568376.39	N 32 10 53.08	W 104 14 45.37	90.00	675.47
	5079.00	11.91	89.46	4995.96	2.14	0.17	694.42	0.56	429742.70	568395.35	N 32 10 53.08	W 104 14 45.15	89.99	694.42
	5173.00	11.11	89.96	5088.07	2.30	0.27	713.18	0.86	429742.80	568414.10	N 32 10 53.08	W 104 14 44.93	89.98	713.18
	5268.00	10.69	91.17	5181.35	2.17	0.09	731.14	0.50	429742.62	568432.07	N 32 10 53.08	W 104 14 44.72	89.99	731.14
	5362.00	10.40	91.79	5273.76	1.78	-0.35	748.34	0.33	429742.18	568449.26	N 32 10 53.07	W 104 14 44.52	90.03	748.34
	5456.00	10.33	90.93	5366.23	1.43	-0.75	765.25	0.18	429741.78	568466.17	N 32 10 53.07	W 104 14 44.32	90.06	765.25
	5551.00	10.02	92.09	5459.74	1.03	-1.19	782.02	0.39	429741.34	568482.94	N 32 10 53.06	W 104 14 44.13	90.09	782.02
	5645.00	8.90	93.59	5552.46	0.32	-1.94	797.45	1.22	429740.59	568498.37	N 32 10 53.05	W 104 14 43.95	90.14	797.45
	5739.00	8.73	92.39	5645.35	-0.39	-2.70	811.84	0.27	429739.83	568512.75	N 32 10 53.05	W 104 14 43.78	90.19	811.84
	5833.00	7.79	88.38	5738.37	-0.47	-2.81	825.33	1.17	429739.72	568526.25	N 32 10 53.05	W 104 14 43.62	90.20	825.34
	5928.00	6.54	95.05	5832.63	-0.73	-3.11	837.16	1.58	429739.42	568538.07	N 32 10 53.04	W 104 14 43.49	90.21	837.16
	6022.00	6.06	100.01	5926.06	-2.03	-4.44	847.38	0.77	429738.09	568548.29	N 32 10 53.03	W 104 14 43.37	90.30	847.39
	6117.00	5.57	105.77	6020.57	-4.13	-6.57	856.75	0.80	429735.96	568557.66	N 32 10 53.01	W 104 14 43.26	90.44	856.78
	6212.00	4.99	104.32	6115.17	-6.38	-8.84	865.19	0.63	429733.69	568566.10	N 32 10 52.99	W 104 14 43.16	90.59	865.24
	6307.00	5.02	101.98	6209.81	-8.24	-10.73	873.26	0.22	429731.80	568574.17	N 32 10 52.97	W 104 14 43.07	90.70	873.33
	6401.00	4.34	104.02	6303.49	-9.94	-12.44	880.73	0.74	429730.09	568581.64	N 32 10 52.95	W 104 14 42.98	90.81	880.82
	6495.00	4.20	109.58	6397.23	-11.93	-14.46	887.43	0.46	429728.07	568588.34	N 32 10 52.93	W 104 14 42.90	90.93	887.55
	6589.00	4.42	105.59	6490.97	-14.04	-16.58	894.16	0.40	429725.95	568595.07	N 32 10 52.91	W 104 14 42.82	91.06	894.31
	6683.00	3.89	99.34	6584.72	-15.51	-18.08	900.80	0.74	429724.46	568601.70	N 32 10 52.89	W 104 14 42.75	91.15	900.98
	6778.00	3.36	90.78	6679.53	-16.06	-18.64	906.76	0.80	429723.90	568607.67	N 32 10 52.89	W 104 14 42.68	91.18	906.95
	6872.00	2.50	84.34	6773.41	-15.88	-18.47	911.55	0.98	429724.06	568612.46	N 32 10 52.89	W 104 14 42.62	91.16	911.74
	6967.00	2.56	69.63	6868.32	-14.92	-17.53	915.60	0.68	429725.00	568616.51	N 32 10 52.90	W 104 14 42.57	91.10	915.77
	7059.00	2.16	65.50	6960.24	-13.48	-16.09	919.11	0.47	429726.44	568620.01	N 32 10 52.91	W 104 14 42.53	91.00	919.25
	7154.00	3.40	91.67	7055.13	-12.81	-15.43	923.55	1.84	429727.10	568624.46	N 32 10 52.92	W 104 14 42.48	90.96	923.68
	7248.00	4.58	93.23	7148.90	-13.08	-15.73	930.09	1.26	429726.80	568630.99	N 32 10 52.92	W 104 14 42.40	90.97	930.22
	7342.00	4.47	93.67	7242.60	-13.51	-16.17	937.49	1.12	429726.36	568638.39	N 32 10 52.91	W 104 14 42.32	90.99	937.63
	7437.00	4.04	82.65	7337.34	-13.29	-15.98	944.50	0.97	429726.55	568645.41	N 32 10 52.91	W 104 14 42.24	90.97	944.64
	7531.00	3.71	74.90	7431.13	-12.06	-14.77	950.72	0.66	429727.77	568651.63	N 32 10 52.93	W 104 14 42.16	90.89	950.84
	7625.00	3.17	71.43	7524.96	-10.43	-13.15	956.12	0.62	429729.39	568657.03	N 32 10 52.94	W 104 14 42.10	90.79	956.21
	7720.00	3.09	63.75	7619.82	-8.44	-11.18	960.91	0.45	429731.35	568661.81	N 32 10 52.96	W 104 14 42.05	90.67	960.98
	7814.00	3.08	63.59	7713.68	-6.19	-8.93	965.44	0.01	429733.60	568666.35	N 32 10 52.98	W 104 14 41.99	90.53	965.49
	7908.00	2.84	67.73	7807.56	-4.17	-6.93	969.86	0.34	429735.60	568670.76	N 32 10 53.00	W 104 14 41.94	90.41	969.89
	8003.00	2.57	74.13	7902.45	-2.68	-5.45	974.09	0.43	429737.08	568674.99	N 32 10 53.02	W 104 14 41.89	90.32	974.10
	8097.00	2.48	62.51	7996.36	-1.16	-3.94	977.92	0.55	429738.59	568678.82	N 32 10 53.03	W 104 14 41.85	90.23	977.93
	8191.00	2.31	59.78	8090.28	0.75	-2.05	981.36	0.22	429740.48	568682.26	N 32 10 53.05	W 104 14 41.81	90.12	981.36
	8256.00	2.06	50.60	8155.23	2.15	-0.64	983.39	0.66	429741.89	568684.29	N 32 10 53.07	W 104 14 41.78	90.04	983.39
First SLB Survey	8328.00	2.69	51.17	8227.17	4.04	1.24	985.71	0.88	429743.77	568686.81	N 32 10 53.08	W 104 14 41.76	89.93	985.71
KOP	8349.72	5.59	40.25	8248.83	5.17	2.36	986.79	13.77	429744.89	568687.69	N 32 10 53.10	W 104 14 41.74	89.86	986.79
	8359.00	6.85	38.42	8258.06	5.95	3.14	987.43	13.77	429745.67	568688.33	N 32 10 53.10	W 104 14 41.74	89.82	987.43
	8391.00	11.29	33.45	8289.65	10.07	7.25	990.34	14.08	429749.78	568691.24	N 32 10 53.14	W 104 14 41.70	89.58	990.37
	8423.00	15.85	26.52	8320.75	16.61	13.78	994.02	15.10	429756.31	568694.92	N 32 10 53.21	W 104 14 41.66	89.21	994.12
	8470.00	20.64	16.79	8365.38	30.31	27.46	999.28	12.05	429769.99	568700.18	N 32 10 53.34	W 104 14 41.60	88.43	999.66
	8517.00	26.83	12.81	8408.39	48.61	45.76	1004.03	13.60	429788.28	568704.93	N 32 10 53.53	W 104 14 41.54	87.39	1005.08
	8564.00	34.21	11.59	8448.85	71.94	69.07	1009.05	15.76	429811.60	568709.94	N 32 10 53.76	W 104 14 41.48	86.08	1011.41
	8611.00	39.32	4.03	8486.51	99.79	96.90	1012.75	14.51	429839.43	568713.65	N 32 10 54.03	W 104 14 41.44	84.53	1017.38
	8658.00	45.98	357.84	8521.07	131.58	128.69	1013.16	16.73	429871.21	568714.06	N 32 10 54.35	W 104 14 41.44	82.76	1021.30
First Legal Take Point [330' FSL, 2119' FEL]	8667.10	46.92	357.65	8527.34	138.17	135.29	1012.90	10.45	429877.80	568713.80	N 32 10 54.41	W 104 14 41.44	82.39	1021.90
	8705.00	50.84	356.90	8552.26	166.68	163.80	1011.54	10.45	429906.31	568712.44	N 32 10 54.69	W 104 14 41.45	80.80	1024.72

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")	Closure Azimuth (°)	Closure (ft)
	8753.00	56.11	357.22	8580.82	205.18	202.31	1009.57	10.99	429944.82	568710.46	N 32 10 55.07	W 104 14 41.48	78.67	1029.64
	8800.00	58.31	356.96	8606.27	244.63	241.76	1007.56	4.70	429984.27	568708.46	N 32 10 55.46	W 104 14 41.50	76.51	1036.16
	8847.00	59.36	357.58	8630.60	284.79	281.93	1005.64	2.50	430024.44	568706.54	N 32 10 55.86	W 104 14 41.52	74.34	1044.42
	8894.00	60.59	358.45	8654.11	325.46	322.60	1004.24	3.07	430065.10	568705.13	N 32 10 56.26	W 104 14 41.54	72.19	1054.78
	8941.00	66.39	359.28	8675.08	367.49	364.63	1003.41	12.44	430107.13	568704.31	N 32 10 56.68	W 104 14 41.55	70.03	1067.61
	8989.00	74.22	358.74	8691.25	412.63	409.78	1002.63	16.35	430152.28	568703.52	N 32 10 57.13	W 104 14 41.56	67.77	1083.13
	9025.00	77.73	358.12	8699.97	447.54	444.69	1001.67	9.89	430187.18	568702.57	N 32 10 57.47	W 104 14 41.57	66.06	1095.94
	9082.00	82.34	357.27	8709.83	503.61	500.77	999.41	8.22	430243.25	568700.31	N 32 10 58.03	W 104 14 41.59	63.39	1117.85
	9177.00	86.90	359.43	8718.74	598.12	595.28	996.69	5.31	430337.76	568697.59	N 32 10 58.96	W 104 14 41.62	59.15	1160.93
	9242.00	87.61	359.51	8721.85	663.04	660.20	996.09	1.10	430402.67	568696.99	N 32 10 59.61	W 104 14 41.63	56.46	1195.02
	9336.00	87.43	358.95	8725.92	756.93	754.11	994.83	0.63	430496.57	568695.73	N 32 11 0.53	W 104 14 41.64	52.84	1248.34
	9430.00	87.40	359.64	8730.16	850.83	848.00	993.67	0.73	430590.46	568694.57	N 32 11 1.46	W 104 14 41.66	49.52	1306.33
	9524.00	87.45	1.14	8734.38	944.73	941.90	994.31	1.60	430684.35	568695.21	N 32 11 2.39	W 104 14 41.65	46.55	1369.61
	9618.00	87.55	1.48	8738.48	1038.62	1035.79	996.46	0.38	430778.22	568697.36	N 32 11 3.32	W 104 14 41.62	43.89	1437.29
	9712.00	87.64	1.48	8742.43	1132.51	1129.68	998.89	0.10	430872.10	568699.78	N 32 11 4.25	W 104 14 41.59	41.48	1507.96
	9807.00	87.38	0.94	8746.55	1227.41	1224.56	1000.89	0.63	430966.98	568701.79	N 32 11 5.19	W 104 14 41.57	39.26	1581.56
	9901.00	87.99	1.04	8750.35	1321.32	1318.47	1002.51	0.66	431060.88	568703.41	N 32 11 6.12	W 104 14 41.55	37.25	1656.32
	9995.00	88.83	1.30	8752.96	1415.27	1412.42	1004.43	0.94	431154.82	568705.33	N 32 11 7.05	W 104 14 41.53	35.42	1733.15
	10089.00	88.46	0.37	8755.18	1509.23	1506.38	1005.80	1.06	431248.77	568706.70	N 32 11 7.98	W 104 14 41.51	33.73	1811.30
	10183.00	88.35	0.12	8757.80	1603.20	1600.34	1006.20	0.29	431342.72	568707.10	N 32 11 8.91	W 104 14 41.50	32.16	1890.38
	10278.00	88.34	0.69	8760.54	1698.16	1695.30	1006.87	0.60	431437.67	568707.77	N 32 11 9.85	W 104 14 41.49	30.71	1971.76
	10372.00	88.72	359.72	8762.95	1792.12	1789.27	1007.21	1.11	431531.63	568708.11	N 32 11 10.78	W 104 14 41.49	29.38	2053.28
	10466.00	87.89	359.57	8765.73	1886.08	1883.22	1006.63	0.90	431625.58	568707.53	N 32 11 11.71	W 104 14 41.50	28.13	2135.38
	10560.00	88.39	0.92	8768.78	1980.03	1977.17	1007.03	1.53	431719.52	568707.93	N 32 11 12.64	W 104 14 41.49	26.99	2218.85
	10655.00	90.70	0.67	8769.54	2075.01	2072.15	1008.35	2.45	431814.49	568709.24	N 32 11 13.58	W 104 14 41.47	25.95	2304.47
	10749.00	90.51	0.38	8768.55	2169.00	2166.14	1009.21	0.37	431908.47	568710.11	N 32 11 14.51	W 104 14 41.46	24.98	2389.70
	10843.00	90.41	0.20	8767.79	2263.00	2260.14	1009.68	0.22	432002.46	568710.58	N 32 11 15.44	W 104 14 41.46	24.07	2475.42
	10938.00	90.28	359.82	8767.22	2358.00	2355.14	1009.70	0.42	432097.45	568710.60	N 32 11 16.38	W 104 14 41.46	23.21	2562.45
	11032.00	89.69	0.40	8767.24	2452.00	2449.13	1009.88	0.88	432191.44	568710.78	N 32 11 17.31	W 104 14 41.45	22.41	2649.17
	11126.00	89.95	0.43	8767.54	2546.00	2543.13	1010.56	0.28	432285.43	568711.46	N 32 11 18.24	W 104 14 41.44	21.67	2736.56
	11221.00	90.18	0.12	8767.43	2641.00	2638.13	1011.02	0.41	432380.42	568711.92	N 32 11 19.18	W 104 14 41.44	20.97	2825.22
	11315.00	89.98	359.86	8767.30	2735.00	2732.13	1011.00	0.35	432474.41	568711.90	N 32 11 20.11	W 104 14 41.44	20.31	2913.19
	11409.00	89.83	359.97	8767.46	2828.99	2826.13	1010.86	0.20	432568.40	568711.76	N 32 11 21.04	W 104 14 41.44	19.68	3001.48
	11503.00	89.99	360.00	8767.60	2922.99	2920.13	1010.84	0.17	432662.39	568711.73	N 32 11 21.97	W 104 14 41.44	19.09	3090.14
	11598.00	90.16	359.91	8767.48	3017.99	3015.13	1010.76	0.20	432757.38	568711.66	N 32 11 22.91	W 104 14 41.44	18.53	3180.04
	11692.00	89.89	359.78	8767.44	3111.99	3109.13	1010.51	0.32	432851.37	568711.41	N 32 11 23.84	W 104 14 41.44	18.00	3269.22
	11786.00	89.56	359.92	8767.89	3205.99	3203.13	1010.26	0.38	432945.36	568711.16	N 32 11 24.77	W 104 14 41.44	17.51	3358.67
	11880.00	89.38	0.35	8768.76	3299.98	3297.12	1010.48	0.50	433039.35	568711.38	N 32 11 25.70	W 104 14 41.44	17.04	3448.49
	11974.00	89.50	359.91	8769.68	3393.98	3391.12	1010.70	0.49	433133.34	568711.59	N 32 11 26.63	W 104 14 41.43	16.60	3538.53
	12068.00	89.67	0.05	8770.36	3487.98	3485.12	1010.66	0.23	433227.32	568711.56	N 32 11 27.56	W 104 14 41.43	16.17	3628.70
	12162.00	89.20	359.89	8771.29	3581.97	3579.11	1010.62	0.53	433321.31	568711.51	N 32 11 28.49	W 104 14 41.43	15.77	3719.06
	12256.00	88.15	0.68	8773.46	3675.94	3673.08	1011.08	1.40	433415.27	568711.98	N 32 11 29.42	W 104 14 41.43	15.39	3809.70
	12350.00	89.99	1.37	8774.99	3769.92	3767.05	1012.76	2.09	433509.23	568713.66	N 32 11 30.35	W 104 14 41.41	15.05	3900.82
	12445.00	90.00	0.91	8774.99	3864.90	3862.03	1014.65	0.48	433604.21	568715.55	N 32 11 31.29	W 104 14 41.38	14.72	3993.10
	12539.00	89.42	0.68	8775.47	3958.89	3956.02	1015.96	0.66	433698.19	568716.86	N 32 11 32.22	W 104 14 41.37	14.40	4084.39
	12633.00	89.35	0.59	8776.48	4052.89	4050.01	1017.00	0.12	433792.17	568717.90	N 32 11 33.15	W 104 14 41.35	14.10	4175.75
	12727.00	88.99	1.14	8777.84	4146.87	4143.99	1018.42	0.70	433886.14	568719.32	N 32 11 34.08	W 104 14 41.34	13.81	4267.30
	12821.00	89.40	1.10	8779.16	4240.85	4237.96	1020.26	0.44	433980.10	568721.15	N 32 11 35.01	W 104 14 41.31	13.54	4359.04
	12915.00	88.96	0.25	8780.51	4334.83	4331.94	1021.36	1.02	434074.07	568722.26	N 32 11 35.94	W 104 14 41.30	13.27	4450.72
	13009.00	89.40	0.94	8781.85	4428.82	4425.93	1022.34	0.87	434168.05	568723.24	N 32 11 36.87	W 104 14 41.29	13.01	4542.47
	13104.00	89.10	1.59	8783.09	4523.79	4520.90	1024.44	0.75	434263.01	568725.33	N 32 11 37.81	W 104 14 41.26	12.77	4635.51
	13198.00	88.86	0.71	8784.77	4617.76	4614.86	1026.32	0.97	434356.97	568727.22	N 32 11 38.74	W 104 14 41.24	12.54	4727.61
	13292.00	89.14	0.77	8786.41	4711.74	4708.84	1027.54	0.30	434450.94	568728.43	N 32 11 39.67	W 104 14 41.23	12.31	4819.65
	13386.00	88.87	0.46	8788.04	4805.73	4802.82	1028.55	0.44	434544.91	568729.44	N 32 11 40.60	W 104 14 41.21	12.09	4911.72
	13480.00	88.96	1.19	8789.82	4899.70	4896.79	1029.90	0.78	434638.87	568730.79	N 32 11 41.53	W 104 14 41.20	11.88	5003.93
	13574.00	89.01	0.51	8791.49	4993.68	4990.77	1031.29	0.73	434732.84	568732.19	N 32 11 42.46	W 104 14 41.18	11.68	5096.21
	13669.00	88.99	0.50	8793.14	5088.66	5085.75	1032.13	0.02	434827.81	568733.03	N 32 11 43.40	W 104 14 41.17	11.47	5189.42
Section Line Crossing [2083' FEL]	13694.69	88.97	0.83	8793.60	5114.35	5111.43	1032.43	1.27	434853.49	568733.32	N 32 11 43.65	W 104 14 41.16	11.42	5214.66
	13763.00	88.91	1.69	8794.87	5182.63	5179.71	1033.93	1.27	434921.77	568734.82	N 32 11 44.33	W 104 14 41.15	11.29	5281.90
	13857.00	89.56	1.51	8796.12	5276.60	5273.67	1036.55	0.72	435015.71	568737.45	N 32 11 45.26	W 104 14 41.12	11.12	5374.57
	13952.00	89.21	0.56	8797.14	5371.58	5368.65	1038.27	1.07	435110.68	568739.16	N 32 11 46.20	W 104 14 41.09	10.95	5468.12
	14046.00	88.78	0.37	8798.79	5465.56	5462.63	1039.03	0.50	435204.65	568739.92	N 32 11 47.13	W 104 14 41.08	10.77	5560.57
	14140.00	89.04	358.94	8800.58	5559.54	5556.61	1038.46	1.55	435298.63	568739.36	N 32 11 48.06	W 104 14 41.09	10.59	5652.81
	14235.00	88.92	0.58	8802.27	5654.52	5651.59	1038.07	1.73	435393.60	568738.96	N 32 11 49.00	W 104 14 41.09	10.41	5746.13
	14329.00	89.09	0.25	8803.90	5748.50	5745.57	1038.75	0.39	435487.57	568739.64	N 32 11 49.93	W 104 14 41.08	10.25	5838.71

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' '')	Longitude (E/W ° ' '')	Closure Azimuth (°)	Closure (ft)
	14424.00	88.95	0.15	8805.53	5843.49	5840.56	1039.08	0.18	435582.55	568739.97	N 32 11 50.87	W 104 14 41.08	10.09	5932.27
	14518.00	88.98	359.58	8807.22	5937.47	5934.54	1038.86	0.61	435676.52	568739.75	N 32 11 51.80	W 104 14 41.08	9.93	6024.78
	14612.00	88.91	0.28	8808.96	6031.45	6028.52	1038.74	0.75	435770.50	568739.64	N 32 11 52.73	W 104 14 41.08	9.78	6117.36
	14707.00	88.49	359.08	8811.11	6126.42	6123.50	1038.21	1.34	435865.46	568739.11	N 32 11 53.67	W 104 14 41.09	9.62	6210.88
	14801.00	88.46	359.58	8813.61	6220.38	6217.46	1037.11	0.53	435959.41	568738.01	N 32 11 54.60	W 104 14 41.10	9.47	6303.36
	14896.00	88.91	359.50	8815.79	6315.35	6312.43	1036.35	0.48	436054.38	568737.24	N 32 11 55.53	W 104 14 41.11	9.32	6396.93
	14990.00	88.76	0.68	8817.70	6409.33	6406.41	1036.50	1.27	436148.35	568737.39	N 32 11 56.46	W 104 14 41.10	9.19	6489.71
	15084.00	89.10	359.42	8819.46	6503.31	6500.39	1036.58	1.39	436242.32	568737.47	N 32 11 57.39	W 104 14 41.10	9.06	6582.52
	15178.00	89.02	0.60	8821.00	6597.30	6594.37	1036.60	1.26	436336.30	568737.49	N 32 11 58.32	W 104 14 41.10	8.93	6675.35
	15273.00	88.70	0.31	8822.89	6692.28	6689.35	1037.35	0.45	436431.27	568738.24	N 32 11 59.26	W 104 14 41.09	8.81	6769.31
	15367.00	89.22	0.35	8824.60	6786.26	6783.33	1037.89	0.55	436525.24	568738.79	N 32 12 0.19	W 104 14 41.08	8.70	6862.28
	15461.00	89.31	359.44	8825.80	6880.25	6877.33	1037.72	0.97	436619.22	568738.61	N 32 12 1.12	W 104 14 41.09	8.58	6955.18
	15556.00	89.46	359.61	8826.82	6975.24	6972.32	1036.93	0.24	436714.20	568737.83	N 32 12 2.06	W 104 14 41.09	8.46	7049.00
	15651.00	89.08	0.67	8828.03	7070.23	7067.31	1037.16	1.19	436809.19	568738.06	N 32 12 3.00	W 104 14 41.09	8.35	7143.01
	15745.00	89.22	359.46	8829.43	7164.22	7161.29	1037.27	1.30	436903.17	568738.16	N 32 12 3.93	W 104 14 41.09	8.24	7236.03
	15838.00	91.00	0.56	8829.25	7257.21	7254.29	1037.29	2.25	436996.15	568738.18	N 32 12 4.85	W 104 14 41.09	8.14	7328.07
	15933.00	89.58	358.80	8828.77	7352.20	7349.28	1036.76	2.38	437091.13	568737.65	N 32 12 5.79	W 104 14 41.09	8.03	7422.05
	16027.00	91.27	0.68	8828.07	7446.19	7443.27	1036.33	2.69	437185.11	568737.22	N 32 12 6.72	W 104 14 41.10	7.93	7515.07
	16121.00	88.78	0.38	8828.03	7540.18	7537.26	1037.20	2.67	437279.09	568738.09	N 32 12 7.65	W 104 14 41.09	7.84	7608.29
	16215.00	91.05	359.58	8828.17	7634.17	7631.25	1037.17	2.56	437373.08	568738.06	N 32 12 8.58	W 104 14 41.09	7.74	7701.41
	16309.00	89.55	359.98	8827.68	7728.16	7725.25	1036.81	1.65	437467.06	568737.70	N 32 12 9.51	W 104 14 41.09	7.64	7794.51
	16403.00	90.47	359.78	8827.66	7822.16	7819.24	1036.61	1.00	437561.05	568737.50	N 32 12 10.45	W 104 14 41.09	7.55	7887.66
	16497.00	90.67	359.80	8826.73	7916.16	7913.24	1036.26	0.21	437655.04	568737.16	N 32 12 11.38	W 104 14 41.09	7.46	7980.80
	16592.00	90.33	0.62	8825.90	8011.15	8008.23	1036.61	0.93	437750.03	568737.51	N 32 12 12.32	W 104 14 41.09	7.38	8075.05
	16686.00	90.65	359.40	8825.09	8105.15	8102.23	1036.63	1.34	437844.01	568737.52	N 32 12 13.25	W 104 14 41.09	7.29	8168.27
	16780.00	89.64	0.24	8824.86	8199.14	8196.23	1036.33	1.40	437938.00	568737.23	N 32 12 14.18	W 104 14 41.09	7.21	8261.48
	16874.00	89.82	0.11	8825.30	8293.14	8290.22	1036.62	0.24	438031.99	568737.08	N 32 12 15.11	W 104 14 41.09	7.13	8354.78
	16968.00	91.22	359.52	8824.45	8387.13	8384.22	1036.32	1.62	438125.98	568737.21	N 32 12 16.04	W 104 14 41.09	7.05	8448.02
	17063.00	89.62	0.52	8823.75	8482.12	8479.21	1036.35	1.99	438220.96	568737.24	N 32 12 16.98	W 104 14 41.09	6.97	8542.31
	17157.00	88.69	359.39	8825.14	8576.11	8573.20	1036.28	1.56	438314.94	568737.17	N 32 12 17.91	W 104 14 41.09	6.89	8635.60
	17251.00	89.39	359.09	8826.71	8670.09	8667.18	1035.03	0.81	438408.91	568735.92	N 32 12 18.84	W 104 14 41.10	6.81	8728.76
	17345.00	89.77	0.15	8827.40	8764.08	8761.17	1034.41	1.20	438502.89	568735.30	N 32 12 19.77	W 104 14 41.11	6.73	8822.02
	17439.00	88.88	359.18	8828.51	8858.06	8855.16	1033.86	1.40	438596.87	568734.75	N 32 12 20.70	W 104 14 41.11	6.66	8915.31
	17534.00	91.29	0.41	8828.37	8953.05	8950.15	1033.52	2.85	438691.86	568734.41	N 32 12 21.64	W 104 14 41.12	6.59	9009.62
	17628.00	91.27	0.43	8826.27	9047.03	9044.12	1034.21	0.03	438785.82	568735.10	N 32 12 22.57	W 104 14 41.11	6.52	9103.06
	17722.00	91.44	0.80	8824.04	9141.00	9138.09	1035.21	0.43	438879.78	568736.11	N 32 12 23.50	W 104 14 41.09	6.46	9196.54
	17816.00	91.03	0.38	8822.02	9234.98	9232.06	1036.18	0.62	438973.74	568737.08	N 32 12 24.43	W 104 14 41.08	6.40	9290.03
	17910.00	91.45	0.66	8819.98	9328.95	9326.04	1037.03	0.54	439067.71	568737.93	N 32 12 25.36	W 104 14 41.07	6.35	9383.52
	18004.00	91.59	359.66	8817.49	9422.92	9420.00	1037.30	1.07	439161.67	568738.19	N 32 12 26.28	W 104 14 41.07	6.28	9476.94
	18098.00	91.50	0.49	8814.95	9516.88	9513.97	1037.42	0.89	439255.62	568738.31	N 32 12 27.21	W 104 14 41.06	6.22	9570.36
	18193.00	90.16	0.94	8813.58	9611.86	9608.95	1038.61	1.49	439350.59	568739.50	N 32 12 28.15	W 104 14 41.05	6.17	9664.92
	18287.00	89.02	0.51	8814.25	9705.86	9702.94	1039.80	1.30	439444.57	568740.69	N 32 12 29.08	W 104 14 41.03	6.12	9758.49
	18381.00	90.17	0.43	8814.92	9799.85	9796.93	1040.57	1.23	439538.56	568741.46	N 32 12 30.01	W 104 14 41.02	6.06	9852.04
	18475.00	89.76	0.41	8814.97	9893.85	9890.93	1041.26	0.44	439632.55	568742.15	N 32 12 30.94	W 104 14 41.02	6.01	9945.58
	18570.00	89.77	0.22	8815.36	9988.85	9985.93	1041.78	0.20	439727.54	568742.67	N 32 12 31.88	W 104 14 41.01	5.96	10040.12
Final Survey	18608.00	89.85	359.87	8815.49	10026.85	10023.92	1041.81	0.94	439765.53	568742.70	N 32 12 32.26	W 104 14 41.01	5.93	10077.92
	18644.00	89.85	359.87	8815.58	10062.85	10059.92	1041.73	0.00	439801.53	568742.62	N 32 12 32.62	W 104 14 41.01	5.91	10113.72

Survey Type: Def Survey

Survey Error Model: ISCWSA Rev 0 *** 3-D 95.000% Confidence 2.7955 sigma
Survey Program:

Description	Part	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size (in)	Casing Diameter (in)	Survey Tool Type	Borehole / Survey
	1	0.000	26.000	1/98.425	17.500	13.375	NAL_MWD_IFR1+MS-Depth Only	Original Borehole / Final Surveys - Cimarex Black River 25 Federal Com 2H 0ft-18644ft (Surcon)
	1	26.000	26.000	Act Stns	17.500	13.375	NAL_MWD_IFR1+MS-Depth Only	Original Borehole / Final Surveys - Cimarex Black River 25 Federal Com 2H 0ft-18644ft (Surcon)

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")	Closure Azimuth (°)	Closure (ft)
		1	26.000	412.000	Act Stns	17.500	13.375	NAL_MWD_IFR1+MS	Original Borehole / Final Surveys - Cimarex Black River 25 Federal					
		1	412.000	1970.000	Act Stns	12.250	9.625	NAL_MWD_IFR1+MS	Original Borehole / Final Surveys - Cimarex Black River 25 Federal					
		1	1970.000	8330.000	Act Stns	8.750	7.000	NAL_MWD_IFR1+MS	Original Borehole / Final Surveys - Cimarex Black River 25 Federal					
		1	8330.000	18644.000	Act Stns	8.500	7.000	NAL_MWD_IFR1+MS	Original Borehole / Final Surveys - Cimarex Black River 25 Federal					

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED

FEB 05 2020

FORM APPROVED
OMB No. 1004-0137
Expires: July 31, 2010

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

Lease Serial No.
MNM132062

1a. Type of Well ☐ Oil Well ☒ Gas Well ☐ Dry ☐ Other			6. If Indian, Allottee or Tribe Name		
b. Type of Completion ☒ New Well ☐ Work Over ☐ Deepen ☐ Plug Back ☐ Diff. Resvr. Other _____			7. Unit or CA Agreement Name and No.		
2. Name of Operator CIMAREX ENERGY COMPANY			Contact: TERRI STATHEM E-Mail: tstathem@cimarex.com		
3. Address 600 N. MARIENFELD ST, STE 600 MIDLAND, TX 79701			3a. Phone No. (include area code) Ph: 432-620-1936		
4. Location of Well (Report location clearly and in accordance with Federal requirements)* Sec 25 T24S R26E Mer 1PM At surface SESW 192FSL 2167FWL 32.181411 N Lat, 104.248119 W Lon Sec 25 T24S R26E Mer 1PM At top prod interval reported below SESW 192FSL 2167FWL 32.181411 N Lat, 104.248119 W Lon Sec 24 T25S R26E Mer 1PM At total depth NWNE 362FNL 2080FEL 32.209061 N Lat, 104.244725 W Lon			8. Lease Name and Well No. BLACK RIVER 25 FEDERAL COM 2H		
14. Date Spudded 07/24/2019			15. Date T.D. Reached 08/20/2019		
16. Date Completed ☐ D & A ☒ Ready to Prod. 12/09/2019			9. API Well No. 30-015-43377		
18. Total Depth: MD 18644 ✓ TVD 8816			19. Plug Back T.D.: MD 18590 TVD 8816		
20. Depth Bridge Plug Set: MD TVD			10. Field and Pool, or Exploratory PURPLE SAGE WOLFCAMP GAS		
21. Type Electric & Other Mechanical Logs Run (Submit copy of each)			11. Sec., T., R., M., or Block and Survey or Area Sec 25 T24S R26E Mer 1PM		
			12. County or Parish EDDY		
			13. State NM		
			17. Elevations (DF, KB, RT, GL)* 3313 GL		
			22. Was well cored? ☒ No ☐ Yes (Submit analysis) Was DST run? ☒ No ☐ Yes (Submit analysis) Directional Survey? ☐ No ☒ Yes (Submit analysis)		

23. Casing and Liner Record (Report all strings set in well)

Hole Size	Size/Grade	Wt. (#/ft.)	Top (MD)	Bottom (MD)	Stage Cementer Depth	No. of Sk. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
17.500	13.375 J55	48.0	0	412	✓	480		0	0
12.250	9.625 J55	36.0	0	1970	✓	730		0	0
8.750	7.000 P110	29.0	0	7237	✓	3120		0	0
8.500	5.500 P110	20.0	7237	18590	✓				

24. Tubing Record

Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)
3.500	7226	7226						

25. Producing Intervals

Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A) WOLFCAMP	9025	18550	9025 TO 18550	0.420	993	OPEN
B)						
C)						
D)						

26. Perforation Record

27. Acid, Fracture, Treatment, Cement Squeeze, Etc.

Depth Interval	Amount and Type of Material
9025 TO 18550	434551 BBLs TOTAL FLUID; 22520891# SAND

28. Production - Interval A

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
12/16/2019	12/21/2019	24	→	598.0	1391.0	9463.0	45.0		GAS LIFT
Choke Size	Tbg. Press. Flwg.	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	
SI	0	938.0	→	598	1391	9463	2326	PGW	

28a. Production - Interval B

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tbg. Press. Flwg.	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	
SI			→						

(See Instructions and spaces for additional data on reverse side)

ELECTRONIC SUBMISSION #496852 VERIFIED BY THE BLM WELL INFORMATION SYSTEM

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

28b. Production - Interval C

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	
			→						

28c. Production - Interval D

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	
			→						

29. Disposition of Gas(Sold, used for fuel, vented, etc.)
SOLD

30. Summary of Porous Zones (Include Aquifers):

Show all important zones of porosity and contents thereof. Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

31. Formation (Log) Markers

Formation	Top	Bottom	Descriptions, Contents, etc.	Name	Top Meas. Depth
DELAWARE BONE SPRING WOLFCAMP	1892 5410 8540	5410 8540 18644	SANDSTONE; OIL WATER GAS SANDSTONE OIL WATER GAS SHALE GAS OIL WATER	RUSTLER DELAWARE BONE SPRING WOLFCAMP	0 1892 5410 8540

32. Additional remarks (include plugging procedure):

33. Circle enclosed attachments:

- | | | | |
|---|--------------------|---------------|-----------------------|
| 1. Electrical/Mechanical Logs (1 full set req'd.) | 2. Geologic Report | 3. DST Report | 4. Directional Survey |
| 5. Sundry Notice for plugging and cement verification | 6. Core Analysis | 7. Other: | |

34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions):

Electronic Submission #496852 Verified by the BLM Well Information System.
For CIMAREX ENERGY COMPANY, sent to the Carlsbad

Name (please print) TERRI STATHEMTitle MANAGER REGULATORY COMPLIANCE

Signature _____ (Electronic Submission)

Date 12/21/2019

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.

**** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ****