

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

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

5 Lease Serial No **701-02-0014**  
Jicarilla Tribal Contract # **146**

6 If Indian, Allottee or Tribe Name

Jicarilla Apache Nation

7 If Unit or CA Agreement, Name and No

8 Lease Name and Well No

JAECO 26-3 15 # 2

9 API Well No

**30-039-30174**

10 Field and Pool, or Exploratory

Blanco MV/Basin DK

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

**M** Section 15, T26N R3W

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 1190' FSL & 1300' FWL **M**

At proposed prod zone 2310' FSL & 991' FWL **L**

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

16 miles from Lindrith, NM

15 Distance from proposed\*

location to nearest property or lease line, ft (Also to nearest drg unit line, if any) 991'

16 No. of Acres in lease

320

17 Spacing Unit dedicated to this well

320 (W/2)

18 Distance from proposed location\*

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

2940'

19 Proposed Depth

8,644'

20 BLM/BIA Bond No on file

B001576

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

7,131' GR

22 Approximate date work will start\*

November 1, 2006

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

Name (Printed/Typed)

Date

Title

Larry Higgins

1-18-07

Drilling COM

Approved by (Signature)

Name (Printed/Typed)

Date

Title

Office

AFM

FEO

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 drill a vertical well to develop the Blanco Mesa Verde/Basin Dakota formation at the above described location in accordance with the attached drilling and surface use plans.

The surface is located on Jicarilla Apache Nation lands

This location has been archaeologically surveyed by Velarde Energy

A 3059 foot pipeline tie would be required for this location and it is also located on Jicarilla Apache Nation Lands

2394' of improved and 270' of new access road will be needed to access this well

✓ NOTIFY AZTEC OCD 24 HRS.  
PRIOR TO CASING & CEMENT

HOLD ON FOR directional survey  
as drilled C-102 form  
CONFIDENTIAL

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, Artesia, NM 88210  
District III  
1000 Rio Brazos Rd., Artesia, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87508

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 June 10, 2003  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

APN Number 30-039-30174		Pool Code 72319	Pool Name BLANCO MESAVERDE / BASIN DAKOTA	
Property Code 36208	Property Name Jaeco		Well Number 2	
GRID No. 120782	Operator Name Williams		Elevation 7131	

10 Surface Location

UL or lot no.	Section	Township	Range	Lot 1dn	Feet from the	North/South line	Feet from the	East/West line	County
M	15	26N	3W		1190	SOUTH	1300	WEST	RIO ARriba

11 Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot 1dn	Feet from the	North/South line	Feet from the	East/West line	County
L	15	26N	3W		2310	SOUTH	991	WEST	RIO ARriba

Dedicated Acres W/2 320	Joint or Infill	Consolidation Code	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

	<p>17 OPERATOR CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>Larry Higgins</i> Signature</p> <p>LARRY HIGGINS Printed Name</p> <p>DRILLING CO. M Title and E-mail Address</p> <p>1-18-07 Date</p>
	<p>18 SURVEYOR CERTIFICATION</p> <p>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.</p> <p>MAY 4, 2006 Date of Survey</p> <p><i>[Signature]</i> Signature and Seal of Professional Surveyor</p> <p>CECILIE B. TULLER NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR 9672 Certificate No.</p>

Submit 3 Copies To Appropriate District  
Office  
District I  
1625 N French Dr , Hobbs, NM 88240  
District II  
1301 W Grand Ave , 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 and Natural Resources

Form C-103  
May 27, 2004

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

WELL API NO. <b>30-039-30174</b>	
5. Indicate Type of Lease Federal (Indian)	
6. State Oil & Gas Lease No.	
7. Lease Name or Unit Agreement Name Jicarilla Tribal Contract #116	
8. Well Number JAECO 26-3 15 #2	
9. OGRID Number 120782	
10. Pool name or Wildcat Blanco MV/Basin Dakota	
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 7131' GR	
Pit or Below-grade Tank Application <input checked="" type="checkbox"/>	
Pit type <u>Drilling</u> Depth to Groundwater <u>&gt;100'</u> Distance from nearest fresh water well <u>&gt;1000'</u> Distance from nearest surface water <u>&gt;500'&lt;1000'</u>	
Pit Liner Thickness: <u>12</u> mil Below-Grade Tank: Volume <u>      </u> bbls; Construction Material <u>      </u>	

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐  
TEMPORARILY ABANDON ☐ CHANGE PLANS ☐  
PULL OR ALTER CASING ☐ MULTIPLE COMPL ☐

OTHER: ☐

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐  
COMMENCE DRILLING OPNS. ☐ P AND A ☐  
CASING/CEMENT JOB ☐

OTHER: ☐

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Drilling/Completion pit to be located approximately 50-75 feet from well head. Pit multi-use drilling and completion to avoid additional site disturbance and pit will be considered out of service once production tubing set. Reserve pit to be constructed in accordance with NMOCD Interim Pit and Below-Grade Tank Guidelines

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that any pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☐, a general permit ☐ or an (attached) alternative OCD-approved plan ☐.

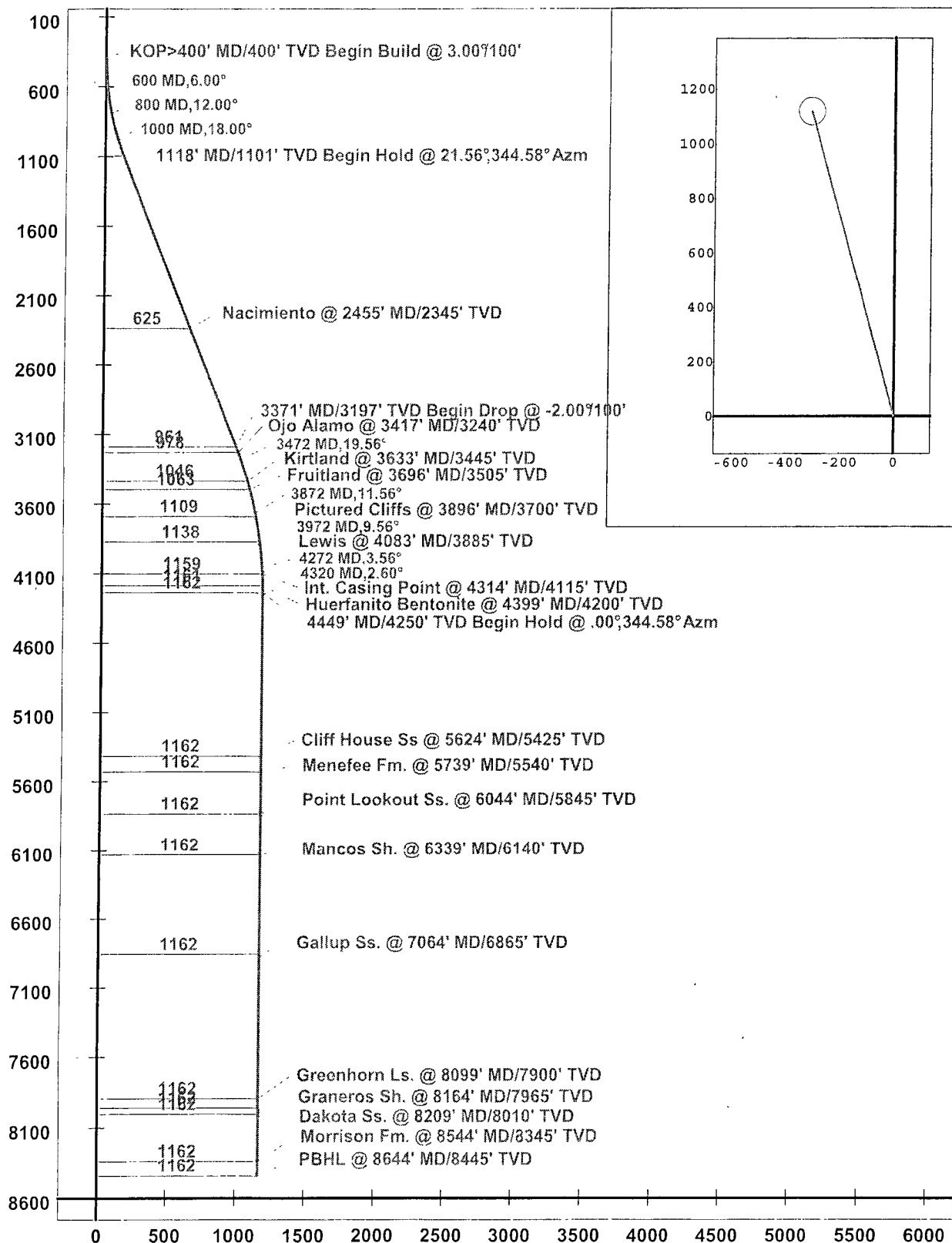
SIGNATURE Larry Higgins TITLE Drilling COM DATE 1-18-07

Type or print name Larry Higgins E-mail address: larry.higgins@williams.com Telephone No. (970) 563-3308

For State Use Only

APPROVED BY: [Signature] TITLE Deputy Oil & Gas Inspector,  
District #3 DATE OCT 30 2007

Company: Williams Production  
 Lease/Well: JAEKO 26-3 # 15-2 MV/DK  
 Location: Rio Arriba County  
 State/Country: NM





## WILLIAMS PRODUCTION COMPANY

### Operations Plan

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

**DATE:** 1/16/2007 **FIELD:** Basin DK/ BlancoMV  
**WELL NAME:** JAECO 26-3 15 #2 **SURFACE:** BOIA  
**BH LOCATION:** NWSW Sec 15-26N-3W **MINERALS:** Jicarilla Apache Nation  
**SURF LOCATION:** SWSW Sec 15-26N-3W  
**ELEVATION:** 7,131' GR **LEASE #** MDA #701-02-0014  
**MEASURED DEPTH:** 8,644'

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

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

Name	TVD	MD	Name	TVD	MD
Nacimiento	2,345	2,455	Cliff House	5,425	5,624
Ojo Alamo	3,240	3,417	Menefee	5,540	5,739
Kirtland	3,445	3,633	Point Lookout	5,845	6,044
Fruitland	3,505	3,696	Mancos	6,140	6,339
Pictured Cliffs	3,700	3,896	Gallup	6,865	7,064
Lewis	3,885	3,885	Greenhorn	7,900	8,099
Huerfano Bentonite	4,200	4,399	Graneros	7,965	8,164
			Dakota	8,010	8,209
			Morrison	8,345	8,544
			TD	8,445	8,644

B. **MUD LOGGING PROGRAM:** Mudlogger on location at 300' above Ojo Alamo SS to TD. Mud logger to pick TD.

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 7-5/8" 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 7-5/8in. 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	14 3/4	300	10 3/4	40.5	K-55
Intermediate	9 7/8	4,314	7 5/8	26.4	K-55
Longstring	6 3/4	8,644	5 1/2	17	N-80

**B. FLOAT EQUIPMENT:**

1. SURFACE CASING: 10 3/4" notched regular pattern guide shoe. Run (1) standard centralizer on each of the bottom (3) joints of Surface Casing.
2. INTERMEDIATE CASING: 7 5/8" 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: 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% CaCl<sub>2</sub> + 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 - 755 sx (1,575) 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 = 1,714 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. Cement: 205 sx (444 ft<sup>3</sup>) 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 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 444ft<sup>3</sup>. 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 is circulated to surface..

**B. PRESSURE TEST**

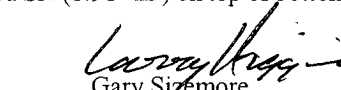
1. Pressure test 5-1/2" casing to 6000 psi max, hold at 1500 psi for 30 minutes.

**C. STIMULATION**

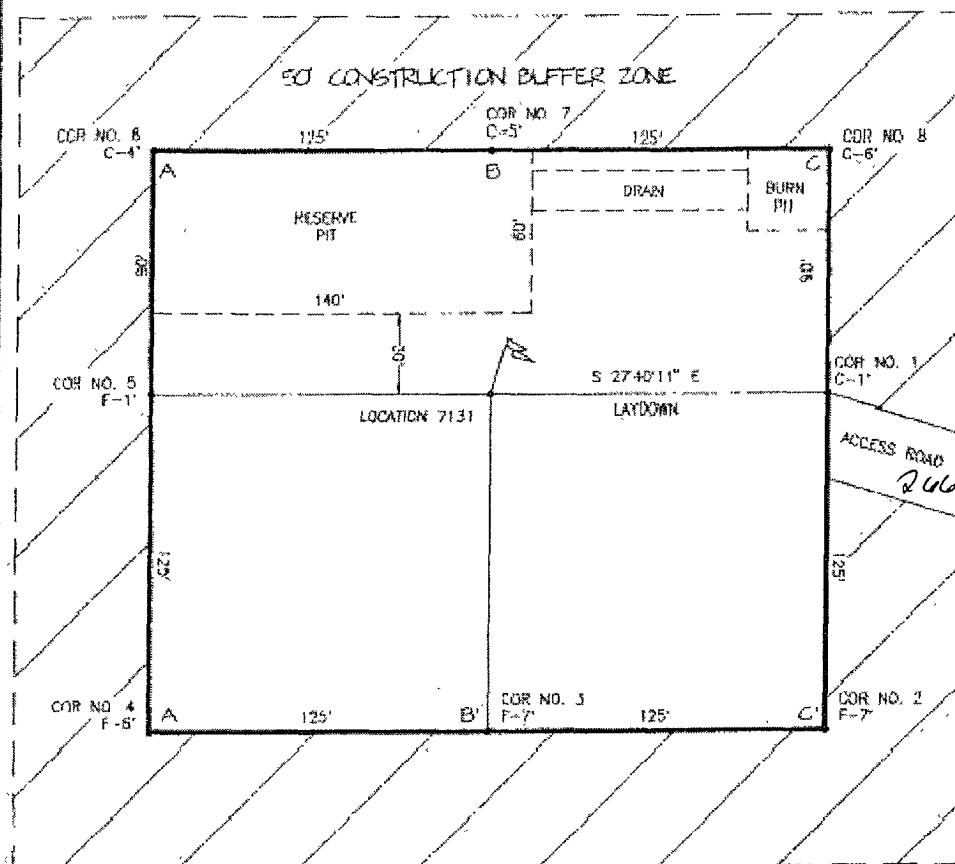
1. Stimulate Dakota with approximately 70,000# of 20/40 sand in x-link foam.
2. Isolate Dakota with a RBP.
3. Stimulate Point Lookout with approximately 9300# of 14/30 LiteProp™ in slick water.
4. Isolate Point Lookout with a RBP.
5. Perforate the Menefee/Cliff House as determined from the open hole logs.
6. Stimulate with approximately 9300# of 14/30 LiteProp™ in slick water.
7. Test each zone before removing bridge plugs.

**D. RUNNING TUBING**

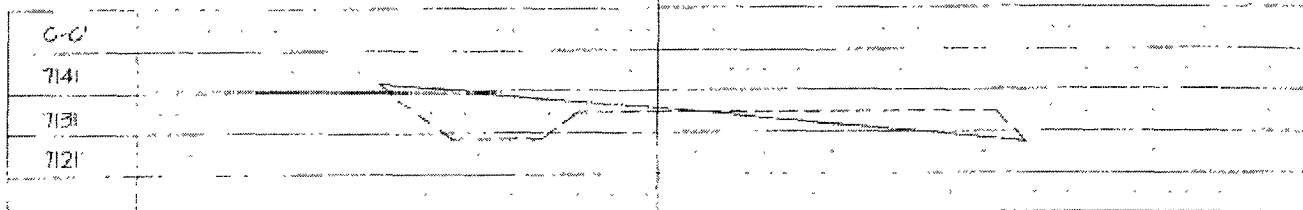
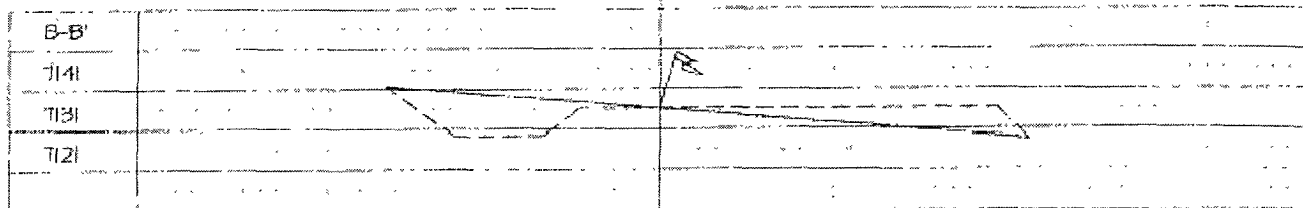
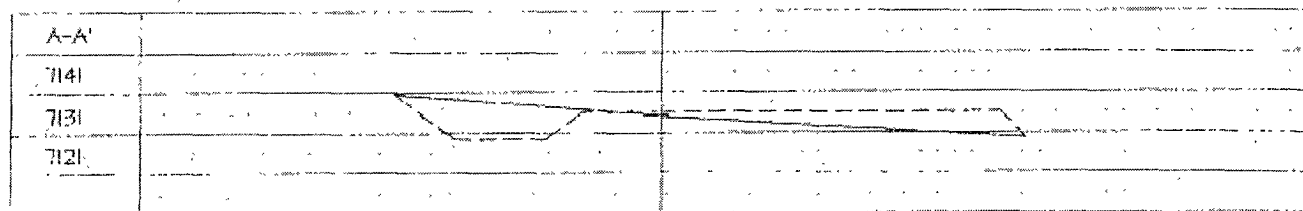
1. Dakota: Run 2-1/16", 3.25#, J-55, IJ tubing with 1/2 mule shoe on bottom, SN with pump-out plug on top ofadeemjointar Seal Units. Land tubing approximately 100' below top Dakota perf.
2. Mesa Verde: Run 2-1/16", 2.9#, J-55, EUE tubing with a SN (1.91" ID) on top of bottom joint. Land tubing approximately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

  
Gary Sizemore  
Sr. Drilling Engineer

1190 FSL & 1300 FWL  
SEC. 15 T26N R3W NMPM  
RIO ARriba COUNTY, N.M.  
ELEVATION: 7131



LATITUDE: 36°28'57" N  
LONGITUDE: 107°08'13" W  
WGS 84  
VERT. DATUM: NAD 1927





Attachment to Drilling Technical Program

Location: San Juan Basin, New Mexico

Date: August 20, 2001

By: John Thompson (Walsh E&P)

