

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED

SEP 27 2011

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

Kington Field Office
Bureau of Land Management

1a. Type of Work DRILL	5. Lease Number SF-078640 Unit Reporting Number
1b. Type of Well GAS	6. If Indian, All. or Tribe
2. Operator ConocoPhillips Company	7. Unit Agreement Name DK-NMNm78413c San Juan 28-7 Unit
3. Address & Phone No. of Operator PO Box 4289, Farmington, NM 87499 (505) 326-9700	8. Farm or Lease Name 9. Well Number 217N
4. Location of Well Surface: Unit E (SWNW), 1645' FNL & 1119' FWL BHL : Unit F (SENW), 1445' FNL & 2400' FWL Surface: Latitude: 36.54670° N (NAD83) Longitude: 107.58577° W BHL : Latitude: 36.54737° N (NAD83) Longitude: 107.58141° W	10. Field, Pool, Wildcat Blanco MV/Basin DK 11. Sec., Twn, Rge, Mer. (NMPM) Sec. 28, T27N, R7W API# 30-039- 31089 OIL CONS. DIV.
14. Distance in Miles from Nearest Town 37 miles to Blanco	12. County Rio Arriba 13. State NM
15. Distance from Proposed Location to Nearest Property or Lease Line 1445'	17. Acres Assigned to Well 320.00 acres N/2 DIST. 3
16. Acres in Lease 2560.000	
18. Distance from Proposed Location to Nearest Well, Drlg, Compl, or Applied for on this Lease 137' SJ 28-7 Unit 175 - CH	
19. Proposed Depth 7511 This action is subject to technical and procedural review pursuant to 43 CFR 3165.3 and appeal pursuant to 43 CFR 3165.4	20. Rotary or Cable Tools Rotary
21. Elevations (DF, FT, GR, Etc.) 6582' GL  H₂S POTENTIAL EXIST	22. Approx. Date Work will Start DRILLING OPERATIONS AUTHORIZED ARE SUBJECT TO COMPLIANCE WITH ATTACHED "GENERAL REQUIREMENTS".
23. Proposed Casing and Cementing Program See Operations Plan attached	
24. Authorized by: <u>Arleen Kellywood</u> Arleen Kellywood (Staff Regulatory Tech)	<u>9/27/11</u> Date

PERMIT NO.

APPROVAL DATE

APPROVED BY

TITLE

DATE

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.

Example Master Plan Type 3

Bond Numbers ES-0048 and ES-0085

NOV 21 2011

NMOC

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

Hold C104
for Directional Survey
and "As Drilled" plat

NOTIFY AZTEC OCD 24 HRS
PRIOR TO CASING & CEMENT

DISTRICT II
1301 W. Grand Avenue, Artesia, N.M. 88210

DISTRICT III
1000 Rio Branon Rd., Aztec, N.M. 87410

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

OIL CONSERVATION DIVISION

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

Submit one copy to appropriate
District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-039-31059		*Pool Code 72319/71599	*Pool Name BLANCO MESAVERDE / BASIN DAKOTA
*Property Code 31739	*Property Name SAN JUAN 28-7 UNIT		*Well Number 217N
*OGRID No. 217817	*Operator Name CONOCOPHILLIPS COMPANY		*Elevation 6582'

¹⁰ Surface Location

UL or lot no. E	Section 28	Township 27N	Range 7W	Lot Idn	Feet from the 1645'	North/South line NORTH	Feet from the 1119'	East/West line WEST	County RIO ARRIBA
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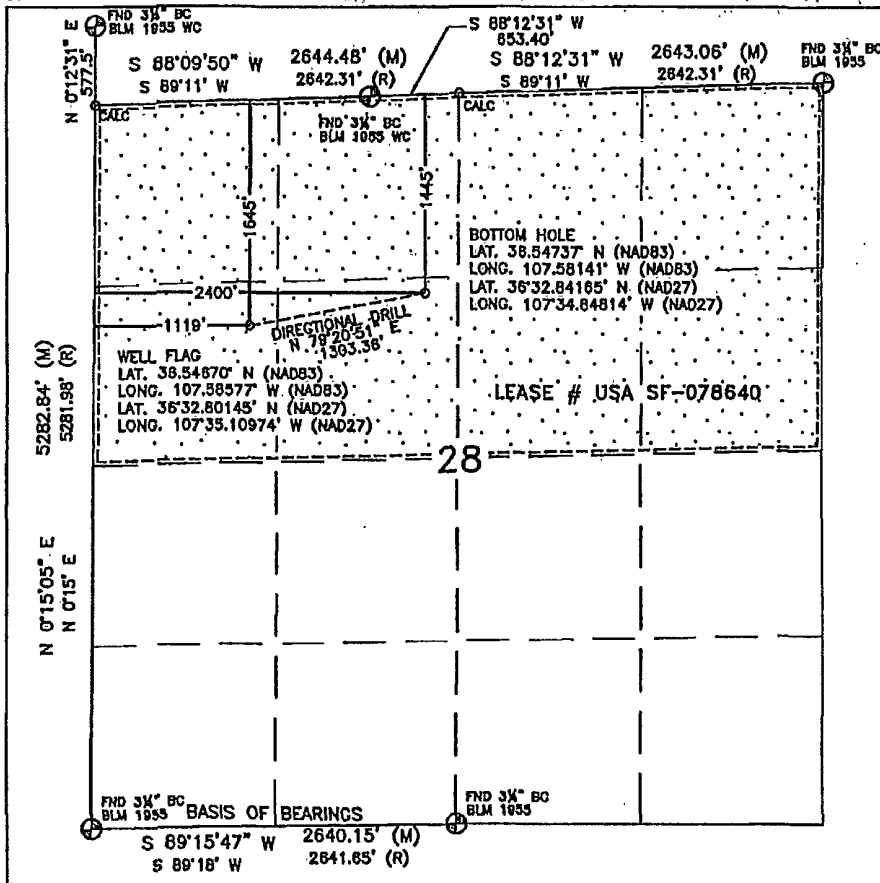
¹¹ Bottom Hole Location If Different From Surface

UL or lot no. F	Section 28	Township 27N	Range 7W	Lot Idn	Feet from the 1445'	North/South line NORTH	Feet from the 2400'	East/West line WEST	County RIO ARriba
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13 Dedicated Acres	14 Joint or Infill	15 Consolidation Code	16 Order No.
320.00 ACRES N/2			

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



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 voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature Arleen P. Kellywood Date 6/17/11

Arleen R. Kellywood

Printed Name _____

arleen r kellywood@conocophillips.com

10 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.

JUNE 1, 2011

Date of Survey _____
Signature and Seal of Professional Surveyor: **MID R. RUSS**

Signature and Seal of Professional Surveyor.



NEW YORK

SECRET

10201

100-443887-100

ing

ED. P. 103

PROF. LAND

PROFESSIONAL

DAVID RUSSELL

DAVID RUSSELL
1982

Certificate Number 10201

PROJECT PROPOSAL - New Drill / Sidetrack

San Juan Business Unit

SAN JUAN 28-7 UNIT 217N

DEVELOPMENT

Lease:		AFE #: WAN.CDR.1064				AFE \$:	
Field Name: SAN JUAN		Rig: Aztec Rig 673		State: NM	County: RIO ARRIBA		API #:
Geologist:		Phone:		Geophysicist:		Phone:	
Geoscientist:		Phone:		Prod. Engineer:		Phone:	
Res. Engineer:		Phone:		Proj. Field Lead:		Phone:	
Primary Objective (Zones):							
Zone	Zone Name						
RON	BLANCO MESAVERDE (PRORATED GAS)						
FRR	BASIN DAKOTA (PRORATED GAS)						
Location: Surface Datum Code: NAD 27 Directional							
Latitude: 36.546691		Longitude: -107.585162		X:	Y:	Section: 28	Range: 007W
Footage X: 1119 FWL		Footage Y: 1645 FNL		Elevation: 6582 (FT)	Township: 027N		
Tolerance:							
Location: Bottom Hole Datum Code: NAD 27 Directional							
Latitude: 36.547361		Longitude: -107.580802		X:	Y:	Section: 28	Range: 007W
Footage X: 2400 FWL		Footage Y: 1445 FNL		Elevation: (FT)	Township: 027N		
Tolerance:							
Location Type: Restricted		Start Date (Est.): 1/1/2012		Completion Date:		Date In Operation:	
Formation Data: Assume KB = 6597 Units = FT							
Formation Call & Casing Points	Depth (TVD in Ft)	SS (Ft)	MD (Ft)	Depletion (Yes/No)	BHP (PSIG)	BHT	Remarks
SAN JOSE	15	6582		☐			Ground water @ md: 50', ss: 6500' in SJ 28-7 65 (27n 7w 28)
Surface Casing	200	6397	200	☐		48	12-1/4 hole. 9 5/8" 32.3 ppf, H-40, STC casing. Cement with 144 cuft. Circulate cement to surface.
NACIMIENTO	585	6012		☐			
OJO ALAMO	2116	4481		☐			
KIRTLAND	2267	4330		☐		90	
FRUITLAND	2526	4071		☐			Possible Gas
PICTURED CLIFFS	2933	3664		☐	302		
LEWIS	3056	3541		☐		105	
HUERFANITO BENTONITE	3404	3193		☐			
CHACRA	3843	2754		☐			
UPPER CLIFF HOUSE	4418	2179		☐		137	Gas
MASSIVE CLIFF HOUSE	4618	1979		☐	212		Gas
MENEFEE	4649	1948		☐			
Intermediate Casing	4797	1800	5010	☐		137	8 3/4" Hole. 7", 23 ppf, J-55, LTC Casing. Cement with 1118 cuft. Circulate cement to surface.
POINT LOOKOUT	5208	1389		☐			
MANCOS	5565	1032		☐			
UPPER GALLUP	6366	231		☐			
GREENHORN	7152	-555		☐		188	
GRANEROS	7214	-617		☐			
TWO WELLS	7265	-668		☐	2711		Gas

PROJECT PROPOSAL - New Drill / Sidetrack

San Juan Business Unit

SAN JUAN 28-7 UNIT 217N

DEVELOPMENT

PAGUATE	7273	-676	☐	190	Gas
UPPER CUBERO	7366	-769	☐		Gas - Got wet in SJ 28-7 151E (27n 7w 21) .7 mile away.
LOWER CUBERO	7393	-796	☐		Gas - Bottom perf ~-896' (~100' below top CBRL) base on offset well.
Total Depth	7511	-914	7722	☐	194 6-1/4" hole, 4-1/2" 10.5/11.6 ppf, J-55, STC/LTC casing. Cement w/ 373 cuft. Circulate cement a minimum of 100' inside the previous casing string.
BURRO CANYON	7514	-917	☐		Got wet in Harvey A 3 (27n 7w 32) 1.7 miles away.
MORRISON	7574	-977	☐	196	

Reference Wells:

Reference Type	Well Name	Comments
Production	SAN JUAN 28-7 UNIT 217	

Logging Program:

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

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

GR/CBL

Mud log ~100' above Gallup down to TD.

Mudlogger will call TD.

Bottom perf ~20' above TD.

Additional Information:

Log Type	Stage	From (Ft)	To (Ft)	Tool Type/Name	Remarks
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ConocoPhillips or its affiliates

Planning Report

Database:	EDM Central Planning	Local Co-ordinate Reference:	Well SJ 28-7 #217N
Company:	ConocoPhillips SJBU	TVD Reference:	WELL @ 6597.0ft (Original Well Elev)
Project:	San Juan Basin - New Mexico West Wells	MD Reference:	WELL @ 6597.0ft (Original Well Elev)
Site:	San Juan 28 Wells	North Reference:	True
Well:	SJ 28-7 #217N	Survey Calculation Method:	Minimum Curvature
Wellbore:	SJ 28-7 #217N		
Design:	Plan #1		

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	San Juan 28 Wells				
Site Position:		Northing:	2,042,566.26ft	Latitude:	36° 36' 47.901 N
From:	Lat/Long	Easting:	563,690.29ft	Longitude:	107° 36' 58.757 W
Position Uncertainty:	15.0 ft	Slot Radius:	"	Grid Convergence:	0.13 °

Well:	SJ 28-7 #217N, S-Shaped MV/DK Long Reach, Deep Set Int					
Well Position	+N/-S	0.0 ft	Northing:	2,018,338.20 ft	Latitude:	36° 32' 48.087 N
	+E/-W	0.0 ft	Easting:	572,897.69 ft	Longitude:	107° 35' 6.584 W
Position Uncertainty		3.0 ft	Wellhead Elevation:	ft	Ground Level:	6,582.0 ft

Wellbore:	SJ 28-7 #217N				
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Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2011	9/14/2011	9.76	63.33	50,600

Design:	Plan #1				
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Audit Notes:					
Version:		Phase:	PLAN	Tie On Depth:	0.0

Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	79.22

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	
1,341.9	19.84	79.22	1,322.2	31.8	167.0	2.00	2.00	0.00	79.22	
4,349.0	19.84	79.22	4,150.9	222.7	1,169.5	0.00	0.00	0.00	0.00	
5,010.3	0.00	0.00	4,799.0	244.0	1,280.8	3.00	-3.00	0.00	180.00	SJ 28-7 #217N - IC
7,722.3	0.00	0.00	7,511.0	244.0	1,280.8	0.00	0.00	0.00	0.00	SJ 28-7 #217N - PC

ConocoPhillips or its affiliates

Planning Report

Database:	EDM Central Planning	Local Co-ordinate Reference:	Well SJ 28-7 #217N
Company:	ConocoPhillips SJB	TVD Reference:	WELL @ 6597.0ft (Original Well Elev)
Project:	San Juan Basin - New Mexico West Wells	MD Reference:	WELL @ 6597.0ft (Original Well Elev)
Site:	San Juan 28 Wells	North Reference:	True
Well:	SJ 28-7 #217N	Survey Calculation Method:	Minimum Curvature
Wellbore:	SJ 28-7 #217N		
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)
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
Surf Csg									
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	79.22	400.0	0.1	0.4	0.4	2.00	2.00	0.00
500.0	3.00	79.22	499.9	0.7	3.9	3.9	2.00	2.00	0.00
585.3	4.71	79.22	585.0	1.8	9.5	9.7	2.00	2.00	0.00
Nacimiento									
600.0	5.00	79.22	599.7	2.0	10.7	10.9	2.00	2.00	0.00
700.0	7.00	79.22	699.1	4.0	21.0	21.4	2.00	2.00	0.00
800.0	9.00	79.22	798.2	6.6	34.6	35.3	2.00	2.00	0.00
900.0	11.00	79.22	896.6	9.8	51.7	52.6	2.00	2.00	0.00
1,000.0	13.00	79.22	994.4	13.7	72.1	73.4	2.00	2.00	0.00
1,100.0	15.00	79.22	1,091.5	18.3	95.9	97.6	2.00	2.00	0.00
1,200.0	17.00	79.22	1,187.6	23.4	123.0	125.2	2.00	2.00	0.00
1,300.0	19.00	79.22	1,282.7	29.2	153.3	156.1	2.00	2.00	0.00
1,341.9	19.84	79.22	1,322.2	31.8	167.0	170.0	2.00	2.00	0.00
1,400.0	19.84	79.22	1,376.9	35.5	186.4	189.7	0.00	0.00	0.00
1,500.0	19.84	79.22	1,470.9	41.8	219.7	223.7	0.00	0.00	0.00
1,600.0	19.84	79.22	1,565.0	48.2	253.0	257.6	0.00	0.00	0.00
1,700.0	19.84	79.22	1,659.0	54.5	286.4	291.5	0.00	0.00	0.00
1,800.0	19.84	79.22	1,753.1	60.9	319.7	325.5	0.00	0.00	0.00
1,900.0	19.84	79.22	1,847.2	67.2	353.1	359.4	0.00	0.00	0.00
2,000.0	19.84	79.22	1,941.2	73.6	386.4	393.3	0.00	0.00	0.00
2,100.0	19.84	79.22	2,035.3	79.9	419.7	427.3	0.00	0.00	0.00
2,185.8	19.84	79.22	2,116.0	85.4	448.3	456.4	0.00	0.00	0.00
Ojo									
2,200.0	19.84	79.22	2,129.4	86.3	453.1	461.2	0.00	0.00	0.00
2,300.0	19.84	79.22	2,223.4	92.6	486.4	495.1	0.00	0.00	0.00
2,346.3	19.84	79.22	2,267.0	95.6	501.8	510.9	0.00	0.00	0.00
Kirtland									
2,400.0	19.84	79.22	2,317.5	99.0	519.7	529.1	0.00	0.00	0.00
2,500.0	19.84	79.22	2,411.6	105.3	553.1	563.0	0.00	0.00	0.00
2,600.0	19.84	79.22	2,505.6	111.7	586.4	597.0	0.00	0.00	0.00
2,621.6	19.84	79.22	2,526.0	113.1	593.6	604.3	0.00	0.00	0.00
Fruitland									
2,700.0	19.84	79.22	2,599.7	118.0	619.7	630.9	0.00	0.00	0.00
2,800.0	19.84	79.22	2,693.8	124.4	653.1	664.8	0.00	0.00	0.00
2,900.0	19.84	79.22	2,787.8	130.7	686.4	698.8	0.00	0.00	0.00
3,000.0	19.84	79.22	2,881.9	137.1	719.8	732.7	0.00	0.00	0.00
3,054.3	19.84	79.22	2,933.0	140.5	737.9	751.1	0.00	0.00	0.00
Pictured Cliffs									
3,100.0	19.84	79.22	2,976.0	143.4	753.1	766.6	0.00	0.00	0.00
3,185.1	19.84	79.22	3,056.0	148.8	781.5	795.5	0.00	0.00	0.00
Lewis									
3,200.0	19.84	79.22	3,070.0	149.8	786.4	800.6	0.00	0.00	0.00
3,300.0	19.84	79.22	3,164.1	156.1	819.8	834.5	0.00	0.00	0.00
3,400.0	19.84	79.22	3,258.2	162.5	853.1	868.4	0.00	0.00	0.00
3,500.0	19.84	79.22	3,352.2	168.8	886.4	902.4	0.00	0.00	0.00
3,555.0	19.84	79.22	3,404.0	172.3	904.8	921.0	0.00	0.00	0.00
Huerfano Bentonite									

ConocoPhillips or its affiliates

Planning Report

Database:	EDM Central Planning	Local Co-ordinate Reference:	Well SJ 28-7 #217N
Company:	ConocoPhillips SJBU	TVD Reference:	WELL @ 6597.0ft (Original Well Elev)
Project:	San Juan Basin - New Mexico West Wells	MD Reference:	WELL @ 6597.0ft (Original Well Elev)
Site:	San Juan 28 Wells	North Reference:	True
Well:	SJ 28-7 #217N	Survey Calculation Method:	Minimum Curvature
Wellbore:	SJ 28-7 #217N		
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)
3,600.0	19.84	79.22	3,446.3	175.2	919.8	936.3	0.00	0.00	0.00
3,700.0	19.84	79.22	3,540.4	181.5	953.1	970.2	0.00	0.00	0.00
3,800.0	19.84	79.22	3,634.4	187.9	986.4	1,004.2	0.00	0.00	0.00
3,900.0	19.84	79.22	3,728.5	194.2	1,019.8	1,038.1	0.00	0.00	0.00
4,000.0	19.84	79.22	3,822.6	200.6	1,053.1	1,072.0	0.00	0.00	0.00
4,021.7	19.84	79.22	3,843.0	202.0	1,060.4	1,079.4	0.00	0.00	0.00
Chacra									
4,100.0	19.84	79.22	3,916.6	206.9	1,086.5	1,106.0	0.00	0.00	0.00
4,200.0	19.84	79.22	4,010.7	213.3	1,119.8	1,139.9	0.00	0.00	0.00
4,300.0	19.84	79.22	4,104.8	219.6	1,153.1	1,173.9	0.00	0.00	0.00
4,349.0	19.84	79.22	4,150.9	222.7	1,169.5	1,190.5	0.00	0.00	0.00
4,400.0	18.31	79.22	4,199.1	225.9	1,185.8	1,207.1	3.00	-3.00	0.00
4,500.0	15.31	79.22	4,294.8	231.3	1,214.2	1,236.1	3.00	-3.00	0.00
4,600.0	12.31	79.22	4,391.9	235.7	1,237.7	1,259.9	3.00	-3.00	0.00
4,700.0	9.31	79.22	4,490.1	239.2	1,256.1	1,278.7	3.00	-3.00	0.00
4,800.0	6.31	79.22	4,589.1	241.8	1,269.4	1,292.3	3.00	-3.00	0.00
4,829.0	5.44	79.22	4,618.0	242.3	1,272.4	1,295.2	3.00	-3.00	0.00
Mass. Cliffhouse									
4,860.1	4.50	79.22	4,649.0	242.8	1,275.0	1,297.9	3.00	-3.00	0.00
Menefee									
4,900.0	3.31	79.22	4,688.8	243.4	1,277.7	1,300.6	3.00	-3.00	0.00
5,000.0	0.31	79.22	4,788.7	243.9	1,280.8	1,303.8	3.00	-3.00	0.00
5,010.3	0.00	0.00	4,799.0	244.0	1,280.8	1,303.8	3.00	-3.00	0.00
Int Csg - SJ 28-7 #217N - ICP									
5,100.0	0.00	0.00	4,888.7	244.0	1,280.8	1,303.8	0.00	0.00	0.00
5,200.0	0.00	0.00	4,988.7	244.0	1,280.8	1,303.8	0.00	0.00	0.00
5,300.0	0.00	0.00	5,088.7	244.0	1,280.8	1,303.8	0.00	0.00	0.00
5,400.0	0.00	0.00	5,188.7	244.0	1,280.8	1,303.8	0.00	0.00	0.00
5,419.3	0.00	0.00	5,208.0	244.0	1,280.8	1,303.8	0.00	0.00	0.00
Point Lookout									
5,500.0	0.00	0.00	5,288.7	244.0	1,280.8	1,303.8	0.00	0.00	0.00
5,600.0	0.00	0.00	5,388.7	244.0	1,280.8	1,303.8	0.00	0.00	0.00
5,700.0	0.00	0.00	5,488.7	244.0	1,280.8	1,303.8	0.00	0.00	0.00
5,776.3	0.00	0.00	5,565.0	244.0	1,280.8	1,303.8	0.00	0.00	0.00
Mancos									
5,800.0	0.00	0.00	5,588.7	244.0	1,280.8	1,303.8	0.00	0.00	0.00
5,900.0	0.00	0.00	5,688.7	244.0	1,280.8	1,303.8	0.00	0.00	0.00
6,000.0	0.00	0.00	5,788.7	244.0	1,280.8	1,303.8	0.00	0.00	0.00
6,100.0	0.00	0.00	5,888.7	244.0	1,280.8	1,303.8	0.00	0.00	0.00
6,200.0	0.00	0.00	5,988.7	244.0	1,280.8	1,303.8	0.00	0.00	0.00
6,300.0	0.00	0.00	6,088.7	244.0	1,280.8	1,303.8	0.00	0.00	0.00
6,400.0	0.00	0.00	6,188.7	244.0	1,280.8	1,303.8	0.00	0.00	0.00
6,500.0	0.00	0.00	6,288.7	244.0	1,280.8	1,303.8	0.00	0.00	0.00
6,577.3	0.00	0.00	6,366.0	244.0	1,280.8	1,303.8	0.00	0.00	0.00
Gallup									
6,600.0	0.00	0.00	6,388.7	244.0	1,280.8	1,303.8	0.00	0.00	0.00
6,700.0	0.00	0.00	6,488.7	244.0	1,280.8	1,303.8	0.00	0.00	0.00
6,800.0	0.00	0.00	6,588.7	244.0	1,280.8	1,303.8	0.00	0.00	0.00
6,900.0	0.00	0.00	6,688.7	244.0	1,280.8	1,303.8	0.00	0.00	0.00
7,000.0	0.00	0.00	6,788.7	244.0	1,280.8	1,303.8	0.00	0.00	0.00
7,100.0	0.00	0.00	6,888.7	244.0	1,280.8	1,303.8	0.00	0.00	0.00
7,200.0	0.00	0.00	6,988.7	244.0	1,280.8	1,303.8	0.00	0.00	0.00

ConocoPhillips or its affiliates

Planning Report

Database:	EDM Central Planning	Local Co-ordinate Reference:	Well SJ 28-7 #217N
Company:	ConocoPhillips SJB	TVD Reference:	WELL @ 6597.0ft (Original Well Elev)
Project:	San Juan Basin - New Mexico West Wells	MD Reference:	WELL @ 6597.0ft (Original Well Elev)
Site:	San Juan 28 Wells	North Reference:	True
Well:	SJ 28-7 #217N	Survey Calculation Method:	Minimum Curvature
Wellbore:	SJ 28-7 #217N		
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)
7,300.0	0.00	0.00	7,088.7	244.0	1,280.8	1,303.8	0.00	0.00	0.00
7,363.3	0.00	0.00	7,152.0	244.0	1,280.8	1,303.8	0.00	0.00	0.00
Greenhorn									
7,400.0	0.00	0.00	7,188.7	244.0	1,280.8	1,303.8	0.00	0.00	0.00
7,425.3	0.00	0.00	7,214.0	244.0	1,280.8	1,303.8	0.00	0.00	0.00
Graneros									
7,476.3	0.00	0.00	7,265.0	244.0	1,280.8	1,303.8	0.00	0.00	0.00
Two Wells									
7,484.3	0.00	0.00	7,273.0	244.0	1,280.8	1,303.8	0.00	0.00	0.00
Paguate									
7,500.0	0.00	0.00	7,288.7	244.0	1,280.8	1,303.8	0.00	0.00	0.00
7,577.3	0.00	0.00	7,366.0	244.0	1,280.8	1,303.8	0.00	0.00	0.00
Upper Cubero									
7,600.0	0.00	0.00	7,388.7	244.0	1,280.8	1,303.8	0.00	0.00	0.00
7,604.3	0.00	0.00	7,393.0	244.0	1,280.8	1,303.8	0.00	0.00	0.00
Lower Cubero									
7,700.0	0.00	0.00	7,488.7	244.0	1,280.8	1,303.8	0.00	0.00	0.00
7,722.3	0.00	0.00	7,511.0	244.0	1,280.8	1,303.8	0.00	0.00	0.00
TD - Prod Csg - SJ 28-7 #217N - 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
SJ 28-7 #217N - ICP	- plan hits target center - Point	0.00	0.00	4,799.0	244.0	1,280.8	2,018,585.43	574,177.76	36° 32' 50.499 N	107° 34' 50.888 W
SJ 28-7 #217N - PCP	- plan hits target center - Point	0.00	0.00	7,511.0	244.0	1,280.8	2,018,585.43	574,177.76	36° 32' 50.499 N	107° 34' 50.888 W

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)
200.0	200.0	Surf Csg	9-5/8	12-1/4
5,010.3	4,799.0	Int Csg	7	8-3/4
7,722.3	7,511.0	Prod Csg	4-1/2	6-1/4

ConocoPhillips or its affiliates

Planning Report

Database:	EDM Central Planning	Local Co-ordinate Reference:	Well SJ 28-7 #217N
Company:	ConocoPhillips SJB	TVD Reference:	WELL @ 6597.0ft (Original Well Elev)
Project:	San Juan Basin - New Mexico West Wells	MD Reference:	WELL @ 6597.0ft (Original Well Elev)
Site:	San Juan 28 Wells	North Reference:	True
Well:	SJ 28-7 #217N	Survey Calculation Method:	Minimum Curvature
Wellbore:	SJ 28-7 #217N		
Design:	Plan #1		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
5,419.3	5,208.0	Point Lookout		0.00		
3,054.3	2,933.0	Pictured Cliffs		0.00		
585.3	585.0	Nacimiento		0.00		
7,363.3	7,152.0	Greenhorn		0.00		
7,604.3	7,393.0	Lower Cubero		0.00		
7,577.3	7,366.0	Upper Cubero		0.00		
7,425.3	7,214.0	Graneros		0.00		
2,185.8	2,116.0	Ojo		0.00		
4,021.7	3,843.0	Chacra		0.00		
2,621.6	2,526.0	Fruitland		0.00		
7,722.3	7,511.0	TD		0.00		
4,829.0	4,618.0	Mass. Cliffhouse		0.00		
2,346.3	2,267.0	Kirtland		0.00		
5,776.3	5,565.0	Mancos		0.00		
7,476.3	7,265.0	Two Wells		0.00		
3,185.1	3,056.0	Lewis		0.00		
3,555.0	3,404.0	Huerfanito Bentonite		0.00		
4,860.1	4,649.0	Menefee		0.00		
7,484.3	7,273.0	Paguate		0.00		
6,577.3	6,366.0	Gallup		0.00		

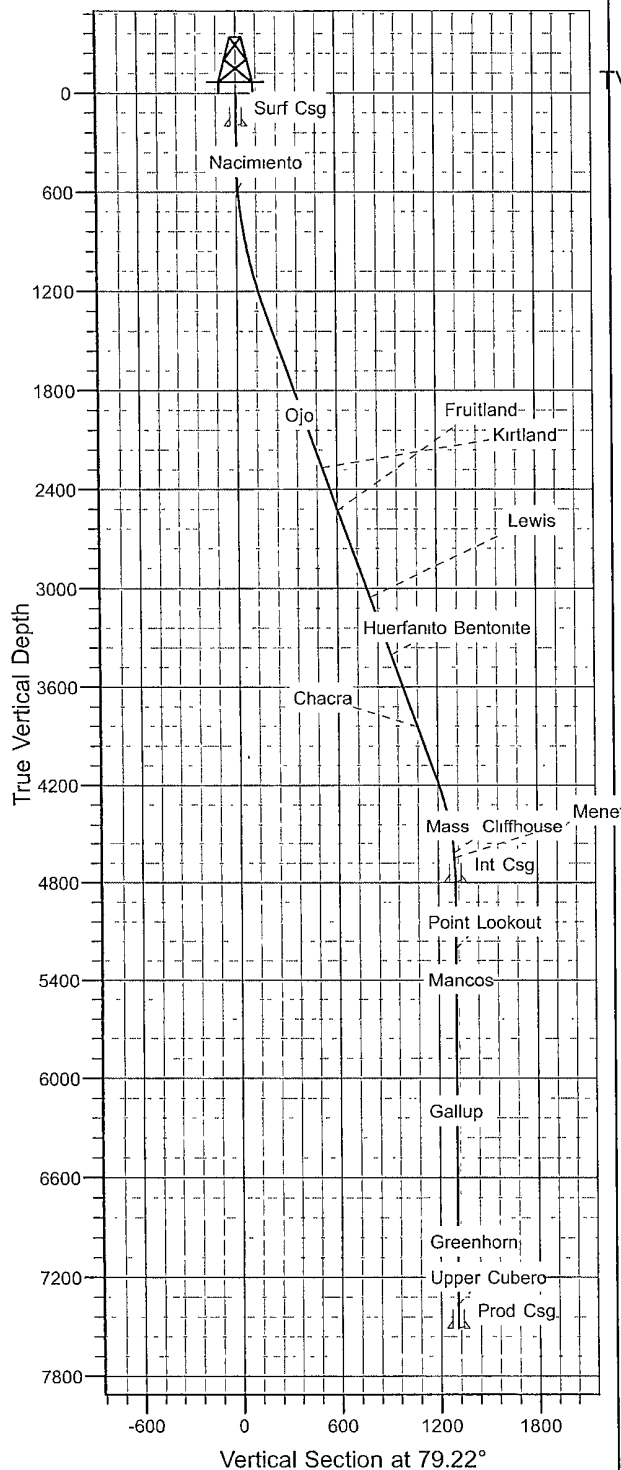
WELL @ 6597.0ft (Original Well Elev)
 Ground Elevation 6582.0
 Reference Lat: 36° 32' 48.087 N
 Reference Long: 107° 35' 6.584 W

Project: San Juan Basin - New Mexico West v
 Site: San Juan 28 Wells
 Well: SJ 28-7 #217N
 Wellbore: SJ 28-7 #217N
 Design: Plan #1

ConocoPhillips

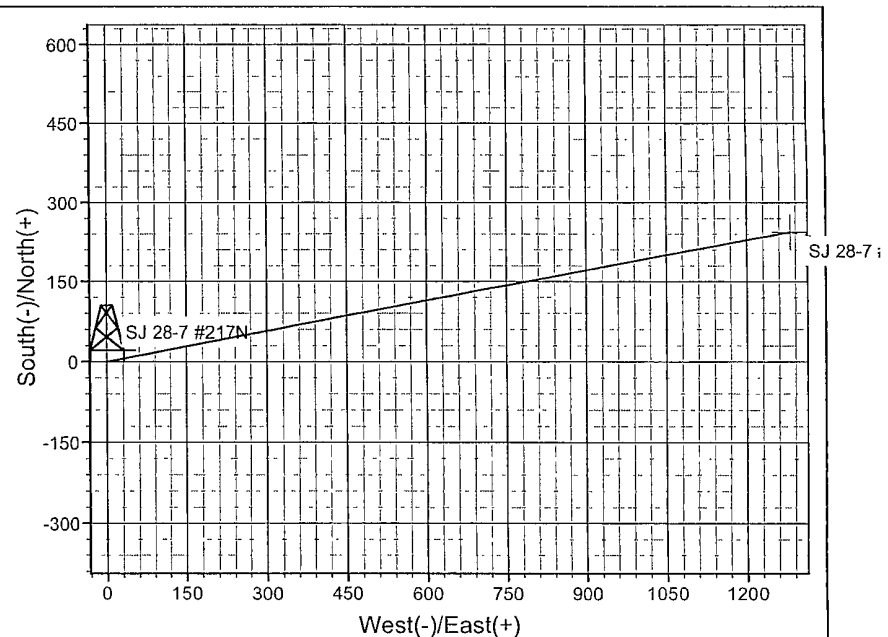
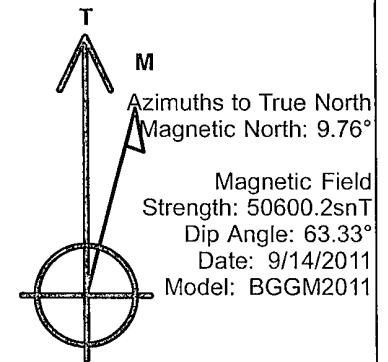
SECTION DETAILS

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	1341.9	19.84	79.22	1322.2	31.8	167.0	2.00	79.22	170.0	
4	4349.0	19.84	79.22	4150.9	222.7	1169.5	0.00	0.00	1190.5	
5	5010.3	0.00	0.00	4799.0	244.0	1280.8	3.00	180.00	1303.8	SJ 28-7 #217N - ICP
6	7722.3	0.00	0.00	7511.0	244.0	1280.8	0.00	0.00	1303.8	SJ 28-7 #217N - PCP



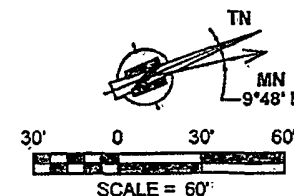
FORMATION TOP DETAILS

TVD	Path	MD	Path	Formation
585.0	585.3			Nacimiento
2116.0	2185.8			Ojo
2267.0	2346.3			Kirtland
2526.0	2621.6			Fruitland
2933.0	3054.3			Pictured Cliffs
3056.0	3185.1			Lewis
3404.0	3555.0			Huerfanito Bentonite
3843.0	4021.7			Chacra
4618.0	4829.0			Mass. Cliffhouse
4649.0	4860.1			Menefee
5208.0	5419.3			Point Lookout
5565.0	5776.3			Mancos
6366.0	6577.3			Gallup
7152.0	7363.3			Greenhorn
7214.0	7425.3			Graneros
7265.0	7476.3			Two Wells
7273.0	7484.3			Paguate
7366.0	7577.3			Upper Cubero
7393.0	7604.3			Lower Cubero
7511.0	7722.3			TD



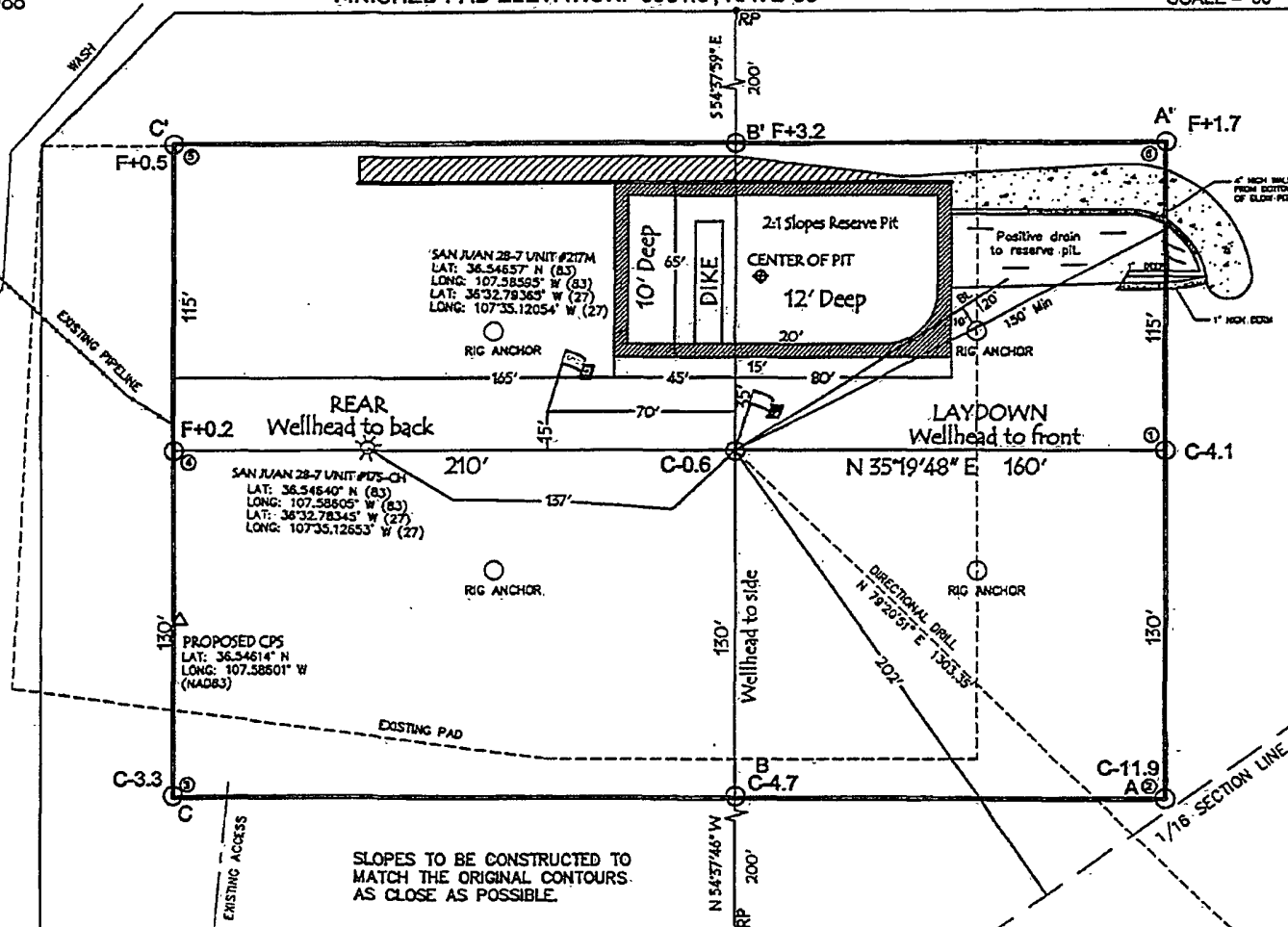
WELL FLAG
 LATITUDE: 36.54670° N
 LONGITUDE: 107.58577° W
CENTER OF PIT
 LATITUDE: 36.54675° N
 LONGITUDE: 107.58598° W
 ELEVATION: 6569.3'
 DATUM: NAD83 & NAVD88

CONOCOPHILLIPS COMPANY
 SAN JUAN 28-7 UNIT #217N
 1645' FNL & 1119' FWL
 LOCATED IN THE SW/4 NW/4 OF SECTION 28,
 T27N, R7W, N.M.P.M.,
 RIO ARriba COUNTY, NEW MEXICO
 GROUND ELEVATION: 6582', NAVD-88
 FINISHED PAD ELEVATION: 6581.3', NAVD 88



NOTES:

- 1.) BASIS OF BEARING: BETWEEN FOUND MONUMENTS AT THE SOUTHWEST CORNER AND THE SOUTH-QUARTER CORNER OF SECTION 28, TOWNSHIP 27 NORTH, RANGE 7 WEST, N.M.P.M., RIO ARriba COUNTY, NEW MEXICO.
 LINE BEARS: S 85°15'47" W A DISTANCE OF 2640.15 FEET AS MEASURED BY G.P.S.
- 2.) LATITUDE, LONGITUDE AND ELLIPSOIDAL HEIGHT BASED ON AZTEC COGS, L1 PHASE CENTER.
 DISTANCES SHOWN ARE GROUND DISTANCES USING A TRANSVERSE MERCATOR PROJECTION FROM A WGS84 ELLIPSOID, CONVERTED TO NAD83.
 NAVD88 ELEVATIONS AS PREDICTED BY GEODOL.
- 3.) LOCATION OF UNDERGROUND UTILITIES DEPICTED ARE APPROXIMATE. PRIOR TO EXCAVATION UNDERGROUND UTILITIES SHOULD BE FIELD VERIFIED. ALL CONSTRUCTION ACTIVITIES SHOULD BE FIELD VERIFIED WITH NEW MEXICO ONE-CALL AUTHORITIES AT LEAST 48 HOURS PRIOR TO CONSTRUCTION.



TOTAL PERMITTED AREA
 345' x 470' = 3.70 ACRES
 SCALE: 1" = 60'
 JOB No.: COPC437
 DATE: 06/10/11
 DRAWN BY: TWT

NOTE:

RESERVE PIT DIKE: TO BE 8' ABOVE DEEP SIDE (OVERFLOW - 3' WIDE AND 1' ABOVE SHALLOW SIDE).
 RUSSELL SURVEYING, INC. IS NOT LIABLE FOR UNDERGROUND UTILITIES OR PIPELINES.
 CONTRACTOR SHOULD CALL ONE-CALL FOR LOCATION OF ANY MARKED OR UNMARKED, BURIED PIPELINES OR CABLES ON WELL PAD, IN CONSTRUCTION ZONE AND/OR ACCESS ROAD AT LEAST TWO (2) WORKING DAYS PRIOR TO CONSTRUCTION.



Russell Surveying
 1409 W. Aztec Blvd. #2
 Aztec, New Mexico 87410
 (505) 334-8637

CONOCOPHILLIPS COMPANY

SAN JUAN 28-7 UNIT #217N
1645' FNL & 1119' FWL
LOCATED IN THE SW/4 NW/4 OF SECTION 28,
T27N, R7W, N.M.P.M.,
RIO ARriba COUNTY, NEW MEXICO

DIRECTIONS

- 1) FROM POST OFFICE IN BLANCO, TRAVEL EASTERLY ON HWY 64 FOR 0.8 MILES TO CR 4450.
- 2) TURN RIGHT ONTO CR 4450 AND GO SOUTHERLY FOR 25 MILES TO OLD SCHOOL HOUSE.
- 3) FROM "T" INTERSECTION BY SCHOOL HOUSE, GO NORTHERLY UP ICE CANYON FOR 3.3 MILES.
- 4) TURN LEFT AND GO 2.85 MILES TO "Y" INTERSECTION.
- 5) TURN LEFT (GO AROUND CHEVRON COMP SITE.) AND GO 3.3 MILES.
- 6) TURN LEFT AND GO 1.8 MILES.
- 7) TURN RIGHT AND GO 0.1 MILES TO TWINNED LOCATION.

WELL FLAG LOCATED AT LAT. 36.54670° N, LONG. 107.58577° W (NAD 83).

JOB No.: COPC437
DATE: 06/10/11



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