

UNITED STATES  
DEPARTMENT OF INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
Budget Bureau No 1004-0135  
Expires: March 31, 1993

SUNDRY NOTICE AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir. Use "APPLICATION TO DRILL" for permit for such proposals

SUBMIT IN TRIPLICATE

RECEIVED  
APR 02 2008

Bureau of Land Management  
Farmington Field Office

1. Type of Well  
Oil Well Gas Well X Other

2. Name of Operator  
WILLIAMS PRODUCTION COMPANY

3. Address and Telephone No  
PO BOX 640 Aztec, NM 87410-0640

4. Location of Well (Footage, Sec, T., R., M., or Survey Description)  
Surface: 1130' FSL & 1560' FWL Sec. 15, T31N, R6W  
BHL: 990' FSL & 330' FWL Sec 15, T31N, R6W

5. Lease Designation and Serial No.  
Fee

6. If Indian, Allottee or Tribe Name  
N/A

7. If Unit or CA, Agreement Designation  
Rosa Unit

8. Well Name and No.  
Rosa Unit #25C

9. API Well No.  
30-039-30479

10. Field and Pool, or Exploratory Area  
Blanco MV

11. County or Parish, State  
Rio Arriba, NM

CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

X Notice of Intent  
Subsequent Report  
Final Abandonment

TYPE OF ACTION

Abandonment  
Recompletion  
Plugging Back  
Casing Repair  
Altering Casing  
X Other Surface

X Change of Plans  
New Construction  
Non-Routine Fracturing  
Water Shut-Off  
Conversion to Injection  
Dispose Water  
(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

Williams Production Company, LLC. hereby requests authorization to drill the above well from a surface location sharing a pad with the Rosa Unit #208 as well as P&A'd wells Rosa Unit #25 and Rosa Unit 142. The well will be drilled to a location under Navajo Lake per attached plans. Well will be drilled utilizing a closed loop drilling system. The surface location is under Bureau of Reclamation authority. There was a site visit 6-28-07 including Bill Liess (BLM), Mark Chiarito (BOR) and Steve Mueller (NMSP). All agreed that this was the best site for surface location.

NOTIFY AZTEC OCD 24 HRS.  
PRIOR TO CASING & CEMENT

PIT, CLOSED LOOP SYSTEM, BELOW GRADE  
TANK, PROPOSED ALTERNATIVE METHOD  
OR CLOSURE PLAN TO BE DESIGNED,  
CONSTRUCTED, OPERATED & CLOSED  
PURSUANT TO NMOCD RULE 19.15.17  
EFFECTIVE 06/16/08

OIL CONS. DIV.  
DIST. 3

Hold C104

for Directional Survey  
and "As Drilled" plat

14. I hereby certify that the foregoing is true and correct

Signed Larry Higgins  
Larry Higgins

Title Drilling COM

Date 4-2-08

(This space for Federal or State office use)

Approved by Troy L. Salvors

Title PE

Date 6-16-08

Conditions of approval, if any:

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 representations as to any matter within its jurisdiction.

NMOCD

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number		*Pool Code 72319		*Pool Name BLANCO MESAVERDE	
*Property Code 17033		*Property Name ROSA UNIT			*Well Number 25C
*OGRID No. 120782		*Operator Name WILLIAMS PRODUCTION COMPANY			*Elevation 6154'

<sup>10</sup> 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	15	31N	6W		1130	SOUTH	1560	WEST	RIO ARriba

<sup>11</sup> 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
M	15	31N	6W		990	SOUTH	330	WEST	RIO ARriba

<sup>12</sup> Dedicated Acres 320.0 Acres - (W/2)	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> 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

<div>16</div> <div>LOT 1</div>		<div>5253.60'</div>		<div><sup>17</sup> OPERATOR CERTIFICATION</div> <div>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.</div> <div><div><i>Larry Higgins</i></div><div>Signature</div><div>2-11-08</div><div>Date</div></div> <div><div>LARRY HIGGINS</div><div>Printed Name</div></div>	
<div>5280.00'</div> <div>TRACT 38</div>		<div>TRACT 39</div>		<div><sup>18</sup> SURVEYOR CERTIFICATION</div> <div>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</div> <div>Date of Survey, MARCH 15, 2007</div> <div>Signature and Seal of Professional Surveyor</div> <div><div><div>JASON C. EDWARDS</div><div>NEW MEXICO</div><div>REGISTERED PROFESSIONAL SURVEYOR</div><div>15269</div></div><div><div>JASON C. EDWARDS</div><div>Certificate Number 15269</div></div></div>	
<div>5280.00'</div> <div>TRACT 39</div> <div>BOTTOM-HOLE LAT: 36.89503°N LONG: 107.45803°W DATUM: NAD1983</div> <div>1560'</div>		<div>LOT 2</div> <div>LEASE SF-078765</div> <div>SURFACE LOCATION LAT: 36.89543°N LONG: 107.45382°W DATUM: NAD1983</div> <div>1130'</div>		<div>5258.88'</div>	
<div>330'</div> <div>990'</div> <div>583°00.9'W 1239.3'</div> <div>TRACT 40</div>					



## WILLIAMS PRODUCTION COMPANY

### Operations Plan

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

**DATE:** 12/18/2007 **FIELD:** Blanco MV  
**WELL NAME:** Rosa #25C **SURFACE:** ~~BLM~~ B00  
**BH LOCATION:** SWSW Sec 15-31N-6W **MINERALS:** BLM  
R10 Arriba, NM  
**SURF LOCATION:** SESW Sec 15-31N-6W  
**ELEVATION:** 6,154' GR **LEASE #** SF-078765  
**MEASURED DEPTH:** 6,252'

**I. GEOLOGY:** Surface formation - San Jose

**A. FORMATION TOPS:** ( KB)

Name	TVD	MD	Name	TVD	MD
Ojo Alamo	2,163	2,419	Cliff House	5,173	5,496
Kirtland	2,278	2,551	Menefee	5,223	5,546
Fruitland	2,738	3,051	Point Lookout	5,453	5,776
Picture Cliffs	2,988	3,308	Mancos	5,753	6,076
Lewis	3,288	3,611	TD	5,928	6,252

**B. MUD LOGGING PROGRAM:** None

**C. LOGGING PROGRAM:** Cased hole 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:**

CASING TYPE	OH SIZE (IN)	DEPTH (MD) (FT)	CASING SIZE (IN)	WEIGHT(LB)	GRADE
Surface	12 1/4	310	9 5/8	36	K-55
Intermediate	8 3/4	3,786	7	23	K-55
Liner	6 1/4	3,686 6,252	4 1/2	10.5	J-55

**B. FLOAT EQUIPMENT:**

1. SURFACE CASING: 9-5/8" notched regular pattern guide shoe. Run (1) standard centralizer on each of the bottom (3) 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 CASING: 4-1/2" 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.

**IV. CEMENTING:**

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

1. SURFACE: Slurry: 150sx (205 cu.ft.) of "Type III" + 2% CaCl<sub>2</sub> + 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 – 480 sx (998 cu.ft.) of "Premium Light" with 8% gel, 1% CaCl<sub>2</sub> and 1/4# cello-flake/sk (Yield = 2.09 cu ft./sk, Weight = 12.1 #/gal.). Tail - 50 sx (70cu 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 = 1068 cu ft. Bump Plug to 1,500 psi. Notify engineering if cement is not circulated to surface.
3. PRODUCTION LINER: 10 bbl Gelled Water spacer. Cement: 155 sx (328 ft<sup>3</sup>) 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 ft<sup>3</sup>/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 328 ft<sup>3</sup>. WOC 12 hours

**V. 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 is not circulated to surface.

**B. PRESSURE TEST**


1. Pressure test 7" & 4-1/2" casing to 3300# for 15 minutes.

**C. STIMULATION**

1. Perforate the Point Lookout as determined from the open hole logs.
2. Stimulate with approximately 9,300# of 14/30 LiteProp™ sand in slick water.
3. Isolate Point Lookout with a CIBP.
4. Perforate the Menefee/Cliff House as determined from the open hole logs.
5. Stimulate with approximately 9,300# of 14/30 LiteProp™ sand in slick water.
6. Test each zone before removing bridge plugs.

**D. RUNNING TUBING**

1. Mesa Verde: Run 2-3/8", 4.7#, J-55, EUE tubing with a SN (1.91" ID) on top of bottom joint. Land tubing approximately 25' above the bottom Point Lookout perforation.

  
Gary Sizemore  
Sr. Drilling Engineer



**Weatherford<sup>®</sup>**

## **Drilling Services**

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## **PROPOSAL**

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WILLIAMS PRODUCTION COMPANY  
ROSA UNIT #25-C  
RIO ARRIBA COUNTY, NEW MEXICO  
WELL FILE: **PLAN 1**

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Submitted: December 10, 2007

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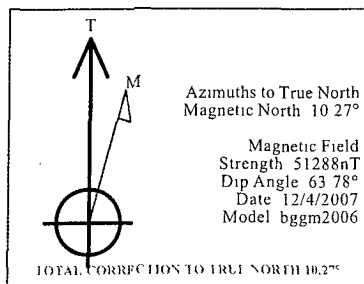
**Weatherford International Ltd.**  
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[www.weatherford.com](http://www.weatherford.com)



ROSA UNIT #25-C  
RIO ARRIBA CO., NEW MEXICO



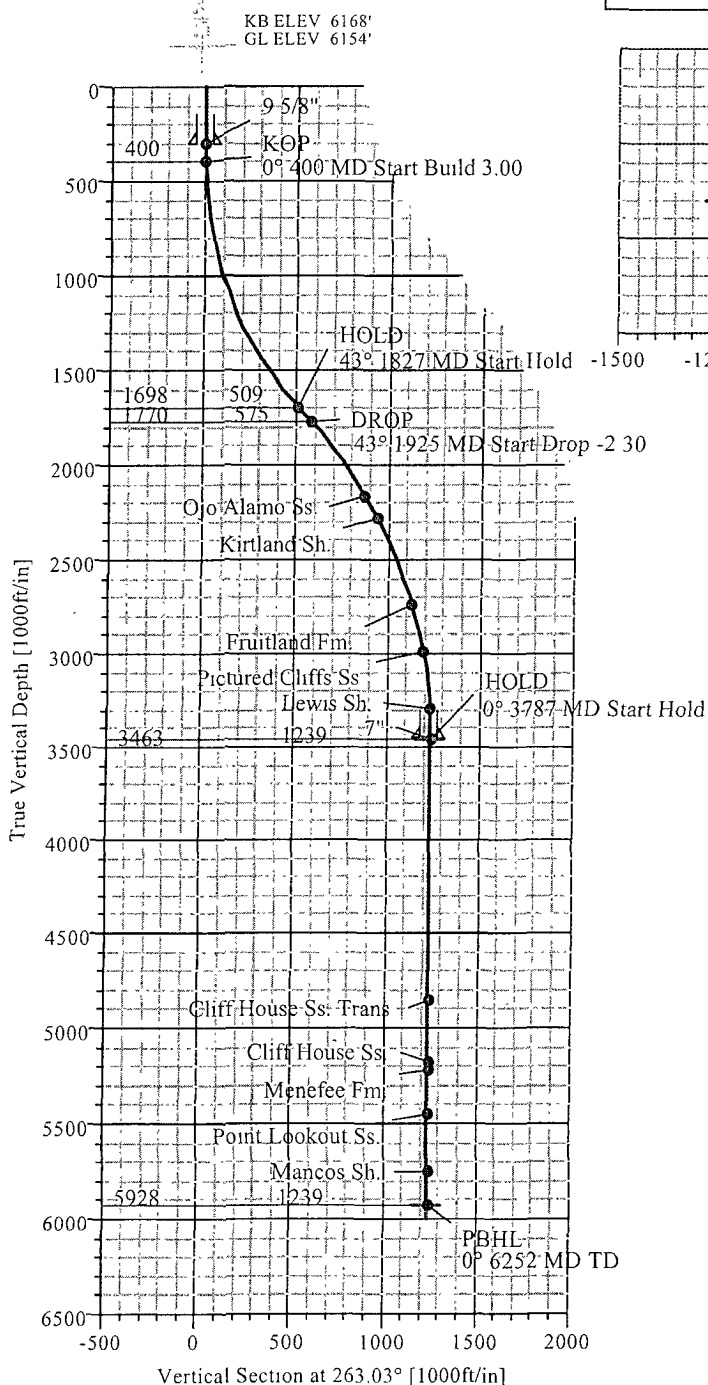
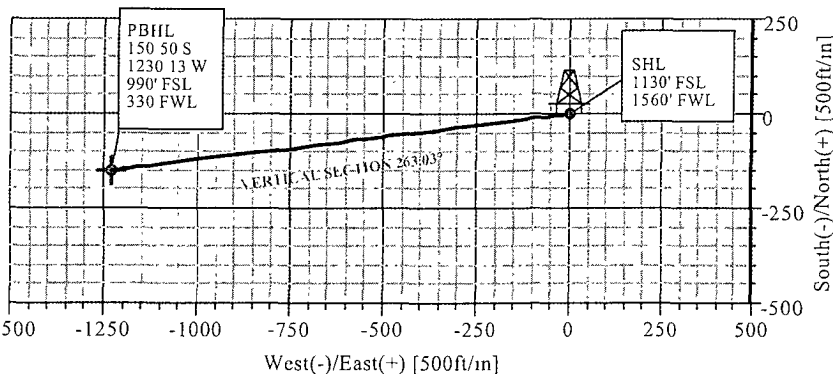
Weatherford



SECTION DETAILS									
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DI Leg	TFace	VSec Target
1	0 00	0 00	263 03	0 00	0 00	0 00	0 00	0 00	0 00
2	400 00	0 00	263 03	400 00	0 00	0 00	0 00	0 00	0 00
3	1827 29	42 82	263 03	1698 10	-61 81	-505 20	3 00	263 03	508 96
4	1925 09	42 82	263 03	1769 83	-69 88	-571 18	0 00	0 00	575 43
5	3786 77	0 00	263 03	3463 00	-150 50	-1230 13	2 30	180 00	1239 30
6	6251 77	0 00	263 03	5928 00	-150 50	-1230 13	0 00	263 03	1239 30

WELL DETAILS							
Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
#25C	0 00	0 00	2145487 47	2834070 11	36°53'43 548N	107°27'13 752W	N/A

TARGET DETAILS						
Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
Int Cs Pt	3463 00	-150 50	-1230 13	36°53'42 060N	107°27'28 897W	Point
PBHL	5928 00	-150 50	-1230 13	36°53'42 060N	107°27'28 897W	Point



CASING DETAILS				
No	TVD	MD	Name	Size
1	300 00	300 00	9 5/8"	9 625
2	3463 00	3786 77	7"	7 000

SITE DETAILS	
Rosa Unit #25C	
1130' FSL 1560' FWL of SEC 15 T 31 N R 6 W	
Site Centre Latitude	36°53'43 548N
Longitude	107°27'13 752W
Ground Level	6154 00
Positional Uncertainty	0 00
Convergence	0 23

FORMATION TOP DETAILS			
No	TVDPath	MDPath	Formation
1	2163 00	2419 09	Ojo Alamo Ss
2	2278 00	2551 81	Kirtland Sh
3	2738 00	3051 13	Fruitland Fm
4	2988 00	3308 85	Pictured Cliffs Ss
5	3288 00	3611 63	Lewis Sh
6	4853 00	5176 77	Cliff House Ss Trans
7	5173 00	5496 77	Cliff House Ss
8	5223 00	5546 77	Menefee Fm
9	5453 00	5776 77	Point Lookout Ss
10	5753 00	6076 77	Mancos Sh

FIELD DETAILS	
Rio Arriba County (NAD 83)	
Geodetic System	US State Plane Coordinate System 1983
Ellipsoid	GRS 1980
Zone	New Mexico, Western Zone
Magnetic Model	bggm2006
System Datum	Mean Sea Level
Local North	True North



# Weatherford International, Inc.

## Proposal Plan Report



**Weatherford**

Company: WILLIAMS PRODUCTION Date: 12/10/2007 Time: 15:41:15 Page: 1  
 Field: Rio Arriba County (NAD 83) Co-ordinate(NE) Reference: Site, Rosa Unit #25C, True North  
 Site: Rosa Unit #25C Vertical (TVD) Reference: SITE 6168.0  
 Well: #25C Section (VS) Reference: Well (0.00N, 0.00E, 263.03Azi)  
 Wellpath: 1 Survey Calculation Method: Minimum Curvature Db: Sybase

Plan: Plan #1 Date Composed: 12/6/2007  
 Version: 1  
 Principal: Yes Tied-to: From Surface

Field: Rio Arriba County (NAD 83)

Map System: US State Plane Coordinate System 1983 Map Zone: New Mexico, Western Zone  
 Geo Datum: GRS 1980 Coordinate System: Site Centre  
 Sys Datum: Mean Sea Level Geomagnetic Model: bggm2006

Site: Rosa Unit #25C

1130' FSL 1560' FWL of SEC 15 T 31N R 6W

Site Position: Northing: 2145487.47 ft Latitude: 36 53 43.548 N  
 From: Geographic Easting: 2834070.11 ft Longitude: 107 27 13.752 W  
 Position Uncertainty: 0.00 ft North Reference: True  
 Ground Level: 6154.00 ft Grid Convergence: 0.23 deg

Well: #25C Slot Name:  
 Well Position: +N/-S 0.00 ft Northing: 2145487.47 ft Latitude: 36 53 43.548 N  
 +E/-W 0.00 ft Easting: 2834070.11 ft Longitude: 107 27 13.752 W  
 Position Uncertainty: 0.00 ft

Wellpath: 1 Drilled From: Surface  
 Current Datum: SITE Height 6168.00 ft Tie-on Depth: 0.00 ft  
 Magnetic Data: 12/4/2007 Above System Datum: Mean Sea Level  
 Field Strength: 51288 nT Declination: 10.27 deg  
 Vertical Section: Depth From (TVD) +N/-S Mag Dip Angle: 63.78 deg  
 ft +E/-W Direction  
 ft deg  
 0.00 0.00 0.00 263.03

### 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	263.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
400.00	0.00	263.03	400.00	0.00	0.00	0.00	0.00	0.00	0.00	
1827.29	42.82	263.03	1698.10	-61.81	-505.20	3.00	3.00	0.00	263.03	
1925.09	42.82	263.03	1769.83	-69.88	-571.18	0.00	0.00	0.00	0.00	
3786.77	0.00	263.03	3463.00	-150.50	-1230.13	2.30	-2.30	0.00	180.00	Int. Cs Pt.
6251.77	0.00	263.03	5928.00	-150.50	-1230.13	0.00	0.00	0.00	263.03	PBHL

### Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	VS ft	Build deg/100ft	Turn deg/100ft	DLS deg/100ft	Comment
400.00	0.00	263.03	400.00	0.00	0.00	0.00	0.00	0.00	0.00	KOP
500.00	3.00	263.03	499.95	-0.32	-2.60	2.62	3.00	0.00	3.00	
600.00	6.00	263.03	599.63	-1.27	-10.38	10.46	3.00	0.00	3.00	
700.00	9.00	263.03	698.77	-2.86	-23.34	23.51	3.00	0.00	3.00	
800.00	12.00	263.03	797.08	-5.07	-41.43	41.74	3.00	0.00	3.00	
900.00	15.00	263.03	894.31	-7.90	-64.60	65.08	3.00	0.00	3.00	
1000.00	18.00	263.03	990.18	-11.35	-92.78	93.48	3.00	0.00	3.00	
1100.00	21.00	263.03	1084.43	-15.40	-125.91	126.85	3.00	0.00	3.00	
1200.00	24.00	263.03	1176.81	-20.05	-163.89	165.12	3.00	0.00	3.00	
1300.00	27.00	263.03	1267.06	-25.28	-206.62	208.16	3.00	0.00	3.00	
1400.00	30.00	263.03	1354.93	-31.07	-253.98	255.87	3.00	0.00	3.00	
1500.00	33.00	263.03	1440.18	-37.42	-305.84	308.12	3.00	0.00	3.00	
1600.00	36.00	263.03	1522.59	-44.29	-362.05	364.75	3.00	0.00	3.00	
1700.00	39.00	263.03	1601.91	-51.69	-422.47	425.62	3.00	0.00	3.00	
1800.00	42.00	263.03	1677.95	-59.57	-486.93	490.56	3.00	0.00	3.00	





# Weatherford International, Inc.

## Proposal Plan Report



Weatherford

Company: WILLIAMS PRODUCTION	Date: 12/10/2007	Time: 15:41:15	Page: 2
Field: Rio Arriba County (NAD 83)	Co-ordinate(NE) Reference:	Site: Rosa Unit #25C, True North	
Site: Rosa Unit #25C	Vertical (TVD) Reference:	SITE 6168.0	
Well: #25C	Section (VS) Reference:	Well (0.00N, 0.00E, 263.03Azi)	
Wellpath: 1	Survey Calculation Method:	Minimum Curvature	Db: Sybase

### Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	VS ft	Build deg/100ft	Turn deg/100ft	DLS deg/100ft	Comment
1827.29	42.82	263.03	1698.10	-61.81	-505.20	508.96	3.00	0.00	3.00	HOLD
1900.00	42.82	263.03	1751.43	-67.81	-554.25	558.38	0.00	0.00	0.00	
1925.09	42.82	263.03	1769.83	-69.88	-571.18	575.43	0.00	0.00	0.00	DROP
2000.00	41.10	263.03	1825.54	-75.96	-620.89	625.52	-2.30	0.00	2.30	
2100.00	38.80	263.03	1902.20	-83.76	-684.61	689.72	-2.30	0.00	2.30	
2200.00	36.50	263.03	1981.37	-91.17	-745.24	750.79	-2.30	0.00	2.30	
2300.00	34.20	263.03	2062.93	-98.20	-802.65	808.64	-2.30	0.00	2.30	
2400.00	31.90	263.03	2146.75	-104.82	-856.78	863.17	-2.30	0.00	2.30	
2419.09	31.46	263.03	2163.00	-106.04	-866.73	873.19	-2.30	0.00	2.30	Ojo Alamo Ss.
2500.00	29.60	263.03	2232.69	-111.03	-907.52	914.29	-2.30	0.00	2.30	
2551.81	28.40	263.03	2278.00	-114.08	-932.45	939.40	-2.30	0.00	2.30	Kirtland Sh.
2600.00	27.30	263.03	2320.61	-116.81	-954.80	961.92	-2.30	0.00	2.30	
2700.00	25.00	263.03	2410.37	-122.16	-998.53	1005.98	-2.30	0.00	2.30	
2800.00	22.70	263.03	2501.83	-127.07	-1038.66	1046.40	-2.30	0.00	2.30	
2900.00	20.40	263.03	2594.84	-131.53	-1075.11	1083.13	-2.30	0.00	2.30	
3000.00	18.10	263.03	2689.24	-135.53	-1107.83	1116.09	-2.30	0.00	2.30	
3051.13	16.92	263.03	2738.00	-137.40	-1123.09	1131.47	-2.30	0.00	2.30	Fruitland Fm.
3100.00	15.80	263.03	2784.89	-139.07	-1136.75	1145.23	-2.30	0.00	2.30	
3200.00	13.50	263.03	2881.64	-142.14	-1161.85	1170.51	-2.30	0.00	2.30	
3300.00	11.20	263.03	2979.32	-144.74	-1183.07	1191.89	-2.30	0.00	2.30	
3308.85	10.99	263.02	2988.00	-144.95	-1184.76	1193.59	-2.30	0.00	2.30	Pictured Cliffs Ss.
3400.00	8.90	263.03	3077.78	-146.86	-1200.38	1209.33	-2.30	0.00	2.30	
3500.00	6.60	263.03	3176.86	-148.49	-1213.76	1222.81	-2.30	0.00	2.30	
3600.00	4.30	263.03	3276.40	-149.65	-1223.18	1232.30	-2.30	0.00	2.30	
3611.63	4.03	263.03	3288.00	-149.75	-1224.02	1233.15	-2.30	0.00	2.30	Lewis Sh.
3700.00	2.00	263.03	3376.24	-150.31	-1228.63	1237.79	-2.30	0.00	2.30	
3786.77	0.00	263.03	3463.00	-150.50	-1230.13	1239.30	-2.30	0.00	2.30	Int. Cs. Pt.
3800.00	0.00	263.03	3476.23	-150.50	-1230.13	1239.30	0.00	0.00	0.00	
3900.00	0.00	263.03	3576.23	-150.50	-1230.13	1239.30	0.00	0.00	0.00	
4000.00	0.00	263.03	3676.23	-150.50	-1230.13	1239.30	0.00	0.00	0.00	
4100.00	0.00	263.03	3776.23	-150.50	-1230.13	1239.30	0.00	0.00	0.00	
4200.00	0.00	263.03	3876.23	-150.50	-1230.13	1239.30	0.00	0.00	0.00	
4300.00	0.00	263.03	3976.23	-150.50	-1230.13	1239.30	0.00	0.00	0.00	
4400.00	0.00	263.03	4076.23	-150.50	-1230.13	1239.30	0.00	0.00	0.00	
4500.00	0.00	263.03	4176.23	-150.50	-1230.13	1239.30	0.00	0.00	0.00	
4600.00	0.00	263.03	4276.23	-150.50	-1230.13	1239.30	0.00	0.00	0.00	
4700.00	0.00	263.03	4376.23	-150.50	-1230.13	1239.30	0.00	0.00	0.00	
4800.00	0.00	263.03	4476.23	-150.50	-1230.13	1239.30	0.00	0.00	0.00	
4900.00	0.00	263.03	4576.23	-150.50	-1230.13	1239.30	0.00	0.00	0.00	
5000.00	0.00	263.03	4676.23	-150.50	-1230.13	1239.30	0.00	0.00	0.00	
5100.00	0.00	263.03	4776.23	-150.50	-1230.13	1239.30	0.00	0.00	0.00	
5176.77	0.00	263.03	4853.00	-150.50	-1230.13	1239.30	0.00	0.00	0.00	Cliff House Ss. Tran
5200.00	0.00	263.03	4876.23	-150.50	-1230.13	1239.30	0.00	0.00	0.00	
5300.00	0.00	263.03	4976.23	-150.50	-1230.13	1239.30	0.00	0.00	0.00	
5400.00	0.00	263.03	5076.23	-150.50	-1230.13	1239.30	0.00	0.00	0.00	
5496.77	0.00	263.03	5173.00	-150.50	-1230.13	1239.30	0.00	0.00	0.00	Cliff House Ss
5500.00	0.00	263.03	5176.23	-150.50	-1230.13	1239.30	0.00	0.00	0.00	
5546.77	0.00	263.03	5223.00	-150.50	-1230.13	1239.30	0.00	0.00	0.00	Menefee Fm.
5600.00	0.00	263.03	5276.23	-150.50	-1230.13	1239.30	0.00	0.00	0.00	
5700.00	0.00	263.03	5376.23	-150.50	-1230.13	1239.30	0.00	0.00	0.00	
5776.77	0.00	263.03	5453.00	-150.50	-1230.13	1239.30	0.00	0.00	0.00	Point Lookout Ss.
5800.00	0.00	263.03	5476.23	-150.50	-1230.13	1239.30	0.00	0.00	0.00	
5900.00	0.00	263.03	5576.23	-150.50	-1230.13	1239.30	0.00	0.00	0.00	



# Weatherford International, Inc.

## Proposal Plan Report



**Weatherford**

Company: WILLIAMS PRODUCTION	Date: 12/10/2007	Time: 15:41:15	Page: 3
Field: Rio Arriba County (NAD 83)	Co-ordinate(NE) Reference:	Site: Rosa Unit #25C - True North	
Site: Rosa Unit #25C	Vertical (TVD) Reference:	SITE 6168.0	
Well: #25C	Section (VS) Reference:	Well (0.00N;0.00E,263.03Azi)	
Wellpath: 1	Survey Calculation Method:	Minimum Curvature	Db: Sybase

### Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	VS ft	Build deg/100ft	Turn deg/100ft	DLS deg/100ft	Comment
6000.00	0.00	263.03	5676.23	-150.50	-1230.13	1239.30	0.00	0.00	0.00	
6076.77	0.00	263.03	5753.00	-150.50	-1230.13	1239.30	0.00	0.00	0.00	Mancos Sh.
6100.00	0.00	263.03	5776.23	-150.50	-1230.13	1239.30	0.00	0.00	0.00	
6200.00	0.00	263.03	5876.23	-150.50	-1230.13	1239.30	0.00	0.00	0.00	
6251.77	0.00	263.03	5928.00	-150.50	-1230.13	1239.30	0.00	0.00	0.00	PBHL

### 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. Cs Pt.			3463.00	-150.50	-1230.13	2145332.09	2832840.59	36 53 42.060 N	107 27 28.897 W
-Plan hit target									
PBHL			5928.00	-150.50	-1230.13	2145332.09	2832840.59	36 53 42.060 N	107 27 28.897 W
-Plan hit target									

### Formations

MD ft	TVD ft	Formations	Lithology	Dip Angle deg	Dip Direction deg
2419.09	2163.00	Ojo Alamo Ss.		0.00	0.00
2551.81	2278.00	Kirtland Sh		0.00	0.00
3051.13	2738.00	Fruitland Fm.		0.00	0.00
3308.85	2988.00	Pictured Cliffs Ss.		0.00	0.00
3611.63	3288.00	Lewis Sh.		0.00	0.00
5176.77	4853.00	Cliff House Ss. Trans.		0.00	0.00
5496.77	5173.00	Cliff House Ss.		0.00	0.00
5546.77	5223.00	Menefee Fm		0.00	0.00
5776.77	5453.00	Point Lookout Ss.		0.00	0.00
6076.77	5753.00	Mancos Sh.		0.00	0.00

### Annotation

MD ft	TVD ft	
400.00	400.00	KOP
1827.29	1698.09	HOLD
1925.09	1769.83	DROP
3786.77	3463.00	HOLD
6251.77	5928.00	PBHL

### Casing Points

MD ft	TVD ft	Diameter in	Hole Size in	Name
300.00	300.00	9.625	12.250	9 5/8"
3786.77	3463.00	7.000	8.500	7"

# Well Control Equipment Schematic for 2M Service

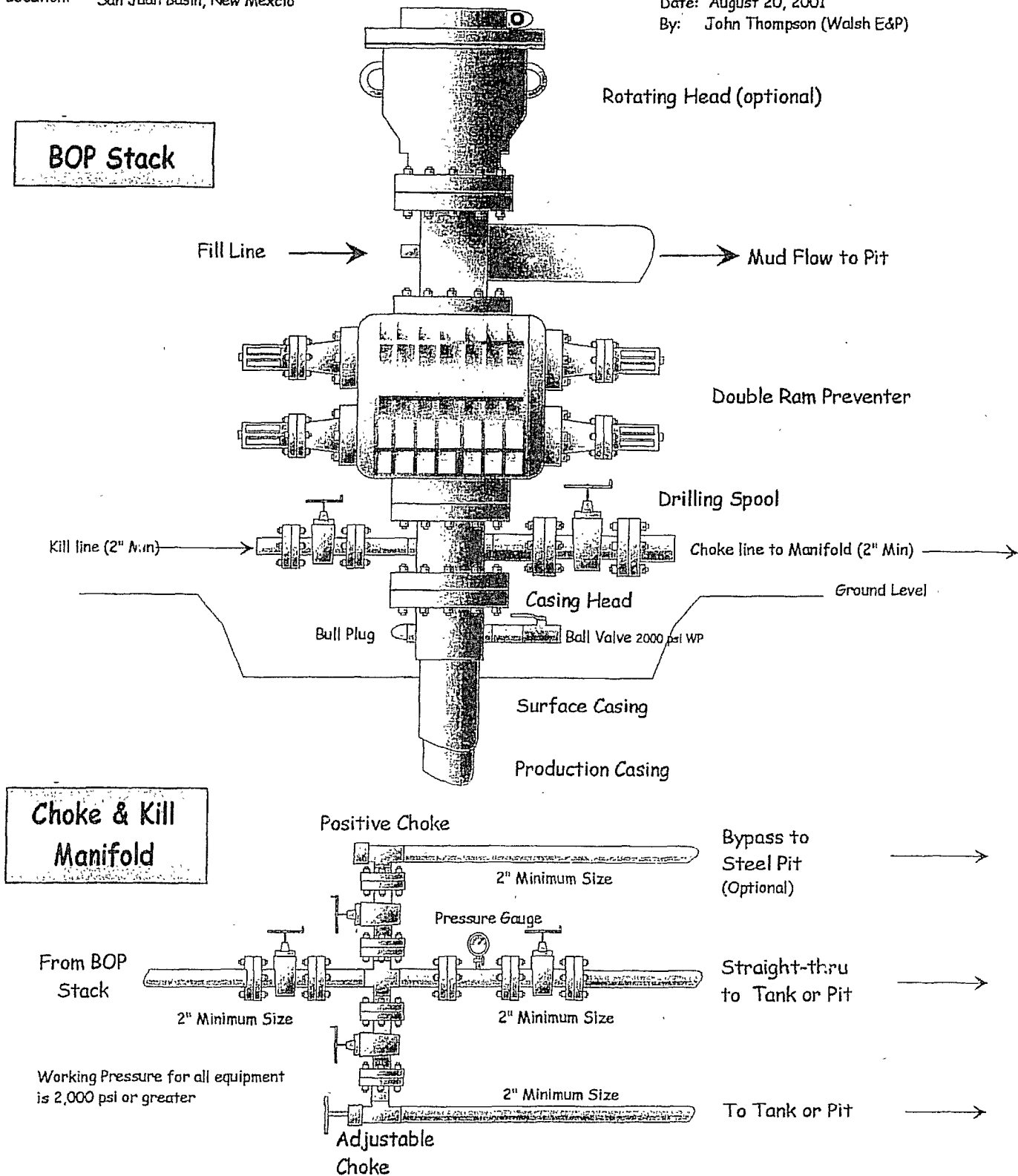
Attachment to Drilling Technical Program

## Exhibit #1 Typical BOP setup

Location: San Juan Basin, New Mexico

Date: August 20, 2001

By: John Thompson (Walsh E&P)



## GENERAL ROSA DRILLING PLAN

### Rosa Unit boundaries:

T31N, R4W: all except sections 32-36

T31N, R5W: all except sections 1 & 2

T31N, R6W: all except sections 6,7,18,20, & 27-36

T32N, R6W: sections 32-36

FORMATION	LITHOLOGY	WATER	GAS	OIL/COND	OVER-PRES	LOST CIRC
Nacimiento	Interbedded shales, siltstones and sandstones	Possible	Possible	No	No	No
Ojo Alamo	Sandstone and conglomerates with lenses of shale	Fresh	No	No	No	No
Kirtland	Shale W/interbedded sandstones	No	Possible	No	No	No
Fruitland	Inter, SS, SiltSt, SH & Coals w/carb. SS, SiltSt, SH	Yes	Yes	No	Possible	Possible
Pictured Cliffs	Massive Sandstone w/thin interbedded shales	Possible	Yes	Possible	No	Possible
Lewis	Shale w/thin interbedded sandstones and siltstones	No	Possible	No	No	No
Cliff House	Transgressive sandstones	Possible	Yes	No	No	No
Menefee	Sandstones, carb shales and coal	Possible	Yes	No	No	No
Point Lookout	Regressive coastal barrier sandstone	Possible	Yes	Possible	No	Yes
Mancos	Marine shale and interbedded sandstone	No	Possible	Possible	No	Possible
Upr Dakota	Marine sand and shales	No	Yes	Possible	No	Possible
Lwr Dakota	Fluvial sands, shales, & coal	Possible	Yes	Possible	No	Possible

## DRILLING

### Potential Hazards:

1. There are no overpressured zones expected in this well.
2. No H<sub>2</sub>S zones will be penetrated while drilling this well

### Mud System:

1. Surface - The surface hole will be drilled with a low-solids, non-dispersed system with starch and lost circulation material as needed. Expected mud weights will be in the 8.4 to 9.0 lb per gal range. Viscosities will be in the 30 to 60 sec/qrt range as needed to remove drill cuttings.
2. Intermediate - The intermediate hole will be drilled with clear water and Benex to TD where the well will be mudded up to log and run casing. The mud system will be low-solids, non-dispersed with mud weights in the 9 to 10 lb per gal range as needed to control the well. Viscosities will be in the 45 to 55 range as needed to support any weight material. The weight material will consist of Barite.
3. Production - The well will be drilled using air from the intermediate casing point to TD. For Fruitland Coal wells, the coal section will be drilled with air/mist.

## 12 MULTI-POINT SURFACE USE PLAN

### Rosa Unit No.25C

1. Existing Roads:

All existing roads used to access the proposed location are shown on attached maps (Figures 1.0 and 2.0) and shall be maintained in the same or better condition than presently found.

2. Planned Access Roads:

No new access road will be required for this location, as access to the Rosa No. 208 would be used. The existing access roads will be upgraded, maintained, and eventually reclaimed to current BLM Gold Book standards.

3. Location of Existing Wells:

Attached map (Figure 2.0) shows existing wells within a one-mile radius of the proposed wells.

4. Location of Production Facilities:

In the event of production, production facilities will be located on the drill pad. The actual placement of this equipment will be determined when the well's production characteristics can be evaluated after completion. Upon completion of drilling, the location and surrounding area will be cleared of all debris.

5. Water Supply:

Water for drilling and completion operations will be hauled by truck from various water sources within the area, mainly from Navajo Lake, NM and produced water from locations close to the proposed location. Reference BLM letter 3162.3-2.

6. Source of Construction Materials:

No additional construction materials will be required to build the proposed location.

7. Methods for Handling Waste Disposal:

a. The drill cuttings, fluids and completion fluids will be placed in the reserve pit. To protect livestock and wildlife, the reserve pit will be fenced. Three sides of the reserve pit will be fenced prior to drilling. The fourth side will be fenced upon the completion of drilling. The reserve pit will be allowed to dry, and materials remaining in the reserve pit buried. The reserve pit will be backfilled, leveled and contoured so as to prevent any materials being carried into the watershed. Upon completion, the pad will be leveled, contoured and reseeded with the appropriate seed mixture. A dike will enclose any tanks.

b. All garbage and trash will be placed in a metal trash basket. It will be hauled off and dumped in an approved landfill upon completion of operations.

c. Portable toilets will be provided and maintained during drilling operations. See Plat #3 for location.

8. Ancillary Facilities:

Ancillary facilities are to be based on well productivity. A 106.60-foot 4½" OD pipeline is anticipated for the proposed well, and a pipeline plat is included as Plat #2. The pipeline disturbance would total 0.10 of an acre based on a 40-foot ROW. The pipeline would be constructed totally within the existing well pad disturbance.

9. Well Site Layout:

A cross section of the drill pad with approximate cuts, fills, and pad orientation is attached as Plat #1. Location of drilling equipment and rig orientation is also attached as Plat #3.

10. Plans for Restoration of Surface:

The well pad would be 225 feet (north to south) by 250 feet (east to west). Total acreage of new disturbance for the proposed twinned well pad would be 0.13 of an acre. When the well is abandoned, the location and access road will be cleaned and restored to the original topographical contours as much as possible. The area will be reseeded with the appropriate Bureau of Reclamation or BLM/FFO seed mixture.

The top 6" of soil material will be stripped and stockpiled on either side of the reserve pit and used for future reclamation.

Cut and fill slopes would be 3:1 or less.

Any brush and/or trees removed from the location would be used in reclamation

Drainage would be diverted around the well pad, and appropriate culverts would be installed where necessary in the existing roads. The existing wash running through the west side of the location would be routed further to the west, around the west side of the well pad. A diversion ditch would be installed above the cut slope, draining west. A silt trap, approximately 50 feet by 50 feet, would be installed at the end of the diversion near the laydown (Corner 1), within the construction zone.

Areas not used for well production will be contoured and seeded with the appropriate Bureau of Reclamation or BLM/FFO seed mixture.

Production equipment will be painted the color designated by the Bureau of Reclamation or BLM/FFO. Appropriate below-grade tank will be used for production.

11. Surface Ownership:

The surface ownership of the proposed well pad and well-tie pipeline is the Bureau of Reclamation.

12. Other Information:

The Rosa Unit #25C well is proposed within an existing well pad with minimal new disturbance along the western edge of the existing well pad. The existing and surrounding vegetation is that of a piñon/juniper woodland. Understory vegetation includes big sagebrush, rabbitbrush, antelope bitterbrush, broom snakeweed, cheatgrass, smooth brome, crested wheatgrass. Russian thistle is present in the disturbed areas.

The Rosa Unit #25C well is proposed within 500 vertical feet of the Navajo Reservoir high-water mark. However, no other suitable locations, with less new disturbance for this well could be found.

The Rosa Unit #25C well is proposed within Rosa Mesa Wildlife Specially Designated Area (SDA). Construction, drilling, and workover activities are not permitted in the SDA December 1<sup>st</sup> through March 31<sup>st</sup> to protect wintering deer and elk.

There are no residents within a one-mile radius of the proposed action.

The proposed well pad will not impact any floodplains, riparian, springs, or stock ponds. There are no ephemeral washes that will be impacted.

The proposed well site has been surveyed by La Plata Archaeological Consultants. Copies of their report have been sent to the Bureau of Reclamation and the BLM/FFO.

13. Lessee's or Operator's Representative:

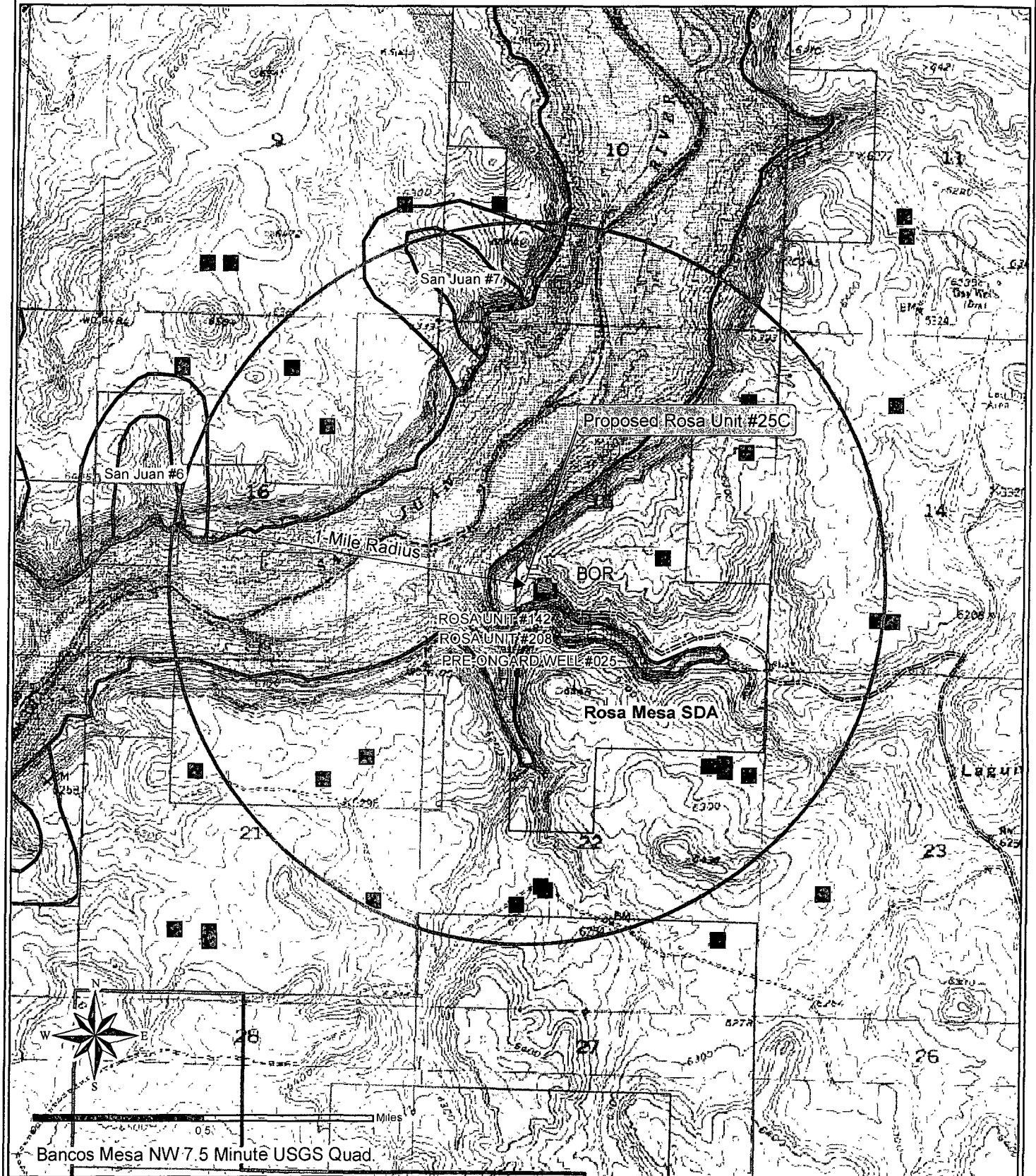
Larry Higgins  
Drilling COM  
Aztec, NM 87410  
Phone: (505) 320-4312



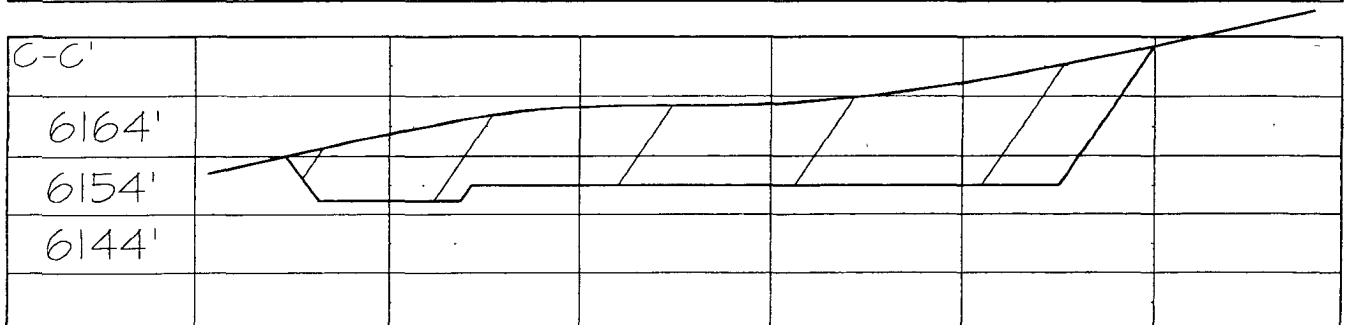
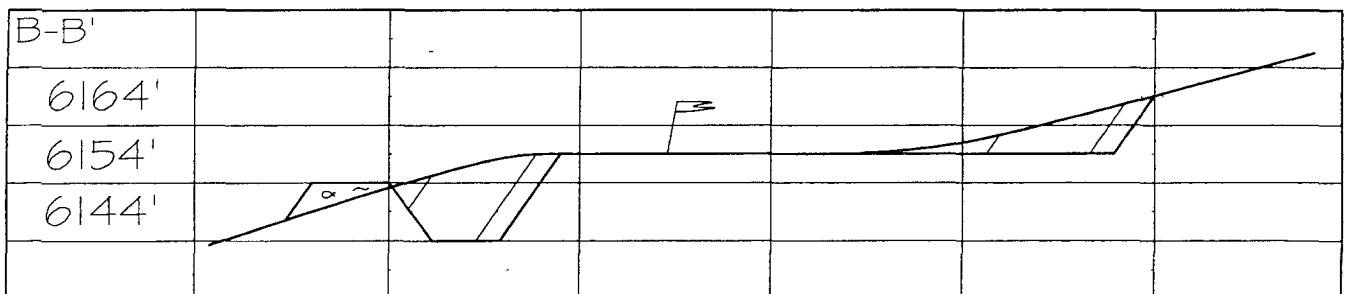
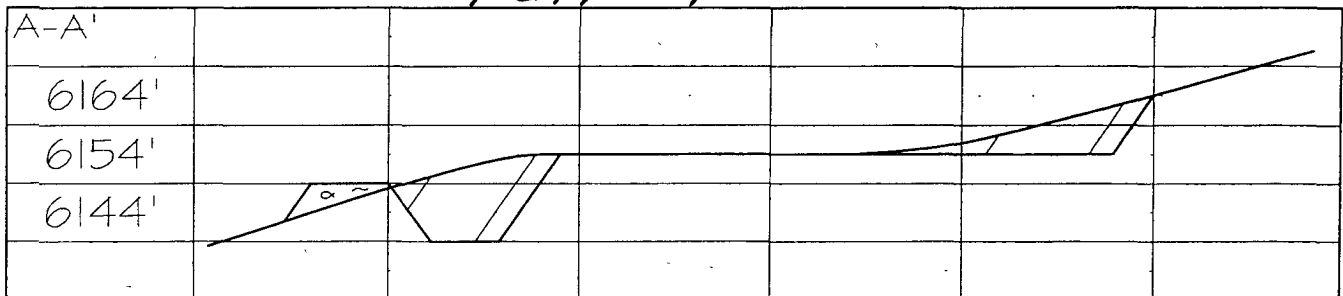
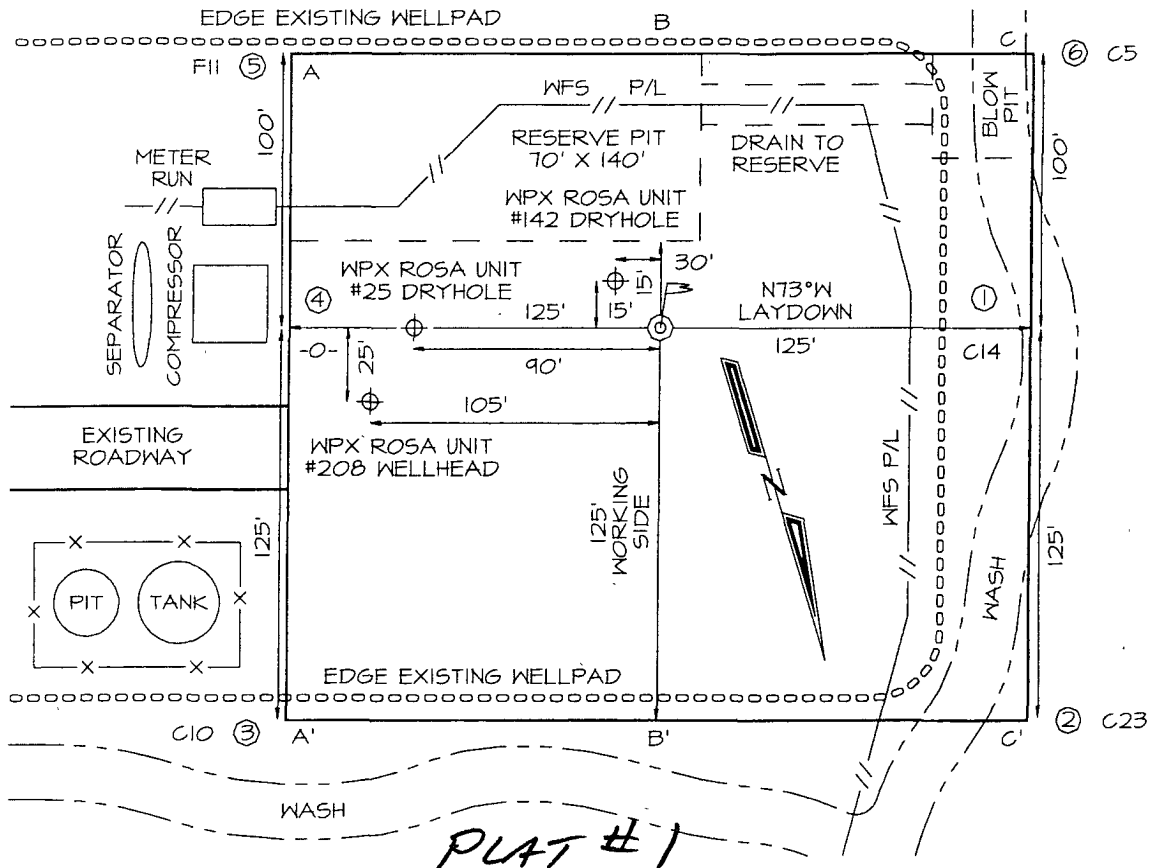
Figure 1: Vicinity Map  
Williams Exploration and Production Company  
Proposed Rosa Unit #25C  
T31N, R06W, Section 15, NMPM  
Rio Arriba County, New Mexico

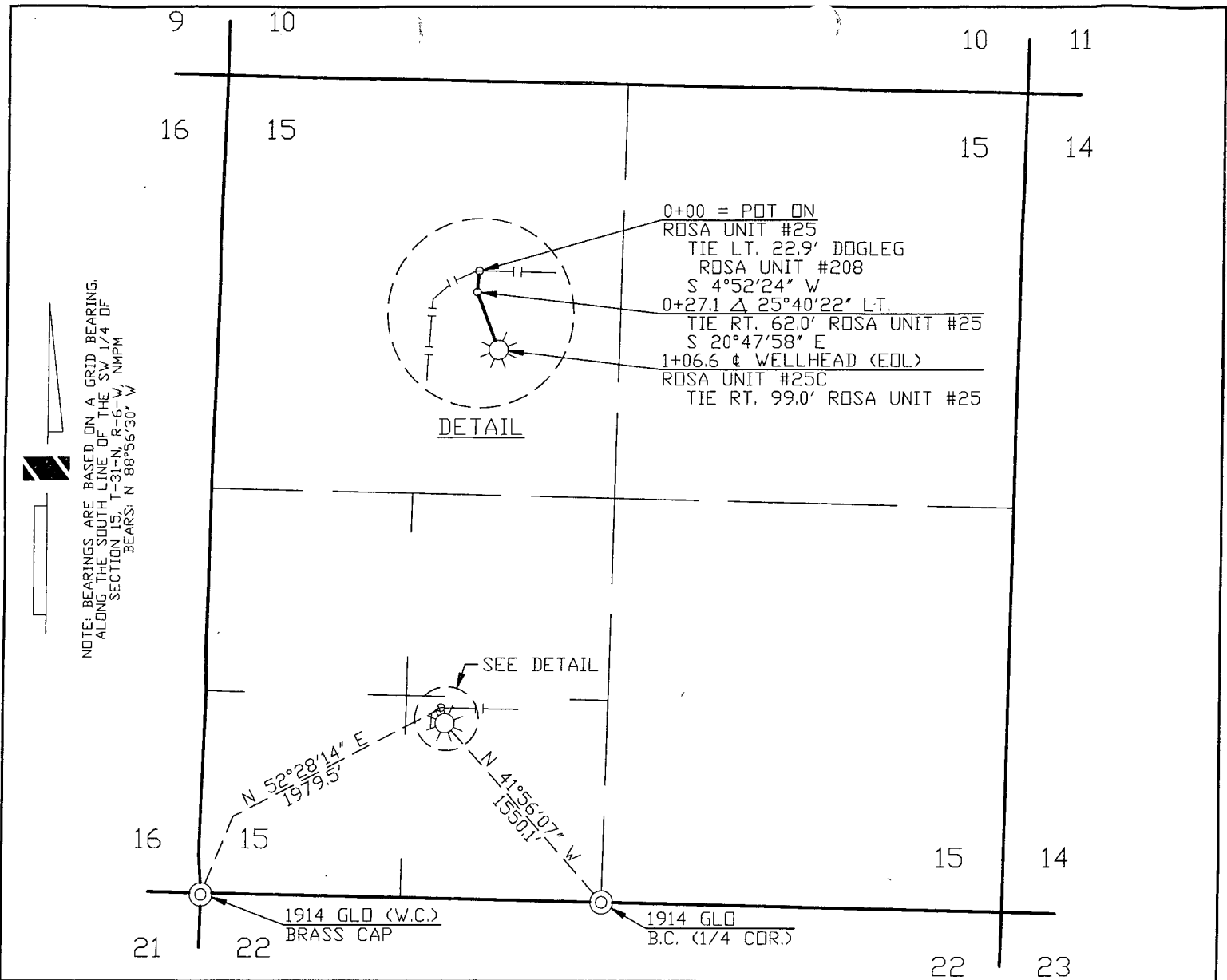


Figure 2: Project Area Map  
Williams Exploration and Production Company  
Proposed Rosa Unit #25C  
T31N, R06W, Section 15, NMPM  
Rio Arriba County, New Mexico



**WILLIAMS PRODUCTION COMPANY ROSA UNIT #25C**  
**1130' FSL & 1560' FWL, SECTION 15, T31N, R6W, NMPM**  
**RIO ARriba COUNTY, NEW MEXICO ELEVATION: 6154'**



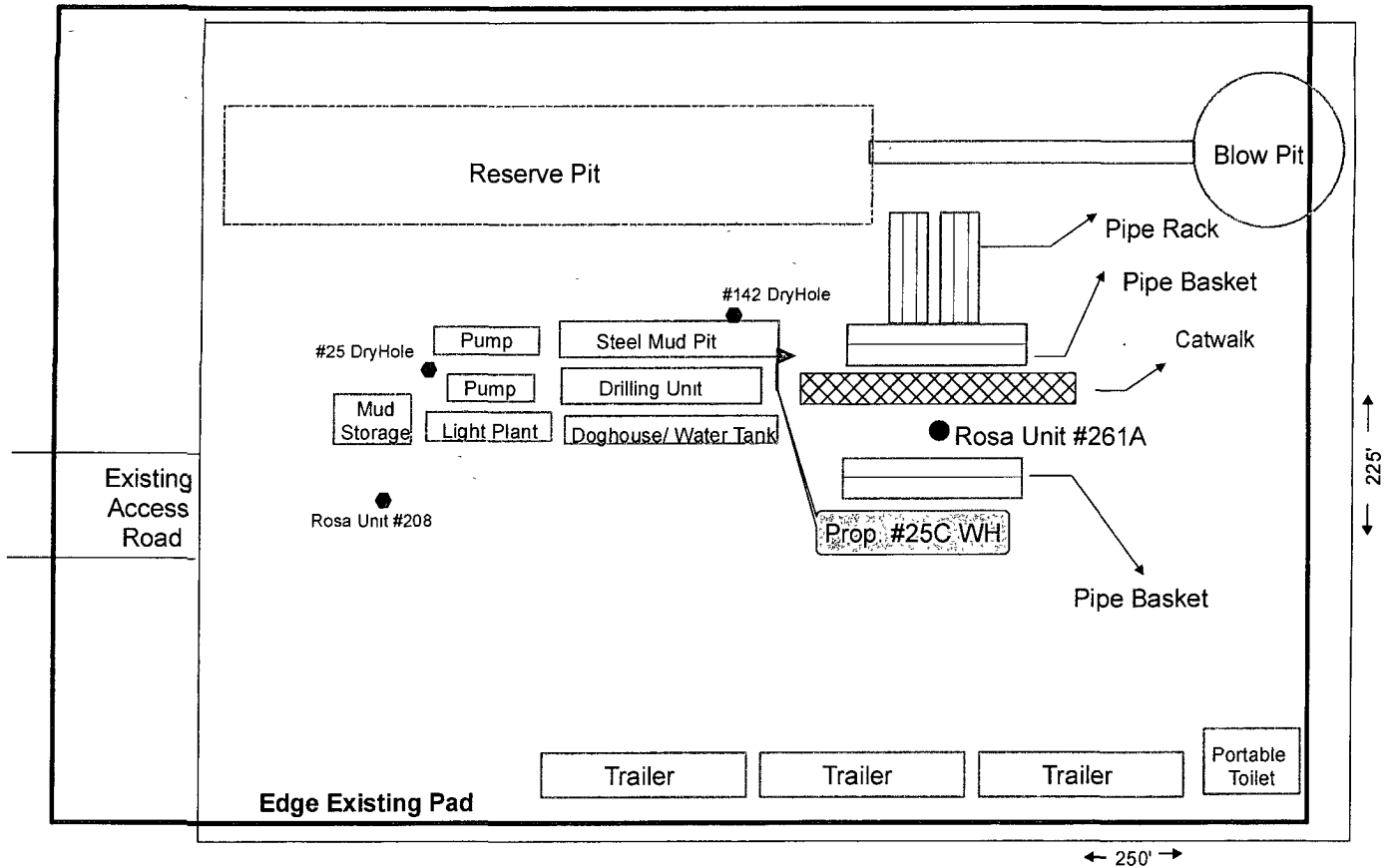


PLAT #2

PRELIMINARY  
DRAWING

PIPE DATA	SUBDIVISION										OWNER										FEET										MILES										ACRES										RODS									
	0+00 TO 1+06.6										BLM/BOR										106.6										0.020										0.098										6.461									
OWNERSHIP																																																												
REVISION	1	07/12/07	LB	ISSUED FOR REVIEW										PB																																														
	NO.	DATE	BY	DESCRIPTION										W.O.NO.	CHK.	APP.	NO.	DATE	BY	DESCRIPTION										W.O.NO.	CHK.	APP.																												
INFO		DRAFTING		BY		DATE		STATE: NEW MEXICO										WILLIAMS FOUR CORNERS, LLC										Williams																																
R/W #:		06944		DRAWN BY		LB		07/12/07		COUNTY: RIO ARriba										ONE OF THE WILLIAMS COMPANIES																																								
METER #:				CHECKED BY		PB		07/13/07		SAN JUAN GATHERING SYSTEM																																																		
SURVEYED:		03/15/07		APPROVED BY						WPX - ROSA UNIT #25C																																																		
				ENGINEER		BY		DATE		0+00 = POT ON ROSA UNIT #25																																																		
				DESIGNED BY						(REF DWG. 48A765.0-1)																																																		
				PROJ. APPROVED						SEC. 15, T-31-N, R-6-W, NMPM																																																		
										SCALE: 1" = 1000'										DWG NO. 48A765.0-157-1										SHEET 1 OF 1										REV 1																				
										W.O. NO.																																																		

**Plat #3: Typical Well Diagram**  
**Williams Exploration and Production Company**  
**Proposed Rosa Unit #25C Well Pad**  
**T31N, R06W, Section 15, NMPM**  
**Rio Arriba County, New Mexico**



1" = approximately 50'