Form 3160-3
(June 2015)

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.
NMLC0063798

6. If Indian, Allotee or Tribe Name

1a. Type of work: ☑ DRILL ☐ REENTER

1b. Type of Well: ☑ Oil Well ☐ Gas Well ☐ Other

1c. Type of Completion: ☐ Hydraulic Fracturing ☑ Single Zone ☐ Multiple Zone

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

8. Lease Name and Well No.
BLUE KRAIT 23-14 FED
36H 316705

2. Name of Operator
DEVON ENERGY PRODUCTION COMPANY LP 6137

9. API Well No.
30-025-46465

3a. Address	3b. Phone No. *(include area code)*	10. Field and Pool, or Exploratory
333 West Sheridan Avenue Oklahoma City OK 73102	(800)583-3866	BRINNINSTOOL / WOLFCAMP

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*
At surface SWSW / 245 FSL / 1010 FWL / LAT 32.196523 / LONG -103.548378
At proposed prod. zone NENW / 20 FNL / 1671 FWL / LAT 32.224804 / LONG -103.546254

11. Sec., T. R. M. or Blk. and Survey or Area
SEC 23 / T24S / R33E / NMP

14. Distance in miles and direction from nearest town or post office*	12. County or Parish	13. State
	LEA	NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No of acres in lease	17. Spacing Unit dedicated to this well
245 feet	2480	320
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	**19. Proposed Depth**	**20. BLM/BIA Bond No. in file**
177 feet	12475 feet / 22743 feet	FED: CO1104

21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approximate date work will start*	23. Estimated duration
3556 feet	08/25/2019	45 days

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, and the Hydraulic Fracturing rule per 43 CFR 3162.3-3 (as applicable)

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification.
6. Such other site specific information and/or plans as may be requested by the BLM.

25. Signature	Name *(Printed/Typed)*	Date
(Electronic Submission)	Rebecca Deal / Ph: (405)552-6556	01/28/2019
Title: Regulatory Compliance Professional		
Approved by *(Signature)* (Electronic Submission)	Name *(Printed/Typed)* Cody Layton / Ph: (575)234-5959	Date 10/18/2019
Title: Assistant Field Manager Lands & Minerals	Office: CARLSBAD	

Application approval 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.
Conditions of approval, if any, are attached.

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.

GCP Rec 10/23/19

APPROVED WITH CONDITIONS

KG 10/24/19

(Continued on page 2)

*(Instructions on page 2)

Approval Date: 10/18/2019

AFMSS

U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT

Operator Certification Data Report

10/21/2019

Operator Certification

I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of state and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

NAME: Rebecca Deal **Signed on:** 01/24/2019

Title: Regulatory Compliance Professional

Street Address: 333 W. Sheridan Ave

City: OKC **State:** OK **Zip:** 73102

Phone: (405)552-6556

Email address: blake.richardson@dvn.com

Field Representative

Representative Name: Blake Richardson

Street Address: 333 W SHERIDAN AVE

City: OKC **State:** OK **Zip:** 73102

Phone: (405)552-6556

Email address: blake.richardson@dvn.com

APD ID: 10400038432 **Submission Date:** 01/28/2019

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: BLUE KRAIT 23-14 FED **Well Number:** 36H

Well Type: OIL WELL **Well Work Type:** Drill

[redacted]

Show Final Text

Section 1 - General

APD ID: 10400038432 **Tie to previous NOS?** **Submission Date:** 01/28/2019

BLM Office: CARLSBAD **User:** Rebecca Deal **Title:** Regulatory Compliance Professional

Federal/Indian APD: FED **Is the first lease penetrated for production Federal or Indian?** FED

Lease number: NMLC0063798 **Lease Acres:** 2480

Surface access agreement in place? **Allotted?** **Reservation:**

Agreement in place? NO **Federal or Indian agreement:**

Agreement number:

Agreement name:

Keep application confidential? YES

Permitting Agent? NO **APD Operator:** DEVON ENERGY PRODUCTION COMPANY LP

Operator letter of designation:

Operator Info

Operator Organization Name: DEVON ENERGY PRODUCTION COMPANY LP

Operator Address: 333 West Sheridan Avenue **Zip:** 73102

Operator PO Box:

Operator City: Oklahoma City **State:** OK

Operator Phone: (800)583-3866

Operator Internet Address:

Section 2 - Well Information

Well in Master Development Plan? NO **Master Development Plan name:**

Well in Master SUPO? NO **Master SUPO name:**

Well in Master Drilling Plan? NO **Master Drilling Plan name:**

Well Name: BLUE KRAIT 23-14 FED **Well Number:** 36H **Well API Number:**

Field/Pool or Exploratory? Field and Pool **Field Name:** BRINNINSTOOL **Pool Name:** WOLFCAMP

Is the proposed well in an area containing other mineral resources? NATURAL GAS,OIL

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: BLUE KRAIT 23-14 FED **Well Number:** 36H

Is the proposed well in an area containing other mineral resources? NATURAL GAS,OIL

Is the proposed well in a Helium production area? N **Use Existing Well Pad?** NO **New surface disturbance?**

Type of Well Pad: MULTIPLE WELL **Multiple Well Pad Name:** BLUE KRAIT 23 FED WELLPAD **Number:** 5

Well Class: HORIZONTAL **Number of Legs:** 1

Well Work Type: Drill

Well Type: OIL WELL

Describe Well Type:

Well sub-Type: INFILL

Describe sub-type:

Distance to town: **Distance to nearest well:** 177 FT **Distance to lease line:** 245 FT

Reservoir well spacing assigned acres Measurement: 320 Acres

Well plat: BLUE_KRAIT_23_14_FED_36H_WL_C_102_20190124121252.pdf

Well work start Date: 08/25/2019 **Duration:** 45 DAYS

Section 3 - Well Location Table

Survey Type: RECTANGULAR

Describe Survey Type:

Datum: NAD83 **Vertical Datum:** NAVD88

Survey number: **Reference Datum:**

Wellbore	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD	Will this well produce
SHL Leg #1	245	FSL	1010	FWL	24S	33E	23	Aliquot SWSW	32.196523	-103.548378	LEA	NEW MEXICO	NEW MEXICO	F	NMLC0063798	3556	0	0	
KOP Leg #1	50	FSL	1610	FWL	24S	33E	23	Aliquot SESW	32.195975	-103.546443	LEA	NEW MEXICO	NEW MEXICO	F	NMLC0063798	-8346	11927	11902	
PPP Leg #1	100	FSL	1610	FWL	24S	33E	23	Aliquot SESW	32.196112	-103.546442	LEA	NEW MEXICO	NEW MEXICO	F	NMLC0063798	-8580	12168	12136	

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: BLUE KRAIT 23-14 FED **Well Number:** 36H

Wellbore	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD	Will this well produce
EXIT Leg #1	100	FNL	1671	FWL	24S	33E	14	Aliquot NENW	32.224585	-103.546256	LEA	NEW MEXICO	NEW MEXICO	F	NMLC0063798	-8919	22663	12475	
BHL Leg #1	20	FNL	1671	FWL	24S	33E	14	Aliquot NENW	32.224804	-103.546254	LEA	NEW MEXICO	NEW MEXICO	F	NMLC0063798	-8919	22743	12475	

AFMSS

U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT

Drilling Plan Data Report

10/21/2019

APD ID: 10400038432 **Submission Date:** 01/28/2019

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: BLUE KRAIT 23-14 FED **Well Number:** 36H

Well Type: OIL WELL **Well Work Type:** Drill

[redacted]

Show Final Text

Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing Formation
1	—	3555	0	0	OTHER : Surface	NONE	N
2	RUSTLER	2454	1101	1101	SANDSTONE	NONE	N
3	TOP SALT	1933	1622	1622	SALT	NONE	N
4	BASE OF SALT	-1493	5048	5048	LIMESTONE	NONE	N
5	BELL CANYON	-1712	5267	5267	SANDSTONE	NATURAL GAS,OIL	N
6	CHERRY CANYON	-2986	6301	6301	SANDSTONE	NATURAL GAS,OIL	N
7	BRUSHY CANYON	-4616	7931	7931	SANDSTONE	NATURAL GAS,OIL	N
8	BONE SPRING	-6126	9441	9441	SHALE	NATURAL GAS,OIL	N
9	BONE SPRING 1ST	-6645	10200	10200	SANDSTONE	NATURAL GAS,OIL	N
10	BONE SPRING 2ND	-7305	10860	10860	SANDSTONE	NATURAL GAS,OIL	N
11	BONE SPRING 3RD	-8641	12196	12196	SANDSTONE	NATURAL GAS,OIL	N
12	WOLFCAMP	-8702	12257	12257	SHALE	NATURAL GAS,OIL	Y
13	STRAWN	-10245	13800	13800	LIMESTONE	NATURAL GAS,OIL	N

Section 2 - Blowout Prevention

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: BLUE KRAIT 23-14 FED **Well Number:** 36H

Pressure Rating (PSI): 10M **Rating Depth:** 12475

Equipment: BOP/BOPE will be installed per Onshore Oil & Gas Order #2 requirements prior to drilling below intermediate casing, a BOP/BOPE system with the above minimum rating will be installed on the wellhead system. BOP/BOPE will be tested by an independent service company per Onshore Oil & Gas Order #2 requirements and MASP (Maximum Anticipated Surface Pressure) calculations. If the system is upgraded, all the components installed will be functional and tested.
Requesting Variance? YES

Variance request: A variance is requested for the use of a flexible choke line from the BOP stack to the choke manifold. See attached for specs for hydrostatic test chart. Devon requests a variance to run a 5M annular on a 10M BOP system. See separately attached variance request and support documents in AFMSS.
Testing Procedure: 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. 5M annular on 10M system will be tested to 100% of rated working pressure.
Choke Diagram Attachment:

10M_BOPE_CHK_DR_CLS_RKL_20190124094056.pdf

BOP Diagram Attachment:

10M_BOPE_CHK_DR_CLS_RKL_20190124094339.pdf

Pressure Rating (PSI): 5M **Rating Depth:** 11965

Equipment: BOP/BOPE will be installed per Onshore Oil & Gas Order #2 requirements prior to drilling below surface casing, a BOP/BOPE system with the above minimum rating will be installed on the wellhead system. BOP/BOPE will be tested by an independent service company per Onshore Oil & Gas Order #2 requirements and MASP (Maximum Anticipated Surface Pressure) calculations. If the system is upgraded, all the components installed will be functional and tested.
Requesting Variance? YES

Variance request: A variance is requested for the use of a flexible choke line from the BOP stack to the choke manifold. See attached for specs for hydrostatic test chart.
Testing Procedure: 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.
Choke Diagram Attachment:

5M_BOPE__CK_20190124094439.pdf

BOP Diagram Attachment:

5M_BOPE__CK_20190124094446.pdf

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: BLUE KRAIT 23-14 FED **Well Number:** 36H

Section 3 - Casing

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
1	SURFACE	14.75	10.75	NEW	API	N	0	1350	0	1350			1350	J-55	40.5	ST&C	1.125	1.25	BUOY	1.6	BUOY	1.6
2	INTERMEDIATE	9.875	7.625	NEW	API	N	0	11965	0	11965			11965	P-110	29.7	OTHER - BTC	1.125	1.25	BUOY	1.6	BUOY	1.6
3	PRODUCTION	6.75	5.5	NEW	API	N	0	22743	0	12475			22743	P-110	20	OTHER - VAM SG	1.125	1.25	BUOY	1.6	BUOY	1.6

Casing Attachments

Casing ID: 1 **String Type:** SURFACE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Surf_Csg_Ass_20190124121952.pdf

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: BLUE KRAIT 23-14 FED **Well Number:** 36H

Casing Attachments

Casing ID: 2 **String Type:** INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Int_Csg_Ass_20190124094716.pdf

Casing ID: 3 **String Type:** PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Prod_Csg_Ass_20190124121942.pdf

Section 4 - Cement

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	1350	864	1.33	13.2	1149	50	CLASS C	Class C + adds
INTERMEDIATE	Lead		0	7965	1161	1.85	9	2148	30	TUNED	TUNED LIGHT
INTERMEDIATE	Tail		7965	11965	848	1.33	13.2	1128	30	CLASS H	Poz (Fly Ash) + 0.5% bwoc HALAD-344 + 0.4% bwoc CFR-3 + 0.2% BWOC HR-601 + 2% bwoc Bentonite

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: BLUE KRAIT 23-14 FED **Well Number:** 36H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
PRODUCTION	Lead		11465	22743	788	1.33	13.2	1048	25	Class H	0.125 lbs/sack Poly-E-Flake

Section 5 - Circulating Medium

Mud System Type: Closed

Will an air or gas system be Used? NO

Description of the equipment for the circulating system in accordance with Onshore Order #2:

Diagram of the equipment for the circulating system in accordance with Onshore Order #2:

Describe what will be on location to control well or mitigate other conditions: Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all times.

Describe the mud monitoring system utilized: PVT/Pason/Visual Monitoring

Circulating Medium Table

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
0	1350	WATER-BASED MUD	8.5	9				2			
0	11965	SALT SATURATED	9	10				2			
11965	22743	OIL-BASED MUD	10	10.5				12			

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: BLUE KRAIT 23-14 FED **Well Number:** 36H

Section 6 - Test, Logging, Coring

List of production tests including testing procedures, equipment and safety measures:

Will run GRMWD from TD to from KOP. Cement bond logs will be run in vertical to determine top of cement. Stated logs run will be in the Completion Report and submitted to the BLM.

List of open and cased hole logs run in the well:

CALIPER,CBL,DS,GR,MUDLOG

Coring operation description for the well:

N/A

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 6811 **Anticipated Surface Pressure:** 4066.5

Anticipated Bottom Hole Temperature(F): 181

Anticipated abnormal pressures, temperatures, or potential geologic hazards? NO

Describe:

Contingency Plans geoharzards description:

Contingency Plans geohazards attachment:

Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations plan:

Blue_Krait_23_14_Fed_36H_H2S_Plan_20190124122056.pdf

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

Blue_Krait_23_14_Fed_36H_DIR_SVY_20190124122353.pdf

Blue_Krait_23_14_Fed_36H_Plot_20190124122354.pdf

Blue_Krait_23_14_Fed_36H_DRLG_DOC_20190124122353.pdf

Other proposed operations facets description:

DIRECTIONAL SURVEY
PLOT
DRILLING PLAN
MULTI-BOWL VERBIAGE
MULTI-BOWL WELLHEAD - 2 VARIATIONS OF 10M
10M ANNULAR VARIANCE DOC & SCHEMATIC
CLOSED LOOP DESIGN PLAN
CO-FLEX HOSE
SPUDDER RIG REQUEST
GCP FORM
SPEC SHEETS - 6

Other proposed operations facets attachment:

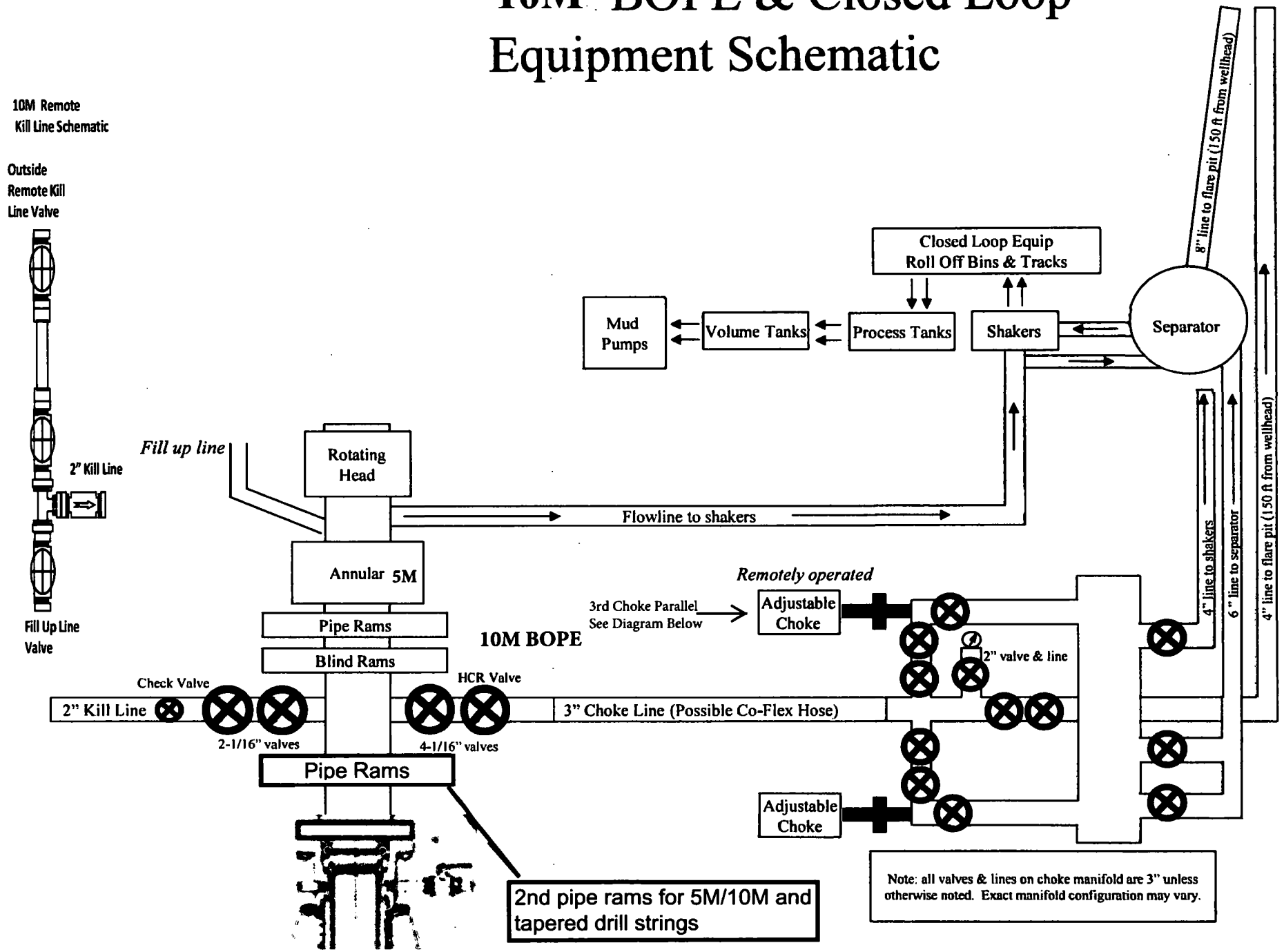
7.625_29.70_P110_Flushmax_20180802151741.pdf

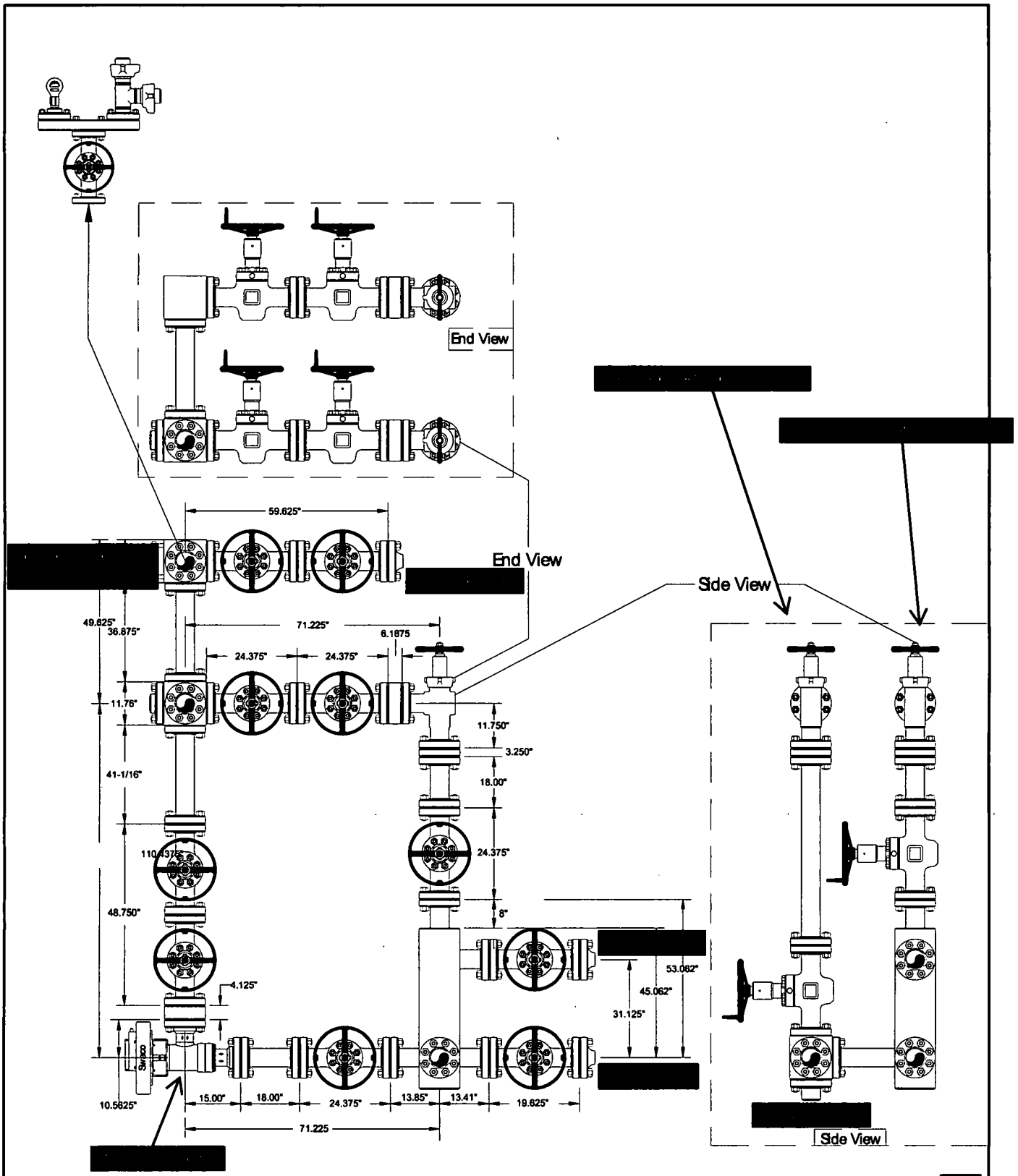
5.5_x_20_P110_EC_VAMSG_20180802151740.pdf
8.625_32__P110EC___7.875_SD_20180802151742.pdf
13.375_48__H40_20190124102551.pdf
5_500in_17_00__P110RY_DWC_C_20190124102614.pdf
MB_Verb_10M_20190124102727.pdf
Spudder_Rig_Info_20190124102728.pdf
MB_Wellhd_5M___Wolfcamp_5M_20190124103216.pdf
MB_Wellhd_10M_2_20190124102943.PDF
MB_Wellhd_10M_20190124102944.pdf
Clsd_Loop_20190124102727.pdf
Blue_Krait_23_Fed_WP_5_GCP_20190124102726.pdf
10.750_40.50__J55_USS_20190124102537.PDF

Other Variance attachment:

10M_BOPE_CHK_DR_CLS_RKL_20190124102805.pdf
Annular_Variance___Preventer_Summary_20190124102747.pdf
Co_flex_20190124102748.pdf

10M BOPE & Closed Loop Equipment Schematic





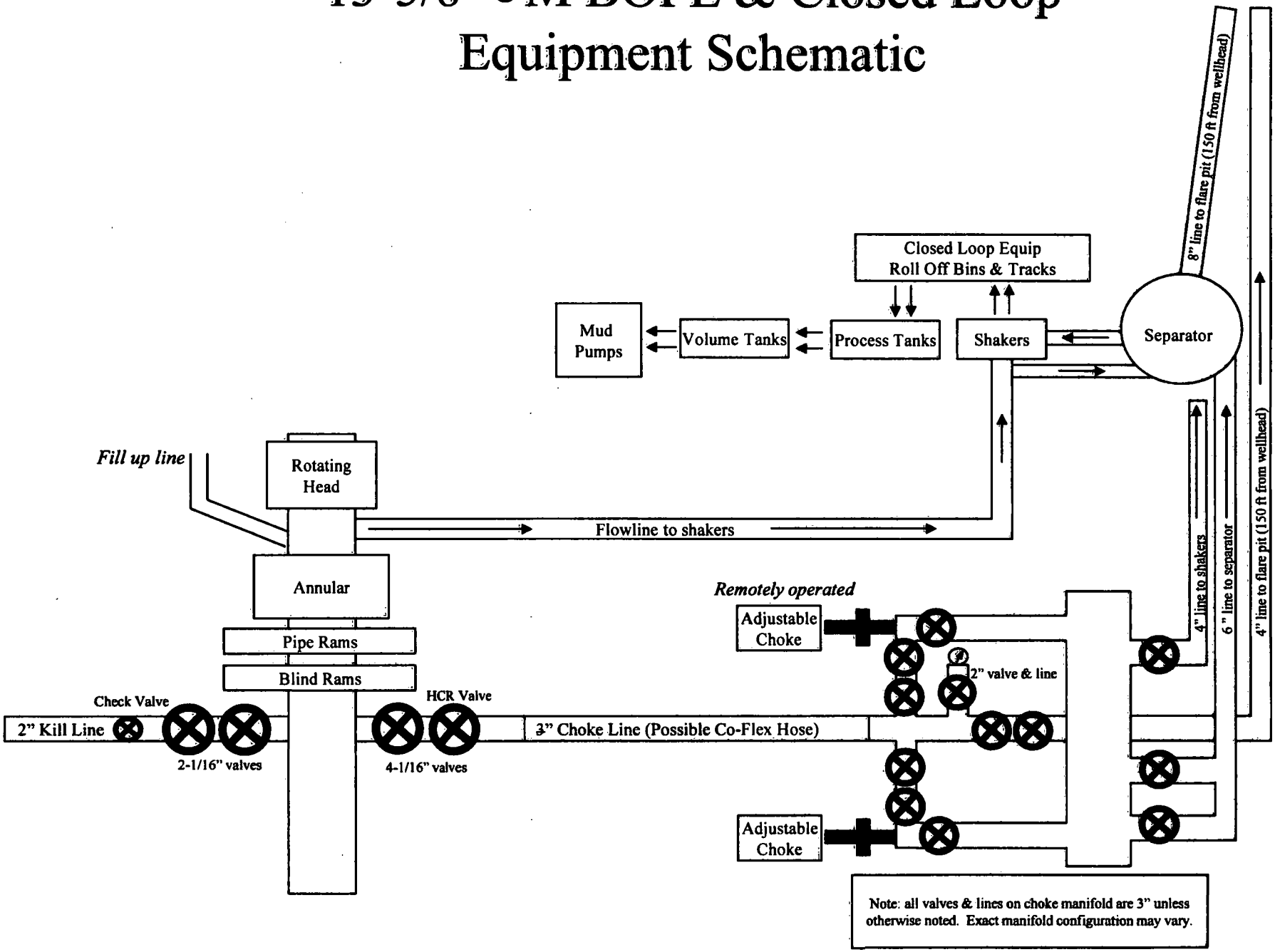
Helmerich & Payne

Flex 3 Rig w/ 3 Chokes

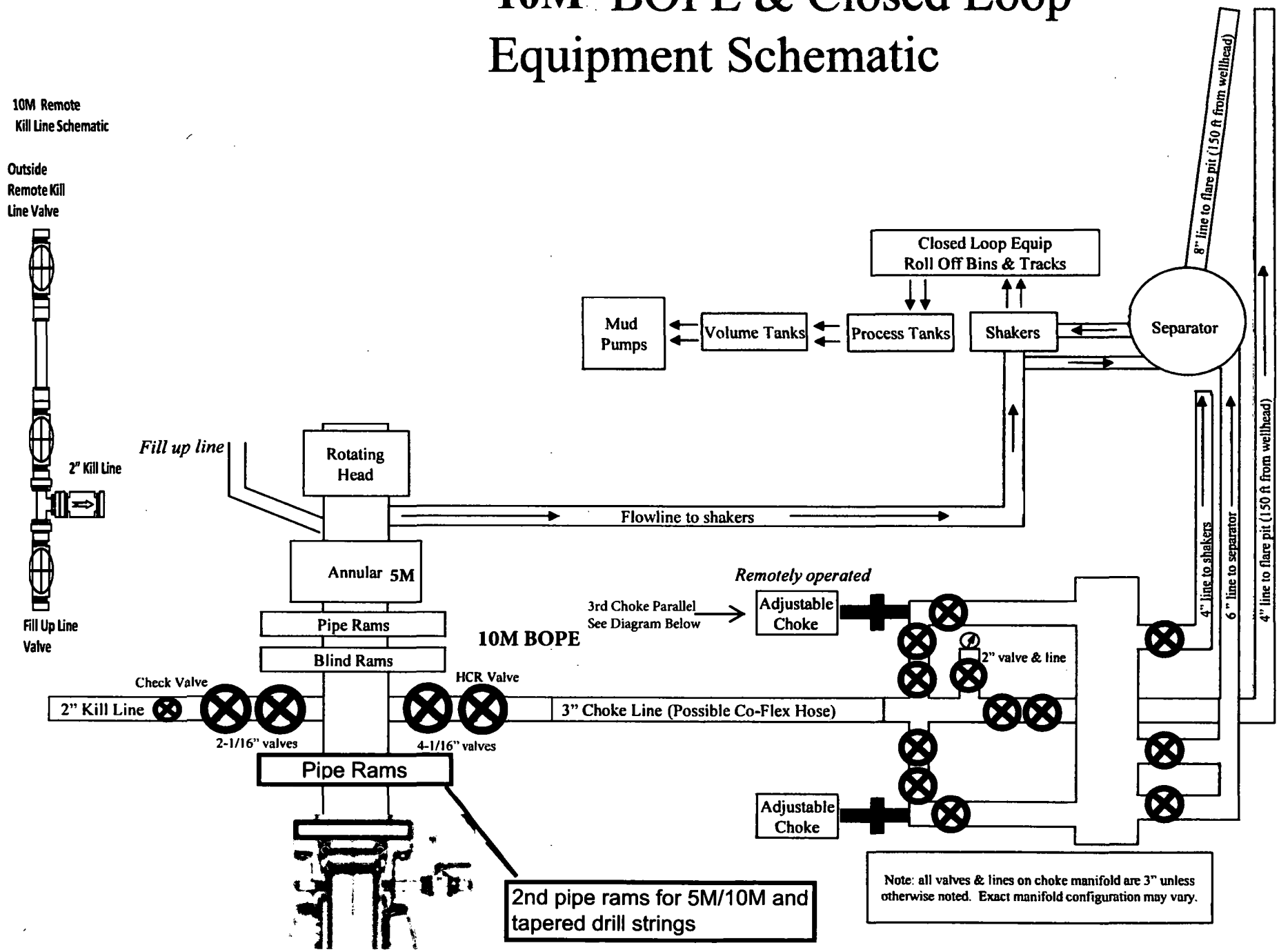
devon

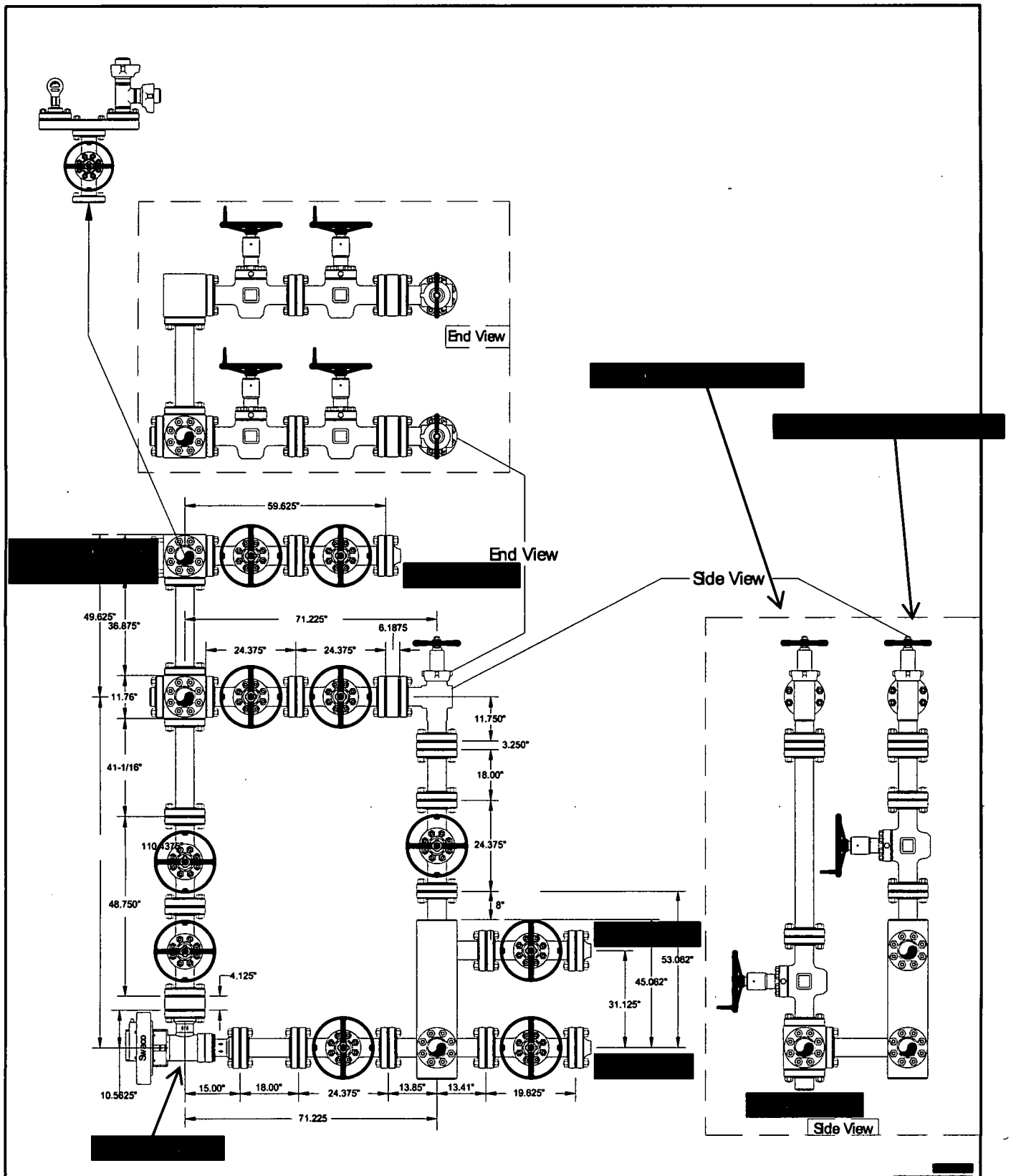
Name: Mike Potts	Date: 6-23-2010	Working Pressure: 10M	J-5132-E

13-5/8" 5M BOPE & Closed Loop Equipment Schematic



10M BOPE & Closed Loop Equipment Schematic





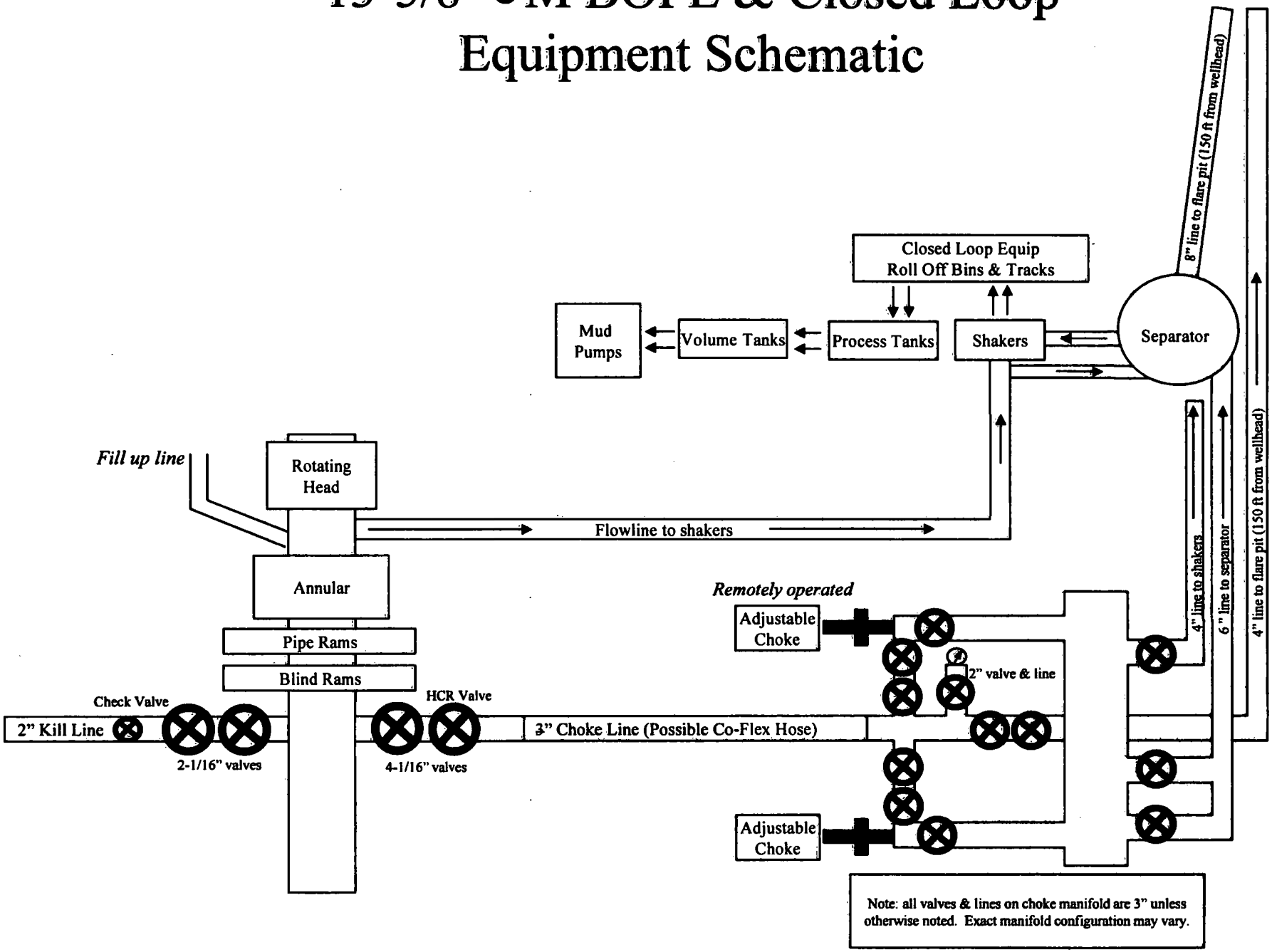
Helmerich & Payne

Flex 3 Rig w/ 3 Chokes

devon

Name: Mike Potts	Date: 6-23-2010	Working Pressure: 10M	J-5132-E

13-5/8" 5M BOPE & Closed Loop Equipment Schematic



Casing Assumptions and Load Cases

Intermediate

All casing design assumptions were ran in Stress Check to determine safety factor which meet or exceed both Devon Energy and BLM minimum requirements. All casing strings will be filled while running in hole in order to not exceed collapse rating of the pipe.

Intermediate Casing Burst Design		
Load Case	**External Pressure**	**Internal Pressure**
Pressure Test	Formation Pore Pressure	Max mud weight of next hole-section plus Test psi
Drill Ahead	Formation Pore Pressure	Max mud weight of next hole section
Fracture @ Shoe	Formation Pore Pressure	Dry gas

Intermediate Casing Collapse Design		
Load Case	**External Pressure**	**Internal Pressure**
Full Evacuation	Water gradient in cement, mud above TOC	None
Cementing	Wet cement weight	Water (8.33ppg)

Intermediate Casing Tension Design	
Load Case	**Assumptions**
Overpull	100kips
Runing in hole	2 ft/s
Service Loads	N/A

Casing Assumptions and Load Cases

Production

All casing design assumptions were ran in Stress Check to determine safety factor which meet or exceed both Devon Energy and BLM minimum requirements. All casing strings will be filled while running in hole in order to not exceed collapse rating of the pipe.

Production Casing Burst Design		
Load Case	**External Pressure**	**Internal Pressure**
Pressure Test	Formation Pore Pressure	Fluid in hole (water or produced water) + test psi
Tubing Leak	Formation Pore Pressure	Packer @ KOP, leak below surface 8.6 ppg packer fluid
Stimulation	Formation Pore Pressure	Max frac pressure with heaviest frac fluid

Production Casing Collapse Design		
Load Case	**External Pressure**	**Internal Pressure**
Full Evacuation	Water gradient in cement, mud above TOC.	None
Cementing	Wet cement weight	Water (8.33ppg)

Production Casing Tension Design	
Load Case	**Assumptions**
Overpull	100kips
Runing in hole	2 ft/s
Service Loads	N/A

Casing Assumptions and Load Cases

Production

All casing design assumptions were ran in Stress Check to determine safety factor which meet or exceed both Devon Energy and BLM minimum requirements. All casing strings will be filled while running in hole in order to not exceed collapse rating of the pipe.

Production Casing Burst Design		
Load Case	**External Pressure**	**Internal Pressure**
Pressure Test	Formation Pore Pressure	Fluid in hole (water or produced water) + test psi
Tubing Leak	Formation Pore Pressure	Packer @ KOP, leak below surface 8.6 ppg packer fluid
Stimulation	Formation Pore Pressure	Max frac pressure with heaviest frac fluid

Production Casing Collapse Design		
Load Case	**External Pressure**	**Internal Pressure**
Full Evacuation	Water gradient in cement, mud above TOC.	None
Cementing	Wet cement weight	Water (8.33ppg)

Production Casing Tension Design	
Load Case	**Assumptions**
Overpull	100kips
Runing in hole	2 ft/s
Service Loads	N/A

Casing Assumptions and Load Cases

Surface

All casing design assumptions were ran in Stress Check to determine safety factor which meet or exceed both Devon Energy and BLM minimum requirements. All casing strings will be filled while running in hole in order to not exceed collapse rating of the pipe.

Surface Casing Burst Design		
Load Case	**External Pressure**	**Internal Pressure**
Pressure Test	Formation Pore Pressure	Max mud weight of next hole-section plus Test psi
Drill Ahead	Formation Pore Pressure	Max mud weight of next hole section
Displace to Gas	Formation Pore Pressure	Dry gas from next casing point

Surface Casing Collapse Design		
Load Case	**External Pressure**	**Internal Pressure**
Full Evacuation	Water gradient in cement, mud above TOC	None
Cementing	Wet cement weight	Water (8.33ppg)

Surface Casing Tension Design	
Load Case	**Assumptions**
Overpull	100kips
Runing in hole	3 ft/s
Service Loads	N/A

devon

Devon Energy Center
333 West Sheridan Avenue
Oklahoma City, Oklahoma 73102-5015

Hydrogen Sulfide (H_2S) Contingency Plan

For

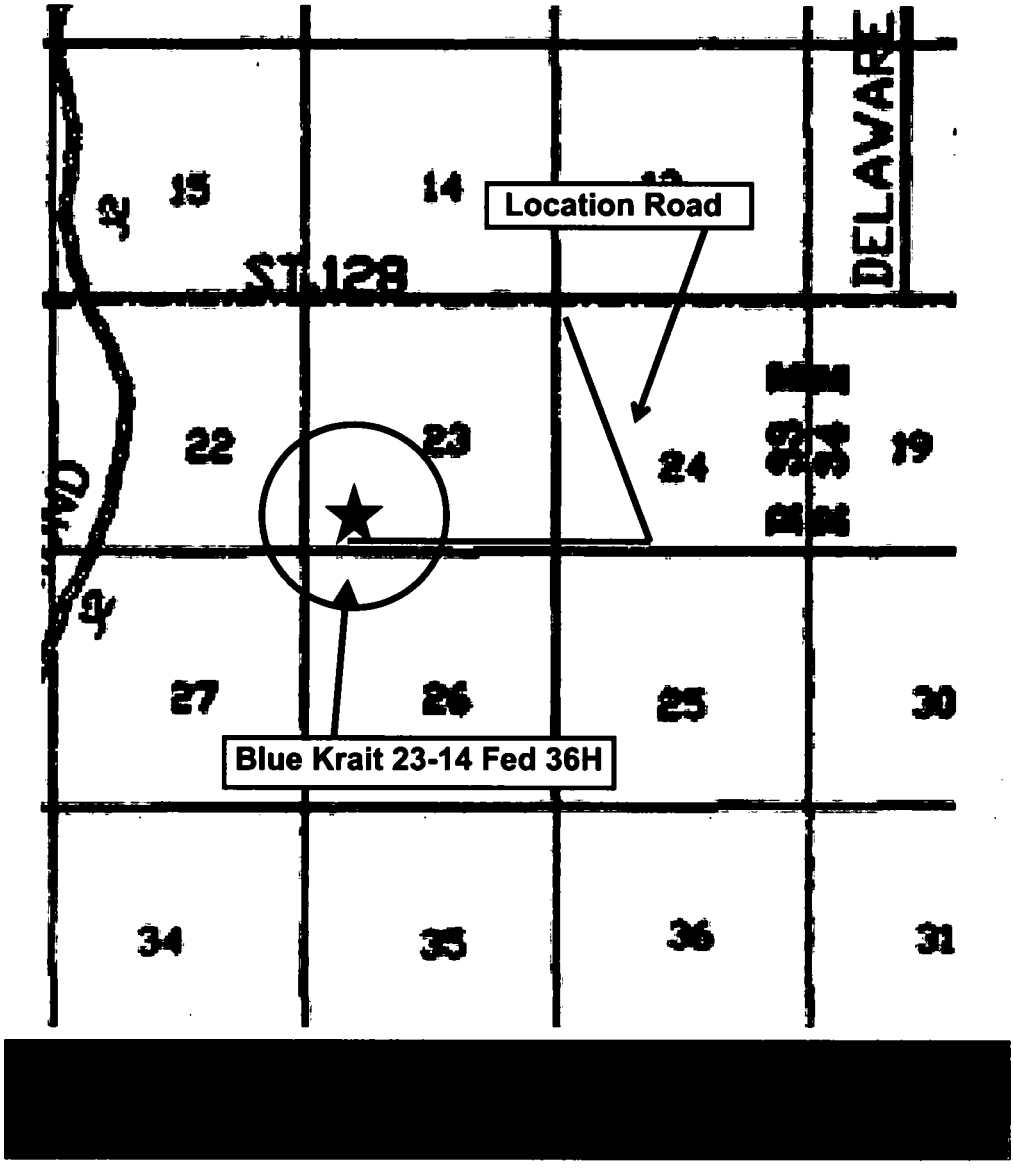
Blue Krait 23-14 Fed 36H

Sec-23 T-24S R-33E
245' FSL & 1010' FWL
LAT. = 32.196523' N (NAD83)
LONG = 103.548378' W

Lea County NM

Blue Krait 23-14 Fed 36H

This is an open drilling site. H_2S monitoring equipment and emergency response equipment will be used within 500' of zones known to contain H_2S, including warning signs, wind indicators and H_2S monitor.



Escape

Crews shall escape upwind of escaping gas in the event of an emergency release of gas. Escape can be facilitated from the location entrance road. Crews should then block the entrance to the location from the lease road so as not to allow anyone traversing into a hazardous area. The blockade should be at a safe distance outside of the ROE. There are no homes or buildings in or near the ROE.

Assumed 100 ppm ROE = 3000'
100 ppm H_2S concentration shall trigger activation of this plan.

Emergency Procedures

In the event of a release of gas containing H_2S, the first responder(s) must

- **Isolate the area and prevent entry by other persons into the 100 ppm ROE.**
- **Evacuate any public places encompassed by the 100 ppm ROE.**
- **Be equipped with H_2S monitors and air packs in order to control the release.**
- **Use the "buddy system" to ensure no injuries occur during the response**
- **Take precautions to avoid personal injury during this operation.**
- **Contact operator and/or local officials to aid in operation. See list of phone numbers attached.**
- **Have received training in the**
  - **Detection of H_2S, and**
  - **Measures for protection against the gas,**
  - **Equipment used for protection and emergency response.**

Ignition of Gas Source

Should control of the well be considered lost and ignition considered, take care to protect against exposure to Sulfur Dioxide (SO_2). Intentional ignition must be coordinated with the NMOCD and local officials. Additionally the NM State Police may become involved. NM State Police shall be the Incident Command on scene of any major release. Take care to protect downwind whenever there is an ignition of the gas

Characteristics of H_2S and SO_2

Common Name	Chemical Formula	Specific Gravity	Threshold Limit	Hazardous Limit	Lethal Concentration
Hydrogen Sulfide	H_2S	1.189 Air = 1	10 ppm	100 ppm/hr	600 ppm
Sulfur Dioxide	SO_2	2.21 Air = 1	2 ppm	N/A	1000 ppm

Contacting Authorities

Devon Energy Corp. personnel must liaison with local and state agencies to ensure a proper response to a major release. Additionally, the OCD must be notified of the release as soon as possible but no later than 4 hours. Agencies will ask for information such as type and volume of release, wind direction, location of release, etc. Be prepared with all information available. The following call list of essential and potential responders has been prepared for use during a release. Devon Energy Corp. Company response must be in coordination with

the State of New Mexico's 'Hazardous Materials Emergency Response Plan' (HMER)

Hydrogen Sulfide Drilling Operation Plan

I. HYDROGEN SULFIDE (H_2S) TRAINING

All personnel, whether regularly assigned, contracted, or employed on an unscheduled basis, will receive training from a qualified instructor in the following areas prior to commencing drilling operations on this well:

1. The hazards and characteristics of hydrogen sulfide (H_2S)

2. The proper use and maintenance of personal protective equipment and life support systems.

3. The proper use of H_2S detectors, alarms, warning systems, briefing areas, evacuation procedures, and prevailing winds.

4. The proper techniques for first aid and rescue procedures.

In addition, supervisory personnel will be trained in the following areas:

1. The effects of H_2S metal components. If high tensile tubulars are to be used, personnel will be trained in their special maintenance requirements.

2. Corrective action and shut-in procedures when drilling or reworking a well and blowout prevention and well control procedures.

3. The contents and requirements of the H_2S Drilling Operations Plan and Public Protection Plan.

There will be an initial training session just prior to encountering a known or probable H_2S zone (within 3 days or 500 feet) and weekly H_2S and well control drills for all personnel in each crew. The initial training session shall include a review of the site specific H_2S Drilling Operations Plan and the Public Protection Plan.

II. HYDROGEN SULFIDE TRAINING

Note: All H_2S safety equipment and systems will be installed, tested, and operational when drilling reaches a depth of 500 feet above, or three days prior to penetrating the first zone containing or reasonably expected to contain H_2S.

1. **Well Control Equipment**

   A. Flare line

   B. Choke manifold – Remotely Operated

   C. Blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit

   D. Auxiliary equipment may include if applicable: annular preventer and rotating head.

   E. Mud/Gas Separator

2. **Protective equipment for essential personnel:**

   30-minute SCBA units located at briefing areas, as indicated on well site diagram, with escape units available in the top doghouse. As it may be difficult to communicate audibly while wearing these units, hand signals shall be utilized.

3. **H_2S detection and monitoring equipment:**

   Portable H_2S monitors positioned on location for best coverage and response. These units have warning lights which activate when H_2S levels reach 10 ppm and audible sirens which activate at 15 ppm. Sensor locations:

   - **Bell nipple**
   - **Rig floor**
   - **Cellar**
   - **Possum Belly/Shale shaker**
   - **Choke manifold**

   Visual warning systems:

   A. Wind direction indicators as shown on well site diagram

   B. Caution/ Danger signs shall be posted on roads providing direct access to locations. Signs will be painted a high visibility yellow with black lettering of sufficient size to be reasonable distance from the immediate location. Bilingual signs will be used when appropriate.

4. **Mud program:**

   The mud program has been designed to minimize the volume of H_2S circulated to surface. Proper mud weight, safe drilling practices and the use of H_2S scavengers will minimize hazards when penetrating H_2S bearing zones.

5. **Metallurgy:**

   A. All drill strings, casings, tubing, wellhead, blowout preventer, drilling spool, kill lines, choke manifold lines, and valves shall be H_2S trim.

   B. All elastomers used for packing and seals shall be H_2S trim.

6. **Communication:**

   A. Company personnel have/use cellular telephones in the field.

   B. Land line (telephone) communications at Office

7. **Well testing:**

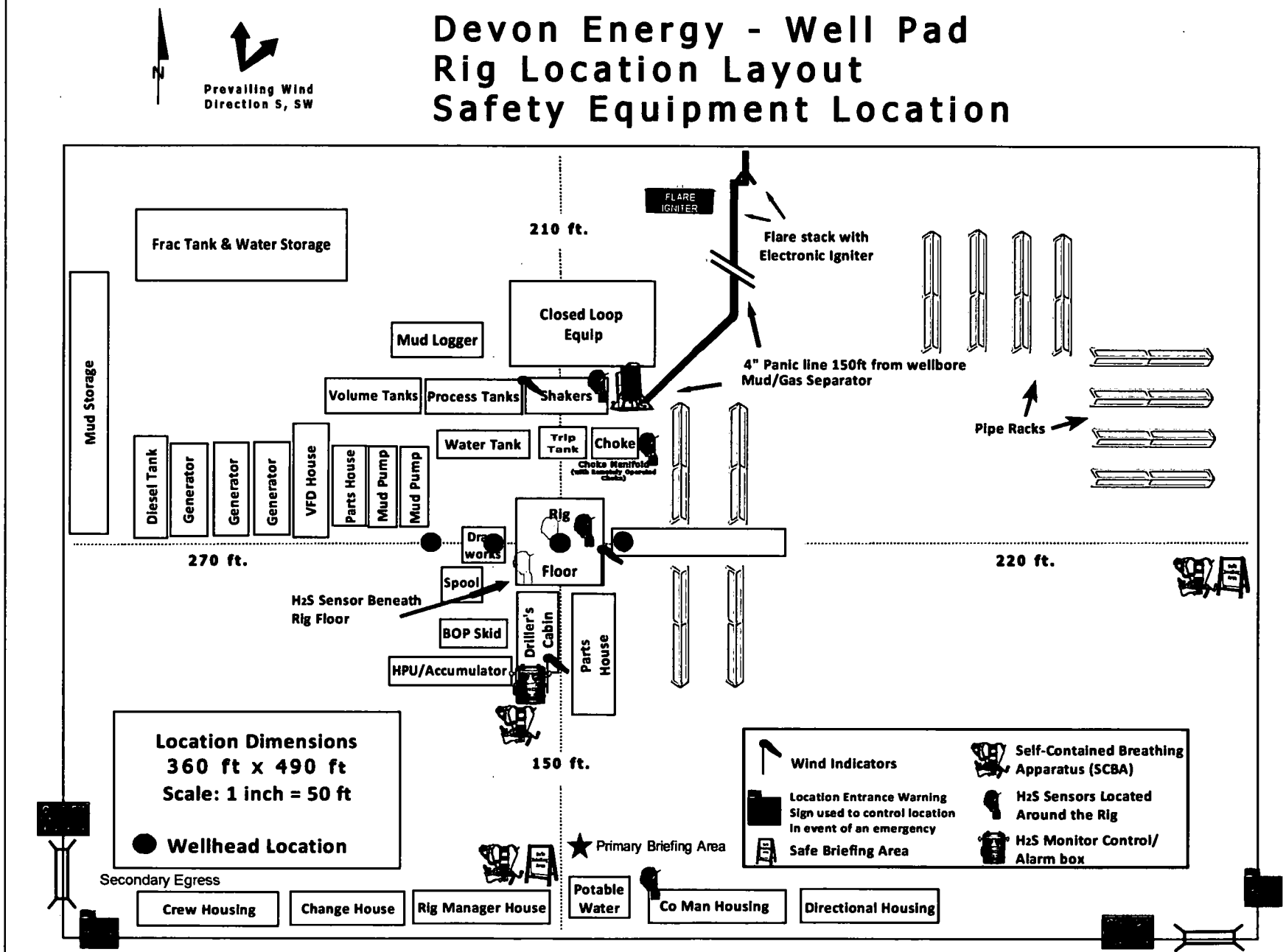
   A. Drill stem testing will be performed with a minimum number of personnel in the immediate vicinity, which are necessary to safety and adequately conduct the test. The drill stem testing will be conducted during daylight hours and formation fluids will not be flowed to the surface. All drill-stem-testing operations conducted in an H_2S environment will use the closed chamber method of testing.

   B. There will be no drill stem testing.

Devon Energy Corp. Company Call List		
Drilling Supervisor – Basin – Mark Kramer		405-823-4796
EHS Professional – Laura Wright		405-439-8129
Agency Call List		
Lea County (575)	**Hobbs**	
	Lea County Communication Authority	393-3981
	State Police	392-5588
	City Police	397-9265
	Sheriff's Office	393-2515
	Ambulance	**911**
	Fire Department	397-9308
	LEPC (Local Emergency Planning Committee)	393-2870
	NMOCD	393-6161
	US Bureau of Land Management	393-3612
Eddy County (575)	**Carlsbad**	
	State Police	885-3137
	City Police	885-2111
	Sheriff's Office	887-7551
	Ambulance	**911**
	Fire Department	885-3125
	LEPC (Local Emergency Planning Committee)	887-3798
	US Bureau of Land Management	887-6544
	NM Emergency Response Commission (Santa Fe)	(505) 476-9600
	24 HR	(505) 827-9126
	National Emergency Response Center	(800) 424-8802
	National Pollution Control Center: Direct	(703) 872-6000
	For Oil Spills	(800) 280-7118
	Emergency Services	
	Wild Well Control	(281) 784-4700
	Cudd Pressure Control (915) 699-0139	(915) 563-3356
	Halliburton	(575) 746-2757
	B. J. Services	(575) 746-3569
Give GPS position:	Native Air – Emergency Helicopter – Hobbs	(575) 392-6429
	Flight For Life - Lubbock, TX	(806) 743-9911
	Aerocare - Lubbock, TX	(806) 747-8923
	Med Flight Air Amb - Albuquerque, NM	(575) 842-4433
	Lifeguard Air Med Svc. Albuquerque, NM	(800) 222-1222
	Poison Control (24/7)	(575) 272-3115
	Oil & Gas Pipeline 24 Hour Service	(800) 364-4366
	NOAA – Website - www.nhc.noaa.gov	

Prepared in conjunction with
Dave Small SHARP communications and consulting

Devon Energy - Well Pad
Rig Location Layout
Safety Equipment Location



WCDSC Permian NM

Lea County (NAD83 New Mexico East)
Sec 23-T24S-R33E
Blue Krait 23-14 Fed 36H

Wellbore #1

Plan: Permit Plan 1

Standard Planning Report - Geographic

10 January, 2019

Planning Report - Geographic

Database:	EDM r5000.141_Prod US	**Local Co-ordinate Reference:**	Well Blue Krait 23-14 Fed 36H
Company:	WCDSC Permian NM	**TVD Reference:**	RKB @ 3580.70ft
Project:	Lea County (NAD83 New Mexico East)	**MD Reference:**	RKB @ 3580.70ft
Site:	Sec 23-T24S-R33E	**North Reference:**	Grid
Well:	Blue Krait 23-14 Fed 36H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Permit Plan 1		

Project	Lea County (NAD83 New Mexico East)		
Map System:	US State Plane 1983	**System Datum:**	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Sec 23-T24S-R33E				
Site Position:		**Northing:**	446,417.68 usft	**Latitude:**	32.224862
From:	Map	**Easting:**	783,057.71 usft	**Longitude:**	-103.551658
Position Uncertainty:	0.00 ft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	0.42 °

Well	Blue Krait 23-14 Fed 36H					
Well Position	**+N/-S**	0.00 ft	**Northing:**	436,115.69 usft	**Latitude:**	32.196523
	+E/-W	0.00 ft	**Easting:**	784,147.18 usft	**Longitude:**	-103.548378
Position Uncertainty		0.50 ft	**Wellhead Elevation:**		**Ground Level:**	3,555.70 ft

Wellbore	Wellbore #1				
Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	IGRF2015	12/26/2018	6.78	60.02	47,766.37847848

Design	Permit Plan 1				
Audit Notes:					
Version:		**Phase:**	PROTOTYPE	**Tie On Depth:**	0.00
Vertical Section:	**Depth From (TVD) (ft)**	**+N/-S (ft)**	**+E/-W (ft)**	**Direction (°)**	
	0.00	0.00	0.00	3.23	

Plan Survey Tool Program **Date** 1/10/2019

	Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	22,743.04	Permit Plan 1 (Wellbore #1)	MWD+HDGM	
				OWSG MWD + HDGM	

Plan Sections

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	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	
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,970.88	4.71	108.00	3,970.35	-5.98	18.39	1.00	1.00	0.00	108.00	
11,263.58	4.71	108.00	11,238.44	-191.02	587.74	0.00	0.00	0.00	0.00	
11,577.50	0.00	0.00	11,552.00	-195.00	600.00	1.50	-1.50	0.00	180.00	
11,927.54	0.00	0.00	11,902.04	-195.00	600.00	0.00	0.00	0.00	0.00	
12,827.54	90.00	359.90	12,475.00	377.96	599.00	10.00	10.00	0.00	359.90	PBHL - Blue Krait 23-
22,743.04	90.00	359.90	12,475.00	10,293.44	581.69	0.00	0.00	0.00	0.00	PBHL - Blue Krait 23-

Database:	EDM r5000.141_Prod US	**Local Co-ordinate Reference:**	Well Blue Krait 23-14 Fed 36H
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Site:	Sec 23-T24S-R33E	**North Reference:**	Grid
Well:	Blue Krait 23-14 Fed 36H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Permit Plan 1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.00	0.00	0.00	0.00	0.00	0.00	436,115.69	784,147.18	32.196523	-103.548378
100.00	0.00	0.00	100.00	0.00	0.00	436,115.69	784,147.18	32.196523	-103.548378
200.00	0.00	0.00	200.00	0.00	0.00	436,115.69	784,147.18	32.196523	-103.548378
300.00	0.00	0.00	300.00	0.00	0.00	436,115.69	784,147.18	32.196523	-103.548378
400.00	0.00	0.00	400.00	0.00	0.00	436,115.69	784,147.18	32.196523	-103.548378
500.00	0.00	0.00	500.00	0.00	0.00	436,115.69	784,147.18	32.196523	-103.548378
600.00	0.00	0.00	600.00	0.00	0.00	436,115.69	784,147.18	32.196523	-103.548378
700.00	0.00	0.00	700.00	0.00	0.00	436,115.69	784,147.18	32.196523	-103.548378
800.00	0.00	0.00	800.00	0.00	0.00	436,115.69	784,147.18	32.196523	-103.548378
900.00	0.00	0.00	900.00	0.00	0.00	436,115.69	784,147.18	32.196523	-103.548378
1,000.00	0.00	0.00	1,000.00	0.00	0.00	436,115.69	784,147.18	32.196523	-103.548378
1,100.00	0.00	0.00	1,100.00	0.00	0.00	436,115.69	784,147.18	32.196523	-103.548378
1,200.00	0.00	0.00	1,200.00	0.00	0.00	436,115.69	784,147.18	32.196523	-103.548378
1,300.00	0.00	0.00	1,300.00	0.00	0.00	436,115.69	784,147.18	32.196523	-103.548378
1,400.00	0.00	0.00	1,400.00	0.00	0.00	436,115.69	784,147.18	32.196523	-103.548378
1,500.00	0.00	0.00	1,500.00	0.00	0.00	436,115.69	784,147.18	32.196523	-103.548378
1,600.00	0.00	0.00	1,600.00	0.00	0.00	436,115.69	784,147.18	32.196523	-103.548378
1,700.00	0.00	0.00	1,700.00	0.00	0.00	436,115.69	784,147.18	32.196523	-103.548378
1,800.00	0.00	0.00	1,800.00	0.00	0.00	436,115.69	784,147.18	32.196523	-103.548378
1,900.00	0.00	0.00	1,900.00	0.00	0.00	436,115.69	784,147.18	32.196523	-103.548378
2,000.00	0.00	0.00	2,000.00	0.00	0.00	436,115.69	784,147.18	32.196523	-103.548378
2,100.00	0.00	0.00	2,100.00	0.00	0.00	436,115.69	784,147.18	32.196523	-103.548378
2,200.00	0.00	0.00	2,200.00	0.00	0.00	436,115.69	784,147.18	32.196523	-103.548378
2,300.00	0.00	0.00	2,300.00	0.00	0.00	436,115.69	784,147.18	32.196523	-103.548378
2,400.00	0.00	0.00	2,400.00	0.00	0.00	436,115.69	784,147.18	32.196523	-103.548378
2,500.00	0.00	0.00	2,500.00	0.00	0.00	436,115.69	784,147.18	32.196523	-103.548378
2,600.00	0.00	0.00	2,600.00	0.00	0.00	436,115.69	784,147.18	32.196523	-103.548378
2,700.00	0.00	0.00	2,700.00	0.00	0.00	436,115.69	784,147.18	32.196523	-103.548378
2,800.00	0.00	0.00	2,800.00	0.00	0.00	436,115.69	784,147.18	32.196523	-103.548378
2,900.00	0.00	0.00	2,900.00	0.00	0.00	436,115.69	784,147.18	32.196523	-103.548378
3,000.00	0.00	0.00	3,000.00	0.00	0.00	436,115.69	784,147.18	32.196523	-103.548378
3,100.00	0.00	0.00	3,100.00	0.00	0.00	436,115.69	784,147.18	32.196523	-103.548378
3,200.00	0.00	0.00	3,200.00	0.00	0.00	436,115.69	784,147.18	32.196523	-103.548378
3,300.00	0.00	0.00	3,300.00	0.00	0.00	436,115.69	784,147.18	32.196523	-103.548378
3,400.00	0.00	0.00	3,400.00	0.00	0.00	436,115.69	784,147.18	32.196523	-103.548378
3,500.00	0.00	0.00	3,500.00	0.00	0.00	436,115.69	784,147.18	32.196523	-103.548378
3,600.00	1.00	108.00	3,600.00	-0.27	0.83	436,115.42	784,148.01	32.196522	-103.548376
3,700.00	2.00	108.00	3,699.96	-1.08	3.32	436,114.61	784,150.50	32.196520	-103.548367
3,800.00	3.00	108.00	3,799.86	-2.43	7.47	436,113.26	784,154.65	32.196516	-103.548354
3,900.00	4.00	108.00	3,899.68	-4.31	13.27	436,111.38	784,160.45	32.196511	-103.548335
3,970.88	4.71	108.00	3,970.35	-5.98	18.39	436,109.71	784,165.57	32.196506	-103.548319
4,000.00	4.71	108.00	3,999.37	-6.72	20.66	436,108.97	784,167.84	32.196504	-103.548312
4,100.00	4.71	108.00	4,099.03	-9.25	28.47	436,106.44	784,175.65	32.196497	-103.548286
4,200.00	4.71	108.00	4,198.70	-11.79	36.28	436,103.90	784,183.46	32.196490	-103.548261
4,300.00	4.71	108.00	4,298.36	-14.33	44.09	436,101.36	784,191.26	32.196483	-103.548236
4,400.00	4.71	108.00	4,398.02	-16.87	51.89	436,098.82	784,199.07	32.196476	-103.548211
4,500.00	4.71	108.00	4,497.68	-19.40	59.70	436,096.29	784,206.88	32.196469	-103.548186
4,600.00	4.71	108.00	4,597.35	-21.94	67.51	436,093.75	784,214.68	32.196461	-103.548160
4,700.00	4.71	108.00	4,697.01	-24.48	75.31	436,091.21	784,222.49	32.196454	-103.548135
4,800.00	4.71	108.00	4,796.67	-27.01	83.12	436,088.68	784,230.30	32.196447	-103.548110
4,900.00	4.71	108.00	4,896.33	-29.55	90.93	436,086.14	784,238.11	32.196440	-103.548085
5,000.00	4.71	108.00	4,996.00	-32.09	98.74	436,083.60	784,245.91	32.196433	-103.548060
5,100.00	4.71	108.00	5,095.66	-34.63	106.54	436,081.06	784,253.72	32.196426	-103.548035
5,200.00	4.71	108.00	5,195.32	-37.16	114.35	436,078.53	784,261.53	32.196419	-103.548009
5,300.00	4.71	108.00	5,294.98	-39.70	122.16	436,075.99	784,269.33	32.196412	-103.547984

Database:	EDM r5000.141_Prod US	**Local Co-ordinate Reference:**	Well Blue Krait 23-14 Fed 36H
Company:	WCDSC Permian NM	**TVD Reference:**	RKB @ 3580.70ft
Project:	Lea County (NAD83 New Mexico East)	**MD Reference:**	RKB @ 3580.70ft
Site:	Sec 23-T24S-R33E	**North Reference:**	Grid
Well:	Blue Krait 23-14 Fed 36H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Permit Plan 1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
5,400.00	4.71	108.00	5,394.65	-42.24	129.96	436,073.45	784,277.14	32.196404	-103.547959
5,500.00	4.71	108.00	5,494.31	-44.78	137.77	436,070.91	784,284.95	32.196397	-103.547934
5,600.00	4.71	108.00	5,593.97	-47.31	145.58	436,068.38	784,292.76	32.196390	-103.547909
5,700.00	4.71	108.00	5,693.63	-49.85	153.39	436,065.84	784,300.56	32.196383	-103.547884
5,800.00	4.71	108.00	5,793.30	-52.39	161.19	436,063.30	784,308.37	32.196376	-103.547858
5,900.00	4.71	108.00	5,892.96	-54.92	169.00	436,060.76	784,316.18	32.196369	-103.547833
6,000.00	4.71	108.00	5,992.62	-57.46	176.81	436,058.23	784,323.98	32.196362	-103.547808
6,100.00	4.71	108.00	6,092.28	-60.00	184.61	436,055.69	784,331.79	32.196354	-103.547783
6,200.00	4.71	108.00	6,191.95	-62.54	192.42	436,053.15	784,339.60	32.196347	-103.547758
6,300.00	4.71	108.00	6,291.61	-65.07	200.23	436,050.62	784,347.41	32.196340	-103.547732
6,400.00	4.71	108.00	6,391.27	-67.61	208.04	436,048.08	784,355.21	32.196333	-103.547707
6,500.00	4.71	108.00	6,490.93	-70.15	215.84	436,045.54	784,363.02	32.196326	-103.547682
6,600.00	4.71	108.00	6,590.60	-72.69	223.65	436,043.00	784,370.83	32.196319	-103.547657
6,700.00	4.71	108.00	6,690.26	-75.22	231.46	436,040.47	784,378.63	32.196312	-103.547632
6,800.00	4.71	108.00	6,789.92	-77.76	239.26	436,037.93	784,386.44	32.196305	-103.547607
6,900.00	4.71	108.00	6,889.58	-80.30	247.07	436,035.39	784,394.25	32.196297	-103.547581
7,000.00	4.71	108.00	6,989.25	-82.84	254.88	436,032.85	784,402.05	32.196290	-103.547556
7,100.00	4.71	108.00	7,088.91	-85.37	262.68	436,030.32	784,409.86	32.196283	-103.547531
7,200.00	4.71	108.00	7,188.57	-87.91	270.49	436,027.78	784,417.67	32.196276	-103.547506
7,300.00	4.71	108.00	7,288.23	-90.45	278.30	436,025.24	784,425.48	32.196269	-103.547481
7,400.00	4.71	108.00	7,387.90	-92.98	286.11	436,022.71	784,433.28	32.196262	-103.547456
7,500.00	4.71	108.00	7,487.56	-95.52	293.91	436,020.17	784,441.09	32.196255	-103.547430
7,600.00	4.71	108.00	7,587.22	-98.06	301.72	436,017.63	784,448.90	32.196247	-103.547405
7,700.00	4.71	108.00	7,686.88	-100.60	309.53	436,015.09	784,456.70	32.196240	-103.547380
7,800.00	4.71	108.00	7,786.55	-103.13	317.33	436,012.56	784,464.51	32.196233	-103.547355
7,900.00	4.71	108.00	7,886.21	-105.67	325.14	436,010.02	784,472.32	32.196226	-103.547330
8,000.00	4.71	108.00	7,985.87	-108.21	332.95	436,007.48	784,480.13	32.196219	-103.547304
8,100.00	4.71	108.00	8,085.53	-110.75	340.76	436,004.94	784,487.93	32.196212	-103.547279
8,200.00	4.71	108.00	8,185.20	-113.28	348.56	436,002.41	784,495.74	32.196205	-103.547254
8,300.00	4.71	108.00	8,284.86	-115.82	356.37	435,999.87	784,503.55	32.196198	-103.547229
8,400.00	4.71	108.00	8,384.52	-118.36	364.18	435,997.33	784,511.35	32.196190	-103.547204
8,500.00	4.71	108.00	8,484.18	-120.89	371.98	435,994.80	784,519.16	32.196183	-103.547179
8,600.00	4.71	108.00	8,583.85	-123.43	379.79	435,992.26	784,526.97	32.196176	-103.547153
8,700.00	4.71	108.00	8,683.51	-125.97	387.60	435,989.72	784,534.77	32.196169	-103.547128
8,800.00	4.71	108.00	8,783.17	-128.51	395.41	435,987.18	784,542.58	32.196162	-103.547103
8,900.00	4.71	108.00	8,882.83	-131.04	403.21	435,984.65	784,550.39	32.196155	-103.547078
9,000.00	4.71	108.00	8,982.50	-133.58	411.02	435,982.11	784,558.20	32.196148	-103.547053
9,100.00	4.71	108.00	9,082.16	-136.12	418.83	435,979.57	784,566.00	32.196141	-103.547028
9,200.00	4.71	108.00	9,181.82	-138.66	426.63	435,977.03	784,573.81	32.196133	-103.547002
9,300.00	4.71	108.00	9,281.48	-141.19	434.44	435,974.50	784,581.62	32.196126	-103.546977
9,400.00	4.71	108.00	9,381.15	-143.73	442.25	435,971.96	784,589.42	32.196119	-103.546952
9,500.00	4.71	108.00	9,480.81	-146.27	450.05	435,969.42	784,597.23	32.196112	-103.546927
9,600.00	4.71	108.00	9,580.47	-148.81	457.86	435,966.88	784,605.04	32.196105	-103.546902
9,700.00	4.71	108.00	9,680.13	-151.34	465.67	435,964.35	784,612.85	32.196098	-103.546876
9,800.00	4.71	108.00	9,779.80	-153.88	473.48	435,961.81	784,620.65	32.196091	-103.546851
9,900.00	4.71	108.00	9,879.46	-156.42	481.28	435,959.27	784,628.46	32.196083	-103.546826
10,000.00	4.71	108.00	9,979.12	-158.95	489.09	435,956.74	784,636.27	32.196076	-103.546801
10,100.00	4.71	108.00	10,078.78	-161.49	496.90	435,954.20	784,644.07	32.196069	-103.546776
10,200.00	4.71	108.00	10,178.45	-164.03	504.70	435,951.66	784,651.88	32.196062	-103.546751
10,300.00	4.71	108.00	10,278.11	-166.57	512.51	435,949.12	784,659.69	32.196055	-103.546725
10,400.00	4.71	108.00	10,377.77	-169.10	520.32	435,946.59	784,667.50	32.196048	-103.546700
10,500.00	4.71	108.00	10,477.43	-171.64	528.13	435,944.05	784,675.30	32.196041	-103.546675
10,600.00	4.71	108.00	10,577.10	-174.18	535.93	435,941.51	784,683.11	32.196034	-103.546650
10,700.00	4.71	108.00	10,676.76	-176.72	543.74	435,938.97	784,690.92	32.196026	-103.546625
10,800.00	4.71	108.00	10,776.42	-179.25	551.55	435,936.44	784,698.72	32.196019	-103.546600

Database:	EDM r5000.141_Prod US	**Local Co-ordinate Reference:**	Well Blue Krait 23-14 Fed 36H
Company:	WCDSC Permian NM	**TVD Reference:**	RKB @ 3580.70ft
Project:	Lea County (NAD83 New Mexico East)	**MD Reference:**	RKB @ 3580.70ft
Site:	Sec 23-T24S-R33E	**North Reference:**	Grid
Well:	Blue Krait 23-14 Fed 36H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Permit Plan 1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
10,900.00	4.71	108.00	10,876.08	-181.79	559.35	435,933.90	784,706.53	32.196012	-103.546574
11,000.00	4.71	108.00	10,975.75	-184.33	567.16	435,931.36	784,714.34	32.196005	-103.546549
11,100.00	4.71	108.00	11,075.41	-186.86	574.97	435,928.83	784,722.14	32.195998	-103.546524
11,200.00	4.71	108.00	11,175.07	-189.40	582.78	435,926.29	784,729.95	32.195991	-103.546499
11,263.58	4.71	108.00	11,238.44	-191.02	587.74	435,924.67	784,734.92	32.195986	-103.546483
11,300.00	4.16	108.00	11,274.75	-191.89	590.42	435,923.80	784,737.59	32.195984	-103.546474
11,400.00	2.66	108.00	11,374.57	-193.73	596.08	435,921.96	784,743.25	32.195979	-103.546456
11,500.00	1.16	108.00	11,474.51	-194.76	599.25	435,920.93	784,746.43	32.195976	-103.546446
11,577.50	0.00	0.00	11,552.00	-195.00	600.00	435,920.69	784,747.18	32.195975	-103.546443
11,600.00	0.00	0.00	11,574.50	-195.00	600.00	435,920.69	784,747.18	32.195975	-103.546443
11,700.00	0.00	0.00	11,674.50	-195.00	600.00	435,920.69	784,747.18	32.195975	-103.546443
11,800.00	0.00	0.00	11,774.50	-195.00	600.00	435,920.69	784,747.18	32.195975	-103.546443
11,900.00	0.00	0.00	11,874.50	-195.00	600.00	435,920.69	784,747.18	32.195975	-103.546443
11,927.54	0.00	0.00	11,902.04	-195.00	600.00	435,920.69	784,747.18	32.195975	-103.546443
KOP @ 11927' MD, 50' FSL, 1610' FWL									
12,000.00	7.25	359.90	11,974.31	-190.42	599.99	435,925.27	784,747.17	32.195988	-103.546443
12,100.00	17.25	359.90	12,071.91	-169.24	599.96	435,946.45	784,747.13	32.196046	-103.546443
12,168.68	24.11	359.90	12,136.13	-145.00	599.91	435,970.69	784,747.09	32.196112	-103.546442
FTP @ 12168' MD, 100' FSL, 1610' FWL									
12,200.00	27.25	359.90	12,164.35	-131.43	599.89	435,984.26	784,747.07	32.196150	-103.546442
12,300.00	37.25	359.90	12,248.82	-78.14	599.80	436,037.55	784,746.97	32.196296	-103.546441
12,400.00	47.25	359.90	12,322.75	-10.99	599.68	436,104.70	784,746.86	32.196481	-103.546440
12,500.00	57.25	359.90	12,383.90	67.97	599.54	436,183.66	784,746.72	32.196698	-103.546439
12,600.00	67.25	359.90	12,430.41	156.35	599.39	436,272.04	784,746.56	32.196941	-103.546437
12,700.00	77.25	359.90	12,460.86	251.47	599.22	436,367.16	784,746.40	32.197202	-103.546435
12,800.00	87.25	359.90	12,474.34	350.43	599.05	436,466.12	784,746.22	32.197474	-103.546433
12,827.54	90.00	359.90	12,475.00	377.96	599.00	436,493.65	784,746.18	32.197550	-103.546433
12,900.00	90.00	359.90	12,475.00	450.42	598.87	436,566.11	784,746.05	32.197749	-103.546432
13,000.00	90.00	359.90	12,475.00	550.42	598.70	436,666.11	784,745.88	32.198024	-103.546430
13,100.00	90.00	359.90	12,475.00	650.42	598.52	436,766.11	784,745.70	32.198299	-103.546428
13,200.00	90.00	359.90	12,475.00	750.42	598.35	436,866.11	784,745.53	32.198574	-103.546426
13,300.00	90.00	359.90	12,475.00	850.42	598.18	436,966.11	784,745.35	32.198849	-103.546424
13,400.00	90.00	359.90	12,475.00	950.42	598.00	437,066.11	784,745.18	32.199123	-103.546423
13,500.00	90.00	359.90	12,475.00	1,050.42	597.83	437,166.11	784,745.00	32.199398	-103.546421
13,600.00	90.00	359.90	12,475.00	1,150.42	597.65	437,266.11	784,744.83	32.199673	-103.546419
13,700.00	90.00	359.90	12,475.00	1,250.42	597.48	437,366.11	784,744.65	32.199948	-103.546417
13,800.00	90.00	359.90	12,475.00	1,350.42	597.30	437,466.10	784,744.48	32.200223	-103.546415
13,900.00	90.00	359.90	12,475.00	1,450.42	597.13	437,566.10	784,744.30	32.200498	-103.546414
14,000.00	90.00	359.90	12,475.00	1,550.42	596.95	437,666.10	784,744.13	32.200773	-103.546412
14,100.00	90.00	359.90	12,475.00	1,650.42	596.78	437,766.10	784,743.95	32.201048	-103.546410
14,200.00	90.00	359.90	12,475.00	1,750.42	596.60	437,866.10	784,743.78	32.201322	-103.546408
14,300.00	90.00	359.90	12,475.00	1,850.42	596.43	437,966.10	784,743.61	32.201597	-103.546406
14,400.00	90.00	359.90	12,475.00	1,950.42	596.25	438,066.10	784,743.43	32.201872	-103.546405
14,500.00	90.00	359.90	12,475.00	2,050.42	596.08	438,166.10	784,743.26	32.202147	-103.546403
14,600.00	90.00	359.90	12,475.00	2,150.42	595.91	438,266.10	784,743.08	32.202422	-103.546401
14,700.00	90.00	359.90	12,475.00	2,250.42	595.73	438,366.10	784,742.91	32.202697	-103.546399
14,800.00	90.00	359.90	12,475.00	2,350.42	595.56	438,466.10	784,742.73	32.202972	-103.546397
14,900.00	90.00	359.90	12,475.00	2,450.42	595.38	438,566.10	784,742.56	32.203246	-103.546396
15,000.00	90.00	359.90	12,475.00	2,550.42	595.21	438,666.10	784,742.38	32.203521	-103.546394
15,100.00	90.00	359.90	12,475.00	2,650.42	595.03	438,766.10	784,742.21	32.203796	-103.546392
15,200.00	90.00	359.90	12,475.00	2,750.42	594.86	438,866.10	784,742.03	32.204071	-103.546390
15,300.00	90.00	359.90	12,475.00	2,850.42	594.68	438,966.10	784,741.86	32.204346	-103.546388
15,400.00	90.00	359.90	12,475.00	2,950.42	594.51	439,066.10	784,741.69	32.204621	-103.546387
15,500.00	90.00	359.90	12,475.00	3,050.42	594.33	439,166.10	784,741.51	32.204896	-103.546385

Database:	EDM r5000.141_Prod US	**Local Co-ordinate Reference:**	Well Blue Krait 23-14 Fed 36H
Company:	WCDSC Permian NM	**TVD Reference:**	RKB @ 3580.70ft
Project:	Lea County (NAD83 New Mexico East)	**MD Reference:**	RKB @ 3580.70ft
Site:	Sec 23-T24S-R33E	**North Reference:**	Grid
Well:	Blue Krait 23-14 Fed 36H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Permit Plan 1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
15,600.00	90.00	359.90	12,475.00	3,150.42	594.16	439,266.10	784,741.34	32.205171	-103.546383
15,700.00	90.00	359.90	12,475.00	3,250.42	593.99	439,366.10	784,741.16	32.205445	-103.546381
15,800.00	90.00	359.90	12,475.00	3,350.41	593.81	439,466.10	784,740.99	32.205720	-103.546379
15,900.00	90.00	359.90	12,475.00	3,450.41	593.64	439,566.10	784,740.81	32.205995	-103.546378
16,000.00	90.00	359.90	12,475.00	3,550.41	593.46	439,666.10	784,740.64	32.206270	-103.546376
16,100.00	90.00	359.90	12,475.00	3,650.41	593.29	439,766.10	784,740.46	32.206545	-103.546374
16,200.00	90.00	359.90	12,475.00	3,750.41	593.11	439,866.10	784,740.29	32.206820	-103.546372
16,300.00	90.00	359.90	12,475.00	3,850.41	592.94	439,966.10	784,740.11	32.207095	-103.546370
16,400.00	90.00	359.90	12,475.00	3,950.41	592.76	440,066.10	784,739.94	32.207369	-103.546369
16,500.00	90.00	359.90	12,475.00	4,050.41	592.59	440,166.10	784,739.77	32.207644	-103.546367
16,600.00	90.00	359.90	12,475.00	4,150.41	592.41	440,266.10	784,739.59	32.207919	-103.546365
16,700.00	90.00	359.90	12,475.00	4,250.41	592.24	440,366.09	784,739.42	32.208194	-103.546363
16,800.00	90.00	359.90	12,475.00	4,350.41	592.07	440,466.09	784,739.24	32.208469	-103.546361
16,900.00	90.00	359.90	12,475.00	4,450.41	591.89	440,566.09	784,739.07	32.208744	-103.546360
17,000.00	90.00	359.90	12,475.00	4,550.41	591.72	440,666.09	784,738.89	32.209019	-103.546358
17,100.00	90.00	359.90	12,475.00	4,650.41	591.54	440,766.09	784,738.72	32.209294	-103.546356
17,200.00	90.00	359.90	12,475.00	4,750.41	591.37	440,866.09	784,738.54	32.209568	-103.546354
17,300.00	90.00	359.90	12,475.00	4,850.41	591.19	440,966.09	784,738.37	32.209843	-103.546352
17,400.00	90.00	359.90	12,475.00	4,950.41	591.02	441,066.09	784,738.19	32.210118	-103.546351
17,485.00	90.00	359.90	12,475.00	5,035.41	590.87	441,151.09	784,738.05	32.210352	-103.546349
Cross Section @ 17485' MD, 0' FSL, 1642' FWL									
17,500.00	90.00	359.90	12,475.00	5,050.41	590.84	441,166.09	784,738.02	32.210393	-103.546349
17,600.00	90.00	359.90	12,475.00	5,150.41	590.67	441,266.09	784,737.85	32.210668	-103.546347
17,700.00	90.00	359.90	12,475.00	5,250.41	590.49	441,366.09	784,737.67	32.210943	-103.546345
17,800.00	90.00	359.90	12,475.00	5,350.41	590.32	441,466.09	784,737.50	32.211218	-103.546343
17,900.00	90.00	359.90	12,475.00	5,450.41	590.15	441,566.09	784,737.32	32.211492	-103.546342
18,000.00	90.00	359.90	12,475.00	5,550.41	589.97	441,666.09	784,737.15	32.211767	-103.546340
18,100.00	90.00	359.90	12,475.00	5,650.41	589.80	441,766.09	784,736.97	32.212042	-103.546338
18,200.00	90.00	359.90	12,475.00	5,750.41	589.62	441,866.09	784,736.80	32.212317	-103.546336
18,300.00	90.00	359.90	12,475.00	5,850.41	589.45	441,966.09	784,736.62	32.212592	-103.546334
18,400.00	90.00	359.90	12,475.00	5,950.41	589.27	442,066.09	784,736.45	32.212867	-103.546333
18,500.00	90.00	359.90	12,475.00	6,050.41	589.10	442,166.09	784,736.27	32.213142	-103.546331
18,600.00	90.00	359.90	12,475.00	6,150.41	588.92	442,266.09	784,736.10	32.213417	-103.546329
18,700.00	90.00	359.90	12,475.00	6,250.41	588.75	442,366.09	784,735.93	32.213691	-103.546327
18,800.00	90.00	359.90	12,475.00	6,350.41	588.57	442,466.09	784,735.75	32.213966	-103.546325
18,900.00	90.00	359.90	12,475.00	6,450.41	588.40	442,566.09	784,735.58	32.214241	-103.546324
19,000.00	90.00	359.90	12,475.00	6,550.41	588.23	442,666.09	784,735.40	32.214516	-103.546322
19,100.00	90.00	359.90	12,475.00	6,650.41	588.05	442,766.09	784,735.23	32.214791	-103.546320
19,200.00	90.00	359.90	12,475.00	6,750.41	587.88	442,866.09	784,735.05	32.215066	-103.546318
19,300.00	90.00	359.90	12,475.00	6,850.41	587.70	442,966.09	784,734.88	32.215341	-103.546316
19,400.00	90.00	359.90	12,475.00	6,950.41	587.53	443,066.09	784,734.70	32.215616	-103.546315
19,500.00	90.00	359.90	12,475.00	7,050.41	587.35	443,166.08	784,734.53	32.215890	-103.546313
19,600.00	90.00	359.90	12,475.00	7,150.41	587.18	443,266.08	784,734.35	32.216165	-103.546311
19,700.00	90.00	359.90	12,475.00	7,250.41	587.00	443,366.08	784,734.18	32.216440	-103.546309
19,800.00	90.00	359.90	12,475.00	7,350.41	586.83	443,466.08	784,734.00	32.216715	-103.546307
19,900.00	90.00	359.90	12,475.00	7,450.41	586.65	443,566.08	784,733.83	32.216990	-103.546305
20,000.00	90.00	359.90	12,475.00	7,550.41	586.48	443,666.08	784,733.66	32.217265	-103.546304
20,100.00	90.00	359.90	12,475.00	7,650.41	586.30	443,766.08	784,733.48	32.217540	-103.546302
20,200.00	90.00	359.90	12,475.00	7,750.41	586.13	443,866.08	784,733.31	32.217814	-103.546300
20,300.00	90.00	359.90	12,475.00	7,850.41	585.96	443,966.08	784,733.13	32.218089	-103.546298
20,400.00	90.00	359.90	12,475.00	7,950.41	585.78	444,066.08	784,732.96	32.218364	-103.546296
20,500.00	90.00	359.90	12,475.00	8,050.41	585.61	444,166.08	784,732.78	32.218639	-103.546295
20,600.00	90.00	359.90	12,475.00	8,150.41	585.43	444,266.08	784,732.61	32.218914	-103.546293
20,700.00	90.00	359.90	12,475.00	8,250.41	585.26	444,366.08	784,732.43	32.219189	-103.546291

Database:	EDM r5000.141_Prod US	**Local Co-ordinate Reference:**	Well Blue Krait 23-14 Fed 36H
Company:	WCDSC Permian NM	**TVD Reference:**	RKB @ 3580.70ft
Project:	Lea County (NAD83 New Mexico East)	**MD Reference:**	RKB @ 3580.70ft
Site:	Sec 23-T24S-R33E	**North Reference:**	Grid
Well:	Blue Krait 23-14 Fed 36H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Permit Plan 1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
20,800.00	90.00	359.90	12,475.00	8,350.41	585.08	444,466.08	784,732.26	32.219464	-103.546289
20,900.00	90.00	359.90	12,475.00	8,450.41	584.91	444,566.08	784,732.08	32.219739	-103.546287
21,000.00	90.00	359.90	12,475.00	8,550.41	584.73	444,666.08	784,731.91	32.220013	-103.546286
21,100.00	90.00	359.90	12,475.00	8,650.41	584.56	444,766.08	784,731.74	32.220288	-103.546284
21,200.00	90.00	359.90	12,475.00	8,750.41	584.38	444,866.08	784,731.56	32.220563	-103.546282
21,300.00	90.00	359.90	12,475.00	8,850.41	584.21	444,966.08	784,731.39	32.220838	-103.546280
21,400.00	90.00	359.90	12,475.00	8,950.41	584.04	445,066.08	784,731.21	32.221113	-103.546278
21,500.00	90.00	359.90	12,475.00	9,050.41	583.86	445,166.08	784,731.04	32.221388	-103.546277
21,600.00	90.00	359.90	12,475.00	9,150.41	583.69	445,266.08	784,730.86	32.221663	-103.546275
21,700.00	90.00	359.90	12,475.00	9,250.41	583.51	445,366.08	784,730.69	32.221937	-103.546273
21,800.00	90.00	359.90	12,475.00	9,350.41	583.34	445,466.08	784,730.51	32.222212	-103.546271
21,900.00	90.00	359.90	12,475.00	9,450.41	583.16	445,566.08	784,730.34	32.222487	-103.546269
22,000.00	90.00	359.90	12,475.00	9,550.41	582.99	445,666.08	784,730.16	32.222762	-103.546268
22,100.00	90.00	359.90	12,475.00	9,650.41	582.81	445,766.08	784,729.99	32.223037	-103.546266
22,200.00	90.00	359.90	12,475.00	9,750.41	582.64	445,866.08	784,729.82	32.223312	-103.546264
22,300.00	90.00	359.90	12,475.00	9,850.41	582.46	445,966.08	784,729.64	32.223587	-103.546262
22,400.00	90.00	359.90	12,475.00	9,950.40	582.29	446,066.07	784,729.47	32.223862	-103.546260
22,500.00	90.00	359.90	12,475.00	10,050.40	582.12	446,166.07	784,729.29	32.224136	-103.546259
22,600.00	90.00	359.90	12,475.00	10,150.40	581.94	446,266.07	784,729.12	32.224411	-103.546257
22,663.04	90.00	359.90	12,475.00	10,213.44	581.83	446,329.11	784,729.01	32.224585	-103.546256
LTP @ 22663' MD, 100' FNL, 1671' FWL									
22,700.00	90.00	359.90	12,475.00	10,250.40	581.77	446,366.07	784,728.94	32.224686	-103.546255
22,743.03	90.00	359.90	12,475.00	10,293.43	581.69	446,409.10	784,728.87	32.224804	-103.546254
PBHL; 20' FNL, 1671' FWL									
22,743.04	90.00	359.90	12,475.00	10,293.44	581.69	446,409.11	784,728.87	32.224804	-103.546254

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
PBHL - Blue Krait 23-14	0.00	0.00	0.00	10,293.44	581.69	446,409.11	784,728.87	32.224804	-103.546254
- plan misses target center by 10309.86ft at 0.00ft MD (0.00 TVD, 0.00 N, 0.00 E)									
- Point									

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
11,927.54	11,902.04	-195.00	600.00	KOP @ 11927' MD, 50' FSL, 1610' FWL
12,168.68	12,136.13	-145.00	599.91	FTP @ 12168' MD, 100' FSL, 1610' FWL
17,485.00	12,475.00	5,035.41	590.87	Cross Section @ 17485' MD, 0' FSL, 1642' FWL
22,663.04	12,475.00	10,213.44	581.83	LTP @ 22663' MD, 100' FNL, 1671' FWL
22,743.03	12,475.00	10,293.43	581.69	PBHL; 20' FNL, 1671' FWL

Devon Energy

WELL DETAILS: Blue Krait 23-14 Fed 36H

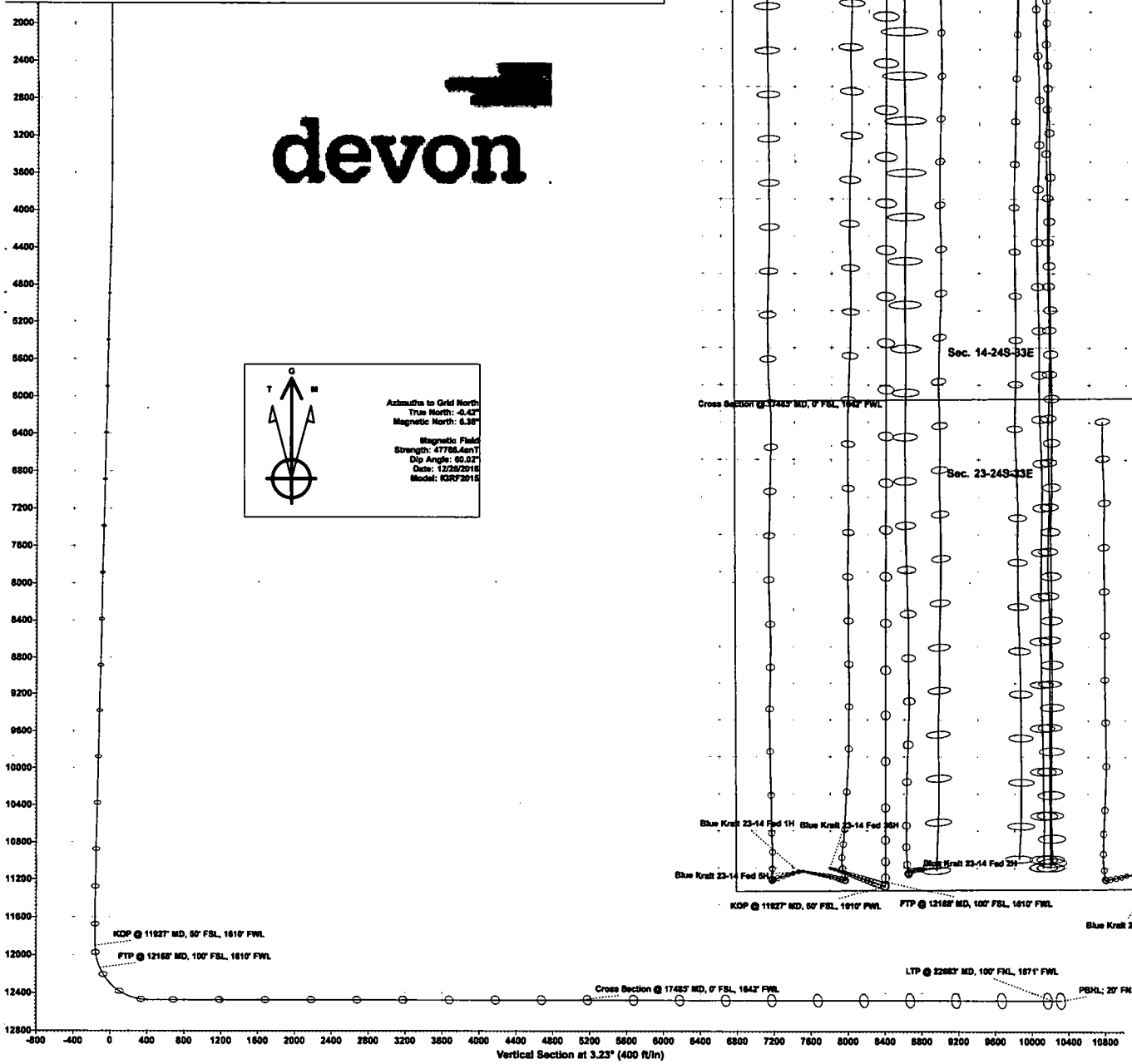
RKB @ 3580.70ft
3555.70

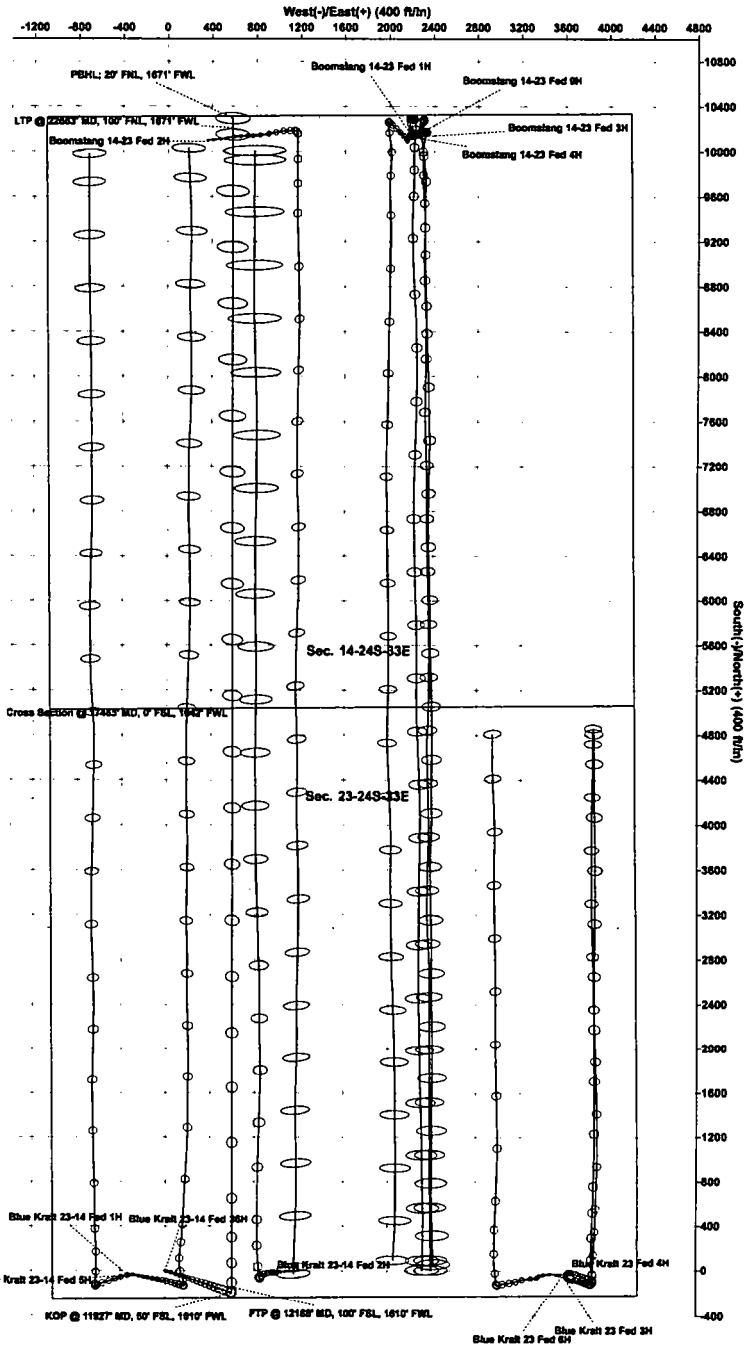
Northing	Easting	Latitude	Longitude
436115.69	784147.18	32.196523	-103.548378

SECTION DETAILS Permit Plan 1

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	VSect	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
3500.00	0.00	0.00	3500.00	0.00	0.00	0.00	0.00	
3970.87	4.71	108.00	3970.35	-5.98	18.39	1.00	-4.93	
11263.58	4.71	108.00	11238.44	-191.02	587.74	0.00	-157.55	
11577.50	0.00	0.00	11552.00	-195.00	600.00	1.50	-160.84	
11927.54	0.00	0.00	11902.04	-195.00	600.00	0.00	-160.84	KOP @ 11927' MD, 50' FSL, 1610' FWL
12827.54	90.00	359.90	12475.00	377.96	599.00	10.00	411.15	
22743.04	90.00	359.90	12475.00	10293.44	581.69	0.00	10309.88	PBHL; 20' FNL, 1671' FWL

devon





Blue Krait 23-14 Fed 36H

1. Geologic Formations

TVD of target	12475	Pilot hole depth	N/A
MD at TD:	22743	Deepest expected fresh water:	

Basin

Formation	Depth (TVD) from KB	Water/Mineral Bearing/ Target Zone?	Hazards*
Rustler	1101		
Top of Salt	1622		
Base of Salt	5048		
Delaware	5267		
Lower Brushy Canyon	9010		
1st BSPG Lime	9196		
Leonard A	9274		
Leonard B	9617		
Leonard C	9895		
1st BSPG Sand	10200		
2nd BSPG Lime	10447		
2nd BSPG Sand	10860		
2BSSS Target Top	11127		
2BSSS Target Base	11211		
3rd BSPG Lime	11360		
3BSSS	11940		
WLFMP	12350		
WLFMP 100	12505		
WLFMP 120	12640		

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

2. Casing Program (Primary Design)

Hole Size	Casing Interval		Csg. Size	Wt (PPF)	Grade	Conn	Min SF Collapse	Min SF Burst	Min SF Tension
	From	To							
14.75"	0	1350	10.75"	40.5	J-55	STC	1.125	1.25	1.6
9.875"	0	11965 TVD	7.625"	29.7	P110	BTC	1.125	1.25	1.6
6.75"	0	TD	5.5"	20	P110	Vam SG	1.125	1.25	1.6
				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
- Rustler top will be validated via drilling parameters (i.e. reduction in ROP) and surface casing setting depth revised accordingly if needed.
- Int casing shoe will be selected based on drilling data / gamma, setting depth with be revised accordingly if needed.
- A variance is requested to wave the centralizer requirement for the Intermediate casing and production casing.

Casing Program (Alternate Design)

Hole Size	Casing Interval		Csg. Size	Wt. (PPF)	Grade	Conn	Min SF Collapse	Min SF Burst	Min SF Tension
	From	To							
17.5"	0	Same as above	13.375"	48	H-40	STC	1.125	1.25	1.6
10.625"	0	Same as above	8.625"	32	P110EC	BTC	1.125	1.25	1.6
7.875"	0	TD	5.5"	17	P110	BTC	1.125	1.25	1.6
				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
- Rustler top will be validated via drilling parameters (i.e. reduction in ROP) and surface casing setting depth revised accordingly if needed.
- Int 1 casing shoe will be selected based on drilling data / gamma, setting depth with be revised accordingly if needed.
- Option to drill change intermediate 1 hole size to 9.625, (8.625" connection will change from BTC to TLW)
- Option to run 8.625" TLW connection for intermediate 1
- A variance is requested to wave the centralizer requirement for the Intermediate casing and production casing.
- Variance is requested for collapse rating on intermediate casing. Operator will keep pipe full while running casing. No losses are expected in subsequent hole section.
- 8-5/8" Intermediate casing will be kept fluid filled to 100%.

Blue Krait 23-14 Fed 36H

	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 3rd 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 2nd 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?	

3. Cementing Program (Primary Design)

Casing	# Sks	TOC	Wt. (lb/gal)	Yld (ft3/sack)	Slurry Description
Surface	864	Surf	13.2	1.33	Lead: Class C Cement + additives
Int 1	1160	Surf	9	1.85	Lead: Class C Cement + additives
	847	4000' above shoe	13.2	1.33	Tail: Class H / C + additives
Int 1 Two Stage w DV @ ~4500	580	Surf	9	1.85	1st stage Lead: Class C Cement + additives
	55	500' above shoe	13.2	1.33	1st stage Tail: Class H / C + additives
	600	Surf	9	1.85	2st stage Lead: Class C Cement + additives
	55	500' above DV	13.2	1.33	2st stage Tail: Class H / C + additives
Int 1 Intermediate Squeeze	As Needed	Surf	13.2	1.33	Squeeze Lead: Class C Cement + additives
	1160	Surf	9	1.85	Lead: Class C Cement + additives
	847	4000' above shoe	13.2	1.33	Tail: Class H / C + additives
Production	788	500' tieback	13.2	1.33	Lead: Class H / C + additives

If a DV tool is ran the depth(s) will be adjusted based on hole conditions and cement volumes will be adjusted proportionally. Slurry weights will be adjusted based on estimated fracture gradient of the formation. DV tool will be set a minimum of 50 feet below previous casing and a minimum of 200 feet above current shoe. If cement is not returned to surface during the primary cement job on the surface casing string, a planned top job will be conducted immediately after completion of the primary job.

Casing String	TOC	% Excess
Surface	0'	50%
Intermediate 1	0'	30%
Intermediate 1 (Two Stage)	0'	25%
Prod	200' Tie-Back to intermediate	10%

Blue Krait 23-14 Fed 36H

Cementing Program (Alternate Design)

Casing	# Sks	TOC	Wt. (lb/gal)	Yld (ft3/sack)	Slurry Description
Surface	1098	Surf	13.2	1.33	Lead: Class C Cement + additives
Int 1	1313	Surf	9	1.85	Lead: Class C Cement + additives
	831	4000' above shoe	13.2	1.33	Tail: Class H / C + additives
Int 1 Two Stage w DV @ ~4500	650	Surf	9	1.85	1st stage Lead: Class C Cement + additives
	55	500' above shoe	13.2	1.33	1st stage Tail: Class H / C + additives
	670	Surf	9	1.85	2st stage Lead: Class C Cement + additives
	55	500' above DV	13.2	1.33	2st stage Tail: Class H / C + additives
Int 1 Intermediate Squeeze	As Needed	Surf	13.2	1.33	Squeeze Lead: Class C Cement + additives
	1313	Surf	9	1.85	Lead: Class C Cement + additives
	831	4000' above shoe	13.2	1.33	Tail: Class H / C + additives
Production	1431	500' tieback	13.2	1.33	Lead: Class H / C + additives

If a DV tool is ran the depth(s) will be adjusted based on hole conditions and cement volumes will be adjusted proportionally. Slurry weights will be adjusted based on estimated fracture gradient of the formation. DV tool will be set a minimum of 50 feet below previous casing and a minimum of 200 feet above current shoe. If cement is not returned to surface during the primary cement job on the surface casing string, a planned top job will be conducted immediately after completion of the primary job.

Casing String	TOC	% Excess
Surface	0'	50%
Intermediate 1	0'	30%
Intermediate 1 (Two Stage)	0'	25%
Prod	200' Tie-Back to intermediate	10%

4. Pressure Control Equipment (Three String Design)

BOP installed and tested before drilling which hole?	Size?	Min. Required WP	Type	✓	Tested to:
Int 1	13-5/8"	5M	Annular	X	50% of rated working pressure
			Blind Ram	X	5M
			Pipe Ram		
			Double Ram	X	
			Other*		
Production	13-5/8"	10M	Annular (5M)	X	100% of rated working pressure
			Blind Ram	X	10M
			Pipe Ram		
			Double Ram	X	
			Other *		
			Annular		
			Blind Ram		
			Pipe Ram		
			Double Ram		
			Other *		
N	A variance is requested for the use of a diverter on the surface casing. See attached for schematic.				

5. Mud Program (3 String Design)

Section	Type	Weight (ppg)	Vis	Water Loss
Surface	FW Gel	8.5 - 9	28-34	N/C
Intermediate	DBE / Cut Brine	9 - 10	28-34	N/C
Production	OBM	10-10.5	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 fromTD 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	

7. Drilling Conditions

Condition	Specify what type and where?
BH Pressure at deepest TVD	6811 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? Potentially

1. If operator elects, drilling rig will batch drill the surface holes and run/cement surface casing; walking the rig to next wells on the pad.
2. The drilling rig will then batch drill the intermediate sections and run/cement intermediate casing; the wellbore will be isolated with a blind flange and pressure gauge installed for monitoring the well before walking to the next well.
3. The drilling rig will then batch drill the production hole sections on the wells with OBM, run/cement production casing, and install TA caps or tubing heads for completions.

NOTE: During batch operations the drilling rig will be moved from well to well however, it will not be removed from the pad until all wells have production casing run/cemented.

Will be pre-setting casing? Potentially

1. Spudder rig will move in and drill surface hole.
    a. Rig will utilize fresh water based mud to drill surface hole to TD. Solids control will be handled entirely on a closed loop basis.
2. After drilling the surface hole section, the spudder rig will run casing and cement following all of the applicable rules and regulations (OnShore Order 2, all COAs and NMOCD regulations).
3. The wellhead will be installed and tested once the surface casing is cut off and the WOC time has been reached.
4. A blind flange with the same pressure rating as the wellhead will be installed to seal the wellbore. Pressure will be monitored with a pressure gauge installed on the wellhead.
5. Spudder rig operations is expected to take 4-5 days per well on a multi well pad.
6. The NMOCD will be contacted and notified 24 hours prior to commencing spudder rig operations.
7. Drilling operations will be performed with the drilling rig. At that time an approved BOP stack will be nippled up and tested on the wellhead before drilling operations commences on each well.
    a. The NMOCD will be contacted / notified 24 hours before the drilling rig moves back on to the pad with the pre-set surface casing.

Attachments

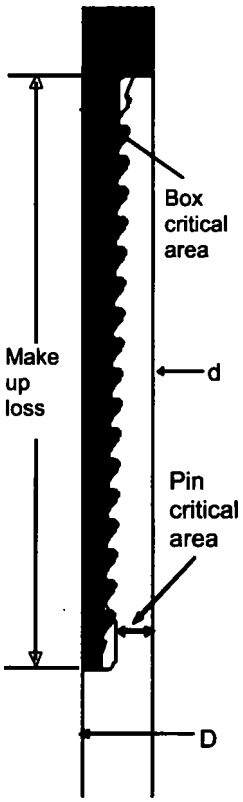
_x_ Directional Plan

___ Other, describe

Metal One Corp. *Metal One*	**FLUSHMAX-III** **Connection Data Sheet**	Page	44-O
		Date	25-Jan-17
		Rev.	N - 1

[redacted]

FLUSHMAX-III



[redacted]

	Imperial		S.I.	
Pipe Body				
Pipe OD (D)	7 5/8	in	193.68	mm
Actual weight	29.04		43.21	kg/m
Pipe ID (d)	6.875	in	174.63	mm
Drift Dia.	6.750	in	171.45	mm
Connection				
PIN ID	6.875	in	174.63	mm
Thread Taper	1 / 16 (3/4" per ft)			

[redacted]

Performance Properties for Pipe Body

M.I.Y.P.	9,470	psi	65.31	MPa

Note S.M.Y.S.= Specified Minimum YIELD Strength of Pipe body
M.I.Y.P. = Minimum Internal Yield Pressure of Pipe body

Performance Properties for Connection

Min. Compression Yield	563 kips (60% of S.M.Y.S.)
External Pressure	100% of Collapse Strength

Recommended Torque

Opti.	17,200	ft-lb	23,300	N-m
Operational Max.	23,600	ft-lb	32,000	N-m

Note : Operational Max. torque can be applied for high torque application

CASING PERFORMANCE Data Sheet

vallourec

O.D.	PE LB/FT	T&C LB/FT	GRADE
8.625	31.13	32.00	P110EC

Grade - Material Properties

Minimum Yield Strength:	125	ksi
Maximum Yield Strength:	140	ksi
Minimum Tensile Strength:	135	ksi

Pipe Body Data (PE)

Geometry

Nominal ID:	7.921	inch
Wall:	0.352	inch
Min. Wall % (API = 87.5%):	87.5	%
API Drift:	7.796	inch
Special Drift*:	7.875	inch

Performance

Pipe Body Yield Strength:	1,144	kips
Collapse Resistance:	3,470	psi
Internal Yield Pressure (*API Historical*):	8,930	psi

API Connection Data

SC Internal Pressure:	8,930	psi
SC Joint Strength:	793	kips
LC Internal Pressure:	8,930	psi
LC Joint Strength:	887	kips
BC Internal Pressure:	8,930	psi
BC Joint Strength:	1,121	kips

SC Torque (ft-lbs)

minimum:	5,950	optimum:	7,933	maximum:	9,916

LC Torque (ft-lbs)

minimum:	6,651	optimum:	8,868	maximum:	11,085

*Special drift must be ordered or API drift will be used for actual drifting of product.

**If above API connections do not suit your needs, VAM® premium connections are available up to 100% of pipe body ratings.

U. S. Steel Tubular Products

1/8/2019 12:38:52 PM

13.375" 48.00lbs/ft (0.330" Wall) H40

MECHANICAL PROPERTIES	Pipe	BTC	LTC	STC	
Minimum Yield Strength	40,000	–	–	–	psi
Maximum Yield Strength	80,000	–	–	–	psi
Minimum Tensile Strength	60,000	–	–	–	psi
DIMENSIONS	**Pipe**	**BTC**	**LTC**	**STC**	
Outside Diameter	13.375	–	–	14.375	in.
Wall Thickness	0.330	–	–	–	in.
Inside Diameter	12.715	–	–	12.715	in.
Standard Drift	12.559	12.559	–	12.559	in.
Alternate Drift	–	–	–	–	in.
Nominal Linear Weight, T&C	48.00	–	–	–	lbs/ft
Plain End Weight	46.02	–	–	–	lbs/ft
PERFORMANCE	**Pipe**	**BTC**	**LTC**	**STC**	
Minimum Collapse Pressure	740	740	–	740	psi
Minimum Internal Yield Pressure	1,730	1,730	–	1,730	psi
Minimum Pipe Body Yield Strength	541	–	–	–	1,000 lbs
Joint Strength	–	–	–	322	1,000 lbs
Reference Length	–	–	–	4,473	ft
MAKE-UP DATA	**Pipe**	**BTC**	**LTC**	**STC**	
Make-Up Loss	–	–	–	3.50	in.
Minimum Make-Up Torque	–	–	–	2,420	ft-lbs
Maximum Make-Up Torque	–	–	–	4,030	ft-lbs

U. S. Steel Tubular Products
460 Wildwood Forest Drive, Suite 300S
Spring, Texas 77380

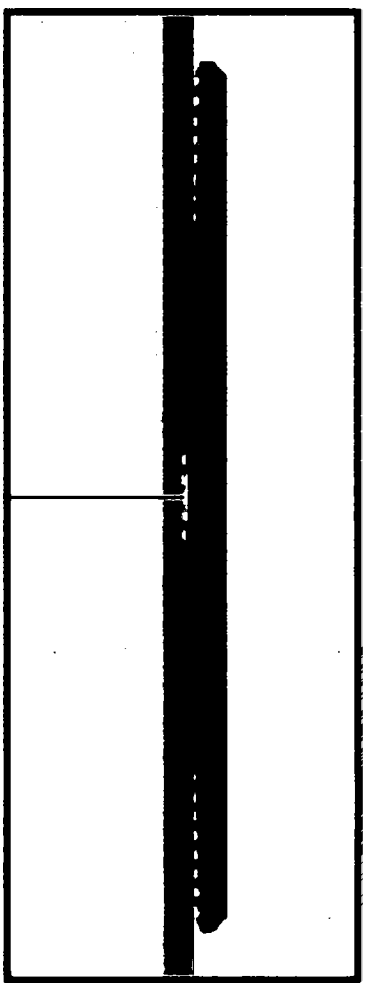
1-877-893-9461
connections@uss.com
www.usstubular.com

Technical Specifications

Connection Type:	Size(O.D.):	Weight (Wall):	Grade:
DWC/C Casing standard	5-1/2 in	17.00 lb/ft (0.304 in)	P-110RY

	Material
P-110RY	Grade
110,000	Minimum Yield Strength (psi)
125,000	Minimum Ultimate Strength (psi)
	Pipe Dimensions
5.500	Nominal Pipe Body O.D. (in)
4.892	Nominal Pipe Body I.D.(in)
0.304	Nominal Wall Thickness (in)
17.00	Nominal Weight (lbs/ft)
16.89	Plain End Weight (lbs/ft)
4.962	Nominal Pipe Body Area (sq in)
	Pipe Body Performance Properties
546,000	Minimum Pipe Body Yield Strength (lbs)
7,480	Minimum Collapse Pressure (psi)
10,640	Minimum Internal Yield Pressure (psi)
9,700	Hydrostatic Test Pressure (psi)
	Connection Dimensions
6.050	Connection O.D. (in)
4.892	Connection I.D. (in)
4.767	Connection Drift Diameter (in)
4.13	Make-up Loss (in)
4.962	Critical Area (sq in)
100.0	Joint Efficiency (%)
	Connection Performance Properties
546,000	Joint Strength (lbs)
22,940	Reference String Length (ft) 1.4 Design Factor
568,000	API Joint Strength (lbs)
546,000	Compression Rating (lbs)
7,480	API Collapse Pressure Rating (psi)
10,640	API Internal Pressure Resistance (psi)
91.7	Maximum Uniaxial Bend Rating [degrees/100 ft]
	Appoximated Field End Torque Values
12,000	Minimum Final Torque (ft-lbs)
13,800	Maximum Final Torque (ft-lbs)
15,500	Connection Yield Torque (ft-lbs)

VAM-USA
4424 W. Sam Houston Pkwy. Suite 150
Houston, TX 77041
Phone: 713-479-3200
Fax: 713-479-3234
E-mail: VAMUSAsales@vam-usa.com



For detailed information on performance properties, refer to DWC Connection Data Notes on following page(s).

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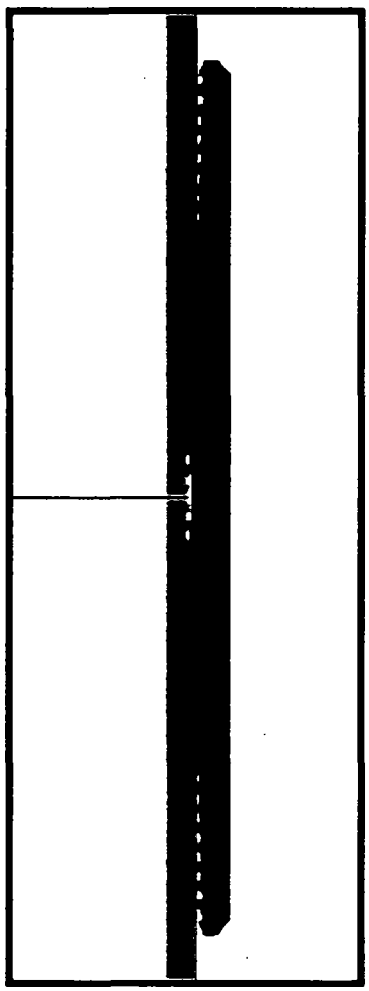
DWC Connection Data Notes:

1. DWC connections are available with a seal ring (SR) option.
2. All standard DWC/C connections are interchangeable for a give pipe OD. DWC connections are interchangeable with DWC/C-SR connections of the same OD and wall.
3. Connection performance properties are based on nominal pipe body and connection dimensions.
4. DWC connection internal and external pressure resistance is calculated using the API rating for buttress connections. API Internal pressure resistance is calculated from formulas 31, 32, and 35 in the API Bulletin 5C3.
5. DWC joint strength is the minimum pipe body yield strength multiplied by the connection critical area.
6. API joint strength is for reference only. It is calculated from formulas 42 and 43 in the API Bulletin 5C3.
7. Bending efficiency is equal to the compression efficiency.
8. The torque values listed are recommended. The actual torque required may be affected by field conditions such as temperature, thread compound, speed of make-up, weather conditions, etc.
9. Connection yield torque is not to be exceeded.
10. Reference string length is calculated by dividing the joint strength by both the nominal weight in air and a design factor (DF) of 1.4. These values are offered for reference only and do not include load factors such as bending, buoyancy, temperature, load dynamics, etc.
11. DWC connections will accommodate API standard drift diameters.



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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 using a multi-bowl wellhead assembly. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be 5000 (5M) psi.

- Wellhead will be installed by wellhead representatives.
- If the welding is performed by a third party, the wellhead representative will monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
- Wellhead representative will install the test plug for the initial BOP test.
- Wellhead company 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 5M, 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 surface casing, a 13-5/8" BOP/BOPE system with a minimum rating of 5M will be installed on the wellhead system and will undergo a 250 psi low pressure test followed by a 5,000 psi high pressure test. The 5,000 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.

After running the intermediate casing with a mandrel hanger, the 13-5/8" BOP/BOPE system with a minimum rating of 10M will be installed and tested, with 5M annular being tested to 100% of rated working pressure.

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 10,000 psi WP.

Devon's proposed wellhead manufactures will be FMC Technologies, Cactus Wellhead, or Cameron.

Devon Energy
APD VARIANCE DATA

OPERATOR NAME: Devon Energy

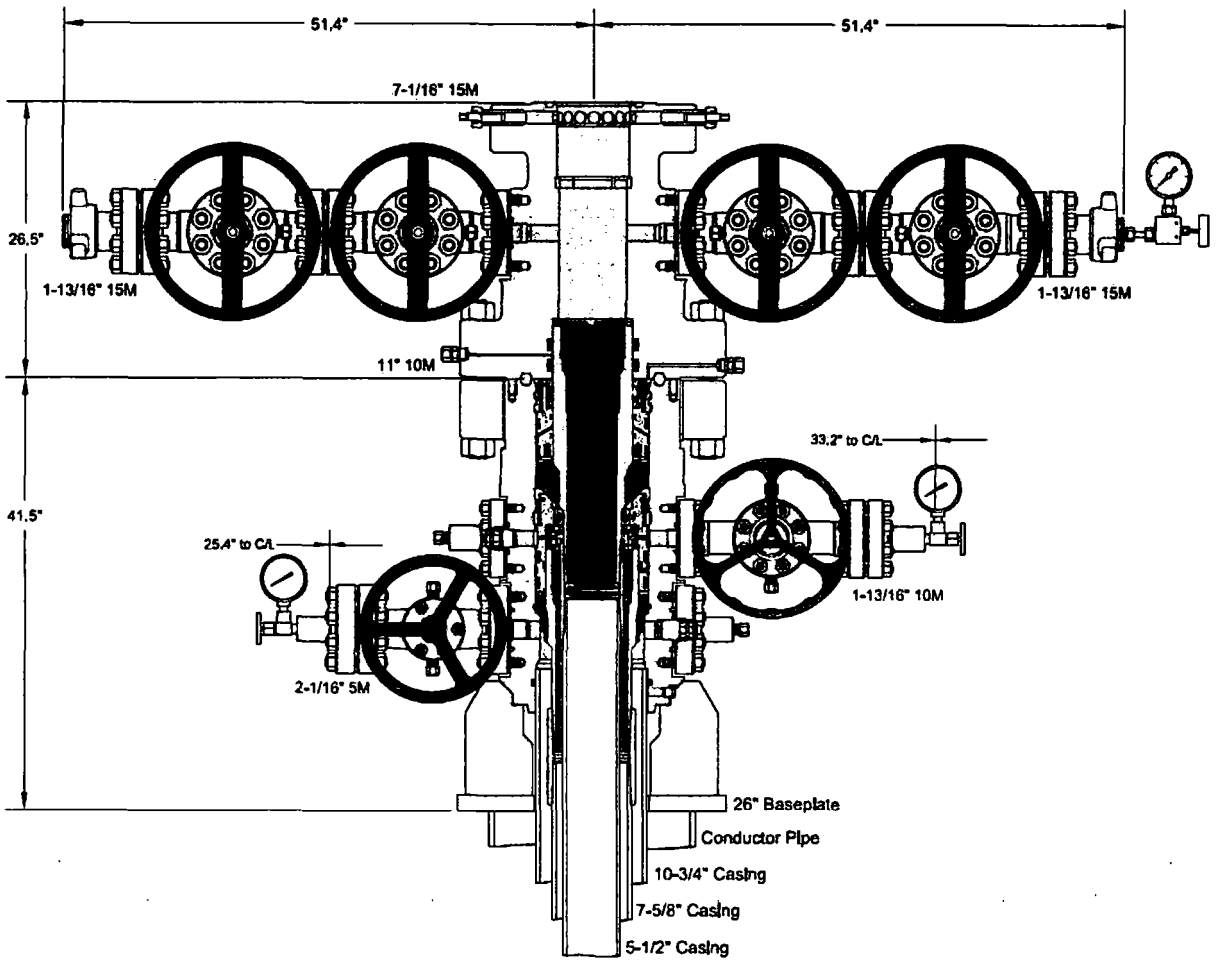
1. SUMMARY OF Variance:

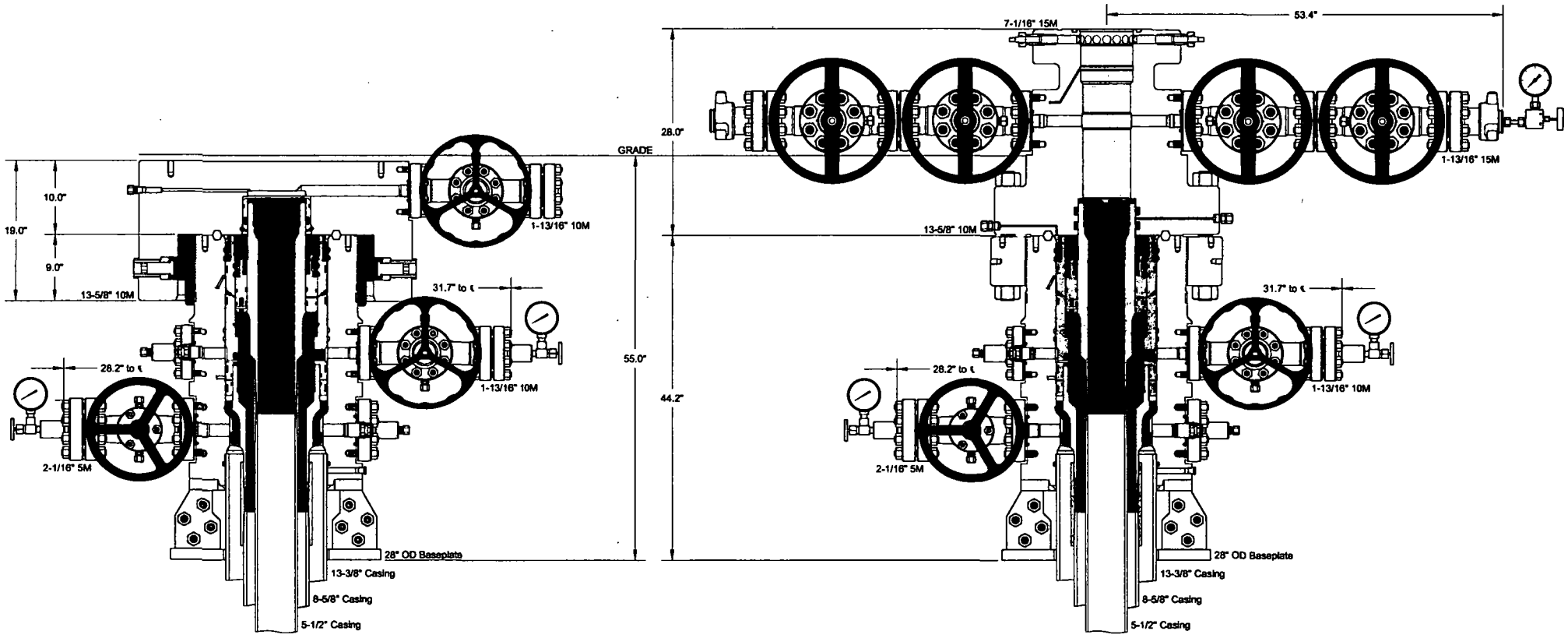
Devon Energy respectfully requests approval for the following additions to the drilling plan:

1. Potential utilization of a spudder rig to pre-set surface casing.

2. Description of Operations

1. A spudder rig contractor may move in their rig to drill the surface hole section and pre-set surface casing on this well.
    a. After drilling the surface hole section, the rig will run casing and cement following all of the applicable rules and regulations (OnShore Order 2, all COAs and NMOCD regulations).
    b. Rig will utilize fresh water based mud to drill surface hole to TD.
2. The wellhead will be installed and tested once the surface casing is cut off and the WOC time has been reached.
3. A blind flange with the same pressure rating as the wellhead will be installed to seal the wellbore. Pressure will be monitored with needle valves installed on two wingvalves.
    a. A means for intervention will be maintained while the drilling rig is not over the well.
4. The BLM will be contacted and notified 24 hours prior to commencing spudder rig operations.
5. Drilling operation will be performed with the big rig. At that time an approved BOP stack will be nippled up and tested on the wellhead before drilling operations commences on each well.
    a. The BLM will be contacted / notified 24 hours before the big rig moves back on to the pad with the pre-set surface casing.
6. Devon Energy will have supervision on the rig to ensure compliance with all BLM and NMOCD regulations and to oversee operations.
7. Once the rig is removed, Devon Energy will secure the wellhead area by placing a guard rail around the cellar area.


51.4"
51.4"
7-1/16" 15M
26.5"
1-13/16" 15M
1-13/16" 15M
11" 10M
33.2" to C/L
41.5"
25.4" to C/L
1-13/16" 10M
2-1/16" 5M
26" Baseplate
Conductor Pipe
10-3/4" Casing
7-5/8" Casing
5-1/2" Casing

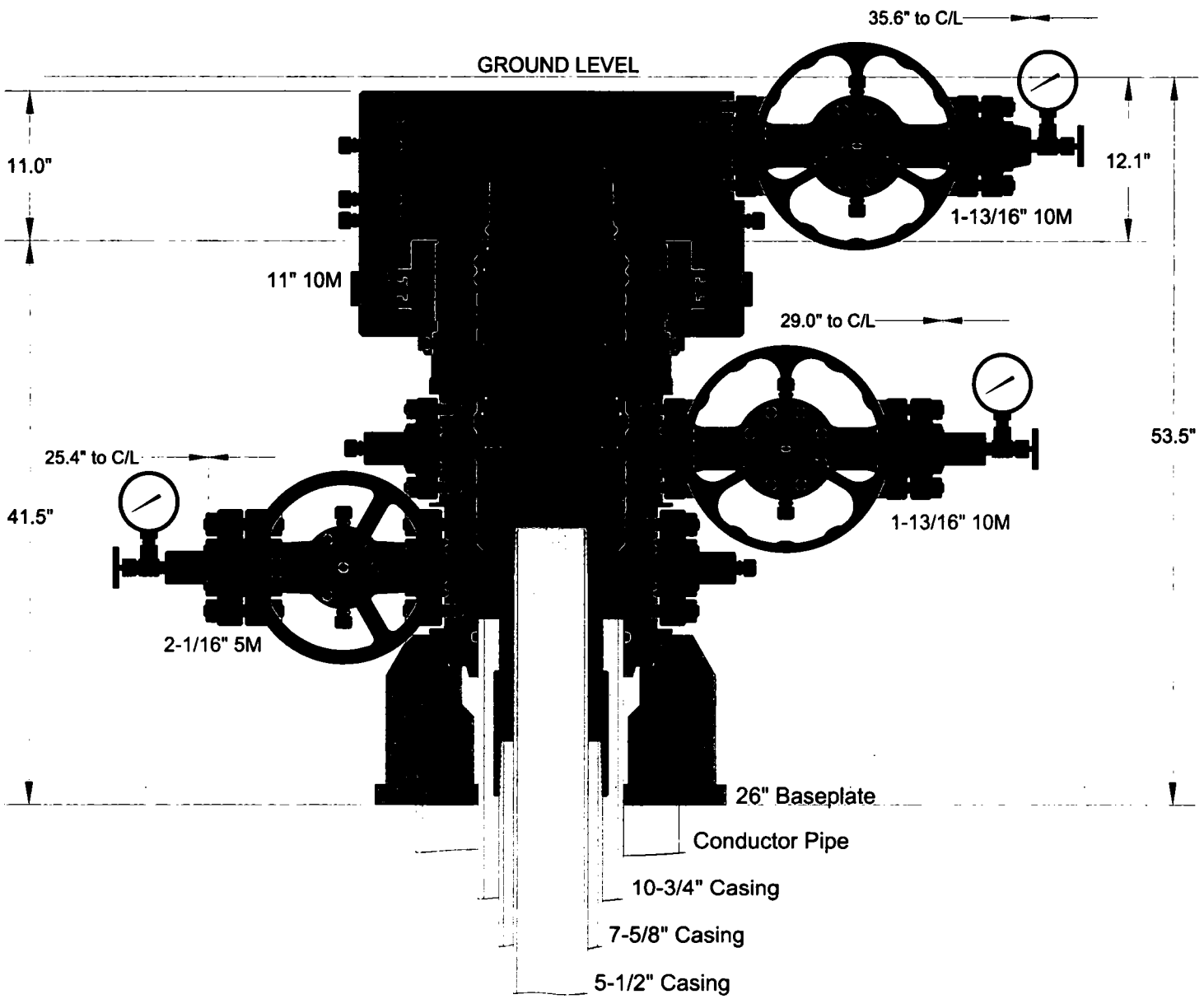


CACTUS WELLHEAD LLC

DEVON ENERGY CORPORATION

13-3/8" x 8-5/8" x 5-1/2" 5M MBU-3T Wellhead System
With 8-5/8" & 5-1/2" Pin Down Rotating Mandrel Hangers
And 13-5/8" 10M x 7-1/16" 15M CTH-P-DBLHPS Tubing Head

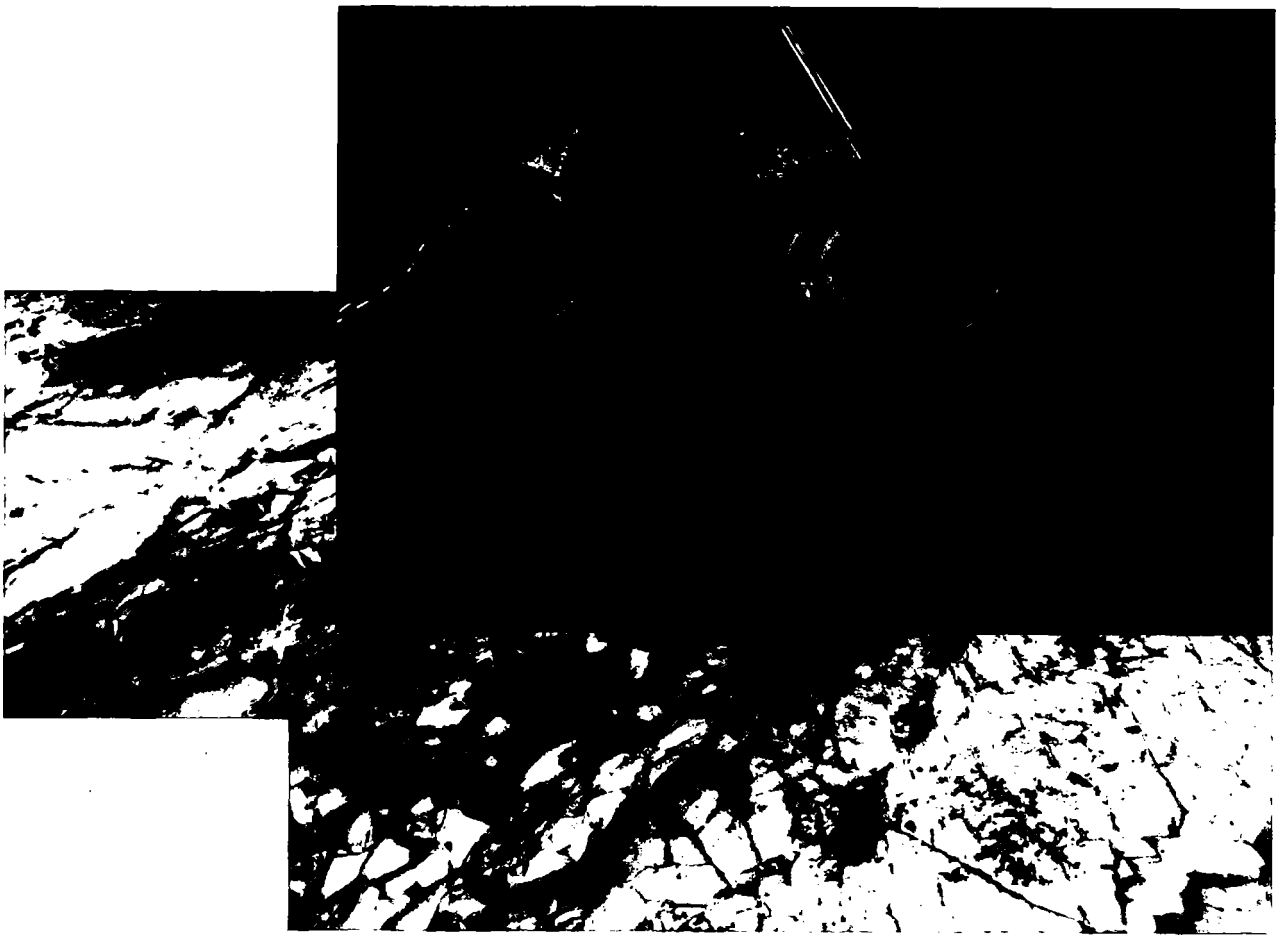
DRAWN	DLE	10MAY18
APPRV		
DRAWING NO.	ODE0002309	



CACTUS WELLHEAD LLC	DEVON ENERGY CORPORATION		
16" x 11-7/8" x 7-5/8" MBU-T Wellhead Assembly With 7-5/8" & 5-1/2" Pin Bottom Mandrel Casing Hangers And 11" 10M MBU-T-HPS-F TA Cap	DRAWN	DLE	29NOV17
	APPRV		
	DRAWING NO.	OKE0001764	

devon

Commitment Runs Deep



Design Plan
Operation and Maintenance Plan
Closure Plan

SENM - Closed Loop Systems
June 2010

I. Design Plan

Devon uses MI SWACO closed loop system (CLS). The MI SWACO CLS is designed to maintain drill solids at or below 5%. The equipment is arranged to progressively remove solids from the largest to the smallest size. Drilling fluids can thus be reused and savings is realized on mud and disposal costs. Dewatering may be required with the centrifuges to insure removal of ultra fine solids.

The drilling location is constructed to allow storm water to flow to a central sump normally the cellar. This insures no contamination leaves the drilling pad in the event of a spill. Storm water is reused in the mud system or stored in a reserve fluid tank farm until it can be reused. All lubricants, oils, or chemicals are removed immediately from the ground to prevent the contamination of storm water. An oil trap is normally installed on the sump if an oil spill occurs during a storm.

A tank farm is utilized to store drilling fluids including fresh water and brine fluids. The tank farm is constructed on a 20 ml plastic lined, bermed pad to prevent the contamination of the drilling site during a spill. Fluids from other sites may be stored in these tanks for processing by the solids control equipment and reused in the mud system. At the end of the well the fluids are transported from the tank farm to an adjoining well or to the next well for the rig.

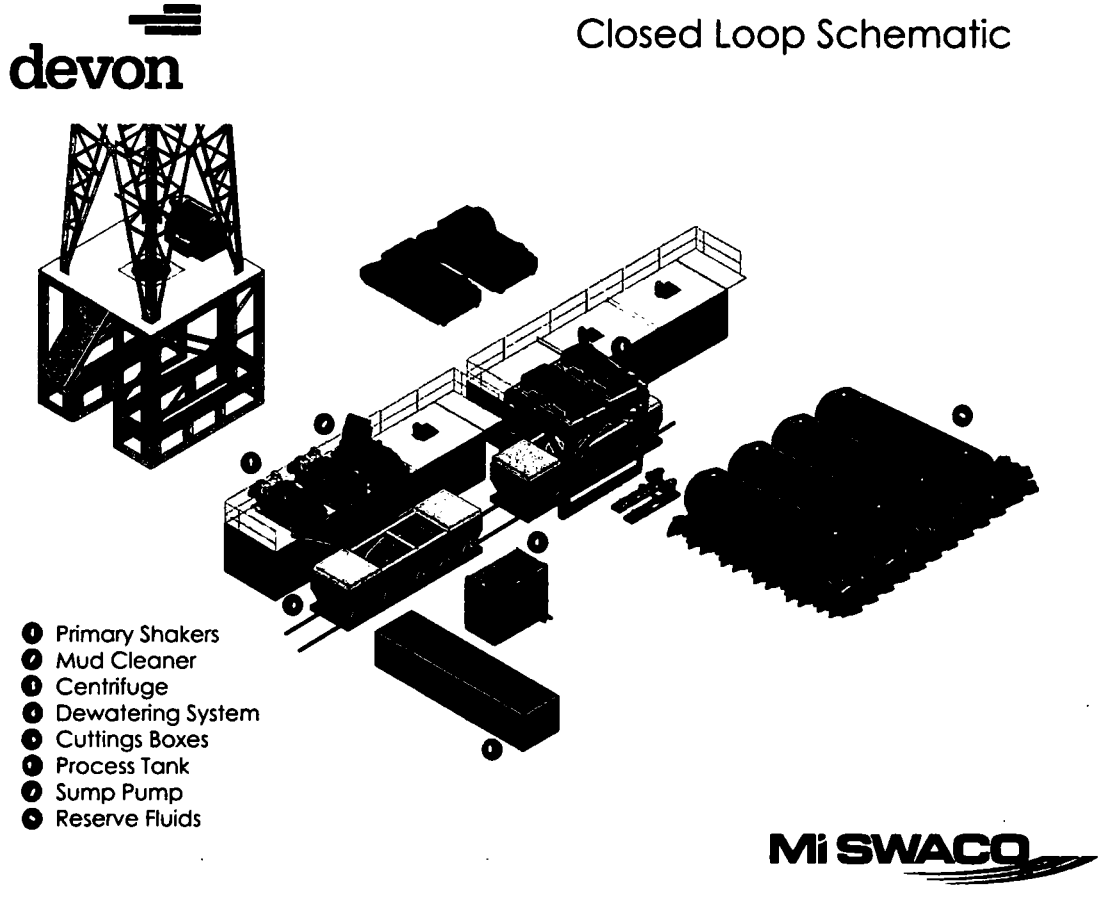
Prior to installing a closed-loop system on site, the topsoil, if present, will be stripped and stockpiled for use as the final cover or fill at the time of closure.

Signs will be posted on the fence surrounding the closed-loop system unless the closed-loop system is located on a site where there is an existing well, that is operated by Devon.

II. Operations and Maintenance Plan

Primary Shakers: The primary shakers make the first removal of drill solids from the drilling mud as it leaves the well bore. The shakers are sized to handle maximum drilling rate at optimal screen size. The shakers normally remove solids down to 74 microns.

Mud Cleaner: The Mud Cleaner cleans the fluid after it leaves the shakers. A set of hydrocyclones are sized to handle 1.25 to 1.5 times the maximum circulating rate. This ensures all the fluid is being processed to an average cut point of 25 microns. The wet discharged is dewatered on a shaker equipped with ultra fine mesh screens and generally cut at 40 microns.



Centrifuges: The centrifuges can be one or two in number depending on the well geometry or depth of well. The centrifuges are sized to maintain low gravity solids at 5% or below. They may or may not need a dewatering system to enhance the removal rates. The centrifuges can make a cut point of 8-10 microns depending on bowl speed, feed rate, solids loading and other factors.

The centrifuge system is designed to work on the active system and be flexible to process incoming fluids from other locations. This set-up is also dependant on well factors.

Dewatering System: The dewatering system is a chemical mixing and dosing system designed to enhance the solids removal of the centrifuge. Not commonly used in shallow wells. It may contain pH adjustment, coagulant mixing and dosing, and polymer mixing and dosing. Chemical flocculation binds ultra fine solids into a mass that is within the centrifuge operating design. The

dewatering system improves the centrifuge cut point to infinity or allows for the return of clear water or brine fluid. This ability allows for the ultimate control of low gravity solids.

Cuttings Boxes: Cuttings boxes are utilized to capture drill solids that are discarded from the solids control equipment. These boxes are set upon a rail system that allows for the removal and replacement of a full box of cuttings with an empty one. They are equipped with a cover that insures no product is spilled into the environment during the transportation phase.

Process Tank: (Optional) The process tank allows for the holding and process of fluids that are being transferred into the mud system. Additionally, during times of lost circulation the process tank may hold active fluids that are removed for additional treatment. It can further be used as a mixing tank during well control conditions.

Sump and Sump Pump: The sump is used to collect storm water and the pump is used to transfer this fluid to the active system or to the tank for to hold in reserve. It can also be used to collect fluids that may escape during spills. The location contains drainage ditches that allow the location fluids to drain to the sump.

Reserve Fluids (Tank Farm): A series of frac tanks are used to replace the reserve pit. These are steel tanks that are equipped with a manifold system and a transfer pump. These tanks can contain any number of fluids used during the drilling process. These can include fresh water, cut brine, and saturated salt fluid. The fluid can be from the active well or reclaimed fluid from other locations. A 20 ml liner and berm system is employed to ensure the fluids do not migrate to the environment during a spill.

If a leak develops, the appropriate division district office will be notified within 48 hours of the discovery and the leak will be addressed. Spill prevention is accomplished by maintaining pump packing, hoses, and pipe fittings to insure no leaks are occurring. During an upset condition the source of the spill is isolated and repaired as soon as it is discovered. Free liquid is removed by a diaphragm pump and returned to the mud system. Loose topsoil may be used to stabilize the spill and the contaminated soil is excavated and placed in the cuttings boxes. After the well is finished and the rig has moved, the entire location is scrapped and testing will be performed to determine if a release has occurred.

All trash is kept in a wire mesh enclosure and removed to an approved landfill when full. All spent motor oils are kept in separate containers and they are removed and sent to an approved recycling center. Any spilled lubricants, pipe

dope, or regulated chemicals are removed from soil and sent to landfills approved for these products.

These operations are monitored by Mi Swaco service technicians. Daily logs are maintained to ensure optimal equipment operation and maintenance. Screen and chemical use is logged to maintain inventory control. Fluid properties are monitored and recorded and drilling mud volumes are accounted for in the mud storage farm. This data is kept for end of well review to insure performance goals are met. Lessons learned are logged and used to help with continuous improvement.

A MI SWACO field supervisor manages from 3-5 wells. They are responsible for training personnel, supervising installations, and inspecting sites for compliance of MI SWACO safety and operational policy.

III. Closure Plan

A maximum 340' X 340' caliche pad is built per well. All of the trucks and steel tanks fit on this pad. All fluid cuttings go to the steel tanks to be hauled by various trucking companies to an agency approved disposal.

U. S. Steel Tubular Products

10.75 40.5/0.35 J55

1/18/2017 9:30:29 AM

MECHANICAL PROPERTIES	Pipe	BTC	LTC	STC	
Minimum Yield Strength	55,000	--	--	--	psi
Maximum Yield Strength	80,000	--	--	--	psi
Minimum Tensile Strength	75,000	--	--	--	psi
DIMENSIONS	**Pipe**	**BTC**	**LTC**	**STC**	
Outside Diameter	10.750	11.750	--	11.750	in.
Wall Thickness	0.350	--	--	--	in.
Inside Diameter	10.050	10.050	--	10.050	in.
Standard Drift	9.894	9.894	--	9.894	in.
Alternate Drift	--	--	--	--	in.
Nominal Linear Weight, T&C	40.50	--	--	--	lbs/ft
Plain End Weight	38.91	--	--	--	lbs/ft
PERFORMANCE	**Pipe**	**BTC**	**LTC**	**STC**	
Minimum Collapse Pressure	1,580	1,580	--	1,580	psi
Minimum Internal Yield Pressure	3,130	3,130	--	3,130	psi
Minimum Pipe Body Yield Strength	629,000	--	--	--	lbs
Joint Strength	--	700	--	420	lbs
Reference Length	--	11,522	--	6,915	ft
Make-Up Loss	--	4.81	--	3.50	in.
Minimum Make-Up Torque	--	--	--	3,150	ft-lbs
Maximum Make-Up Torque	--	--	--	5,250	ft-lbs

U. S. Steel Tubular Products
10343 Sam Houston Park Dr., #120
Houston, TX 77064

1-877-893-9461
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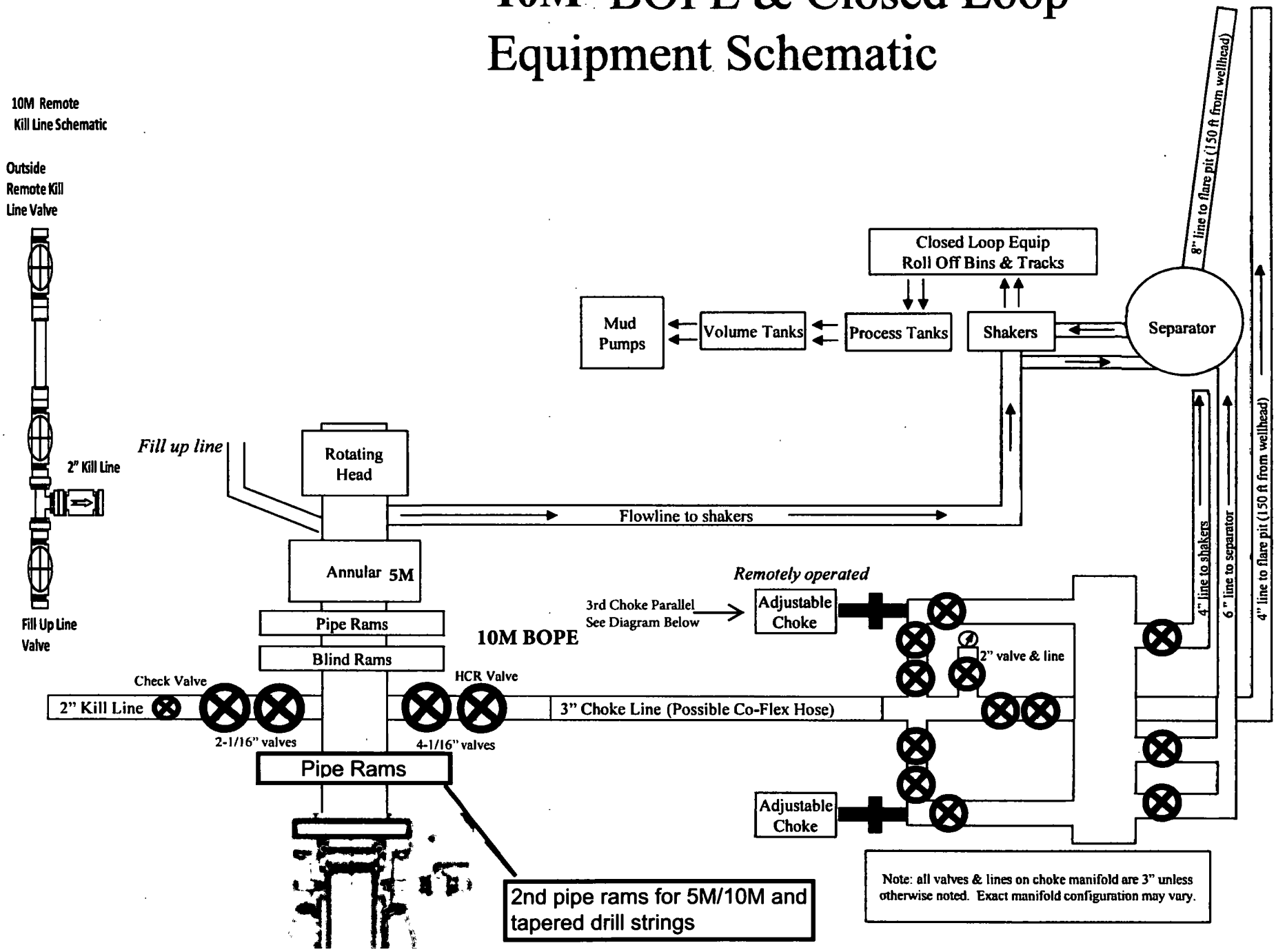
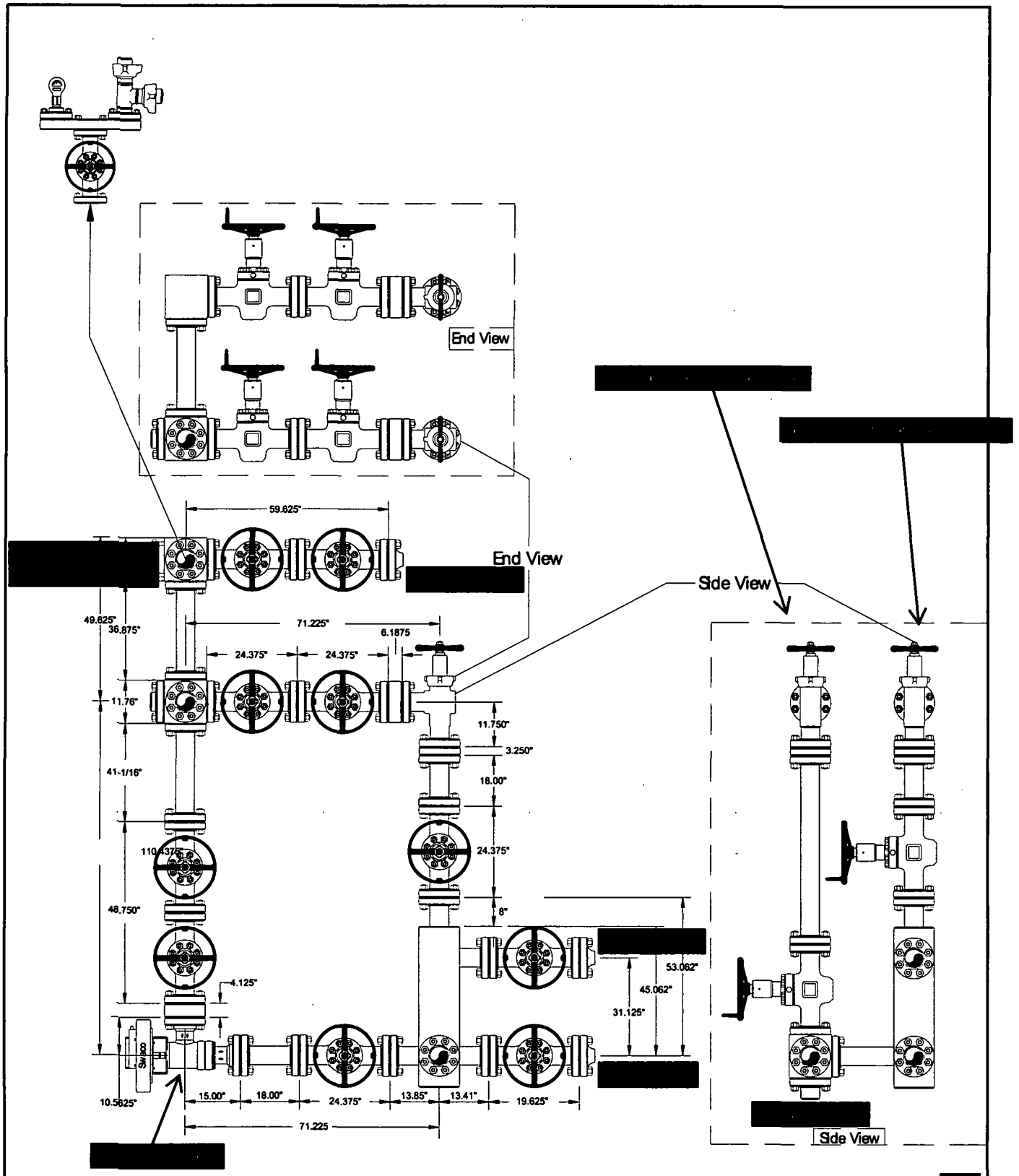
10M BOPE & Closed Loop Equipment Schematic





Helmerich & Payne

Flex 3 Rig w/ 3 Chokes

devon

Name: Mike Potts	Date: 6-23-2010	Working Pressure: 10M	J-5132-E

Devon Energy Annular Preventer Summary

1. Component and Preventer Compatibility Table

The table below, which covers the drilling and casing of the 10M MASP portion of the well, outlines the tubulars and the compatible preventers in use. This table, combined with the mud program, documents that two barriers to flow can be maintained at all times, independent of the rating of the annular preventer.

6-3/4" Production hole section, 10M requirement

Component	OD	Preventer	RWP
Drillpipe	4.5"	Fixed lower 4.5" Upper 4.5-7" VBR	10M
HWDP	4.5"	Fixed lower 4.5" Upper 4.5-7" VBR	10M
Drill collars and MWD tools	4.75"	Upper 4.5-7" VBR	10M
Mud Motor	4.75"	Upper 4.5-7" VBR	10M
Production casing	5.5"	Upper 4.5-7" VBR	10M
ALL	0-13-5/8"	Annular	5M
Open-hole	-	Blind Rams	10M

VBR = Variable Bore Ram. Compatible range listed in chart.

2. Well Control Procedures

Well control procedures are specific to the rig equipment and the operation at the time the kick occurs. Below are the minimal high-level tasks prescribed to assure a proper shut-in while drilling, tripping, running casing, pipe out of the hole (open hole), and moving the BHA through the BOPs. The pressure at which control is swapped from the annular to another compatible ram is variable, but the operator will document in the submission their operating pressure limit. The operator may chose an operating pressure less than or equal to RWP, but in no case will it exceed the RWP of the annular preventer.

<u>General Procedure While Drilling</u>

1. Sound alarm (alert crew)
2. Space out drill string
3. Shut down pumps (stop pumps and rotary)
4. Shut-in Well (uppermost applicable BOP, typically annular preventer first. HCR and choke will already be in the closed position.)
5. Confirm shut-in
6. Notify toolpusher/company representative
7. Read and record the following:
    a. SIDPP and SICP
    b. Pit gain
    c. Time
8. Regroup and identify forward plan
9. If pressure has built or is anticipated during the kill to reach the RWP of the annular preventer, confirm spacing and swap to the upper pipe ram.

Devon Energy Annular Preventer Summary

General Procedure While Tripping

1. Sound alarm (alert crew)
2. Stab full opening safety valve and close
3. Space out drill string
4. Shut-in (uppermost applicable BOP, typically annular preventer first. HCR and choke will already be in the closed position.)
5. Confirm shut-in
6. Notify toolpusher/company representative
7. Read and record the following:
    a. SIDPP and SICP
    b. Pit gain
    c. Time
8. Regroup and identify forward plan
9. If pressure has built or is anticipated during the kill to reach the RWP of the annular preventer, confirm spacing and swap to the upper pipe ram.

General Procedure While Running Casing

1. Sound alarm (alert crew)
2. Stab crossover and full opening safety valve and close
3. Space out string
4. Shut-in (uppermost applicable BOP, typically annular preventer first. HCR and choke will already be in the closed position.)
5. Confirm shut-in
6. Notify toolpusher/company representative
7. Read and record the following:
    a. SIDPP and SICP
    b. Pit gain
    c. Time
8. Regroup and identify forward plan
9. If pressure has built or is anticipated during the kill to reach the RWP of the annular preventer, confirm spacing and swap to compatible pipe ram.

General Procedure With No Pipe In Hole (Open Hole)

1. Sound alarm (alert crew)
2. Shut-in with blind rams or BSR. (HCR and choke will already be in the closed position.)
3. Confirm shut-in
4. Notify toolpusher/company representative
5. Read and record the following:
    a. SICP
    b. Pit gain
    c. Time
6. Regroup and identify forward plan

Devon Energy Annular Preventer Summary

General Procedures While Pulling BHA thru Stack

1. PRIOR to pulling last joint of drillpipe thru the stack.
    a. Perform flowcheck, if flowing:
    b. Sound alarm (alert crew)
    c. Stab full opening safety valve and close
    d. Space out drill string with tool joint just beneath the upper pipe ram.
    e. Shut-in using upper pipe ram. (HCR and choke will already be in the closed position.)
    f. Confirm shut-in
    g. Notify toolpusher/company representative
    h. Read and record the following:
        i. SIDPP and SICP
        ii. Pit gain
        iii. Time
    i. Regroup and identify forward plan

2. With BHA in the stack and compatible ram preventer and pipe combo immediately available.
    a. Sound alarm (alert crew)
    b. Stab crossover and full opening safety valve and close
    c. Space out drill string with upset just beneath the compatible pipe ram.
    d. Shut-in using compatible pipe ram. (HCR and choke will already be in the closed position.)
    e. Confirm shut-in
    f. Notify toolpusher/company representative
    g. Read and record the following:
        i. SIDPP and SICP
        ii. Pit gain
        iii. Time
    h. Regroup and identify forward plan

3. With BHA in the stack and NO compatible ram preventer and pipe combo immediately available.
    a. Sound alarm (alert crew)
    b. If possible to pick up high enough, pull string clear of the stack and follow "Open Hole" scenario.
    c. If impossible to pick up high enough to pull the string clear of the stack:
    d. Stab crossover, make up one joint/stand of drillpipe, and full opening safety valve and close
    e. Space out drill string with tooljoint just beneath the upper pipe ram.
    f. Shut-in using upper pipe ram. (HCR and choke will already be in the closed position.)
    g. Confirm shut-in
    h. Notify toolpusher/company representative
    i. Read and record the following:
        i. SIDPP and SICP
        ii. Pit gain
        iii. Time
    j. Regroup and identify forward plan

Continental CONTITECH

Fluid Technology

ContiTech Beattie Corp.
Website: www.contitechbeattie.com

Monday, June 14, 2010

RE: Drilling & Production Hoses
Lifting & Safety Equipment

To Helmerich & Payne,

A Continental ContiTech hose assembly can perform as intended and suitable for the application regardless of whether the hose is secured or unsecured in its configuration. As a manufacturer of High Pressure Hose Assemblies for use in Drilling & Production, we do offer the corresponding lifting and safety equipment, this has the added benefit of easing the lifting and handling of each hose assembly whilst affording hose longevity by ensuring correct handling methods and procedures as well as securing the hose in the unlikely event of a failure; but in no way does the lifting and safety equipment affect the performance of the hoses providing the hoses have been handled and installed correctly It is good practice to use lifting & safety equipment but not mandatory

Should you have any questions or require any additional information/clarifications then please do not hesitate to contact us.

ContiTech Beattie is part of the Continental AG Corporation and can offer the full support resources associated with a global organization.

Best regards,

Robin Hodgson
Sales Manager
ContiTech Beattie Corp

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Houston, TX 77041
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www.contitechbeattie.com

RIG 212

PHOENIX

QUALITY DOCUMENT

PHOENIX RUBBER INDUSTRIAL LTD.

6728 Szeged, Budapesti út 10. Hungary • H-6701 Szeged, P. O. Box 152
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SALES & MARKETING: H-1092 Budapest, Ráday u. 42-44. Hungary • H-1440 Budapest, P. O. Box 26
Phone: (361) 456-4200 • Fax: (361) 217-2972, 456-4273 • www.taurusemerge.hu

QUALITY CONTROL INSPECTION AND TEST CERTIFICATE				CERT. N°: 552	
PURCHASER: Phoenix Beattie Co.				P.O. N°: 1519FA-871	
PHOENIX RUBBER order N°: 170466		HOSE TYPE: 3" ID		Choke and Kill Hose	
HOSE SERIAL N°: 34128		NOMINAL / ACTUAL LENGTH:		11,43 m	
W.P. 68,96 MPa	10000 psi	T.P. 103,4 MPa	15000 psi	Duration: 60	min.

Pressure test with water at ambient temperature

See attachment. (1 page)

↑ 10 mm = 10 Min.

→ 10 mm = 25 MPa

COUPLINGS

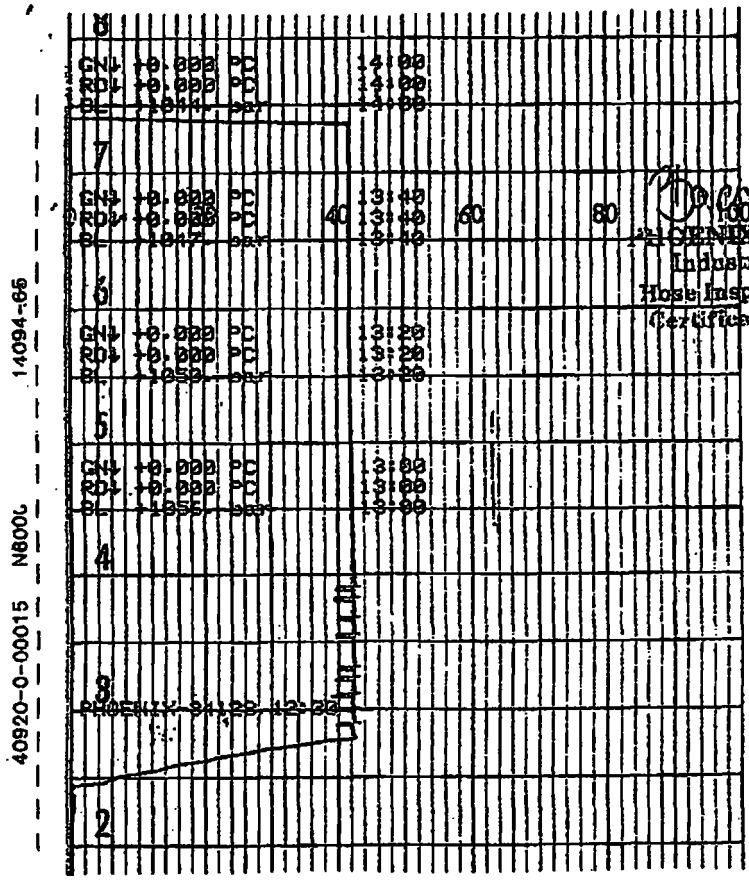
Type	Serial N°	Quality	Heat N°
3" coupling with	720 719	AISI 4130	C7626
4 1/16" Flange end		AISI 4130	47357

API Spec 16 C
Temperature rate:"B"

All metal parts are flawless

WE CERTIFY THAT THE ABOVE HOSE HAS BEEN MANUFACTURED IN ACCORDANCE WITH THE TERMS OF THE ORDER AND PRESSURE TESTED AS ABOVE WITH SATISFACTORY RESULT.

Date:	Inspector	Quality Control
29. April. 2002.		PHOENIX RUBBER Industrial Ltd. Hose Inspection and Certification Dept. VERIFIED TRUE COPY PHOENIX RUBBER Q.C.



PHOENIX RUBBER
Industrial Ltd.
Hose Inspection and
Certification Dept.

VERIFIED TRUE CO:
PHOENIX RUBBER C.C.

APD ID: 10400038432 **Submission Date:** 01/28/2019

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: BLUE KRAIT 23-14 FED **Well Number:** 36H

Well Type: OIL WELL **Well Work Type:** Drill

[redacted]

Show Final Text

Section 1 - Existing Roads

Will existing roads be used? YES

Existing Road Map:

Blue_Krait_23_14_Fed_36H_Access_Rd_20190124122437.pdf

Existing Road Purpose: ACCESS,FLUID TRANSPORT **Row(s) Exist?** NO

ROW ID(s)

ID:

Do the existing roads need to be improved? YES

Existing Road Improvement Description: Improve road to accommodate Drilling and Completion operations.

Existing Road Improvement Attachment:

Section 2 - New or Reconstructed Access Roads

Will new roads be needed? YES

New Road Map:

BLUE_KRAIT_23_CTB_2_20190124103724.PDF
BLUE_KRAIT_23_WP_5_20190124103726.PDF

New road type: LOCAL

Length: 2450 Feet **Width (ft.):** 30

Max slope (%): 6 **Max grade (%):** 4

Army Corp of Engineers (ACOE) permit required? NO

ACOE Permit Number(s):

New road travel width: 14

New road access erosion control: Water Drainage Ditch

New road access plan or profile prepared? YES

New road access plan attachment:

New_Access_Rd_Doc_20190124104028.pdf

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: BLUE KRAIT 23-14 FED **Well Number:** 36H

Access road engineering design? YES

Access road engineering design attachment:

New_Access_Rd_Doc_20190124104041.pdf

Turnout? N

Access surfacing type: OTHER

Access topsoil source: ONSITE

Access surfacing type description: caliche

Access onsite topsoil source depth: 6

Offsite topsoil source description:

Onsite topsoil removal process: See attached Interim reclamation diagram.

Access other construction information:

Access miscellaneous information:

Number of access turnouts: **Access turnout map:**

Drainage Control

New road drainage crossing: OTHER

Drainage Control comments: Water Drainage Ditch

Road Drainage Control Structures (DCS) description: N/A

Road Drainage Control Structures (DCS) attachment:

Access Additional Attachments

Section 3 - Location of Existing Wells

Existing Wells Map? YES

Attach Well map:

OneMileBuffer_20190124122631.pdf

Section 4 - Location of Existing and/or Proposed Production Facilities

Submit or defer a Proposed Production Facilities plan? SUBMIT

Production Facilities description: 5 ATTACHMENTS - WELLPAD PLAT, CTB PLAT, FLOWLINE PLAT, WELLPAD ELECTRIC PLAT, GAS BATTERY CONNECT PLAT. OTHER CONNECTS HANDLED BY THIRD PARTY

Production Facilities map:

BLUE_KRAIT_23_CTB_2_20190124104239.PDF

BLUE_KRAIT_23_WP_5_20190124104240.PDF

BLUE_KRAIT_23_CTB_2_ELE_20190124104237.pdf

BLUE_KRAIT_23_WP_5_TO_CTB_2_FL_20190124104241.pdf

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: BLUE KRAIT 23-14 FED **Well Number:** 36H

BLUE_KRAIT_23_CTB_2_BATCON_20190128080506.pdf

Section 5 - Location and Types of Water Supply

Water Source Table

Water source type: RECYCLED

Water source use type: STIMULATION

Source latitude: **Source longitude:**

Source datum:

Water source permit type: OTHER

Water source transport method: PIPELINE

Source land ownership: FEDERAL

Source transportation land ownership: FEDERAL

Water source volume (barrels): 500000 **Source volume (acre-feet):** 64.44655

Source volume (gal): 21000000

Water source and transportation map:

BLUE_KRAIT_23_14_FED_WP_5_WATER_MAP_20190124104407.PDF

Water source comments: The attached Water Transfer Map is a proposal only and the final route and documentation will be provided by a Devon contractor prior to installation. When available Devon will always follow existing disturbance.
New water well? NO

New Water Well Info

Well latitude: **Well Longitude:** **Well datum:**

Well target aquifer:

Est. depth to top of aquifer(ft): **Est thickness of aquifer:**

Aquifer comments:

Aquifer documentation:

Well depth (ft): **Well casing type:**

Well casing outside diameter (in.): **Well casing inside diameter (in.):**

New water well casing? **Used casing source:**

Drilling method: **Drill material:**

Grout material: **Grout depth:**

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: BLUE KRAIT 23-14 FED **Well Number:** 36H

Casing length (ft.): **Casing top depth (ft.):**

Well Production type: **Completion Method:**

Water well additional information:

State appropriation permit:

Additional information attachment:

Section 6 - Construction Materials

Using any construction materials: YES

Construction Materials description: Dirt fill and caliche will be used to construct well pad. See attached map.

Construction Materials source location attachment:

Blue_Krait_23_CTB_2_Caliche_Map_20190128081033.pdf
Blue_Krait_23_WP_5_Caliche_Map_20190128081034.pdf

Section 7 - Methods for Handling Waste

Waste type: DRILLING

Waste content description: Water Based and Oil Based Cuttings

Amount of waste: 1769 barrels

Waste disposal frequency : Daily

Safe containment description: N/A

Safe containmant attachment:

Waste disposal type: HAUL TO COMMERCIAL FACILITY **Disposal location ownership:** COMMERCIAL

Disposal type description:

Disposal location description: All cuttings will disposed of at R360, Sundance, or equivalent.

Waste type: COMPLETIONS/STIMULATION

Waste content description: Flow back water during completion operations.

Amount of waste: 3000 barrels

Waste disposal frequency : One Time Only

Safe containment description: N/A

Safe containmant attachment:

Waste disposal type: HAUL TO COMMERCIAL FACILITY **Disposal location ownership:** COMMERCIAL

Disposal type description:

Disposal location description: Various disposal locations in Lea and Eddy counties.

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: BLUE KRAIT 23-14 FED **Well Number:** 36H

Waste type: FLOWBACK

Waste content description: Average produced BWPD over the flowback period (first 30 days of production).

Amount of waste: 6900 barrels

Waste disposal frequency : Daily

Safe containment description: N/A

Safe containmant attachment:

Waste disposal type: OFF-LEASE INJECTION **Disposal location ownership:** COMMERCIAL

Disposal type description:

Disposal location description: Produced water will primarily be disposed of at commercial disposals connected to the Devon water system.

Waste type: PRODUCED WATER

Waste content description: Average produced BWPD over the first year of production.

Amount of waste: 2500 barrels

Waste disposal frequency : Daily

Safe containment description: N/A

Safe containmant attachment:

Waste disposal type: OFF-LEASE INJECTION **Disposal location ownership:** COMMERCIAL

Disposal type description:

Disposal location description: Produced water will primarily be disposed of at commercial disposals connected to the Devon water system.

Reserve Pit

Reserve Pit being used? NO

Temporary disposal of produced water into reserve pit?

Reserve pit length (ft.) **Reserve pit width (ft.)**

Reserve pit depth (ft.) **Reserve pit volume (cu. yd.)**

Is at least 50% of the reserve pit in cut?

Reserve pit liner

Reserve pit liner specifications and installation description

Cuttings Area

Cuttings Area being used? NO

Are you storing cuttings on location? NO

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: BLUE KRAIT 23-14 FED **Well Number:** 36H

Description of cuttings location

Cuttings area length (ft.) **Cuttings area width (ft.)**

Cuttings area depth (ft.) **Cuttings area volume (cu. yd.)**

Is at least 50% of the cuttings area in cut?

WCuttings area liner

Cuttings area liner specifications and installation description

Section 8 - Ancillary Facilities

Are you requesting any Ancillary Facilities?: NO

Ancillary Facilities attachment:

Comments:

Section 9 - Well Site Layout

Well Site Layout Diagram:

Blue_Krait_23_14_Fed_36H_Well_Layout_20190124122932.pdf

Comments:

Section 10 - Plans for Surface Reclamation

Type of disturbance: New Surface Disturbance **Multiple Well Pad Name:** BLUE KRAIT 23 FED WELLPAD

Multiple Well Pad Number: 5

Recontouring attachment:

Blue_Krait_23_14_Fed_36H_Interim_Recl_20190124122948.pdf

Drainage/Erosion control construction: All areas disturbed shall be reclaimed as early and as nearly as practicable to their original condition or their final land use and shall be maintained to control dust and minimize erosion to the extent practicable.

Drainage/Erosion control reclamation: Topsoils and subsoils shall be replaced to their original relative positions and contoured so as to achieve erosion control, long-term stability and preservation of surface water flow patterns. The disturbed area then shall be reseeded in the first favorable growing season.

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: BLUE KRAIT 23-14 FED **Well Number:** 36H

Well pad proposed disturbance (acres): 6.887
Road proposed disturbance (acres): 1.687
Powerline proposed disturbance (acres): 0.899
Pipeline proposed disturbance (acres): 0.481
Other proposed disturbance (acres): 0
Total proposed disturbance: 9.954

Well pad interim reclamation (acres): 5.421
Road interim reclamation (acres): 0
Powerline interim reclamation (acres): 0
Pipeline interim reclamation (acres): 0
Other interim reclamation (acres): 0
Total interim reclamation: 5.421

Well pad long term disturbance (acres): 1.466
Road long term disturbance (acres): 1.687
Powerline long term disturbance (acres): 0.899
Pipeline long term disturbance (acres): 0.481
Other long term disturbance (acres): 0
Total long term disturbance: 4.533

Disturbance Comments:

Reconstruction method: Operator will use Best Management Practices"BMP" to mechanically recontour to obtain the desired outcome.
Topsoil redistribution: Topsoils shall be replaced to their original relative positions and contoured so as to achieve erosion control, long-term stability and preservation of surface water flow patterns.
Soil treatment: Topsoils shall be replaced to their original relative positions and contoured so as to achieve erosion control, long-term stability and preservation of surface water flow patterns.
Existing Vegetation at the well pad: Shinnery, yucca, grasses and mesquite.

Existing Vegetation at the well pad attachment:

Existing Vegetation Community at the road: Shinnery, yucca, grasses and mesquite.

Existing Vegetation Community at the road attachment:

Existing Vegetation Community at the pipeline: Shinnery, yucca, grasses and mesquite.

Existing Vegetation Community at the pipeline attachment:

Existing Vegetation Community at other disturbances: Shinnery, yucca, grasses and mesquite.

Existing Vegetation Community at other disturbances attachment:

Non native seed used? NO

Non native seed description:

Seedling transplant description:

Will seedlings be transplanted for this project? NO

Seedling transplant description attachment:

Will seed be harvested for use in site reclamation? NO

Seed harvest description:

Seed harvest description attachment:

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: BLUE KRAIT 23-14 FED **Well Number:** 36H

Seed Management

Seed Table

Seed type:

Seed source:

Seed name:

Source name:

Source address:

Source phone:

Seed cultivar:

Seed use location:

PLS pounds per acre:

Proposed seeding season:

Seed Summary

Seed Type	Pounds/Acre

Total pounds/Acre:

Seed reclamation attachment:

Operator Contact/Responsible Official Contact Info

First Name: Blake **Last Name:** Richardson

Phone: (405)552-6556 **Email:** blake.richardson@dvn.com

Seedbed prep:

Seed BMP:

Seed method:

Existing invasive species? NO

Existing invasive species treatment description:

Existing invasive species treatment attachment:

Weed treatment plan description: Maintain weeds on an as need basis.

Weed treatment plan attachment:

Monitoring plan description: Monitor as needed.

Monitoring plan attachment:

Success standards: N/A

Pit closure description: N/A

Pit closure attachment:

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: BLUE KRAIT 23-14 FED **Well Number:** 36H

Section 11 - Surface Ownership

Disturbance type: NEW ACCESS ROAD

Describe:

Surface Owner: BUREAU OF LAND MANAGEMENT,PRIVATE OWNERSHIP

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland: **USFS Ranger District:**

Disturbance type: EXISTING ACCESS ROAD

Describe:

Surface Owner: BUREAU OF LAND MANAGEMENT,PRIVATE OWNERSHIP

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: BLUE KRAIT 23-14 FED **Well Number:** 36H

USFS Forest/Grassland: **USFS Ranger District:**

Disturbance type: PIPELINE

Describe:

Surface Owner: BUREAU OF LAND MANAGEMENT,PRIVATE OWNERSHIP

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland: **USFS Ranger District:**

Disturbance type: WELL PAD

Describe:

Surface Owner: BUREAU OF LAND MANAGEMENT,PRIVATE OWNERSHIP

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: BLUE KRAIT 23-14 FED **Well Number:** 36H

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland: **USFS Ranger District:**

Section 12 - Other Information

Right of Way needed? YES **Use APD as ROW?** YES

ROW Type(s): 281001 ROW - ROADS,288100 ROW – O&G Pipeline,FLPMA (Powerline),Other

ROW Applications

SUPO Additional Information: See Section 4 for 14 Facility & Infrastructure Plats. See C-102 for grading plats.

Use a previously conducted onsite? YES

Previous Onsite information: 8/14/2018

Other SUPO Attachment

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: BLUE KRAIT 23-14 FED **Well Number:** 36H

Other PWD type description:

Other PWD type attachment:

Have other regulatory requirements been met?

Other regulatory requirements attachment:

AFMSS

U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT

Bond Info Data Report

10/21/2019

APD ID: 10400038432 **Submission Date:** 01/28/2019

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: BLUE KRAIT 23-14 FED **Well Number:** 36H

Well Type: OIL WELL **Well Work Type:** Drill

Show Final Text

Bond Information

Federal/Indian APD: FED

BLM Bond number: CO1104

BIA Bond number:

Do you have a reclamation bond? NO

Is the reclamation bond a rider under the BLM bond?

Is the reclamation bond BLM or Forest Service?

BLM reclamation bond number:

Forest Service reclamation bond number:

Forest Service reclamation bond attachment:

Reclamation bond number:

Reclamation bond amount:

Reclamation bond rider amount:

Additional reclamation bond information attachment: