

State of New Mexico
Energy, Minerals and Natural Resources Department

Susana Martinez
Governor

David Martin
Cabinet Secretary-Designate

Brett F. Woods, Ph.D.
Deputy Cabinet Secretary

Jami Bailey, Division Director
Oil Conservation Division



New Mexico Oil Conservation Division approval and conditions listed below are made in accordance with OCD Rule 19.15.7.11 and are in addition to the actions approved by BLM on the following 3160-3 APD form.

Operator Signature Date: 7.14.14

Well information:

Operator Burlington, Well Name and Number Huerfano Unit HEDK #2H

API# 30-045-35576 Section 29, Township 27N, Range 9E

Conditions of Approval:

(See the below checked and handwritten conditions)

☒ Notify Aztec OCD 24hrs prior to casing & cement.

☒ Hold C-104 for directional survey & "As Drilled" Plat

☐ Hold C-104 for NSL, NSP, DHC Possible NSL in NW section depending on perforations - Setback is 660' FWD

☐ Spacing rule violation. Operator must follow up with change of status notification on other well to be shut in or abandoned

☐ Regarding the use of a pit, closed loop system or below grade tank, the operator must comply with the following as applicable:

- A pit requires a complete C-144 be submitted and approved prior to the construction or use of the pit, pursuant to 19.15.17.8.A
- A closed loop system requires notification prior to use, pursuant to 19.15.17.9.A
- A below grade tank requires a registration be filed prior to the construction or use of the below grade tank, pursuant to 19.15.17.8.C

☐ Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string

☒ Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system.

Charles Herrin

NMOCD Approved by Signature

8-7-2014

Date

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED

JUL 21 2014

FORM APPROVED
OMB No. 1004-0137
Expires: October 31, 2014

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work ☒ DRILL ☐ RE-ENTER
b. Type of Well: ☐ Oil Well ☒ Gas Well

Other: _____

2. Name of Operator
Burlington Resources Oil & Gas Company

3. Address: **PO Box 4289, Farmington, NM 87499**
3a. Phone No. (include area code) **(505) 326-9700**

4. Location of Well (Report location clearly and in accordance with Federal requirements)*

At surface **UL A (NENE), 1050' FNL, 644' FEL**
Latitude **36.5502763 ° N**
Longitude **107.8049156 ° W**
At BHL **UL I (NESE), 2480' FSL, 140' FEL**
Latitude **36.5458336 ° N**
Longitude **107.7853427 ° W**

OIL CONS. DIV DIST. 3

JUL 29 2014

5. Lease Serial I
SF-078081

6. If Indian, Allottee or Tribe Name

7. Unit or CA Agreement Name and No.

Huerfanito Unit
NMINM-78 3743-DK

8. Lease Name and Well No.

Huerfanito Unit HZDK 2H

9. API Well No.

30-045-35576

10. Field and Pool or Exploratory
Basin Dakota

11. Sec., T., R., M., on Block and Survey or Area
Suf: **Section 29, T27N, R9W**
BHL: **Section 28, T27N, R9W**

12. County or Parish
San Juan

13. State
New Mexico

14. Distance in miles from Nearest Town
25 miles from Bloomfield, NM

15. Distance from Proposed Location to
Nearest Property or Lease Line: **140**

16. Acres in Lease
1280

17. Acres Assigned to Well:
640 acres (all section 28)

18. Distance from Proposed Location to Nearest Well,
Drlg, Compl, or Applied for on this lease
220' Hudson A D 1R

19. Proposed Depth
6639' VD
12365' MD

20. Rotary or Cable Tools
Rotary

21. Elevations (DF, FT, GR, Etc.)
6289' GR

22. Approx. Date Work will Start

23. Proposed Casing and Cementing Program
See Operations Plan attached

24. Authorized by: **Patsy Clugston** (Staff Regulatory Tech)

7/14/14
Date

PERMIT NO. _____

APPROVAL DATE _____

APPROVED BY: _____

TITLE _____

AFM

DATE _____

7/29/14

Archaeological Report attached

Threatened and Endangered Species Report attached

NOTE: This format is issued in lieu of U.S.BLM Form 3160-3

Title 18 U.S.C Section 1001, makes 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 presentations as to any matter within its jurisdiction.

A gas recovery unit may or may not be used on this location.

Bond Numbers NMB-000015 and NMB-000089

BLM'S APPROVAL OR ACCEPTANCE OF THIS
ACTION DOES NOT RELIEVE THE LESSEE AND
OPERATOR FROM OBTAINING ANY OTHER
AUTHORIZATION REQUIRED FOR OPERATIONS
ON FEDERAL AND INDIAN LANDS

NMOCDA

This action is subject to
technical and procedural review
pursuant to 43 CFR 3165.3 and
appeal pursuant to 43 CFR 3165.4

DRILLING OPERATIONS AUTHORIZED
ARE SUBJECT TO COMPLIANCE WITH
ATTACHED "GENERAL REQUIREMENTS"

RECEIVED

DISTRICT I
1625 N. French Dr., Hobbs, N.M. 88240
Phone: (575) 585-6161 Fax: (575) 585-6720

DISTRICT II
611 S. First St., Artesia, N.M. 88210
Phone: (575) 746-1263 Fax: (575) 748-9720

DISTRICT III
1000 Rio Brazos Rd., Laso, N.M. 87410
Phone: (505) 334-6178 Fax: (505) 334-6170

DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, N.M. 87505
Phone: (505) 478-3460 Fax: (505) 478-3462

State of New Mexico
Energy, Minerals & Natural Resources Department

21 2014

Form C-102

Revised August 1, 2011

OIL CONSERVATION DIVISION

1220 South St. Francis Drive
Santa Fe, N.M. 87505

Submit one copy to appropriate
District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-045- 35576		² Pool Code 71599	³ Pool Name basin dakota
⁴ Property Code 313570	⁵ Property Name HUERFANITO UNIT H2OK		⁶ Well Number 2M
⁷ GRID No. 14538	⁸ Operator Name BURLINGTON RESOURCES OIL & GAS COMPANY LP		⁹ Elevation 6289

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	29	27 N	9 W		1050	NORTH	644	EAST	SAN JUAN

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
I	28	27 N	9 W		2480	SOUTH	140	EAST	SAN JUAN

¹² Dedicated Acres 640 acres (all of Section 28)	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No. R-13499
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

16

G.N.=GRID NORTH
T.N.=TRUE NORTH
CONVERGENCE AT
SURFACE LOCATION

BEARINGS & DISTANCES SHOWN ARE
REFERENCED TO THE NEW MEXICO
COORDINATE SYSTEM, WEST ZONE,
NAD 83, UNLESS OTHERWISE NOTED.

LEGEND:
○ = SURFACE LOCATION
○ = BOTTOM HOLE LOCATION
⊙ = FOUND 1947 U.S.G.I.O. BRASS CAP
★ = EXISTING WELL
★ = P&A WELL

17 OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Patsy Clugston 3/31/14
Signature Date
Patsy Clugston
Printed Name
Patsy.L.Clugston@conocophillips.com
E-mail Address

18 SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

01/16/14
Date of Survey
Signature and Seal of Professional Surveyor
Marshall W. Linden
MARSHALL W. LINDEN
NEW MEXICO
17078
PROFESSIONAL SURVEYOR
17078
Certificate Number
United Field Services, Inc.

Burlington Resources Oil & Gas Company LP, a subsidiary of ConocoPhillips proposes to drill and complete the referenced horizontal well targeting a zone within the Dakota formation.

Technical Plan**RECEIVED****JUL 23 2014****1. Location**

Huerfanito Unit HZDK #2H

SHL: 1,050' FNL, 644' FEL -- T 27N, R 09W, Sec 29

BHL: 2,480' FSL, 140' FEL -- T 27N, R 09W, Sec 28

GL/KB: 6,289' GL / 6,304' KB

Farmingdale Field Office
Bureau of Land Management**2. Geological Markers**

Anticipated formation tops with comments of any possible water, gas, or oil shows are indicated below:

<u>Formation</u>	<u>Depth (TVD)</u>	<u>Remarks</u>
Nacimiento	Surface	
Ojo Alamo	1,233'	Possible Water
Kirtland	1,361'	
Fruitland	1,741'	Possible Gas
Pictured Cliffs	2,123'	
Lewis	2,219'	
Huerfanito Bentonite	2,610'	
Chacra	3,034'	
Cliffhouse	3,698'	Gas
Menefee	3,803'	
Point Lookout	4,477'	
Mancos	4,794'	Gas
Upper Gallup	5,637	Gas
Greenhorn	6,444	
Graneros	6,494'	
Dakota	6,519'	Gas

See attached directional plan for anticipated formation tops in measure depth.

3. Pressure Control Equipment

See Attached BOPE & Choke Manifold Schematic for a diagram of pressure control equipment.

- BOPE will be nipped up on top of wellhead after surface casing is set and cemented.
- Pressure control configuration will be designed to meet the minimum 2M standard.
- All equipment will have 3M pressure ratings.
- A rotating head will be rigged up on top of annular as seen in attached diagram.

For the 1st intermediate hole section a 2-stage cement job may be performed if hole conditions indicate during operations. Stage tool will be placed appropriately as conditions indicate.

Cement slurries may change as indicated by hole conditions and cement additives will be adjusted as needed to accommodate required pump times and compressive test times.

C) The proposed centralizer program is shown below:

Centralizer Program	
Interval	Centralizers
Surface	1 per joint on bottom 3 joints
Intermediate 1	10' above shoe jnt w/ collar clamp On top of 2 nd , 4 th , 6 th , 8 th , 10 th jnts 1 every 4 th jnt to Ojo Alamo 1 Turbolizer at base of Ojo Alamo 1 every joint thru Ojo Alamo 1 Turbolizer will be placed mid way into Ojo Alamo 1 every 4 th jnt from top of Ojo Alamo up to surface shoe 1 inside surface casing
Intermediate 2	10' above shoe jnt w/ collar clamp 1 every 2 jnts (at min) to Intermediate 1 casing shoe 1 inside Intermediate 1 casing
Production	1 every 3 jnts (at min) to liner hanger assembly

To allow adequate time for cement to achieve a minimum of 500 psi compressive strength, a minimum of 8 hours wait on cement time for each hole section will be observed. The wellhead will not be installed, casing will not be tested, and the prior casing shoe will not be drilled out until adequate wait on cement time is achieved.

5. Drilling Fluids

A) The proposed drilling fluid program is outlined below:

Mud Program				
Interval	Mud Type	Weight (ppg)	Fluid Loss (cc)	Invert Ratio (Diesel/Brine)
Surface	Air / Water Gel System	Air 8.3 - 9.2	NC	
Intermediate 1	LSND / Gel System	8.4 - 9	6 - 16	
Intermediate 2	Oil Based Mud	7.5 - 10	6 - 14	60/40 - 90/10
	Water LSND/Gel System	8.5 - 10	4 - 14	
Production	Oil Based Mud	7.5 - 10	4 - 14	60/40 - 90/10
	Water LSND/Gel System	8.5 - 10	4 - 14	

REFERENCE INFORMATION

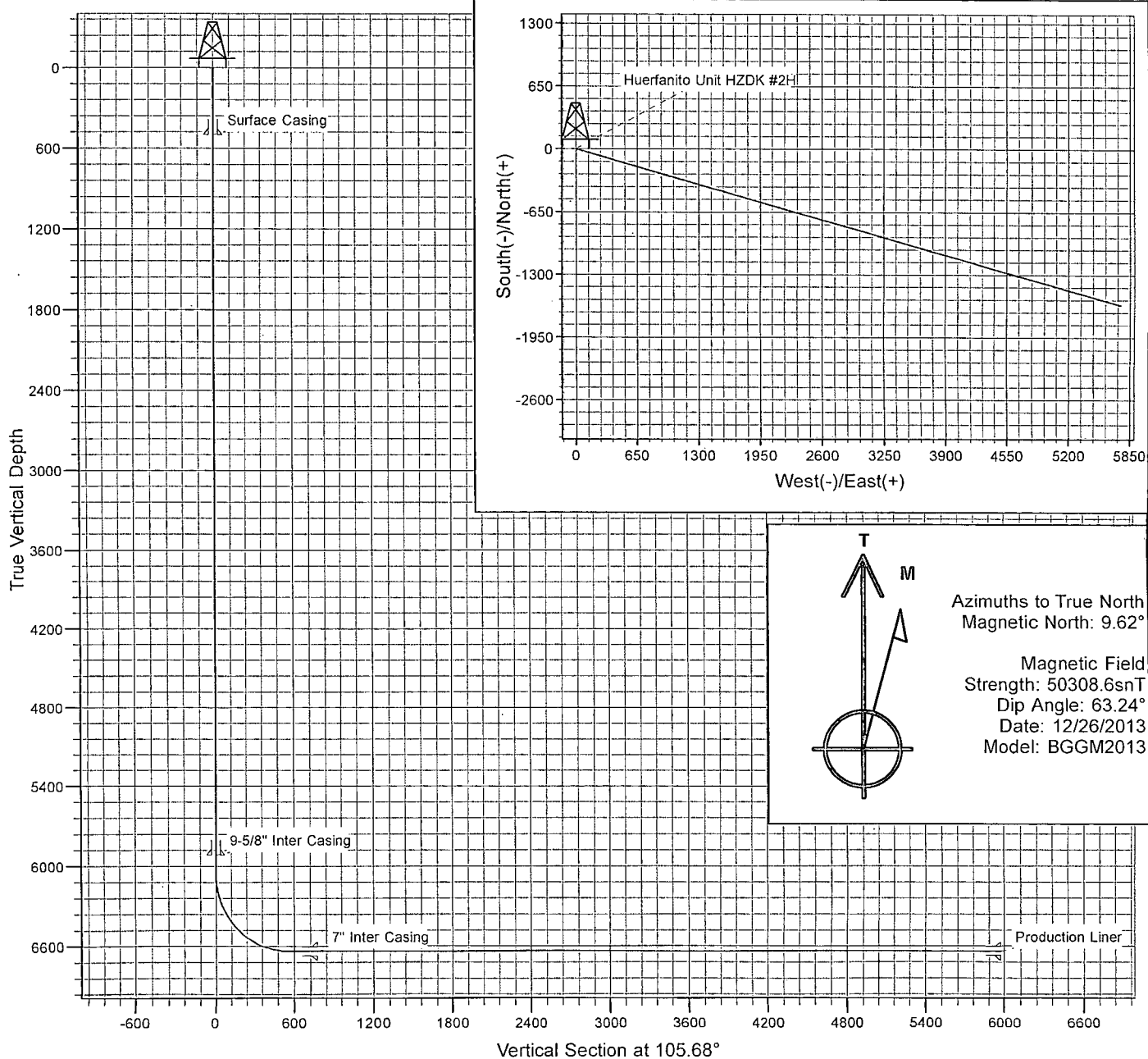
KB @ 6304.0usft (15' KB)
Ground Elevation 6289.0
Reference Lat: 36° 33' 0.936 N
Reference Long: 107° 48' 15.480 W

Project: San Juan Basin - New Mexico West We
Site: Huerfano / Huerfanito Wells
Well: Huerfanito Unit HZDK #2H
Wellbore: Wellbore #1
Design: APD Dirc Plan



SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0
2	6066.0	0.00	0.00	6066.0	0.0	0.0	0.00	0.00	0.0
3	6966.0	90.00	105.68	6639.0	-154.9	551.6	10.00	105.68	573.0
4	7166.0	90.00	105.68	6639.0	-208.9	744.2	0.00	0.00	773.0
5	12365.0	90.00	105.68	6639.0	-1614.1	5749.7	0.00	90.00	5971.9



ConocoPhillips SJBW

San Juan Basin - New Mexico West Wells

Huerfano / Huerfanito Wells

Huerfanito Unit HZDK #2H

Wellbore #1

Plan: APD Dirc Plan

Standard Planning Report

02 April, 2014

ConocoPhillips

Planning Report

Database: EDM Central Planning	Local Co-ordinate Reference: Well Huerfanito Unit HZDK #2H
Company: ConocoPhillips SJB	TVD Reference: KB @ 6304.0usft (15' KB)
Project: San Juan Basin - New Mexico West Wells	MD Reference: KB @ 6304.0usft (15' KB)
Site: Huerfano / Huerfanito Wells	North Reference: True
Well: Huerfanito Unit HZDK #2H	Survey Calculation Method: Minimum Curvature
Wellbore: Wellbore #1	
Design: APD Dirc Plan	

Project	San Juan Basin - New Mexico West Wells, New Mexico, Directional "S"		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Ground Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico West 3003		Using geodetic scale factor

Site	Huerfano / Huerfanito Wells				
Site Position:		Northing:	2,010,379.32 usft	Latitude:	36° 31' 30.309 N
From:	Lat/Long	Easting:	498,854.34 usft	Longitude:	107° 50' 14.037 W
Position Uncertainty:	0.0 usft	Slot Radius:	11 "	Grid Convergence:	0.00 °

Well	Huerfanito Unit HZDK #2H				
Well Position	+N/-S	9,169.3 usft	Northing:	2,019,547.49 usft	Latitude: 36° 33' 0.963 N
	+E/-W	9,673.9 usft	Easting:	508,527.85 usft	Longitude: 107° 48' 15.480 W
Position Uncertainty		2.5 usft	Wellhead Elevation:		Ground Level: 6,289.0 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2013	4/1/2014	9.59	63.23	50,277

Design	APD Dirc Plan				
Audit Notes:					
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0	
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.0	-0.1	0.0	105.71	

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	-0.1	0.0	0.00	0.00	0.00	0.00	
6,066.0	0.00	0.00	6,066.0	-0.1	0.0	0.00	0.00	0.00	0.00	
6,966.0	90.00	105.70	6,639.0	-155.1	551.6	10.00	10.00	11.74	105.70	Huerfanito Unit HZDK
7,166.0	90.00	105.70	6,639.0	-209.2	744.1	0.00	0.00	0.00	0.00	
12,365.7	90.00	105.71	6,639.0	-1,616.9	5,749.7	0.00	0.00	0.00	90.00	Huerfanito Unit HZDK

ConocoPhillips

Planning Report

Database: EDM Central Planning
Company: ConocoPhillips SJB
Project: San Juan Basin - New Mexico West Wells
Site: Huerfano / Huerfanito Wells
Well: Huerfanito Unit HZDK #2H
Wellbore: Wellbore #1
Design: APD Dirc Plan

Local Co-ordinate Reference: Well Huerfanito Unit HZDK #2H
TVD Reference: KB @ 6304.0usft (15' KB)
MD Reference: KB @ 6304.0usft (15' KB)
North Reference: True
Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	-0.1	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	-0.1	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	-0.1	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	-0.1	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	-0.1	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	-0.1	0.0	0.0	0.00	0.00	0.00
Surface Casing									
600.0	0.00	0.00	600.0	-0.1	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	-0.1	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	-0.1	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	-0.1	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	-0.1	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	-0.1	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	-0.1	0.0	0.0	0.00	0.00	0.00
1,233.0	0.00	0.00	1,233.0	-0.1	0.0	0.0	0.00	0.00	0.00
Ojo Alamo									
1,300.0	0.00	0.00	1,300.0	-0.1	0.0	0.0	0.00	0.00	0.00
1,361.0	0.00	0.00	1,361.0	-0.1	0.0	0.0	0.00	0.00	0.00
Kirtland									
1,400.0	0.00	0.00	1,400.0	-0.1	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	-0.1	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	-0.1	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	-0.1	0.0	0.0	0.00	0.00	0.00
1,741.0	0.00	0.00	1,741.0	-0.1	0.0	0.0	0.00	0.00	0.00
Fruitland									
1,800.0	0.00	0.00	1,800.0	-0.1	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	-0.1	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	-0.1	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	-0.1	0.0	0.0	0.00	0.00	0.00
2,123.0	0.00	0.00	2,123.0	-0.1	0.0	0.0	0.00	0.00	0.00
Pictured Cliffs									
2,200.0	0.00	0.00	2,200.0	-0.1	0.0	0.0	0.00	0.00	0.00
2,219.0	0.00	0.00	2,219.0	-0.1	0.0	0.0	0.00	0.00	0.00
Lewis									
2,300.0	0.00	0.00	2,300.0	-0.1	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	-0.1	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	-0.1	0.0	0.0	0.00	0.00	0.00
2,600.0	0.00	0.00	2,600.0	-0.1	0.0	0.0	0.00	0.00	0.00
2,610.0	0.00	0.00	2,610.0	-0.1	0.0	0.0	0.00	0.00	0.00
Huerfanito Bentonite									
2,700.0	0.00	0.00	2,700.0	-0.1	0.0	0.0	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	-0.1	0.0	0.0	0.00	0.00	0.00
2,900.0	0.00	0.00	2,900.0	-0.1	0.0	0.0	0.00	0.00	0.00
3,000.0	0.00	0.00	3,000.0	-0.1	0.0	0.0	0.00	0.00	0.00
3,034.0	0.00	0.00	3,034.0	-0.1	0.0	0.0	0.00	0.00	0.00
Chacra									
3,100.0	0.00	0.00	3,100.0	-0.1	0.0	0.0	0.00	0.00	0.00
3,200.0	0.00	0.00	3,200.0	-0.1	0.0	0.0	0.00	0.00	0.00
3,300.0	0.00	0.00	3,300.0	-0.1	0.0	0.0	0.00	0.00	0.00
3,400.0	0.00	0.00	3,400.0	-0.1	0.0	0.0	0.00	0.00	0.00
3,500.0	0.00	0.00	3,500.0	-0.1	0.0	0.0	0.00	0.00	0.00
3,600.0	0.00	0.00	3,600.0	-0.1	0.0	0.0	0.00	0.00	0.00
3,698.0	0.00	0.00	3,698.0	-0.1	0.0	0.0	0.00	0.00	0.00

ConocoPhillips

Planning Report

Database:	EDM Central Planning	Local Co-ordinate Reference:	Well Huerfanito Unit HZDK #2H
Company:	ConocoPhillips SJBU	TVD Reference:	KB @ 6304.0usft (15' KB)
Project:	San Juan Basin - New Mexico West Wells	MD Reference:	KB @ 6304.0usft (15' KB)
Site:	Huerfano / Huerfanito Wells	North Reference:	True
Well:	Huerfanito Unit HZDK #2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	APD Dirc Plan		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
Cliffhouse									
3,700.0	0.00	0.00	3,700.0	-0.1	0.0	0.0	0.00	0.00	0.00
3,800.0	0.00	0.00	3,800.0	-0.1	0.0	0.0	0.00	0.00	0.00
3,803.0	0.00	0.00	3,803.0	-0.1	0.0	0.0	0.00	0.00	0.00
Menefee									
3,900.0	0.00	0.00	3,900.0	-0.1	0.0	0.0	0.00	0.00	0.00
4,000.0	0.00	0.00	4,000.0	-0.1	0.0	0.0	0.00	0.00	0.00
4,100.0	0.00	0.00	4,100.0	-0.1	0.0	0.0	0.00	0.00	0.00
4,200.0	0.00	0.00	4,200.0	-0.1	0.0	0.0	0.00	0.00	0.00
4,300.0	0.00	0.00	4,300.0	-0.1	0.0	0.0	0.00	0.00	0.00
4,400.0	0.00	0.00	4,400.0	-0.1	0.0	0.0	0.00	0.00	0.00
4,477.0	0.00	0.00	4,477.0	-0.1	0.0	0.0	0.00	0.00	0.00
Point Lookout									
4,500.0	0.00	0.00	4,500.0	-0.1	0.0	0.0	0.00	0.00	0.00
4,600.0	0.00	0.00	4,600.0	-0.1	0.0	0.0	0.00	0.00	0.00
4,700.0	0.00	0.00	4,700.0	-0.1	0.0	0.0	0.00	0.00	0.00
4,794.0	0.00	0.00	4,794.0	-0.1	0.0	0.0	0.00	0.00	0.00
Mancos									
4,800.0	0.00	0.00	4,800.0	-0.1	0.0	0.0	0.00	0.00	0.00
4,900.0	0.00	0.00	4,900.0	-0.1	0.0	0.0	0.00	0.00	0.00
5,000.0	0.00	0.00	5,000.0	-0.1	0.0	0.0	0.00	0.00	0.00
5,100.0	0.00	0.00	5,100.0	-0.1	0.0	0.0	0.00	0.00	0.00
5,200.0	0.00	0.00	5,200.0	-0.1	0.0	0.0	0.00	0.00	0.00
5,300.0	0.00	0.00	5,300.0	-0.1	0.0	0.0	0.00	0.00	0.00
5,400.0	0.00	0.00	5,400.0	-0.1	0.0	0.0	0.00	0.00	0.00
5,500.0	0.00	0.00	5,500.0	-0.1	0.0	0.0	0.00	0.00	0.00
5,600.0	0.00	0.00	5,600.0	-0.1	0.0	0.0	0.00	0.00	0.00
5,637.0	0.00	0.00	5,637.0	-0.1	0.0	0.0	0.00	0.00	0.00
Upper Gallup									
5,700.0	0.00	0.00	5,700.0	-0.1	0.0	0.0	0.00	0.00	0.00
5,800.0	0.00	0.00	5,800.0	-0.1	0.0	0.0	0.00	0.00	0.00
5,900.0	0.00	0.00	5,900.0	-0.1	0.0	0.0	0.00	0.00	0.00
5,916.0	0.00	0.00	5,916.0	-0.1	0.0	0.0	0.00	0.00	0.00
9-5/8" Inter Casing									
5,959.0	0.00	0.00	5,959.0	-0.1	0.0	0.0	0.00	0.00	0.00
Basal Niobrara									
6,000.0	0.00	0.00	6,000.0	-0.1	0.0	0.0	0.00	0.00	0.00
6,066.0	0.00	0.00	6,066.0	-0.1	0.0	0.0	0.00	0.00	0.00
6,100.0	3.40	105.70	6,100.0	-0.3	1.0	1.0	10.00	10.00	0.00
6,200.0	13.40	105.70	6,198.8	-4.3	15.0	15.6	10.00	10.00	0.00
6,300.0	23.40	105.70	6,293.6	-12.8	45.3	47.1	10.00	10.00	0.00
6,400.0	33.40	105.70	6,381.4	-25.7	91.1	94.6	10.00	10.00	0.00
6,478.8	41.27	105.70	6,444.0	-38.6	137.0	142.3	10.00	10.00	0.00
Greenhorn									
6,500.0	43.40	105.70	6,459.7	-42.4	150.8	156.6	10.00	10.00	0.00
6,549.3	48.32	105.70	6,494.0	-52.0	184.8	192.0	10.00	10.00	0.00
Graneros									
6,588.4	52.24	105.70	6,519.0	-60.2	213.8	222.1	10.00	10.00	0.00
Two Wells									
6,600.0	53.40	105.70	6,526.0	-62.7	222.7	231.3	10.00	10.00	0.00
6,700.0	63.40	105.70	6,578.3	-85.7	304.6	316.4	10.00	10.00	0.00
6,779.8	71.38	105.70	6,609.0	-105.6	375.4	390.0	10.00	10.00	0.00

ConocoPhillips

Planning Report

Database:	EDM Central Planning	Local Co-ordinate Reference:	Well Huerfanito Unit HZDK #2H
Company:	ConocoPhillips SJB	TVD Reference:	KB @ 6304.0usft (15' KB)
Project:	San Juan Basin - New Mexico West Wells	MD Reference:	KB @ 6304.0usft (15' KB)
Site:	Huerfano / Huerfanito Wells	North Reference:	True
Well:	Huerfanito Unit HZDK #2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	APD Dirc Plan		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
Paguatee									
6,800.0	73.40	105.70	6,615.1	-110.8	394.0	409.2	10.00	10.00	0.00
6,900.0	83.40	105.70	6,635.2	-137.3	488.1	507.1	10.00	10.00	0.00
6,966.0	90.00	105.70	6,639.0	-155.1	551.6	573.0	10.00	10.00	0.00
7,000.0	90.00	105.70	6,639.0	-164.3	584.3	606.9	0.00	0.00	0.00
7,100.0	90.00	105.70	6,639.0	-191.4	680.5	706.9	0.00	0.00	0.00
7,166.0	90.00	105.70	6,639.0	-209.2	744.1	772.9	0.00	0.00	0.00
7" Inter Casing									
7,200.0	90.00	105.70	6,639.0	-218.4	776.8	806.9	0.00	0.00	0.00
7,300.0	90.00	105.70	6,639.0	-245.5	873.1	906.9	0.00	0.00	0.00
7,400.0	90.00	105.70	6,639.0	-272.5	969.3	1,006.9	0.00	0.00	0.00
7,500.0	90.00	105.70	6,639.0	-299.6	1,065.6	1,106.9	0.00	0.00	0.00
7,600.0	90.00	105.70	6,639.0	-326.7	1,161.9	1,206.9	0.00	0.00	0.00
7,700.0	90.00	105.70	6,639.0	-353.7	1,258.2	1,306.9	0.00	0.00	0.00
7,800.0	90.00	105.70	6,639.0	-380.8	1,354.4	1,406.9	0.00	0.00	0.00
7,900.0	90.00	105.70	6,639.0	-407.8	1,450.7	1,506.9	0.00	0.00	0.00
8,000.0	90.00	105.70	6,639.0	-434.9	1,547.0	1,606.9	0.00	0.00	0.00
8,100.0	90.00	105.70	6,639.0	-462.0	1,643.2	1,706.9	0.00	0.00	0.00
8,200.0	90.00	105.70	6,639.0	-489.0	1,739.5	1,806.9	0.00	0.00	0.00
8,300.0	90.00	105.70	6,639.0	-516.1	1,835.8	1,906.9	0.00	0.00	0.00
8,400.0	90.00	105.70	6,639.0	-543.2	1,932.0	2,006.9	0.00	0.00	0.00
8,500.0	90.00	105.70	6,639.0	-570.2	2,028.3	2,106.9	0.00	0.00	0.00
8,600.0	90.00	105.70	6,639.0	-597.3	2,124.6	2,206.9	0.00	0.00	0.00
8,700.0	90.00	105.70	6,639.0	-624.4	2,220.8	2,306.9	0.00	0.00	0.00
8,800.0	90.00	105.70	6,639.0	-651.4	2,317.1	2,406.9	0.00	0.00	0.00
8,900.0	90.00	105.70	6,639.0	-678.5	2,413.4	2,506.9	0.00	0.00	0.00
9,000.0	90.00	105.70	6,639.0	-705.6	2,509.6	2,606.9	0.00	0.00	0.00
9,100.0	90.00	105.71	6,639.0	-732.6	2,605.9	2,706.9	0.00	0.00	0.00
9,200.0	90.00	105.71	6,639.0	-759.7	2,702.2	2,806.9	0.00	0.00	0.00
9,300.0	90.00	105.71	6,639.0	-786.8	2,798.4	2,906.9	0.00	0.00	0.00
9,400.0	90.00	105.71	6,639.0	-813.8	2,894.7	3,006.9	0.00	0.00	0.00
9,500.0	90.00	105.71	6,639.0	-840.9	2,991.0	3,106.9	0.00	0.00	0.00
9,600.0	90.00	105.71	6,639.0	-868.0	3,087.2	3,206.9	0.00	0.00	0.00
9,700.0	90.00	105.71	6,639.0	-895.1	3,183.5	3,306.9	0.00	0.00	0.00
9,800.0	90.00	105.71	6,639.0	-922.1	3,279.8	3,406.9	0.00	0.00	0.00
9,900.0	90.00	105.71	6,639.0	-949.2	3,376.0	3,506.9	0.00	0.00	0.00
10,000.0	90.00	105.71	6,639.0	-976.3	3,472.3	3,606.9	0.00	0.00	0.00
10,100.0	90.00	105.71	6,639.0	-1,003.4	3,568.6	3,706.9	0.00	0.00	0.00
10,200.0	90.00	105.71	6,639.0	-1,030.4	3,664.8	3,806.9	0.00	0.00	0.00
10,300.0	90.00	105.71	6,639.0	-1,057.5	3,761.1	3,906.9	0.00	0.00	0.00
10,400.0	90.00	105.71	6,639.0	-1,084.6	3,857.4	4,006.9	0.00	0.00	0.00
10,500.0	90.00	105.71	6,639.0	-1,111.6	3,953.6	4,106.9	0.00	0.00	0.00
10,600.0	90.00	105.71	6,639.0	-1,138.7	4,049.9	4,206.9	0.00	0.00	0.00
10,700.0	90.00	105.71	6,639.0	-1,165.8	4,146.2	4,306.9	0.00	0.00	0.00
10,800.0	90.00	105.71	6,639.0	-1,192.9	4,242.4	4,406.9	0.00	0.00	0.00
10,900.0	90.00	105.71	6,639.0	-1,220.0	4,338.7	4,506.9	0.00	0.00	0.00
11,000.0	90.00	105.71	6,639.0	-1,247.0	4,434.9	4,606.9	0.00	0.00	0.00
11,100.0	90.00	105.71	6,639.0	-1,274.1	4,531.2	4,706.9	0.00	0.00	0.00
11,200.0	90.00	105.71	6,639.0	-1,301.2	4,627.5	4,806.9	0.00	0.00	0.00
11,300.0	90.00	105.71	6,639.0	-1,328.3	4,723.7	4,906.9	0.00	0.00	0.00
11,400.0	90.00	105.71	6,639.0	-1,355.3	4,820.0	5,006.9	0.00	0.00	0.00
11,500.0	90.00	105.71	6,639.0	-1,382.4	4,916.3	5,106.9	0.00	0.00	0.00
11,600.0	90.00	105.71	6,639.0	-1,409.5	5,012.5	5,206.9	0.00	0.00	0.00
11,700.0	90.00	105.71	6,639.0	-1,436.6	5,108.8	5,306.9	0.00	0.00	0.00

ConocoPhillips

Planning Report

Database: EDM Central Planning
Company: ConocoPhillips SJB
Project: San Juan Basin - New Mexico West Wells
Site: Huerfano / Huerfano Wells
Well: Huerfano Unit HZDK #2H
Wellbore: Wellbore #1
Design: APD Dirc Plan

Local Co-ordinate Reference: Well Huerfano Unit HZDK #2H
TVD Reference: KB @ 6304.0usft (15' KB)
MD Reference: KB @ 6304.0usft (15' KB)
North Reference: True
Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
11,800.0	90.00	105.71	6,639.0	-1,463.7	5,205.1	5,406.9	0.00	0.00	0.00
11,900.0	90.00	105.71	6,639.0	-1,490.7	5,301.3	5,506.9	0.00	0.00	0.00
12,000.0	90.00	105.71	6,639.0	-1,517.8	5,397.6	5,606.9	0.00	0.00	0.00
12,100.0	90.00	105.71	6,639.0	-1,544.9	5,493.8	5,706.9	0.00	0.00	0.00
12,200.0	90.00	105.71	6,639.0	-1,572.0	5,590.1	5,806.9	0.00	0.00	0.00
12,300.0	90.00	105.71	6,639.0	-1,599.1	5,686.4	5,906.9	0.00	0.00	0.00
12,365.0	90.00	105.71	6,639.0	-1,616.7	5,748.9	5,971.9	0.00	0.00	0.00
Production Liner									
12,365.7	90.00	105.71	6,639.0	-1,616.9	5,749.7	5,972.7	0.02	0.00	0.02

Design Targets

Target Name

- hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- Shape									
Huerfano Unit HZDK #2	0.00	0.00	6,639.0	-1,616.9	5,749.7	2,017,932.54	514,277.52	36° 32' 44.969 N	107° 47' 5.020 W
- plan hits target center									
- Point									

Casing Points

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
500.0	500.0	Surface Casing	13-3/8	17-1/2
5,916.0	5,916.0	9-5/8" Inter Casing	9-5/8	12-1/4
7,166.0	6,639.0	7" Inter Casing	7	8-3/4
12,365.0	6,639.0	Production Liner	4-1/2	6-1/8

ConocoPhillips

Planning Report

Database: EDM Central Planning
Company: ConocoPhillips SJB
Project: San Juan Basin - New Mexico West Wells
Site: Huerfano / Huerfanito Wells
Well: Huerfanito Unit HZDK #2H
Wellbore: Wellbore #1
Design: APD Dir Plan

Local Co-ordinate Reference: Well Huerfanito Unit HZDK #2H
TVD Reference: KB @ 6304.0usft (15' KB)
MD Reference: KB @ 6304.0usft (15' KB)
North Reference: True
Survey Calculation Method: Minimum Curvature

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,233.0	1,233.0	Ojo Alamo		0.00	
1,361.0	1,361.0	Kirtland		0.00	
1,741.0	1,741.0	Fruitland		0.00	
2,123.0	2,123.0	Pictured Cliffs		0.00	
2,219.0	2,219.0	Lewis		0.00	
2,610.0	2,610.0	Huerfanto Bentonite		0.00	
3,034.0	3,034.0	Chacra		0.00	
3,698.0	3,698.0	Cliffhouse		0.00	
3,803.0	3,803.0	Menefee		0.00	
4,477.0	4,477.0	Point Lookout		0.00	
4,794.0	4,794.0	Mancos		0.00	
5,637.0	5,637.0	Upper Gallup		0.00	
5,959.0	5,959.0	Basal Niobrara		0.00	
6,478.8	6,444.0	Greenhorn		0.00	
6,549.3	6,494.0	Graneros		0.00	
6,588.4	6,519.0	Two Wells		0.00	
6,779.8	6,609.0	Paguatee		0.00	

BURLINGTON
RESOURCES
Operator Certification

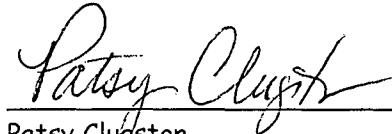
Operator Information:

Burlington Resources Oil & Gas, LP
P.O. Box 4289
Farmington, NM 87499-4289
505-326-9700

Certification:

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

Executed this 8th day of July, 2014.



Patsy Clugston
Staff Regulatory Technician
On behalf of Heather McDaniel and Doug Elston

The person who can be contacted concerning compliance of the APD is:

Heather McDaniel,
Regulatory Supervisor
ConocoPhillips Company
P.O. Box 4289
Farmington, NM 87499-4289
505-326-9507

The Field Representative who can be contacted concerning compliance of the enclosed Surface Use Plan is:

Doug Elston,
Supt. Capital Projects
ConocoPhillips Company
P.O. Box 4289
Farmington, NM 87499-4289
505-599-4004

BURLINGTON RESOURCES OIL & GAS COMPANY LP

HUERFANITO UNIT HZDK 2H

1050' FNL & 644' FEL (SURFACE) SECTION 29

2480' FSL & 140' FEL (BOTTOM HOLE) SECTION 28

LATITUDE: 36.5502763° N

LONGITUDE: 107.8049156° W

NAD 83

T-27-N, R-9-W, N.M.P.M.

SAN JUAN COUNTY, NEW MEXICO

FROM THE INTERSECTION OF U.S. HIGHWAY 64
AND U.S. HIGHWAY 550 IN BLOOMFIELD, NEW MEXICO.

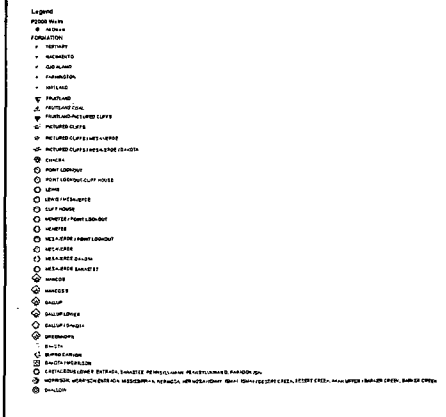
TRAVEL SOUTHERLY 15.9 MILES ON U.S. HIGHWAY 550.
TURN LEFT ONTO COUNTY ROAD 7225 (BROWN RANCH ROAD) AND
TRAVEL EASTERLY 4.6 MILES TO 4-WAY INTERSECTION.
CONTINUE NORTHEASTERLY 1.7 MILES TO FORK IN ROAD,
CROSS CATTLE GUARD AND CONTINUE NORTHEASTERLY
1.2 MILES TO FORK IN ROAD.

BEAR RIGHT AND CONTINUE NORTHEASTERLY 1.2 MILES TO
A "4 WAY" INTERSECTION.

TURN RIGHT AND TRAVEL SOUTHEASTLERY (CROSSING WASH) 0.2 MILE TO
HUDSON A D 1R EXISTING WELL LOCATION AND
PROPOSED HUERFANITO UNIT HZDK 2H WELL LOCATION.

Herfa i o J it HZ DK 2H

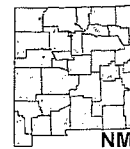
Legend



27N 9W

Surface Location

Bottomhole Location



NM

ConocoPhillips

Huerfanito Unit HZDK 2H
Map 1A

Author:	Date:
Compiled by:	Scale:

Coordinate System: NAD 1927 StatePlane New Mexico Zone 5003 (Transverse Mercator)

SHEET D

BOPE & Choke Manifold Schematic

