Oilfield Services, Central U.S. Land

Reservoir Development
PathFinder, a Schlumberger Company
9200 West Reno Avenue
Oklahoma City, Oklahoma 73127 USA
Phone: (405) 789-1515
Fax: (405) 789-1519

PATHFINDER
A Schlumberger Company

30015 40451

February 26, 2015

Cimarex
600 N MARIENFELD STREET SUITE 600

MIDLAND ,TX 79701

Re:

Sec. 32, T26S, R27E, Eddy NM
N 32.000603 W 104.205725

CLIENT: Cimarex Energy Co.
WELL: Medwick 32 Federal COM 11H
FIELD: Wildcat
RIG: Cactus 112
COUNTY: Eddy
API NO: 30-015-42175
JOB NO: 14MLD0403

Enclosed, please find the original copy of the survey performed on the referenced well by PathFinder, a division of Schlumberger Technology Corporation .
Other information required by your office is as follows.

Name & Title of Surveyor	Drainhole Number	Surveyed Depths	Dates Performed	Type of Survey
Jacob Collinsworth MWD	Medwick 32 Federal COM 11H Original Hole	6684.00 Ft to 13949.00 Ft	October 15, 2014 to October 29, 2014	SlimPulse

If any other information is required, please contact the undersigned at the above letterhead and phone number.
Sincerely,

Joseph Hogan
Field Service Manager

NM OIL CONSERVATION
ARTESIA DISTRICT
MAR 25 2015
RECEIVED

Reservoir Development
PathFinder, a Schlumberger Company
9200 West Reno Avenue
Oklahoma City, Oklahoma 73127 USA
Phone: (405) 789-1515
Fax: (405) 789-1519

PATHFINDER
A Schlumberger Company

Well Reference:
Sec. 32, T26S, R27E, Eddy NM
N 32.000603 W 104.205725

I, Jacob Collinsworth certify that; I am employed by PathFinder, a division of Schlumberger Technology Corporation; that I did on the day(s) of October 15, 2014 through October 29, 2014, conduct or supervise the taking of the SlimPulse surveys from a depth of 6684.00 feet to a depth of 13949.00 feet referenced to driller's depth; that the data is true, correct, complete and within the limitations of the tool as set forth by Drilling & Measurements, a division of Schlumberger Technology Corporation; that I am authorized and qualified to make this report; that this survey was conducted at the request of Cimarex Energy Co. for the Wildcat, Bone Spring Well (Original Hole) API No. 30-015-42175 and that I have reviewed this report and find that it conforms to the principals and procedures as set forth by Drilling & Measurements, a division of Schlumberger Technology Corporation.

SIGNED ON BEHALF OF JACOB COLLINSWORTH BY JOE HOGAN.

By
Jacob Collinsworth
MWD

Subscribed and Sworn to before me this 25 day of February (month) 2015 (yr)

My Commission expires:

September 13, 2017

Amber Kay Merket (signature)
Notary Public

Midland County, Texas
(County State)

AMBER KAY MERKET
MY COMMISSION EXPIRES
September 13, 2017

SCHLUMBERGER
Survey Report 26-Feb-2015

Client.....: Cimarex Energy Co.
Field.....: Wildcat, Bone Spring

Well.....: Medwick 32 Federal Com 11H
API number.....: 30-015-42175
Engineer.....: J. Collinsworth

County:.....: Eddy
State:.....: New Mexico
Rig:.....: Cactus 112

Spud date.....: 6-Oct-14
Last survey date.....: 29-Oct-14
Total accepted surveys...: 98
MD of first survey.....: 6684.00 ft
MD of last survey.....: 13949.00 ft

Latitude.....: 32° 0' 2.17" N
Longitude....: 104° 12' 20.61" W

----- Survey calculation methods----------
Method for positions...: Minimum curvature
Method for DLS.....: Lubinski

----- Depth reference ----------
Permanent datum.....: MSL
Depth reference.....: Driller's Depth
GL above permanent.....: 3183.00
KB above permanent.....: 3207.00
DF above permanent.....: 3207.00

----- Vertical section origin----------
Latitude (+N/S-).....: 0.00 ft
Departure (+E/W-).....: 0.00 ft

----- Grid Coordinates ----------
NAD83 New Mexico State Planes, Eastern Zone, US Feet
X.....: 580894.58 ft
Y.....: 363982.38 ft

Azimuth from Vsect Origin to target: 359.48 degrees

----------MWD Survey Reference Criteria----------

-----Run1----- Calculation Date: 15-Oct-2014
Location G....: 998.80835 mgn Tolerance G...: 2.50 mgn
Location B....: 48030.14 nT Tolerance B...: 300.00 nT
Magnetic Dip: 59.77454 degrees Tolerance Dip: 0.45 degrees

-----Run2----- Calculation Date: 18-Oct-2014
Location G....: 998.80835 mgn Tolerance G...: 2.50 mgn
Location B....: 48029.14 nT Tolerance B...: 300.00 nT
Magnetic Dip: 59.77433 degrees Tolerance Dip: 0.45 degrees

-----Run3----- Calculation Date: 19-Oct-2014
Location G....: 998.80835 mgn Tolerance G...: 2.50 mgn
Location B....: 48028.8 nT Tolerance B...: 300.00 nT
Magnetic Dip: 59.77426 degrees Tolerance Dip: 0.45 degrees

-----Run4----- Calculation Date: 22-Oct-2014
Location G....: 998.80835 mgn Tolerance G...: 2.50 mgn
Location B....: 48027.79 nT Tolerance B...: 300.00 nT
Magnetic Dip: 59.77405 degrees Tolerance Dip: 0.45 degrees

-----Run5----- Calculation Date: 23-Oct-2014
Location G....: 998.80835 mgn Tolerance G...: 2.50 mgn
Location B....: 48027.46 nT Tolerance B...: 300.00 nT
Magnetic Dip: 59.77398 degrees Tolerance Dip: 0.45 degrees

-----Run6----- Calculation Date: 28-Oct-2014
Location G....: 998.80835 mgn Tolerance G...: 2.50 mgn
Location B....: 48025.78 nT Tolerance B...: 300.00 nT
Magnetic Dip: 59.77363 degrees Tolerance Dip: 0.45 degrees

BGGM Model: 2014

------Run1------
Magnetic dec (+E/W-).....: 7.61842 degrees
Grid Conv (+E/W-).....: 0.06762 degrees
Total Azim Corr (+E/W-)..: 7.5508 degrees

------Run2------
Magnetic dec (+E/W-).....: 7.61762 degrees
Grid Conv (+E/W-).....: 0.06763 degrees
Total Azim Corr (+E/W-)..: 7.54999 degrees

------Run3------
Magnetic dec (+E/W-).....: 7.61735 degrees
Grid Conv (+E/W-).....: 0.06763 degrees
Total Azim Corr (+E/W-)..: 7.54972 degrees

------Run4------
Magnetic dec (+E/W-).....: 7.61654 degrees
Grid Conv (+E/W-).....: 0.06762 degrees
Total Azim Corr (+E/W-)..: 7.54892 degrees

------Run5------
Magnetic dec (+E/W-).....: 7.61628 degrees
Grid Conv (+E/W-).....: 0.06763 degrees
Total Azim Corr (+E/W-)..: 7.54865 degrees

------Run6------
Magnetic dec (+E/W-).....: 7.61494 degrees
Grid Conv (+E/W-).....: 0.06763 degrees
Total Azim Corr (+E/W-)..: 7.54731 degrees

----------Survey Correction Index Description----------
0 = Uncorrected 1 = Sag Corrected
2 = DMAG Corrected 3 = Sag + DMAG Corrected

========== Survey List ==========

Seq	MD (ft)	Incl (deg)	Azim (deg)	Course (ft)	TVD (ft)	V Sec (ft)	N/-S (ft)	E/-W (ft)	Closure (ft)	at Azi (deg)	DLS (deg/100ft)	Tool	Correction
1	0.00	0.00	0.00	-999.25	0.00	0.00	0.00	0.00	0	90.00	0.00	TIP	0
2	24.00	0.02	346.70	24.00	24.00	0.00	0.00	0.00	0.00419	346.70	0.08	SingleShot	0
3	88.83	0.09	346.70	64.83	88.83	0.06	0.06	-0.02	0.06642	346.70	0.11	SingleShot	0
4	150.00	0.09	335.07	61.17	150.00	0.16	0.15	-0.05	0.16181	343.27	0.03	SingleShot	0
5	229.55	0.22	308.41	79.55	229.55	0.31	0.31	-0.19	0.36199	327.86	0.18	SingleShot	0
6	301.41	0.22	319.65	71.86	301.41	0.50	0.50	-0.39	0.63204	321.90	0.06	SingleShot	0
7	363.22	0.22	330.44	61.81	363.22	0.70	0.69	-0.53	0.86806	322.75	0.07	SingleShot	0
8	393.41	0.31	356.93	30.19	393.41	0.83	0.82	-0.56	0.99452	325.84	0.50	SingleShot	0
9	488.46	0.22	8.57	95.05	488.46	1.27	1.26	-0.54	1.37297	336.62	0.11	SingleShot	0
10	549.34	0.09	310.30	60.88	549.34	1.41	1.41	-0.56	1.51554	338.15	0.31	SingleShot	0
11	610.63	0.09	14.14	61.29	610.63	1.49	1.48	-0.59	1.59707	338.36	0.16	SingleShot	0
12	672.13	0.09	299.07	61.50	672.13	1.56	1.55	-0.62	1.67364	338.28	0.18	SingleShot	0
13	762.68	0.09	226.35	90.55	762.68	1.55	1.54	-0.73	1.70579	334.55	0.12	SingleShot	0
14	855.29	0.09	271.30	92.61	855.29	1.50	1.49	-0.86	1.72104	330.08	0.07	SingleShot	0
15	946.51	0.31	288.33	91.22	946.51	1.58	1.57	-1.16	1.95532	323.46	0.25	SingleShot	0
16	1037.55	0.09	276.90	91.04	1037.55	1.67	1.66	-1.47	2.21439	318.44	0.24	SingleShot	0
17	1129.87	0.09	315.02	92.32	1129.87	1.73	1.72	-1.59	2.34163	317.16	0.06	SingleShot	0
18	1221.68	0.09	109.05	91.81	1221.68	1.76	1.74	-1.58	2.35029	317.92	0.19	SingleShot	0
19	1317.73	0.09	267.47	96.05	1317.73	1.73	1.72	-1.58	2.33237	317.39	0.18	SingleShot	0
20	1411.93	0.09	225.25	94.20	1411.93	1.68	1.66	-1.71	2.38083	314.25	0.07	SingleShot	0
21	1506.26	0.09	125.70	94.33	1506.26	1.58	1.57	-1.70	2.30972	312.68	0.15	SingleShot	0
22	1601.05	0.09	70.75	94.79	1601.05	1.56	1.55	-1.57	2.20206	314.63	0.09	SingleShot	0
23	1695.96	0.08	188.54	94.91	1695.96	1.52	1.51	-1.51	2.13026	314.99	0.15	SingleShot	0
24	1790.79	0.09	284.74	94.83	1790.78	1.47	1.46	-1.59	2.15718	312.57	0.13	SingleShot	0
25	1836.57	0.09	75.86	45.78	1836.56	1.49	1.48	-1.59	2.16928	312.92	0.38	SingleShot	0
26	1917.21	0.31	297.17	80.64	1917.20	1.61	1.59	-1.72	2.34481	312.78	0.47	SingleShot	0
27	1979.48	0.31	164.88	62.27	1979.47	1.52	1.51	-1.83	2.3682	309.51	0.91	SingleShot	0
28	2074.47	0.62	179.33	94.99	2074.46	0.76	0.74	-1.75	1.90559	293.01	0.35	SingleShot	0
29	2168.86	0.62	202.12	94.39	2168.85	-0.22	-0.24	-1.94	1.95502	262.98	0.26	SingleShot	0
30	2263.57	0.49	181.45	94.71	2263.55	-1.10	-1.12	-2.14	2.41785	242.44	0.25	SingleShot	0
31	2358.25	0.40	223.75	94.68	2358.23	-1.74	-1.76	-2.38	2.96315	233.51	0.35	SingleShot	0
32	2453.51	0.49	194.76	95.26	2453.49	-2.37	-2.40	-2.72	3.62192	228.58	0.25	SingleShot	0
33	2548.63	0.62	173.03	95.12	2548.60	-3.27	-3.30	-2.76	4.30047	219.88	0.26	SingleShot	0
34	2643.84	0.71	184.53	95.21	2643.81	-4.37	-4.40	-2.74	5.18378	211.93	0.17	SingleShot	0
35	2738.72	0.71	192.38	94.88	2738.68	-5.53	-5.56	-2.91	6.27709	207.66	0.10	SingleShot	0
36	2832.81	0.80	212.65	94.09	2832.76	-6.65	-6.68	-3.39	7.49443	206.92	0.30	SingleShot	0
37	2927.93	1.19	235.39	95.12	2927.87	-7.76	-7.80	-4.56	9.03942	210.33	0.58	SingleShot	0
38	3022.44	1.10	245.13	94.51	3022.36	-8.68	-8.74	-6.20	10.71405	215.33	0.23	SingleShot	0
39	3118.51	1.19	235.61	96.07	3118.41	-9.62	-9.69	-7.85	12.47589	219.02	0.22	SingleShot	0
40	3212.82	1.10	246.41	94.31	3212.70	-10.52	-10.61	-9.49	14.23525	221.82	0.25	SingleShot	0
41	3307.74	1.10	243.72	94.92	3307.60	-11.27	-11.38	-11.14	15.92538	224.41	0.05	SingleShot	0
42	3402.62	1.41	231.47	94.88	3402.46	-12.39	-12.51	-12.87	17.94888	225.83	0.43	SingleShot	0
43	3497.53	1.41	223.75	94.91	3497.34	-13.94	-14.08	-14.60	20.27801	226.03	0.20	SingleShot	0
44	3592.63	1.59	231.29	95.10	3592.41	-15.60	-15.75	-16.43	22.76108	226.22	0.28	SingleShot	0
45	3687.55	0.49	183.26	94.92	3687.31	-16.82	-16.98	-17.48	24.37044	225.84	1.38	SingleShot	0
46	3782.28	0.49	210.71	94.73	3782.04	-17.57	-17.73	-17.71	25.06258	224.98	0.25	SingleShot	0
47	3877.29	0.62	210.23	95.01	3877.04	-18.36	-18.52	-18.18	25.95445	224.47	0.14	SingleShot	0
48	3972.40	1.10	195.46	95.11	3972.14	-19.68	-19.85	-18.68	27.2576	223.27	0.55	SingleShot	0
49	4066.97	0.49	190.48	94.57	4066.70	-20.94	-21.12	-19.00	28.40774	221.97	0.65	SingleShot	0
50	4160.15	0.40	200.09	93.18	4159.88	-21.64	-21.82	-19.18	29.05117	221.32	0.13	SingleShot	0
51	4255.36	0.49	213.53	95.21	4255.09	-22.29	-22.47	-19.52	29.76482	220.99	0.14	SingleShot	0
52	4352.18	0.62	169.51	96.82	4351.90	-23.15	-23.33	-19.66	30.50512	220.12	0.45	SingleShot	0
53	4447.11	0.80	181.76	94.93	4446.83	-24.32	-24.50	-19.58	31.36118	218.64	0.25	SingleShot	0
54	4550.29	0.49	189.87	103.18	4550.00	-25.47	-25.65	-19.68	32.33053	217.50	0.31	SingleShot	0
55	4637.55	0.62	179.82	87.26	4637.26	-26.31	-26.49	-19.74	33.038	216.70	0.19	SingleShot	0
56	4731.95	0.80	196.17	94.40	4731.65	-27.45	-27.63	-19.92	34.06798	215.79	0.29	SingleShot	0
57	4872.20	0.80	215.56	140.25	4871.89	-29.18	-29.37	-20.77	35.97086	215.26	0.19	SingleShot	0
58	4920.28	0.71	208.51	48.08	4919.96	-29.71	-29.91	-21.10	36.60235	215.21	0.27	SingleShot	0
59	5015.05	0.88	206.22	94.77	5014.72	-30.87	-31.07	-21.71	37.90476	214.93	0.18	SingleShot	0
60	5111.71	0.88	214.24	96.66	5111.37	-32.15	-32.35	-22.45	39.38086	214.76	0.13	SingleShot	0
61	5208.03	1.10	217.06	96.32	5207.68	-33.49	-33.70	-23.42	41.0443	214.80	0.23	SingleShot	0
62	5301.50	1.33	217.45	93.47	5301.12	-35.05	-35.28	-24.62	43.02448	214.91	0.25	SingleShot	0
63	5399.34	1.41	220.36	97.84	5398.94	-36.86	-37.10	-26.09	45.35746	215.12	0.11	SingleShot	0
64	5489.36	1.41	217.85	90.02	5488.93	-38.56	-38.82	-27.49	47.56692	215.31	0.07	SingleShot	0
65	5586.18	1.33	213.53	96.82	5585.72	-40.43	-40.70	-28.84	49.88005	215.33	0.13	SingleShot	0
66	5681.55	0.71	207.49	95.37	5681.08	-41.87	-42.14	-29.73	51.57183	215.20	0.66	SingleShot	0
67	5774.03	0.88	223.84	92.48	5773.55	-42.88	-43.16	-30.48	52.84176	215.23	0.30	SingleShot	0
68	5869.73	0.49	239.22	95.70	5869.24	-43.61	-43.90	-31.34	53.94295	215.53	0.45	SingleShot	0
69	5963.39	0.62	272.58	93.66	5962.90	-43.79	-44.08	-32.19	54.58842	216.14	0.37	SingleShot	0
70	6057.59	0.62	311.71	94.20	6057.09	-43.42	-43.72	-33.08	54.82863	217.11	0.44	SingleShot	0
71	6152.89	0.71	302.28	95.30	6152.39	-42.75	-43.06	-33.97	54.84817	218.27	0.15	SingleShot	0
72	6247.90	1.02	286.82	95.01	6247.38	-42.18	-42.50	-35.28	55.23582	219.69	0.41	SingleShot	0
73	6343.87	1.50	283.91	95.97	6343.33	-41.61	-41.96	-37.31	56.14688	221.65	0.50	SingleShot	0
74	6438.88	1.41	7.65	95.01	6438.32	-40.14	-40.50	-38.36	55.7841	223.45	2.05	SingleShot	0
75	6532.94	1.90	6.05	94.06	6532.34	-37.45	-37.80	-38.05	53.63137	225.19	0.52	SingleShot	0
76	6628.58	0.71	28.71	95.64	6627.95	-35.36	-35.70	-37.59	51.84645	226.48	1.33	SingleShot	0
77	6671.80	0.31	24.09	43.22	6671.17	-35.02	-35.36	-37.42	51.48349	226.62	0.93	SingleShot	0

78	6684.00	0.11	6.59	12.20	6683.37	-34.98	-35.32	-37.40	51.44413	226.64	1.71	SlimPulse	0
79	6718.00	0.21	79.24	34.00	6717.37	-34.93	-35.28	-37.34	51.36781	226.63	0.60	SlimPulse	0
80	6751.00	3.24	2.89	33.00	6750.35	-33.99	-34.34	-37.23	50.64806	227.32	9.68	SlimPulse	0
81	6782.00	6.97	359.84	31.00	6781.23	-31.24	-31.58	-37.19	48.79131	229.67	12.08	SlimPulse	0
82	6814.00	9.89	359.58	32.00	6812.88	-26.54	-26.89	-37.22	45.91526	234.16	9.10	SlimPulse	0
83	6846.00	12.01	358.25	32.00	6844.29	-20.47	-20.81	-37.34	42.74832	240.87	6.70	SlimPulse	0
84	6878.00	14.20	357.01	32.00	6875.46	-13.21	-13.56	-37.65	40.01481	250.19	6.90	SlimPulse	0
85	6909.00	14.89	357.92	31.00	6905.46	-5.43	-5.78	-37.99	38.42729	261.35	2.33	SlimPulse	0
86	6941.00	16.94	358.55	32.00	6936.23	3.34	2.99	-38.26	38.37353	274.47	6.45	SlimPulse	0
87	6972.00	19.33	358.32	31.00	6965.69	12.99	12.64	-38.52	40.54055	288.16	7.70	SlimPulse	0
88	7004.00	22.35	358.44	32.00	6995.59	24.37	24.01	-38.84	45.66552	301.73	9.44	SlimPulse	0
89	7036.00	26.17	359.12	32.00	7024.76	37.51	37.16	-39.12	53.95029	313.53	11.98	SlimPulse	0
90	7067.00	29.57	359.18	31.00	7052.16	52.00	51.65	-39.33	64.91596	322.71	10.98	SlimPulse	0
91	7099.00	32.73	359.71	32.00	7079.54	68.56	68.20	-39.48	78.80191	329.93	9.88	SlimPulse	0
92	7137.00	36.49	1.05	38.00	7110.82	90.13	89.77	-39.33	98.00901	336.34	10.10	SlimPulse	0
93	7169.00	38.10	2.22	32.00	7136.27	109.50	109.15	-38.77	115.83337	340.45	5.50	SlimPulse	0
94	7201.00	41.83	1.82	32.00	7160.79	130.03	129.69	-38.05	135.15754	343.65	11.69	SlimPulse	0
95	7232.00	47.15	0.53	31.00	7182.90	151.74	151.40	-37.62	156.00572	346.05	17.38	SlimPulse	0
96	7264.00	52.41	358.81	32.00	7203.56	176.16	175.83	-37.77	179.83695	347.88	16.95	SlimPulse	0
97	7296.00	57.41	357.62	32.00	7221.95	202.33	201.99	-38.60	205.64221	349.18	15.93	SlimPulse	0
98	7328.00	60.54	356.67	32.00	7238.44	229.73	229.37	-39.97	232.82741	350.12	10.08	SlimPulse	0
99	7360.00	62.34	354.52	32.00	7253.74	257.77	257.39	-42.13	260.81531	350.70	8.17	SlimPulse	0
100	7392.00	65.26	350.62	32.00	7267.87	286.26	285.85	-45.85	289.50413	350.89	14.26	SlimPulse	0
101	7424.00	69.65	347.52	32.00	7280.14	315.31	314.85	-51.47	319.03348	350.72	16.36	SlimPulse	0
102	7456.00	74.28	347.71	32.00	7290.04	345.08	344.57	-57.99	349.41249	350.45	14.48	SlimPulse	0
103	7487.00	79.69	350.36	31.00	7297.02	374.77	374.21	-63.73	379.59362	350.34	19.33	SlimPulse	0
104	7519.00	83.21	353.69	32.00	7301.78	406.14	405.54	-68.11	411.21527	350.47	15.05	SlimPulse	0
105	7550.00	84.87	358.55	31.00	7305.00	436.91	436.29	-70.19	441.89726	350.86	16.50	SlimPulse	0
106	7582.00	85.80	0.85	32.00	7307.61	468.80	468.18	-70.36	473.43513	351.45	7.71	SlimPulse	0
107	7614.00	88.18	2.10	32.00	7309.29	500.74	500.12	-69.54	504.93133	352.08	8.39	SlimPulse	0
108	7645.00	89.52	2.22	31.00	7309.91	531.70	531.09	-68.37	535.47381	352.66	4.34	SlimPulse	0
109	7738.00	89.90	2.42	93.00	7310.38	624.58	624.01	-64.60	627.34822	354.09	0.46	SlimPulse	0
110	7833.00	87.59	3.42	95.00	7312.47	719.38	718.86	-59.76	721.33941	355.25	2.64	SlimPulse	0
111	7929.00	87.35	2.39	96.00	7316.70	815.11	814.64	-54.91	816.48991	356.14	1.10	SlimPulse	0
112	8024.00	87.52	1.23	95.00	7320.95	909.94	909.50	-51.92	910.97837	356.73	1.23	SlimPulse	0
113	8119.00	87.56	0.03	95.00	7325.03	1004.83	1004.40	-50.88	1005.69042	357.10	1.26	SlimPulse	0
114	8214.00	87.01	359.14	95.00	7329.54	1099.72	1099.29	-51.57	1100.50075	357.31	1.11	SlimPulse	0
115	8308.00	86.90	359.72	94.00	7334.53	1193.59	1193.15	-52.50	1194.30864	357.48	0.63	SlimPulse	0
116	8404.00	86.94	0.51	96.00	7339.69	1289.44	1289.01	-52.31	1290.0754	357.68	0.82	SlimPulse	0
117	8499.00	87.11	0.84	95.00	7344.62	1384.29	1383.88	-51.20	1384.82608	357.88	0.40	SlimPulse	0
118	8595.00	87.07	1.21	96.00	7349.49	1480.13	1479.74	-49.48	1480.56736	358.08	0.38	SlimPulse	0
119	8690.00	86.94	1.74	95.00	7354.46	1574.94	1574.58	-47.04	1575.28128	358.29	0.58	SlimPulse	0
120	8785.00	85.76	1.83	95.00	7360.51	1669.67	1669.34	-44.09	1669.92056	358.49	1.24	SlimPulse	0
121	8881.00	85.01	0.61	96.00	7368.23	1765.31	1765.00	-42.05	1765.5039	358.64	1.49	SlimPulse	0
122	8976.00	84.77	359.06	95.00	7376.70	1859.93	1859.62	-42.32	1860.10321	358.70	1.64	SlimPulse	0
123	9071.00	84.91	358.50	95.00	7385.24	1954.54	1954.21	-44.33	1954.71732	358.70	0.61	SlimPulse	0
124	9166.00	86.42	359.47	95.00	7392.43	2049.26	2048.92	-46.01	2049.44028	358.71	1.89	SlimPulse	0
125	9261.00	87.15	359.01	95.00	7397.76	2144.11	2143.76	-47.27	2144.28579	358.74	0.91	SlimPulse	0
126	9356.00	86.94	358.09	95.00	7402.66	2238.97	2238.61	-49.67	2239.15762	358.73	1.00	SlimPulse	0
127	9448.00	87.04	357.28	92.00	7407.49	2330.80	2330.40	-53.39	2331.01519	358.69	0.88	SlimPulse	0
128	9543.00	87.49	356.25	95.00	7412.03	2425.58	2425.14	-58.75	2425.85414	358.61	1.18	SlimPulse	0
129	9638.00	87.49	355.24	95.00	7416.19	2520.29	2519.79	-65.79	2520.64727	358.50	1.06	SlimPulse	0
130	9733.00	87.49	354.78	95.00	7420.35	2614.91	2614.34	-74.04	2615.38576	358.38	0.48	SlimPulse	0
131	9833.00	88.87	355.53	100.00	7423.53	2714.57	2713.93	-82.48	2715.17982	358.26	1.57	SlimPulse	0
132	9928.00	90.41	0.11	95.00	7424.13	2809.50	2808.83	-86.10	2810.14706	358.24	5.09	SlimPulse	0
133	10023.00	90.52	1.34	95.00	7423.36	2904.47	2903.82	-84.90	2905.056	358.33	1.31	SlimPulse	0
134	10118.00	90.31	1.27	95.00	7422.68	2999.42	2998.79	-82.74	2999.9291	358.42	0.23	SlimPulse	0
135	10214.00	90.27	0.39	96.00	7422.19	3095.39	3094.78	-81.35	3095.84487	358.49	0.92	SlimPulse	0
136	10309.00	90.41	0.41	95.00	7421.62	3190.38	3189.77	-80.70	3190.79227	358.55	0.15	SlimPulse	0
137	10404.00	90.10	3.84	95.00	7421.19	3285.26	3284.69	-77.17	3285.5976	358.65	3.62	SlimPulse	0
138	10500.00	90.55	3.71	96.00	7420.64	3380.99	3380.48	-70.85	3381.22321	358.80	0.48	SlimPulse	0
139	10594.00	89.97	3.19	94.00	7420.22	3474.76	3474.31	-65.19	3474.92035	358.93	0.84	SlimPulse	0
140	10689.00	90.03	3.03	95.00	7420.22	3569.57	3569.17	-60.04	3569.67392	359.04	0.18	SlimPulse	0
141	10784.00	89.79	3.12	95.00	7420.36	3664.38	3664.03	-54.94	3664.44382	359.14	0.27	SlimPulse	0
142	10879.00	89.93	2.75	95.00	7420.59	3759.21	3758.91	-50.08	3759.24049	359.24	0.42	SlimPulse	0
143	10975.00	90.41	1.66	96.00	7420.30	3855.10	3854.83	-46.39	3855.11301	359.31	1.24	SlimPulse	0
144	11070.00	90.24	0.53	95.00	7419.76	3950.06	3949.81	-44.58	3950.06492	359.35	1.19	SlimPulse	0
145	11165.00	90.48	0.83	95.00	7419.16	4045.03	4044.80	-43.45	4045.03794	359.38	0.40	SlimPulse	0
146	11260.00	90.34	0.67	95.00	7418.47	4140.01	4139.79	-42.20	4140.00902	359.42	0.22	SlimPulse	0
147	11355.00	90.21	0.16	95.00	7418.02	4234.99	4234.79	-41.51	4234.99337	359.44	0.56	SlimPulse	0
148	11448.00	90.14	359.95	93.00	7417.74	4327.99	4327.79	-41.42	4327.98763	359.45	0.24	SlimPulse	0
149	11543.00	90.07	359.15	95.00	7417.57	4422.99	4422.79	-42.17	4422.98658	359.45	0.84	SlimPulse	0
150	11638.00	90.72	358.72	95.00	7416.91	4517.98	4517.77	-43.94	4517.97976	359.44	0.82	SlimPulse	0
151	11733.00	90.62	359.03	95.00	7415.80	4612.97	4612.74	-45.80	4612.96855	359.43	0.34	SlimPulse	0
152	11828.00	90.38	359.38	95.00	7414.97	4707.96	4707.73	-47.12	4707.964	359.43	0.44	SlimPulse	0
153	11923.00	90.76	359.53	95.00	7414.03	4802.96	4802.72	-48.03	4802.95912	359.43	0.43	SlimPulse	0
154	12018.00	91.00	359.40	95.00	7412.58	4897.95	4897.70	-48.92	4897.94787	359.43	0.29	SlimPulse	0
155	12112.00	90.65	358.98	94.00	7411.22	4991.93	4991.68	-50.25	4991.93696	359.42	0.57	SlimPulse	0
156	12208.00	91.55	358.19	96.00	7409.38	5087.90	5087.64	-52.61	5087.90749	359.41	1.24	SlimPulse	0
157	12303.00	91.96	357.52	95.00	7406.47	5182.82	5182.52	-56.16	5182.8281	359.38	0.83	SlimPulse	0
158	12396.00	91.96	357.00	93.00	7403.29	5275.70	5275.36	-60.60	5275.71104	359.34	0.56	SlimPulse	0
159	12491.00	91.17	355.85	95.00	7400.69	5370.52	5370.14	-66.52	5370.55266	359.29	1.47	SlimPulse	0
160	12587.00	90.58	355.25	96.00	7399.22	5466.29	5465.84	-73.96	5466.33975	359.22	0.88	SlimPulse	0
161	12682.00	89.93	354.74	95.00	7398.80	5561.00	5560.47	-82.26	5561.08336	359.15	0.87	SlimPulse	0
162	12776.00	89.86	354.13	94.00	7398.97	5654.63	5654.03	-91.38	5654.76912	359.07	0.65	SlimPulse	0
163	12871.00	89.93	353.75	95.00	7399.14	5749.19	5748.50	-101.41	5749.39333	358.99	0.41	SlimPulse	0
164	12966.00	90.76	353.97	95.00	7398.57	5843.73	5842.95	-111.58	5844.0164	358.91	0.90	SlimPulse	0
165	13061.00	90.28	353.36	95.00	7397.71	5938.24	5937.37	-122.05	5938.62127	358.82	0.82	SlimPulse	0
166	13156.00	90.07	353.66	95.00	7397.43	6032.72	6031.76	-132.79	6033.21911	358.74	0.38	SlimPulse	0
167	13252.00	90.93	357.88	96.00	7396.59	6128.49	6127.47	-139.87	6129.06616	358.69	4.49	SlimPulse	0
168	13347.00	90.10	0.94	95.00	7395.73	6223.48	6222.45	-140.84	6224.04279	358.70	3.34	SlimPulse	0
169	13443.00	89.48	1.90	96.00	7396.08	6319.42	6318.42	-138.46	6319.93431	358.74	1.18	SlimPulse	0
170	13537.00	89.72	1.74	94.00	7396.73	6413.34	6412.37	-135.48	6413.79866	358.79	0.30	SlimPulse	0
171	13633.00	89.69	2.51	96.00	7397.22	6509.24	6508.30	-131.92	6509.63643	358.84	0.80	SlimPulse	0
172	13727.00	89.69	4.60	94.00	7397.73	6602.99	6602.11	-126.09	6603.31611	358.91	2.22	SlimPulse	0
173	13822.00	89.83	6.98	95.00	7398.13	6697.41	6696.62	-116.51	6697.63361	359.00	2.51	SlimPulse	0
174	13917.00	90.34	8.99	95.00	7397.98	6791.36	6790.69	-103.31	6791.47998	359.13	2.19	SlimPulse	0
175	13949.00	90.28	9.58	32.00	7397.81	6822.89	6822.27	-98.15	6822.9802	359.18	1.85	SlimPulse	0
176	14018.00	90.28	9.58	69.00	7397.48	6890.82	6890.31	-86.67	6890.8562	359.28	0.01	Other	7

Form 3160-5
(August 2007)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB NO. 1004-0135
Expires: July 31, 2010

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 reverse side.

5. Lease Serial No.
NMNM114350

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.
MEDWICK 32 FEDERAL COM 1H

2. Name of Operator
CIMAREX ENERGY COMPANY
Contact: ARICKA EASTERLING
E-Mail: aeasterling@cimarex.com

9. API Well No.
30-015-42175

3a. Address
202 S. CHEYENNE, SUITE 1000
TULSA, OK 74103

3b. Phone No. (include area code)
Ph: 918-560-7060

10. Field and Pool, or Exploratory
BONE SPRING; WILDCAT

4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)*
Sec 32 T26S R27E SWSE 210FSL 750FEL

11. County or Parish, and State
EDDY COUNTY, NM

12. CHECK 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	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other Drilling Operations
	☐ 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 shall 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 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Completion:
12/19/14 Test Casing to 6450 psi on chard. Perf 2nd Bone Spring @ 7232-13949, 528 holes. Frac w/ 4,592,713 gal total fluid & 7,292,141 # Sand.
1/19/15 to 1/24/15 Mill plugs. Wash to PBTD @ 14005.
1/25/15 Flow well
1/27/15 to 1/28/15 RIH w/ 2 3/8 tbg, Set @ 6698. GLV?s @ 1719, 3181, 4286, 5067, 5686, 6176, 6666.
Flow well, Turn well to production.

14. I hereby certify that the foregoing is true and correct.
Electronic Submission #295564 verified by the BLM Well Information System
For CIMAREX ENERGY COMPANY, sent to the Carlsbad

Name *(Printed/Typed)* ARICKA EASTERLING — Title REGULATORY ANALYST

Signature (Electronic Submission) — Date 03/19/2015

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By _____ Title _____ Date _____

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 _____

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.

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

Form 3160-5
(August 2007)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB NO. 1004-0135
Expires: July 31, 2010

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 reverse side.

5. Lease Serial No.
NMNM114350

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.
MEDWICK 32 FEDERAL COM 11H

2. Name of Operator
CIMAREX ENERGY COMPANY
Contact: HOPE KNAULS
E-Mail: hknauls@cimarex.com

9. API Well No.
30-015-42175

3a. Address
202 S. CHEYENNE AVE. STE. 1000
TULSA, OK 74103

3b. Phone No. (include area code)
Ph: 918-585-1100

10. Field and Pool, or Exploratory
WILDCAT BONE SPRING

4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)*
Sec 32 T26S R27E 210FSL 750FEL

11. County or Parish, and State
EDDY COUNTY, NM

12. CHECK 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	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other Drilling Operations
	☐ 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 shall 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 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Drilling Operations:

10-07-14 Spud well. TD 17-1/2 hole @ 415.
10-08-14 RIH w/ 13-3/8, 48#, J55, STC csg & set @ 415. Mix & pump lead: 185 sx Class C, 13.5 ppg, 1.71 yld. Tail w/ 265 sx Class C, 15.0 ppg, 1.29 yld. Circ 200 sxs to surface. WOC 8 hrs.
10-09-14 Test csg to 1500 psi for 30 mins. OK.
10-10-14 TD 12-1/4 hole @ 1920.
10-11-14 RIH w/ 9-5/8, 36#, J55, LTC csg & set @ 1920. Mix & pump lead: 586 sx Class C, 12.9 ppg, 1.88 yld; tail w/ 205 sx Class C, 15.0 ppg, 1.29 yld. Circ 358 sxs to surf. WOC 8 hrs.
10-13-14 Test csg to 1500 psi for 30 mins. OK
10-19-14 Drill 8-3/4 hole to 7705. Landed curve. TOOH w/ curve assembly, TIH w/ 8-1/2 lateral assembly. Drilling lateral.

NM OIL CONSERVATION
ARTESIA DISTRICT
MAR 25 2015
RECEIVED

14. I hereby certify that the foregoing is true and correct.
Electronic Submission #289996 verified by the BLM Well Information System
For CIMAREX ENERGY COMPANY, sent to the Carlsbad

Name *(Printed/Typed)* HOPE KNAULS — Title REGULATORY TECHNICIAN

Signature (Electronic Submission) — Date 01/29/2015

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By _____ Title _____ Date _____

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 _____

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.

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

Additional data for EC transaction #289996 that would not fit on the form

32. Additional remarks, continued

10-28-14 TD 8-1/2 hole @ 14018
10-31-14 RIH w/ 5-1/2, 17#, L80, BTC/LTC csg & set @ 14018.
11-01-14 Mix & pump 820 sx Class H, 11.0 ppg, 2.96 yld; tail w/ 1630 sx Class H, 14.5 ppg, 1.33 yld. Circ 256 sx to surf. WOC 12 hrs.
11-02-14 MIRU run temp survey ? TOC @ 870. Contact BLM.
11-04-14 Perform Ultrasonic Corrosion Evaluation report 5-1/2 csg. Sent findings to BLM for path forward. Test 5-1/2 csg to 500 psi. 15 mins, test csg to 4000 psi for 15 mins. RIH w/ CBP & set @ 6660. Mix & pump 3 sx cmt on top of CBP ? 20'. WOC.
11-05-14 Install cmt head on 5-1/2 csg and test csg to 6500 psi for 30 mins. Removed BOPs. Installed 11" 5M x 11' 5M spool. Speared into casing with casing spear. Picked up on 5-1/2 and set casing slips. RU WL & run 4.70 ring gauge to TOC @ 6622. POOH w/ ring with no obstructions in 5-1/2 csg.
11-06-14 Mix & pump 69 sx Class C, 15.0 ppg, 1.29 yld - bradenhead squeeze (9-5/8 and 13-3/8 annulus). Circ 51 sx to surf. Release rig. Walk rig to Medwick 32 Federal 12H.