

ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -

1220 South St. Francis Drive, Santa Fe, NM 87505



ADMINISTRATIVE APPLICATION CHECKLIST

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

Application Acronyms:

[NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [SD-Simultaneous Dedication]
 [DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]
 [PC-Pool Commingling] [OLS-Off-Lease Storage] [OLM-Off-Lease Measurement]
 [WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]
 [SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]
 [EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

[1] TYPE OF APPLICATION - Check Those Which Apply for [A]

[A] Location - Spacing Unit - Simultaneous Dedication
☒ NSL ☐ NSP ☐ SD

Check One Only for [B] or [C]

[B] Commingling - Storage - Measurement

☐ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM

[C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery

☐ WFX ☐ PMX ☐ SWD ☐ IPI ☐ EOR ☐ PPR

[D] Other: Specify _____

[2] NOTIFICATION REQUIRED TO: - Check Those Which Apply, or ☐ Does Not Apply

[A] ☐ Working, Royalty or Overriding Royalty Interest Owners

[B] ☒ Offset Operators, Leaseholders or Surface Owner

[C] ☐ Application is One Which Requires Published Legal Notice.

[D] ☐ Notification and/or Concurrent Approval by BLM or SLO
 U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office

[E] ☐ For all of the above, Proof of Notification or Publication is Attached, and/or,

[F] ☐ Waivers are Attached

[3] SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.

[4] CERTIFICATION: I hereby certify that the information submitted with this application for administrative approval is accurate and complete to the best of my knowledge. I also understand that no action will be taken on this application until the required information and notifications are submitted to the Division.

Note: Statement must be completed by an individual with managerial and/or supervisory capacity.

Torri Stathem

Print or Type Name

Signature

Manager Regulatory Compliance

Title

11.4.14

Date

tstathem@cimarex.com

e-mail Address



MODRALL SPERLING

L A W Y E R S

December 22, 2014

Via Email

Jennifer L. Bradute
505.848.1845
Fax: 505.848.1882
jlb@modrall.com

Jami Bailey
Oil Conservation Division
New Mexico Department of Energy,
Minerals and Natural Resources
1220 South Saint Francis Drive
Santa Fe, New Mexico 87505

Re: *Revised Application of Cimarex Energy Co. of Colorado for administrative approval of an unorthodox well location for its Diamondtail 23 Federal No. 8H, API 30-025-40783 drilled from a surface location and penetration point 600 feet from the East line and 330 feet from the North line of Section 23 to a bottom hole location 375 feet from the East line and 330 feet from the South line; Cimarex plans on perforating the well at 328 feet from the East line and 1840 feet from the South line of Section 23, Township 23 South, Range 32 East, N.M.P.M., Lea County, New Mexico.*

Dear Ms. Bailey:

Cimarex Energy Co. of Colorado ("Cimarex") (OGRID No. 251099) is seeking administrative approval under Division Rules 19.15.15.13(C) and 19.15.16.14(B)(2) NMAC for an unorthodox well location for its Diamondtail 23 Federal No. 8H, API 30-025-40783, which is a horizontal well located in Section 23, Township 23 South, Range 32 East, N.M.P.M., Lea County, New Mexico. This well has been drilled to test the Bone Spring formation from a surface location and penetration point 600 feet from the East line and 330 feet from the North line of Section 23 to a bottom hole location 375 feet from the East line and 330 feet from the South line. The landing point for the well is located at 381 feet from the East line and 850 feet from the North line. The ending point of the producing interval is located at 380 feet from the East line and 336 feet from the South line. Cimarex desires to perforate this well at 328 feet from the East line and 1840 feet from the South line of Section 23, Township 23 South, Range 32 East, N.M.P.M., Lea County, New Mexico. A 160-acre project area has been dedicated to this horizontal well comprised of the E2/E2 of Section 23.

This location is governed by statewide Rule 19.15.15.9.A NMAC, which provides for 40-acre spacing units, with wells located at least 330 feet

Modrall Sperling
Roehl Harris & Sisk P.A.

Bank of America Centre
500 Fourth Street NW
Suite 1000
Albuquerque,
New Mexico 87102

PO Box 2168
Albuquerque,
New Mexico 87103-2168

Tel: 505.848.1800
www.modrall.com

from the unit's outer boundary. This location is unorthodox because the directional survey indicates that the well was drilled approximately 250 feet beyond the intended depth, and Cimarex would like to perforate the well at 328' feet from the East line and 1840' from the South line. Attached hereto as Exhibit A is the BLM approved Application for Permit to Drill for this well which was approved by the BLM on September 18, 2012. On September 17, 2015, the BLM approved a sundry notice requesting an extension from the BLM, granting Cimarex a twelve month of the APD until September 17, 2015.

Attached as Exhibit B is a plat which shows the subject spacing unit for this well and all adjoining spacing units or leases. Devon Energy Prod. Co. LP is the operator of the adjoining spacing unit in the NW/4 NW/4 of Section 25. Yates Petroleum Corporation is the operator of the adjoining spacing unit in the NE/4 NE/4 of Section 26. These operators have been notified of this revised application.

Exhibit C is the C-102 for this well.

Exhibit D is the list of persons who are entitled to notice under Subsection A of 19.15.4.12 NMCA. Copies of this revised application, including all attachments, have been mailed to each affected person and offset operator via certified mail-return receipt requested, pursuant to Rule 19.15.4.12A(2)(a). Each person entitled to notice has been informed that if it has an objection to this application, the objection must be filed in writing with the Division's Santa Fe office within twenty (20) days from the date this notice was mailed.

Please contact me if you have any questions or concerns. Thank you.

Sincerely,



Jennifer L. Bradfute

JLB/sjh

Enclosures

cc: OCD Division District 1 Office



Cimarex Energy Co. of Colorado

600 N. Marlenfeld St. ♦ Suite 600 ♦ Midland, TX 79701 ♦ (432) 620-1938 ♦ Fax (432) 620-1940

A subsidiary of Cimarex Energy Co. ♦ A NYSE Listed Company ♦ "XEC"

New Mexico Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, NM. 87505

12/29/2014

RE: Diamondtail 23 Federal 8H

Dear NMOCD,

The maximum non-standard perforation for the Diamondtail 23 Federal 8H will be located at 328' FEL and 1840' FSL. Basin LLC evaluated the surveys and determined the footage call for 12,423' MD to be 343.58' FEL / 3108' FNL, the footage call for 13,368' MD is 353.56' FEL / 4052' FNL. The lease line is slightly tilted in a south easterly direction and the lateral is not drilled exactly parallel to the lease line. The surface location is 600' FEL and the hard line is 330' FEL so at the surface location the well is 270' from the hardline. However, because the lease line deviates to the south east away from the well path the hardline is not exactly 270' at every point in the well path. At 1,966' FSL the lateral crosses the 330' FEL Hard Line and then returns across the Hard Line at 1,713' FSL.

Regards,

Joe Bob Jones

Drilling Completion Engineer

Cimarex Energy

JJones1@Cimarex.com

432 288 4631

A handwritten signature in cursive script that reads "Joe Bob Jones".

DISTRICT I
1825 N. French Dr., Hobbs, NM 88240
Phone (505) 392-9181 Fax (505) 392-0750

DISTRICT II
531 S. First St., Artesia, NM 88210
Phone (505) 746-1243 Fax (505) 746-9729

DISTRICT III
1000 Rio Bravos Rd., Aztec, NM 87410
Phone (505) 334-5175 Fax (505) 334-5170

DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone (505) 476-3480 Fax (505) 476-3485

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

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

HOBBS OGD

Form C-102

Revised August 1, 2011

Submit one copy to appropriate
District Office

SEP 21 2012

RECEIVED

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-025- 40783	Pool Code 17644	Pool Name Diamondtail; Bone Spring
Property Code 29458	Property Name DIAMONDTAIL 23 FEDERAL	Well Number 8
OGRD No. 215099	Operator Name CIMAREX ENERGY CO.	Elevation 3718'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	23	23 S	32 E		330	NORTH	600	EAST	LEA

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	23	23 S	32 E		330	SOUTH	375	EAST	LEA

Dedicated Acres 160	Joint or Infill	Consolidation Code	Order No.
------------------------	-----------------	--------------------	-----------

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

SURFACE LOCATION Lat - N 32°17'47.74" Long - W 103°38'19.74" NMSPC - N 472328.0 E 755935.7 (NAD-83)	PROPOSED BOTTOM HOLE LOCATION Lat - N 32°17'02.02" Long - W 103°38'17.08" NMSPC - N 467709.7 E 756193.9 (NAD-83)	3722.5' 3719.8' 3724.8' 3714.6' 330' 375' NM 96239	OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. <u>Zeno Farris</u> 4/16/2012 Signature Date Zeno Farris Printed Name Zfarris@clmarex.com Email Address
		SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision and that the same is true and correct to the best of my belief.  Date Surveyed: 9/21/12 Signature & Seal of Professional Surveyor Certificate No. Cory L. Jones 7977 BASIN SURVEYS 26198	

SEP 26 2012

ATG-12-622

OCD-HOBBS

HOBBS OCD

SEP 21 2012

Form 3160-3
(April 2004)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED

APPLICATION FOR PERMIT TO DRILL OR REENTER

FORM APPROVED
OMB No 1004-0137
Expires March 31, 2007

1a Type of Work ☒ DRILL ☐ REENTER		5 Lease Serial No NMNM 127894	
1b Type of Well ☒ Oil Well ☐ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone		6 If Indian, Allottee or Tribe Name	
2 Name of Operator Cimarex Energy Co. 215089		7 If Unit or CA Agreement, Name and No	
3a Address 600 N. Marlenfeld St., Ste. 600, Midland, TX 79701		8 Lease Name and Well No 39458 Diamondtail 23 Federal No. 8	
3b Phone No (include area code) 432-571-7800		9 API Well No. 30-025-40783	
4 Location of Well (Report location clearly and in accordance with any State requirements.) At Surface 330 FNL & 600 FEL At proposed prod Zone 330 FSL & 375 FEL Horizontal Bone Spring test		10 Field and Pool, or Exploratory Diamondtail; Bone Spring	
14 Distance in miles and direction from nearest town or post office*		11 See T R M or Bix and Survey or Area	
15 Distance from proposed* location to nearest property or lease line, ft (Also to nearest drig, unit line if any) 330'		12 County or Parish Lea	
16 No of acres in lease 640		13 State NM	
17 Spacing Unit dedicated to this well E2E2 160 acres			
18 Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft < 100'		20 BLM/BIA Bond No on File COB000011	
19 Proposed Depth MD 14179 TVD 9675			
21 Elevations (Show whether DF, KDB, RT, GL, etc.) 3718' GR		22 Approximate date work will start* 06.15.12	
		23 Estimated duration 30-35 days	

24 Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No 1, shall be attached to this form

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

25 Signature Zeno Farris	Name (Printed/Typed) Zeno Farris	Date 04.16.12
Title Manager Operations Administration		
Approved By (Signature) Is/ Don Peterson	Name (Printed/Typed) Is/ Don Peterson	Date SEP 18 2012
Title FIELD MANAGER	Office CARLSBAD FIELD OFFICE	

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

Approval for TWO YEARS

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious, or fraudulent statements or representations as to any matter within its jurisdiction.

* (Instructions on page 2)

Carlsbad Controlled Water Basin

Handwritten signature and date: 09/21/12



Approval Subject to General Requirements & Special Stipulations Attached

SEE ATTACHED FOR
CONDITIONS OF APPROVAL
SEP 26 2012

Drilling Plan
Diamondtail 23 Federal 8
Cimarex Energy Co.
Unit A, Section 23
T23S-R32E; Lea County, NM

In response to questions asked under Section II B of Bulletin NTL-6; the following information is provided for your consideration:

1 **Location:** SHL 330 FNL & 600 FEL
 BHL 330 FSL & 375 FEL

2 **Elevation above sea level:** 3718 GR

3 **Geologic name of surface formation:** Quaternary Alluvium Deposits

4 **Drilling tools and associated equipment:** Conventional rotary drilling rig using fluid as a circulating medium for solids removal.

5 **Proposed drilling depth:** MD 14179 TVD 9675 0

6 **Estimated tops of geological markers:**

Rustler	1220
T. Salt	1520
Castille	3590
B. Salt	4680
Delaware	5000
Basal Brushy Canyon	8550
Bone Spring	8855
Avalon Shale	9275

7 **Possible mineral bearing formations:**

Bone Spring	Oil
Avalon Shale	Oil

8 **Proposed Mud Circulating System:**

Depth		Mud Wt	Visc	Fluid Loss	Type Mud
0'	to 1245' 1340	8.4 - 8.6	28	NC	FW
1245'	to 4900'	10.0	30-32	NC	Brine water
4900'	to 14179'	8.4	30-32	NC	2% KCL

Sufficient mud materials will be kept on location at all times in order to combat lost circulation or unexpected kicks. In order to run DSTs, open hole logs, and casing, the viscosity and water loss may have to be adjusted in order to meet these needs.

Proposed Drilling Plan

Drill 8½" hole to 9389'. Drill 8½" lateral through the curve to TD @ 14179 MD, 9675 TVD. Run 5½" 17# P-110 LTC from 0-14179' and cement to 3600' TOC.

Drilling Plan
Diamondtail 23 Federal 8
Cimarex Energy Co.
Unit A, Section 23
T23S-R32E; Lea County, NM

9 Casing & Cementing Program:

See COA

String	Hole Size	Depth	Casing OD	Weight	Collar	Grade
Surface	17 1/2"	0' to 1245'	New 13 3/8"	48#	STC	H-40
Intermediate	12 1/4"	0' to 4900'	New 9 5/8"	40#	LTC	J-55
Production	7 7/8" or 8 3/4"	0' to 14179'	New 5 1/2"	17#	LTC	P-110

10 Cementing:

Surface

Lead: 810SKS Permium Plus + 2% CaCl 4% gel 13.5ppg 1.75 yield 115% Excess
Tail: 200SKS Permium Plus + 2% CaCl 14.8ppg 1.34 yield 10% Excess
TOC Surface Centralizers per Onshore 2.III.B.1.f

Intermediate

Lead: 1555SKS HLPP + 5% Salt + 5# Gilsontite 12.9ppg 1.92 yield 120% Excess
Tail: 235SKS Permium Plus + 1% CaCl 14.8ppg 1.34 yield 0% Excess
TOC Surface

Production

Lead: 835SKS Econocem H + 0.5/10% HR-601 0.5/10% Halad-322 11.9ppg 2.48 yield 53% Excess
Tail: 1325SKS Versacem H + 0.5% Halad(R)-344 + 0.4% CFR-3 + 1# Salt + 0.2% HR-601 14.5ppg 1.22 yield 25% Excess Cement volumes will be adjusted depending on hole size.
TOC 3600' Centralizers every 3rd joint in lateral to provide adequate cement coverage every 100' unless lateral doglegs require greater spacing between centralizers.

Depth to ground water is 475' according to the State Engineer. Fresh water zones will be protected by setting 13 3/8" casing at 1245' and cementing to surface and 9 5/8" casing at 4900' and cementing to surface. Hydrocarbon zones will be protected by setting 5 1/2" casing at 14179' and cementing to 3600'.

<u>Collapse Factor</u>	<u>Burst Factor</u>	<u>Tension Factor</u>
1.125	1.125	1.6

11 Pressure control Equipment:

Exhibit "E". A 13 3/8" 5000 PSI working pressure B.O.P. tested to 3000 psi consisting of one set of blind rams and one set of pipe rams and a 5000# annular type preventer. A choke manifold and 120 gallon accumulator with floor and remote operating stations and auxiliary power system. Rotating head below 4900'. A kelly cock will be installed and maintained in operable condition and a drill string safety valve in the open position will be available on the rig floor. Mud gas separator will be available if drilling in H2S areas.

BOP unit will be hydraulically operated. BOP will be nipped up and operated at least once a day while drilling and the blind rams will be operated when out of hole during trips. No abnormal pressure or temperature is expected while drilling. From the base of the surface pipe through the running of production casing, the well will be equipped with a 5000 psi BOP system tested to 3000 psi.

BOP's will be tested to 250 psi low and 3000 psi high by an independent service company. Hydril will be tested to 250 psi low and 1500 psi high.

Cimarex Energy Co. of Colorado (operator) requests a variance if Cactus 101 (rig name) is used to drill this well to use a co-flex line between the BOP and choke manifold.

Manufacturer: Midwest Hose & Specialty

Serial Number: 59473

Length: 35' Size: 4-1/16" Ends: flanges/clamps

WP rating: 10,000 psi Anchors required by manufacturer - Yes/No

Drilling Plan
Diamondtail 23 Federal 8
Cimarex Energy Co.
Unit A, Section 23
T23S-R32E; Lea County, NM

12 Testing, Logging and Coring Program: *See CoF*

- A. Mud logging program: 2 man unit from 4900 to TD
- B. Electric logging program: CNL / LDT / CAL / GR, DLL / CAL / GR Surface to TD
- C. No DSTs or cores are planned at this time.

13 Potential Hazards:

No abnormal pressures or temperatures are expected. In accordance with Onshore Order 6, Cimarex does not anticipate that there will be enough H₂S from the surface to the Bone Spring formations to meet the BLM's minimum requirements for the submission of an "H₂S Drilling Operation Plan" or "Public Protection Plan" for the drilling and completion of this well. Since we have an H₂S Safety package on all wells, attached is an "H₂S Drilling Operations Plan." Adequate flare lines will be installed off the mud / gas separator where gas may be flared safely. All personnel will be familiar with all aspects of safe operation of equipment being used.

Estimated BHP 4350 psi Estimated BHT 138°

14 Road and location construction will begin after BLM approval of APD. Anticipated spud date as soon as approved.

Drilling expected to take 30-35 days

If production casing is run an additional 30 days will be required to complete and construct surface facilities.

15 Other Facets of Operations:

After running casing, cased hole gamma ray neutron collar logs will be run from total depth over possible pay intervals.

Bone Spring pay will be perforated and stimulated.

The proposed well will be tested and potentialled as an oil well.

SR & A

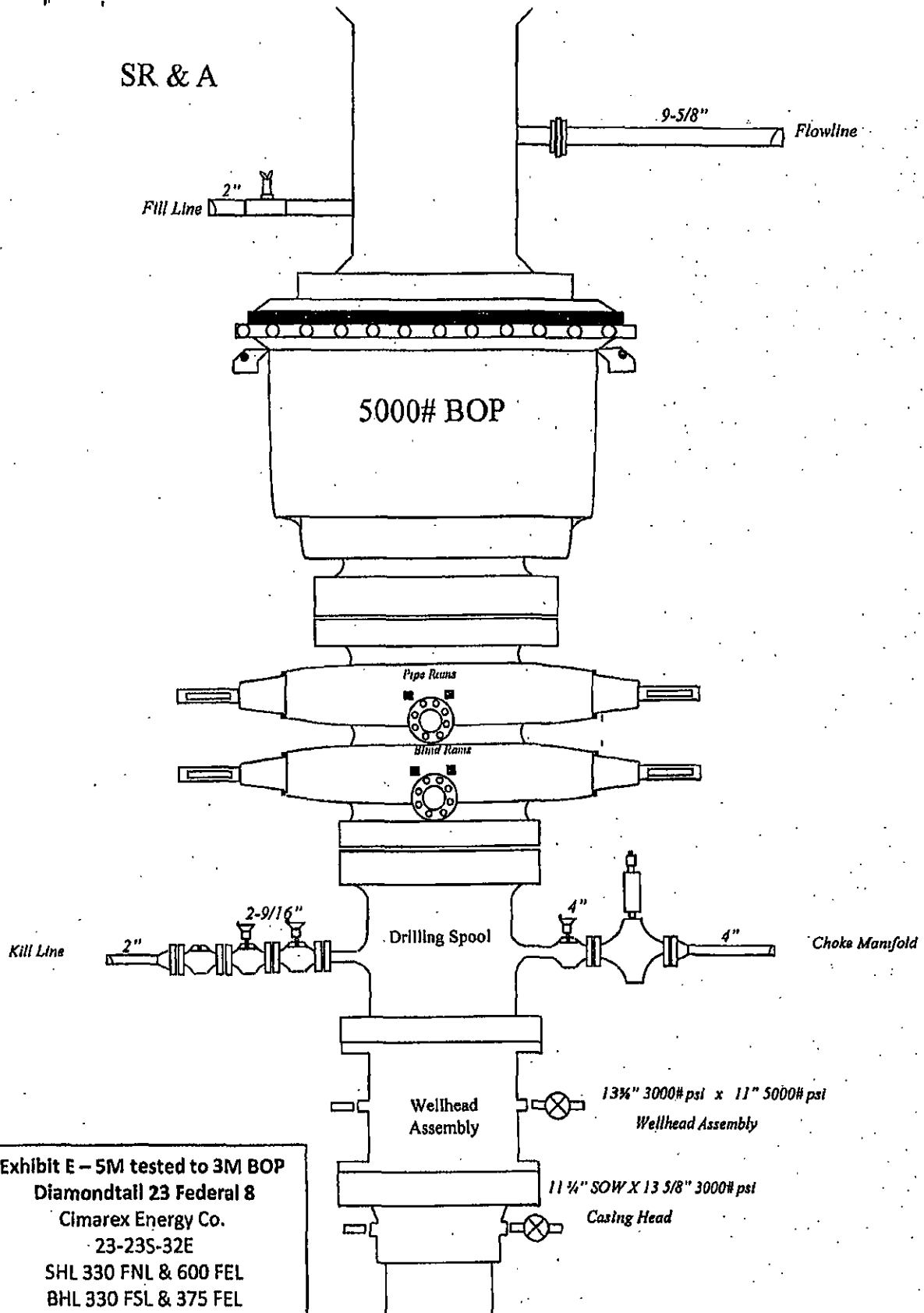


Exhibit E - 5M tested to 3M BOP
Diamondtail 23 Federal 8
Cimarex Energy Co.
23-23S-32E
SHL 330 FNL & 600 FEL
BHL 330 FSL & 375 FEL
Lea County, NM

Drilling Operations Choke Manifold 5M Tested to 3M Service

Exhibit E-1 – Choke Manifold
Diagram

Diamondtail 23 Federal 8

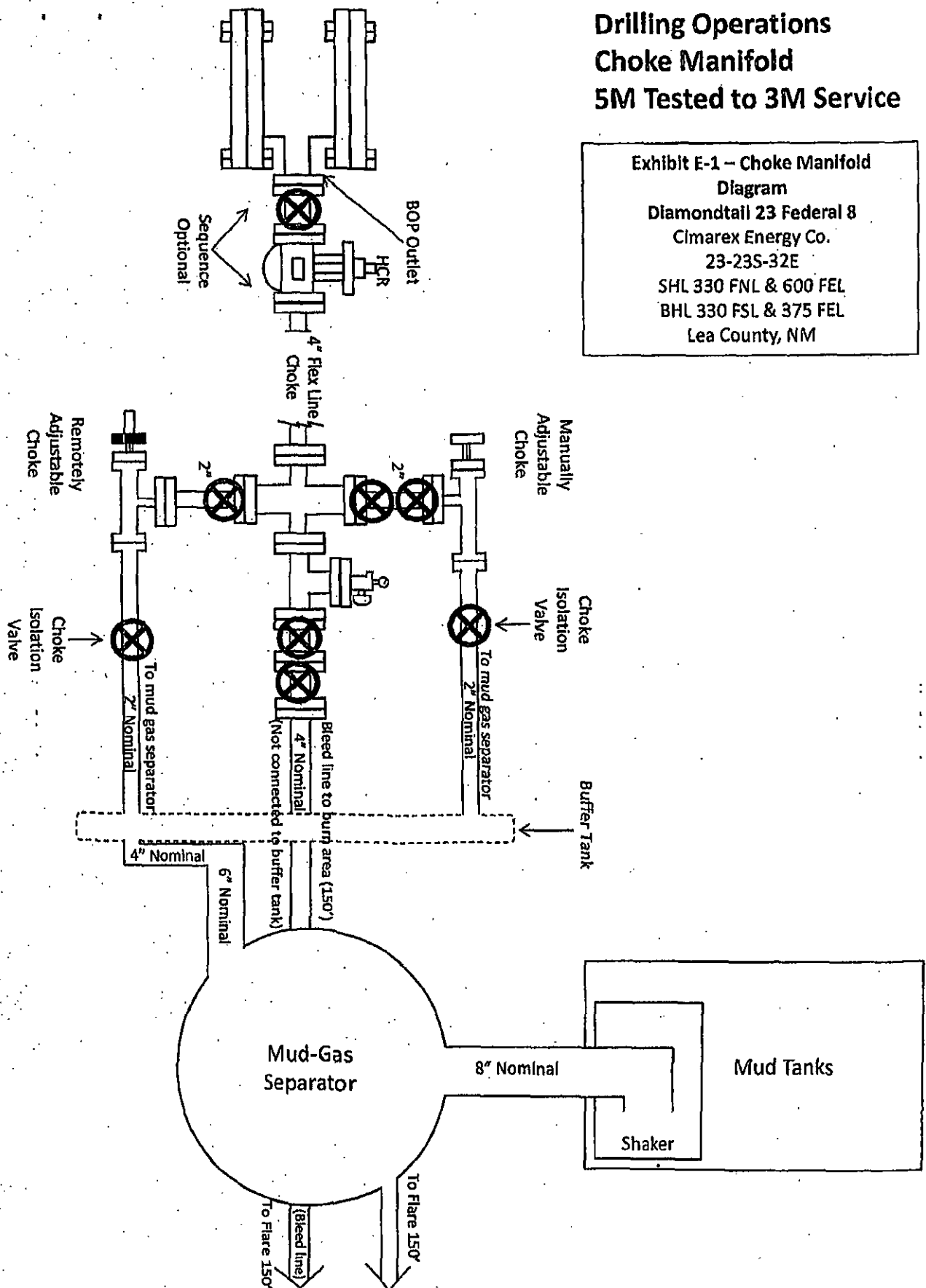
Climarex Energy Co.

23-23S-32E

SHL 330 FNL & 600 FEL

BHL 330 FSL & 375 FEL

Lea County, NM





Cactus Rig 101
Serial # 59473

M I D W E S T
HOSE AND SPECIALTY INC.

INTERNAL HYDROSTATIC TEST REPORT			
Customer: CACTUS		P.O. Number: Rlg#101 Asset#M5358	
HOSE SPECIFICATIONS			
Type: CHOKER LINE		Length: 35'	
I.D. 4" INCHES		O.D. 8" INCHES	
WORKING PRESSURE 10,000 PSI	TEST PRESSURE 15,000 PSI	BURST PRESSURE PSI	
COUPLINGS			
Type of End Fitting 4 1/16 10K FLANGE			
Type of Coupling: SWEDGED		MANUFACTURED BY: MIDWEST HOSE & SPECIALTY	
PROCEDURE			
<i>Hose assembly pressure tested with water at ambient temperature.</i>			
TIME HELD AT TEST PRESSURE 15 MIN.		ACTUAL BURST PRESSURE: 0 PSI	
COMMENTS: s/n#59473 Asset#M5358 Hose is covered with stainless steel armour cover and wrapped with fire resistant vermiculite coated fiberglass insulation rated for 1500 degrees complete with lifting eyes			
Date: 5/19/2010	Tested By: BOBBY FINK		Approved: MENDI JACKSON



Midwest Hose
& Specialty, Inc.

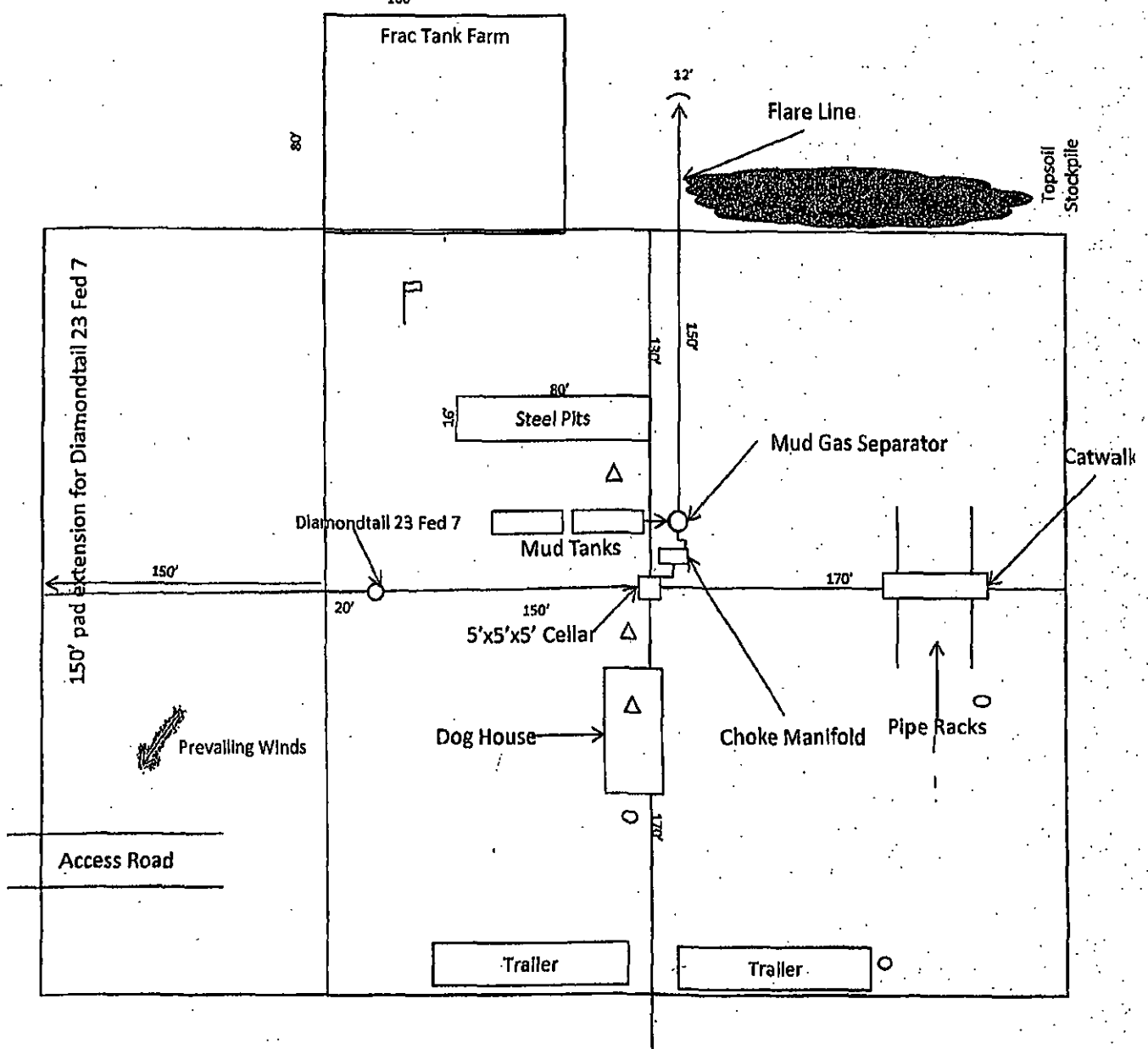
Specification Sheet Choke & Kill Hose

The Midwest Hose & Specialty Choke & Kill hose is manufactured with only premium components. The reinforcement cables, inner liner and cover are made of the highest quality material to handle the tough drilling applications of today's industry. The end connections are available with API flanges, API male threads, hubs, hammer unions or other special fittings upon request. Hose assembly is manufactured to API 7K. This assembly is wrapped with fire resistant vermiculite coated fiberglass insulation, rated at 2000 degrees with stainless steel armor cover.

Working Pressure:	5,000 or 10,000 psi working pressure
Test Pressure:	10,000 or 15,000 psi test pressure
Reinforcement:	Multiple steel cables
Cover:	Stainless Steel Armor
Inner Tube:	Petroleum resistant, Abrasion resistant
End Fitting:	API flanges, API male threads, threaded or butt weld hammer unions, unbolt and other special connections
Maximum Length:	110 Feet
ID:	2-1/2", 3", 3-1/2", 4"
Operating Temperature:	-22 deg F to +180 deg F (-30 deg C to +82 deg C)

P.O. Box 96558 - 1421 S.E. 29th St. Oklahoma City, OK 73143 • (405) 670-6718 • Fax: (405) 670-6816

Cactus 101



- Wind Direction Indicators
(wind sock or streamers)
- H2S Monitors
(alarms at bell nipple and shale shaker)
- Briefing Areas

Exhibit D – Rig Diagram
Diamondtail 23 Federal 8
 Cimarex Energy Co.
 23-23S-32E
 SHL 330 FNL & 600 FEL
 BHL 330 FSL & 375 FEL
 Lea County, NM





DIAMONDTAIL 23 FEDERAL #8
 Located 330' FNL and 600' FEL
 Section 23, Township 23 South, Range 32 East,
 N.M.P.M., Lea County, New Mexico.

EXHIBIT

B

basin
surveys
 focused on excellence
 in the oilfield

P.O. Box 1786
 1120 N. West County Rd.
 Hobbs, New Mexico 88241
 (578) 393-7316 - Office
 (578) 392-2208 - Fax
 basin-surveys.com

W.O. Number: JMS 26198

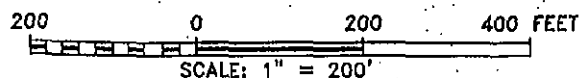
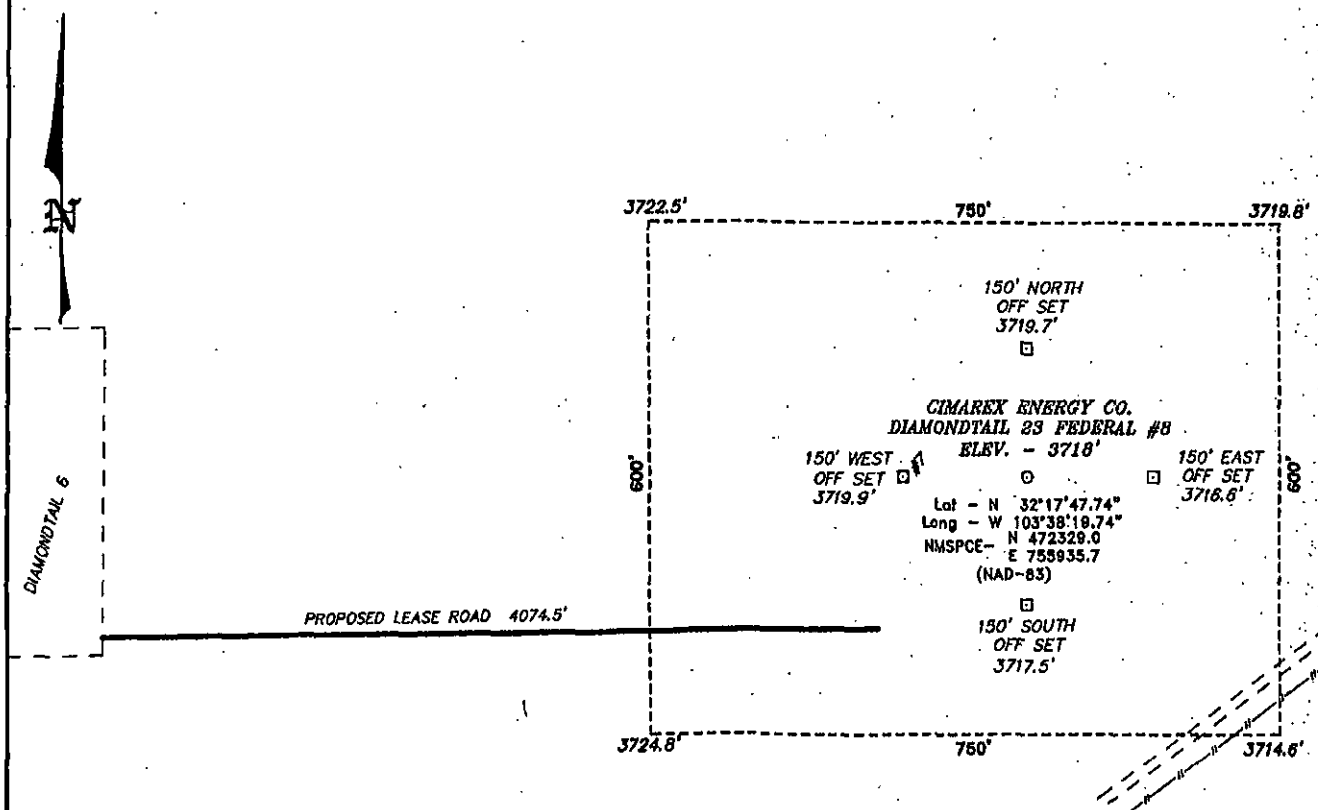
Survey Date: 02-23-2012

Scale: 1" = 2000'

Date: 02-29-2012

CIMAREX
ENERGY CO.

SECTION 23, TOWNSHIP 23 SOUTH, RANGE 32 EAST, N.M.P.M.,
LEA COUNTY,
NEW MEXICO.



Directions to Location:

FROM MILE MARKER 19 OF HWY 128, GO
NORTHEAST 5.6 MILES TO LEASE ROAD, ON LEASE
ROAD GO NORTHWEST 0.5 MILES TO PROPOSED
LEASE ROAD.

CIMAREX ENERGY CO.

REF: DIAMONDTAIL 23 FEDERAL #8 / WELL PAD TOPO

THE DIAMONDTAIL 23 FEDERAL #8 LOCATED 330'
FROM THE NORTH LINE AND 600' FROM THE EAST LINE OF
SECTION 23, TOWNSHIP 23 SOUTH, RANGE 32 EAST,
N.M.P.M., LEA COUNTY, NEW MEXICO.

BASIN SURVEYS P.O. BOX 1786-HOBBS, NEW MEXICO

W.O. Number: 26198

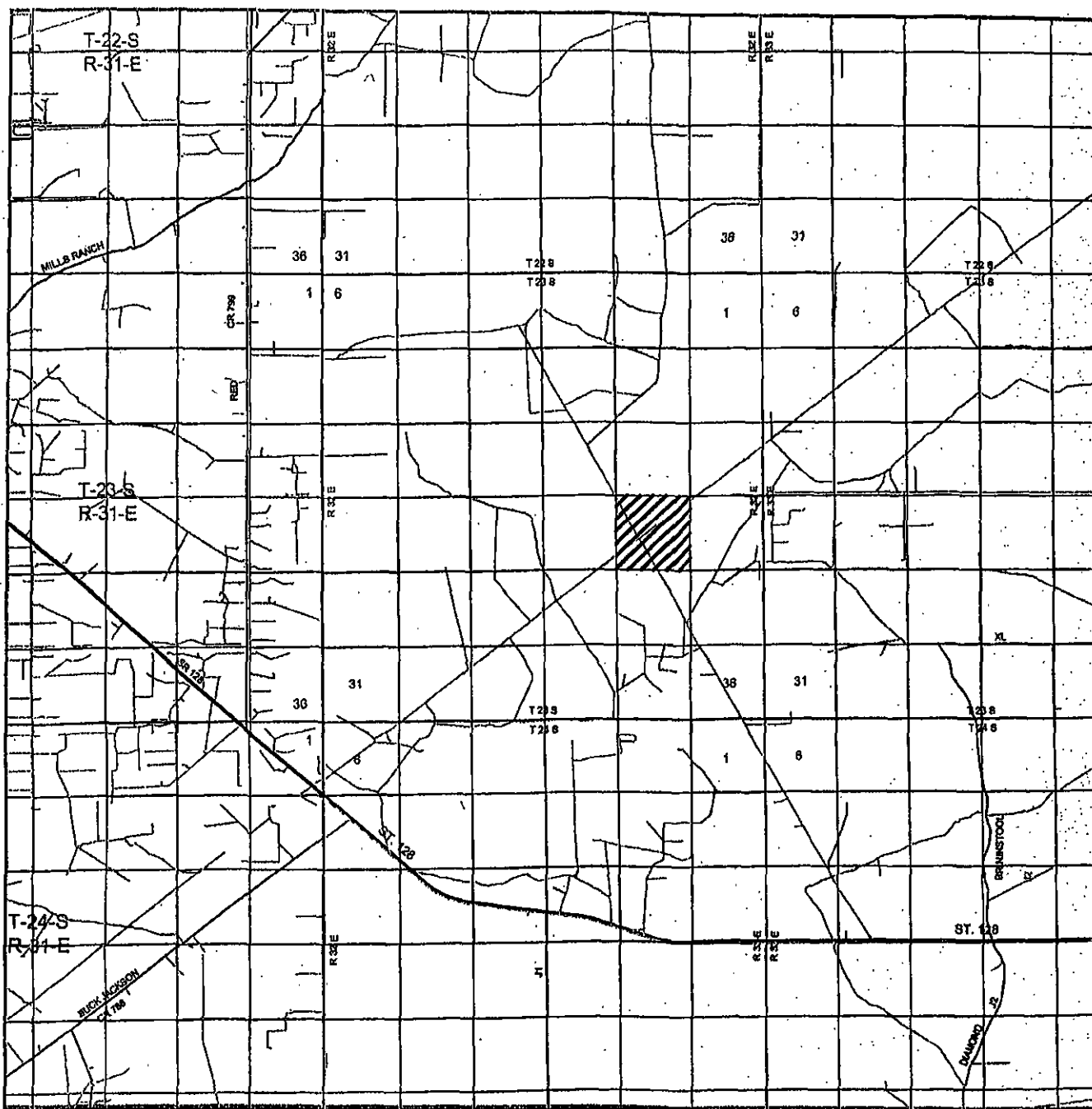
Drawn By: J. SMALL

Date: 02-29-2012

Disk: JMS 26198

Survey Date: 02-23-2012

Sheet 1 of 1 Sheets



DIAMONDTAIL 23 FEDERAL #8
 Located 330' FNL and 600' FEL
 Section 23, Township 23 South, Range 32 East,
 N.M.P.M., Lea County, New Mexico.

basin
surveys
 focused on excellence
 in the oilfield

P.O. Box 1786
 1120 N. West County Rd.
 Hobbs, New Mexico 88241
 (575) 393-7318 - Office
 (575) 392-2206 - Fax
 basin-surveys.com

W.O. Number: JMS 26198

Survey Date: 02-23-2012

Scale: 1" = 2 Miles

Date: 02-29-2012

CIMAREX
ENERGY CO.



EXHIBIT D:

Notification List for the Application of Cimarex Energy Co. of Colorado for administrative approval of an unorthodox well location for its Diamondtail 23 Federal No. 8H, API 30-025-40783 drilled from a surface location and penetration point 600 feet from the East line and 330 feet from the North line of Section 23 to a bottom hole location 375 feet from the East line and 80 feet from the South line of Section 23, Township 23 South, Range 32 East, N.M.P.M., Lea County, New Mexico:

Earl E. DeBrine, Jr.
505-848-1800
Fax 505-848-1891
edebrine@modrall.com

Devon Energy Prod. Co. LP
20 N. Broadway #1500
Oklahoma City, OK 73102

Yates Petroleum Corporation
105 South 4th Street
Artesia, NM 88210

K:\dox\client\90000\967\W2298315.DOC



Modrall Sperling
Roehl Harris & Sisk P.A.

Bank of America Centre
500 Fourth Street NW
Suite 1000
Albuquerque,
New Mexico 87102

PO Box 2168
Albuquerque,
New Mexico 87103-2168

Tel: 505.848.1800
www.modrall.com



McMillan, Michael, EMNRD

From: Jennifer L. Bradfute <jlb@modrall.com>
Sent: Tuesday, November 04, 2014 8:19 PM
To: McMillan, Michael, EMNRD
Cc: Sandi J. Horton
Subject: FW: Letter to Jami Bailey enclosing Application of Cimarex Energy Co. of Colorado
Attachments: C-102 and Map (W2306017).PDF

Mr. McMillan,

I am working with Earl DeBrine on Cimarex Energy of Colorado's NSL application for the Diamondtail 23 Federal No. 8 H. Attached is the C-102 along with a map, showing the ownership in Section 24, 25 and 26. Please let me know if you need anything else concerning this application.

Thank you,
Jennifer Bradfute



Jennifer L. Bradfute
Attorney
Modrall Sperling | www.modrall.com
P.O. Box 2168 | Albuquerque, NM 87103-2168
500 4th St. NW, Ste. 1000 | Albuquerque, NM 87102
D: 505.848.1845 | O: 505.848.1800 | F: 505.848.1891

From: McMillan, Michael, EMNRD [<mailto:Michael.McMillan@state.nm.us>]
Sent: Tuesday, November 04, 2014 3:59 PM
To: Sandi J. Horton
Subject: RE: Letter to Jami Bailey enclosing Application of Cimarex Energy Co. of Colorado

Mr. DeBrine:

Can you provide a map that shows the ownership in Section 24, 25, and 26. I cannot tell from your description that affected parties in Section 24, 25, and 26 were notified.

Also your Exhibit D BHL does not match the C-102 for the well. You will need an "as drilled" C-102.

Thank You
Michael McMillan

From: Bailey, Jami, EMNRD
Sent: Tuesday, November 04, 2014 3:43 PM
To: McMillan, Michael, EMNRD
Cc: Dawson, Scott, EMNRD
Subject: FW: Letter to Jami Bailey enclosing Application of Cimarex Energy Co. of Colorado

SENDER: COMPLETE THIS SECTION		COMPLETE THIS SECTION ON DELIVERY	
■ Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired. ■ Print your name and address on the reverse so that we can return the card to you. ■ Attach this card to the back of the mailpiece, or on the front if space permits.		A. Signature <i>Rand Carrillo</i> ☐ Agent ☒ Addressee B. Received by (Printed Name) C. Date of Delivery <i>NOV 11 2014</i> D. Is delivery address different from item 1? ☒ Yes If YES, enter delivery address below: <i>2014</i> ☐ No	
1. Article Addressed to: <i>DEVON ENERGY PROD. CO.</i> <i>333 W. SHERIDAN AVE.</i> <i>OKLAHOMA CITY, OK</i> <i>73102</i>		3. Service Type ☒ Certified Mail ☐ Express Mail ☐ Registered ☐ Return Receipt for Merchandise ☐ Insured Mail ☐ C.O.D.	
2. Article Number (Transfer from service label) <i>7008 1300 0001 2834 7273</i>		4. Restricted Delivery? (Extra Fee) ☐ Yes	
PS Form 3811, February 2004		Domestic Return Receipt 102699-02-M-1540	

SENDER: COMPLETE THIS SECTION		COMPLETE THIS SECTION ON DELIVERY	
■ Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired. ■ Print your name and address on the reverse so that we can return the card to you. ■ Attach this card to the back of the mailpiece, or on the front if space permits.		A. Signature  ☐ Agent ☒ Addressee	
1. Article Addressed to: XATES PETROLEUM CORP. 105 SOUTH 4TH ST. ALBUQUERQUE, NM 88210		B. Received by (Printed Name) S. Huerta	C. Date of Delivery 10-6-14
2. Article Number (Transfer from service label)		D. Is delivery address different from item 1? ☐ Yes If YES, enter delivery address below: ☒ No	
3. Service Type ☒ Certified Mail ☐ Express Mail ☐ Registered ☐ Return Receipt for Merchandise ☐ Insured Mail ☐ C.O.D.		4. Restricted Delivery? (Extra Fee) ☐ Yes	
PS Form 3811, February 2004		Domestic Return Receipt	

UNITED STATES POSTAL SERVICE		FIRST-CLASS MAIL	
• Sender: Please print your name, address, and ZIP+4 in this box • MODRALL SPEZLING LAW FIRM P.O. BOX 2168 ALBUQU, NM 87103-2168		Postage & Fees Paid USPS Permit No. G-10	
100		J.B. Sandl H.	



Cimarex Diamondtail 23 Federal 8H Rev3 mcs 13Oct14 Proposal Geodetic
Report
(Non-Def Plan)



Report Date: October 13, 2014 - 10:55 AM
Client: Cimarex
Field: NM Lea County (NAD 83)
Structure / Slot: Cimarex Diamondtail 23 Federal 8H / Cimarex Diamondtail 23 Federal 8H
Well: Cimarex Diamondtail 23 Federal 8H
Borehole: Original Borehole
UWI / API#: Unknown / 30-025-40783
Survey Name: Cimarex Diamondtail 23 Federal 8H Rev3 mcs 13Oct14
Survey Date: August 27, 2014
Tort / AHD / ODI / ERD Ratio: 110.857' / 4713.199 ft / 5.879 / 0.480
Coordinate Reference System: NAD83 New Mexico State Plane, Eastern Zone, US Feet
Location Lat / Long: N 32° 17' 47.74393", W 103° 38' 19.74031"
Location Grid N/E Y/D: N 472329.000 RUS, E 755935.700 RUS
CRS Grid Convergence Angle: 0.3711°
Grid Scale Factor: 0.99996183
Version / Patch: 2.7.1043.0

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 178.801° (Grid North)
Vertical Section Origin: 0.000 ft, 0.000 ft
TVD Reference Datum: RKB
TVD Reference Elevation: 3743.000 ft above MSL
Seabed / Ground Elevation: 3718.000 ft above MSL
Magnetic Declination: 7.171°
Total Gravity Field Strength: 988.4372 mgn (9.80665 Based)
Gravity Model: GARM
Total Magnetic Field Strength: 48449.087 nT
Magnetic Dip Angle: 60.148°
Declination Date: October 12, 2014
Magnetic Declination Model: HDGM 2014
North Reference: Grid North
Grid Convergence Used: 0.3711°
Total Corr Mag North→Grid: 6.7985°
North: Local Coord Referenced To: Structure Reference Point

Comments	MD (ft)	Incl (°)	Azlm Grid (°)	TVD (ft)	TVDSS (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Closure Azimuth (°)	Closure (ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
Cimarex Diamondtail 23 Federal 8H SHL	0.00	0.00	176.80	0.00	-3743.00	0.00	0.00	0.00	N/A	0.00	0.00	472329.00	755935.70	N 32° 17' 47.74	W 103° 38' 19.74
	162.83	0.45	46.16	162.83	-3590.37	-0.44	0.47	0.49	9.30	46.16	0.88	472329.47	755936.19	N 32° 17' 47.75	W 103° 38' 19.73
	284.66	0.48	34.87	284.66	-3478.41	-1.06	1.12	1.04	6.03	43.96	1.53	472330.12	755936.74	N 32° 17' 47.75	W 103° 38' 19.73
	354.82	0.48	47.50	354.81	-3388.10	-1.89	1.88	1.54	0.12	42.35	2.28	472330.58	755937.24	N 32° 17' 47.76	W 103° 38' 19.72
	416.01	0.40	43.67	416.00	-3327.00	-1.93	2.01	1.87	0.14	42.94	2.75	472331.01	755937.57	N 32° 17' 47.76	W 103° 38' 19.72
	505.03	0.48	46.49	505.02	-3237.98	-2.36	2.49	2.36	0.09	43.39	3.43	472331.49	755938.06	N 32° 17' 47.77	W 103° 38' 19.71
	595.50	0.40	57.30	595.48	-3147.52	-2.76	2.93	2.90	0.13	44.73	4.12	472331.93	755938.60	N 32° 17' 47.77	W 103° 38' 19.71
	654.87	0.40	58.59	654.85	-3086.15	-2.97	3.15	3.25	0.01	45.84	4.52	472332.15	755938.85	N 32° 17' 47.77	W 103° 38' 19.70
	714.82	0.40	48.77	714.80	-3028.20	-3.20	3.40	3.58	0.09	46.42	4.94	472332.40	755939.28	N 32° 17' 47.78	W 103° 38' 19.70
	844.90	0.40	38.49	844.88	-2898.12	-3.82	4.08	4.20	0.06	45.99	5.84	472333.06	755939.90	N 32° 17' 47.78	W 103° 38' 19.69
	939.34	0.40	53.08	939.32	-2803.86	-4.25	4.52	4.87	0.11	45.87	6.50	472333.52	755940.37	N 32° 17' 47.78	W 103° 38' 19.69
	1032.98	0.22	60.77	1032.95	-2710.05	-4.51	4.80	5.09	0.20	46.88	7.00	472333.80	755940.79	N 32° 17' 47.79	W 103° 38' 19.68
	1127.91	0.09	53.39	1127.88	-2615.12	-4.83	4.93	5.31	0.14	47.10	7.25	472333.93	755941.01	N 32° 17' 47.79	W 103° 38' 19.68
	1221.74	0.09	58.88	1221.71	-2521.29	-4.70	5.02	5.43	0.01	47.27	7.39	472334.01	755941.13	N 32° 17' 47.79	W 103° 38' 19.68
	1459.84	0.22	128.43	1459.81	-2283.19	-4.49	4.83	5.95	0.09	50.94	7.86	472333.83	755941.85	N 32° 17' 47.79	W 103° 38' 19.67
	1555.97	0.09	229.99	1555.94	-2187.06	-4.32	4.68	6.03	0.26	52.30	7.83	472333.66	755941.73	N 32° 17' 47.78	W 103° 38' 19.67
	1647.49	0.09	191.32	1647.46	-2095.34	-4.21	4.56	5.97	0.07	52.66	7.50	472333.55	755941.87	N 32° 17' 47.78	W 103° 38' 19.67
	1743.38	0.00	184.51	1743.33	-1999.87	-4.13	4.47	5.95	0.09	53.06	7.44	472333.47	755941.65	N 32° 17' 47.79	W 103° 38' 19.67
	1839.11	0.22	289.11	1839.08	-1903.92	-4.23	4.56	5.79	0.23	51.76	7.37	472333.36	755941.49	N 32° 17' 47.79	W 103° 38' 19.67
	1933.11	0.31	322.63	1933.08	-1809.92	-4.34	4.85	5.48	0.15	49.46	7.32	472333.85	755941.18	N 32° 17' 47.79	W 103° 38' 19.66
	2027.37	0.31	299.20	2027.34	-1715.96	-4.89	5.18	5.10	0.13	44.56	7.27	472334.18	755940.80	N 32° 17' 47.79	W 103° 38' 19.66
	2122.58	0.22	302.41	2122.53	-1620.47	-5.13	5.40	4.72	0.10	41.15	7.16	472334.40	755940.42	N 32° 17' 47.80	W 103° 38' 19.66
	2216.94	0.40	290.72	2216.91	-1526.09	-5.37	5.62	4.26	0.20	37.16	7.05	472334.82	755939.98	N 32° 17' 47.80	W 103° 38' 19.69
	2310.45	0.40	284.03	2310.42	-1432.58	-5.80	5.81	3.84	0.05	32.05	6.88	472334.81	755939.34	N 32° 17' 47.80	W 103° 38' 19.70
	2404.64	0.40	292.39	2404.60	-1338.40	-5.84	6.02	3.02	0.06	26.62	6.73	472335.02	755938.72	N 32° 17' 47.80	W 103° 38' 19.70
	2499.34	0.40	286.21	2499.30	-1243.70	-6.14	6.29	2.41	0.03	21.60	6.74	472335.29	755938.11	N 32° 17' 47.81	W 103° 38' 19.71
	2594.06	0.40	290.19	2594.02	-1148.18	-6.44	6.55	1.80	0.04	15.38	6.79	472335.55	755937.50	N 32° 17' 47.81	W 103° 38' 19.72
	2689.00	0.31	297.31	2688.96	-1054.04	-6.70	6.78	1.27	0.11	10.58	6.90	472335.78	755936.97	N 32° 17' 47.81	W 103° 38' 19.73
	2783.00	0.48	302.50	2782.96	-960.04	-6.98	7.04	0.83	0.23	6.70	7.09	472336.04	755936.33	N 32° 17' 47.81	W 103° 38' 19.73
	2878.29	0.62	310.50	2878.24	-864.76	-7.10	7.70	-0.05	0.14	359.80	7.70	472336.70	755935.65	N 32° 17' 47.82	W 103° 38' 19.74
	2972.30	0.62	312.30	2972.24	-770.78	-8.41	8.38	-0.82	0.02	354.43	8.42	472337.38	755934.88	N 32° 17' 47.83	W 103° 38' 19.75
	3066.74	0.79	313.53	3066.68	-676.32	-9.25	9.17	-1.67	0.18	349.69	9.32	472338.17	755934.03	N 32° 17' 47.83	W 103° 38' 19.76
	3160.25	0.79	318.12	3160.18	-582.82	-10.21	10.08	-2.58	0.04	345.63	10.40	472339.08	755933.12	N 32° 17' 47.84	W 103° 38' 19.77
	3253.07	0.79	309.79	3252.99	-490.01	-11.08	10.90	-3.48	0.13	342.39	11.44	472339.85	755932.24	N 32° 17' 47.85	W 103° 38' 19.78
	3347.95	0.79	317.79	3347.86	-395.14	-11.98	11.76	-4.35	0.14	339.72	12.53	472340.70	755931.35	N 32° 17' 47.86	W 103° 38' 19.79
	3441.71	0.88	308.52	3441.61	-301.39	-12.98	12.68	-5.34	0.17	337.16	13.76	472341.68	755930.36	N 32° 17' 47.87	W 103° 38' 19.80
	3538.22	0.88	310.72	3538.11	-206.89	-13.95	13.61	-6.46	0.04	334.61	15.07	472342.61	755929.24	N 32° 17' 47.88	W 103° 38' 19.81
	3629.85	0.79	315.02	3629.73	-113.27	-14.93	14.54	-7.46	0.12	332.83	16.34	472343.53	755928.24	N 32° 17' 47.89	W 103° 38' 19.83
	3726.51	1.10	315.02	3726.38	-16.62	-16.12	15.66	-8.59	0.32	331.26	17.89	472344.66	755927.11	N 32° 17' 47.90	W 103° 38' 19.84

Comments	MD (m)	Incl (°)	Azim Grid (°)	TVD (m)	TVDSS (m)	VSEC (m)	NS (m)	EW (m)	DLS (m/100ft)	Closure Azimuth (°)	Closure (m)	Northing (m)	Easting (m)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
	3820.71	1.01	311.90	3820.56	77.56	-17.38	16.86	-9.85	0.11	328.71	19.52	472345.86	755925.85	N 32 17 47.91	W 103 38 18.85
	3914.40	1.10	306.19	3914.24	171.24	-18.54	17.94	-11.19	0.15	328.05	21.14	472346.94	755924.51	N 32 17 47.92	W 103 38 19.87
	4009.03	1.10	304.52	4008.85	265.85	-19.67	18.99	-12.67	0.03	326.29	22.83	472347.99	755923.03	N 32 17 47.93	W 103 38 19.89
	4103.80	0.88	299.51	4103.60	360.60	-20.82	19.86	-14.05	0.25	324.73	24.39	472348.86	755921.85	N 32 17 47.94	W 103 38 19.90
	4198.74	0.70	300.52	4198.54	458.54	-21.33	20.52	-15.18	0.19	323.50	25.53	472349.52	755920.52	N 32 17 47.95	W 103 38 19.92
	4282.81	0.31	312.61	4282.60	549.60	-21.84	20.98	-15.87	0.43	322.80	26.31	472349.98	755919.83	N 32 17 47.95	W 103 38 19.92
	4347.26	0.40	323.50	4347.05	644.05	-22.29	21.42	-16.25	0.12	322.81	26.89	472350.42	755919.45	N 32 17 47.96	W 103 38 19.93
	4481.01	0.22	358.31	4480.80	737.80	-22.75	21.86	-16.45	0.27	323.04	27.36	472350.88	755919.25	N 32 17 47.96	W 103 38 19.93
	4575.52	0.09	99.60	4575.31	832.31	-22.91	22.03	-16.38	0.27	323.37	27.46	472351.03	755919.32	N 32 17 47.96	W 103 38 19.93
	4669.72	0.40	118.89	4669.51	928.51	-22.72	21.86	-16.02	0.34	323.70	27.10	472350.85	755919.68	N 32 17 47.96	W 103 38 19.93
	4763.85	0.31	133.82	4763.64	1020.64	-22.36	21.53	-15.65	0.14	324.15	26.56	472350.52	755920.15	N 32 17 47.96	W 103 38 19.92
	4838.62	0.40	123.03	4838.40	1093.40	-22.07	21.25	-15.20	0.15	324.43	26.13	472350.25	755920.50	N 32 17 47.96	W 103 38 19.92
	4980.00	0.48	122.19	4979.78	1216.78	-21.51	20.74	-14.40	0.07	325.23	25.25	472349.74	755921.30	N 32 17 47.95	W 103 38 19.91
	5068.00	0.31	100.31	5065.78	1322.78	-21.19	20.45	-13.74	0.21	326.11	24.84	472349.45	755921.96	N 32 17 47.95	W 103 38 19.90
	5161.00	0.31	110.72	5160.78	1417.78	-21.02	20.32	-13.25	0.06	326.88	24.25	472349.32	755922.45	N 32 17 47.95	W 103 38 19.89
	5256.00	0.62	123.11	5255.77	1512.77	-20.61	19.94	-12.58	0.34	327.77	23.58	472348.94	755923.12	N 32 17 47.94	W 103 38 19.89
	5351.00	0.31	119.29	5350.77	1607.77	-20.17	19.54	-11.92	0.33	328.81	22.89	472348.54	755923.78	N 32 17 47.94	W 103 38 19.88
	5446.00	0.48	137.82	5445.77	1702.77	-19.72	19.12	-11.43	0.22	329.12	22.27	472348.12	755924.27	N 32 17 47.93	W 103 38 19.87
	5540.00	0.40	122.50	5539.77	1796.77	-19.23	18.65	-10.89	0.15	329.72	21.59	472347.85	755924.81	N 32 17 47.93	W 103 38 19.87
	5635.00	0.46	127.11	5634.76	1891.76	-18.78	18.23	-10.29	0.09	330.55	20.93	472347.23	755925.41	N 32 17 47.92	W 103 38 19.88
	5730.00	0.70	100.22	5729.76	1986.76	-18.38	17.89	-9.40	0.37	332.27	20.21	472346.89	755926.30	N 32 17 47.92	W 103 38 19.85
	5825.00	0.31	81.01	5824.75	2081.75	-18.27	17.82	-8.58	0.44	334.30	19.78	472346.82	755927.12	N 32 17 47.92	W 103 38 19.84
	5920.00	0.70	117.40	5919.75	2176.75	-18.01	17.60	-7.81	0.51	336.07	19.25	472346.80	755927.89	N 32 17 47.92	W 103 38 19.83
	6016.00	0.40	95.91	6015.75	2272.75	-17.85	17.29	-6.96	0.37	338.09	18.64	472346.29	755928.74	N 32 17 47.92	W 103 38 19.82
	6110.00	0.62	87.83	6109.74	2366.74	-17.59	17.20	-6.12	0.25	340.49	18.33	472346.28	755929.58	N 32 17 47.92	W 103 38 19.81
	6204.00	0.62	88.82	6203.74	2460.74	-17.57	17.31	-5.11	0.01	343.57	18.05	472346.31	755930.59	N 32 17 47.92	W 103 38 19.80
	6288.00	0.31	95.21	6287.73	2554.73	-17.51	17.30	-4.34	0.33	345.90	17.84	472346.30	755931.36	N 32 17 47.92	W 103 38 19.79
	6392.00	0.82	78.62	6391.73	2648.73	-17.57	17.39	-3.80	0.35	348.32	17.76	472346.38	755932.10	N 32 17 47.92	W 103 38 19.78
	6485.00	0.62	64.00	6484.72	2741.72	-17.68	17.56	-2.81	0.09	351.56	17.75	472346.56	755933.09	N 32 17 47.92	W 103 38 19.77
	6580.00	0.40	50.50	6579.72	2835.72	-17.90	17.83	-1.84	0.38	354.11	17.92	472346.83	755933.88	N 32 17 47.92	W 103 38 19.76
	6676.00	0.31	47.40	6675.72	2932.72	-18.26	18.22	-1.38	0.10	355.64	18.27	472347.21	755934.31	N 32 17 47.92	W 103 38 19.76
	6771.00	0.04	53.11	6770.72	3027.72	-18.45	18.41	-1.17	0.28	356.36	18.45	472347.41	755934.53	N 32 17 47.93	W 103 38 19.75
	6865.00	0.22	38.91	6864.72	3121.72	-18.60	18.57	-1.03	0.19	356.82	18.60	472347.57	755934.67	N 32 17 47.93	W 103 38 19.75
	6960.00	0.09	119.49	6959.72	3216.72	-18.69	18.67	-0.85	0.24	357.35	18.69	472347.67	755934.85	N 32 17 47.93	W 103 38 19.75
	7054.00	0.09	298.29	7053.72	3310.72	-18.69	18.67	-0.85	0.19	357.38	18.69	472347.67	755934.85	N 32 17 47.93	W 103 38 19.75
	7148.00	0.09	111.82	7147.72	3404.72	-18.70	18.68	-0.85	0.19	357.40	18.70	472347.68	755934.85	N 32 17 47.93	W 103 38 19.75
	7242.00	0.09	323.02	7241.72	3498.72	-18.73	18.71	-0.83	0.18	357.47	18.73	472347.71	755934.87	N 32 17 47.93	W 103 38 19.75
	7337.00	0.22	278.72	7336.72	3593.72	-18.83	18.80	-1.05	0.18	358.80	18.83	472347.80	755934.65	N 32 17 47.93	W 103 38 19.75
	7432.00	0.04	232.01	7431.72	3688.72	-18.85	18.81	-1.28	0.21	359.18	18.85	472347.81	755934.44	N 32 17 47.93	W 103 38 19.75
	7525.00	0.31	175.10	7524.72	3781.72	-18.58	18.54	-1.26	0.31	356.11	18.58	472347.54	755934.44	N 32 17 47.93	W 103 38 19.75
	7621.00	0.48	212.32	7620.71	3877.71	-17.99	17.94	-1.45	0.31	355.37	19.00	472346.94	755934.25	N 32 17 47.92	W 103 38 19.76
	7716.00	0.88	184.20	7715.71	3972.71	-18.95	18.88	-1.72	0.54	354.18	18.96	472345.88	755933.98	N 32 17 47.91	W 103 38 19.76
	7811.00	0.48	155.33	7810.70	4067.70	-18.85	15.79	-1.81	0.54	354.19	15.87	472344.79	755934.08	N 32 17 47.90	W 103 38 19.76
	7904.00	0.48	188.11	7903.70	4160.70	-18.11	15.05	-1.50	0.29	364.31	15.12	472344.05	755934.20	N 32 17 47.89	W 103 38 19.76
	7999.00	0.70	173.52	7998.69	4255.69	-14.14	14.08	-1.49	0.28	353.96	14.15	472343.08	755934.21	N 32 17 47.88	W 103 38 19.76
	8093.00	0.79	150.42	8092.69	4349.69	-12.92	12.86	-1.43	0.14	353.85	12.94	472341.86	755934.27	N 32 17 47.87	W 103 38 19.76
	8187.00	0.62	205.80	8186.68	4443.68	-11.83	11.75	-1.85	0.37	351.98	11.87	472340.75	755934.05	N 32 17 47.86	W 103 38 19.76
	8281.00	0.79	205.89	8280.87	4537.87	-10.81	10.71	-2.16	0.18	348.81	10.93	472339.71	755933.54	N 32 17 47.85	W 103 38 19.78
	8377.00	0.70	210.61	8376.68	4633.68	-9.75	9.61	-2.75	0.11	344.05	10.00	472338.61	755932.85	N 32 17 47.84	W 103 38 19.77
	8470.00	1.01	203.49	8469.65	4726.65	-8.54	8.37	-3.36	0.35	338.11	9.02	472337.37	755932.34	N 32 17 47.83	W 103 38 19.78
	8564.00	1.18	210.61	8563.64	4820.64	-6.99	8.77	-4.19	0.24	328.24	7.96	472335.77	755931.51	N 32 17 47.81	W 103 38 19.79
	8660.00	1.49	229.51	8659.81	4916.81	-5.41	5.10	-5.65	0.55	312.09	7.81	472334.10	755930.05	N 32 17 47.79	W 103 38 19.81
	8754.00	1.71	236.49	8753.57	5010.57	-3.96	3.53	-7.75	0.31	294.52	8.51	472332.53	755927.85	N 32 17 47.78	W 103 38 19.83
	8848.00	1.71	233.42	8847.53	5104.53	-2.48	1.92	-10.04	0.10	280.84	10.22	472330.92	755925.66	N 32 17 47.76	W 103 38 19.86
	8943.00	2.28	246.42	8942.47	5199.47	-1.04	0.32	-12.92	0.77	271.42	12.02	472329.32	755922.78	N 32 17 47.75	W 103 38 19.89
	9038.00	2.20	244.62	9037.40	5294.40	0.31	-1.22	-18.31	0.12	285.72	16.35	472327.78	755919.39	N 32 17 47.73	W 103 38 19.93
	9133.00	2.11	251.30	9132.33	5389.33	1.47	-2.58	-19.81	0.28	262.55	19.78	472326.44	755916.09	N 32 17 47.72	W 103 38 19.97
	9140.18	2.11	255.21	9139.51	5396.51	1.53	-2.64	-19.86	2.00	262.43	20.04	472326.36	755915.84	N 32 17 47.72	W 103 38 19.97
	9200.00	2.11	255.21	9199.29	5486.29	1.87	-3.20	-21.99	0.00	261.72	22.22	472325.80	755913.71	N 32 17 47.71	W 103 38 20.00
	9201.00	2.11	255.21	9200.29	5457.29	1.98	-3.21	-22.03	0.00	261.71	22.28	472325.79	755913.67	N 32 17 47.71	W 103 38 20.00
	9300.00	0.19	255.21	9299.26	5558.26	2.37	-3.71	-23.60	2.00	261.15	24.16	472325.29	755911.80	N 32 17 47.71	W 103 38 20.02
	9308.50	0.00	255.21	9305.78	5582.78	2.37	-3.71	-23.61	2.00	261.19	24.19	472325.29	755911.79	N 32 17 47.71	W 103 38 20.02
	9348.27	0.00	255.21	9347.54	5604.54	2.37	-3.71	-23.61	0.00	261.19	24.19	472325.29	755911.79	N 32 17 47.71	W 103 38 20.02
	9400.00	6.21	178.50	9399.18	5656.18	5.17	-6.50	-23.74	12.00	254.68	24.61	472322.50	755911.97	N 32 17 47.68	W 103 38 20.02

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	TVDSS (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (ft/100ft)	Closure Azimuth (°)	Closure (ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
	9500.00	18.21	176.50	9496.72	5753.72	26.27	-27.57	-22.43	12.00	215.15	25.55	472301.43	755915.25	N 32 17 47.47	W 103 38 20.00
	9600.00	30.21	176.50	9587.78	5844.78	67.20	-69.42	-19.95	12.00	198.28	71.27	472280.58	755915.75	N 32 17 47.07	W 103 38 19.98
	9700.00	42.21	176.50	9688.30	5925.30	126.18	-127.27	-16.35	12.00	187.32	128.32	472201.73	755919.35	N 32 17 46.49	W 103 38 19.94
	9800.00	54.21	176.50	9734.83	5991.83	200.58	-201.56	-11.81	12.00	181.35	128.35	472127.45	755923.89	N 32 17 45.75	W 103 38 19.89
	9900.00	68.21	176.50	9784.42	6041.42	287.21	-289.02	-6.53	12.00	181.30	288.09	472040.98	755929.17	N 32 17 44.80	W 103 38 19.84
	10000.00	78.21	176.50	9814.92	6071.92	382.25	-382.88	-0.73	12.00	180.11	382.89	471946.13	755934.67	N 32 17 43.96	W 103 38 19.78
Landing Point	10098.27	90.00	176.50	9825.00	6082.00	479.83	-480.28	5.22	12.00	179.38	480.31	471848.74	755940.92	N 32 17 42.99	W 103 38 19.72
	10100.00	90.00	176.50	9825.00	6082.00	481.55	-482.01	5.33	0.00	179.37	482.04	471847.01	755941.03	N 32 17 42.97	W 103 38 19.71
	10200.00	90.00	176.50	9825.00	6082.00	591.55	-591.82	11.43	0.00	178.87	591.83	471747.20	755947.13	N 32 17 41.99	W 103 38 19.65
	10300.00	90.00	176.50	9825.00	6082.00	681.55	-681.83	17.53	0.00	178.53	681.86	471647.39	755953.23	N 32 17 41.00	W 103 38 19.59
	10400.00	90.00	176.50	9825.00	6082.00	781.55	-781.45	23.63	0.00	178.27	781.81	471547.58	755959.33	N 32 17 40.01	W 103 38 19.52
	10500.00	90.00	176.50	9825.00	6082.00	881.55	-881.28	29.73	0.00	178.07	881.78	471447.77	755965.43	N 32 17 39.02	W 103 38 19.46
	10600.00	90.00	176.50	9825.00	6082.00	981.55	-981.06	35.83	0.00	177.91	981.73	471347.96	755971.53	N 32 17 38.03	W 103 38 19.40
	10700.00	90.00	176.50	9825.00	6082.00	1081.55	-1080.89	41.93	0.00	177.78	1081.70	471248.15	755977.63	N 32 17 37.05	W 103 38 19.33
	10800.00	90.00	176.50	9825.00	6082.00	1181.54	-1180.70	48.03	0.00	177.67	1181.68	471148.34	755983.73	N 32 17 36.06	W 103 38 19.27
	10900.00	90.00	176.50	9825.00	6082.00	1281.54	-1280.52	54.13	0.00	177.58	1281.68	471048.53	755989.83	N 32 17 35.07	W 103 38 19.21
	11000.00	90.00	176.50	9825.00	6082.00	1381.54	-1380.33	60.23	0.00	177.50	1381.84	470948.72	755995.93	N 32 17 34.08	W 103 38 19.14
	11100.00	90.00	176.50	9825.00	6082.00	1481.54	-1480.14	66.33	0.00	177.43	1481.63	470848.91	756002.03	N 32 17 33.09	W 103 38 19.08
	11200.00	90.00	176.50	9825.00	6082.00	1581.54	-1579.96	72.43	0.00	177.38	1581.62	470749.10	756008.13	N 32 17 32.11	W 103 38 19.02
	11300.00	90.00	176.50	9825.00	6082.00	1681.54	-1678.77	78.53	0.00	177.32	1681.61	470649.30	756014.23	N 32 17 31.12	W 103 38 18.95
	11400.00	90.00	176.50	9825.00	6082.00	1781.54	-1779.59	84.64	0.00	177.28	1781.60	470549.49	756020.33	N 32 17 30.13	W 103 38 18.89
	11500.00	90.00	176.50	9825.00	6082.00	1881.53	-1879.40	90.74	0.00	177.24	1881.59	470449.68	756026.43	N 32 17 29.14	W 103 38 18.83
	11600.00	90.00	176.50	9825.00	6082.00	1981.53	-1979.21	96.84	0.00	177.20	1981.58	470349.87	756032.53	N 32 17 28.15	W 103 38 18.76
	11700.00	90.00	176.50	9825.00	6082.00	2081.53	-2079.03	102.94	0.00	177.17	2081.57	470250.06	756038.63	N 32 17 27.17	W 103 38 18.70
	11800.00	90.00	176.50	9825.00	6082.00	2181.53	-2178.84	109.04	0.00	177.14	2181.57	470150.25	756044.73	N 32 17 26.18	W 103 38 18.63
	11900.00	90.00	176.50	9825.00	6082.00	2281.53	-2278.65	115.14	0.00	177.11	2281.58	470050.44	756050.83	N 32 17 25.19	W 103 38 18.57
	12000.00	90.00	176.50	9825.00	6082.00	2381.53	-2378.47	121.24	0.00	177.08	2381.58	469950.63	756056.93	N 32 17 24.20	W 103 38 18.51
	12100.00	90.00	176.50	9825.00	6082.00	2481.53	-2478.28	127.34	0.00	177.06	2481.55	469850.82	756063.03	N 32 17 23.21	W 103 38 18.44
	12200.00	90.00	176.50	9825.00	6082.00	2581.53	-2578.10	133.44	0.00	177.04	2581.55	469751.01	756069.13	N 32 17 22.23	W 103 38 18.38
	12300.00	90.00	176.50	9825.00	6082.00	2681.52	-2677.91	139.54	0.00	177.02	2681.54	469651.20	756075.23	N 32 17 21.24	W 103 38 18.32
	12400.00	90.00	176.50	9825.00	6082.00	2781.52	-2777.72	145.64	0.00	177.00	2781.54	469551.39	756081.34	N 32 17 20.25	W 103 38 18.25
	12500.00	90.00	176.50	9825.00	6082.00	2881.52	-2877.54	151.74	0.00	176.98	2881.54	469451.58	756087.44	N 32 17 19.26	W 103 38 18.19
	12600.00	90.00	176.50	9825.00	6082.00	2981.52	-2977.35	157.84	0.00	176.97	2981.53	469351.77	756093.54	N 32 17 18.27	W 103 38 18.13
	12700.00	90.00	176.50	9825.00	6082.00	3081.52	-3077.16	163.94	0.00	176.95	3081.53	469251.96	756099.64	N 32 17 17.29	W 103 38 18.06
	12800.00	90.00	176.50	9825.00	6082.00	3181.52	-3176.98	170.04	0.00	176.94	3181.53	469152.15	756105.74	N 32 17 16.30	W 103 38 18.00
	12900.00	90.00	176.50	9825.00	6082.00	3281.52	-3276.79	176.14	0.00	176.92	3281.52	469052.34	756111.84	N 32 17 15.31	W 103 38 17.94
	13000.00	90.00	176.50	9825.00	6082.00	3381.51	-3376.61	182.23	0.00	176.91	3381.52	468952.53	756117.94	N 32 17 14.32	W 103 38 17.87
	13100.00	90.00	176.50	9825.00	6082.00	3481.51	-3476.42	188.33	0.00	176.90	3481.52	468852.72	756124.04	N 32 17 13.33	W 103 38 17.81
	13200.00	90.00	176.50	9825.00	6082.00	3581.51	-3576.23	194.43	0.00	176.89	3581.52	468752.91	756130.14	N 32 17 12.35	W 103 38 17.75
	13300.00	90.00	176.50	9825.00	6082.00	3681.51	-3676.05	200.55	0.00	176.88	3681.51	468653.10	756136.24	N 32 17 11.36	W 103 38 17.68
	13400.00	90.00	176.50	9825.00	6082.00	3781.51	-3775.86	206.65	0.00	176.87	3781.51	468553.29	756142.34	N 32 17 10.37	W 103 38 17.62
	13500.00	90.00	176.50	9825.00	6082.00	3881.51	-3875.67	212.75	0.00	176.86	3881.51	468453.48	756148.44	N 32 17 9.38	W 103 38 17.55
	13600.00	90.00	176.50	9825.00	6082.00	3981.51	-3975.49	218.85	0.00	176.85	3981.51	468353.67	756154.54	N 32 17 8.39	W 103 38 17.49
	13700.00	90.00	176.50	9825.00	6082.00	4081.51	-4075.30	224.95	0.00	176.84	4081.51	468253.86	756160.64	N 32 17 7.41	W 103 38 17.43
	13800.00	90.00	176.50	9825.00	6082.00	4181.51	-4175.12	231.05	0.00	176.83	4181.51	468154.05	756166.74	N 32 17 6.42	W 103 38 17.36
	13900.00	90.00	176.50	9825.00	6082.00	4281.51	-4274.93	237.15	0.00	176.82	4281.51	468054.24	756172.84	N 32 17 5.43	W 103 38 17.30
	14000.00	90.00	176.50	9825.00	6082.00	4381.51	-4374.74	243.25	0.00	176.82	4381.51	467954.43	756178.94	N 32 17 4.44	W 103 38 17.24
	14100.00	90.00	176.50	9825.00	6082.00	4481.51	-4474.56	249.35	0.00	176.81	4481.51	467854.62	756185.04	N 32 17 3.45	W 103 38 17.17
	14200.00	90.00	176.50	9825.00	6082.00	4581.51	-4574.37	255.45	0.00	176.80	4581.51	467754.81	756191.14	N 32 17 2.46	W 103 38 17.11
Cimarex Diamonds# 23 Federal #8H PBHL	14245.20	90.00	176.50	9825.00	6082.00	4628.70	-4619.49	258.21	0.00	176.80	4628.70	467709.70	756193.90	N 32 17 2.02	W 103 38 17.08

Survey Type:

Non-Def Plan

Survey Error Model:

ISCWSA Rev 0 - 3-D 95.000% Confidence 2.7955 sigma

Survey Program:

Description	Part	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size (in)	Casing Diameter (in)	Survey Tool Type	Borehole / Survey
	1	0.000	25.000	Act Stns	30.000	30.000	SLB_MWD-POOR-Depth Only	Original Borehole / Cimarex Diamondtail 23 Federal #8H KEM
	1	25.000	9140.180	Act Stns	30.000	30.000	SLB_MWD-POOR	Original Borehole / Cimarex Diamondtail 23 Federal #8H KEM

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	TVDSS (ft)	VSEC (ft)	NS (ft)	EW (ft)	OLS (°/100ft)	Closure Azimuth (°)	Closure (ft)	Northing (NUS)	Easting (EUS)	Latitude (NUS ° ' ")	Longitude (EWS ° ' ")
		1	9140.180	9197.540	1/100.000	30.000	30.000	SLB_MWD-POOR		Original Borehole / Cimarex Diamondtail 23 Federal 8H Rev3					
		1	9197.540	14245.199	1/100.000	30.000	30.000	SLB_MWD-STD		Original Borehole / Cimarex Diamondtail 23 Federal 8H Rev3					



Cimarex Diamondtail 23 Federal 8H Rev3 mcs 13Oct14 Proposal Geodetic
Report
(Non-Def Plan)



Report Date: October 13, 2014 - 10:51 AM
Client: Cimarex
Field: NM Lea County (NAD 83)
Structure / Slot: Cimarex Diamondtail 23 Federal 8H / Cimarex Diamondtail 23 Federal 8H
Well: Cimarex Diamondtail 23 Federal 8H
Borehole: Original Borehole
UWI / APB: Unknown / 30-025-40783
Survey Name: Cimarex Diamondtail 23 Federal 8H Rev3 mcs 13Oct14
Survey Date: August 27, 2014
Tort / AMD / DD / ERD Ratio: 110.667' / 4715.199 ft / 5.878' / 0.480
Coordinate Reference System: NAD83 New Mexico State Plane, Eastern Zone, US Feet
Location Lat / Long: N 32° 17' 47.74393" W 103° 38' 19.74031"
Location Grid N/E Y/X: N 472329.000 RUS, E 755935.700 RUS
CRS Grid Convergence Angle: 0.3711°
Grid Scale Factor: 0.99996183
Version / Patch: 2.7.1043.0

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 176.801° (Grid North)
Vertical Section Origin: 0.000 ft, 0.000 ft
TVD Reference Datum: RIG
TVD Reference Elevation: 3743.000 ft above MSL
Seabed / Ground Elevation: 3718.000 ft above MSL
Magnetic Declination: 7.171°
Total Gravity Field Strength: 998.4372mgm (9.80665 Based)
Gravity Model: GARM
Total Magnetic Field Strength: 48448.087 nT
Magnetic Dip Angle: 60.148°
Declination Date: October 12, 2014
Magnetic Declination Model: HDGM 2014
North Reference: Grid North
Grid Convergence Used: 0.3711°
Total Cor Mag North-Grid: 6.7996°
North: Structure Reference Point
Local Coord Referenced To:

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	TVDSS (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (ft/100ft)	Closure Azimuth (°)	Closure (ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' '')	Longitude (E/W ° ' '')
Tie-In Rev3	9140.18	2.11	255.21	9139.51	5396.51	1.53	-2.64	-19.96	N/A	262.43	20.04	472326.36	755915.84	N 32 17 47.72	W 103 38 19.97
Pro to B4	8201.00	2.11	255.21	9200.29	5457.29	1.98	-3.21	-22.03	0.00	281.71	22.28	472325.79	755913.67	N 32 17 47.71	W 103 39 20.00
Hold	6306.50	0.00	255.21	9305.76	5562.76	2.37	-3.71	-23.91	2.00	281.19	24.19	472325.29	755911.79	N 32 17 47.71	W 103 38 20.02
Build Curve 127/100ft	9348.27	0.00	255.21	9347.54	5604.54	2.37	-3.71	-23.91	0.00	281.19	24.19	472325.29	755911.79	N 32 17 47.71	W 103 38 20.02
Landing Point	10098.27	90.00	176.50	9825.00	6082.00	479.83	-480.28	5.22	12.00	179.38	480.31	471848.74	755940.92	N 32 17 42.59	W 103 38 18.72
Cimarex Diamondtail 23 Federal 8H PBHL	14245.20	90.00	176.50	9825.00	6082.00	4826.70	-4619.49	258.21	0.00	176.80	4626.70	467709.70	756193.90	N 32 17 2.02	W 103 38 17.08

Survey Type: Non-Def Plan

Survey Error Model: ISOWSA Rev D 3-D 95.000% Confidence 2.7655 sigma
Survey Program:

Description	Part	MD From (ft)	MD To (ft)	EDU Freq (ft)	Hole Size (in)	Casing Diameter (in)	Survey Tool Type	Borehole / Survey
	1	0.000	25.000	Act Strs	30.000	30.000	SLB_MWD-POOR-Depth Only	Original Borehole / Cimarex Diamondtail 23 Federal 8H XEM
	1	25.000	9140.180	Act Strs	30.000	30.000	SLB_MWD-POOR	Original Borehole / Cimarex Diamondtail 23 Federal 8H XEM
	1	9140.180	9197.540	1/100.000	30.000	30.000	SLB_MWD-POOR	Original Borehole / Cimarex Diamondtail 23 Federal 8H Rev3
	1	9197.540	14245.199	1/100.000	30.000	30.000	SLB_MWD-STD	Original Borehole / Cimarex Diamondtail 23 Federal 8H Rev3

McMillan, Michael, EMNRD

From: Jennifer L. Bradfute <jlb@modrall.com>
Sent: Tuesday, December 30, 2014 6:18 PM
To: McMillan, Michael, EMNRD
Cc: Earl E. DeBrine
Subject: RE: Cimarex Energy - Administrative application for an unorthodox oil well location - Diamondtail 23 Fed Com 8H

Mr. McMillan,

I should add that Cimarex is requesting to perforate this well at a non-standard location because after the well was drilled, directional data indicated that the well deviated beyond the 330' set back requirement from the East line of Section 23. This deviation was unintentional and was not planned by Cimarex. At 1,966' FSL the lateral crosses the 330' FEL Hard Line and then returns across the 330' FEL Hard Line at 1,713' FSL.

Thank you,
Jennifer Bradfute

From: Jennifer L. Bradfute
Sent: Tuesday, December 30, 2014 4:59 PM
To: Michael.McMillan@state.nm.us
Cc: Earl E. DeBrine
Subject: RE: Cimarex Energy - Administrative application for an unorthodox oil well location - Diamondtail 23 Fed Com 8H

Thank you Mr. McMillan.

Cimarex is submitting this NSL application because it would like to perforate the well in a non-standard location in Section 23. Cimarex would like to perforate the well at 328' FEL and 1840' FSL. Please let me know if you have any questions.

Thank you,
Jennifer Bradfute

From: McMillan, Michael, EMNRD [mailto:Michael.McMillan@state.nm.us]
Sent: Tuesday, December 30, 2014 4:51 PM
To: Jennifer L. Bradfute
Subject: RE: Cimarex Energy - Administrative application for an unorthodox oil well location - Diamondtail 23 Fed Com 8H

Ms. Bradfute:
I need a reason for the NSL application-use language similar to other application
Michael McMillan

From: Jennifer L. Bradfute [mailto:jlb@modrall.com]
Sent: Tuesday, December 30, 2014 4:24 PM
To: McMillan, Michael, EMNRD



MODRALL SPERLING

L A W Y E R S

December 22, 2014

Devon Energy Prod. Co.
c/o James Bruce
Post Office Box 1056
Santa Fe, NM 87504
jamesbruc@aol.com

Jennifer L. Bradfute
505.848.1845
Fax: 505.848.1882
jlb@modrall.com

Re: Revised Application of Cimarex Energy Co. of Colorado for administrative approval of an unorthodox well location for its Diamondtail 23 Federal No. 8H, API 30-025-40783 drilled from a surface location and penetration point 600 feet from the East line and 330 feet from the North line of Section 23 to a bottom hole location 375 feet from the East line and 330 feet from the South line; Cimarex plans on perforating the well at 328 feet from the East line and 1840 feet from the South line of Section 23, Township 23 South, Range 32 East, N.M.P.M., Lea County, New Mexico.

Dear Mr. Bruce:

Cimarex Energy Co. of Colorado ("Cimarex") has filed with the New Mexico Oil Conservation Division (NMOCD), a Revised Application for the Administrative Approval of an Unorthodox Location for its Diamondtail 23 Federal No. 8H well. A copy of the application has been attached for your review.

If Devon Energy Production Company, L.P. has no objection to this application, please sign the waiver as indicated below and return the original. Your assistance and cooperation in this matter are appreciated.

Sincerely,

Jennifer L. Bradfute

*Attorney for Cimarex Energy Co. of
Colorado*

Modrall Sperling
Roehl Harris & Sisk P.A.

Bank of America Centre
500 Fourth Street NW
Suite 1000
Albuquerque,
New Mexico 87102

PO Box 2168
Albuquerque,
New Mexico 87103-2168

Tel: 505.848.1800
www.modrall.com

WAIVER

Devon Energy Production Company, L.P. hereby waives objection to the above referenced Application for Unorthodox Location for the Diamondtail 23 Federal No. 8H well, API 30-025-40783.

Dated: 12/31/14

Signature

James Bauer
Attorney for Devon
Energy Production
Company, L.P.

McMillan, Michael, EMNRD

From: jamesbruc@aol.com
Sent: Wednesday, December 31, 2014 10:06 AM
To: McMillan, Michael, EMNRD
Cc: jlb@modrall.com
Subject: Re: Cimarex/Diamondtail 23 well
Attachments: devon-waiver of uol.pdf

Mike: Attached is a waiver letter to the location signed on behalf of Devon.

This waiver applies whether the location is being approved administratively or after a hearing.

Jim

-----Original Message-----

From: McMillan, Michael, EMNRD, EMNRD <Michael.McMillan@state.nm.us>
To: jamesbruc <jamesbruc@aol.com>
Sent: Tue, Dec 30, 2014 8:52 am
Subject: RE: Cimarex/Diamondtail 23 well

Happy new Year

From: jamesbruc@aol.com [<mailto:jamesbruc@aol.com>]
Sent: Tuesday, December 30, 2014 8:50 AM
To: McMillan, Michael, EMNRD
Subject: Re: Cimarex/Diamondtail 23 well

Yes. will do.

-----Original Message-----

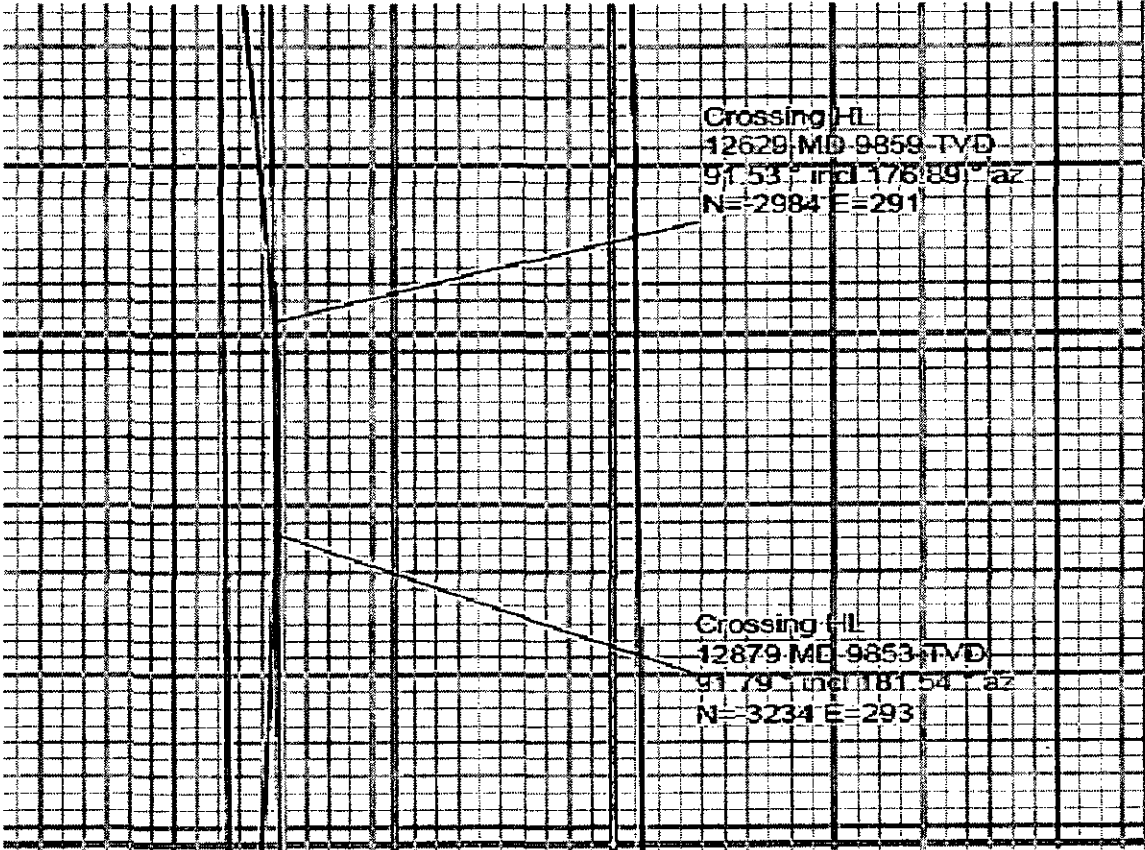
From: McMillan, Michael, EMNRD, EMNRD <Michael.McMillan@state.nm.us>
To: jamesbruc <jamesbruc@aol.com>
Sent: Tue, Dec 30, 2014 8:38 am
Subject: RE: Cimarex/Diamondtail 23 well

Jim:
Will this apply to the administrative application also?
If so, please e-mail me a letter stating that
Mike

From: jamesbruc@aol.com [<mailto:jamesbruc@aol.com>]
Sent: Monday, December 29, 2014 10:18 AM
To: McMillan, Michael, EMNRD
Cc: jlb@modrall.com
Subject: Cimarex/Diamondtail 23 well

Mike: Devon Energy withdraws its objection to the unorthodox location for the above well.

Jim



Crossing HL
12629 MD 9859 TVD
91.53° incl 176.89° az
N=2984 E=291

Crossing HL
12879 MD 9853 TVD
91.79° incl 181.54° az
N=3234 E=293

McMillan, Michael, EMNRD

From: Chuck Moran <CMoran@yatespetroleum.com>
Sent: Monday, December 29, 2014 4:27 PM
To: McMillan, Michael, EMNRD
Cc: Jennifer L. Bradfute (jlb@modrall.com); Earl E. DeBrine (edebrine@modrall.com); Jeff Gotcher
Subject: Cimarex's NSL Application for the Diamondtail 23 Federal 8H Well

Mr. McMillan:

By letter dated November 24, 2014, Yates Petroleum Corporation filed an objection to Cimarex Energy Co.'s application for unorthodox location for its Diamondtail 23 Federal No. 8H in the E/2E/2 Sec. 23-T23S-R32E. Based on information provided by Cimarex to Yates, we do not plan on protesting their application any further and withdraw the objection of our November 24, 2014 letter. Management is not in during this holiday season to sign the requested waiver.

Sincerely,

Chuck Moran
Yates Petroleum Corporation
575-748-4349

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NorAm 26

Cimarex

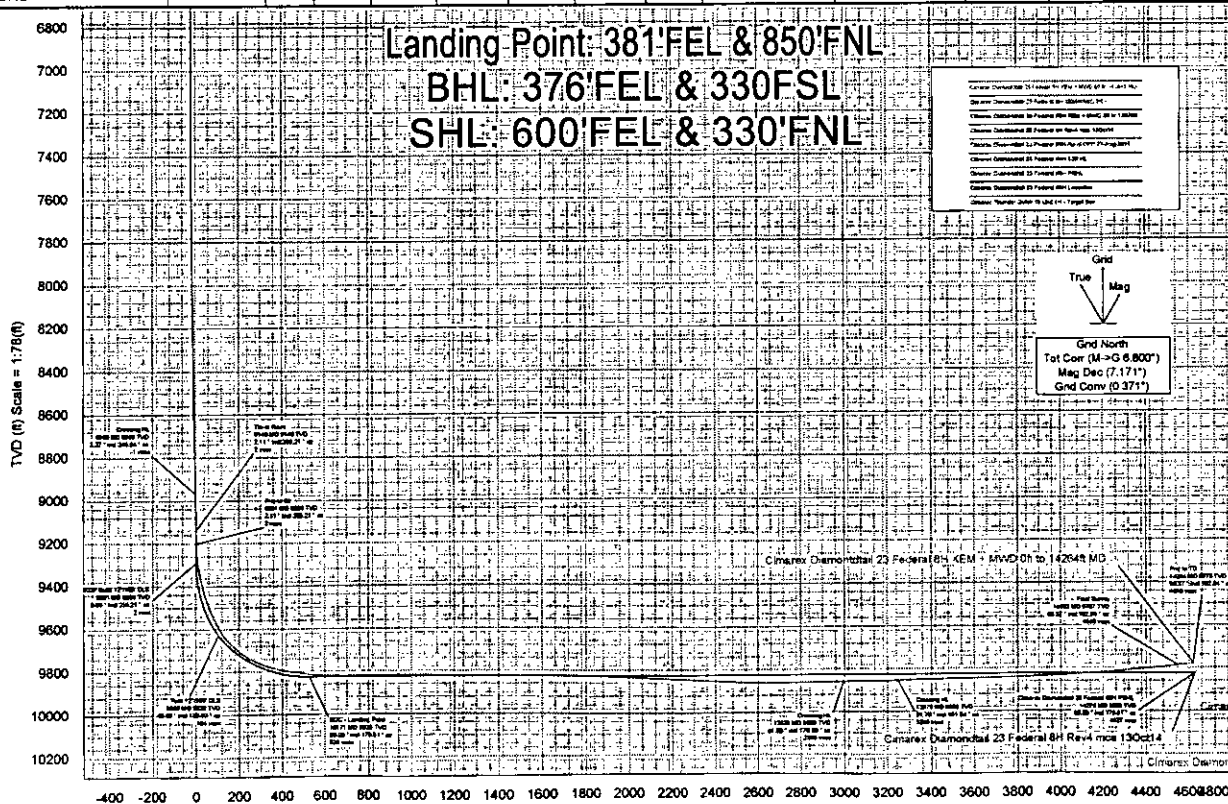
FINAL PVA

PATHFINDER
A Schlumberger Company

Borehole:	Well:	Field:	Structure:
Original Borehole	Diamondtail 23 Federal 8H	Lea County, NM	NorAm 26
Survey & Acquisition Parameters	Survey Location	Survey Data	Survey Data
Project: 8888888888	Lat: 35 24 45.71	Survey: 472329.00	Lat: 35 24 45.71
Height: 7170'	Long: 103 38 19.74	Survey: 755915.84	Long: 103 38 19.74

Critical Points

Comments	Survey MD	Inc	Azim	TVD	SSTVD	VS	NS	EW	Longitude	Latitude	Easting	Northing	DLS	Tool Face
SHL	0.00	0.00	176.80	0.00	-3743.00	0.00	0.00	0.00	W 103 38 19.740	N 32 17 47.744	755935.70	472329.00		46.18
Tie-In Rev4	9140.18	2.11	255.21	9139.51	5396.51	1.53	-2.64	-19.86	W 103 38 19.972	N 32 17 47.719	755915.84	472326.36	2.00	255.21
Proj to Bit	9201.00	2.11	255.21	9200.29	5457.29	1.98	-3.21	-22.03	W 103 38 19.997	N 32 17 47.714	755913.67	472325.79	0.00	255.21
KOP Build 12"/100' DLS	9290.87	0.00	255.21	9290.14	5547.14	2.31	-3.63	-23.63	W 103 38 20.016	N 32 17 47.709	755912.07	472325.37	2.35	133.50
Turn 12"/100' DLS	9665.87	45.00	133.50	9627.76	5884.76	104.08	-99.90	77.81	W 103 38 18.841	N 32 17 46.750	756013.51	472229.11	12.00	55.68
EOC - Landing Point	10170.77	90.00	179.51	9825.00	6082.00	526.26	-514.60	223.26	W 103 38 17.178	N 32 17 42.638	756158.95	471814.42	12.00	0.00
PBHL	14275.81	90.00	179.51	9825.00	6082.00	4626.70	-4619.49	258.21	W 103 38 17.081	N 32 17 2.018	756193.90	467709.70	0.00	



Vertical Section (ft) Azim = 176.8° Scale = 1:78(ft) Origin = 0N/-S, 0E/-W

EW (ft) Scale = 1:78(ft)

-1200 -1000 -800 -600 -400 -200 0 200 400 600 800 1000

