

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED

JUL 19 2012

FORM APPROVED
OMB No 1004-0137
Expires: July 31, 2010

Farmington Field Office
Bureau of Land Management

SUNDRY NOTICES AND REPORTS ON WELLS
Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

5 Lease Serial No

SF-078097

6 If Indian, Allottee or Tribe Name

SUBMIT IN TRIPLICATE - Other instructions on page 2

1 Type of Well

☐

Oil Well

☒

Gas Well

☐

Other

2. Name of Operator

ConocoPhillips Company

3a Address

PO Box 4289, Farmington, NM 87499

3b Phone No. (include area code)

(505) 326-9700

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

8 Well Name and No

Heaton LS 1M

9 API Well No

30-045-35337

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

Surface Unit O (SWSE), 625' FSL & 1308' FEL, Section 28, T31N, R11W

Bottomhole Unit P (SESE), 710' FSL & 710' FEL, Section 28, T31N, R11W

11 Country or Parish, State

San Juan, New Mexico

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other <u>Drop MC</u>
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	<u>Formation</u>
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof
If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones
Attach the bond under which the work will be performed or provide the Bond No on file with BLM/BIA Required subsequent reports must be filed within 30 days following completion of the involved operations If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 must be filed once Testing has been completed Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection)

ConocoPhillips requests permission to remove the Basin Mancos formation from this well. Attached is a revised plat, project proposal and directional drill plan.

RCVD JUL 30 '12

OIL CONS. DIV.

DIST. 3

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

CONDITIONS OF APPROVAL
Adhere to previously issued stipulations.

14 I hereby certify that the foregoing is true and correct. Name (Printed/Typed)

Arleen Kellywood

Staff Regulatory Tech

Title

Signature

Arleen Kellywood

Date

7/18/12

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Troy L. Salyers

Title

Petroleum Engineer

Date

7/26/12

Office

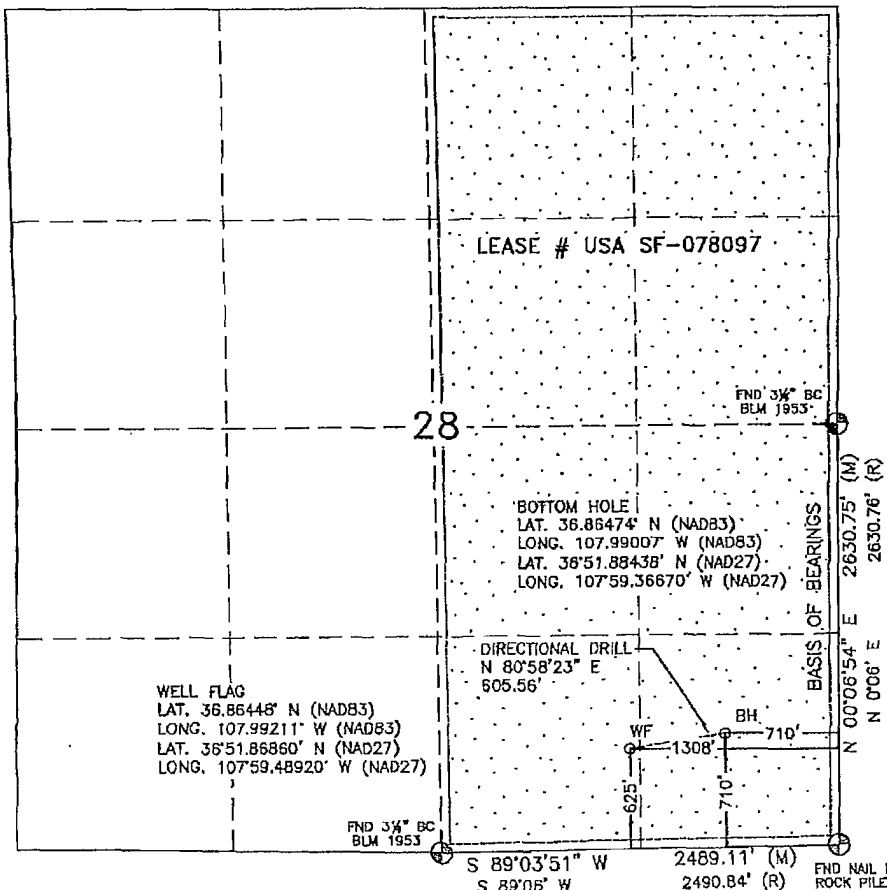
FFO

Conditions of approval, if any, are attached Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon

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

(Instruction on page 2)

NMOCD



PROJECT PROPOSAL - New Drill / Sidetrack

San Juan Business Unit

HEATON LS 1M

DEVELOPMENT

Lease:		AFE #: WAN.CDR.1089				AFE \$:	
Field Name: SAN JUAN		Rig: Aztec Rig 730		State: NM	County: SAN JUAN		API #: 3004535337
Geologist:		Phone:		Geophysicist:		Phone:	
Geoscientist:		Phone:		Prod. Engineer:		Phone:	
Res. Engineer:		Phone:		Proj. Field Lead:		Phone:	
Primary Objective (Zones):							
Zone	Zone Name						
FRR	BASIN DAKOTA (PRORATED GAS)						
RON	BLANCO MESAVERDE (PRORATED GAS)						
Location: Surface Datum/Code: NAD 27 Directional							
Latitude: 36.864477	Longitude: -107.991487	X:	Y:	Section: 28	Range: 011W		
Footage X: 1308 FEL	Footage Y: 625 FSL	Elevation: 5880	(FT)	Township: 031N			
Tolerance:							
Location: Bottom Hole Datum/Code: NAD 27 Directional							
Latitude: 36.864740	Longitude: -107.989445	X:	Y:	Section: 28	Range: 011W		
Footage X: 710 FEL	Footage Y: 710 FSL	Elevation:	(FT)	Township: 031N			
Tolerance:							
Location Type: Year Round		Start Date (Est.): 1/1/2012		Completion Date:		Date In Operation:	
Formation Data: Assume KB = 5895 Units = FT							
Formation Call & Casing Points	Depth (TVD in Ft)	SS (Ft)	MD (Ft)	Depletion (Yes/No)	BHP (PSIG)	BHT	Remarks
Surface Casing	200	5695	200	☐			12-1/4 hole. 200' 9 5/8" 32.3 ppf, H-40, STC casing. Cement with 121 cuft. Circulate cement to surface.
OJO ALAMO	955	4940		☐			
KIRTLAND	1015	4880		☐			
FRUITLAND	1895	4000		☐			Possible Gas
PICTURED CLIFFS	2452	3443		☐			
LEWIS	2587	3308		☐			
HUERFANITO BENTONITE	3179	2716		☐			
CHACRA	3526	2369		☐			
UPPER CLIFF HOUSE	3893	2002		☐			
MASSIVE CLIFF HOUSE	4068	1827		☐	547		Gas; Cliffhouse is wet
MENEFEE	4253	1642		☐			Est. Top Perf - 4255 (1640)
Intermediate Casing	4403	1492		☐	144		8 3/4" Hole. 7", 23 ppf, J-55, LTC Casing. Cement with 1022 cuft. Circulate cement to surface.
POINT LOOKOUT	4748	1147		☐			
MANCOS	5065	830		☐			
UPPER GALLUP	6028	-133		☐			
GREENHORN	6755	-860		☐			
GRANEROS	6812	-917		☐			
TWO WELLS	6867	-972		☐	2496		Gas
PAGUATE	6944	-1049		☐			
LOWER CUBERO	6973	-1078		☐			Est. Btm Perf - 7065 (- 1170) based on offset wells
UPPER CUBERO	6973	-1078		☐			

PROJECT PROPOSAL - New Drill / Sidetrack

San Juan Business Unit

HEATON LS 1M

DEVELOPMENT

ENCINAL	7045	-1150	☐	TD - 40' Below T/ENCN
Total Depth	7085	-1190	☐	202 6-1/4" hole, 4-1/2" 11.6 ppf, L-80, LTC casing. Cement w/ 361 cuft. Circulate cement a minimum of 100' inside the previous casing string.

Reference Wells:

Reference Type	Well Name	Comments
Production	FEDERAL-100B	31N 11W 27
Production	HEATON-16	31N 11W 28 NW SW
Production	HEATON COM-B-3-E	31N 11W 33 SE NW NE

Logging Program:

Intermediate Logs: ☐ Log only if show ☐ GR/ILD ☐ Triple Combo

TD Logs: ☐ Triple Combo ☐ Dipmeter ☐ RFT ☐ Sonic ☐ VSP ☐ TDT ☒ Other

Run RST on completion.

Mudlog from 100' above top of GLLP to TD - mudlogger will call TD.

Additional Information:

Log Type	Stage	From (Ft)	To (Ft)	Tool Type/Name	Remarks
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ConocoPhillips SJB

San Juan Basin - New Mexico West Wells

Other Named Wells

Heaton LS #1M

Heaton LS #1M

Plan: Plan #1

RECEIVED

JUL 19 2012

Alamogordo Field Office
Bureau of Land Management

Standard Planning Report

10 January, 2012

ConocoPhillips or its affiliates

Planning Report

Database: EDM Central Planning
Company: ConocoPhillips SJBU
Project: San Juan Basin - New Mexico West Wells
Site: Other Named Wells
Well: Heaton LS #1M
Wellbore: Heaton LS #1M
Design: Plan #1

Local Co-ordinate Reference: Well Heaton LS #1M
TVD Reference: WELL @ 5895.0ft (Original Well Elev)
MD Reference: WELL @ 5895.0ft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature

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

Site Other Named Wells

Site Position: **From:** Lat/Long **Northing:** 2,108,178.26 ft **Latitude:** 36° 47' 33.793 N
Position Uncertainty: 15.0 ft **Easting:** 643,887.63 ft **Longitude:** 107° 20' 30.932 W
Slot Radius: 6-1/8" **Grid Convergence:** 0.29°

Well Heaton LS #1M
Well Position **+N/-S** 0.0 ft **Northing:** 2,133,969.89 ft **Latitude:** 36° 51' 52.116 N
+E/-W 0.0 ft **Easting:** 453,734.97 ft **Longitude:** 107° 59' 29.352 W
Position Uncertainty 3.5 ft **Wellhead Elevation:** ft **Ground Level:** 5,880.0 ft

Wellbore Heaton LS #1M
Magnetics **Model Name** **Sample Date** **Declination** **Dip Angle** **Field Strength**
 BGGM2011 1/10/2012 9.94 63.51 50,694

Design Plan #1

Audit Notes:

Version: **Phase:** PLAN **Tie On Depth:** 0.0

Vertical Section: **Depth From (TVD)** **+N/-S** **+E/-W** **Direction**
 0.0 0.0 0.0 80.89

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
350.0	0.00	0.00	350.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,227.4	17.55	80.89	1,213.7	21.1	131.6	2.00	2.00	0.00	80.89	
2,496.9	17.55	80.89	2,424.2	81.7	509.6	0.00	0.00	0.00	0.00	
3,081.8	0.00	0.00	3,000.0	95.8	597.3	3.00	-3.00	0.00	180.00	HeatonLS #1M Ver
4,484.8	0.00	0.00	4,403.0	95.8	597.3	0.00	0.00	0.00	0.00	HeatonLS #1M ICP
7,166.8	0.00	0.00	7,085.0	95.8	597.3	0.00	0.00	0.00	0.00	HeatonLS #1M PCI

ConocoPhillips or its affiliates

Planning Report

Database: EDM Central Planning
Company: ConocoPhillips SJB
Project: San Juan Basin - New Mexico West Wells
Site: Other Named Wells
Well: Heaton LS #1M
Wellbore: Heaton LS #1M
Design: Plan #1

Local Co-ordinate Reference: Well Heaton LS #1M
TVD Reference: WELL @ 5895 0ft (Original Well Elev)
MD Reference: WELL @ 5895 0ft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
Surface									
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
350.0	0.00	0.00	350.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	1.00	80.89	400.0	0.1	0.4	0.4	2.00	2.00	0.00
500.0	3.00	80.89	499.9	0.6	3.9	3.9	2.00	2.00	0.00
600.0	5.00	80.89	599.7	1.7	10.8	10.9	2.00	2.00	0.00
700.0	7.00	80.89	699.1	3.4	21.1	21.4	2.00	2.00	0.00
800.0	9.00	80.89	798.2	5.6	34.8	35.3	2.00	2.00	0.00
900.0	11.00	80.89	896.6	8.3	52.0	52.6	2.00	2.00	0.00
959.6	12.19	80.89	955.0	10.2	63.8	64.6	2.00	2.00	0.00
Ojo Alamo									
1,000.0	13.00	80.89	994.4	11.6	72.5	73.4	2.00	2.00	0.00
1,021.1	13.42	80.89	1,015.0	12.4	77.3	78.3	2.00	2.00	0.00
Kirtland									
1,100.0	15.00	80.89	1,091.5	15.5	96.4	97.6	2.00	2.00	0.00
1,200.0	17.00	80.89	1,187.6	19.8	123.6	125.2	2.00	2.00	0.00
1,227.4	17.55	80.89	1,213.7	21.1	131.6	133.3	2.00	2.00	0.00
1,300.0	17.55	80.89	1,283.0	24.6	153.2	155.2	0.00	0.00	0.00
1,400.0	17.55	80.89	1,378.3	29.4	183.0	185.4	0.00	0.00	0.00
1,500.0	17.55	80.89	1,473.7	34.1	212.8	215.5	0.00	0.00	0.00
1,600.0	17.55	80.89	1,569.0	38.9	242.6	245.7	0.00	0.00	0.00
1,700.0	17.55	80.89	1,664.4	43.7	272.3	275.8	0.00	0.00	0.00
1,800.0	17.55	80.89	1,759.7	48.5	302.1	305.9	0.00	0.00	0.00
1,900.0	17.55	80.89	1,855.0	53.2	331.9	336.1	0.00	0.00	0.00
1,941.9	17.55	80.89	1,895.0	55.2	344.3	348.7	0.00	0.00	0.00
Fruitland									
2,000.0	17.55	80.89	1,950.4	58.0	361.6	366.2	0.00	0.00	0.00
2,100.0	17.55	80.89	2,045.7	62.8	391.4	396.4	0.00	0.00	0.00
2,200.0	17.55	80.89	2,141.1	67.5	421.2	426.5	0.00	0.00	0.00
2,300.0	17.55	80.89	2,236.4	72.3	450.9	456.7	0.00	0.00	0.00
2,400.0	17.55	80.89	2,331.8	77.1	480.7	486.8	0.00	0.00	0.00
2,496.9	17.55	80.89	2,424.2	81.7	509.6	516.1	0.00	0.00	0.00
2,500.0	17.45	80.89	2,427.1	81.9	510.5	517.0	3.00	-3.00	0.00
2,526.0	16.67	80.89	2,452.0	83.1	518.0	524.6	3.00	-3.00	0.00
Pictured Cliffs									
2,600.0	14.45	80.89	2,523.3	86.2	537.6	544.5	3.00	-3.00	0.00
2,665.5	12.49	80.89	2,587.0	88.6	552.7	559.7	3.00	-3.00	0.00
Lewis									
2,700.0	11.45	80.89	2,620.7	89.8	559.7	566.9	3.00	-3.00	0.00
2,800.0	8.45	80.89	2,719.2	92.5	576.8	584.2	3.00	-3.00	0.00
2,900.0	5.45	80.89	2,818.4	94.4	588.8	596.3	3.00	-3.00	0.00
3,000.0	2.45	80.89	2,918.2	95.5	595.6	603.2	3.00	-3.00	0.00
3,081.8	0.00	0.00	3,000.0	95.8	597.3	604.9	3.00	-3.00	-98.85
HeatonLS #1M Vertical Point									
3,100.0	0.00	0.00	3,018.2	95.8	597.3	604.9	0.00	0.00	0.00
3,200.0	0.00	0.00	3,118.2	95.8	597.3	604.9	0.00	0.00	0.00
3,260.8	0.00	0.00	3,179.0	95.8	597.3	604.9	0.00	0.00	0.00
Huerfanito Bentonite									
3,300.0	0.00	0.00	3,218.2	95.8	597.3	604.9	0.00	0.00	0.00
3,400.0	0.00	0.00	3,318.2	95.8	597.3	604.9	0.00	0.00	0.00

ConocoPhillips or its affiliates

Planning Report

Database:	EDM Central Planning	Local Co-ordinate Reference:	Well Heaton LS #1M
Company:	ConocoPhillips SJB	TVD Reference:	WELL @ 5895 0ft (Original Well Elev)
Project:	San Juan Basin - New Mexico West Wells	MD Reference:	WELL @ 5895 0ft (Original Well Elev)
Site:	Other Named Wells	North Reference:	True
Well:	Heaton LS #1M	Survey Calculation Method:	Minimum Curvature
Wellbore:	Heaton LS #1M		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
3,500.0	0.00	0 00	3,418.2	95.8	597.3	604.9	0.00	0.00	0.00
3,600.0	0.00	0.00	3,518.2	95.8	597.3	604.9	0.00	0.00	0.00
3,607.8	0.00	0.00	3,526.0	95.8	597.3	604.9	0.00	0.00	0.00
Chacra									
3,700.0	0.00	0.00	3,618.2	95.8	597.3	604.9	0.00	0.00	0.00
3,800.0	0.00	0.00	3,718.2	95.8	597.3	604.9	0.00	0.00	0.00
3,900.0	0.00	0.00	3,818.2	95.8	597.3	604.9	0.00	0.00	0.00
3,974.8	0.00	0.00	3,893.0	95.8	597.3	604.9	0.00	0.00	0.00
Upper Cliff House									
4,000.0	0.00	0.00	3,918.2	95.8	597.3	604.9	0.00	0.00	0.00
4,100.0	0.00	0.00	4,018.2	95.8	597.3	604.9	0.00	0.00	0.00
4,149.8	0.00	0.00	4,068.0	95.8	597.3	604.9	0.00	0.00	0.00
Massive Cliff House									
4,200.0	0.00	0.00	4,118.2	95.8	597.3	604.9	0.00	0.00	0.00
4,300.0	0.00	0.00	4,218.2	95.8	597.3	604.9	0.00	0.00	0.00
4,334.8	0.00	0.00	4,253.0	95.8	597.3	604.9	0.00	0.00	0.00
Menefee									
4,400.0	0.00	0.00	4,318.2	95.8	597.3	604.9	0.00	0.00	0.00
4,484.8	0.00	0.00	4,403.0	95.8	597.3	604.9	0.00	0.00	0.00
Intermediate - HeatonLS #1M ICP									
4,500.0	0.00	0.00	4,418.2	95.8	597.3	604.9	0.00	0.00	0.00
4,600.0	0.00	0.00	4,518.2	95.8	597.3	604.9	0.00	0.00	0.00
4,700.0	0.00	0.00	4,618.2	95.8	597.3	604.9	0.00	0.00	0.00
4,800.0	0.00	0.00	4,718.2	95.8	597.3	604.9	0.00	0.00	0.00
4,829.8	0.00	0.00	4,748.0	95.8	597.3	604.9	0.00	0.00	0.00
Pt. Lookout									
4,900.0	0.00	0.00	4,818.2	95.8	597.3	604.9	0.00	0.00	0.00
5,000.0	0.00	0.00	4,918.2	95.8	597.3	604.9	0.00	0.00	0.00
5,100.0	0.00	0.00	5,018.2	95.8	597.3	604.9	0.00	0.00	0.00
5,146.8	0.00	0.00	5,065.0	95.8	597.3	604.9	0.00	0.00	0.00
Mancos Shale									
5,200.0	0.00	0.00	5,118.2	95.8	597.3	604.9	0.00	0.00	0.00
5,300.0	0.00	0.00	5,218.2	95.8	597.3	604.9	0.00	0.00	0.00
5,400.0	0.00	0.00	5,318.2	95.8	597.3	604.9	0.00	0.00	0.00
5,500.0	0.00	0.00	5,418.2	95.8	597.3	604.9	0.00	0.00	0.00
5,600.0	0.00	0.00	5,518.2	95.8	597.3	604.9	0.00	0.00	0.00
5,700.0	0.00	0.00	5,618.2	95.8	597.3	604.9	0.00	0.00	0.00
5,800.0	0.00	0.00	5,718.2	95.8	597.3	604.9	0.00	0.00	0.00
5,900.0	0.00	0.00	5,818.2	95.8	597.3	604.9	0.00	0.00	0.00
6,000.0	0.00	0.00	5,918.2	95.8	597.3	604.9	0.00	0.00	0.00
6,100.0	0.00	0.00	6,018.2	95.8	597.3	604.9	0.00	0.00	0.00
6,109.8	0.00	0.00	6,028.0	95.8	597.3	604.9	0.00	0.00	0.00
Gallup									
6,200.0	0.00	0.00	6,118.2	95.8	597.3	604.9	0.00	0.00	0.00
6,300.0	0.00	0.00	6,218.2	95.8	597.3	604.9	0.00	0.00	0.00
6,400.0	0.00	0.00	6,318.2	95.8	597.3	604.9	0.00	0.00	0.00
6,500.0	0.00	0.00	6,418.2	95.8	597.3	604.9	0.00	0.00	0.00
6,600.0	0.00	0.00	6,518.2	95.8	597.3	604.9	0.00	0.00	0.00
6,700.0	0.00	0.00	6,618.2	95.8	597.3	604.9	0.00	0.00	0.00
6,800.0	0.00	0.00	6,718.2	95.8	597.3	604.9	0.00	0.00	0.00
6,836.8	0.00	0.00	6,755.0	95.8	597.3	604.9	0.00	0.00	0.00
Greenhorn									

ConocoPhillips or its affiliates

Planning Report

Database: EDM Central Planning
Company: ConocoPhillips SJB
Project: San Juan Basin - New Mexico West Wells
Site: Other Named Wells
Well: Heaton LS #1M
Wellbore: Heaton LS #1M
Design: Plan #1

Local Co-ordinate Reference: Well Heaton LS #1M
TVD Reference: WELL @ 5895.0ft (Original Well Elev)
MD Reference: WELL @ 5895.0ft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
6,893.8	0.00	0.00	6,812.0	95.8	597.3	604.9	0.00	0.00	0.00
Graneros									
6,900.0	0.00	0.00	6,818.2	95.8	597.3	604.9	0.00	0.00	0.00
6,948.8	0.00	0.00	6,867.0	95.8	597.3	604.9	0.00	0.00	0.00
Two Wells									
7,000.0	0.00	0.00	6,918.2	95.8	597.3	604.9	0.00	0.00	0.00
7,025.8	0.00	0.00	6,944.0	95.8	597.3	604.9	0.00	0.00	0.00
Pauguate									
7,054.8	0.00	0.00	6,973.0	95.8	597.3	604.9	0.00	0.00	0.00
Cubero									
7,100.0	0.00	0.00	7,018.2	95.8	597.3	604.9	0.00	0.00	0.00
7,126.8	0.00	0.00	7,045.0	95.8	597.3	604.9	0.00	0.00	0.00
Encinal									
7,166.8	0.00	0.00	7,085.0	95.8	597.3	604.9	0.00	0.00	0.00

Production - HeatonLS #1M PCP

Targets									
Target Name	hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude Longitude
HeatonLS #1M Vertical	- plan hits target center	0.00	0.00	3,000.0	95.8	597.3	2,134,064.69	454,332.38	36° 51' 53.063 N 107° 59' 22.002 W
- Point									
HeatonLS #1M ICP	- plan hits target center	0.00	0.00	4,403.0	95.8	597.3	2,134,064.69	454,332.38	36° 51' 53.063 N 107° 59' 22.002 W
- Point									
HeatonLS #1M PCP	- plan hits target center	0.00	0.00	7,085.0	95.8	597.3	2,134,064.65	454,332.38	36° 51' 53.063 N 107° 59' 22.002 W
- Point									

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
200.0	200.0	Surface	9-5/8	12-1/4	
4,484.8	4,403.0	Intermediate	7	8-3/4	
7,166.8	7,085.0	Production	4-1/2	6-1/4	

ConocoPhillips or its affiliates

Planning Report

Database: EDM Central Planning
Company: ConocoPhillips SJBW
Project: San Juan Basin - New Mexico West Wells
Site: Other Named Wells
Well: Heaton LS #1M
Wellbore: Heaton LS #1M
Design: Plan #1

Local Co-ordinate Reference: Well Heaton LS #1M
TVD Reference: WELL @ 5895.0ft (Original Well Elev)
MD Reference: WELL @ 5895.0ft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,607.8	3,526.0	Chacra			
6,893.8	6,812.0	Graneros			
2,526.0	2,452.0	Pictured Cliffs			
6,836.8	6,755.0	Greenhorn			
4,334.8	4,253.0	Menefee			
2,665.5	2,587.0	Lewis			
7,054.8	6,973.0	Cubero			
5,146.8	5,065.0	Mancos Shale			
7,025.8	6,944.0	Pauguate			
1,941.9	1,895.0	Fruitland			
4,149.8	4,068.0	Massive Cliff House			
959.6	955.0	Ojo Alamo			
1,021.1	1,015.0	Kirtland			
6,948.8	6,867.0	Two Wells			
4,829.8	4,748.0	Pt. Lookout			
3,260.8	3,179.0	Huerfano Bentonite			
6,109.8	6,028.0	Gallup			
7,126.8	7,045.0	Encinal			
3,974.8	3,893.0	Upper Cliff House			

REFERENCE INFORMATION

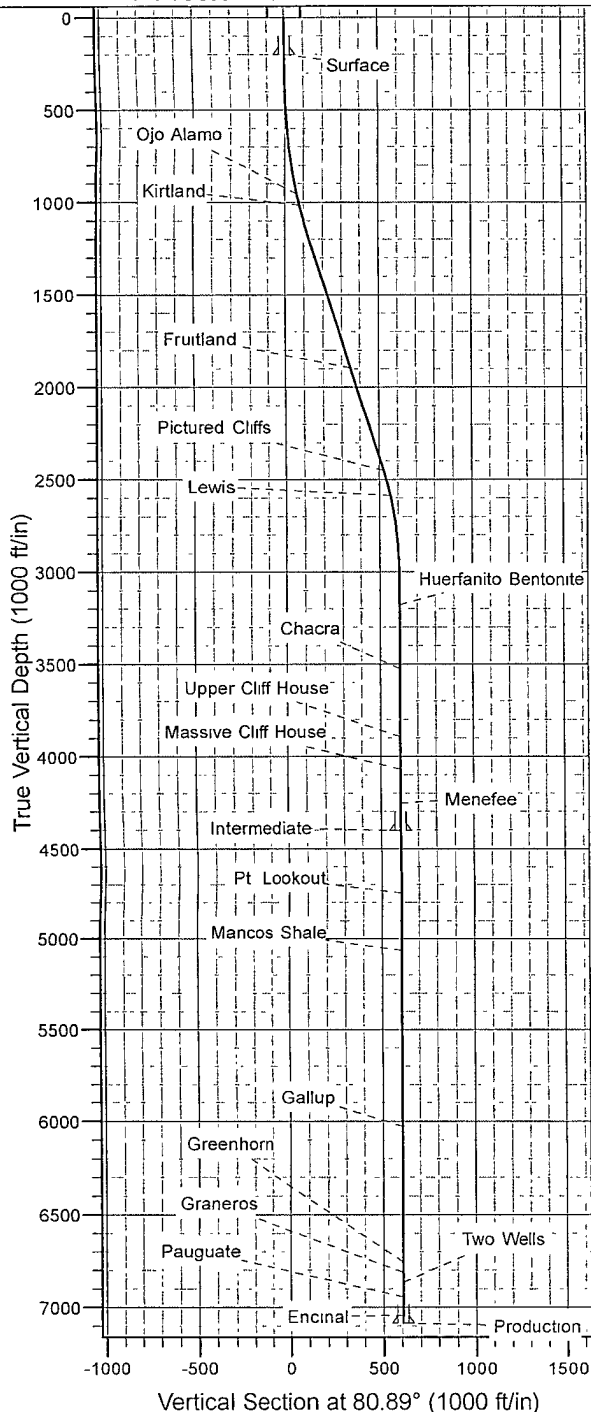
WELL @ 5895.0ft (Original Well Elev)
Ground Elevation 5880.0
Reference Lat: 36° 51' 52.116 N
Reference Long: 107° 59' 29.352 W

Project: San Juan Basin - New Mexico West W
Site: Other Named Wells
Well: Heaton LS #1M
Wellbore: Heaton LS #1M
Design: Plan #1



SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	350.0	0.00	0.00	350.0	0.0	0.0	0.00	0.00	0.0	
3	1227.4	17.55	80.89	1213.7	21.1	131.6	2.00	80.89	133.3	
4	2496.9	17.55	80.89	2424.2	81.7	509.6	0.00	0.00	516.1	
5	3081.8	0.00	0.00	3000.0	95.8	597.3	3.00	180.00	604.9	HeatonLS #1M Vertical Point
6	4484.8	0.00	0.00	4403.0	95.8	597.3	0.00	0.00	604.9	HeatonLS #1M ICP
7	7166.8	0.00	0.00	7085.0	95.8	597.3	0.00	0.00	604.9	HeatonLS #1M PCP



FORMATION TOP DETAILS

TVDPath	MDPath	Formation
955.0	959.6	Ojo Alamo
1015.0	1021.1	Kirtland
1895.0	1941.9	Fruitland
2452.0	2526.0	Pictured Cliffs
2587.0	2665.5	Lewis
3179.0	3260.8	Huerfano Bentonite
3526.0	3607.8	Chacra
3893.0	3974.8	Upper Cliff House
4068.0	4149.8	Massive Cliff House
4253.0	4334.8	Menefee
4748.0	4829.8	Pt. Lookout
5065.0	5146.8	Mancos Shale
6028.0	6109.8	Gallup
6755.0	6836.8	Greenhorn
6812.0	6893.8	Graneros
6867.0	6948.8	Two Wells
6944.0	7025.8	Panguate
6973.0	7054.8	Cubero
7045.0	7126.8	Encinal

