

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

QCD Hobbs

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.*Lease Serial No.
NMNM0245247

If Indian, Allottee or Tribe Name

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

SUBMIT IN TRIPLICATE - Other instructions on page 2

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

8. Well Name and No.

EK 30 BS2 FEDERAL COM 3H

2. Name of Operator

MCELVAIN OIL & GAS PROP INC

Contact: TONY G COOPER

E-Mail: tony.cooper@mcelvain.com

9. API Well No.

30-025-43150-00-X1

3a. Address

1050 17TH STREET SUITE 1800
DENVER, CO 80265-1801

3b. Phone No. (include area code)

Ph: 303-893-0933 Ext: 331

10. Field and Pool or Exploratory Area

EK-BONE SPRING

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

Sec 30 T18S R34E Lot 4 100FSL 1261FWL

11. County or Parish, State

LEA 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
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	Change to Original A
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	PD

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 recompleat 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 recompleat 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. is respectfully requesting to make the following changes to the approved APD for this well:

Extend the lateral portion of the well from 1 mile to 1.5 miles.
New Surface & Bottom Hole Locations: (Amended C-102 attached)

SHL: M 30 18S 34E 100'FSL, 1050'FWL
BHL: K 19 18S 34E 2440'FSL, 1980'FWL

Revised Production Casing Depth & Cement Volumes:(New Directional Plan attached)

Eng OK 5/21/18 CRW

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

Electronic Submission #412250 verified by the BLM Well Information System

For MCELVAIN OIL & GAS PROP INC, sent to the Hobbs

Committed to AFMSS for processing by CHRISTOPHER WALLS on 04/25/2018 (18CRW0029SE)

Name (Printed/Typed) CAPLIS CHRIS

Title VP DRILLING & COMPLETION

Signature (Electronic Submission)

Date 04/24/2018

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.

(Instructions on page 2)

** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED **

Additional data for EC transaction #412250 that would not fit on the form

32. Additional remarks, continued

New TD 17,331', 5.5 Prod Csg, (csg specs are the same as stated in the APD).

Prod Csg Cement Spec's:

Lead 650 sx (11ppg 2.9yld 17.9 gal/sx), Tail 2600 sx (14.5ppg, 1.225 yld, 5.59 gal/sx).

Revised Projected Mud Properties for Production Casing Interval:

Note: McElvain is requesting the use of an oil based mud (OBM) for the production string. (See attached mud specs)

Recommended Drilling Fluids Program

McElvain Oil & Gas Properties, Inc. * EK 30 BS2 Federal Com 4H. * Sec. 30, T-18-S, R-34-E,
Lea County, NM

Projected Mud Properties

INTERVAL: 0 - 1,820'		17.5" hole	1,820' TVD	13.375" csg	1 drill bits	3 days
Depth	Mud Type	M W - ppg	Vis	Fil	pH	CI - ppm Sol %
0-1,000'	FR/NA	8.4-9.2	32-34	N/C	10.0	3-10K 3-8
1,000-1,820'	FR/NA/ST	9.0-9.6	32-36	30-10cc	10.0	3-10K 5-9
INTERVAL: 1,820 - 4,936'		12.25" hole	4,936' TVD	9.625" csg	1 drill bits	5 days
Depth	Mud Type	M W - ppg	Vis	Fil	pH	CI - ppm Sol %
1,820-4,936'	BRINE	10.0	28	N/C	10.0	186K .5-.75
INTERVAL: 4,936 - 9,330'		8.75" hole	9,330' TVD		1 drill bits	5 days
Depth	Mud Type	M W - ppg	Vis	Fil	pH	CI - ppm Sol %
4,936-9,330'	CB	8.8-9.2	28-30	N/C	10.0	40-120K .75-1.5
INTERVAL: 9,330 - 17,500'		8.75" hole	9,900' TVD	5.5" csg	2 drill bits	14 days
Depth	Mud Type	M W - ppg	Vis	HTHP	OWR	CI - ppm Sol % E.S.
9,330-17,500'	OBM	8.6-9.0	50-70	15cc	75/25	250K .5-1.5 600

DISTRICT I
1625 N. French Dr., Hobbs, NM 88240
Phone (505) 363-6161 Fax: (505) 363-0720

DISTRICT II
811 S. First St., Artesia, NM 88210
Phone (505) 748-1283 Fax: (505) 748-0720

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone (505) 334-8178 Fax: (505) 334-8170

DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone (505) 476-3480 Fax: (505) 476-3482

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised August 1, 2011

Submit one copy to appropriate
District Office

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number 30-025-43150	Pool Code 21650	Pool Name EK Bone Springs
Property Code	Property Name EK 30 BS2 FEDERAL COM	Well Number 3H
OGRID No. 22044	Operator Name McELVAIN ENERGY, INC	Elevation 3866'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	30	18 S	34 E		100	SOUTH	1050	WEST	LEA

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
K	19	18 S	34 E		2440	SOUTH	1980	WEST	LEA

Dedicated Acres	Joint or Infill	Consolidation Code	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

BOTTOM HOLE LOCATION
Lat - N 32.732678°
Long - W 103.601552°
NMSPC - N 631056.8
E 766361.3
(NAD-83)

LAST TAKE POINT
2310' FSL & 1980' FWL
Lat - N 32.732320°
Long - W 103.601551°
NMSPC - N 630926.8
E 766362.2
(NAD-83)

FIRST TAKE POINT
330' FSL & 1980' FWL
Lat - N 32.712371°
Long - W 103.605825°
NMSPC - N 623659.6
E 765098.0
(NAD-83)

SURFACE LOCATION
Lat - N 32.711738°
Long - W 103.604554°
NMSPC - N 623432.3
E 765490.5
(NAD-83)

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 has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Tony Cooper 4-23-18
Signature Date
Printed Name
Email Address *TonyC@mcelvain.com*

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.

DATE 05/05/15
Date Surveyed
Signature & Seal of Professional Surveyor
Certificate Number 7977
Name Gary Jones
BLSM SURVEYS

0' 500' 1000' 1500' 2000'
SCALE: 1" = 1000'
WO Num.: 31684



McElvain Energy, Inc.

Sec. 30 T18S R34E

EK 30 WCD Federal Com

EK 30 BS2 Federal Com 3H

Wellbore #1

Plan: Plan #6 23Apr18 kjs

Standard Planning Report - Geographic

23 April, 2018



Planning Report - Geographic

Database: EDM 5000.15 Single User Db
Company: McElvain Energy, Inc.
Project: Sec. 30 T18S R34E
Site: EK 30 WCD Federal Com
Well: EK 30 BS2 Federal Com 3H
Wellbore: Wellbore #1
Design: Plan #6 23Apr18 kjs

Local Co-ordinate Reference: Well EK 30 BS2 Federal Com 3H
TVD Reference: KB2 @ 3886.00usft
MD Reference: KB2 @ 3886.00usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Project	Sec. 30 T18S R34E, Lea County, NM		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	EK 30 WCD Federal Com			
Site Position:		Northing:	626,476.83 usft	Latitude: 32.720115
From:	Map	Easting:	765,038.76 usft	Longitude: -103.605955
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence: 0.39 °

Well	EK 30 BS2 Federal Com 3H			
Well Position	+N/-S	0.00 usft	Northing:	623,432.30 usft
	+E/-W	0.00 usft	Easting:	765,490.50 usft
Position Uncertainty	0.00 usft		Wellhead Elevation:	Ground Level: 3,866.00 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	IGRF2010	7/29/2015	7.13	60.53	48,489.41131563

Design	Plan #6 23Apr18 kjs			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(usft)	(usft)	(usft)	(°)
	0.00	0.00	0.00	6.52

Plan Survey Tool Program Date 4/23/2018

Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	17,461.08 Plan #6 23Apr18 kjs (Wellbore #1)	MWD	
			MWD - Standard	

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,332.32	6.48	94.38	2,331.40	-1.87	24.37	1.50	1.50	0.00	94.38	
9,493.71	6.48	94.38	9,446.97	-63.70	830.81	0.00	0.00	0.00	0.00	
10,114.54	73.90	0.00	9,908.40	282.00	871.70	12.00	10.86	-15.20	-96.21	
10,261.46	91.53	360.00	9,926.96	427.16	871.70	12.00	12.00	0.00	0.00	
17,331.32	91.53	360.00	9,738.20	7,494.50	871.70	0.00	0.00	0.00	0.00	TD / PBHL 30 BS2 3H
17,461.32	91.53	360.00	9,734.73	7,624.45	871.70	0.00	0.00	0.00	0.00	



Planning Report - Geographic

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Well: EK 30 BS2 Federal Com 3H
Wellbore: Wellbore #1
Design: Plan #6 23Apr18 kjs

Local Co-ordinate Reference: Well EK 30 BS2 Federal Com 3H
TVD Reference: KB2 @ 3886.00usft
MD Reference: KB2 @ 3886.00usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.00	0.00	0.00	0.00	0.00	0.00	623,432.30	765,490.50	32.711739	-103.604554
100.00	0.00	0.00	100.00	0.00	0.00	623,432.30	765,490.50	32.711739	-103.604554
200.00	0.00	0.00	200.00	0.00	0.00	623,432.30	765,490.50	32.711739	-103.604554
300.00	0.00	0.00	300.00	0.00	0.00	623,432.30	765,490.50	32.711739	-103.604554
400.00	0.00	0.00	400.00	0.00	0.00	623,432.30	765,490.50	32.711739	-103.604554
500.00	0.00	0.00	500.00	0.00	0.00	623,432.30	765,490.50	32.711739	-103.604554
600.00	0.00	0.00	600.00	0.00	0.00	623,432.30	765,490.50	32.711739	-103.604554
700.00	0.00	0.00	700.00	0.00	0.00	623,432.30	765,490.50	32.711739	-103.604554
800.00	0.00	0.00	800.00	0.00	0.00	623,432.30	765,490.50	32.711739	-103.604554
900.00	0.00	0.00	900.00	0.00	0.00	623,432.30	765,490.50	32.711739	-103.604554
1,000.00	0.00	0.00	1,000.00	0.00	0.00	623,432.30	765,490.50	32.711739	-103.604554
1,100.00	0.00	0.00	1,100.00	0.00	0.00	623,432.30	765,490.50	32.711739	-103.604554
1,200.00	0.00	0.00	1,200.00	0.00	0.00	623,432.30	765,490.50	32.711739	-103.604554
1,300.00	0.00	0.00	1,300.00	0.00	0.00	623,432.30	765,490.50	32.711739	-103.604554
1,400.00	0.00	0.00	1,400.00	0.00	0.00	623,432.30	765,490.50	32.711739	-103.604554
1,500.00	0.00	0.00	1,500.00	0.00	0.00	623,432.30	765,490.50	32.711739	-103.604554
1,600.00	0.00	0.00	1,600.00	0.00	0.00	623,432.30	765,490.50	32.711739	-103.604554
1,681.00	0.00	0.00	1,681.00	0.00	0.00	623,432.30	765,490.50	32.711739	-103.604554
Rustler									
1,700.00	0.00	0.00	1,700.00	0.00	0.00	623,432.30	765,490.50	32.711739	-103.604554
1,741.00	0.00	0.00	1,741.00	0.00	0.00	623,432.30	765,490.50	32.711739	-103.604554
Salt									
1,800.00	0.00	0.00	1,800.00	0.00	0.00	623,432.30	765,490.50	32.711739	-103.604554
13 3/8"									
1,900.00	0.00	0.00	1,900.00	0.00	0.00	623,432.30	765,490.50	32.711739	-103.604554
Start Build 1.50									
2,000.00	1.50	94.38	1,999.99	-0.10	1.31	623,432.20	765,491.80	32.711738	-103.604550
2,100.00	3.00	94.38	2,099.91	-0.40	5.22	623,431.90	765,495.72	32.711737	-103.604537
2,200.00	4.50	94.38	2,199.69	-0.90	11.74	623,431.40	765,502.24	32.711736	-103.604516
2,300.00	6.00	94.38	2,299.27	-1.60	20.86	623,430.70	765,511.36	32.711734	-103.604486
2,332.32	6.48	94.38	2,331.40	-1.87	24.37	623,430.44	765,514.87	32.711733	-103.604475
Hold 6.48 Inc, 94.38 Az									
2,400.00	6.48	94.38	2,398.64	-2.45	31.99	623,429.85	765,522.49	32.711731	-103.604450
2,500.00	6.48	94.38	2,498.00	-3.32	43.25	623,428.99	765,533.75	32.711729	-103.604413
2,600.00	6.48	94.38	2,597.36	-4.18	54.51	623,428.12	765,545.01	32.711726	-103.604377
2,700.00	6.48	94.38	2,696.73	-5.04	65.77	623,427.26	765,556.27	32.711724	-103.604340
2,800.00	6.48	94.38	2,796.09	-5.91	77.03	623,426.40	765,567.53	32.711721	-103.604304
2,900.00	6.48	94.38	2,895.45	-6.77	88.29	623,425.53	765,578.79	32.711718	-103.604267
3,000.00	6.48	94.38	2,994.81	-7.63	99.56	623,424.67	765,590.05	32.711716	-103.604230
3,100.00	6.48	94.38	3,094.17	-8.50	110.82	623,423.81	765,601.31	32.711713	-103.604194
3,200.00	6.48	94.38	3,193.53	-9.36	122.08	623,422.94	765,612.57	32.711711	-103.604157
3,263.15	6.48	94.38	3,256.27	-9.90	129.19	623,422.40	765,619.69	32.711709	-103.604134
Yates									
3,300.00	6.48	94.38	3,292.89	-10.22	133.34	623,422.08	765,623.84	32.711708	-103.604121
3,400.00	6.48	94.38	3,392.25	-11.09	144.60	623,421.22	765,635.10	32.711705	-103.604084
3,407.80	6.48	94.38	3,400.00	-11.15	145.48	623,421.15	765,635.98	32.711705	-103.604081
9 5/8"									
3,500.00	6.48	94.38	3,491.61	-11.95	155.86	623,420.35	765,646.36	32.711703	-103.604047
3,600.00	6.48	94.38	3,590.97	-12.81	167.12	623,419.49	765,657.62	32.711700	-103.604011
3,700.00	6.48	94.38	3,690.33	-13.68	178.38	623,418.63	765,668.88	32.711698	-103.603974
3,741.32	6.48	94.38	3,731.38	-14.03	183.04	623,418.27	765,673.53	32.711697	-103.603959
Seven Rivers									
3,800.00	6.48	94.38	3,789.69	-14.54	189.64	623,417.76	765,680.14	32.711695	-103.603938
3,900.00	6.48	94.38	3,889.05	-15.40	200.90	623,416.90	765,691.40	32.711692	-103.603901



Planning Report - Geographic

Database: EDM 5000.15 Single User Db
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 Site: EK 30 WCD Federal Com
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 North Reference: Grid
 Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
4,000.00	6.48	94.38	3,988.41	-16.27	212.17	623,416.04	765,702.66	32.711690	-103.603865
4,100.00	6.48	94.38	4,087.77	-17.13	223.43	623,415.17	765,713.92	32.711687	-103.603828
4,200.00	6.48	94.38	4,187.13	-17.99	234.69	623,414.31	765,725.18	32.711685	-103.603791
4,300.00	6.48	94.38	4,286.49	-18.86	245.95	623,413.45	765,736.45	32.711682	-103.603755
4,400.00	6.48	94.38	4,385.85	-19.72	257.21	623,412.58	765,747.71	32.711680	-103.603718
4,445.99	6.48	94.38	4,431.54	-20.12	262.39	623,412.19	765,752.89	32.711678	-103.603701
Queen									
4,500.00	6.48	94.38	4,485.21	-20.58	268.47	623,411.72	765,758.97	32.711677	-103.603682
4,600.00	6.48	94.38	4,584.57	-21.45	279.73	623,410.86	765,770.23	32.711674	-103.603645
4,700.00	6.48	94.38	4,683.93	-22.31	290.99	623,409.99	765,781.49	32.711672	-103.603608
4,722.83	6.48	94.38	4,706.61	-22.51	293.56	623,409.80	765,784.06	32.711671	-103.603600
Penrose									
4,800.00	6.48	94.38	4,783.29	-23.17	302.25	623,409.13	765,792.75	32.711669	-103.603572
4,900.00	6.48	94.38	4,882.65	-24.04	313.52	623,408.27	765,804.01	32.711667	-103.603535
5,000.00	6.48	94.38	4,982.01	-24.90	324.78	623,407.40	765,815.27	32.711664	-103.603499
5,100.00	6.48	94.38	5,081.37	-25.76	336.04	623,406.54	765,826.53	32.711661	-103.603462
5,200.00	6.48	94.38	5,180.73	-26.63	347.30	623,405.68	765,837.80	32.711659	-103.603425
5,276.50	6.48	94.38	5,256.74	-27.29	355.91	623,405.02	765,846.41	32.711657	-103.603397
San Andres									
5,300.00	6.48	94.38	5,280.09	-27.49	358.56	623,404.81	765,849.06	32.711656	-103.603389
5,400.00	6.48	94.38	5,379.45	-28.35	369.82	623,403.95	765,860.32	32.711654	-103.603352
5,427.50	6.48	94.38	5,406.77	-28.59	372.92	623,403.71	765,863.41	32.711653	-103.603342
Delaware									
5,467.77	6.48	94.38	5,446.78	-28.94	377.45	623,403.37	765,867.95	32.711652	-103.603327
1st Delaware Sand									
5,500.00	6.48	94.38	5,478.81	-29.22	381.08	623,403.09	765,871.58	32.711651	-103.603316
5,600.00	6.48	94.38	5,578.17	-30.08	392.34	623,402.22	765,882.84	32.711649	-103.603279
5,700.00	6.48	94.38	5,677.53	-30.94	403.60	623,401.36	765,894.10	32.711646	-103.603242
5,754.67	6.48	94.38	5,731.85	-31.41	409.76	623,400.89	765,900.26	32.711645	-103.603222
2nd Delaware Sand									
5,800.00	6.48	94.38	5,776.89	-31.81	414.86	623,400.50	765,905.36	32.711643	-103.603206
5,900.00	6.48	94.38	5,876.25	-32.67	426.13	623,399.63	765,916.62	32.711641	-103.603169
6,000.00	6.48	94.38	5,975.61	-33.53	437.39	623,398.77	765,927.88	32.711638	-103.603133
6,100.00	6.48	94.38	6,074.97	-34.40	448.65	623,397.91	765,939.14	32.711636	-103.603096
6,200.00	6.48	94.38	6,174.33	-35.26	459.91	623,397.04	765,950.41	32.711633	-103.603060
6,300.00	6.48	94.38	6,273.69	-36.12	471.17	623,396.18	765,961.67	32.711630	-103.603023
6,400.00	6.48	94.38	6,373.05	-36.99	482.43	623,395.32	765,972.93	32.711628	-103.602986
6,500.00	6.48	94.38	6,472.41	-37.85	493.69	623,394.45	765,984.19	32.711625	-103.602950
6,600.00	6.48	94.38	6,571.77	-38.71	504.95	623,393.59	765,995.45	32.711623	-103.602913
6,700.00	6.48	94.38	6,671.13	-39.58	516.21	623,392.73	766,006.71	32.711620	-103.602877
6,800.00	6.48	94.38	6,770.49	-40.44	527.47	623,391.86	766,017.97	32.711617	-103.602840
6,900.00	6.48	94.38	6,869.85	-41.30	538.74	623,391.00	766,029.23	32.711615	-103.602803
7,000.00	6.48	94.38	6,969.21	-42.17	550.00	623,390.14	766,040.49	32.711612	-103.602767
7,100.00	6.48	94.38	7,068.57	-43.03	561.26	623,389.27	766,051.75	32.711610	-103.602730
7,200.00	6.48	94.38	7,167.93	-43.89	572.52	623,388.41	766,063.02	32.711607	-103.602694
7,300.00	6.48	94.38	7,267.29	-44.76	583.78	623,387.55	766,074.28	32.711605	-103.602657
7,400.00	6.48	94.38	7,366.65	-45.62	595.04	623,386.68	766,085.54	32.711602	-103.602620
7,500.00	6.48	94.38	7,466.01	-46.48	606.30	623,385.82	766,096.80	32.711599	-103.602584
7,600.00	6.48	94.38	7,565.37	-47.35	617.56	623,384.96	766,108.06	32.711597	-103.602547
7,657.29	6.48	94.38	7,622.29	-47.84	624.01	623,384.46	766,114.51	32.711595	-103.602526
Bone Spring									
7,700.00	6.48	94.38	7,664.73	-48.21	628.82	623,384.09	766,119.32	32.711594	-103.602511
7,800.00	6.48	94.38	7,764.09	-49.07	640.09	623,383.23	766,130.58	32.711592	-103.602474
7,900.00	6.48	94.38	7,863.45	-49.94	651.35	623,382.37	766,141.84	32.711589	-103.602438



Planning Report - Geographic

Database: EDM 5000.15 Single User Db
Company: McElvain Energy, Inc.
Project: Sec. 30 T18S R34E
Site: EK 30 WCD Federal Com
Well: EK 30 BS2 Federal Com 3H
Wellbore: Wellbore #1
Design: Plan #6 23Apr18 kjs

Local Co-ordinate Reference: Well EK 30 BS2 Federal Com 3H
TVD Reference: KB2 @ 3886.00usft
MD Reference: KB2 @ 3886.00usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
8,000.00	6.48	94.38	7,962.81	-50.80	662.61	623,381.50	766,153.10	32.711586	-103.602401
8,100.00	6.48	94.38	8,062.17	-51.66	673.87	623,380.64	766,164.37	32.711584	-103.602364
8,200.00	6.48	94.38	8,161.53	-52.53	685.13	623,379.78	766,175.63	32.711581	-103.602328
8,300.00	6.48	94.38	8,260.89	-53.39	696.39	623,378.91	766,186.89	32.711579	-103.602291
8,400.00	6.48	94.38	8,360.26	-54.25	707.65	623,378.05	766,198.15	32.711576	-103.602255
8,500.00	6.48	94.38	8,459.62	-55.12	718.91	623,377.19	766,209.41	32.711574	-103.602218
8,600.00	6.48	94.38	8,558.98	-55.98	730.17	623,376.32	766,220.67	32.711571	-103.602181
8,700.00	6.48	94.38	8,658.34	-56.84	741.43	623,375.46	766,231.93	32.711568	-103.602145
8,800.00	6.48	94.38	8,757.70	-57.71	752.70	623,374.60	766,243.19	32.711566	-103.602108
8,900.00	6.48	94.38	8,857.06	-58.57	763.96	623,373.73	766,254.45	32.711563	-103.602072
9,000.00	6.48	94.38	8,956.42	-59.43	775.22	623,372.87	766,265.71	32.711561	-103.602035
9,001.20	6.48	94.38	8,957.61	-59.44	775.35	623,372.86	766,265.85	32.711561	-103.602035
1st Bone Spring Sand									
9,100.00	6.48	94.38	9,055.78	-60.30	786.48	623,372.01	766,276.98	32.711558	-103.601998
9,200.00	6.48	94.38	9,155.14	-61.16	797.74	623,371.14	766,288.24	32.711555	-103.601962
9,300.00	6.48	94.38	9,254.50	-62.02	809.00	623,370.28	766,299.50	32.711553	-103.601925
9,400.00	6.48	94.38	9,353.86	-62.89	820.26	623,369.42	766,310.76	32.711550	-103.601889
9,493.71	6.48	94.38	9,446.97	-63.70	830.81	623,368.61	766,321.31	32.711548	-103.601854
KOP 12/100									
9,500.00	6.45	87.69	9,453.22	-63.71	831.52	623,368.60	766,322.02	32.711548	-103.601852
9,554.88	9.24	42.11	9,507.63	-60.31	837.56	623,371.99	766,328.06	32.711557	-103.601832
2nd Bone Spring Sand									
9,600.00	13.64	25.87	9,551.85	-52.83	842.32	623,379.47	766,332.81	32.711577	-103.601817
9,700.00	24.85	12.25	9,646.16	-21.57	851.96	623,410.73	766,342.46	32.711663	-103.601785
9,800.00	36.54	6.90	9,732.01	28.70	860.02	623,461.01	766,350.52	32.711801	-103.601757
9,900.00	48.37	3.89	9,805.66	95.79	866.16	623,528.10	766,356.66	32.711985	-103.601736
10,000.00	60.26	1.83	9,863.89	176.77	870.10	623,609.07	766,360.60	32.712208	-103.601721
10,100.00	72.17	0.21	9,904.16	268.09	871.67	623,700.40	766,362.17	32.712459	-103.601714
10,114.44	73.89	0.00	9,908.37	281.90	871.70	623,714.21	766,362.20	32.712497	-103.601714
TOP TARGET WINDOW									
10,114.54	73.90	0.00	9,908.40	282.00	871.70	623,714.30	766,362.20	32.712497	-103.601714
POP									
10,200.00	84.16	360.00	9,924.64	365.78	871.70	623,798.09	766,362.20	32.712727	-103.601712
10,261.46	91.53	360.00	9,926.96	427.16	871.70	623,859.46	766,362.20	32.712896	-103.601710
LP 91.53 Inc, 0 Az									
10,300.00	91.53	360.00	9,925.93	465.68	871.70	623,897.99	766,362.20	32.713002	-103.601710
10,400.00	91.53	360.00	9,923.26	565.65	871.70	623,997.95	766,362.20	32.713277	-103.601707
10,500.00	91.53	360.00	9,920.59	665.61	871.70	624,097.92	766,362.20	32.713552	-103.601705
10,600.00	91.53	360.00	9,917.92	765.58	871.70	624,197.88	766,362.20	32.713826	-103.601703
10,700.00	91.53	360.00	9,915.25	865.54	871.70	624,297.85	766,362.20	32.714101	-103.601701
10,800.00	91.53	360.00	9,912.58	965.51	871.70	624,397.81	766,362.20	32.714376	-103.601698
10,900.00	91.53	360.00	9,909.91	1,065.47	871.70	624,497.77	766,362.20	32.714651	-103.601696
11,000.00	91.53	360.00	9,907.24	1,165.44	871.70	624,597.74	766,362.20	32.714925	-103.601694
11,100.00	91.53	360.00	9,904.57	1,265.40	871.70	624,697.70	766,362.20	32.715200	-103.601692
11,200.00	91.53	360.00	9,901.90	1,365.36	871.70	624,797.67	766,362.20	32.715475	-103.601689
11,300.00	91.53	360.00	9,899.23	1,465.33	871.70	624,897.63	766,362.20	32.715750	-103.601687
11,400.00	91.53	360.00	9,896.56	1,565.29	871.70	624,997.60	766,362.20	32.716024	-103.601685
11,500.00	91.53	360.00	9,893.89	1,665.26	871.70	625,097.56	766,362.20	32.716299	-103.601683
11,600.00	91.53	360.00	9,891.22	1,765.22	871.70	625,197.53	766,362.20	32.716574	-103.601680
11,700.00	91.53	360.00	9,888.55	1,865.19	871.70	625,297.49	766,362.20	32.716849	-103.601678
11,800.00	91.53	360.00	9,885.88	1,965.15	871.70	625,397.45	766,362.20	32.717123	-103.601676
11,900.00	91.53	360.00	9,883.21	2,065.11	871.70	625,497.42	766,362.20	32.717398	-103.601674
12,000.00	91.53	360.00	9,880.54	2,165.08	871.70	625,597.38	766,362.20	32.717673	-103.601671
12,100.00	91.53	360.00	9,877.87	2,265.04	871.70	625,697.35	766,362.20	32.717948	-103.601669



Planning Report - Geographic

Database: EDM 5000.15 Single User Db
Company: McElvain Energy, Inc.
Project: Sec. 30 T18S R34E
Site: EK 30 WCD Federal Com
Well: EK 30 BS2 Federal Com 3H
Wellbore: Wellbore #1
Design: Plan #6 23Apr18 kjs

Local Co-ordinate Reference: Well EK 30 BS2 Federal Com 3H
TVD Reference: KB2 @ 3886.00usft
MD Reference: KB2 @ 3886.00usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
12,200.00	91.53	360.00	9,875.20	2,365.01	871.70	625,797.31	766,362.20	32.718222	-103.601667
12,300.00	91.53	360.00	9,872.53	2,464.97	871.70	625,897.28	766,362.20	32.718497	-103.601665
12,400.00	91.53	360.00	9,869.86	2,564.94	871.70	625,997.24	766,362.20	32.718772	-103.601662
12,500.00	91.53	360.00	9,867.19	2,664.90	871.70	626,097.20	766,362.20	32.719046	-103.601660
12,600.00	91.53	360.00	9,864.52	2,764.86	871.70	626,197.17	766,362.20	32.719321	-103.601658
12,700.00	91.53	360.00	9,861.85	2,864.83	871.70	626,297.13	766,362.20	32.719596	-103.601656
12,800.00	91.53	360.00	9,859.18	2,964.79	871.70	626,397.10	766,362.20	32.719871	-103.601653
12,900.00	91.53	360.00	9,856.51	3,064.76	871.70	626,497.06	766,362.20	32.720145	-103.601651
13,000.00	91.53	360.00	9,853.84	3,164.72	871.70	626,597.03	766,362.20	32.720420	-103.601649
13,100.00	91.53	360.00	9,851.17	3,264.69	871.70	626,696.99	766,362.20	32.720695	-103.601647
13,200.00	91.53	360.00	9,848.50	3,364.65	871.70	626,796.95	766,362.20	32.720970	-103.601645
13,300.00	91.53	360.00	9,845.83	3,464.62	871.70	626,896.92	766,362.20	32.721244	-103.601642
13,400.00	91.53	360.00	9,843.16	3,564.58	871.70	626,996.88	766,362.20	32.721519	-103.601640
13,500.00	91.53	360.00	9,840.49	3,664.54	871.70	627,096.85	766,362.20	32.721794	-103.601638
13,600.00	91.53	360.00	9,837.82	3,764.51	871.70	627,196.81	766,362.20	32.722069	-103.601636
13,700.00	91.53	360.00	9,835.15	3,864.47	871.70	627,296.78	766,362.20	32.722343	-103.601633
13,800.00	91.53	360.00	9,832.48	3,964.44	871.70	627,396.74	766,362.20	32.722618	-103.601631
13,900.00	91.53	360.00	9,829.81	4,064.40	871.70	627,496.71	766,362.20	32.722893	-103.601629
14,000.00	91.53	360.00	9,827.14	4,164.37	871.70	627,596.67	766,362.20	32.723168	-103.601627
14,100.00	91.53	360.00	9,824.47	4,264.33	871.70	627,696.63	766,362.20	32.723442	-103.601624
14,200.00	91.53	360.00	9,821.80	4,364.29	871.70	627,796.60	766,362.20	32.723717	-103.601622
14,300.00	91.53	360.00	9,819.13	4,464.26	871.70	627,896.56	766,362.20	32.723992	-103.601620
14,400.00	91.53	360.00	9,816.46	4,564.22	871.70	627,996.53	766,362.20	32.724267	-103.601618
14,500.00	91.53	360.00	9,813.79	4,664.19	871.70	628,096.49	766,362.20	32.724541	-103.601615
14,600.00	91.53	360.00	9,811.12	4,764.15	871.70	628,196.46	766,362.20	32.724816	-103.601613
14,690.34	91.53	360.00	9,808.71	4,854.45	871.70	628,286.76	766,362.20	32.725064	-103.601611
TD / PBHL 30 BS2 3H									
14,700.00	91.53	360.00	9,808.45	4,864.12	871.70	628,296.42	766,362.20	32.725091	-103.601611
14,800.00	91.53	360.00	9,805.78	4,964.08	871.70	628,396.38	766,362.20	32.725366	-103.601609
14,900.00	91.53	360.00	9,803.11	5,064.05	871.70	628,496.35	766,362.20	32.725640	-103.601606
15,000.00	91.53	360.00	9,800.44	5,164.01	871.70	628,596.31	766,362.20	32.725915	-103.601604
15,100.00	91.53	360.00	9,797.77	5,263.97	871.70	628,696.28	766,362.20	32.726190	-103.601602
15,200.00	91.53	360.00	9,795.10	5,363.94	871.70	628,796.24	766,362.20	32.726465	-103.601600
15,300.00	91.53	360.00	9,792.43	5,463.90	871.70	628,896.21	766,362.20	32.726739	-103.601597
15,400.00	91.53	360.00	9,789.76	5,563.87	871.70	628,996.17	766,362.20	32.727014	-103.601595
15,500.00	91.53	360.00	9,787.09	5,663.83	871.70	629,096.14	766,362.20	32.727289	-103.601593
15,600.00	91.53	360.00	9,784.42	5,763.80	871.70	629,196.10	766,362.20	32.727564	-103.601591
15,700.00	91.53	360.00	9,781.75	5,863.76	871.70	629,296.06	766,362.20	32.727838	-103.601588
15,800.00	91.53	360.00	9,779.08	5,963.72	871.70	629,396.03	766,362.20	32.728113	-103.601586
15,900.00	91.53	360.00	9,776.41	6,063.69	871.70	629,495.99	766,362.20	32.728388	-103.601584
16,000.00	91.53	360.00	9,773.74	6,163.65	871.70	629,595.96	766,362.20	32.728663	-103.601582
16,100.00	91.53	360.00	9,771.07	6,263.62	871.70	629,695.92	766,362.20	32.728937	-103.601579
16,200.00	91.53	360.00	9,768.41	6,363.58	871.70	629,795.89	766,362.20	32.729212	-103.601577
16,300.00	91.53	360.00	9,765.74	6,463.55	871.70	629,895.85	766,362.20	32.729487	-103.601575
16,400.00	91.53	360.00	9,763.07	6,563.51	871.70	629,995.81	766,362.20	32.729762	-103.601573
16,500.00	91.53	360.00	9,760.40	6,663.47	871.70	630,095.78	766,362.20	32.730036	-103.601570
16,600.00	91.53	360.00	9,757.73	6,763.44	871.70	630,195.74	766,362.20	32.730311	-103.601568
16,700.00	91.53	360.00	9,755.06	6,863.40	871.70	630,295.71	766,362.20	32.730586	-103.601566
16,800.00	91.53	360.00	9,752.39	6,963.37	871.70	630,395.67	766,362.20	32.730861	-103.601564
16,900.00	91.53	360.00	9,749.72	7,063.33	871.70	630,495.64	766,362.20	32.731135	-103.601561
17,000.00	91.53	360.00	9,747.05	7,163.30	871.70	630,595.60	766,362.20	32.731410	-103.601559
17,100.00	91.53	360.00	9,744.38	7,263.26	871.70	630,695.56	766,362.20	32.731685	-103.601557
17,200.00	91.53	360.00	9,741.71	7,363.23	871.70	630,795.53	766,362.20	32.731960	-103.601555
17,300.00	91.53	360.00	9,739.04	7,463.19	871.70	630,895.49	766,362.20	32.732234	-103.601552



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Design: Plan #6 23Apr18 kjs

Local Co-ordinate Reference: Well EK 30 BS2 Federal Com 3H
TVD Reference: KB2 @ 3886.00usft
MD Reference: KB2 @ 3886.00usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
17,331.32	91.53	360.00	9,738.20	7,494.50	871.70	630,926.80	766,362.20	32.732320	-103.601552
TD at 17331.3 - TD / PBHL 30 BS2 3H (revised)									
17,344.98	91.53	360.00	9,737.84	7,508.15	871.70	630,940.45	766,362.20	32.732358	-103.601551
TARGET CENTER LINE									
17,400.00	91.53	360.00	9,736.37	7,563.15	871.70	630,995.46	766,362.20	32.732509	-103.601550
17,461.32	91.53	360.00	9,734.73	7,624.45	871.70	631,056.76	766,362.20	32.732678	-103.601549
End of 130' Rathole									

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
TD / PBHL 30 BS2 3H (r - plan hits target center - Point	0.00	0.00	9,738.20	7,494.50	871.70	630,926.80	766,362.20	32.732320	-103.601552
TD / PBHL 30 BS2 3H - plan misses target center by 18.78usft at 14690.34usft MD (9808.71 TVD, 4854.45 N, 871.70 E) - Point	0.00	359.60	9,810.40	4,854.50	890.40	628,286.80	766,380.90	32.725064	-103.601550

Casing Points

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
1,800.00	1,800.00	13 3/8"	13-3/8	17-1/2
3,407.80	3,400.00	9 5/8"	9-5/8	12-1/4

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,681.00	1,681.00	Rustler		-1.55	0.00
1,741.00	1,741.00	Salt		-1.55	0.00
3,263.15	3,256.27	Yates		-1.55	0.00
3,741.32	3,731.38	Seven Rivers		-1.55	0.00
4,445.99	4,431.54	Queen		-1.55	0.00
4,722.83	4,706.61	Penrose		-1.55	0.00
5,276.50	5,256.74	San Andres		-1.55	0.00
5,427.50	5,406.77	Delaware		-1.55	0.00
5,467.77	5,446.78	1st Delaware Sand		-1.55	0.00
5,754.67	5,731.85	2nd Delaware Sand		-1.55	0.00
7,657.29	7,622.29	Bone Spring		-1.55	0.00
9,001.20	8,957.61	1st Bone Spring Sand		-1.55	0.00
9,554.88	9,507.63	2nd Bone Spring Sand		-1.55	0.00
17,344.98	9,737.84	TARGET CENTER LINE		-1.55	0.00
10,114.44	9,908.37	TOP TARGET WINDOW		-1.55	0.00



Planning Report - Geographic

Database: EDM 5000.15 Single User Db
Company: McElvain Energy, Inc.
Project: Sec. 30 T18S R34E
Site: EK 30 WCD Federal Com
Well: EK 30 BS2 Federal Com 3H
Wellbore: Wellbore #1
Design: Plan #6 23Apr18 kjs

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TVD Reference: KB2 @ 3886.00usft
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Survey Calculation Method: Minimum Curvature

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
1,900.00	1,900.00	0.00	0.00	Start Build 1.50
2,332.32	2,331.40	-1.87	24.37	Hold 6.48 Inc, 94.38 Az
9,493.71	9,446.97	-63.70	830.81	KOP 12/100
10,114.54	9,908.40	282.00	871.70	POP
10,261.46	9,926.96	427.16	871.70	LP 91.53 Inc, 0 Az
17,331.32	9,738.20	7,494.50	871.70	TD at 17331.3
17,461.32	9,734.73	7,624.45	871.70	End of 130' Rathole