

New Mexico Oil Conservation Division, District I
 1625 N. French Drive
 Hobbs, NM 88240

RECEIVED

DEC 10 2008

Form 3160-3
 (April 2004)

HOBBSOCD

UNITED STATES
 DEPARTMENT OF THE INTERIOR
 BUREAU OF LAND MANAGEMENT

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

5. Lease Serial No. **NM-0153471**
 SHL - Private Surface, minerals
 BHL Private Minerals

6. If Indian, Allottee or Tribe Name

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work. <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		7. If Unit or CA Agreement, Name and No. Pending	
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		8. Lease Name and Well No. <37526> Franklin 18 Federal Com No. 4	
2. Name of Operator Cimarex Energy Co. of Colorado		9. API Well No. 30-005- 29090	
3a. Address PO Box 140907 Irving, TX 75014	3b. Phone No. (include area code) 972-401-3111	10. Field and Pool, or Exploratory Abo ; Wildcat; ABO-WOLFCAMP	
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At Surface 375 FSL & 375 FEL Unit P At proposed prod. Zone 375 FSL & 375 FWL Unit M Proposed Horizontal Abo Test		11. Sec., T. R. M. or Blk and Survey or Area 18-15S-31E	
14. Distance in miles and direction from nearest town or post office*		12. County or Parish Chaves	13. State NM
15. Distance from proposed* location to nearest property or lease line, ft (Also to nearest drig. unit line if any) 375	16. No of acres in lease SESW 18-15S-31E NM-0153471 - 753.62 acres	17. Spacing Unit dedicated to this well S2S2 159.29 acres	
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft NA	19. Proposed Depth Pilot Hole 9500' MD 13006' TVD 8615'	20. BLM/BIA Bond No. on File NM-2575	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 4,431' GR	22. Approximate date work will start* 9/30/2008	23. Estimated duration 35-45 days	
24. Attachments ROSWELL CONTROLLED WATER BASIN			

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 08.21.08
----------------------------------	-------------------------------------	------------------

Title Manager Operations Administration		
Approved By (Signature) /s/ Jerry Dutchover	Name (Printed/Typed) /s/ Jerry Dutchover	Date 08 DEC 2008
Title Acting Assistant Field Manager, Lands And Minerals	Office ROSWELL FIELD OFFICE	APPROVED FOR 2 YEARS

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.S. 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)

DECLARED WATER BASIN

CEMENT BEHIND THE **13 3/4"**
 CASING MUST BE CIRCULATED

WITNESS

APPROVAL SUBJECT TO **KE**
 GENERAL REQUIREMENTS AND
 SPECIAL STIPULATIONS ATTACHED

DISTRICT I
1825 N. French Dr., Hobbs, NM 88240

DISTRICT II
1301 W. Grand Avenue, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised October 12, 2005

Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

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

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-005-29090	Pool Code -	Pool Name No Wildcat, AAO-WOLFCAH
Property Code 37526	Property Name FRANKLIN "18" FEDERAL COM	Well Number 4
OGRID No. 162683	Operator Name CIMAREX ENERGY CO. OF COLORADO	Elevation 4431'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	18	15 S	31 E		375	SOUTH	375	EAST	CHAVES

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
M	18	15 S	31 E		375	SOUTH	375	WEST	CHAVES

Dedicated Acres 159.29	Joint or Infill	Consolidation Code P	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

<p>BHL 375 FSL & 375 FWL</p>			<p>P.P. 375 FSL & 375 FEL</p>			<p>SHL 375 FSL & 375 FEL</p>		
<p>BOTTOM HOLE LOCATION Lat - N33°00'34.80" Long - W103°52'06.94" NMSPC E - N 731368.156 E 683800.836 (NAD-83)</p>			<p>SURFACE LOCATION Lat - N33°00'34.79" Long - W103°51'14.08" NMSPC E - N 731387.6 E 688302.0 (NAD-83)</p>			<p>OPERATOR CERTIFICATION <i>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 pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</i></p> <p><u>Zeno Farris</u> 08-21-08 Signature Date</p> <p>Zeno Farris Printed Name</p>		
<p>Private Minerals</p>			<p>NM-0153471</p>			<p>Private Surface & Minerals</p>		
<p>375'</p>			<p>4430.9'</p>			<p>SURVEYOR CERTIFICATION <i>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.</i></p> <p>MAY 19 2008 Date Surveyed Signature <u>GARY L. JONES</u> Professional Surveyor 7977</p> <p>Certificate No. Gary L. Jones 7977</p> <p>BASIN SURVEYS</p>		



Planned Wellpath Report

Preliminary
Page 1 of 4



INTEQ

REFERENCE WELLPATH IDENTIFICATION			
Operator	Cimarex Energy Co. of Colorado	Slot	No. 4H SHL
Area	Chaves County, NM	Well	No. 4H
Field	(Franklin) Sec 18, T15S, R31E	Wellbore	No. 4H PWB
Facility	Franklin 18 Fed Com No. 4H		

REPORT SETUP INFORMATION			
Projection System	NAD83 / TM New Mexico State Planes, Eastern Zone (3001), US feet	Software System	WellArchitect@ 2.0
North Reference	Grid	User	Victor Hernandez
Scale	0.999934	Report Generated	6/25/2008 at 4:41:30 PM
Convergence at slot	0.26° East	Database/Source file	WA_Midland/No. 4H_PWB.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[USft]	Northing[USft]	Latitude	Longitude
Slot Location	0.00	0.00	688302.00	731387.60	33°00'34.792"N	103°51'14.077"W
Facility Reference Pt			688302.00	731387.60	33°00'34.792"N	103°51'14.077"W
Field Reference Pt			688326.60	735962.00	33°01'20.052"N	103°51'13.544"W

WELLPATH DATUM			
Calculation method	Minimum curvature	Rig on No. 4H SHL (RT) to Facility Vertical Datum	18.00ft
Horizontal Reference Pt	Facility Center	Rig on No. 4H SHL (RT) to Mean Sea Level	4449.00ft
Vertical Reference Pt	Rig on No. 4H SHL (RT)	Facility Vertical Datum to Mud Line (Facility)	0.00ft
MD Reference Pt	Rig on No. 4H SHL (RT)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	269.75°



Planned Wellpath Report

Preliminary
Page 2 of 4



INTEQ

REFERENCE WELLPATH IDENTIFICATION			
Operator	Cimarex Energy Co. of Colorado	Slot	No. 4H SHL
Area	Chaves County, NM	Well	No. 4H
Field	(Franklin) Sec 18, T15S, R31E	Wellbore	No. 4H PWB
Facility	Franklin 18 Fed Com No. 4H		

WELLPATH DATA (50 stations) † = interpolated/extrapolated station								
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
0.00	0.000	269.752	0.00	0.00	0.00	0.00	0.00	Tie On
8395.00	0.000	269.752	8395.00	0.00	0.00	0.00	0.00	KOP
8495.00†	30.000	269.752	8490.49	25.59	-0.11	-25.59	30.00	
8595.00†	60.000	269.752	8560.40	95.49	-0.41	-95.49	30.00	
8693.71	89.614	269.752	8585.98	189.70	-0.82	-189.70	30.00	EOC
8695.00†	89.614	269.752	8585.99	190.99	-0.83	-190.98	0.00	
8795.00†	89.614	269.752	8586.66	290.98	-1.26	-290.98	0.00	
8895.00†	89.614	269.752	8587.34	390.98	-1.69	-390.98	0.00	
8995.00†	89.614	269.752	8588.01	490.98	-2.12	-490.97	0.00	
9095.00†	89.614	269.752	8588.68	590.98	-2.55	-590.97	0.00	
9195.00†	89.614	269.752	8589.36	690.97	-2.98	-690.97	0.00	
9295.00†	89.614	269.752	8590.03	790.97	-3.42	-790.96	0.00	
9395.00†	89.614	269.752	8590.70	890.97	-3.85	-890.96	0.00	
9495.00†	89.614	269.752	8591.37	990.97	-4.28	-990.96	0.00	
9595.00†	89.614	269.752	8592.05	1090.97	-4.71	-1090.96	0.00	
9695.00†	89.614	269.752	8592.72	1190.96	-5.14	-1190.95	0.00	
9795.00†	89.614	269.752	8593.39	1290.96	-5.58	-1290.95	0.00	
9895.00†	89.614	269.752	8594.07	1390.96	-6.01	-1390.95	0.00	
9995.00†	89.614	269.752	8594.74	1490.96	-6.44	-1490.94	0.00	
10095.00†	89.614	269.752	8595.41	1590.95	-6.87	-1590.94	0.00	
10195.00†	89.614	269.752	8596.08	1690.95	-7.30	-1690.94	0.00	
10295.00†	89.614	269.752	8596.76	1790.95	-7.74	-1790.93	0.00	
10395.00†	89.614	269.752	8597.43	1890.95	-8.17	-1890.93	0.00	
10495.00†	89.614	269.752	8598.10	1990.95	-8.60	-1990.93	0.00	
10595.00†	89.614	269.752	8598.78	2090.94	-9.03	-2090.92	0.00	
10695.00†	89.614	269.752	8599.45	2190.94	-9.46	-2190.92	0.00	
10795.00†	89.614	269.752	8600.12	2290.94	-9.90	-2290.92	0.00	
10895.00†	89.614	269.752	8600.80	2390.94	-10.33	-2390.91	0.00	
10995.00†	89.614	269.752	8601.47	2490.93	-10.76	-2490.91	0.00	
11095.00†	89.614	269.752	8602.14	2590.93	-11.19	-2590.91	0.00	



Planned Wellpath Report

Preliminary
Page 3 of 4



INTEQ

REFERENCE WELLPATH IDENTIFICATION			
Operator	Cimarex Energy Co. of Colorado	Slot	No. 4H SHL
Area	Chaves County, NM	Well	No. 4H
Field	(Franklin) Sec 18, T15S, R31E	Wellbore	No. 4H PWB
Facility	Franklin 18 Fed Com No. 4H		

WELLPATH DATA (50 stations) † = interpolated/extrapolated station								
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
11195.00†	89.614	269.752	8602.81	2690.93	-11.62	-2690.90	0.00	
11295.00†	89.614	269.752	8603.49	2790.93	-12.06	-2790.90	0.00	
11395.00†	89.614	269.752	8604.16	2890.92	-12.49	-2890.90	0.00	
11495.00†	89.614	269.752	8604.83	2990.92	-12.92	-2990.89	0.00	
11595.00†	89.614	269.752	8605.51	3090.92	-13.35	-3090.89	0.00	
11695.00†	89.614	269.752	8606.18	3190.92	-13.78	-3190.89	0.00	
11795.00†	89.614	269.752	8606.85	3290.92	-14.22	-3290.89	0.00	
11895.00†	89.614	269.752	8607.53	3390.91	-14.65	-3390.88	0.00	
11995.00†	89.614	269.752	8608.20	3490.91	-15.08	-3490.88	0.00	
12095.00†	89.614	269.752	8608.87	3590.91	-15.51	-3590.88	0.00	
12195.00†	89.614	269.752	8609.54	3690.91	-15.94	-3690.87	0.00	
12295.00†	89.614	269.752	8610.22	3790.90	-16.38	-3790.87	0.00	
12395.00†	89.614	269.752	8610.89	3890.90	-16.81	-3890.87	0.00	
12495.00†	89.614	269.752	8611.56	3990.90	-17.24	-3990.86	0.00	
12595.00†	89.614	269.752	8612.24	4090.90	-17.67	-4090.86	0.00	
12695.00†	89.614	269.752	8612.91	4190.90	-18.10	-4190.86	0.00	
12795.00†	89.614	269.752	8613.58	4290.89	-18.54	-4290.85	0.00	
12895.00†	89.614	269.752	8614.26	4390.89	-18.97	-4390.85	0.00	
12995.00†	89.614	269.752	8614.93	4490.89	-19.40	-4490.85	0.00	
13005.62	89.614	269.752	8615.00	4501.51	-19.45	-4501.47	0.00	No. 4H BHL



Planned Wellpath Report

Preliminary
Page 4 of 4



INTEQ

REFERENCE WELLPATH IDENTIFICATION			
Operator	Cimarex Energy Co. of Colorado	Slot	No. 4H SHL
Area	Chaves County, NM	Well	No. 4H
Field	(Franklin) Sec 18, T15S, R31E	Wellbore	No. 4H PWB
Facility	Franklin 18 Fed Com No. 4H		

TARGETS									
Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	Shape
1) No. 4H BHL	13005.62	8615.00	-19.45	-4501.47	683800.84	731368.16	33°00'34.799"N	103°52'06.938"W	point

SURVEY PROGRAM Ref Wellbore: No. 4H PWB Ref Wellpath: Preliminary				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
18.00	13005.62	NaviTrak (Standard)		No. 4H PWB



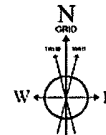
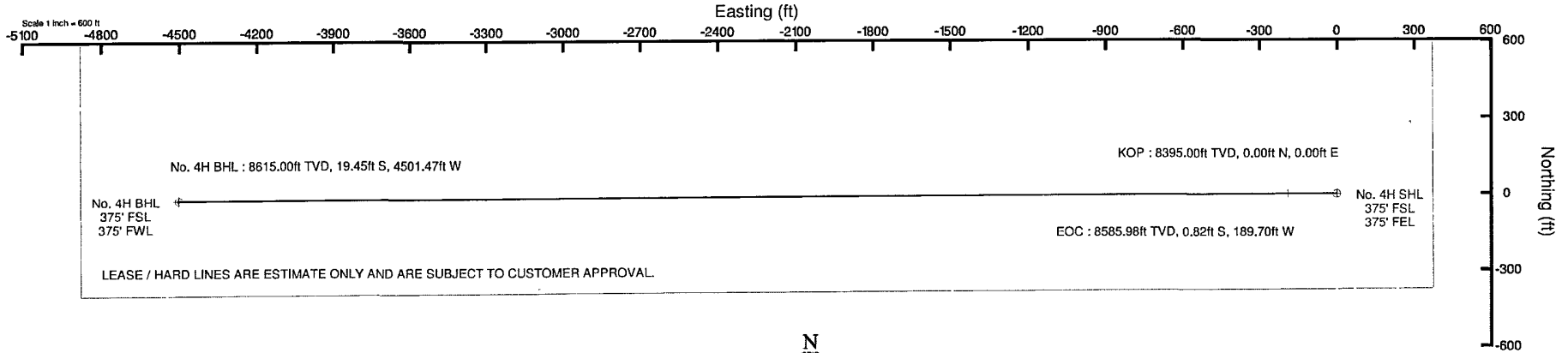
Cimarex Energy Co. of Colorado

Location: Chaves County, NM
 Field: (Franklin) Sec 18, T15S, R31E
 Facility: Franklin 18 Fed Com No. 4H

Slot: No. 4H SHL
 Well: No. 4H
 Wellbore: No. 4H PWB

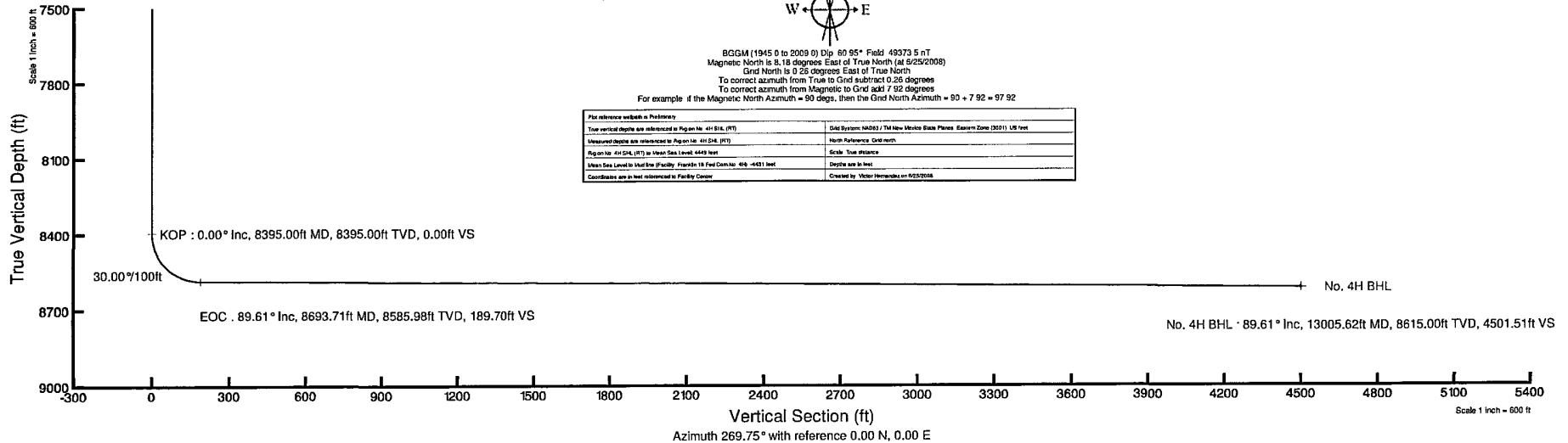


Well Profile Data								
Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (%/100ft)	VS (ft)
Tie On	0.00	0.000	269.752	0.00	0.00	0.00	0.00	0.00
KOP	8395.00	0.000	269.752	8395.00	0.00	0.00	0.00	0.00
EOC	8693.71	89.614	269.752	8585.98	-0.82	-189.70	30.00	189.70
No. 4H BHL	13005.62	89.614	269.752	8615.00	-19.45	-4501.47	0.00	4501.51



BGGM (1945 0 to 2009 0) Dip 60.95° Field 49373 5 nT
 Magnetic North is 8.18 degrees East of True North (at 5/25/2008)
 Grid North is 0.28 degrees East of True North
 To correct azimuth from True to Grid subtract 0.28 degrees
 To correct azimuth from Magnetic to Grid add 7.92 degrees
 For example if the Magnetic North Azimuth = 90 degs, then the Grid North Azimuth = 90 + 7.92 = 97.92

Plot reference wellbore in Petroleum	
True vertical depth was referenced to Rig on the 4H BHL (FT)	Grid System: NAD83 / TM New Mexico State Plane - Eastern Zone (2011) US feet
Measured depth was referenced to Rig on the 4H BHL (FT)	North Reference Grid north
Rig on the 4H BHL (FT) in Mean Sea Level 4449 feet	Scale: True distance
Mean Sea Level to Mean Sea Level (Facility: Franklin 18 Fed Com No. 4H -4451 feet)	Depth axis in feet
Coordinates are in feet referenced to Facility Center	Created by: Victor Hernandez on 02/2/2008



Operator - Landowner Agreement

Company: Cimarex Energy Co. of Colorado
Proposed Well: Franklin 18 Federal Com No. 4
Federal Lease Number: NM-0153471

This is to advise that Cimarex Energy Co. of Colorado has an agreement with: Bill Medlin; PO Box 50; Maljamar, NM 88264 the surface owner, concerning entry and surface restoration after completion of drilling operations at the above described well.

After abandonment of the well, all pits will be filled and levelled and all equipment and trash will be removed from the well site. No other requirements were made concerning restoration of the well site.

August 21, 2008
Date

Zeno Farris
Signature Zeno Farris
Manager, Operations Administration

Application to Drill
Franklin 18 Federal Com No. 4
 Cimarex Energy Co. of Colorado
 Unit P, Section 18
 T15S R31E; Chaves 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 375 FSL & 375 FEL
 BHL 375 FSL & 375 FWL *Proposed Horizontal Abo Test*
- 2 Elevation above sea level: 4,431 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: Pilot Hole 9500' MD 13006' TVD 8615'

6 Estimated tops of geological markers:

Yates	2,312'
Queen	3,090'
SanAndres	3,940'
Abo Shale	7,340'
Lower Abo Dolomite	8,585'
Wolfcamp LS	8,675'

7 Possible mineral bearing formation:

Abo	Oil
Wolfcamp	Oil
Queen	Oil

8 Proposed Mud Circulating System:

Depth			Mud Wt	Visc	Fluid Loss	Type Mud
0	to	340	8.4 - 8.6	30-32	May lose circ	Fresh water spud mud
340	to	3,950	10.0	28-29	May lose circ	Brine Water
3,950	to	9,500	8.6 - 9.5	28-29	NC	Fresh water and brine, use hi-vis sweeps to keep hole clean
KOP 8395'	to	MD 13006 TVD 8615	8.4 - 8.9	28	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. Mud system monitoring equipment with derrick floor indicators and visual/audio alarms shall be installed and operative prior to drilling into the Wolfcamp formation. This equipment will remain in use until production casing is run and cemented.

Application to Drill
Franklin 18 Federal Com No. 4
 Cimarex Energy Co. of Colorado
 Unit P, Section 18
 T15S R31E; Chaves County, NM

8a Drill 7½" pilot hole to 9500' and run and cement 7" casing as shown on next page. Set KO Plug @ 8405.' Mill window from 8390' to 8400' and kick off lateral leg @ 8395.' Drill lateral 6½" hole to 13006' MD & 8615' TVD. Run 4½" 11.6# P-110 **BTC** (Peak Systems Iso-Pak Liner) from RSB packer @ 8288' to 8694' (End of Curve) and **LTC** from 8694' to TD @ MD 13006' and TVD 8615.' No cement required for Peak Systems Liner. Lateral length 4502' and liner length 4718.'

9 Casing Program:

Hole Size (inches)	Depth		Casing OD (inches)		Weight (lbs)	Thread	Collar	Grade
17½	0	to 340	New	13¾	48	8-R	STC	H-40
12¼	0	to 3950	New	9¾	40	8-R	LTC	J-55
8¾	0	to 9500	New	7	26	8-R	LTC	P-110
6½	8288	to 8694	New	4½	12	8-R	BTC	P-110
6½	8694	MD 13006 TVD 8615	New	4½	12	8-R	LTC	P-110

10 Cementing Program:

Surface Lead: 110 sx Light Premium Plus + 0.125 lb/sk Poly-E-Flake + 1% CaCl₂ (wt 14.2, yld 1.64)

Tail: 220 sx Premium Plus + 2% CaCl₂ (wt 14.8, yld 1.35)

Surf

TOC ace

Intermediate Lead: 450 sx Interfill C + 0.125 lb/sk Poly-E-Flake (wt 11.9, yld 2.45)

Tail: 200 sx Premium Plus + 1% CaCl₂ (wt 14.8, yld 1.33)

Surf

TOC ace

Production 615 sx Super H + 0.5% Halad-344 + 0.4% CFR-3 + 1lbm/sk Salt + 5 lb/sk Gilsonite + 0.125 lb/sk Poly-E-Flake + 0.35% HR-7 (wt 13.0, yld 1.67)

TOC 3,750'

Liner *Peak Systems Iso-Pack Liner will not require cementing.*

Fresh water will be protected by setting surface casing at **340** and cementing to **Surface**
 Hydrocarbon zones will be protected by setting intermediate casing at **3950** and cementing to **Surface**
 and by setting production casing at **9500** and cementing to **3750**

Cimarex uses the following minimum safety factors:

Burst	Collapse	Tension
1.125	1.125	1.80

Application to Drill
Franklin 18 Federal Com No. 4
Cimarex Energy Co. of Colorado
Unit P, Section 18
T15S R31E; Chaves County, NM

11 Pressure control Equipment:

Exhibit "E". A 13^{3/8}" 5000 PSI working pressure B.O.P. 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 6000'. 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.

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.

We are requesting a variance for testing the 13^{3/8}" surface casing from Onshore Order No. 2, which states that all casing strings below the conductor shall be pressure tested to 0.22 psi per foot or 1500 psi, whichever is greater, but not to exceed 70% of the manufacturer's stated maximum internal yield. We are requesting to test the 13^{3/8}" casing to 1000 psi using rig pumps. The BOP will be tested to 5000 PSI by an independent service company.

12 Testing, Logging and Coring Program:

- A. Mud logging program: 2 man unit from 3950' to TD
- B. Electric logging program: CNL / LDT / CAL / GR, DLL / CAL / GR
- C. No DSTs or cores are planned at this time.

13 Potential Hazards:

No abnormal pressures or temperatures are expected. The area has a potential H2S hazard. An H2S drilling plan is attached. 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 **4000 psi** Estimated BHT **175**

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

Drilling expected to take 35-45 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.

Abo pay will be perforated and stimulated.

The proposed well will be tested and potentialized as **an oil well.**

Hydrogen Sulfide Drilling Operations Plan
Franklin 18 Federal Com No. 4
Cimarex Energy Co. of Colorado
Unit P, Section 18
T15S R31E; Chaves County, NM

- 1 All Company and Contract personnel admitted on location must be trained by a qualified H₂S safety instructor to the following:
 - A. Characteristics of H₂S
 - B. Physical effects and hazards
 - C. Proper use of safety equipment and life support systems.
 - D. Principle and operation of H₂S detectors, warning system and briefing areas.
 - E. Evacuation procedure, routes and first aid.
 - F. Proper use of 30 minute pressure demand air pack.

- 2 H₂S Detection and Alarm Systems:
 - A. H₂S detectors and audio alarm system to be located at bell nipple, end of flow line (mud pit) and on derrick floor or doghouse.

- 3 Windsock and/or wind streamers:
 - A. Windsock at mudpit area should be high enough to be visible.
 - B. Windsock at briefing area should be high enough to be visible.

- 4 Condition Flags and Signs:
 - A. Warning sign on access road to location.
 - B. Flags to be displayed on sign at entrance to location. Green flag indicates normal safe condition. Yellow flag indicates potential pressure and danger. Red flag indicates danger (H₂S present in dangerous concentration). Only emergency personnel admitted to location.

- 5 Well control equipment:
 - A. See exhibit "E"

- 6 Communication:
 - A. While working under masks chalkboards will be used for communication.
 - B. Hand signals will be used where chalk board is inappropriate.
 - C. Two way radio will be used to communicate off location in case of emergency help is required. In most cases cellular telephones will be available at most drilling foreman's trailer or living quarters.

- 7 Drillstem Testing:

No DSTs or cores are planned at this time.

- 8 Drilling contractor supervisor will be required to be familiar with the effects H₂S has on tubular goods and other mechanical equipment.

- 9 If H₂S is encountered, mud system will be altered if necessary to maintain control of formation. A mud gas separator will be brought into service along with H₂S scavengers if necessary.

H₂S Contingency Plan
Franklin 18 Federal Com No. 4
 Cimarex Energy Co. of Colorado
 Unit P, Section 18
 T15S R31E; Chaves County, NM

Emergency Procedures

In the event of a release of gas containing H₂S, 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 H₂S 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 H₂S, 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 (SO₂). 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 H₂S and SO₂

Common Name	Chemical Formula	Specific Gravity	Threshold Limit	Hazardous Limit	Lethal Concentration
Hydrogen Sulfide	H ₂ S	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

Cimarex Energy Co. of Colorado's personnel must liaise 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 including directions to site. The following call list of essential and potential responders has been prepared for use during a release. Cimarex Energy Co. of Colorado's response must be in coordination with the State of New Mexico's "Hazardous Materials Emergency Response Plan" (HMER).

H₂S Contingency Plan Emergency Contacts
Franklin 18 Federal Com No. 4
 Cimarex Energy Co. of Colorado
 Unit P, Section 18
 T15S R31E; Chaves County, NM

Company Office

Cimarex Energy Co. of Colorado
 Co. Office and After-Hours Menu

800-969-4789

Key Personnel

Name	Title	Office	Mobile
Doug Park	Drilling Manager	972-443-6463	972-333-1407
Dee Smith	Drilling Super	972-443-6491	972-882-1010
Jim Evans	Drilling Super	972-443-6451	972-465-6564
Dorsey Rogers	Field Super		575-200-6105
Roy Shirley	Field Super		432-634-2136

Artesia

Ambulance		911	
State Police		575-746-2703	
City Police		575-746-2703	
Sheriff's Office		575-746-9888	
Fire Department		575-746-2701	
Local Emergency Planning Committee		575-746-2122	
New Mexico Oil Conservation Division		575-748-1283	

Carlsbad

Ambulance		911	
State Police		575-885-3137	
City Police		575-885-2111	
Sheriff's Office		575-887-7551	
Fire Department		575-887-3798	
Local Emergency Planning Committee		575-887-6544	
US Bureau of Land Management		575-887-6544	

Santa Fe

New Mexico Emergency Response Commission (Santa Fe)		505-476-9600	
New Mexico Emergency Response Commission (Santa Fe) 24 Hrs		505-827-9126	
New Mexico State Emergency Operations Center		505-476-9635	

National

National Emergency Response Center (Washington, D.C.)		800-424-8802	
---	--	--------------	--

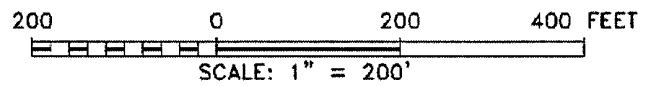
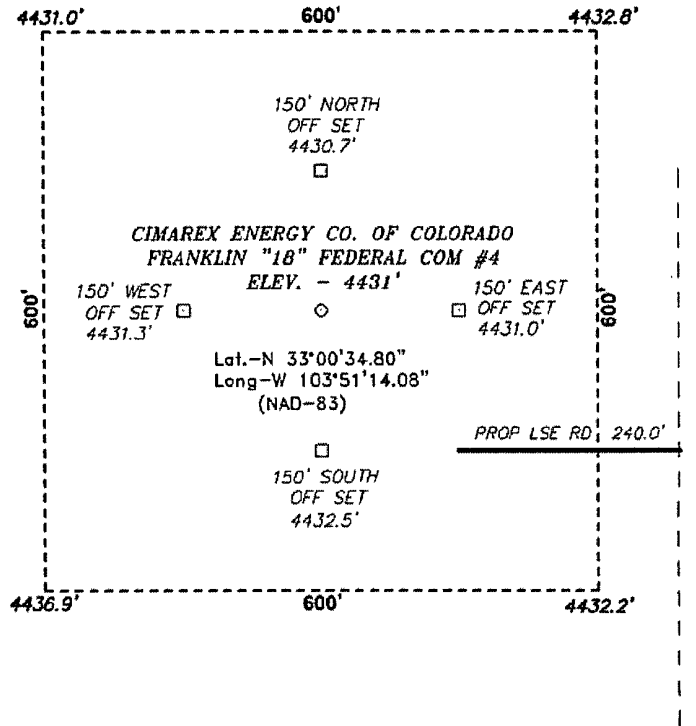
Medical

Flight for Life - 4000 24th St.; Lubbock, TX		806-743-9911	
Aerocare - R3, Box 49F; Lubbock, TX		806-747-8923	
Med Flight Air Amb - 2301 Yale Blvd S.E., #D3; Albuquerque, NM		505-842-4433	
SB Air Med Service - 2505 Clark Carr Loop S.E.; Albuquerque, NM		505-842-4949	

Other

Boots & Coots IWC	800-256-9688	or	281-931-8884
Cudd Pressure Control	432-699-0139	or	432-563-3356
Halliburton	575-746-2757		
B.J. Services	575-746-3569		

SECTION 18, TOWNSHIP 15 SOUTH, RANGE 31 EAST, N.M.P.M.,
 CHAVES COUNTY, NEW MEXICO.



Directions to Location:

FROM MILE MARKER 30 OF HWY 31, GO SOUTH 0.5
 MILES TO PROPOSED LEASE ROAD.

CIMAREX ENERGY CO. OF COLORADO

REF: FRANKLIN "18" FEDERAL COM #4 / WELL PAD TOPO

THE FRANKLIN "18" FEDERAL COM #4 LOCATED 375'

FROM THE SOUTH LINE AND 375' FROM THE EAST LINE OF

SECTION 18, TOWNSHIP 15 SOUTH, RANGE 31 EAST,

N.M.P.M., CHAVES COUNTY, NEW MEXICO.

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

W.O. Number: 19447 Drawn By: J. SMALL

Date: 05-13-2008 Disk: JMS 19447

Survey Date: 05-12-2008 Sheet 1 of 1 Sheets

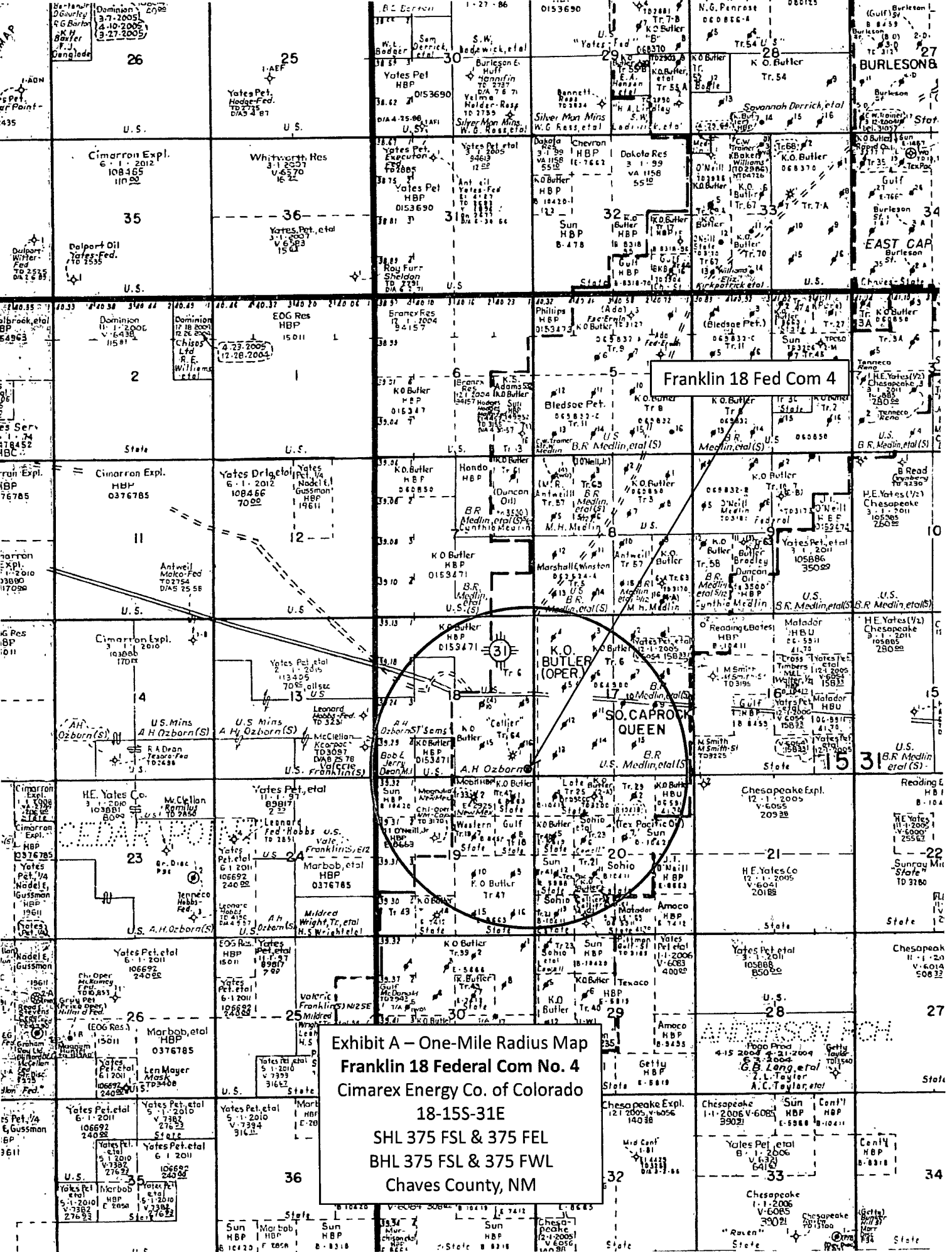
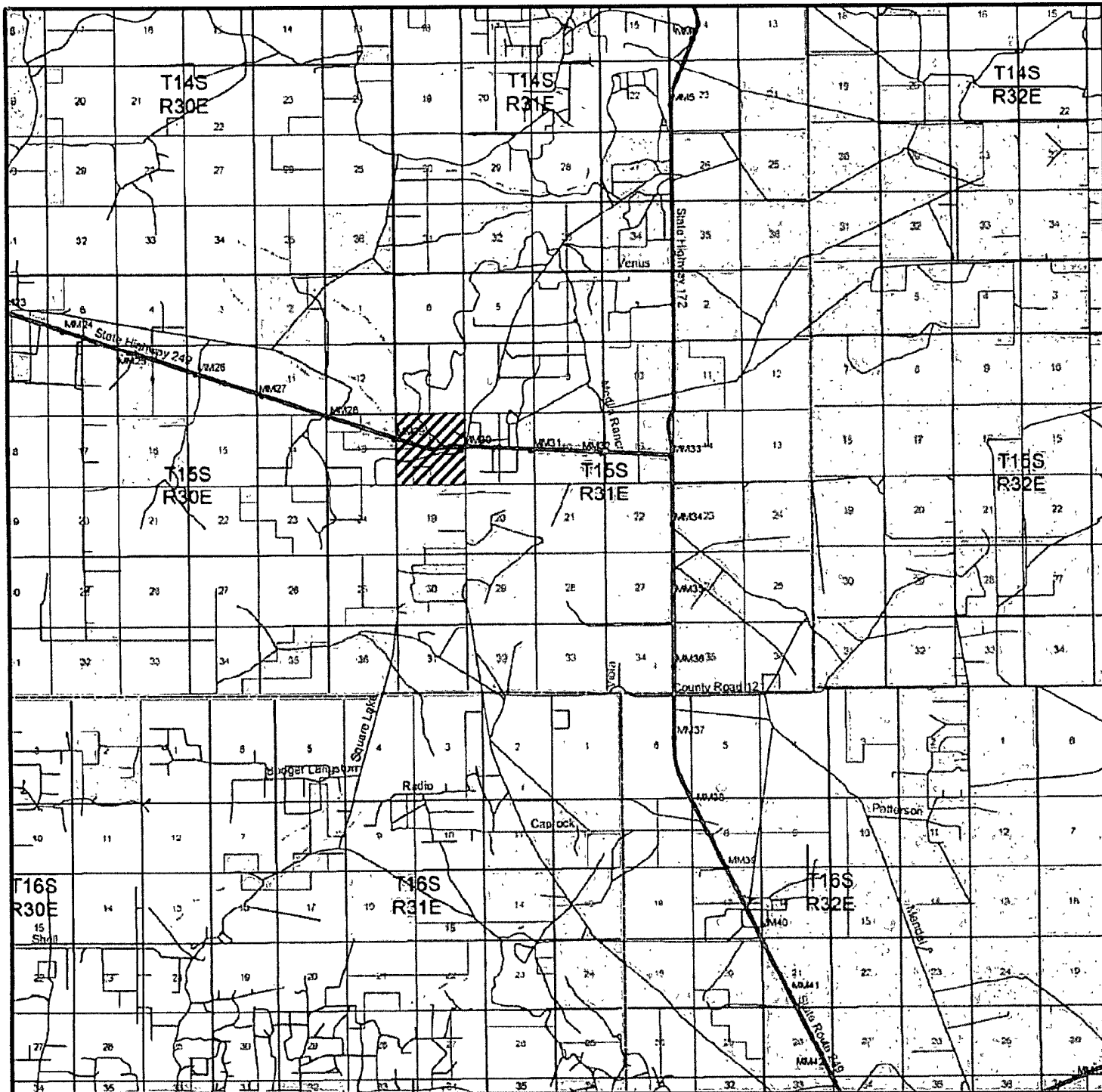


Exhibit A - One-Mile Radius Map
 Franklin 18 Federal Com No. 4
 Cimarex Energy Co. of Colorado
 18-155-31E
 SHL 375 FSL & 375 FEL
 BHL 375 FSL & 375 FWL
 Chaves County, NM

MAP
 26
 25
 30
 29
 28
 27
 35
 36
 31
 32
 33
 34
 2
 1
 5
 4
 3
 6
 7
 8
 9
 10
 11
 12
 13
 14
 15
 16
 17
 18
 19
 20
 21
 22
 23
 24
 25
 26
 27
 28
 29
 30
 31
 32
 33
 34
 35
 36



FRANKLIN "18" FEDERAL COM #4
 Located 375' FSL and 375' FEL
 Section 18, Township 15 South, Range 31 East,
 N.M.P.M., Chaves County, New Mexico.

basin
surveys
 focused on excellence
 in the oilfield

P.O. Box 1786
 1120 N. West County Rd.
 Hobbs, New Mexico 88241
 (505) 393-7316 - Office
 (505) 392-3074 - Fax
 basinsurveys.com

W.O. Number: JMS 19447

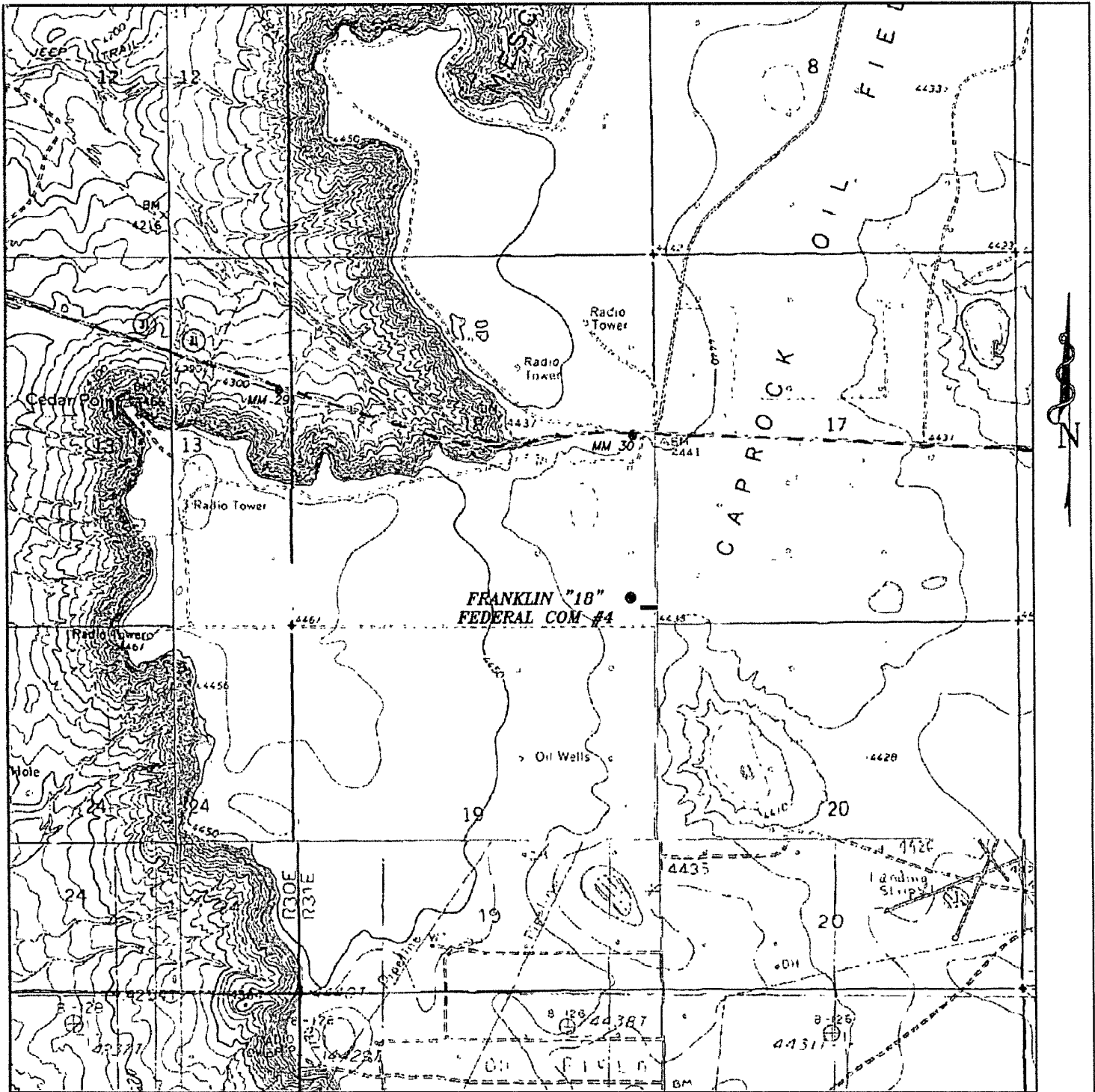
Survey Date: 05-12-2008

Scale: 1" = 2 MILES

Date: 05-13-2008

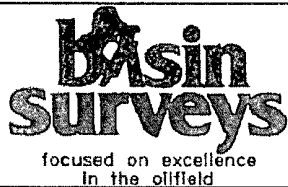
CIMAREX
ENERGY CO.
OF COLORADO

Exhibit B



FRANKLIN "18" FEDERAL COM #4

Located 375' FSL and 375' FEL
 Section 18, Township 15 South, Range 31 East,
 N.M.P.M., Chaves County, New Mexico.



P.O. Box 1786
 1120 N. West County Rd.
 Hobbs, New Mexico 88241
 (505) 393-7316 - Office
 (505) 392-3074 - Fax
 basinsurveys.com

W.O. Number JMS 19447

Survey Date: 05-12-2008

Scale: 1" = 2000'

Date: 05-13-2008

**CIMAREX
 ENERGY CO.
 OF COLORADO**

Patriot Rig 4

Cimarex Energy Co. of Colorado

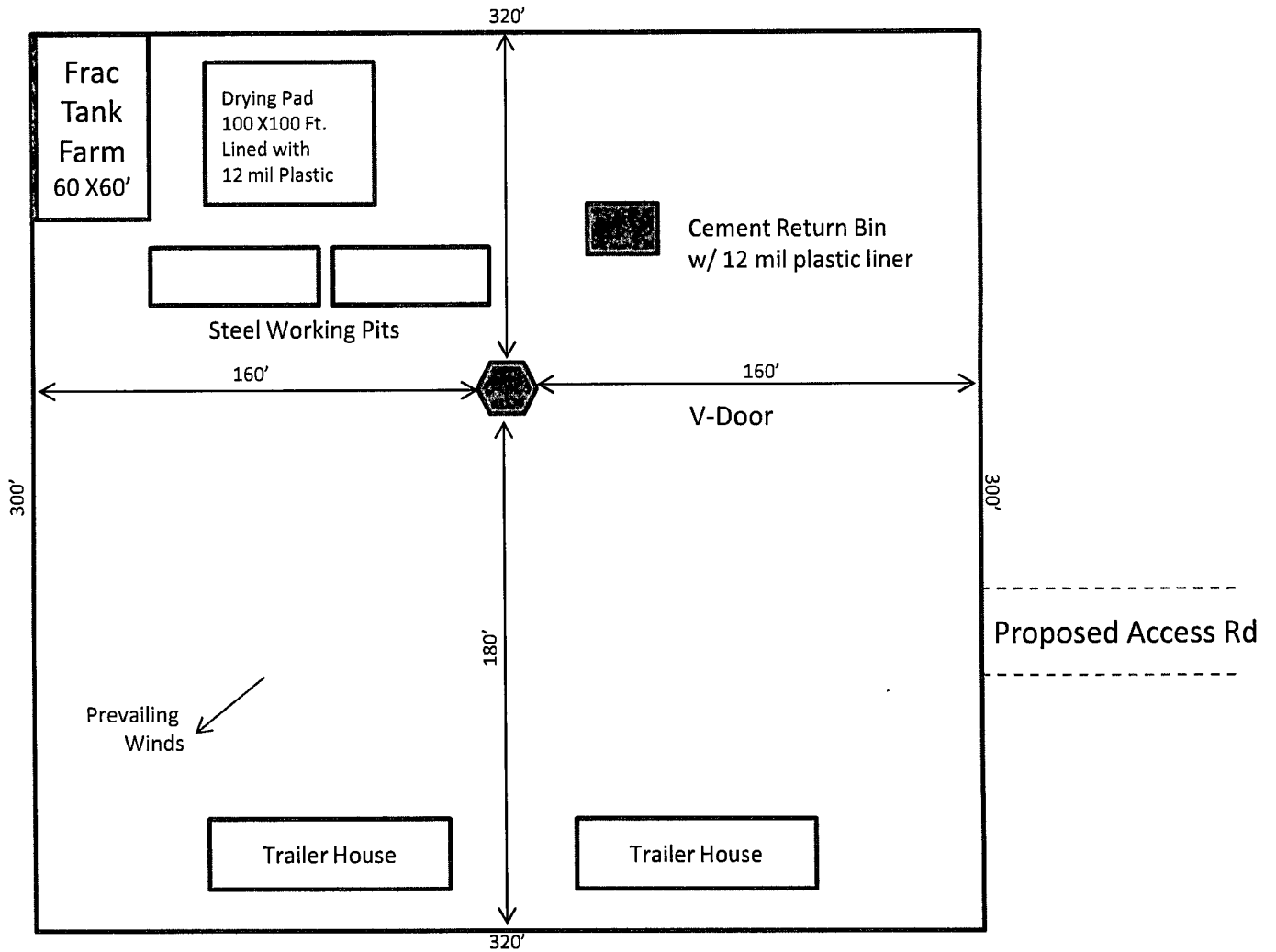
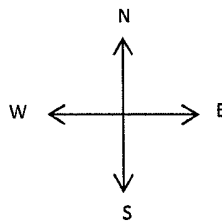


Exhibit D - Rig Layout
Franklin 18 Federal Com No. 4
Cimarex Energy Co. of Colorado
18-15S-31E
SHL 375 FSL & 375 FEL
BHL 375 FSL & 375 FWL
Chaves County, NM



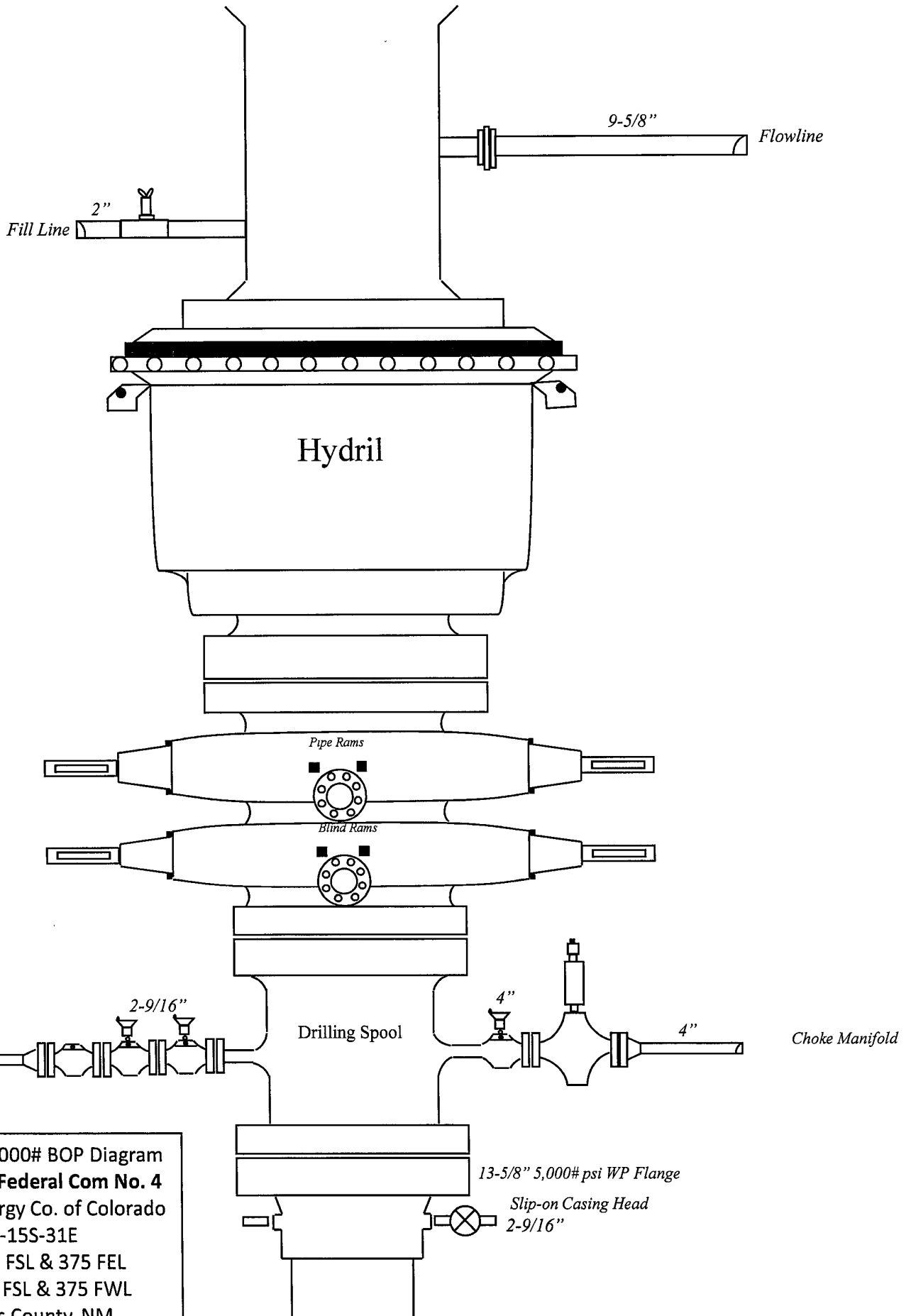


Exhibit E – 5000# BOP Diagram
Franklin 18 Federal Com No. 4
Cimarex Energy Co. of Colorado
18-15S-31E
SHL 375 FSL & 375 FEL
BHL 375 FSL & 375 FWL
Chaves County, NM

**DRILLING OPERATIONS
CHOKE MANIFOLD
SM SERVICE**

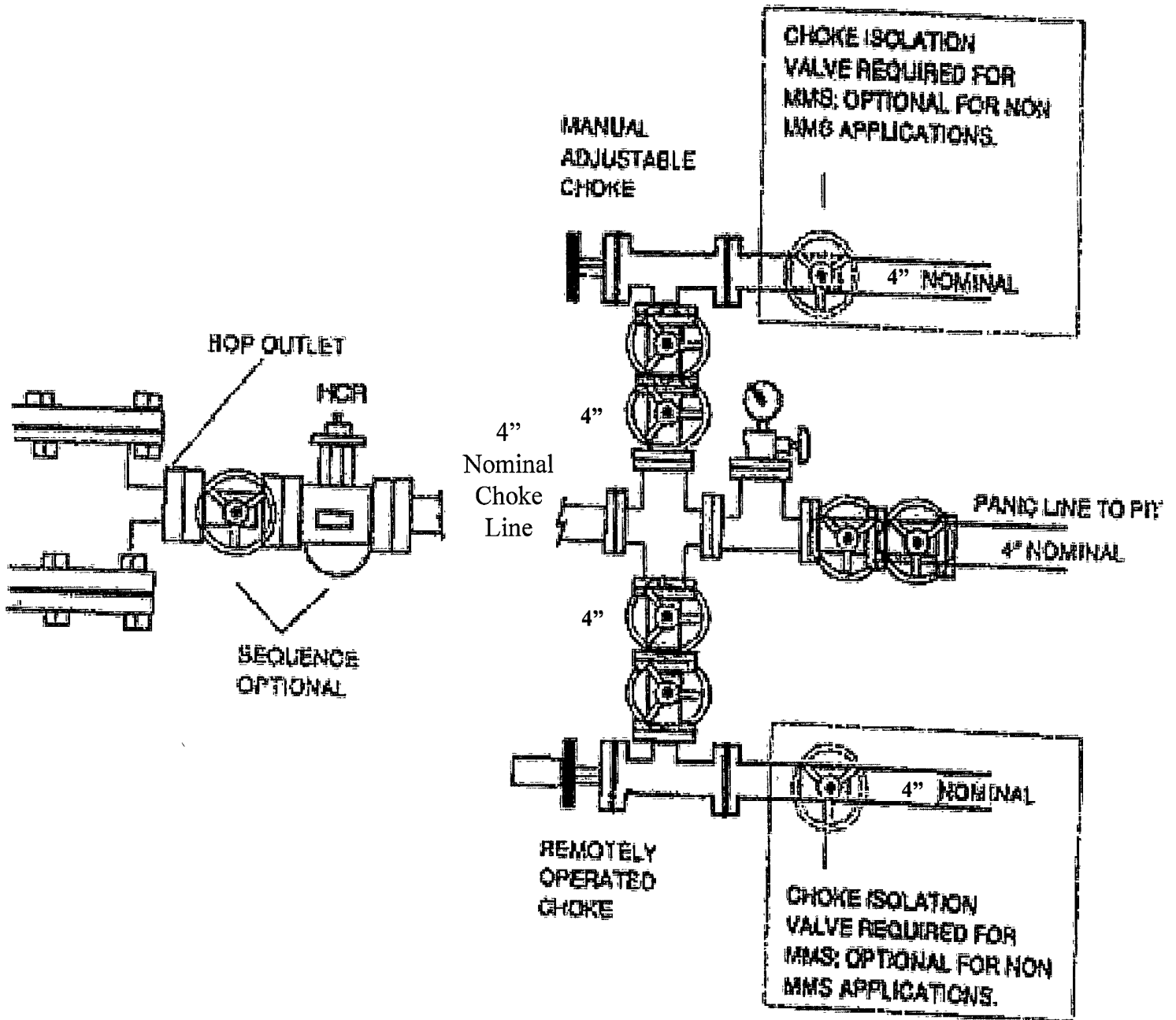
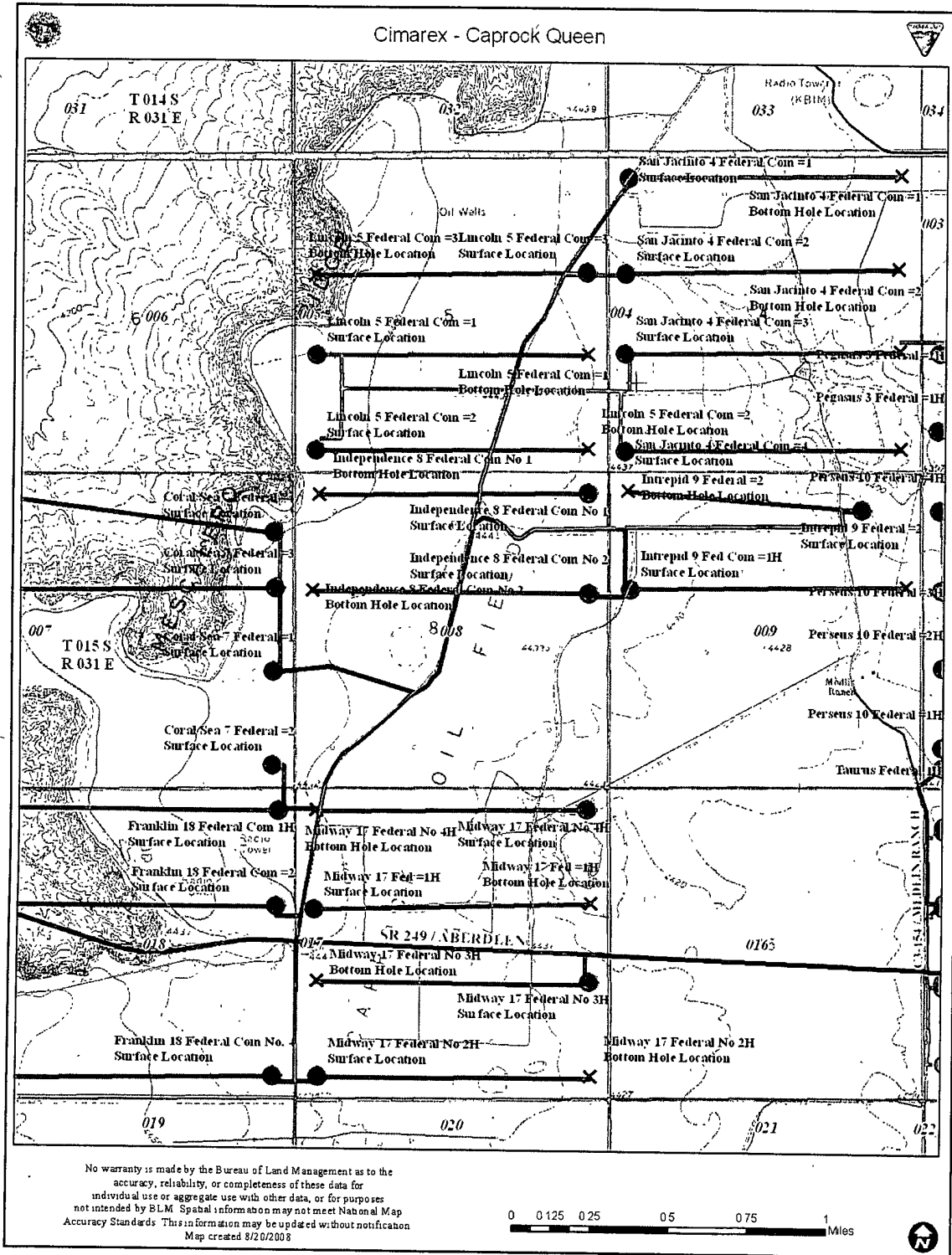


Exhibit E-1 – Choke Manifold Diagram
Franklin 18 Federal Com No. 4
 Cimarex Energy Co. of Colorado
 18-15S-31E
 SHL 375 FSL & 375 FEL
 BHL 375 FSL & 375 FWL
 Chaves County, NM

Exhibit A – General Location Map



No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual use or aggregate use with other data, or for purposes not intended by BLM. Spatial information may not meet National Map Accuracy Standards. This information may be updated without notification.