

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM 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.***Carlsbad Field Office**
OCD Hobbs5. Lease Serial No.
NM 0002798

6. If Indian, Allottee or Tribe Name

SUBMIT IN TRIPLICATE - Other instructions on reverse side.

AUG 03 2016

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

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

8. Well Name and No.

BLUE KRAIT 23-14 FED 2H

2. Name of Operator

DEVON ENERGY PRODUCTION CO LP

Contact: DAVID H COOK

Email: david.cook@devn.com

RECEIVED

9. API Well No.

30-025-43236-00-X1

3a. Address

333 WEST SHERIDAN AVE
OKLAHOMA CITY, OK 73102

3b. Phone No. (include area code)

Ph: 405-552-7848

10. Field and Pool, or Exploratory

RED HILLS

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

Sec 23 T24S R33E SESW 200FSL 1980FWL

11. County or Parish, and State

LEA 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
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	Change to Original APD
	☐ 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 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 shall 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 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.)

Devon Energy Production Co., L.P. respectfully requests approval to change the approved formation target to the 2nd Bone Spring Lower and change approved well name from Blue Krait 23 Fed 2H to Blue Krait 23-14 Fed 2H.

Bottom hole location will change from 23-24S-33E, 330 FNL & 1736 FWL, Unit C to 14-24S-33E, 330 FNL & 1865 FWL, Unit C.

The TVD of target will change from 11,180' to 11,170'.
The MD at TD will change from 15,729' to 20,957'.

Surface hole will remain unchanged.

**SEE ATTACHED FOR
CONDITIONS OF APPROVAL**

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

Electronic Submission #344494 verified by the BLM Well Information System

For DEVON ENERGY PRODUCTION CO LP, sent to the Hobbs

Committed to AFMSS for processing by PRISCILLA PEREZ on 07/18/2016 (16PP0909SE)

Name (Printed/Typed) DAVID H COOK

Title REGULATORY SPECIALIST

Signature (Electronic Submission)

Date 07/13/2016

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By (BLM Approver Not Specified) Mustafa Hagar

Title PETROLEUM ENGINEER

Date 07/26/2016

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 Hobbs

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.

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

KCB

Additional data for EC transaction #344494 that would not fit on the form

32. Additional remarks, continued

Please see the attached revised C-102, Revised Drill Plan and Directional Survey.

AUG 03 2016

**PECOS DISTRICT
CONDITIONS OF APPROVAL****RECEIVED**

OPERATOR'S NAME:	Devon Energy Prod Co
LEASE NO.:	LC063798
WELL NAME & NO.:	2H-Blue Krait 23 Fed
SURFACE HOLE FOOTAGE:	200'/S & 1980'/W
BOTTOM HOLE FOOTAGE:	330'/N & 1865'/W
LOCATION:	Section 23, T. 24 S., R. 33 E., NMPM
COUNTY:	Lea County, New Mexico

A. CASING

All previous COAs still apply except the following:

Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.).

The initial wellhead installed on the well will remain on the well with spools used as needed.

Centralizers required on surface casing per Onshore Order 2.III.B.1.f.

Wait on cement (WOC) for Water Basin:

After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. DURING THIS WOC TIME, NO DRILL PIPE, ETC. SHALL BE RUN IN THE HOLE.

Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.

No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.

Risks:

Possibility of water flows from the Castile and the Salado.

Possibility of lost circulation from the Rustler, the Red Beds, and the Delaware.

1. The 13-5/8 inch surface casing shall be set at approximately 1350 feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt) and cemented to the surface.

Option 1:

- a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
- b. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry.**
- c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
- d. If cement falls back, remedial cementing will be done prior to drilling out that string.

Option 2:

Operator has proposed DV tool at depth of 400 feet, but will adjust cement proportionately if moved. DV tool shall be set a minimum of 50 feet below previous shoe and a minimum of 200 feet above current shoe. Operator shall submit sundry if DV tool depth cannot be set in this range.

- a. First stage to DV tool:
 - ☒ Cement to circulate. If cement does not circulate, contact the appropriate BLM office before proceeding with second stage cement job. Operator should have plans as to how they will achieve circulation on the next stage.
- b. Second stage above DV tool:
 - ☒ Cement to surface. If cement does not circulate A.1.Option 1.a, c-d above.

Formation below the 13-3/8 inch shoe to be tested according to Onshore Order 2.III.B.1.i. Test to be done as a mud equivalency test using the mud weight necessary for the pore pressure of the formation below the shoe (not the mud weight required to prevent dissolving the salt formation) and the mud weight for the bottom of the hole. Report results to BLM office.

2. The minimum required fill of cement behind the 9-5/8 inch intermediate casing is:

Option 1:

- ☒ Cement to surface. If cement does not circulate see A.1.Option 1.a, c-d above.

Option 2:

Operator has proposed DV tool at depth of 1500 feet, but will adjust cement proportionately if moved. DV tool shall be set a minimum of 50 feet below previous shoe and a minimum of 200 feet above current shoe. Operator shall submit sundry if DV tool depth cannot be set in this range.

- a. First stage to DV tool:

- ☒ Cement to circulate. If cement does not circulate, contact the appropriate BLM office before proceeding with second stage cement job. Operator should have plans as to how they will achieve circulation on the next stage.

- b. Second stage above DV tool:

- ☒ Cement to surface. If cement does not circulate see B.1.Option 1.a, c-d above.
Additional cement may be required since excess was calculated to 8%.

Formation below the 9-5/8 inch shoe to be tested according to Onshore Order 2.III.B.1.i. Test to be done as a mud equivalency test using the mud weight necessary for the pore pressure of the formation below the shoe (not the mud weight required to prevent dissolving the salt formation) and the mud weight for the bottom of the hole. Report results to BLM office.

3. The minimum required fill of cement behind the 5-1/2 inch production casing is:

- ☒ Cement tie-back appropriate as proposed. Operator shall provide method of verification. **Excess calculates to -15%. Additional cement will be required.**

4. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

MHH 07262016

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesian, NM 88210
Phone: (575) 748-1283 Fax: (575) 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 **HOBBS OCD**
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION AUG 03 2016
1220 South St. Francis Dr.
Santa Fe, NM 87505

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

RECEIVED ☒ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-025-43236	² Pool Code 96434	³ Pool Name RED HILLS; BONE SPRING, NORTH
⁴ Property Code 315754	⁵ Property Name BLUE KRAIT 23-14 FED	⁶ Well Number 2H
⁷ OGRID No. 6137	⁸ Operator Name DEVON ENERGY PRODUCTION COMPANY, L.P.	⁹ Elevation 3556.1

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	23	24 S	33 E		200	SOUTH	1980	WEST	LEA

¹¹ 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
C	14	24 S	33 E		330	NORTH	1865	WEST	LEA

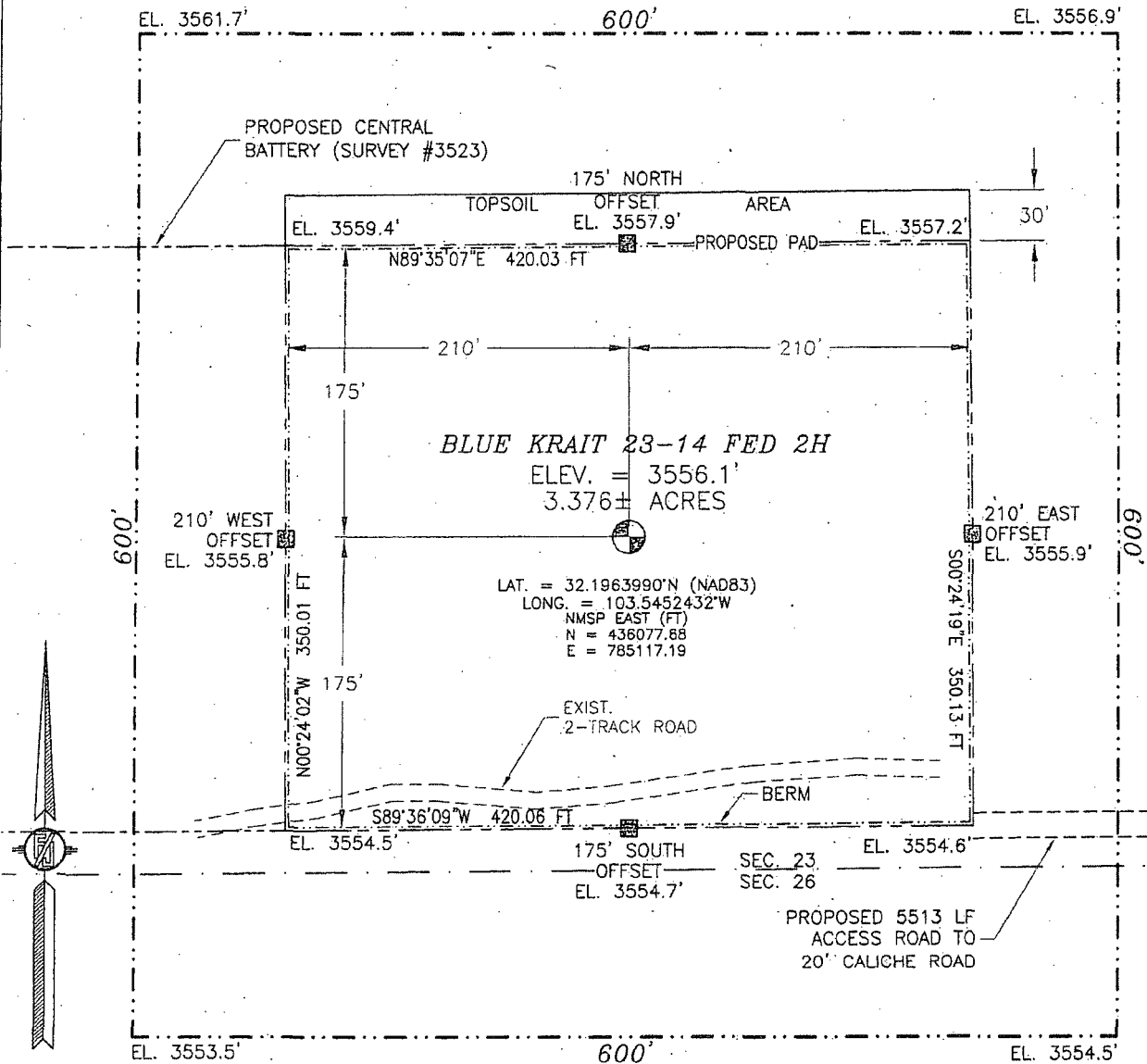
¹² Dedicated Acres 320	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

	¹⁷ 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. <i>[Signature]</i> 07/13/2016 Signature Date David H. Cook Printed Name david.cook@dvn.com E-mail Address ¹⁸ 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. WILLIAM F. JARAMILLO JULY 7, 2016 Date of Survey <i>[Signature]</i> Signature and Seal of Professional Surveyor Certificate Number: 12797 WILLIAM F. JARAMILLO, PLS 12797 SURVEY NO. 3465C
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SECTION 23, TOWNSHIP 24 SOUTH, RANGE 33 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO
SITE MAP

NOTE: LATITUDE AND LONGITUDE COORDINATES ARE SHOWN USING THE NORTH AMERICAN DATUM OF 1983 (NAD83). LISTED NEW MEXICO STATE PLANE EAST COORDINATES ARE GRID (NAD83). BASIS OF BEARING AND DISTANCES USED ARE NEW MEXICO STATE PLANE EAST COORDINATES MODIFIED TO THE SURFACE



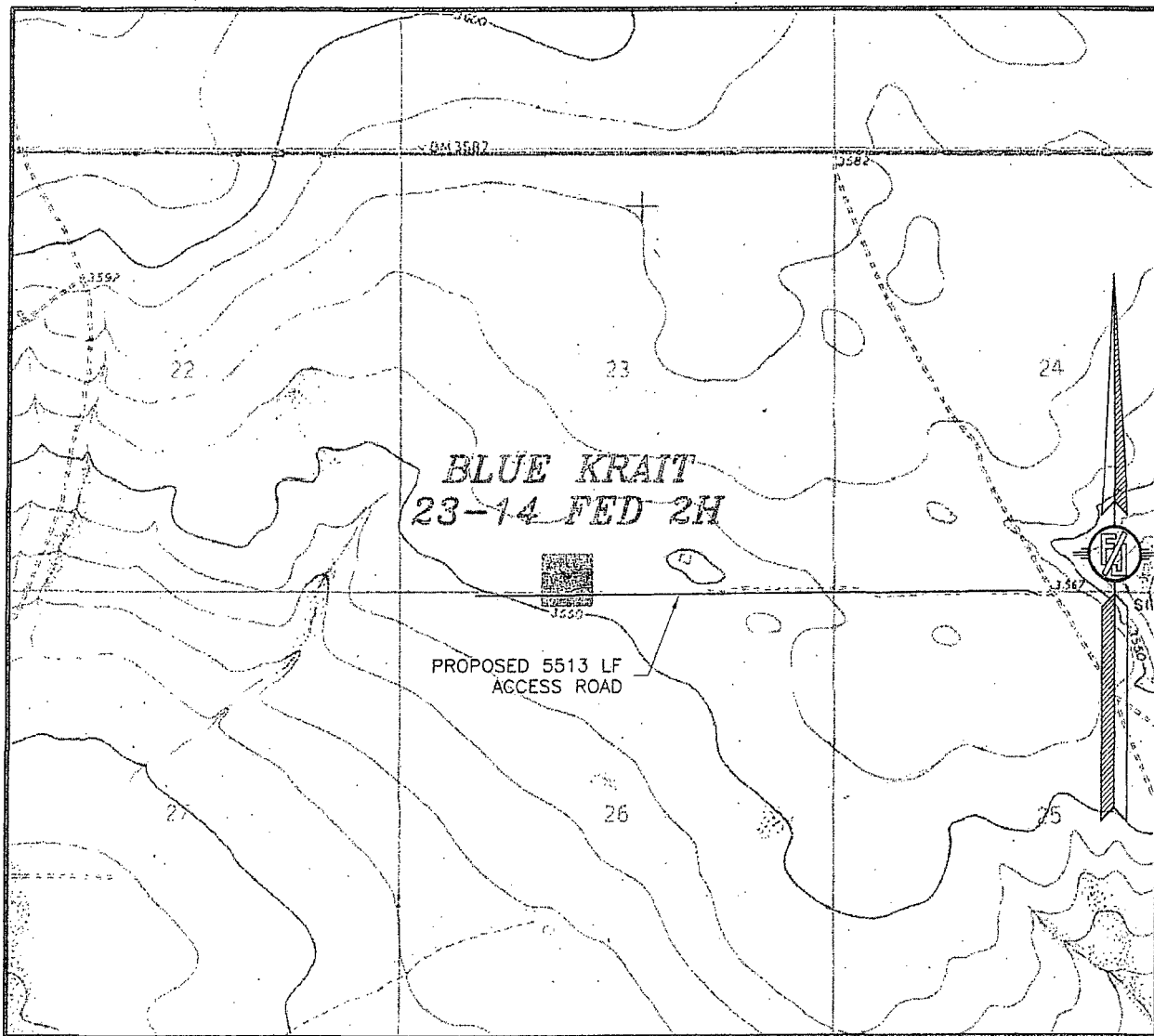
DEVON ENERGY PRODUCTION COMPANY, L.P.
BLUE KRAIT 23-14 FED 2H
LOCATED 200 FT. FROM THE SOUTH LINE
AND 1980 FT. FROM THE WEST LINE OF
SECTION 23, TOWNSHIP 24 SOUTH,
RANGE 33 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO

JULY 7, 2016

SURVEY NO. 3465C

MADRON SURVEYING, INC. 301 SOUTH CANAL CARLSBAD, NEW MEXICO
(575) 234-3341

SECTION 23, TOWNSHIP 24 SOUTH, RANGE 33 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO
LOCATION VERIFICATION MAP



USGS QUAD MAP:
BELL LAKE

NOT TO SCALE

DEVON ENERGY PRODUCTION COMPANY, L.P.

BLUE KRAIT 23-14 FED 2H

LOCATED 200 FT. FROM THE SOUTH LINE
AND 1980 FT. FROM THE WEST LINE OF
SECTION 23, TOWNSHIP 24 SOUTH,
RANGE 33 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO

JULY 7, 2016

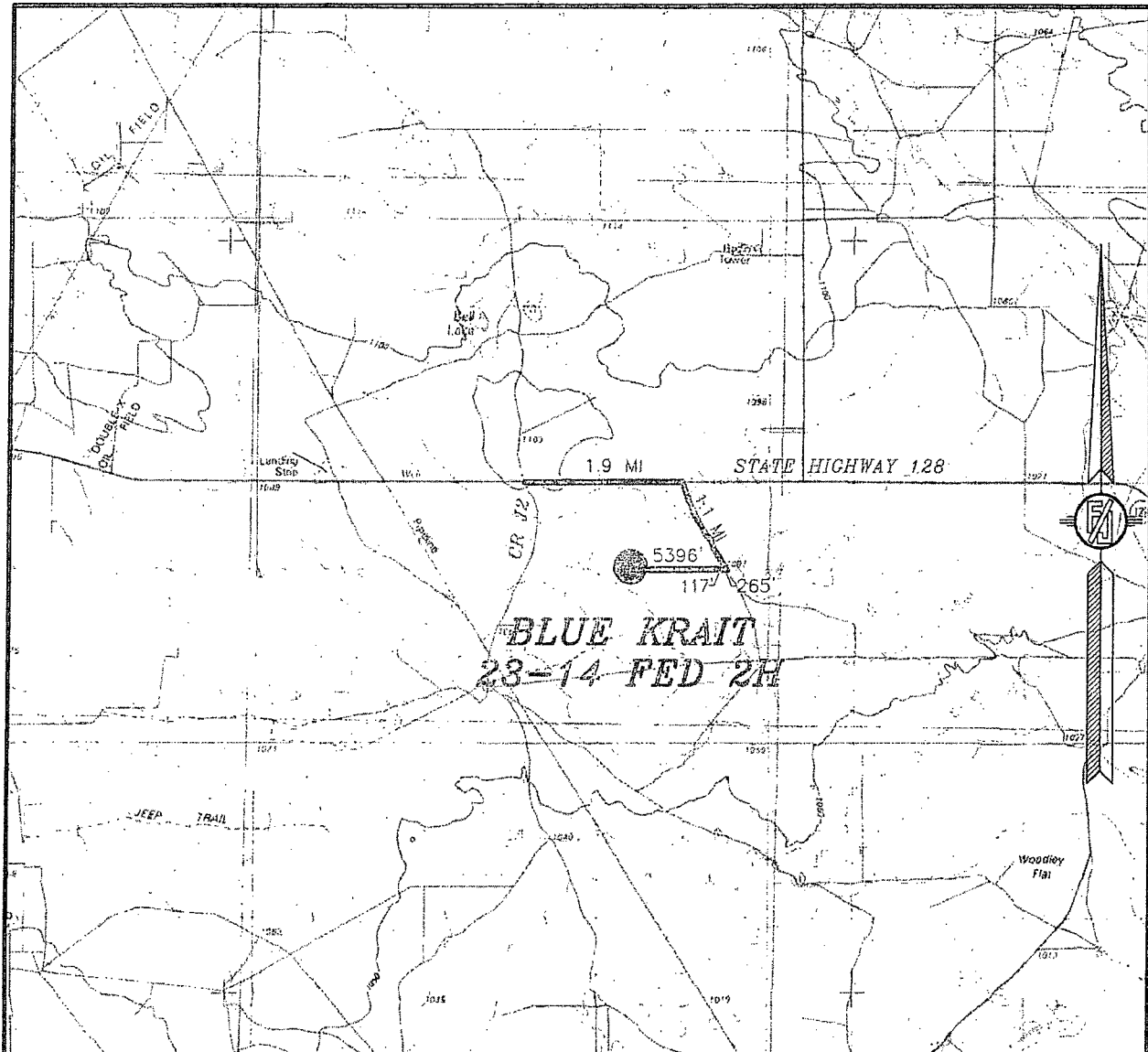
MADRON SURVEYING, INC.

301 SOUTH CANAL
(575) 234-3341

CARLSBAD, NEW MEXICO

SURVEY NO. 3465C

SECTION 23, TOWNSHIP 24 SOUTH, RANGE 33 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO
VICINITY MAP



DISTANCES IN MILES

NOT TO SCALE

DEVON ENERGY PRODUCTION COMPANY, L.P.

BLUE KRAIT 23-14 FED 2H

LOCATED 200 FT. FROM THE SOUTH LINE
AND 1980 FT. FROM THE WEST LINE OF

SECTION 23, TOWNSHIP 24 SOUTH,
RANGE 33 EAST, N.M.P.M.

LEA COUNTY, STATE OF NEW MEXICO

DIRECTIONS TO LOCATION

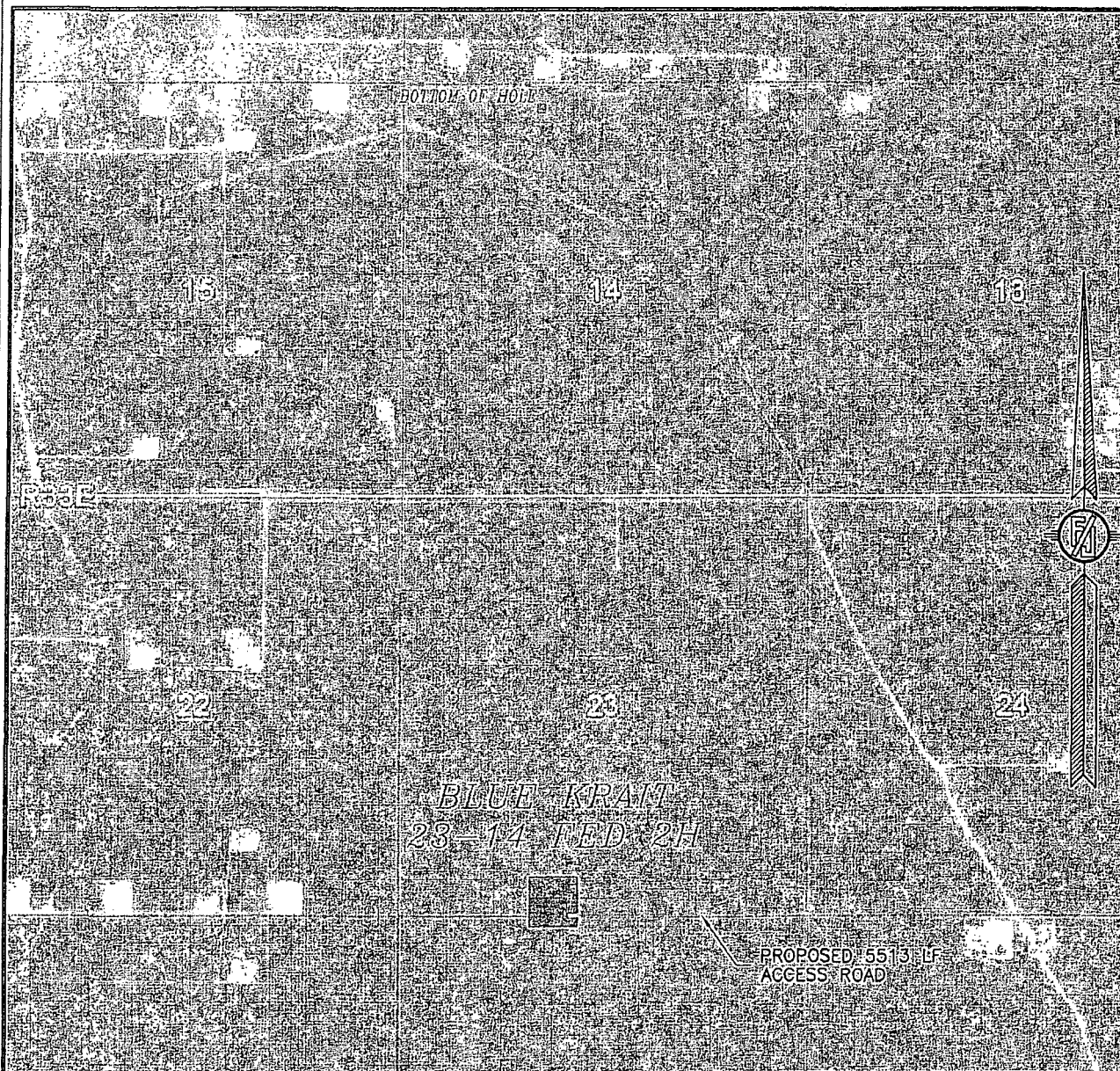
FROM STATE HIGHWAY 128 AND CR J2 (BRININSTOOL) GO EAST ON
STATE HIGHWAY 128 1.9 MILES, TURN RIGHT ON CALICHE ROAD
(VACA) AND GO SOUTH-SOUTHEAST 1.1 MILES, TURN RIGHT AND GO
WEST 265' TO A PROPOSED ROAD SURVEY AND FOLLOW FLAGS
NORTHWEST 117', THEN WEST 5396' TO THE PROPOSED SOUTHEAST
PAD CORNER FOR THIS LOCATION.

JULY 7, 2016

SURVEY NO. 3465C

MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 CARLSBAD, NEW MEXICO

SECTION 23, TOWNSHIP 24 SOUTH, RANGE 33 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO
AERIAL PHOTO



NOT TO SCALE
AERIAL PHOTO:
GOOGLE EARTH
FEBRUARY 2014

DEVON ENERGY PRODUCTION COMPANY, L.P.

BLUE KRAIT 23-14 FED 2H

LOCATED 200 FT. FROM THE SOUTH LINE
AND 1980 FT. FROM THE WEST LINE OF
SECTION 23, TOWNSHIP 24 SOUTH,
RANGE 33 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO

JULY 7, 2016

SURVEY NO. 3465C

MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 CARLSBAD, NEW MEXICO

15 14 13

9 MILES

STATE HIGHWAY 126

R332

10 MILES

22 23 24

BLUE KRATT
23-14 FED 21

5396

265

117

27 26 25

MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 CARLSBAD, NEW MEXICO

301 SOUTH CANAL
(575) 234-3341

Devon Energy, Blue Krait 23-14 Fed 2H

1. Geologic Formations

TVD of target	11,170'	Pilot hole depth	N/A
MD at TD:	20,953'	Deepest expected fresh water:	100'

Basin

Formation	Depth (TVD) from KB	Water/Mineral Bearing/ Target Zone?	Hazards*
Rustler	1,101		
Top of Salt	1,622		
Base of Salt	5,048		
Delaware	5,267		
Lower Brushy Canyon	9,010		
1 st Bone Spring Lime	9,196		
Leonard A	9,274		
Leonard B	9,617		
Leonard C	9,895		
1 st Bone Spring Sand	10,200		
2 nd Bone Spring Lime	10,447		
2nd Bone Spring Sand	10,860		
2nd Bone Spring Target Top	11,127		
2nd Bone Spring Target Base	11,211		
3rd Bone Spring Lime	11,360		

*H2S, water flows, loss of circulation, abnormal pressures, etc.

2. Casing Program

Hole Size	Casing Interval		Csg. Size	Weight (lbs)	Grade	Conn	SF Collapse	SF Burst	SF Tension
	From	To							
17.5"	0	1,350'	13.375"	40 lb	H-40	STC	1.18	2.64	8.05
12.25"	0	4,300'	9.625"	40	J-55	BTC	1.15	1.77	4.15
12.25"	4,300'	5,150'	9.625"	40	HCK-55	BTC	1.58	1.47	4.50
8.75"	0	20,953'	5.5"	17	HCP-110	BTC	1.60	1.99	2.13
BLM Minimum Safety Factor							1.125	1.00	1.6 Dry 1.8 Wet

All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.h

Must have table for contingency casing

	Y or N
Is casing new? If used, attach certification as required in Onshore Order #1	Y
Does casing meet API specifications? If no, attach casing specification sheet.	Y
Is premium or uncommon casing planned? If yes attach casing specification sheet.	N
Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria).	Y
Will the intermediate pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	Y
Is well located within Capitan Reef?	N
If yes, does production casing cement tie back a minimum of 50' above the Reef?	
Is well within the designated 4 string boundary.	
Is well located in SOPA but not in R-111-P?	N
If yes, are the first 2 strings cemented to surface and 3 rd string cement tied back 500' into previous casing?	
Is well located in R-111-P and SOPA?	N
If yes, are the first three strings cemented to surface?	
Is 2 nd string set 100' to 600' below the base of salt?	
Is well located in high Cave/Karst?	N
If yes, are there two strings cemented to surface?	
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	

Devon Energy, Blue Krait 23-14 Fed 2H

3. Cementing Program

Casing	# Sks	Wt. lb/ gal	H ₂ O gal/sk	Yld ft ³ / sack	500# Comp. Strength (hours)	Slurry Description
Surf.	680	12.9	9.81	1.85	15	Lead: (65:35) Class C Cement: Poz (Fly Ash): 6% BWOC Bentonite + 3% BWOW Sodium Chloride + 0.125 lbs/sack Poly-E-Flake
	560	14.8	6.34	1.34	6	Tail: Class C Cement + 0.125 lbs/sack Poly- E-Flake + 1% BWOC Calcium Chloride
Surf. Two Stage	380	12.9	9.81	1.85	15	Lead: (65:35) Class C Cement: Poz (Fly Ash): 6% BWOC Bentonite + 3% BWOW Sodium Chloride + 0.125 lbs/sack Poly-E-Flake
	560	14.8	6.34	1.34	6	Tail: Class C Cement + 0.125 lbs/sack Poly- E-Flake + 1% BWOC Calcium Chloride
	DV Tool = 400ft					
	420	14.8	6.34	1.34	6	Tail: Class C Cement + 0.125 lbs/sack Poly- E-Flake + 1% BWOC Calcium Chloride
Inter.	1100	12.9	9.81	1.85	15	Lead: (65:35) Class C Cement: Poz (Fly Ash): 6% BWOC Bentonite + 5% BWOW Sodium Chloride + 0.125 lbs/sack Poly-E-Flake
	430	14.8	1.33	6.32	7	Tail: Class C Cement + 0.125 lbs/sack Poly- E-Flake
Inter. Two Stage	940	12.9	9.81	1.85	15	Lead: (65:35) Class C Cement: Poz (Fly Ash): 6% BWOC Bentonite + 5% BWOW Sodium Chloride + 0.125 lbs/sack Poly-E-Flake
	220	14.8	1.33	6.32	7	Tail: Class C Cement + 0.125 lbs/sack Poly- E-Flake
	DV Tool = 1500ft					
	210	12.9	9.81	1.85	15	Lead: (65:35) Class C Cement: Poz (Fly Ash): 6% BWOC Bentonite + 5% BWOW Sodium Chloride + 0.125 lbs/sack Poly-E-Flake
	160	14.8	1.33	6.32	7	Tail: Class C Cement + 0.125 lbs/sack Poly- E-Flake
5.5" Prod	630	11.9	12.89	2.26	n/a	1 st Lead: (50:50) Class H Cement: Poz (Fly Ash) + 10% BWOC Bentonite + 1 lb/sk of Kol- Seal + 0.3% BWOC HR-601 + 0.5lb/sk D-Air 5000
	330	12.5	10.86	1.96	30	2 nd Lead: (65:35) Class H Cement: Poz (Fly Ash) + 6% BWOC Bentonite + 0.25% BWOC HR-601 + 0.125 lbs/sack Poly-E-Flake
	1350	14.5	5.31	1.2	25	Tail: (50:50) Class H Cement: Poz (Fly Ash) + 0.5% bwoc HALAD-344 + 0.4% bwoc CFR-3 + 0.2% BWOC HR-601 + 2% bwoc Bentonite

might require
additional cement.
SEE COA

might require
additional cement.
SEE COA

Devon Energy, Blue Krait 23-14 Fed 2H

DV tool depth(s) will be adjusted based on hole conditions and cement volumes will be adjusted proportionally. DV tool will be set a minimum of 50 feet below previous casing and a minimum of 200 feet above current shoe. Lab reports with the 500 psi compressive strength time for the cement will be onsite for review.

Casing String	TOC	% Excess
Surface	0'	100%
Surface Two Stage Option	1 st Stage = 400' / 2 nd Stage = 0'	100%
Intermediate	0'	75%
Intermediate Two Stage Option	1 st Stage = 1500' / 2 nd Stage = 0'	75%
5.5" Production	3800'	25%

4. Pressure Control Equipment

N	A variance is requested for the use of a diverter on the surface casing. See attached for schematic.
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BOP installed and tested before drilling which hole?	Size?	Min. Required WP	Type	✓	Tested to:
12-1/4"	13-5/8"	3M	Annular	x	50% of working pressure
			Blind Ram		3M
			Pipe Ram		
			Double Ram	x	
			Other*		
8-3/4"	13-5/8"	3M	Annular	x	50% testing pressure
			Blind Ram		3M
			Pipe Ram		
			Double Ram	x	
			Other*		
			Annular		
			Blind Ram		
			Pipe Ram		
			Double Ram		
			Other*		

*Specify if additional ram is utilized.

BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per Onshore Order 2 requirements. The System may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all the components installed will be functional and tested.

Devon Energy, Blue Krait 23-14 Fed 2H

Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. Other accessories to the BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold. See attached schematics.

Y	Formation integrity test will be performed per Onshore Order #2. On Exploratory wells or on that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.i.
Y	A variance is requested for the use of a flexible choke line from the BOP to Choke Manifold. See attached for specs and hydrostatic test chart.
Y	Are anchors required by manufacturer?
Y	A multibowl wellhead may be used. The BOP will be tested per Onshore Order #2 after installation on the surface casing which will cover testing requirements for a maximum of 30 days. If any seal subject to test pressure is broken the system must be tested. Devon proposes the option of using a multi-bowl wellhead assembly. This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be 3000 (3M) psi. - Wellhead will be installed by vendor's representatives. - If the welding is performed by a third party, the vendor's representative will monitor the temperature to verify that it does not exceed the maximum temperature of the seal. - Vendor representative will install the test plug for the initial BOP test. - Vendor will install a solid steel body pack-off to completely isolate the lower head after cementing intermediate casing. After installation of the pack-off, the pack-off and the lower flange will be tested to 3M, as shown on the attached schematic. Everything above the pack-off will not have been altered whatsoever from the initial nipple up. Therefore the BOP components will not be retested at that time. - If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head will be cut and top out operations will be conducted. - Devon will pressure test all seals above and below the mandrel (but still above the casing) to full working pressure rating. - Devon will test the casing to 0.22 psi/ft or 1500 psi, whichever is greater, as per Onshore Order #2. After running the 13-3/8" surface casing, a 13-5/8" BOP/BOPE system with a minimum rating of 3M will be installed on the wellhead system and will undergo a 250 psi low pressure test followed by a 3,000 psi high pressure test. The 3,000 psi high and 250 psi low test will cover testing requirements a maximum of 30 days, as per Onshore Order #2. If the well is not complete within 30 days of this BOP test, another full BOP test will be conducted, as per Onshore Order #2.

Devon Energy, Blue Krait 23-14 Fed 2H

After running the 9-5/8" intermediate casing with a mandrel hanger, the 13-5/8" BOP/BOPE system with a minimum rating of 3M will already be installed on the wellhead. The pipe rams will be operated and checked each 24 hour period and each time the drill pipe is out of the hole. These tests will be logged in the daily driller's log. A 2" kill line and 3" choke line will be incorporated into the drilling spool below the ram BOP. In addition to the rams and annular preventer, additional BOP accessories include a kelly cock, floor safety valve, choke lines, and choke manifold rated at 3,000 psi WP. Devon requests a variance to use a flexible line with flanged ends between the BOP and the choke manifold (choke line). The line will be kept as straight as possible with minimal turns. See attached schematic.

5. Mud Program

Depth		Type	Weight (ppg)	Viscosity	Water Loss
From	To				
0	1,350'	FW Gel	8.6-8.8	28-34	N/C
1,350'	5,150'	Saturated Brine	10.0-10.2	28-34	N/C
5,150'	20,953'	Cut Brine	8.5-9.3	28-34	N/C

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all times.

What will be used to monitor the loss or gain of fluid?	PVT/Pason/Visual Monitoring
---	-----------------------------

6. Logging and Testing Procedures

Logging, Coring and Testing	
x	Will run GR/CNL from TD to surface (horizontal well – vertical portion of hole). Stated logs run will be in the Completion Report and submitted to the BLM.
	No Logs are planned based on well control or offset log information.
	Drill stem test? If yes, explain
	Coring? If yes, explain

Additional logs planned	Interval
Resistivity	Int. shoe to KOP
Density	Int. shoe to KOP
X CBL	Production casing
X Mud log	Intermediate shoe to TD
PEX	

Devon Energy, Blue Krait 23-14 Fed 2H

7. Drilling Conditions

Condition	Specify what type and where?
BH Pressure at deepest TVD	5401 psi
Abnormal Temperature	No

Mitigation measure for abnormal conditions. Describe. Lost circulation material/sweeps/mud scavengers.

Hydrogen Sulfide (H2S) monitors will be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the operator will comply with the provisions of Onshore Oil and Gas Order #6. If Hydrogen Sulfide is encountered, measured values and formations will be provided to the BLM.	
N	H2S is present
Y	H2S Plan attached

8. Other facets of operation

Is this a walking operation? No.

Will be pre-setting casing? No.

Attachments

☒ Directional Plan

☐ Other, describe



Project: Lea County, NM (NAD-83)
 Site: Blue Krait 23-14 Fed
 Well: 2H
 Wellbore: OH
 Design: Plan #1



Azimuths to Grid North
 True North: -0.42°
 Magnetic North: 6.51°

Magnetic Field
 Strength: 48203.5nT
 Dip Angle: 59.97°
 Date: 6/24/2016
 Model: HDGM

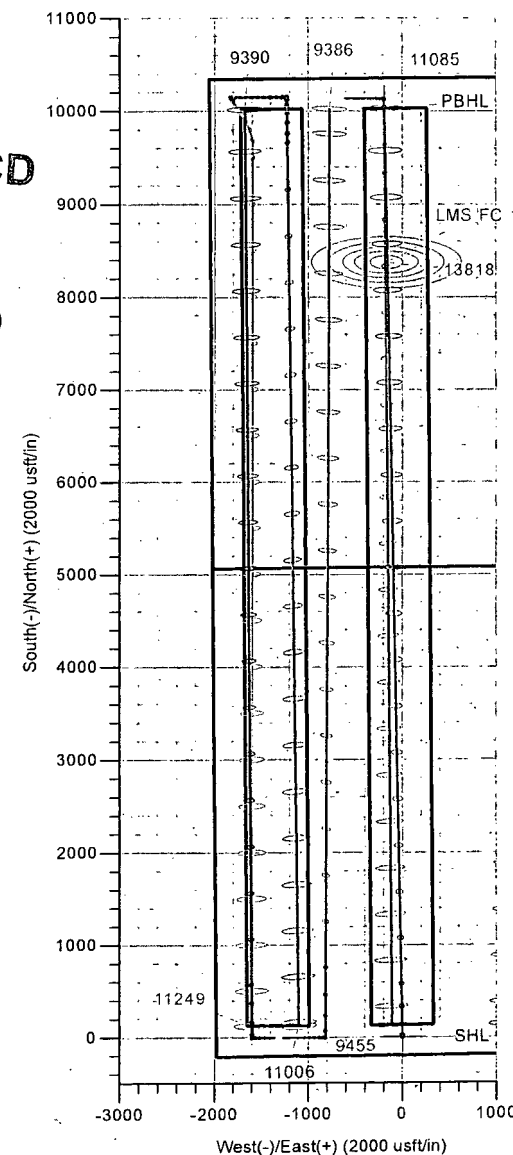
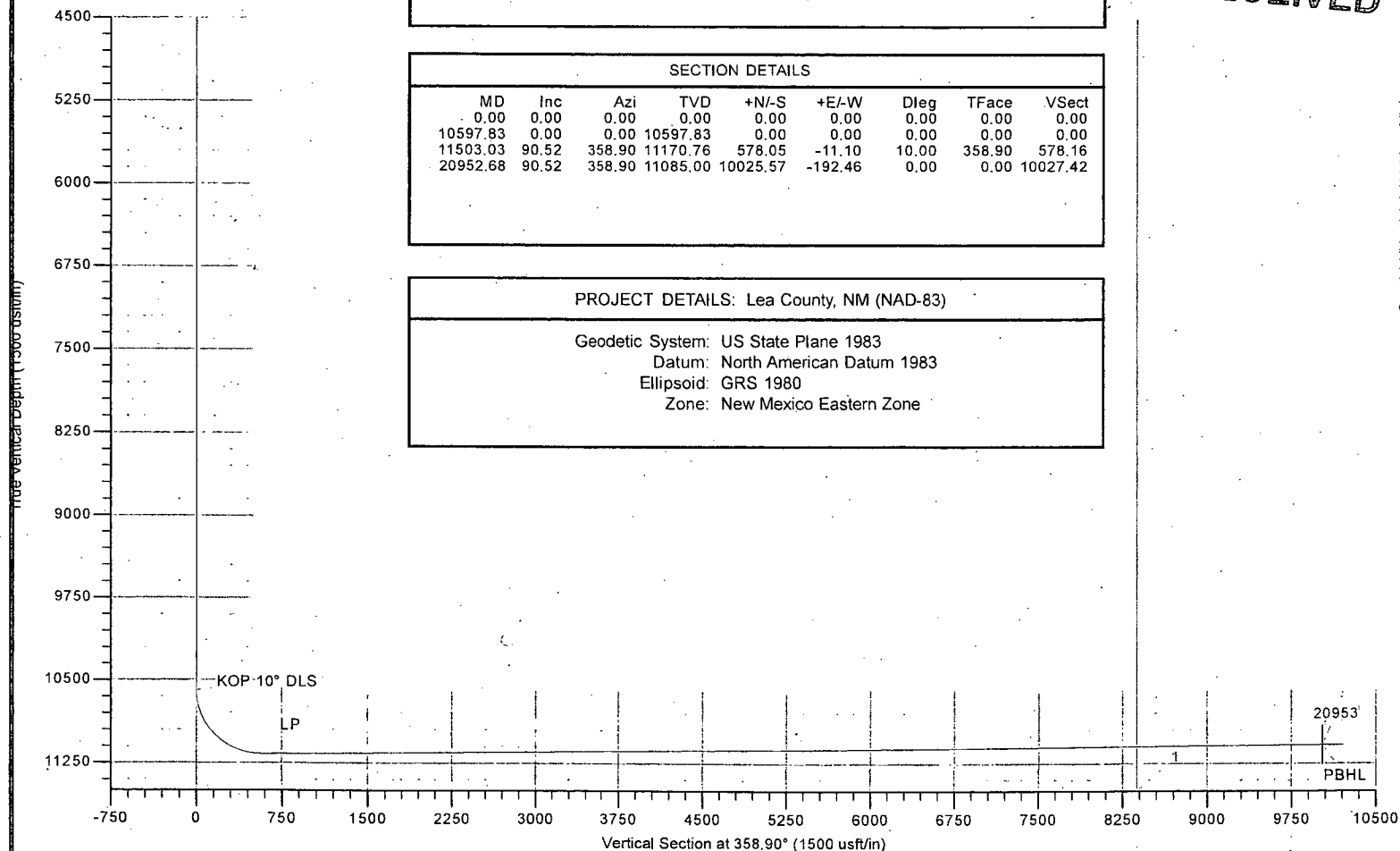


DESIGN TARGET DETAILS					
Name	TVD	+N/-S	+E/-W	Northing	Easting
SHL (BK23-14F2H)	0.00	0.00	0.00	436077.68	785117.19
PBHL (BK23-14F2H)	11085.00	10025.57	-192.46	446103.25	784924.73

SECTION DETAILS								
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10597.83	0.00	0.00	10597.83	0.00	0.00	0.00	0.00	0.00
11503.03	90.52	358.90	11170.76	578.05	-11.10	10.00	358.90	578.16
20952.68	90.52	358.90	11085.00	10025.57	-192.46	0.00	0.00	10027.42

PROJECT DETAILS: Lea County, NM (NAD-83)	
Geodetic System: US State Plane 1983	
Datum: North American Datum 1983	
Ellipsoid: GRS 1980	
Zone: New Mexico Eastern Zone	

HOBBS OCD
 AUG 03 2016
 RECEIVED



DEVON ENERGY

Lea County, NM (NAD-83)

Blue Krait 23-14 Fed

2H

OH

HOBBS OCD

AUG 03 2016

RECEIVED

Plan: Plan #1

Standard Planning Report

12 July, 2016

LEAM Drilling Systems LLC

Planning Report

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well 2H
Company:	DEVON ENERGY	TVD Reference:	3556.1' GE + 25' KB @ 3581.10usft
Project:	Lea County, NM (NAD-83)	MD Reference:	3556.1' GE + 25' KB @ 3581.10usft
Site:	Blue Krait 23-14 Fed	North Reference:	Grid
Well:	2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Project:	Lea County, NM (NAD-83)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site:	Blue Krait 23-14 Fed			
Site Position:		Northing:	436,068.01 usft	Latitude: 32° 11' 47.040 N
From:	Map	Easting:	783,747.53 usft	Longitude: 103° 32' 58.815 W
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16"	Grid Convergence: 0.42 °

Well:	2H			
Well Position	+N-S	9.67 usft	Northing:	436,077.68 usft
	+E-W	1,369.66 usft	Easting:	785,117.19 usft
Position Uncertainty	0.00 usft	Wellhead Elevation:	3,581.10 usft	Ground Level: 3,556.10 usft

Wellbore:	OH			
Magnetics	Model Name	Sample Date	Declination	Dip Angle
			(°)	(°)
	HDGM	6/24/2016	6.93	59.97
				Field Strength (nT)
				48,204

Design:	Plan #1			
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	358.90

Plan Sections:										
Measured	Inclination	Azimuth	Vertical	+N-S	+E-W	Dogleg	Build	Turn	TFO	Target
Depth (usft)	(°)	(°)	Depth (usft)	(usft)	(usft)	Rate (°/100usft)	Rate (°/100usft)	Rate (°/100usft)	(°)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
10,597.83	0.00	0.00	10,597.83	0.00	0.00	0.00	0.00	0.00	0.00	
11,503.03	90.52	358.90	11,170.76	578.05	-11.10	10.00	10.00	0.00	358.90	
20,952.68	90.52	358.90	11,085.00	10,025.57	-192.46	0.00	0.00	0.00	0.00	PBHL (BK23-14F2H)

LEAM Drilling Systems LLC

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Site:	Blue Krait 23-14 Fed	North Reference:	Grid
Well:	2H	Survey/Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SHL (BK23-14F2H)									
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,102.10	0.00	0.00	1,102.10	0.00	0.00	0.00	0.00	0.00	0.00
Rustler									
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,623.10	0.00	0.00	1,623.10	0.00	0.00	0.00	0.00	0.00	0.00
Top of Salt									
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	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
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00
3,300.00	0.00	0.00	3,300.00	0.00	0.00	0.00	0.00	0.00	0.00
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.00	0.00	0.00
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00
3,600.00	0.00	0.00	3,600.00	0.00	0.00	0.00	0.00	0.00	0.00
3,700.00	0.00	0.00	3,700.00	0.00	0.00	0.00	0.00	0.00	0.00
3,800.00	0.00	0.00	3,800.00	0.00	0.00	0.00	0.00	0.00	0.00
3,900.00	0.00	0.00	3,900.00	0.00	0.00	0.00	0.00	0.00	0.00
4,000.00	0.00	0.00	4,000.00	0.00	0.00	0.00	0.00	0.00	0.00
4,100.00	0.00	0.00	4,100.00	0.00	0.00	0.00	0.00	0.00	0.00
4,200.00	0.00	0.00	4,200.00	0.00	0.00	0.00	0.00	0.00	0.00
4,300.00	0.00	0.00	4,300.00	0.00	0.00	0.00	0.00	0.00	0.00
4,400.00	0.00	0.00	4,400.00	0.00	0.00	0.00	0.00	0.00	0.00
4,500.00	0.00	0.00	4,500.00	0.00	0.00	0.00	0.00	0.00	0.00
4,600.00	0.00	0.00	4,600.00	0.00	0.00	0.00	0.00	0.00	0.00
4,700.00	0.00	0.00	4,700.00	0.00	0.00	0.00	0.00	0.00	0.00

LEAM Drilling Systems LLC

Planning Report

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Site:	Blue Krait 23-14 Fed	North Reference:	Grid
Well:	2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
4,800.00	0.00	0.00	4,800.00	0.00	0.00	0.00	0.00	0.00	0.00	
4,900.00	0.00	0.00	4,900.00	0.00	0.00	0.00	0.00	0.00	0.00	
5,000.00	0.00	0.00	5,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
5,049.10	0.00	0.00	5,049.10	0.00	0.00	0.00	0.00	0.00	0.00	
Base of Salt										
5,100.00	0.00	0.00	5,100.00	0.00	0.00	0.00	0.00	0.00	0.00	
5,200.00	0.00	0.00	5,200.00	0.00	0.00	0.00	0.00	0.00	0.00	
5,268.10	0.00	0.00	5,268.10	0.00	0.00	0.00	0.00	0.00	0.00	
Delaware										
5,300.00	0.00	0.00	5,300.00	0.00	0.00	0.00	0.00	0.00	0.00	
5,400.00	0.00	0.00	5,400.00	0.00	0.00	0.00	0.00	0.00	0.00	
5,500.00	0.00	0.00	5,500.00	0.00	0.00	0.00	0.00	0.00	0.00	
5,600.00	0.00	0.00	5,600.00	0.00	0.00	0.00	0.00	0.00	0.00	
5,700.00	0.00	0.00	5,700.00	0.00	0.00	0.00	0.00	0.00	0.00	
5,800.00	0.00	0.00	5,800.00	0.00	0.00	0.00	0.00	0.00	0.00	
5,900.00	0.00	0.00	5,900.00	0.00	0.00	0.00	0.00	0.00	0.00	
6,000.00	0.00	0.00	6,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
6,100.00	0.00	0.00	6,100.00	0.00	0.00	0.00	0.00	0.00	0.00	
6,200.00	0.00	0.00	6,200.00	0.00	0.00	0.00	0.00	0.00	0.00	
6,300.00	0.00	0.00	6,300.00	0.00	0.00	0.00	0.00	0.00	0.00	
6,400.00	0.00	0.00	6,400.00	0.00	0.00	0.00	0.00	0.00	0.00	
6,500.00	0.00	0.00	6,500.00	0.00	0.00	0.00	0.00	0.00	0.00	
6,600.00	0.00	0.00	6,600.00	0.00	0.00	0.00	0.00	0.00	0.00	
6,700.00	0.00	0.00	6,700.00	0.00	0.00	0.00	0.00	0.00	0.00	
6,800.00	0.00	0.00	6,800.00	0.00	0.00	0.00	0.00	0.00	0.00	
6,900.00	0.00	0.00	6,900.00	0.00	0.00	0.00	0.00	0.00	0.00	
7,000.00	0.00	0.00	7,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
7,100.00	0.00	0.00	7,100.00	0.00	0.00	0.00	0.00	0.00	0.00	
7,200.00	0.00	0.00	7,200.00	0.00	0.00	0.00	0.00	0.00	0.00	
7,300.00	0.00	0.00	7,300.00	0.00	0.00	0.00	0.00	0.00	0.00	
7,400.00	0.00	0.00	7,400.00	0.00	0.00	0.00	0.00	0.00	0.00	
7,500.00	0.00	0.00	7,500.00	0.00	0.00	0.00	0.00	0.00	0.00	
7,600.00	0.00	0.00	7,600.00	0.00	0.00	0.00	0.00	0.00	0.00	
7,700.00	0.00	0.00	7,700.00	0.00	0.00	0.00	0.00	0.00	0.00	
7,800.00	0.00	0.00	7,800.00	0.00	0.00	0.00	0.00	0.00	0.00	
7,900.00	0.00	0.00	7,900.00	0.00	0.00	0.00	0.00	0.00	0.00	
8,000.00	0.00	0.00	8,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
8,100.00	0.00	0.00	8,100.00	0.00	0.00	0.00	0.00	0.00	0.00	
8,200.00	0.00	0.00	8,200.00	0.00	0.00	0.00	0.00	0.00	0.00	
8,300.00	0.00	0.00	8,300.00	0.00	0.00	0.00	0.00	0.00	0.00	
8,400.00	0.00	0.00	8,400.00	0.00	0.00	0.00	0.00	0.00	0.00	
8,500.00	0.00	0.00	8,500.00	0.00	0.00	0.00	0.00	0.00	0.00	
8,600.00	0.00	0.00	8,600.00	0.00	0.00	0.00	0.00	0.00	0.00	
8,700.00	0.00	0.00	8,700.00	0.00	0.00	0.00	0.00	0.00	0.00	
8,800.00	0.00	0.00	8,800.00	0.00	0.00	0.00	0.00	0.00	0.00	
8,900.00	0.00	0.00	8,900.00	0.00	0.00	0.00	0.00	0.00	0.00	
9,000.00	0.00	0.00	9,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
9,011.10	0.00	0.00	9,011.10	0.00	0.00	0.00	0.00	0.00	0.00	
Lower Brushy Canyon										
9,100.00	0.00	0.00	9,100.00	0.00	0.00	0.00	0.00	0.00	0.00	
9,197.10	0.00	0.00	9,197.10	0.00	0.00	0.00	0.00	0.00	0.00	
1st BSPG Lime										
9,200.00	0.00	0.00	9,200.00	0.00	0.00	0.00	0.00	0.00	0.00	
9,275.10	0.00	0.00	9,275.10	0.00	0.00	0.00	0.00	0.00	0.00	

LEAM Drilling Systems LLC

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Well:	2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
Leonard A									
9,300.00	0.00	0.00	9,300.00	0.00	0.00	0.00	0.00	0.00	0.00
9,400.00	0.00	0.00	9,400.00	0.00	0.00	0.00	0.00	0.00	0.00
9,500.00	0.00	0.00	9,500.00	0.00	0.00	0.00	0.00	0.00	0.00
9,600.00	0.00	0.00	9,600.00	0.00	0.00	0.00	0.00	0.00	0.00
9,618.10	0.00	0.00	9,618.10	0.00	0.00	0.00	0.00	0.00	0.00
Leonard B									
9,700.00	0.00	0.00	9,700.00	0.00	0.00	0.00	0.00	0.00	0.00
9,800.00	0.00	0.00	9,800.00	0.00	0.00	0.00	0.00	0.00	0.00
9,896.10	0.00	0.00	9,896.10	0.00	0.00	0.00	0.00	0.00	0.00
Leonard C									
9,900.00	0.00	0.00	9,900.00	0.00	0.00	0.00	0.00	0.00	0.00
10,000.00	0.00	0.00	10,000.00	0.00	0.00	0.00	0.00	0.00	0.00
10,100.00	0.00	0.00	10,100.00	0.00	0.00	0.00	0.00	0.00	0.00
10,200.00	0.00	0.00	10,200.00	0.00	0.00	0.00	0.00	0.00	0.00
10,201.10	0.00	0.00	10,201.10	0.00	0.00	0.00	0.00	0.00	0.00
1st BSPG Sand									
10,300.00	0.00	0.00	10,300.00	0.00	0.00	0.00	0.00	0.00	0.00
10,400.00	0.00	0.00	10,400.00	0.00	0.00	0.00	0.00	0.00	0.00
10,448.10	0.00	0.00	10,448.10	0.00	0.00	0.00	0.00	0.00	0.00
2nd BSPG Lime									
10,500.00	0.00	0.00	10,500.00	0.00	0.00	0.00	0.00	0.00	0.00
10,597.83	0.00	0.00	10,597.83	0.00	0.00	0.00	0.00	0.00	0.00
KOP 10" DLS									
10,600.00	0.22	358.90	10,600.00	0.00	0.00	0.00	10.01	10.01	0.00
10,650.00	5.22	358.90	10,649.93	2.37	-0.05	2.37	10.00	10.00	0.00
10,700.00	10.22	358.90	10,699.46	9.08	-0.17	9.09	10.00	10.00	0.00
10,750.00	15.22	358.90	10,748.22	20.09	-0.39	20.09	10.00	10.00	0.00
10,800.00	20.22	358.90	10,795.83	35.29	-0.68	35.30	10.00	10.00	0.00
10,850.00	25.22	358.90	10,841.94	54.59	-1.05	54.60	10.00	10.00	0.00
10,870.72	27.29	358.90	10,860.52	63.76	-1.22	63.77	10.00	10.00	0.00
2nd BSPG Sand									
10,900.00	30.22	358.90	10,886.19	77.84	-1.49	77.85	10.00	10.00	0.00
10,950.00	35.22	358.90	10,928.24	104.85	-2.01	104.87	10.00	10.00	0.00
11,000.00	40.22	358.90	10,967.78	135.42	-2.60	135.45	10.00	10.00	0.00
11,050.00	45.22	358.90	11,004.50	169.32	-3.25	169.35	10.00	10.00	0.00
11,100.00	50.22	358.90	11,038.13	206.30	-3.96	206.33	10.00	10.00	0.00
11,150.00	55.22	358.90	11,068.41	246.06	-4.72	246.11	10.00	10.00	0.00
11,200.00	60.22	358.90	11,095.11	288.31	-5.53	288.36	10.00	10.00	0.00
11,250.00	65.22	358.90	11,118.02	332.73	-6.39	332.79	10.00	10.00	0.00
11,267.06	66.92	358.90	11,124.94	348.32	-6.69	348.38	10.00	10.00	0.00
2BSSS Target Top									
11,300.00	70.22	358.90	11,136.97	378.97	-7.28	379.04	10.00	10.00	0.00
11,350.00	75.22	358.90	11,151.82	426.69	-8.19	426.77	10.00	10.00	0.00
11,400.00	80.22	358.90	11,162.45	475.52	-9.13	475.61	10.00	10.00	0.00
11,450.00	85.22	358.90	11,168.79	525.09	-10.08	525.19	10.00	10.00	0.00
11,503.03	90.52	358.90	11,170.76	578.05	-11.10	578.16	10.00	10.00	0.00
LP									
11,600.00	90.52	358.90	11,169.88	675.00	-12.96	675.13	0.00	0.00	0.00
11,700.00	90.52	358.90	11,168.97	774.98	-14.88	775.12	0.00	0.00	0.00
11,800.00	90.52	358.90	11,168.07	874.96	-16.80	875.12	0.00	0.00	0.00
11,900.00	90.52	358.90	11,167.16	974.93	-18.72	975.11	0.00	0.00	0.00
12,000.00	90.52	358.90	11,166.25	1,074.91	-20.63	1,075.11	0.00	0.00	0.00

LEAM Drilling Systems LLC

Planning Report

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well 2H
Company:	DEVON ENERGY	TVD Reference:	3556.1' GE + 25' KB @ 3581.10usft
Project:	Lea County, NM (NAD-83)	MD Reference:	3556.1' GE + 25' KB @ 3581.10usft
Site:	Blue Krait 23-14 Fed	North Reference:	Grid
Well:	2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N-S (usft)	+E-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
12,100.00	90.52	358.90	11,165.34	1,174.89	-22.55	1,175.11	0.00	0.00	0.00	
12,200.00	90.52	358.90	11,164.44	1,274.87	-24.47	1,275.10	0.00	0.00	0.00	
12,300.00	90.52	358.90	11,163.53	1,374.84	-26.39	1,375.10	0.00	0.00	0.00	
12,400.00	90.52	358.90	11,162.62	1,474.82	-28.31	1,475.09	0.00	0.00	0.00	
12,500.00	90.52	358.90	11,161.71	1,574.80	-30.23	1,575.09	0.00	0.00	0.00	
12,600.00	90.52	358.90	11,160.81	1,674.78	-32.15	1,675.09	0.00	0.00	0.00	
12,700.00	90.52	358.90	11,159.90	1,774.75	-34.07	1,775.08	0.00	0.00	0.00	
12,800.00	90.52	358.90	11,158.99	1,874.73	-35.99	1,875.08	0.00	0.00	0.00	
12,900.00	90.52	358.90	11,158.08	1,974.71	-37.91	1,975.07	0.00	0.00	0.00	
13,000.00	90.52	358.90	11,157.18	2,074.69	-39.83	2,075.07	0.00	0.00	0.00	
13,100.00	90.52	358.90	11,156.27	2,174.66	-41.75	2,175.07	0.00	0.00	0.00	
13,200.00	90.52	358.90	11,155.36	2,274.64	-43.67	2,275.06	0.00	0.00	0.00	
13,300.00	90.52	358.90	11,154.45	2,374.62	-45.59	2,375.06	0.00	0.00	0.00	
13,400.00	90.52	358.90	11,153.55	2,474.60	-47.50	2,475.05	0.00	0.00	0.00	
13,500.00	90.52	358.90	11,152.64	2,574.57	-49.42	2,575.05	0.00	0.00	0.00	
13,600.00	90.52	358.90	11,151.73	2,674.55	-51.34	2,675.04	0.00	0.00	0.00	
13,700.00	90.52	358.90	11,150.82	2,774.53	-53.26	2,775.04	0.00	0.00	0.00	
13,800.00	90.52	358.90	11,149.91	2,874.51	-55.18	2,875.04	0.00	0.00	0.00	
13,900.00	90.52	358.90	11,149.01	2,974.48	-57.10	2,975.03	0.00	0.00	0.00	
14,000.00	90.52	358.90	11,148.10	3,074.46	-59.02	3,075.03	0.00	0.00	0.00	
14,100.00	90.52	358.90	11,147.19	3,174.44	-60.94	3,175.02	0.00	0.00	0.00	
14,200.00	90.52	358.90	11,146.28	3,274.42	-62.86	3,275.02	0.00	0.00	0.00	
14,300.00	90.52	358.90	11,145.38	3,374.39	-64.78	3,375.02	0.00	0.00	0.00	
14,400.00	90.52	358.90	11,144.47	3,474.37	-66.70	3,475.01	0.00	0.00	0.00	
14,500.00	90.52	358.90	11,143.56	3,574.35	-68.62	3,575.01	0.00	0.00	0.00	
14,600.00	90.52	358.90	11,142.65	3,674.33	-70.54	3,675.00	0.00	0.00	0.00	
14,700.00	90.52	358.90	11,141.75	3,774.30	-72.45	3,775.00	0.00	0.00	0.00	
14,800.00	90.52	358.90	11,140.84	3,874.28	-74.37	3,875.00	0.00	0.00	0.00	
14,900.00	90.52	358.90	11,139.93	3,974.26	-76.29	3,974.99	0.00	0.00	0.00	
15,000.00	90.52	358.90	11,139.02	4,074.24	-78.21	4,074.99	0.00	0.00	0.00	
15,100.00	90.52	358.90	11,138.12	4,174.21	-80.13	4,174.98	0.00	0.00	0.00	
15,200.00	90.52	358.90	11,137.21	4,274.19	-82.05	4,274.98	0.00	0.00	0.00	
15,300.00	90.52	358.90	11,136.30	4,374.17	-83.97	4,374.97	0.00	0.00	0.00	
15,400.00	90.52	358.90	11,135.39	4,474.15	-85.89	4,474.97	0.00	0.00	0.00	
15,500.00	90.52	358.90	11,134.49	4,574.12	-87.81	4,574.97	0.00	0.00	0.00	
15,600.00	90.52	358.90	11,133.58	4,674.10	-89.73	4,674.96	0.00	0.00	0.00	
15,700.00	90.52	358.90	11,132.67	4,774.08	-91.65	4,774.96	0.00	0.00	0.00	
15,800.00	90.52	358.90	11,131.76	4,874.06	-93.57	4,874.95	0.00	0.00	0.00	
15,900.00	90.52	358.90	11,130.86	4,974.03	-95.49	4,974.95	0.00	0.00	0.00	
16,000.00	90.52	358.90	11,129.95	5,074.01	-97.41	5,074.95	0.00	0.00	0.00	
16,100.00	90.52	358.90	11,129.04	5,173.99	-99.32	5,174.94	0.00	0.00	0.00	
16,200.00	90.52	358.90	11,128.13	5,273.97	-101.24	5,274.94	0.00	0.00	0.00	
16,300.00	90.52	358.90	11,127.23	5,373.94	-103.16	5,374.93	0.00	0.00	0.00	
16,400.00	90.52	358.90	11,126.32	5,473.92	-105.08	5,474.93	0.00	0.00	0.00	
16,500.00	90.52	358.90	11,125.41	5,573.90	-107.00	5,574.93	0.00	0.00	0.00	
16,600.00	90.52	358.90	11,124.50	5,673.88	-108.92	5,674.92	0.00	0.00	0.00	
16,700.00	90.52	358.90	11,123.60	5,773.85	-110.84	5,774.92	0.00	0.00	0.00	
16,800.00	90.52	358.90	11,122.69	5,873.83	-112.76	5,874.91	0.00	0.00	0.00	
16,900.00	90.52	358.90	11,121.78	5,973.81	-114.68	5,974.91	0.00	0.00	0.00	
17,000.00	90.52	358.90	11,120.87	6,073.79	-116.60	6,074.90	0.00	0.00	0.00	
17,100.00	90.52	358.90	11,119.97	6,173.76	-118.52	6,174.90	0.00	0.00	0.00	
17,200.00	90.52	358.90	11,119.06	6,273.74	-120.44	6,274.90	0.00	0.00	0.00	
17,300.00	90.52	358.90	11,118.15	6,373.72	-122.36	6,374.89	0.00	0.00	0.00	
17,400.00	90.52	358.90	11,117.24	6,473.70	-124.27	6,474.89	0.00	0.00	0.00	

LEAM Drilling Systems LLC

Planning Report

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well 2H
Company:	DEVON ENERGY	TVD Reference:	3556.1' GE + 25' KB @ 3581.10usft
Project:	Lea County, NM (NAD-83)	MD Reference:	3556.1' GE + 25' KB @ 3581.10usft
Site:	Blue Krait 23-14 Fed	North Reference:	Grid
Well:	2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
17,500.00	90.52	358.90	11,116.34	6,573.67	-126.19	6,574.88	0.00	0.00	0.00	
17,600.00	90.52	358.90	11,115.43	6,673.65	-128.11	6,674.88	0.00	0.00	0.00	
17,700.00	90.52	358.90	11,114.52	6,773.63	-130.03	6,774.88	0.00	0.00	0.00	
17,800.00	90.52	358.90	11,113.61	6,873.61	-131.95	6,874.87	0.00	0.00	0.00	
17,900.00	90.52	358.90	11,112.71	6,973.58	-133.87	6,974.87	0.00	0.00	0.00	
18,000.00	90.52	358.90	11,111.80	7,073.56	-135.79	7,074.86	0.00	0.00	0.00	
18,100.00	90.52	358.90	11,110.89	7,173.54	-137.71	7,174.86	0.00	0.00	0.00	
18,200.00	90.52	358.90	11,109.98	7,273.52	-139.63	7,274.86	0.00	0.00	0.00	
18,300.00	90.52	358.90	11,109.07	7,373.49	-141.55	7,374.85	0.00	0.00	0.00	
18,400.00	90.52	358.90	11,108.17	7,473.47	-143.47	7,474.85	0.00	0.00	0.00	
18,500.00	90.52	358.90	11,107.26	7,573.45	-145.39	7,574.84	0.00	0.00	0.00	
18,600.00	90.52	358.90	11,106.35	7,673.42	-147.31	7,674.84	0.00	0.00	0.00	
18,700.00	90.52	358.90	11,105.44	7,773.40	-149.23	7,774.83	0.00	0.00	0.00	
18,800.00	90.52	358.90	11,104.54	7,873.38	-151.14	7,874.83	0.00	0.00	0.00	
18,900.00	90.52	358.90	11,103.63	7,973.36	-153.06	7,974.83	0.00	0.00	0.00	
19,000.00	90.52	358.90	11,102.72	8,073.33	-154.98	8,074.82	0.00	0.00	0.00	
19,100.00	90.52	358.90	11,101.81	8,173.31	-156.90	8,174.82	0.00	0.00	0.00	
19,200.00	90.52	358.90	11,100.91	8,273.29	-158.82	8,274.81	0.00	0.00	0.00	
19,300.00	90.52	358.90	11,100.00	8,373.27	-160.74	8,374.81	0.00	0.00	0.00	
19,400.00	90.52	358.90	11,099.09	8,473.24	-162.66	8,474.81	0.00	0.00	0.00	
19,500.00	90.52	358.90	11,098.18	8,573.22	-164.58	8,574.80	0.00	0.00	0.00	
19,600.00	90.52	358.90	11,097.28	8,673.20	-166.50	8,674.80	0.00	0.00	0.00	
19,700.00	90.52	358.90	11,096.37	8,773.18	-168.42	8,774.79	0.00	0.00	0.00	
19,800.00	90.52	358.90	11,095.46	8,873.15	-170.34	8,874.79	0.00	0.00	0.00	
19,900.00	90.52	358.90	11,094.55	8,973.13	-172.26	8,974.79	0.00	0.00	0.00	
20,000.00	90.52	358.90	11,093.65	9,073.11	-174.18	9,074.78	0.00	0.00	0.00	
20,100.00	90.52	358.90	11,092.74	9,173.09	-176.09	9,174.78	0.00	0.00	0.00	
20,200.00	90.52	358.90	11,091.83	9,273.06	-178.01	9,274.77	0.00	0.00	0.00	
20,300.00	90.52	358.90	11,090.92	9,373.04	-179.93	9,374.77	0.00	0.00	0.00	
20,400.00	90.52	358.90	11,090.02	9,473.02	-181.85	9,474.76	0.00	0.00	0.00	
20,500.00	90.52	358.90	11,089.11	9,573.00	-183.77	9,574.76	0.00	0.00	0.00	
20,600.00	90.52	358.90	11,088.20	9,672.97	-185.69	9,674.76	0.00	0.00	0.00	
20,700.00	90.52	358.90	11,087.29	9,772.95	-187.61	9,774.75	0.00	0.00	0.00	
20,800.00	90.52	358.90	11,086.39	9,872.93	-189.53	9,874.75	0.00	0.00	0.00	
20,900.00	90.52	358.90	11,085.48	9,972.91	-191.45	9,974.74	0.00	0.00	0.00	
20,952.68	90.52	358.90	11,085.00	10,025.57	-192.46	10,027.42	0.00	0.00	0.00	
TD - PBHL (BK23-14F2H)										

Design Targets										
Target Name	hit/miss/target	Dip Angle (°)	Dip Dir (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
SHL (BK23-14F2H)		0.00	0.00	0.00	0.00	0.00	436,077.68	785,117.19	32° 11' 47.036 N	103° 32' 42.876 W
- plan hits target center										
- Point										
PBHL (BK23-14F2H)		0.00	0.00	11,085.00	10,025.57	-192.46	446,103.25	784,924.73	32° 13' 26.255 N	103° 32' 44.260 W
- plan hits target center										
- Point										

LEAM Drilling Systems LLC

Planning Report

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well 2H
Company:	DEVON ENERGY	TVD Reference:	3556.1' GE + 25' KB @ 3581.10usft
Project:	Lea County, NM (NAD-83)	MD Reference:	3556.1' GE + 25' KB @ 3581.10usft
Site:	Blue Krait 23-14 Fed	North Reference:	Grid
Well:	2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
1,102.10	1,145.80	Rustler		-0.52	358.90	
1,623.10	1,666.80	Top of Salt		-0.52	358.90	
5,049.10	5,092.80	Base of Salt		-0.52	358.90	
5,268.10	5,311.80	Delaware		-0.52	358.90	
9,011.10	9,054.80	Lower Brushy Canyon		-0.52	358.90	
9,197.10	9,240.80	1st BSPG Lime		-0.52	358.90	
9,275.10	9,318.80	Leonard A		-0.52	358.90	
9,618.10	9,661.80	Leonard B		-0.52	358.90	
9,896.10	9,939.80	Leonard C		-0.52	358.90	
10,201.10	10,244.80	1st BSPG Sand		-0.52	358.90	
10,448.10	10,491.80	2nd BSPG Lime		-0.52	358.90	
10,870.72	10,904.22	2nd BSPG Sand		-0.52	358.90	
11,267.06	11,168.64	2BSSS Target Top		-0.52	358.90	

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment	
		+N/-S (usft)	+E/-W (usft)		
10,597.83	10,597.83	0.00	0.00	KOP 10° DLS	
11,503.03	11,170.76	578.05	-11.10	LP	
20,952.68	11,085.00	10,025.57	-192.46	TD	