

RECEIVED

FORM APPROVED
OMB No 1004-0136
Expires January 31, 2004

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

MAY 09 2011

Farmington Field Office
Bureau of Land Management

APPLICATION FOR PERMIT TO DRILL OR REENTER

5 Lease Serial No.

NMSF-078763

6. If Indian, Allottee or Tribe Name

7. If Unit or CA Agreement, Name and No

NMNM-78467A-MV
Rosa Unit NMNM-78467B-D/K

8. Lease Name and Well No.

Rosa Unit #080C

9. API Well No.

30-039-31072

10 Field and Pool, or Exploratory

Blanco Mesa Verde / Basin Dakota

11. Sec., T., R., M., or Blk. and Survey or Area

Section 8, 31N, 5W

12. County or Parish

Rio Arriba

13. State

NM

1a Type of Work: ☒ DRILL ☐ REENTER

1b. Type of Well. ☐ Oil Well ☒ Gas Well ☐ Other ☐ Single Zone ☒ Multiple Zone

2 Name of Operator

Williams Production Company, LLC

3a Address

P O Box 640 Aztec, NM 87410

3b. Phone No. (include area code)

(505) 634-4208

4 Location of Well (Report location clearly and in accordance with any State requirements *)

At surface 1095' FSL & 1670' FWL

At proposed prod. zone 1650' FSL & 330' FWL

14. Distance in miles and direction from nearest town or post office*

approximately 17 miles northeast of Blanco, New Mexico

15 Distance from proposed*

location to nearest
property or lease line, ft.
(Also to nearest drg. unit line, if any)

1650'

16. No. of Acres in lease

2,544.64

17 Spacing Unit dedicated to this well

320 W/2 MV 320 S/2 DK

18 Distance from proposed location*

to nearest well, drilling, completed,
applied for, on this lease, ft

325' Rosa 379A

19 Proposed Depth

8378'

20 BLM/BIA Bond No. on file

UT0899

21 Elevations (Show whether DF, KDB, RT, GL, etc.)

6259' GR

22 Approximate date work will start*

June 15, 2011

23. Estimated duration

1 month

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, shall be attached to this form:

1 Well plat certified by a registered surveyor.

2. A Drilling Plan.

3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office)

4 Bond to cover the operations unless covered by an existing bond on-file (see Item 20 above).

5 Operator certification.

6. Such other site specific information and/or plans as may be required by the authorized officer.

25 Signature

Larry Higgins

Name (Printed/Typed)

Larry Higgins

Date

5/9/2011

Title

Permit Supervisor

Approved by (Signature)

[Signature]
AFM

Name (Printed/Typed)

Office

FFO

Date

7/13/11

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Conditions of approval, if any, are attached.

Title 18 U.S.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.

*(Instructions on reverse)

Williams Production Company, LLC, proposes to develop the Blanco Mesa Verde / Basin Dakota formations at the above described location in accordance with the attached drilling and surface use plans

The well pad surface is under jurisdiction of the Bureau of Land Management, Farmington Field Office (BLM/FFO).

An EA (NM-210-2005) was prepared by Nelson Consulting Inc and filed with the BLM FFO

This location has been archaeologically surveyed by La Plata Archaeological Consultants, Negative report #LAC Report-54j Copies of their report have been submitted directly to the BLM.

No new access road is required for this location.

This APD is also serving as an application to obtain a pipeline right-of-way. An associated pipeline tie of 99 7 feet would be required for this well

The original APD was rescinded with an existing API # 30-039-29610
DRILLING OPERATIONS AUTHORIZED ARE
SUBJECT TO COMPLIANCE WITH ATTACHED
"GENERAL REQUIREMENTS".

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

Hold C104

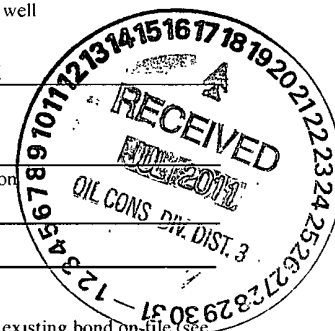
for Directional Survey
and "As Drilled" plat

NMOCD

A

NOTIFY AZTEC OCD 24 HRS.
PRIOR TO CASING & CEMENT

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

District I
1625 N. French Dr., Hobbs, NM 88240

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

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

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

State of New Mexico
Energy, Minerals & Natural Resources Department

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

Form C-102
Revised October 12, 2005
Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

MAY 09 2011

AMENDED REPORT
Farmington Field Office
Bureau of Land Management

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-039-31072		*Pool Code 72319 / 71599	*Pool Name BLANCO MESAVERDE / BASIN DAKOTA
*Property Code 17033	*Property Name ROSA UNIT		*Well Number 80C
*GRID No. 120782	*Operator Name WILLIAMS PRODUCTION COMPANY		*Elevation 6259'

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
N	8	31N	5W		1095	SOUTH	1670	WEST	RIO ARriba

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
L	8	31N	5W		1650	SOUTH	330	WEST	RIO ARriba

12 Dedicated Acres	320.0 Acres (W/2) - MV 320.0 Acres (S/2) - DK	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 LEASE SF-078767 5276.04' 0 MV DK BOTTOM-HOLE LAT: 36.91131°N LONG: 107.39300°W DATUM: NAD1927 SURFACE LOCATION LAT: 36.90978°N LONG: 107.38841°W DATUM: NAD1927 LAT: 36.91132°N LONG: 107.39360°W DATUM: NAD1983 LAT: 36.90979°N LONG: 107.38901°W DATUM: NAD1983	8	5276.04'	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. <i>Larry Higgins</i> 5-9-11 Signature Date LARRY HIGGINS Printed Name
			LEASE SF-078763 330' 1452.7' N67°40.5'W 1670' 1650' 1095' 5276.04' 0 MV DK LEASE SF-078763



WILLIAMS PRODUCTION COMPANY

Operations Plan

(Note: This procedure will be adjusted on site based upon actual conditions)

DATE: 5/8/2006 **FIELD:** Basin DK/ BlancoMV
WELL NAME: Rosa #80C **SURFACE:** BOR
SURF LOCATION: SESW Sec 8-31N-5W
BH LOCATION: NWSW Sec 8-31N-5W **MINERALS:** BLM
Rio Arriba, NM
ELEVATION: 6,259' GR **LEASE #** SF-078763
MEASURED DEPTH: 8,378'

I. GEOLOGY: Surface formation - San Jose

A. FORMATION TOPS: (KB)

Name	TVD	MD	Name	TVD	MD
Ojo Alamo	2,368	2,659	Cliff House	5,313	5,697
Kirtland	2,478	2,792	Menefee	5,358	5,742
Fruitland	2,868	3,235	Point Lookout	5,553	5,937
Pictured Cliffs	3,088	3,467	Mancos	5,918	6,302
Lewis	3,423	3,807	Gallup	6,903	7,287
			Greenhorn	7,628	8,012
			Graneros	7,688	8,072
			Dakota	7,823	8,207
			TD	7,993	8,378

B. MUD LOGGING PROGRAM: None

C. LOGGING PROGRAM: Cased Hole logs only.

D. NATURAL GAUGES: Gauge any noticeable increases in gas flow. Record all gauges in Tour book and on morning reports.

II. DRILLING

A. MUD PROGRAM: Clear water with benex to 7" casing point. Convert to a LSND mud to log and run pipe. Treat for lost circulation as necessary. Obtain 100% returns prior to cementing. Notify Engineering of any mud losses. Use air w/Air Hammer from 7 in. csg.to TD.

B. BOP TESTING: While drill pipe is in use, the pipe rams and the blind rams will be function tested once each trip. The anticipated reservoir is expected to be less than 1300 psi, so the BOPE will be tested to **250 psi (Low) for 5 minutes** and **1500 psi (High) for 10 minutes**. Utilize a BOPE Testing Unit with a recording chart and appropriate test plug for testing. The drum brakes will be inspected and tested each tour. **All tests and inspections will be recorded in the tour book as to time and results.**

III. MATERIALS**A. CASING PROGRAM:**

<u>CASING TYPE</u>	<u>HOLE SIZE</u>	<u>DEPTH (MD)</u>	<u>CASING SIZE</u>	<u>WT. & GRADE</u>
Surface	14-3/4"	+/- 300'	10-3/4"	32.75# H-40
Intermediate	9-7/8"	+/- 3,989'	7-5/8"	26.4# K-55
Prod. Casing	6-3/4"	+/- 8,377'	5-1/2"	17.0# N-80

B. FLOAT EQUIPMENT:

1. SURFACE CASING: 9-5/8" notched regular pattern guide shoe. Run (1) standard centralizer on each of the bottom (4) joints of Surface Casing.
2. INTERMEDIATE CASING: 7" cement nose guide shoe with a self-fill insert float. Place float collar one joint above the shoe. Install (1) Turbulent centralizer on each of the bottom (3) joints and one standard centralizer every (3) joints to 2,500 ft. Run (1) Turbulent centralizer at 2,700 ft., 2,500 ft., 2,300ft., 2,000ft., 1,500 ft., and 1,000 ft. (NTL-FRA 90-1).
3. PRODUCTION LINER / CASING: 3-1/2" & 5-1/2" whirler type cement nose guide shoe with a latch collar on top of 20' bottom joint. Place marker joint above 5,400'. Place centralizers as needed across selected production intervals.

C. CEMENTING:

(Note: Volumes may be adjusted onsite due to actual conditions)

1. SURFACE: Slurry: 255sx (356 cu.ft.) of "Type III" + 2% CaCl₂ + ¼ # of cello-flake/sk (Yield = 1.39 cu.ft./sk, Weight = 14.5 #/gal.). The 100% excess should circulate cement to the surface. WOC 12 hours. Test csg to 1500psi.
2. INTERMEDIATE: Lead - 690 sx (1,435) cu.ft.) of "Premium Light with 8% gel and 1/4# cello-flake/sk (Yield = 2.09 cu.ft./sk, Weight = 12.1 #/gal.). Tail - 100 sx (139cu.ft.) of "Type III" with 1/4# cello-flake/sk, (Yield = 1.4 cu.ft./sk, Weight = 14.5#/gal.). Use **100% excess in Lead Slurry** to circulate to surface. **No excess in Tail Slurry**. Total volume = 1,574 cu.ft. Bump Plug to 1,500 psi. Notify engineering if cement is not circulated to surface.
3. PRODUCTION CASING: 10 bbl Gelled Water space. Lead: 75sx (194ft³) of Premium Light HS + 1% FL-52 + .2% CD-32, 0.1% R-3, 3 #/sk CSE, ¼ #/sk cello flake and 4% Phenoseal. (Yield = 2.59 cu.ft./sk, Weight = 11.6 #/gal.). Tail Cement: 125 sx (265 ft³) of Premium Light HS + 1% FL-52 + .2% CD-32, 0.1% R-3, 3 #/sk CSE, ¼ #/sk cello flake and 4% Phenoseal. (Yield = 2.15 ft³/sk, Weight = 12.3 #/gal.). Displace cement at a minimum of 8 BPM. The 20% excess in lead and tail should cover 100 ft into intermediate casing. Total volume 460ft³. WOC 12 hours

IV. IV COMPLETION**A. CBL**

1. Run Cement Bond Log across all intervals to be perforated and find Top of Cement behind all casing strings if cement not circulated to surface..

B. PRESSURE TEST

1. Pressure test 7 5/8" & 5-1/2" casing to 3300# for 15 minutes.

C. STIMULATION

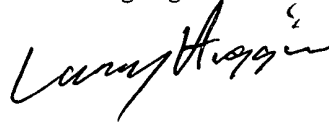
1. Stimulate Dakota with approximately 70,000# of 20/40 sand in x-link foam.
2. Isolate Dakota with a RBP.
3. Stimulate Point Lookout with approximately 80,000# of 20/40 sand in slick water.
4. Isolate Point Lookout with a RBP.
5. Perforate the Menefee/Cliff House as determined from the open hole logs.
6. Stimulate with approximately 80,000# of 20/40 sand in slick water.
7. Test each zone before removing bridge plugs.

D. RUNNING TUBING

1. Dakota: Run 2-1/16", 3.25#, J-55, IJ tubing with 1/2 mule shoe on bottom, SN with pump-out plug on top of adeem joint and 5 Seal Units. Land tubing approximately 100' below top Dakota perf.
2. Mesa Verde: Run 2-1/16", 2.9#, J-55, EUE tubing with a SN (1.91" ID) on top of bottom joint. Land tubing approximately 25' above the bottom Point Lookout perforations.

FDR

Gary Sizemore
Sr. Drilling Engineer





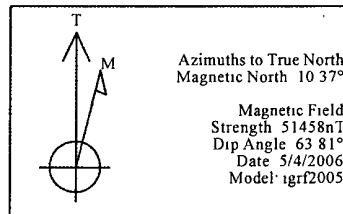
ROSA UNIT #80C
SEC 8 T31N R5W
1095' FSL, 1670' FWL
RIO ARriba COUNTY, NM

KB ELEVATION: 6273'
GR ELEVATION: 6259'

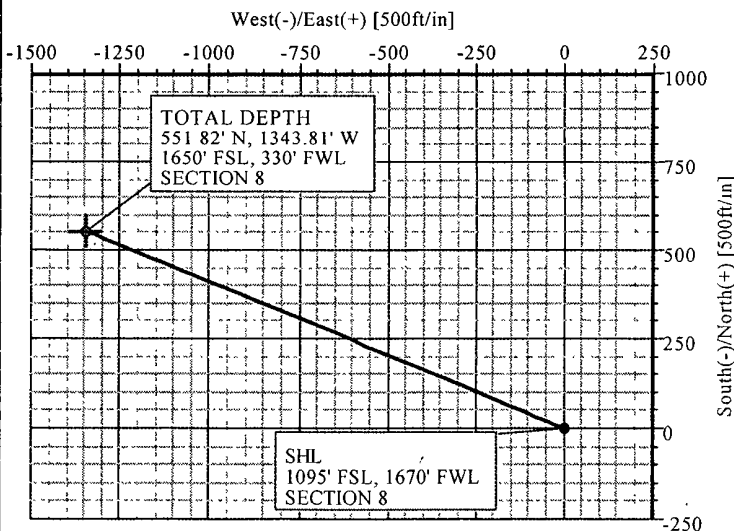
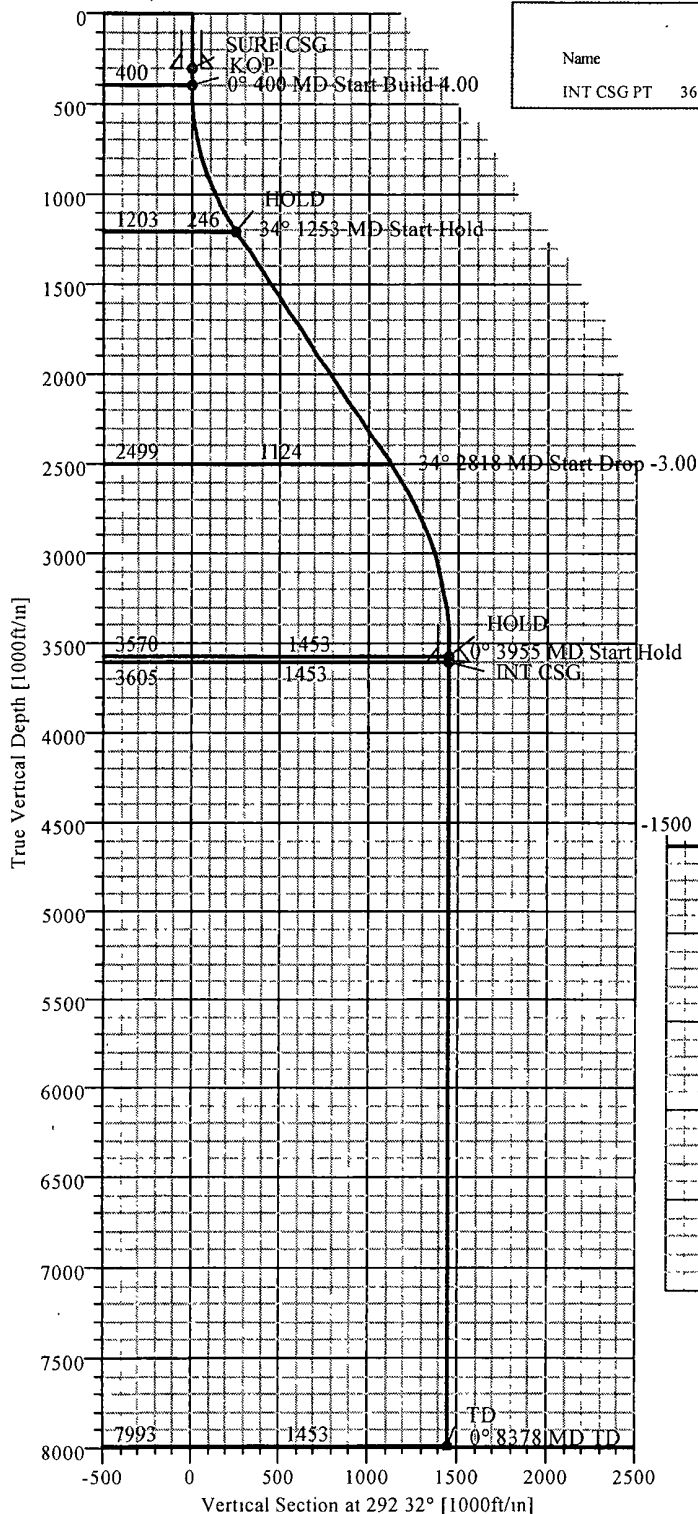
SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0 00	0 00	292 32	0 00	0 00	0 00	0 00	0 00	0 00	
2	400 00	0 00	292 32	400 00	0 00	0 00	0 00	0 00	0 00	KOP
3	1252 83	34.11	292 32	1203 33	93 62	-228 00	4 00	292 32	246 47	HOLD
4	2817 65	34 11	292 32	2498 89	426 99	-1039 81	0 00	0 00	1124 07	DROP
5	3954 76	0 00	292 32	3570 00	551 82	-1343 81	3 00	180 00	1452 70	HOLD
6	3989 76	0 00	292 32	3605 00	551 82	-1343 81	0 00	292 32	1452.70	INT CSG PT
7	8377 76	0 00	292 32	7993 00	551 82	-1343 81	0 00	292 32	1452.70	TOTAL DEPTH

WELL DETAILS						
Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
ROSA UNIT #80C	0 00	0 00	2150706 79	630100 61	36°54'35 000N	107°23'18 000W

TARGET DETAILS						
Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
INT CSG PT	3605 00	551 82	-1343 81	2151252 34	628754 24	Point



FORMATION TOP DETAILS			
No	TVDPath	MDPath	Formation
1	2368 00	2659 56	OJO ALAMO
2	2478 00	2792 42	KIRTLAND
3	2868 00	3235 91	FRUITLAND
4	3088 00	3467 49	PICTURED CLIFFS
5	3423 00	3807 61	LEWIS
6	5008 00	5392 76	CLIFF HOUSE TRANS
7	5313 00	5697 76	CLIFF HOUSE
8	5358 00	5742 76	MENEFEE
9	5553 00	5937 76	POINT LOOKOUT
10	5918 00	6302 76	MANCOS
11	6903 00	7287 76	GALLUP
12	7628 00	8012 76	GREENHORN
13	7688 00	8072 76	GRANEROS
14	7823 00	8207 76	DAKOTA



Weatherford

Plan: Plan #1 (ROSA UNIT #80C/1)

Created By: L WINCHELL

Date 5/5/2006

WEATHERFORD DRILLING SERVICES

Planning Report

Company:	WILLIAMS PRODUCTION CO	Date:	5/4/2006	Time:	16:27:15	Page:	1
Field:	RIO ARRIBA COUNTY, NM	Co-ordinate(NE) Reference:	Site: ROSA UNIT #80C	True North			
Site:	ROSA UNIT #80C	Vertical (TVD) Reference:	SITE 6273.0				
Well:	ROSA UNIT #80C	Section (VS) Reference:	Well (0.00N 0.00E 292.32Azi)				
Wellpath:	1	Plan:	Plan #1				

Field: RIO ARRIBA COUNTY, NM

Map System: US State Plane Coordinate System 1927

Geo Datum: NAD27 (Clarke 1866)

Sys Datum: Mean Sea Level

Map Zone:

New Mexico, Western Zone

Coordinate System:

Site Centre

Geomagnetic Model:

igrf2005

Site: ROSA UNIT #80C

1095' FSL 1670' FWL SEC 8 T31N R5W

Site Position:	From: Geographic	Position Uncertainty:	0.00 ft	Ground Level:	6259.00 ft	Northing:	2150706.79 ft	Easting:	630100.61 ft	Latitude:	36 54 35.000 N	Longitude:	107 23 18.000 W	North Reference:	True	Grid Convergence:	0 27 deg
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Well: ROSA UNIT #80C

Slot Name:

Well Position:	+N/-S	0.00 ft	Northing:	2150706.79 ft	Latitude:	36 54 35.000 N
	+E/-W	0.00 ft	Easting:	630100.61 ft	Longitude:	107 23 18.000 W
Position Uncertainty:	0.00 ft					

Wellpath: 1

Current Datum:	SITE	Height	6273.00 ft	Drilled From:	Surface
Magnetic Data:	5/4/2006			Tie-on Depth:	0.00 ft
Field Strength:	51458 nT			Above System Datum:	Mean Sea Level
Vertical Section:	Depth From (TVD)	+N/-S		Declination:	10.37 deg
	ft	ft		Mag Dip Angle:	63.81 deg
	0.00	0.00		+E/-W	ft
				Direction	deg
					292.32

Plan: Plan #1

Date Composed: 5/4/2006

Principal: Yes

Version:

1

Tied-to:

From Surface

Plan Section Information

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg	Target
0.00	0.00	292.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
400.00	0.00	292.32	400.00	0.00	0.00	0.00	0.00	0.00	0.00	
1252.83	34.11	292.32	1203.33	93.62	-228.00	4.00	4.00	0.00	292.32	
2817.65	34.11	292.32	2498.89	426.99	-1039.81	0.00	0.00	0.00	0.00	
3954.76	0.00	292.32	3570.00	551.82	-1343.81	3.00	-3.00	0.00	180.00	
3989.76	0.00	292.32	3605.00	551.82	-1343.81	0.00	0.00	0.00	292.32	INT CSG PT
8377.76	0.00	292.32	7993.00	551.82	-1343.81	0.00	0.00	0.00	292.32	

Section 1 : Start Hold

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg
0.00	0.00	292.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	292.32	400.00	0.00	0.00	0.00	0.00	0.00	0.00	292.32

Section 2 : Start Build 4 00

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg
500.00	4.00	292.32	499.92	1.33	-3.23	3.49	4.00	4.00	0.00	0.00
600.00	8.00	292.32	599.35	5.30	-12.90	13.94	4.00	4.00	0.00	0.00
700.00	12.00	292.32	697.81	11.89	-28.96	31.30	4.00	4.00	0.00	0.00
800.00	16.00	292.32	794.82	21.08	-51.33	55.49	4.00	4.00	0.00	0.00
900.00	20.00	292.32	889.91	32.81	-79.91	86.38	4.00	4.00	0.00	0.00
1000.00	24.00	292.32	982.61	47.04	-114.55	123.84	4.00	4.00	0.00	0.00
1100.00	28.00	292.32	1072.47	63.69	-155.10	167.67	4.00	4.00	0.00	0.00
1200.00	32.00	292.32	1159.05	82.68	-201.34	217.66	4.00	4.00	0.00	0.00
1252.83	34.11	292.32	1203.33	93.62	-228.00	246.47	4.00	4.00	0.00	0.00

WEATHERFORD DRILLING SERVICES

Planning Report

Company:	WILLIAMS PRODUCTION CO	Date:	5/4/2006	Time:	16:27:15	Page:	2
Field:	RIO ARRIBA COUNTY NM	Co-ordinate(N/E) Reference:	Site: ROSA UNIT #80C	True North			
Site:	ROSA UNIT #80C	Vertical (TVD) Reference:	SITE 6273.0				
Well:	ROSA UNIT #80C	Section (VS) Reference:	Well (0.00N.0.00E.292.32Azi)				
Wellpath:	1	Plan:	Plan #1				

Section 3 : Start Hold

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg
1300.00	34.11	292.32	1242.38	103.67	-252.47	272.92	0.00	0.00	0.00	0.00
1400.00	34.11	292.32	1325.18	124.98	-304.35	329.01	0.00	0.00	0.00	0.00
1500.00	34.11	292.32	1407.97	146.28	-356.23	385.09	0.00	0.00	0.00	0.00
1600.00	34.11	292.32	1490.76	167.58	-408.11	441.17	0.00	0.00	0.00	0.00
1700.00	34.11	292.32	1573.55	188.89	-459.99	497.26	0.00	0.00	0.00	0.00
1800.00	34.11	292.32	1656.35	210.19	-511.86	553.34	0.00	0.00	0.00	0.00
1900.00	34.11	292.32	1739.14	231.50	-563.74	609.42	0.00	0.00	0.00	0.00
2000.00	34.11	292.32	1821.93	252.80	-615.62	665.51	0.00	0.00	0.00	0.00
2100.00	34.11	292.32	1904.73	274.10	-667.50	721.59	0.00	0.00	0.00	0.00
2200.00	34.11	292.32	1987.52	295.41	-719.38	777.67	0.00	0.00	0.00	0.00
2300.00	34.11	292.32	2070.31	316.71	-771.26	833.76	0.00	0.00	0.00	0.00
2400.00	34.11	292.32	2153.11	338.01	-823.14	889.84	0.00	0.00	0.00	0.00
2500.00	34.11	292.32	2235.90	359.32	-875.02	945.92	0.00	0.00	0.00	0.00
2600.00	34.11	292.32	2318.69	380.62	-926.90	1002.01	0.00	0.00	0.00	0.00
2659.56	34.11	292.32	2368.00	393.31	-957.80	1035.41	0.00	0.00	0.00	0.00
2700.00	34.11	292.32	2401.48	401.93	-978.78	1058.09	0.00	0.00	0.00	0.00
2792.42	34.11	292.32	2478.00	421.61	-1026.72	1109.92	0.00	0.00	0.00	0.00
2800.00	34.11	292.32	2484.28	423.23	-1030.66	1114.17	0.00	0.00	0.00	0.00
2817.65	34.11	292.32	2498.89	426.99	-1039.81	1124.07	0.00	0.00	0.00	0.00

Section 4 : Start Drop -3.00

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg
2900.00	31.64	292.32	2568.05	443.97	-1081.16	1168.77	3.00	-3.00	0.00	180.00
3000.00	28.64	292.32	2654.51	463.04	-1127.61	1218.98	3.00	-3.00	0.00	180.00
3100.00	25.64	292.32	2743.49	480.37	-1169.81	1264.60	3.00	-3.00	0.00	180.00
3200.00	22.64	292.32	2834.73	495.90	-1207.64	1305.49	3.00	-3.00	0.00	180.00
3235.91	21.57	292.32	2868.00	501.04	-1220.14	1319.00	3.00	-3.00	0.00	180.00
3300.00	19.64	292.32	2927.99	509.60	-1241.00	1341.56	3.00	-3.00	0.00	-180.00
3400.00	16.64	292.32	3023.01	521.43	-1269.80	1372.69	3.00	-3.00	0.00	180.00
3467.49	14.62	292.32	3088.00	528.34	-1286.62	1390.88	3.00	-3.00	0.00	180.00
3500.00	13.64	292.32	3119.52	531.35	-1293.96	1398.81	3.00	-3.00	0.00	-180.00
3600.00	10.64	292.32	3217.28	539.34	-1313.42	1419.85	3.00	-3.00	0.00	180.00
3700.00	7.64	292.32	3315.99	545.38	-1328.12	1435.73	3.00	-3.00	0.00	180.00
3800.00	4.64	292.32	3415.41	549.44	-1338.01	1446.43	3.00	-3.00	0.00	180.00
3807.61	4.41	292.33	3423.00	549.67	-1338.57	1447.03	3.00	-3.00	0.00	180.00
3900.00	1.64	292.32	3515.25	551.52	-1343.09	1451.91	3.00	-3.00	0.00	-180.00
3954.76	0.00	292.32	3570.00	551.82	-1343.81	1452.70	3.00	-3.00	0.00	-180.00

Section 5 : Start Hold

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg
3989.76	0.00	292.32	3605.00	551.82	-1343.81	1452.70	0.00	0.00	0.00	292.32

Section 6 : Start Hold

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg
4000.00	0.00	292.32	3615.24	551.82	-1343.81	1452.70	0.00	0.00	0.00	292.32
4100.00	0.00	292.32	3715.24	551.82	-1343.81	1452.70	0.00	0.00	0.00	292.32
4200.00	0.00	292.32	3815.24	551.82	-1343.81	1452.70	0.00	0.00	0.00	292.32
4300.00	0.00	292.32	3915.24	551.82	-1343.81	1452.70	0.00	0.00	0.00	292.32
4400.00	0.00	292.32	4015.24	551.82	-1343.81	1452.70	0.00	0.00	0.00	292.32
4500.00	0.00	292.32	4115.24	551.82	-1343.81	1452.70	0.00	0.00	0.00	292.32
4600.00	0.00	292.32	4215.24	551.82	-1343.81	1452.70	0.00	0.00	0.00	292.32
4700.00	0.00	292.32	4315.24	551.82	-1343.81	1452.70	0.00	0.00	0.00	292.32
4800.00	0.00	292.32	4415.24	551.82	-1343.81	1452.70	0.00	0.00	0.00	292.32
4900.00	0.00	292.32	4515.24	551.82	-1343.81	1452.70	0.00	0.00	0.00	292.32
5000.00	0.00	292.32	4615.24	551.82	-1343.81	1452.70	0.00	0.00	0.00	292.32
5100.00	0.00	292.32	4715.24	551.82	-1343.81	1452.70	0.00	0.00	0.00	292.32
5200.00	0.00	292.32	4815.24	551.82	-1343.81	1452.70	0.00	0.00	0.00	292.32
5300.00	0.00	292.32	4915.24	551.82	-1343.81	1452.70	0.00	0.00	0.00	292.32

WEATHERFORD DRILLING SERVICES

Planning Report

Company:	WILLIAMS PRODUCTION CO	Date:	5/4/2006	Time:	16:27:15	Page:	3
Field:	RIO ARriba COUNTY, NM	Co-ordinate(NE) Reference:	Site: ROSA UNIT #80C, True North				
Site:	ROSA UNIT #80C	Vertical (TVD) Reference:	SITE 6273.0				
Well:	ROSA UNIT #80C	Section (VS) Reference:	Well (0.00N 0.00E 292.32Azi)				
Wellpath:	1	Plan:	Plan #1				

Section 6 : Start Hold

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg
5392.76	0.00	292.32	5008.00	551.82	-1343.81	1452.70	0.00	0.00	0.00	292.32
5400.00	0.00	292.32	5015.24	551.82	-1343.81	1452.70	0.00	0.00	0.00	292.32
5500.00	0.00	292.32	5115.24	551.82	-1343.81	1452.70	0.00	0.00	0.00	292.32
5600.00	0.00	292.32	5215.24	551.82	-1343.81	1452.70	0.00	0.00	0.00	292.32
5697.76	0.00	292.32	5313.00	551.82	-1343.81	1452.70	0.00	0.00	0.00	292.32
5700.00	0.00	292.32	5315.24	551.82	-1343.81	1452.70	0.00	0.00	0.00	292.32
5742.76	0.00	292.32	5358.00	551.82	-1343.81	1452.70	0.00	0.00	0.00	292.32
5800.00	0.00	292.32	5415.24	551.82	-1343.81	1452.70	0.00	0.00	0.00	292.32
5900.00	0.00	292.32	5515.24	551.82	-1343.81	1452.70	0.00	0.00	0.00	292.32
5937.76	0.00	292.32	5553.00	551.82	-1343.81	1452.70	0.00	0.00	0.00	292.32
6000.00	0.00	292.32	5615.24	551.82	-1343.81	1452.70	0.00	0.00	0.00	292.32
6100.00	0.00	292.32	5715.24	551.82	-1343.81	1452.70	0.00	0.00	0.00	292.32
6200.00	0.00	292.32	5815.24	551.82	-1343.81	1452.70	0.00	0.00	0.00	292.32
6300.00	0.00	292.32	5915.24	551.82	-1343.81	1452.70	0.00	0.00	0.00	292.32
6302.76	0.00	292.32	5918.00	551.82	-1343.81	1452.70	0.00	0.00	0.00	292.32
6400.00	0.00	292.32	6015.24	551.82	-1343.81	1452.70	0.00	0.00	0.00	292.32
6500.00	0.00	292.32	6115.24	551.82	-1343.81	1452.70	0.00	0.00	0.00	292.32
6600.00	0.00	292.32	6215.24	551.82	-1343.81	1452.70	0.00	0.00	0.00	292.32
6700.00	0.00	292.32	6315.24	551.82	-1343.81	1452.70	0.00	0.00	0.00	292.32
6800.00	0.00	292.32	6415.24	551.82	-1343.81	1452.70	0.00	0.00	0.00	292.32
6900.00	0.00	292.32	6515.24	551.82	-1343.81	1452.70	0.00	0.00	0.00	292.32
7000.00	0.00	292.32	6615.24	551.82	-1343.81	1452.70	0.00	0.00	0.00	292.32
7100.00	0.00	292.32	6715.24	551.82	-1343.81	1452.70	0.00	0.00	0.00	292.32
7200.00	0.00	292.32	6815.24	551.82	-1343.81	1452.70	0.00	0.00	0.00	292.32
7287.76	0.00	292.32	6903.00	551.82	-1343.81	1452.70	0.00	0.00	0.00	292.32
7300.00	0.00	292.32	6915.24	551.82	-1343.81	1452.70	0.00	0.00	0.00	292.32
7400.00	0.00	292.32	7015.24	551.82	-1343.81	1452.70	0.00	0.00	0.00	292.32
7500.00	0.00	292.32	7115.24	551.82	-1343.81	1452.70	0.00	0.00	0.00	292.32
7600.00	0.00	292.32	7215.24	551.82	-1343.81	1452.70	0.00	0.00	0.00	292.32
7700.00	0.00	292.32	7315.24	551.82	-1343.81	1452.70	0.00	0.00	0.00	292.32
7800.00	0.00	292.32	7415.24	551.82	-1343.81	1452.70	0.00	0.00	0.00	292.32
7900.00	0.00	292.32	7515.24	551.82	-1343.81	1452.70	0.00	0.00	0.00	292.32
8000.00	0.00	292.32	7615.24	551.82	-1343.81	1452.70	0.00	0.00	0.00	292.32
8012.76	0.00	292.32	7628.00	551.82	-1343.81	1452.70	0.00	0.00	0.00	292.32
8072.76	0.00	292.32	7688.00	551.82	-1343.81	1452.70	0.00	0.00	0.00	292.32
8100.00	0.00	292.32	7715.24	551.82	-1343.81	1452.70	0.00	0.00	0.00	292.32
8200.00	0.00	292.32	7815.24	551.82	-1343.81	1452.70	0.00	0.00	0.00	292.32
8207.76	0.00	292.32	7823.00	551.82	-1343.81	1452.70	0.00	0.00	0.00	292.32
8300.00	0.00	292.32	7915.24	551.82	-1343.81	1452.70	0.00	0.00	0.00	292.32
8377.76	0.00	292.32	7993.00	551.82	-1343.81	1452.70	0.00	0.00	0.00	292.32

Survey

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
400.00	0.00	292.32	400.00	0.00	0.00	0.00	0.00	0.00	0.00	KOP
500.00	4.00	292.32	499.92	1.33	-3.23	3.49	4.00	4.00	0.00	
600.00	8.00	292.32	599.35	5.30	-12.90	13.94	4.00	4.00	0.00	
700.00	12.00	292.32	697.81	11.89	-28.96	31.30	4.00	4.00	0.00	
800.00	16.00	292.32	794.82	21.08	-51.33	55.49	4.00	4.00	0.00	
900.00	20.00	292.32	889.91	32.81	-79.91	86.38	4.00	4.00	0.00	
1000.00	24.00	292.32	982.61	47.04	-114.55	123.84	4.00	4.00	0.00	
1100.00	28.00	292.32	1072.47	63.69	-155.10	167.67	4.00	4.00	0.00	
1200.00	32.00	292.32	1159.05	82.68	-201.34	217.66	4.00	4.00	0.00	
1252.83	34.11	292.32	1203.33	93.62	-228.00	246.47	4.00	4.00	0.00	HOLD
1300.00	34.11	292.32	1242.38	103.67	-252.47	272.92	0.00	0.00	0.00	
1400.00	34.11	292.32	1325.18	124.98	-304.35	329.01	0.00	0.00	0.00	
1500.00	34.11	292.32	1407.97	146.28	-356.23	385.09	0.00	0.00	0.00	
1600.00	34.11	292.32	1490.76	167.58	-408.11	441.17	0.00	0.00	0.00	
1700.00	34.11	292.32	1573.55	188.89	-459.99	497.26	0.00	0.00	0.00	
1800.00	34.11	292.32	1656.35	210.19	-511.86	553.34	0.00	0.00	0.00	

WEATHERFORD DRILLING SERVICES

Planning Report

Company: WILLIAMS PRODUCTION CO Field: RIO ARRIBA COUNTY NM Site: ROSA UNIT #80C Well: ROSA UNIT #80C Wellpath: 1	Date: 5/4/2006 Co-ordinate(NE) Reference: Site: ROSA UNIT #80C True North Vertical (TVD) Reference: SITE 6273.0 Section (VS) Reference: Well (0.00N,0.00E,292.32Azi) Plan: Plan #1
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Survey

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
1900.00	34.11	292.32	1739.14	231.50	-563.74	609.42	0.00	0.00	0.00	
2000.00	34.11	292.32	1821.93	252.80	-615.62	665.51	0.00	0.00	0.00	
2100.00	34.11	292.32	1904.73	274.10	-667.50	721.59	0.00	0.00	0.00	
2200.00	34.11	292.32	1987.52	295.41	-719.38	777.67	0.00	0.00	0.00	
2300.00	34.11	292.32	2070.31	316.71	-771.26	833.76	0.00	0.00	0.00	
2400.00	34.11	292.32	2153.11	338.01	-823.14	889.84	0.00	0.00	0.00	
2500.00	34.11	292.32	2235.90	359.32	-875.02	945.92	0.00	0.00	0.00	
2600.00	34.11	292.32	2318.69	380.62	-926.90	1002.01	0.00	0.00	0.00	
2659.56	34.11	292.32	2368.00	393.31	-957.80	1035.41	0.00	0.00	0.00	OJO ALAMO
2700.00	34.11	292.32	2401.48	401.93	-978.78	1058.09	0.00	0.00	0.00	
2792.42	34.11	292.32	2478.00	421.61	-1026.72	1109.92	0.00	0.00	0.00	KIRTLAND
2800.00	34.11	292.32	2484.28	423.23	-1030.66	1114.17	0.00	0.00	0.00	
2817.65	34.11	292.32	2498.89	426.99	-1039.81	1124.07	0.00	0.00	0.00	DROP
2900.00	31.64	292.32	2568.05	443.97	-1081.16	1168.77	3.00	-3.00	0.00	
3000.00	28.64	292.32	2654.51	463.04	-1127.61	1218.98	3.00	-3.00	0.00	
3100.00	25.64	292.32	2743.49	480.37	-1169.81	1264.60	3.00	-3.00	0.00	
3200.00	22.64	292.32	2834.73	495.90	-1207.64	1305.49	3.00	-3.00	0.00	
3235.91	21.57	292.32	2868.00	501.04	-1220.14	1319.00	3.00	-3.00	0.00	FRUITLAND
3300.00	19.64	292.32	2927.99	509.60	-1241.00	1341.56	3.00	-3.00	0.00	
3400.00	16.64	292.32	3023.01	521.43	-1269.80	1372.69	3.00	-3.00	0.00	
3467.49	14.62	292.32	3088.00	528.34	-1286.62	1390.88	3.00	-3.00	0.00	PICTURED CLIFFS
3500.00	13.64	292.32	3119.52	531.35	-1293.96	1398.81	3.00	-3.00	0.00	
3600.00	10.64	292.32	3217.28	539.34	-1313.42	1419.85	3.00	-3.00	0.00	
3700.00	7.64	292.32	3315.99	545.38	-1328.12	1435.73	3.00	-3.00	0.00	
3800.00	4.64	292.32	3415.41	549.44	-1338.01	1446.43	3.00	-3.00	0.00	
3807.61	4.41	292.33	3423.00	549.67	-1338.57	1447.03	3.00	-3.00	0.00	LEWIS
3900.00	1.64	292.32	3515.25	551.52	-1343.09	1451.91	3.00	-3.00	0.00	
3954.76	0.00	292.32	3570.00	551.82	-1343.81	1452.70	3.00	-3.00	0.00	HOLD
3989.76	0.00	292.32	3605.00	551.82	-1343.81	1452.70	0.00	0.00	0.00	INT CSG PT
4000.00	0.00	292.32	3615.24	551.82	-1343.81	1452.70	0.00	0.00	0.00	
4100.00	0.00	292.32	3715.24	551.82	-1343.81	1452.70	0.00	0.00	0.00	
4200.00	0.00	292.32	3815.24	551.82	-1343.81	1452.70	0.00	0.00	0.00	
4300.00	0.00	292.32	3915.24	551.82	-1343.81	1452.70	0.00	0.00	0.00	
4400.00	0.00	292.32	4015.24	551.82	-1343.81	1452.70	0.00	0.00	0.00	
4500.00	0.00	292.32	4115.24	551.82	-1343.81	1452.70	0.00	0.00	0.00	
4600.00	0.00	292.32	4215.24	551.82	-1343.81	1452.70	0.00	0.00	0.00	
4700.00	0.00	292.32	4315.24	551.82	-1343.81	1452.70	0.00	0.00	0.00	
4800.00	0.00	292.32	4415.24	551.82	-1343.81	1452.70	0.00	0.00	0.00	
4900.00	0.00	292.32	4515.24	551.82	-1343.81	1452.70	0.00	0.00	0.00	
5000.00	0.00	292.32	4615.24	551.82	-1343.81	1452.70	0.00	0.00	0.00	
5100.00	0.00	292.32	4715.24	551.82	-1343.81	1452.70	0.00	0.00	0.00	
5200.00	0.00	292.32	4815.24	551.82	-1343.81	1452.70	0.00	0.00	0.00	
5300.00	0.00	292.32	4915.24	551.82	-1343.81	1452.70	0.00	0.00	0.00	
5392.76	0.00	292.32	5008.00	551.82	-1343.81	1452.70	0.00	0.00	0.00	CLIFF HOUSE TRANS
5400.00	0.00	292.32	5015.24	551.82	-1343.81	1452.70	0.00	0.00	0.00	
5500.00	0.00	292.32	5115.24	551.82	-1343.81	1452.70	0.00	0.00	0.00	
5600.00	0.00	292.32	5215.24	551.82	-1343.81	1452.70	0.00	0.00	0.00	
5697.76	0.00	292.32	5313.00	551.82	-1343.81	1452.70	0.00	0.00	0.00	CLIFF HOUSE
5700.00	0.00	292.32	5315.24	551.82	-1343.81	1452.70	0.00	0.00	0.00	
5742.76	0.00	292.32	5358.00	551.82	-1343.81	1452.70	0.00	0.00	0.00	MENELEE
5800.00	0.00	292.32	5415.24	551.82	-1343.81	1452.70	0.00	0.00	0.00	
5900.00	0.00	292.32	5515.24	551.82	-1343.81	1452.70	0.00	0.00	0.00	
5937.76	0.00	292.32	5553.00	551.82	-1343.81	1452.70	0.00	0.00	0.00	POINT LOOKOUT
6000.00	0.00	292.32	5615.24	551.82	-1343.81	1452.70	0.00	0.00	0.00	

WEATHERFORD DRILLING SERVICES

Planning Report

Company:	WILLIAMS PRODUCTION CO	Date:	5/4/2006	Time:	16:27:15	Page:	5
Field:	RIO ARRIBA COUNTY, NM	Co-ordinate(NE) Reference:	Site: ROSA UNIT #80C	True North			
Site:	ROSA UNIT #80C	Vertical (TVD) Reference:	SITE 6273.0				
Well:	ROSA UNIT #80C	Section (VS) Reference:	Well (0.00N, 0.00E, 292.32Azi)				
Wellpath:	1	Plan:	Plan #1				

Survey

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
6100.00	0.00	292.32	5715.24	551.82	-1343.81	1452.70	0.00	0.00	0.00	
6200.00	0.00	292.32	5815.24	551.82	-1343.81	1452.70	0.00	0.00	0.00	
6300.00	0.00	292.32	5915.24	551.82	-1343.81	1452.70	0.00	0.00	0.00	
6302.76	0.00	292.32	5918.00	551.82	-1343.81	1452.70	0.00	0.00	0.00	MANCOS
6400.00	0.00	292.32	6015.24	551.82	-1343.81	1452.70	0.00	0.00	0.00	
6500.00	0.00	292.32	6115.24	551.82	-1343.81	1452.70	0.00	0.00	0.00	
6600.00	0.00	292.32	6215.24	551.82	-1343.81	1452.70	0.00	0.00	0.00	
6700.00	0.00	292.32	6315.24	551.82	-1343.81	1452.70	0.00	0.00	0.00	
6800.00	0.00	292.32	6415.24	551.82	-1343.81	1452.70	0.00	0.00	0.00	
6900.00	0.00	292.32	6515.24	551.82	-1343.81	1452.70	0.00	0.00	0.00	
7000.00	0.00	292.32	6615.24	551.82	-1343.81	1452.70	0.00	0.00	0.00	
7100.00	0.00	292.32	6715.24	551.82	-1343.81	1452.70	0.00	0.00	0.00	
7200.00	0.00	292.32	6815.24	551.82	-1343.81	1452.70	0.00	0.00	0.00	
7287.76	0.00	292.32	6903.00	551.82	-1343.81	1452.70	0.00	0.00	0.00	GALLUP
7300.00	0.00	292.32	6915.24	551.82	-1343.81	1452.70	0.00	0.00	0.00	
7400.00	0.00	292.32	7015.24	551.82	-1343.81	1452.70	0.00	0.00	0.00	
7500.00	0.00	292.32	7115.24	551.82	-1343.81	1452.70	0.00	0.00	0.00	
7600.00	0.00	292.32	7215.24	551.82	-1343.81	1452.70	0.00	0.00	0.00	
7700.00	0.00	292.32	7315.24	551.82	-1343.81	1452.70	0.00	0.00	0.00	
7800.00	0.00	292.32	7415.24	551.82	-1343.81	1452.70	0.00	0.00	0.00	
7900.00	0.00	292.32	7515.24	551.82	-1343.81	1452.70	0.00	0.00	0.00	
8000.00	0.00	292.32	7615.24	551.82	-1343.81	1452.70	0.00	0.00	0.00	
8012.76	0.00	292.32	7628.00	551.82	-1343.81	1452.70	0.00	0.00	0.00	GREENHORN
8072.76	0.00	292.32	7688.00	551.82	-1343.81	1452.70	0.00	0.00	0.00	GRANEROS
8100.00	0.00	292.32	7715.24	551.82	-1343.81	1452.70	0.00	0.00	0.00	
8200.00	0.00	292.32	7815.24	551.82	-1343.81	1452.70	0.00	0.00	0.00	
8207.76	0.00	292.32	7823.00	551.82	-1343.81	1452.70	0.00	0.00	0.00	DAKOTA
8300.00	0.00	292.32	7915.24	551.82	-1343.81	1452.70	0.00	0.00	0.00	
8377.76	0.00	292.32	7993.00	551.82	-1343.81	1452.70	0.00	0.00	0.00	TD

Targets

Name	Description	Dir.	TVD ft	+N/-S ft	+E/-W ft	Map Northing ft	Map Easting ft	Latitude Deg Min Sec	Longitude Deg Min Sec
INT CSG PT			3605.00	551.82	-1343.81	2151252.34	628754.24	36 54 40.456 N	107 23 34.547 W
-Plan hit target									

Casing Points

MD ft	TVD ft	Diameter in	Hole Size in	Name
300.00	300.00	0.000	0.000	SURF CSG
3989.76	3605.00	7.625	0.000	INT CSG

Formations

MD ft	TVD ft	Formations	Lithology	Dip Angle deg	Dip Direction deg
2659.56	2368.00	OJO ALAMO		0.00	0.00
2792.42	2478.00	KIRTLAND		0.00	0.00
3235.91	2868.00	FRUITLAND		0.00	0.00
3467.49	3088.00	PICTURED CLIFFS		0.00	0.00
3807.61	3423.00	LEWIS		0.00	0.00
5392.76	5008.00	CLIFF HOUSE TRANS		0.00	0.00
5697.76	5313.00	CLIFF HOUSE		0.00	0.00
5742.76	5358.00	MENELEE		0.00	0.00

WEATHERFORD DRILLING SERVICES

Planning Report

Company: WILLIAMS PRODUCTION CO
Field: RIO ARRIBA COUNTY, NM
Site: ROSA UNIT #80C
Well: ROSA UNIT #80C
Wellpath: 1

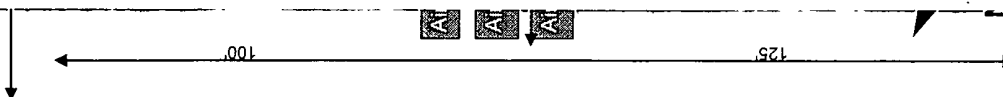
Date: 5/4/2006 Time: 16:27:15 Page: 6
Co-ordinate(NE) Reference: Site: ROSA UNIT #80C True North
Vertical (TVD) Reference: SITE 6273.0
Section (VS) Reference: Well (0.00N, 0.00E, 292.32Azi)
Plan: Plan #1

Formations

MD ft	TVD ft	Formations	Lithology	Dip Angle deg	Dip Direction deg
5937.76	5553.00	POINT LOOKOUT		0.00	0.00
6302.76	5918.00	MANCOS		0.00	0.00
7287.76	6903.00	GALLUP		0.00	0.00
8012.76	7628.00	GREENHORN		0.00	0.00
8072.76	7688.00	GRANEROS		0.00	0.00
8207.76	7823.00	DAKOTA		0.00	0.00

Annotation

MD ft	TVD ft	
400.00	400.00	KOP
1252.83	1203.33	HOLD
2817.65	2498.89	DROP
3954.76	3570.00	HOLD
3989.76	3605.00	CSG PT
8377.76	7993.00	TD



Well Control Equipment Schematic for 2M Service

Attachment to Drilling Technical Program

Exhibit #1 Typical BOP setup

Location: San Juan Basin, New Mexico

Date: August 20, 2001

By: John Thompson (Walsh E&P)

