

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OM B No. 1004-0137
Expires: March 31, 2007

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.

SUBMIT IN TRIPLICATE- Other instructions on reverse side.

1. Type of Well
☐ Oil Well ☒ Gas Well ☐ Other

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 (Footage, Sec., T., R., M., or Survey Description)

At surface: Lot No. N: 1095' FSL & 1670' FWL Section 8, 31N, 5W

5. Lease Serial No.
SF-078763

6. If Indian, Allottee or Tribe Name

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

Rosa

8. Well Name and No.
80C

9. API Well No.

30-039-29610

10. Field and Pool, or Exploratory Area
Blanco Mesaverde/Basin Dakota

11. County or Parish, State

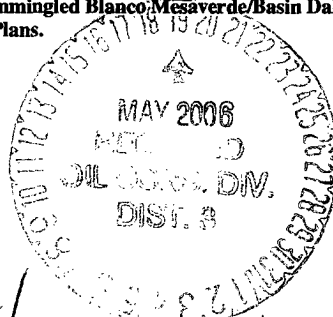
Rio Arriba, NM

12. CHECK 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
	☒ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ 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.)

Williams Production Company, LLC proposes to change plans for the Rosa Unit #80C directional natural gas well. The well was originally filed as a stand-alone Blanco Mesaverde well, but will now be a commingled Blanco Mesaverde/Basin Dakota well. The attached C-102 reflects this change. Drilling occur according to the attached Operations Plans.



RECEIVED
MAY 12 PM 8
OTO FARMINGTON NM

HOLD C104 FOR Directional Survey - Apparent NSL in Basin Dakota

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

LARRY HIGGINSON

Title **DRILLING COO**

Signature

Larry Higginson

Date **5-11-06**

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

[Signature]

Title **Petr. Eng.**

Date **5/17/06**

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.

Office

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 page 2)

NMOCU

NMOCU

District II
PO Drawer DD, Artesia, NM 88211-0719

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

District IV
PO Box 2088, Santa Fe, NM 87504-2088

OIL CONSERVATION DIVISION

PO Box 2088
Santa Fe, NM 87504-2088

☐ AMENDED REPORT

RECEIVED

070 FARMINGTON NM

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-039-29610		*Pool Code 72319 / 71599		*Pool Name BLANCO MESAVERDE / BASIN DAKOTA	
*Property Code 17033		*Property Name ROSA UNIT			*Well Number 80C
*OGRID No. 120782		*Operator Name WILLIAMS PRODUCTION COMPANY			*Elevation 6259'

¹⁰ Surface Location

U. 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

¹¹Bottom 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	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
	320.0 Acres (S/2) - DK			

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

5276.04'

LEASE
SF-078767

LEASE
SF-078763

330' 5280.00'

BOTTOM HOLE

1452.7'
N67°40.5'W

1670'

1650'

1095'

SURFACE LOCATION

8

5276.04'

5280.00'

17 OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief

Larry Higgins
Signature

LARRY HIGGINS
Printed Name

DRILLING CO. M
Title

5-11-06
Date

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.

Date Revised: MAY 3, 2006
Survey Date: FEBRUARY 9, 2005

Signature and Seal of Professional Surveyor

JASON C. EDWARDS
NEW MEXICO
REGISTERED PROFESSIONAL SURVEYOR
15269

JASON C. EDWARDS
Certificate Number 15269

GENERAL INSTRUCTIONS

This form is designed for submitting proposals to perform certain well operations, and reports of such operations when completed, as indicated on Federal and Indian lands pursuant to applicable Federal law and regulations. Any necessary special instructions concerning the use of this

form and the number of copies to be submitted, particularly with regard to local area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from the local Federal office.

SPECIFIC INSTRUCTIONS

Item 4 - Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult the local Federal office for specific instructions.

Item 13 - Proposals to abandon a well and subsequent reports of abandonment should include such special information as is required by the local Federal office. In addition, such proposals and reports should include reasons for the abandonment; data on any former or

present productive zones, or other zones with present significant fluid contents not sealed off by cement or otherwise; depths (top and bottom) and method of placement of cement plugs; mud or other material placed below, between and above plugs; amount, size, method of parting of any casing, liner or tubing pulled and the depth to top of any left in the hole; method of closing top of well and date well site conditioned for final inspection looking to approval of the abandonment.

NOTICES

The Privacy Act of 1974 and the regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.

AUTHORITY: 30 U.S.C. 181 et seq., 351 et seq., 25 U.S.C. 396; 43 CFR 3160.

PRINCIPAL PURPOSE: The information is used to: (1) Evaluate, when appropriate, approve applications, and report completion of subsequent well operations, on a Federal or Indian lease; and (2) document for administrative use, information for the management, disposal and use of National Resource lands and resources, such as: (a) evaluating the equipment and procedures to be used during a proposed subsequent well operation and reviewing the completed well operations for compliance with the approved plan; (b) requesting and granting approval to perform those actions covered by 43 CFR 3162.3-2, 3162.3-3, and 3162.3-4; (c) reporting the beginning or resumption of production, as required by 43 CFR 3162.4-1(c) and (d) analyzing future applications to drill or modify operations in light of data obtained and methods used.

ROUTINE USES: Information from the record and/or the record will be transferred to appropriate Federal, State, local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecutions in connection with congressional inquiries or to consumer reporting agencies to facilitate collection of debts owed the Government.

EFFECT OF NOT PROVIDING THE INFORMATION: Filing of this notice and report and disclosure of the information is mandatory for those subsequent well operations specified in 43 CFR 3162.3-2, 3162.3-3, 3162.3-4.

The Paperwork Reduction Act of 1995 requires us to inform you that:

BLM collects this information to evaluate proposed and/or completed subsequent well operations on Federal or Indian oil and gas leases.

Response to this request is mandatory.

BLM would like you to know that you do not have to respond to this or any other Federal agency sponsored information collection unless it displays a currently valid OMB control number.

BURDEN HOURS STATEMENT: Public reporting burden for this form is estimated to average 25 minutes per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to U.S. Department of the Interior, Bureau of Land Management (1004-0137), Bureau Information Collection Clearance Officer (WO-630), 1849 C St., N.W., Mail Stop 401 LS, Washington D.C. 20240



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 + 1/4 # 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, 1/4 #/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, 1/4 #/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

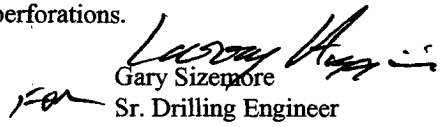
1. Pressure test 7 5/8" & 5-1/2" casing to 3300# for 15 minutes.

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.


Gary Sizemore

Sr. Drilling Engineer



Weatherford[™]

Drilling Services

Proposal



WILLIAMS PRODUCTION COMPANY

ROSA UNIT #80C

RIO ARRIBA COUNTY, NEW MEXICO

WELL FILE: PLAN 1

MAY 5, 2006

Weatherford International, Ltd.
363 North Sam Houston Pkwy E, Suite 600
Houston, Texas 77060 USA
+1.281.260.5600 Main
+1.281.260.2763 Fax
www.weatherford.com



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

KB ELEVATION: 6273'
GR ELEVATION: 6259'

SECTION DETAILS

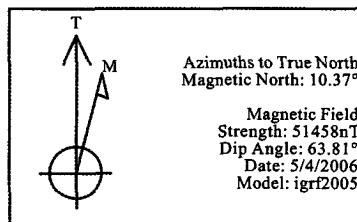
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	292.32	0.00	0.00	0.00	0.00	0.00	0.00	
2	400.00	0.00	292.32	400.00	0.00	0.00	0.00	0.00	0.00	KOP
3	1252.83	34.11	292.32	1203.33	93.62	-228.00	4.00	292.32	246.47	HOLD
4	2817.65	34.11	292.32	2498.89	426.99	-1039.81	0.00	0.00	1124.07	DROP
5	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	Slot
ROSA UNIT #80C	0.00	0.00	2150706.79	630100.61	36°54'35.000N	107°23'18.000W	N/A

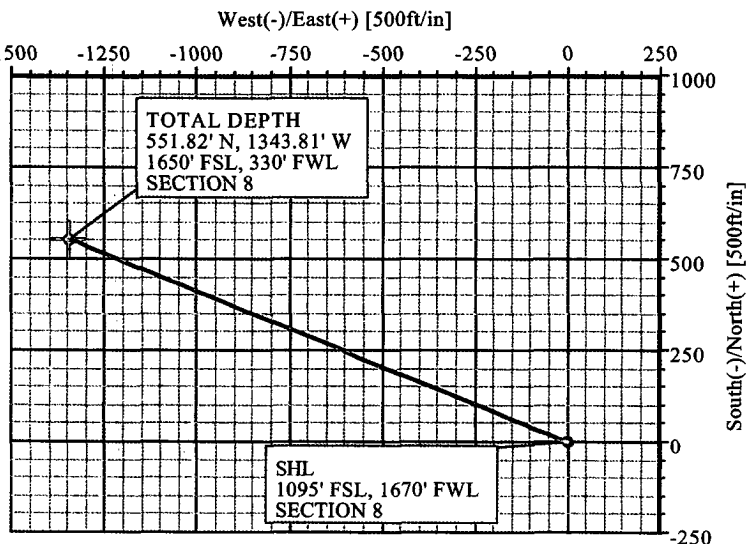
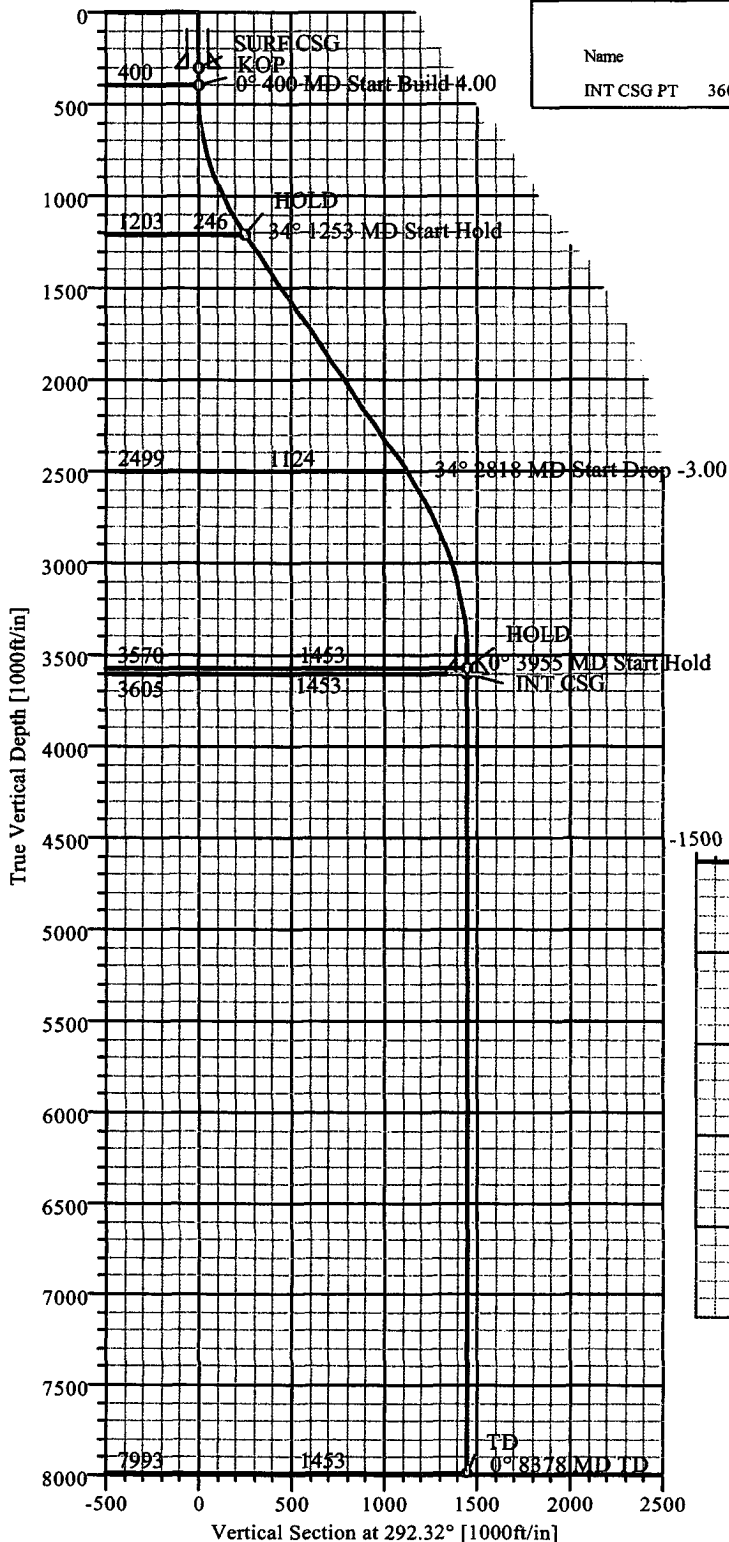
TARGET DETAILS

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	Map Zone:	New Mexico, Western Zone
Geo Datum: NAD27 (Clarke 1866)	Coordinate System:	Site Centre
Sys Datum: Mean Sea Level	Geomagnetic Model:	igrf2005

Site: ROSA UNIT #80C

1095' FSL 1670' FWL SEC 8 T31N R5W

Site Position:	Northing: 2150706.79 ft	Latitude: 36 54 35.000 N
From: Geographic	Easting: 630100.61 ft	Longitude: 107 23 18.000 W
Position Uncertainty: 0.00 ft		North Reference: True
Ground Level: 6259.00 ft		Grid Convergence: 0.27 deg

Well: ROSA UNIT #80C	Slot Name:
Well Position: +N/-S 0.00 ft	Latitude: 36 54 35.000 N
+E/-W 0.00 ft	Longitude: 107 23 18.000 W
Position Uncertainty: 0.00 ft	

Wellpath: 1	Drilled From: Surface
Current Datum: SITE	Tie-on Depth: 0.00 ft
Magnetic Data: 5/4/2006	Above System Datum: Mean Sea Level
Field Strength: 51458 nT	Declination: 10.37 deg
Vertical Section: Depth From (TVD)	Mag Dip Angle: 63.81 deg
ft	+E/-W
	ft
0.00	0.00
0.00	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
Field: RIO ARRIBA COUNTY, NM
Site: ROSA UNIT #80C
Well: ROSA UNIT #80C
Wellpath: 1

Date: 5/4/2006 Time: 16:27:15 Page: 2
Co-ordinate(N/E) 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

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
Field: RIO ARriba COUNTY, NM
Site: ROSA UNIT #80C
Well: ROSA UNIT #80C
Wellpath: 1

Date: 5/4/2006 Time: 16:27:15 Page: 3
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

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	Date: 5/4/2006	Time: 16:27:15	Page: 4
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
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	MENEFEE
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
Field: RIO ARRIBA COUNTY, NM
Site: ROSA UNIT #80C
Well: ROSA UNIT #80C
Wellpath: 1

Date: 5/4/2006 **Time:** 16:27:15 **Page:** 5
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

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	MANCOS
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	
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	GALLUP
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	
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	GREENHORN GRANEROS
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	
8072.76	0.00	292.32	7688.00	551.82	-1343.81	1452.70	0.00	0.00	0.00	
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	DAKOTA
8207.76	0.00	292.32	7823.00	551.82	-1343.81	1452.70	0.00	0.00	0.00	
8300.00	0.00	292.32	7915.24	551.82	-1343.81	1452.70	0.00	0.00	0.00	TD
8377.76	0.00	292.32	7993.00	551.82	-1343.81	1452.70	0.00	0.00	0.00	

Targets

Name	Description Dip. 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 -Plan hit target		3605.00	551.82	-1343.81	2151252.34	628754.24	36	54	40.456 N	107	23	34.547 W

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	MENEFEE		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
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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