

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: 4/29/14
Well information;
Operator Burlington Res., Well Name and Number SUNRAY 1 M
API# 30-045-35544, Section 5, Township 29 NS, Range 8 E/W

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
- ☐ 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 Bern
NMOCD Approved by Signature

6-12-2014
Date

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED

APR 25 2014

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work DRILL	5. Lease Number SF-078487-6 Unit Reporting Number
1b. Type of Well GAS	6. If Indian, All. or Tribe
2. Operator BURLINGTON RESOURCES Oil & Gas Company, LP	7. Unit Agreement Name
3. Address & Phone No. of Operator PO Box 4289, Farmington, NM 87499 (505) 326-9700	8. Farm or Lease Name SUNRAY 9. Well Number 1M
4. Location of Well Surface: Unit A(NENE), 999' FNL & 699' FEL BHL : Unit H(SENE), 1956' FNL & 751' FEL Surface: Latitude: 36.758416° N (NAD83) Longitude: 107.691575° W BHL : Latitude: 36.755786° N (NAD83) Longitude: 107.691597° W	10. Field, Pool, Wildcat BLANCO MV / BASIN DK 11. Sec., Twn, Rge, Mer. (NMPM) Sec. 5, T29N, R8W API # 30-045-35544
14. Distance in Miles from Nearest Town 10.7 MILES/BLANCO	12. County SAN JUAN 13. State NM
15. Distance from Proposed Location to Nearest Property or Lease Line 699'	
16. Acres in Lease 649.520	17. Acres Assigned to Well DK 329.52 ACRES N/2 MV 324.58 ACRES E/2
18. Distance from Proposed Location to Nearest Well, Drlg, Compl, or Applied for on this Lease 393' FROM SUNRAY 2/MV & DK	
19. Proposed Depth 7527'	20. Rotary or Cable Tools Rotary
21. Elevations (DF, FT, GR, Etc.) 6284' GL	22. Approx. Date Work will Start
23. Proposed Casing and Cementing Program See Operations Plan attached	
24. Authorized by: Patsy Clugston (Staff Regulatory Tech)	Date 4/24/14



H₂S POTENTIAL EXIST

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

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 NMB-000015 and NMB-000089

NMOCDA

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

DISTRICT I
1625 N. French Dr., Hobbs, N.M. 88240
Phone: (575) 383-6161 Fax: (575) 393-0720

DISTRICT II
811 S. First St., Artesia, N.M. 88210
Phone: (575) 748-1283 Fax: (575) 748-9720

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

DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3480 Fax: (505) 476-3482

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION

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

Farmington Field Office
Bureau of Land Management

RECEIVED

Form C-102
Revised August 1, 2011
Submit one copy to appropriate District Office

☒ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-045- 35544	² Pool Code 71599 / 72319	³ Pool Name BASIN DAKOTA/BLANCO MESAVERDE
⁴ Property Code 7560	⁵ Property Name SUNRAY	⁶ Well Number 1M
⁷ GRID No. 14538	⁸ Operator Name BURLINGTON RESOURCES OIL & GAS COMPANY LP	⁹ Elevation 6284'

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	5	29-N	8-W		999	NORTH	699	EAST	SAN JUAN

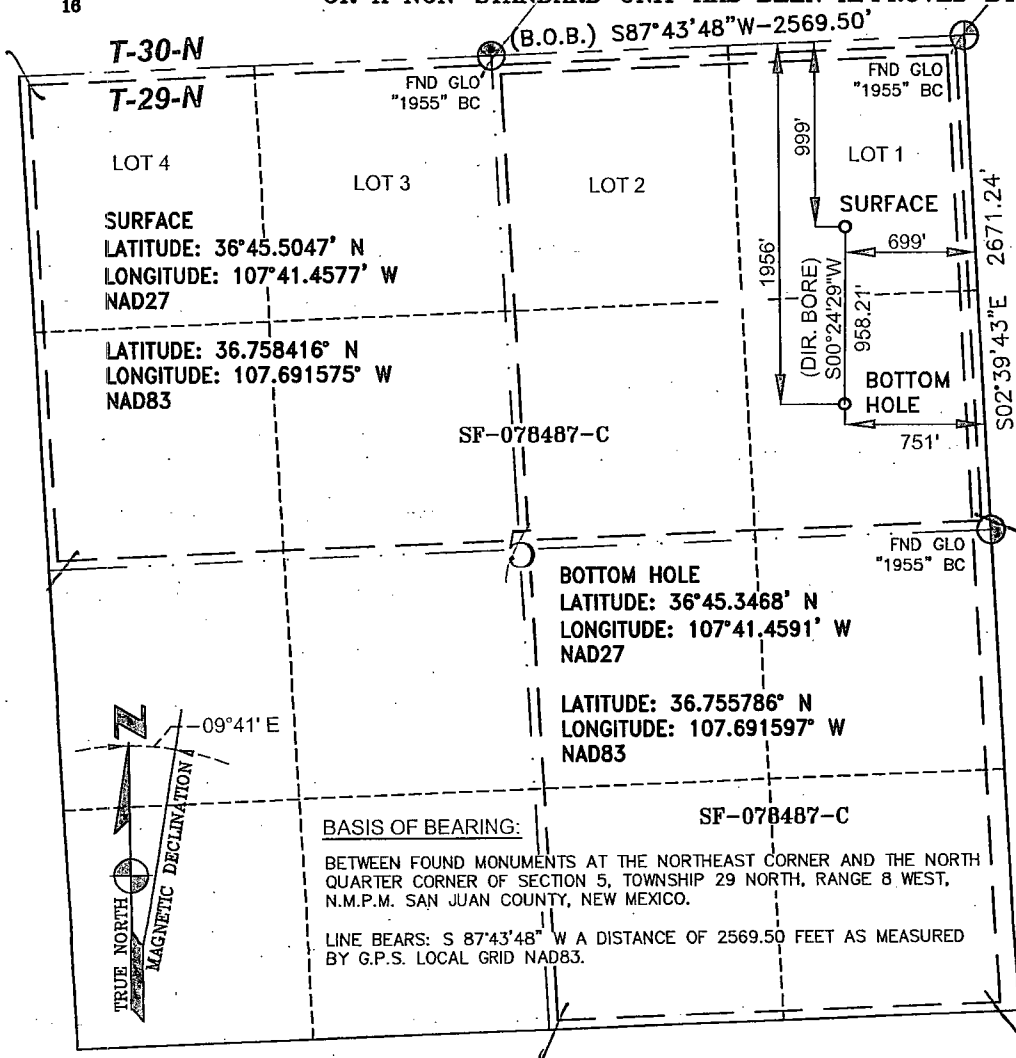
¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
H	5	29-N	8-W		1956	NORTH	751	EAST	SAN JUAN

¹² Dedicated Acres DK 329.52 ACRES N/2 MV 324.58 ACRES E/2	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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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



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 a working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Arleen White 3/5/14
Signature Date

Arleen White
Printed Name

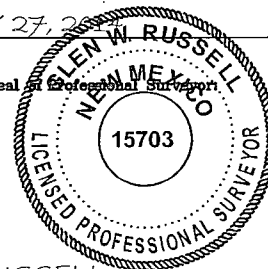
arleen.r.white@conocophillips.com
E-mail Address

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.

FEBRUARY 27, 2014
Date of Survey

Signature and Seal of Professional Surveyor



GLEN W. RUSSELL
Certificate Number

15703

PROJECT PROPOSAL - New Drill / Sidetrack

San Juan Business Unit

SUNRAY 1M

DEVELOPMENT

Lease:		AFE #: WAN.CDR.3053				AFE \$:	
Field Name: SAN JUAN		Rig: 2014 Pushing Rig 2 (MV/DK)		State: NM	County: SAN JUAN		API #:
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: 36.758411	Longitude: -107.690962	X:	Y:	Section: 05		Range: 008W	
Footage X: 699 FEL	Footage Y: 999 FNL	Elevation: 6284 (FT)		Township: 029N			
Tolerance:							
Location: Bottom Hole Datum Code: NAD 27 Directional							
Latitude: 36.755780	Longitude: -107.690984	X:	Y:	Section: 05		Range: 008W	
Footage X: 751 FEL	Footage Y: 1956 FNL	Elevation:		(FT) Township: 029N			
Tolerance:							
Location Type: Restricted		Start Date (Est.): 1/1/2014		Completion Date:		Date In Operation:	
Formation Data: Assume KB = 6299 Units = FT							
Formation Call & Casing Points	Depth (TVD in Ft)	SS (Ft)	MD (Ft)	Depletion (Yes/No)	BHP (PSIG)	BHT	Remarks
SAN JOSE	0	6299		☐			Surface geology
Surface Casing	200	6099		☐			12-1/4 hole. 200' 9 5/8" 32.3 ppf, H-40, STC casing. Cement with 121 cuft. Circulate cement to surface.
NACIMIENTO	591	5708		☐			
OJO ALAMO	1858	4441		☐			
KIRTLAND	2033	4266		☐			
FRUITLAND	2524	3775		☐			Possible Gas
PICTURED CLIFFS	2964	3335		☐			
LEWIS	3107	3192		☐			
Intermediate Casing	3681	2618		☐	110		8 3/4" Hole. 7", 23 ppf, J-55, LTC Casing. Cement with 865 cuft. Circulate cement to surface.
HUERFANITO BENTONITE	3734	2565		☐			
CHACRA	3948	2351		☐			
MASSIVE CLIFF HOUSE	4595	1704		☐	286		Gas; Cliffhouse is dry
MENEFEE	4755	1544		☐			
POINT LOOKOUT	5146	1153		☐			
MANCOS	5544	755		☐			
UPPER GALLUP	6429	-130		☐			
GREENHORN	7174	-875		☐			
GRANEROS	7224	-925		☐			
TWO WELLS	7274	-975		☐	2961		Gas
PAGUATE	7381	-1082		☐			
UPPER CUBERO	7399	-1100		☐			

PROJECT PROPOSAL - New Drill / Sidetrack

SUNRAY 1M

DEVELOPMENT

LOWER CUBERO	7439	-1140	☐	
ENCINAL	7497	-1198	☐	TD ~30' below the top of Encinal. Est bottom perf 15' from TD.
Total Depth	7527	-1228	☐	195 6-1/4" hole, 4-1/2" 11.6 ppf, N/L-80, LTC /BTC casing. Cement w/505 cuft. Circulate cement a minimum of 100' inside the previous casing string.

Reference Wells:

Reference Type	Well Name	Comments
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Logging Program:

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

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

Mud log from ~100' above the Upper Gallup to TD. Mud loggers will call final 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

Sunray #1M

Wellbore #1

Plan: Design #1

Standard Planning Report

24 March, 2014

ConocoPhillips

Planning Report

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

Local Co-ordinate Reference:
 TVD Reference:
 MD Reference:
 North Reference:
 Survey Calculation Method:

Well Sunray #1M
 WELL @ 6299.0usft (Original Well Elev)
 WELL @ 6299.0usft (Original Well Elev)
 Grid
 Minimum Curvature

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

Well	Sunray #1M		
Well Position	+N/-S	0.0 usft	Northing:
	+E/-W	0.0 usft	Easting:
Position Uncertainty	2.5 usft	Wellhead Elevation:	usft
		Latitude:	36° 45' 30.282 N
		Longitude:	107° 41' 27.462 W
		Ground Level:	6,284.0 usft

Wellbore	Wellbore #1		
Magnetics	Model Name	Sample Date	Declination
	BGGM2013	3/24/2014	9.58
			Dip Angle
			63.44
			Field Strength
			50,411

Design	Design #1		
Audit Notes:			
Version:	Phase:	PROTOTYPE	Tie On Depth:
			0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0.0	0.0	0.0
			Direction
			180.32

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	0.0	0.0	0.00	0.00	0.00	0.00	
300.0	0.00	0.00	300.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,350.0	21.00	180.32	1,326.6	-190.3	-1.1	2.00	2.00	0.00	180.32	
3,138.7	21.00	180.32	2,996.6	-831.3	-4.7	0.00	0.00	0.00	0.00	
3,838.7	0.00	0.00	3,681.0	-958.1	-5.4	3.00	-3.00	0.00	180.00	
7,684.7	0.00	0.00	7,527.0	-958.1	-5.4	0.00	0.00	0.00	0.00	Sunray #1M BHL

ConocoPhillips

Planning Report

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

Local Co-ordinate Reference:
 TVD Reference:
 MD Reference:
 North Reference:
 Survey Calculation Method:

Well Sunray #1M
 WELL @ 6299.0usft (Original Well Elev)
 WELL @ 6299.0usft (Original Well Elev)
 Grid
 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	0.0	0.0	0.0	0.00	0.00	0.00
SAN JOSE									
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 - 9-5/8"									
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	2.00	180.32	400.0	-1.7	0.0	1.7	2.00	2.00	0.00
500.0	4.00	180.32	499.8	-7.0	0.0	7.0	2.00	2.00	0.00
591.5	5.83	180.32	591.0	-14.8	-0.1	14.8	2.00	2.00	0.00
NACIMIENTO									
600.0	6.00	180.32	599.5	-15.7	-0.1	15.7	2.00	2.00	0.00
700.0	8.00	180.32	698.7	-27.9	-0.2	27.9	2.00	2.00	0.00
800.0	10.00	180.32	797.5	-43.5	-0.2	43.5	2.00	2.00	0.00
900.0	12.00	180.32	895.6	-62.6	-0.4	62.6	2.00	2.00	0.00
1,000.0	14.00	180.32	993.1	-85.1	-0.5	85.1	2.00	2.00	0.00
1,100.0	16.00	180.32	1,089.6	-111.0	-0.6	111.0	2.00	2.00	0.00
1,200.0	18.00	180.32	1,185.3	-140.2	-0.8	140.2	2.00	2.00	0.00
1,300.0	20.00	180.32	1,279.8	-172.8	-1.0	172.8	2.00	2.00	0.00
1,350.0	21.00	180.32	1,326.6	-190.3	-1.1	190.3	2.00	2.00	0.00
1,400.0	21.00	180.32	1,373.3	-208.2	-1.2	208.2	0.00	0.00	0.00
1,500.0	21.00	180.32	1,466.7	-244.0	-1.4	244.0	0.00	0.00	0.00
1,600.0	21.00	180.32	1,560.0	-279.9	-1.6	279.9	0.00	0.00	0.00
1,700.0	21.00	180.32	1,653.4	-315.7	-1.8	315.7	0.00	0.00	0.00
1,800.0	21.00	180.32	1,746.8	-351.5	-2.0	351.5	0.00	0.00	0.00
1,900.0	21.00	180.32	1,840.1	-387.4	-2.2	387.4	0.00	0.00	0.00
1,919.2	21.00	180.32	1,858.0	-394.2	-2.2	394.2	0.00	0.00	0.00
OJO ALAMO									
2,000.0	21.00	180.32	1,933.5	-423.2	-2.4	423.2	0.00	0.00	0.00
2,100.0	21.00	180.32	2,026.8	-459.0	-2.6	459.1	0.00	0.00	0.00
2,106.6	21.00	180.32	2,033.0	-461.4	-2.6	461.4	0.00	0.00	0.00
KIRTLAND									
2,200.0	21.00	180.32	2,120.2	-494.9	-2.8	494.9	0.00	0.00	0.00
2,300.0	21.00	180.32	2,213.5	-530.7	-3.0	530.7	0.00	0.00	0.00
2,400.0	21.00	180.32	2,306.9	-566.6	-3.2	566.6	0.00	0.00	0.00
2,500.0	21.00	180.32	2,400.3	-602.4	-3.4	602.4	0.00	0.00	0.00
2,600.0	21.00	180.32	2,493.6	-638.2	-3.6	638.2	0.00	0.00	0.00
2,632.5	21.00	180.32	2,524.0	-649.9	-3.7	649.9	0.00	0.00	0.00
FRUITLAND									
2,700.0	21.00	180.32	2,587.0	-674.1	-3.8	674.1	0.00	0.00	0.00
2,800.0	21.00	180.32	2,680.3	-709.9	-4.0	709.9	0.00	0.00	0.00
2,900.0	21.00	180.32	2,773.7	-745.7	-4.2	745.7	0.00	0.00	0.00
3,000.0	21.00	180.32	2,867.1	-781.6	-4.4	781.6	0.00	0.00	0.00
3,100.0	21.00	180.32	2,960.4	-817.4	-4.6	817.4	0.00	0.00	0.00
3,103.8	21.00	180.32	2,964.0	-818.8	-4.6	818.8	0.00	0.00	0.00
PICTURED CLIFFS									
3,138.7	21.00	180.32	2,996.6	-831.3	-4.7	831.3	0.00	0.00	0.00
3,200.0	19.16	180.32	3,054.1	-852.3	-4.8	852.3	3.00	-3.00	0.00
3,255.7	17.49	180.32	3,107.0	-869.8	-4.9	869.9	3.00	-3.00	0.00
LEWIS									
3,300.0	16.16	180.32	3,149.4	-882.7	-5.0	882.7	3.00	-3.00	0.00
3,400.0	13.16	180.32	3,246.1	-908.0	-5.1	908.0	3.00	-3.00	0.00
3,500.0	10.16	180.32	3,344.0	-928.2	-5.2	928.2	3.00	-3.00	0.00
3,600.0	7.16	180.32	3,442.9	-943.2	-5.3	943.3	3.00	-3.00	0.00

ConocoPhillips

Planning Report

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

Local Co-ordinate Reference: Well Sunray #1M
 TVD Reference: WELL @ 6299.0usft (Original Well Elev)
 MD Reference: WELL @ 6299.0usft (Original Well Elev)
 North Reference: Grid
 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)
3,700.0	4.16	180.32	3,542.4	-953.1	-5.4	953.1	3.00	-3.00	0.00
3,800.0	1.16	180.32	3,642.3	-957.7	-5.4	957.8	3.00	-3.00	0.00
3,838.7	0.00	0.00	3,681.0	-958.1	-5.4	958.2	3.00	-3.00	0.00
Intermediate - 7"									
3,891.7	0.00	0.00	3,734.0	-958.1	-5.4	958.2	0.00	0.00	0.00
HUERFANITO BENTONITE									
3,900.0	0.00	0.00	3,742.3	-958.1	-5.4	958.2	0.00	0.00	0.00
4,000.0	0.00	0.00	3,842.3	-958.1	-5.4	958.2	0.00	0.00	0.00
4,100.0	0.00	0.00	3,942.3	-958.1	-5.4	958.2	0.00	0.00	0.00
4,105.7	0.00	0.00	3,948.0	-958.1	-5.4	958.2	0.00	0.00	0.00
CHACRA									
4,200.0	0.00	0.00	4,042.3	-958.1	-5.4	958.2	0.00	0.00	0.00
4,300.0	0.00	0.00	4,142.3	-958.1	-5.4	958.2	0.00	0.00	0.00
4,400.0	0.00	0.00	4,242.3	-958.1	-5.4	958.2	0.00	0.00	0.00
4,500.0	0.00	0.00	4,342.3	-958.1	-5.4	958.2	0.00	0.00	0.00
4,600.0	0.00	0.00	4,442.3	-958.1	-5.4	958.2	0.00	0.00	0.00
4,700.0	0.00	0.00	4,542.3	-958.1	-5.4	958.2	0.00	0.00	0.00
4,752.7	0.00	0.00	4,595.0	-958.1	-5.4	958.2	0.00	0.00	0.00
MASSIVE CLIFF HOUSE									
4,800.0	0.00	0.00	4,642.3	-958.1	-5.4	958.2	0.00	0.00	0.00
4,900.0	0.00	0.00	4,742.3	-958.1	-5.4	958.2	0.00	0.00	0.00
4,912.7	0.00	0.00	4,755.0	-958.1	-5.4	958.2	0.00	0.00	0.00
MENEFFEE									
5,000.0	0.00	0.00	4,842.3	-958.1	-5.4	958.2	0.00	0.00	0.00
5,100.0	0.00	0.00	4,942.3	-958.1	-5.4	958.2	0.00	0.00	0.00
5,200.0	0.00	0.00	5,042.3	-958.1	-5.4	958.2	0.00	0.00	0.00
5,300.0	0.00	0.00	5,142.3	-958.1	-5.4	958.2	0.00	0.00	0.00
5,303.7	0.00	0.00	5,146.0	-958.1	-5.4	958.2	0.00	0.00	0.00
POINT LOOKOUT									
5,400.0	0.00	0.00	5,242.3	-958.1	-5.4	958.2	0.00	0.00	0.00
5,500.0	0.00	0.00	5,342.3	-958.1	-5.4	958.2	0.00	0.00	0.00
5,600.0	0.00	0.00	5,442.3	-958.1	-5.4	958.2	0.00	0.00	0.00
5,700.0	0.00	0.00	5,542.3	-958.1	-5.4	958.2	0.00	0.00	0.00
5,701.7	0.00	0.00	5,544.0	-958.1	-5.4	958.2	0.00	0.00	0.00
MANCOS									
5,800.0	0.00	0.00	5,642.3	-958.1	-5.4	958.2	0.00	0.00	0.00
5,900.0	0.00	0.00	5,742.3	-958.1	-5.4	958.2	0.00	0.00	0.00
6,000.0	0.00	0.00	5,842.3	-958.1	-5.4	958.2	0.00	0.00	0.00
6,100.0	0.00	0.00	5,942.3	-958.1	-5.4	958.2	0.00	0.00	0.00
6,200.0	0.00	0.00	6,042.3	-958.1	-5.4	958.2	0.00	0.00	0.00
6,300.0	0.00	0.00	6,142.3	-958.1	-5.4	958.2	0.00	0.00	0.00
6,400.0	0.00	0.00	6,242.3	-958.1	-5.4	958.2	0.00	0.00	0.00
6,500.0	0.00	0.00	6,342.3	-958.1	-5.4	958.2	0.00	0.00	0.00
6,586.7	0.00	0.00	6,429.0	-958.1	-5.4	958.2	0.00	0.00	0.00
UPPER GALLUP									
6,600.0	0.00	0.00	6,442.3	-958.1	-5.4	958.2	0.00	0.00	0.00
6,700.0	0.00	0.00	6,542.3	-958.1	-5.4	958.2	0.00	0.00	0.00
6,800.0	0.00	0.00	6,642.3	-958.1	-5.4	958.2	0.00	0.00	0.00
6,900.0	0.00	0.00	6,742.3	-958.1	-5.4	958.2	0.00	0.00	0.00
7,000.0	0.00	0.00	6,842.3	-958.1	-5.4	958.2	0.00	0.00	0.00
7,100.0	0.00	0.00	6,942.3	-958.1	-5.4	958.2	0.00	0.00	0.00
7,200.0	0.00	0.00	7,042.3	-958.1	-5.4	958.2	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: Other Named Wells
 Well: Sunray #1M
 Wellbore: Wellbore #1
 Design: Design #1

Local Co-ordinate Reference:
 TVD Reference:
 MD Reference:
 North Reference:
 Survey Calculation Method:

Well Sunray #1M
 WELL @ 6299.0usft (Original Well Elev)
 WELL @ 6299.0usft (Original Well Elev)
 Grid
 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)
7,300.0	0.00	0.00	7,142.3	-958.1	-5.4	958.2	0.00	0.00	0.00
7,331.7	0.00	0.00	7,174.0	-958.1	-5.4	958.2	0.00	0.00	0.00
GREENHORN									
7,381.7	0.00	0.00	7,224.0	-958.1	-5.4	958.2	0.00	0.00	0.00
GRANEROS									
7,400.0	0.00	0.00	7,242.3	-958.1	-5.4	958.2	0.00	0.00	0.00
7,431.7	0.00	0.00	7,274.0	-958.1	-5.4	958.2	0.00	0.00	0.00
TWO WELLS									
7,500.0	0.00	0.00	7,342.3	-958.1	-5.4	958.2	0.00	0.00	0.00
7,538.7	0.00	0.00	7,381.0	-958.1	-5.4	958.2	0.00	0.00	0.00
PAGUATE									
7,556.7	0.00	0.00	7,399.0	-958.1	-5.4	958.2	0.00	0.00	0.00
UPPER CUBERO									
7,596.7	0.00	0.00	7,439.0	-958.1	-5.4	958.2	0.00	0.00	0.00
LOWER CUBERO									
7,600.0	0.00	0.00	7,442.3	-958.1	-5.4	958.2	0.00	0.00	0.00
7,654.7	0.00	0.00	7,497.0	-958.1	-5.4	958.2	0.00	0.00	0.00
ENCINAL									
7,684.7	0.00	0.00	7,527.0	-958.1	-5.4	958.2	0.00	0.00	0.00
Production - 4-1/2"									

Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
Sunray #1M BHL	0.00	0.00	7,527.0	-958.1	-5.4	2,094,391.72	541,700.45	36° 45' 20.808 N	107° 41' 27.546 W
- plan hits target center									
- Point									

Casing Points

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
200.0	200.0	Surface - 9-5/8"	9-5/8	12-1/4
3,838.7	3,681.0	Intermediate - 7"	7	8-3/4
7,684.7	7,527.0	Production - 4-1/2"	4-1/2	6-1/4

ConocoPhillips

Planning Report

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

Local Co-ordinate Reference:
TVD Reference:
MD Reference:
North Reference:
Survey Calculation Method:

Well Sunray #1M
 WELL @ 6299.0usft (Original Well Elev)
 WELL @ 6299.0usft (Original Well Elev)
 Grid
 Minimum Curvature

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
591.5	591.0	NACIMIENTO		0.00	
5,701.7	5,544.0	MANCOS		0.00	
7,331.7	7,174.0	GREENHORN		0.00	
1,919.2	1,858.0	OJO ALAMO		0.00	
3,103.8	2,964.0	PICTURED CLIFFS		0.00	
4,912.7	4,755.0	MENEFEE		0.00	
6,586.7	6,429.0	UPPER GALLUP		0.00	
7,596.7	7,439.0	LOWER CUBERO		0.00	
4,105.7	3,948.0	CHACRA		0.00	
2,632.5	2,524.0	FRUITLAND		0.00	
3,891.7	3,734.0	HUERFANITO BENTONITE		0.00	
0.0	0.0	SAN JOSE		0.00	
2,106.6	2,033.0	KIRTLAND		0.00	
7,431.7	7,274.0	TWO WELLS		0.00	
7,654.7	7,497.0	ENCINAL		0.00	
7,538.7	7,381.0	PAGUATE		0.00	
3,255.7	3,107.0	LEWIS		0.00	
7,381.7	7,224.0	GRANEROS		0.00	
5,303.7	5,146.0	POINT LOOKOUT		0.00	
7,556.7	7,399.0	UPPER CUBERO		0.00	
4,752.7	4,595.0	MASSIVE CLIFF HOUSE		0.00	

REFERENCE INFORMATION

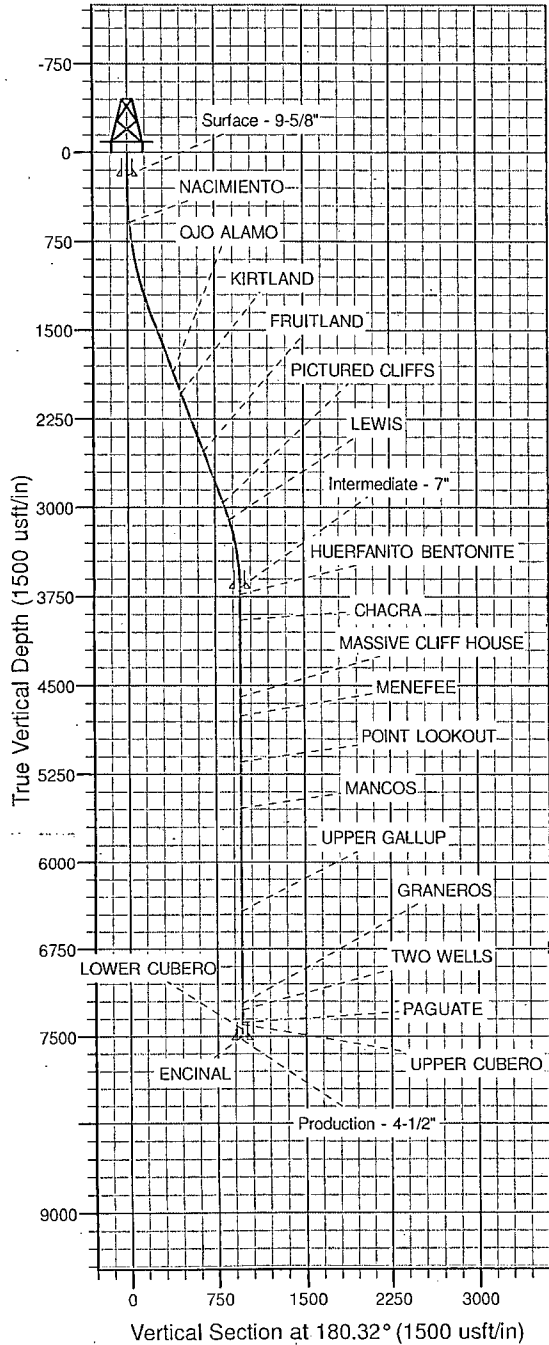
WELL @ 6299.0usft (Original Well Elev)
Ground Elevation 6284.0
Reference Lat: 36° 45' 30.282 N
Reference Long: 107° 41' 27.462 W

Project: San Juan Basin - New Mexico West V
Site: Other Named Wells
Well: Sunray #1M
Wellbore: Wellbore #1
Design: Design #1



SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	300.0	0.00	0.00	300.0	0.0	0.0	0.00	0.00	0.0	
3	1350.0	21.00	180.32	1326.6	-190.3	-1.1	2.00	180.32	190.3	
4	3138.7	21.00	180.32	2996.6	-831.3	-4.7	0.00	0.00	831.3	
5	3838.7	0.00	0.00	3681.0	-958.1	-5.4	3.00	180.00	958.2	
6	7684.7	0.00	0.00	7527.0	-958.1	-5.4	0.00	0.00	958.2	Sunray #1M BHL

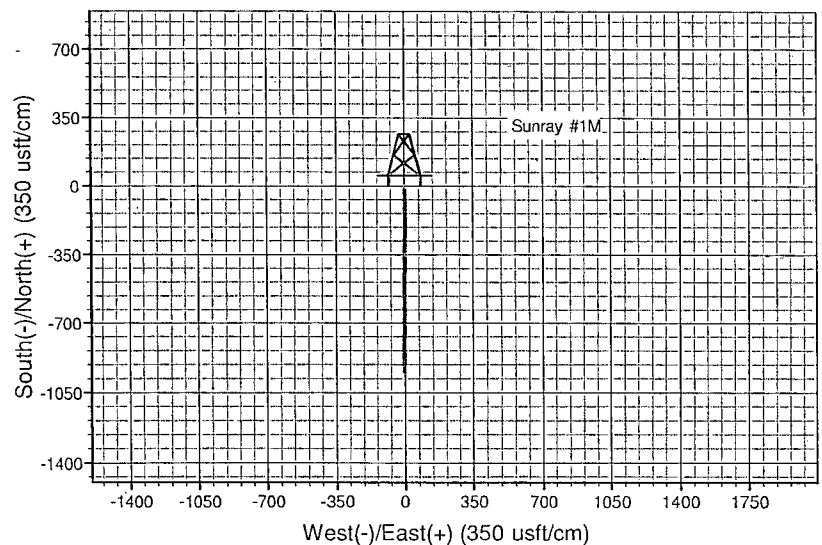
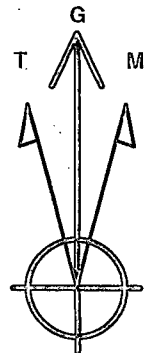


FORMATION TOP DETAILS

TVDPath	MDPath	Formation
0.0	0.0	SAN JOSE
591.0	591.5	NACIMIENTO
1858.0	1919.2	OJO ALAMO
2033.0	2106.6	KIRTLAND
2524.0	2632.5	FRUITLAND
2964.0	3103.8	ICTURED CLIFFS
3107.0	3255.7	LEWIS
3734.0	3891.7	HUEFANITO BENTONITE
3948.0	4105.7	CHACRA
4595.0	4752.7	MASSIVE CLIFF HOUSE
4755.0	4912.7	MENEFEE
5146.0	5303.7	POINT LOOKOUT
5544.0	5701.7	MANCOS
6429.0	6586.7	UPPER GALLUP
7174.0	7331.7	GREENHORN
7224.0	7381.7	GRANEROS
7274.0	7431.7	TWO WELLS
7381.0	7538.7	PAGUATE
7399.0	7556.7	UPPER CUBERO
7439.0	7596.7	LOWER CUBERO
7497.0	7654.7	ENCINAL

Azimuths to Grid North
True North: -0.09°
Magnetic North: 9.49°

Magnetic Field
Strength: 50411.4snT
Dip Angle: 63.44°
Date: 3/24/2014
Model: BGGM2013



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 11 day of April, 20 14.



Arleen White
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

surfacing material is required, it will be obtained from existing permitted or private sources and will be hauled in by trucks over existing Resource roads to the area.

F. For well pad cut and fill see Sheet F.

G. As determined during the onsite on 3/12/14, the following best management practices will be implemented:

1. Drainage will be established above cut slope draining around well pad.

H. Construction equipment may include chain saws, a brush hog, scraper, maintainer, excavator, hydraulic mulcher, chippers and dozer. Construction of the resource road and well pad will take approximately 2 to 4 weeks.

I. The resource road and well pad is on-lease so no additional ROW will be required.

J. Construction contractors will call New Mexico One-Call (or equivalent) to identify the location of any marked or unmarked pipeline or cables located in proximity to the proposed resource road and well pad at least two working days prior to ground disturbance.

K. All operations will be conducted in such a manner that full compliance is made with the applicable laws and regulations, the Application for Permit to Drill, and applicable Notice(s) to Lessees.

VII. Methods for Handling Waste

A. Cuttings, Drilling Fluids, and Flowback Water - The drill cuttings, drill water and completion fluids will be placed in a lined reserve pit. The pit will be lined with 20m gage pit liner. The reserve pit will be fenced on three sides away from the pad during drilling and the fourth side fenced as soon as the rig moves out. The free fluids will be removed after completion or may be trucked and reused in drilling operations or trucked to an approved disposal facility as indicated in Burlington Resources Drilling / Workover Pit Closure Procedure dated August 2, 2004 on file at the NMOCD office in Aztec, NM.

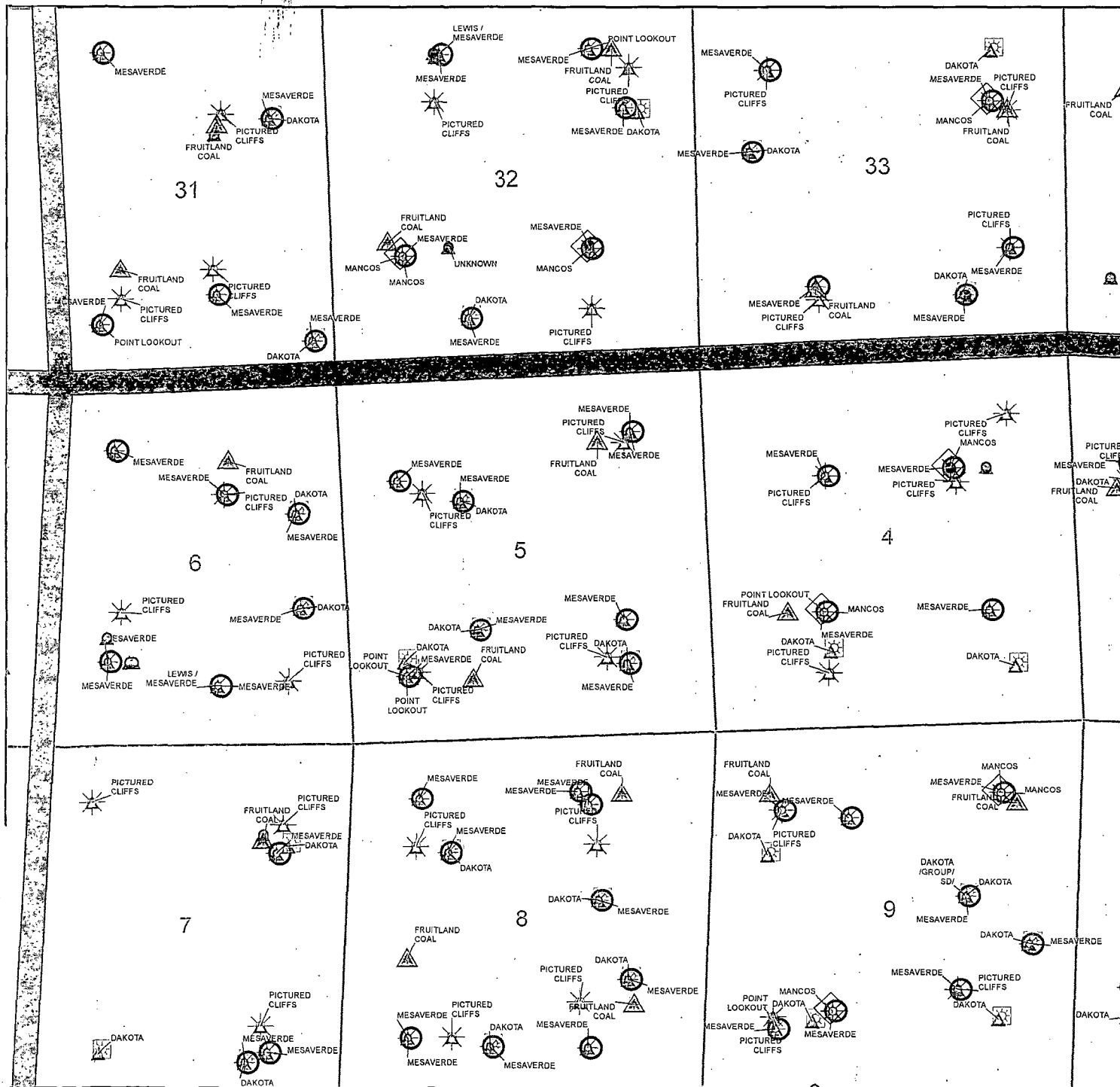
B. Garbage and other waste material - garbage, trash and other waste materials will be collected in a portable, self-contained and fully-enclosed trash container during drilling and completion operations.

Directions from the Post Office
in Blanco, NM
to
Burlington Resources Oil & Gas Company LP
SUNRAY #1M
999' FNL & 699' FEL,
Section 5, T29N, R8W, N.M.P.M., San Juan County,
New Mexico
Latitude: 36° 45' 30.299" N
Longitude: 107° 41' 29.670" W
Nad 1983

From the Post Office in Blanco, NM
Take Highway 64 East for 7.9 miles

Turn left (northeasterly) for 0.2 miles,
Turn left (north-northeasterly) for 0.3 miles,
continue (northwesterly) for 1.2 miles,
Turn right (northeasterly) for 1.1 miles,
to beginning of new access
On right (east) side of the road which continues
(easterly) for 121.08' to the newly staked location.

Title



ConocoPhillips

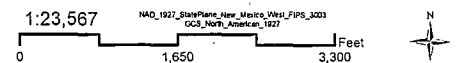
SUNRAY 1M

Map 1A

Sec. 05 - T29N - R08W

Author: _____ Date: 4/11/2014

Compiled by: _____ Scale: _____



SHEET D