

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

CONFIDENTIAL

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/>		6. IF INDIAN, ALLOTTEE OR TRIBE NAME	
b. TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER <input type="checkbox"/>		7. UNIT AGREEMENT NAME 28823	
2. NAME OF OPERATOR McElvain Oil & Gas Properties, Inc.		8. FARM OR LEASE NAME, WELL NO. Cougar Com 5 No. 2	
3. ADDRESS AND TELEPHONE NO. 1050 17th Street, Suite 1800, Denver, CO 80265 (303) 893-8933		9. API WELL NO. 30039-26808	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.) At surface 1845' FSL - 1650' FEL, Section 5, T25N, R2W, NMPM At proposed prod. zone Same		10. FIELD AND POOL, OR WILDCAT Blanco MV/ Basin Dakota	
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE 8.5 miles northwest of Lindrith, New Mexico		11. SEC. T., R., M. OR BLK AND SURVEY OR AREA Section 5, T25N, R2W, NMPM	
15. DISTANCE FROM PROPOSED LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drip unit line, if any) 525'		12. COUNTY Rio Arriba	
16. NO. OF ACRES IN LEASE 80		13. STATE New Mexico	
17. NO. OF ACRES ASSIGNED TO THIS WELL 320.2		18. DISTANCE FROM PROPOSED LOCATION TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. NA	
19. PROPOSED DEPTH 8451' 6300'		20. ROTARY OR CABLE TOOLS Rotary	
21. ELEVATIONS (Show whether DF, RT, GR, etc.) 7439' GL		22. APPROX. DATE WORK WILL START June, 2001	

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12.250"	9.625", J-55	36	600'	377.6 cf - circulate to surface -
8.750"	5.000", J-55	20.4	6200'	2932.6 cf in three stages to circ to surface -
7.875"	5.000", N-80 4.5" J-55	10.5	6300'	pv tools @ 5471' and 6231' Liver @ 3965' -

McElvain Oil & Gas Properties, Inc. proposes to spud in the San Jose formation. Drill surface hole to 600' with a fresh water mud. Run and cement surface casing with sufficient volume to circulate to surface. WOC 12 hours. Pressure test surface casing and BOPE to a minimum of 600 psi for 15 minutes. Drill 8 3/4" hole approximately 43 feet into Upper Mancos formation. Reduce hole size to 7 7/8" and drill to TD using a low solids mud system mixed with Mesa Verde and/or Dakota produced water. Run open hole logs from TD to surface casing shoe. Run and cement production casing in three stages with sufficient volume to circulate to surface. Move out rotary rig. Move in completion unit. Run cased hole correlation logs. Test casing to 3500 psi for 15 minutes. Perforate select Dakota intervals and stimulate using a 2 % KCl water based gel fluid. If open hole logs indicate the Mesa Verde is productive, a downhole commingling application will be filed and the Mesa Verde will be perforated and stimulated after the application is approved.

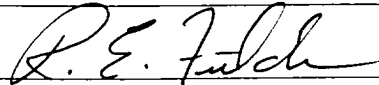
Surface is Fee, Davis.

Gas pipeline connection will be on the edge of the road at the east edge of the wellpad.

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured true vertical depths. Give blowout preventer program, if any.

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SIGNED



TITLE Agent

DATE March 23, 2001

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

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

Casing strings will be cemented
Attached

APPROVED BY

David R. Sitzler

TITLE

Acting AFM Multi Resources

DATE

AUG 28 2001

UNITED STATES
DEPARTMENT OF THE INTERIOR
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SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT--" for such proposals

SUBMIT IN TRIPLICATE

1. Type of Well <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other	5. Lease Designation and Serial No. NM01601
2. Name of Operator McElvain Oil & Gas Properties, Inc.	6. If Indian, Allottee or Tribe Name
3. Address and Telephone No. 1050 17th Street, Suite 1800, Denver, CO 80265 (303)893-0933x302	7. If Unit or CA, Agreement Designation
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) 1845'FSL - 1650'FEL, Section 5, T25N, R2W, NMPM	8. Well Name and No. Cougar Com 5 No.2
	9. API Well No. Not assigned
	10. Field and Pool, or Exploratory Area Blanco Mesa Verde
	11. County or Parish, State Rio Arriba, New Mexico

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

TYPE OF SUBMISSION	TYPE OF ACTION
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Abandonment
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Recompletion
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Plugging Back
	<input type="checkbox"/> Casing Repair
	<input type="checkbox"/> Altering Casing
	<input type="checkbox"/> Other _____
	<input checked="" type="checkbox"/> Change of Plans
	<input type="checkbox"/> New Construction
	<input type="checkbox"/> Non-Routine Fracturing
	<input type="checkbox"/> Water Shut-Off
	<input type="checkbox"/> Conversion to Injection
	<input type="checkbox"/> Dispose Water

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.)

McElvain Oil & Gas Properties, Inc. proposes to amend the APD to drill this well as a Mesa Verde single gas well instead of a downhole commingled Blanco Mesa Verde / Basin Dakota gas well. A new 10 Point Drilling Program, Wellsite Layout, and C - 102 reflecting these proposed changes are attached. All other information in the APD will remain the same.

14. I hereby certify the foregoing is true and correct

Signed *P. E. Fiddle*

Title Agent

Date April 3, 2001

(This space for Federal or State office use)

Approved by */s/ Patricia M. Hester*
Conditions of approval, if any:

Title Lands and Mineral Resources

Date JUN 30 2001

District I
PO Box 1980, Hobbs, NM 88241-1980

District II
PO Drawer 00, Artesia, NM 88211-0719

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

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

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
PO Box 2088
Santa Fe, NM 87504-2088

Form C-102
Revised February 21, 1994

CONFIDENTIAL

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-039-26808		*Pool Code 72319	*Pool Name Blanco Mesa Verde
*Property Code 28823	*Property Name COUGAR COM 5		*Well Number 2
*OGRID No. 22044	*Operator Name McELVAIN OIL & GAS PROPERTIES		*Elevation 7439

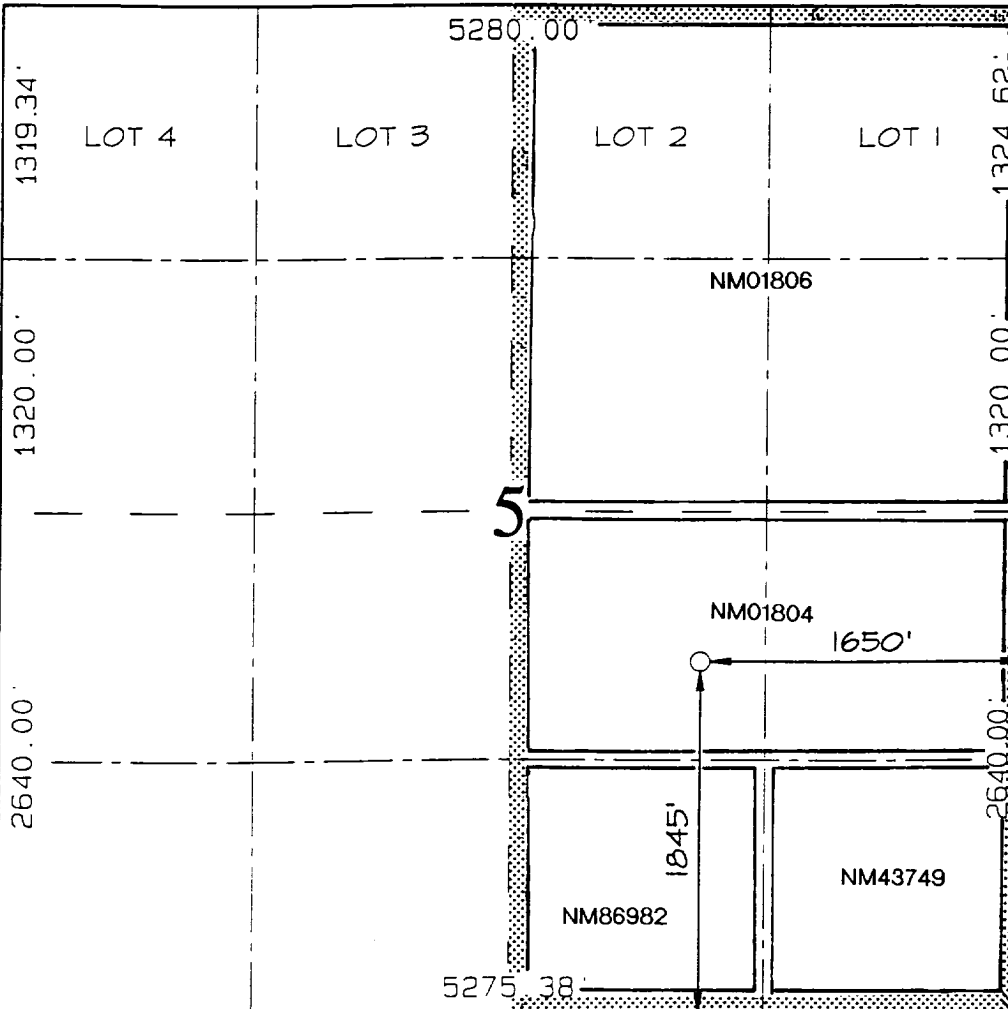
10 Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
J	5	25N	2W		1845	SOUTH	1650	EAST	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
12 Dedicated Acres 320.00		13 Joint or Infill Y		14 Consolidation Code C		15 Order No.			

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



17 OPERATOR CERTIFICATION

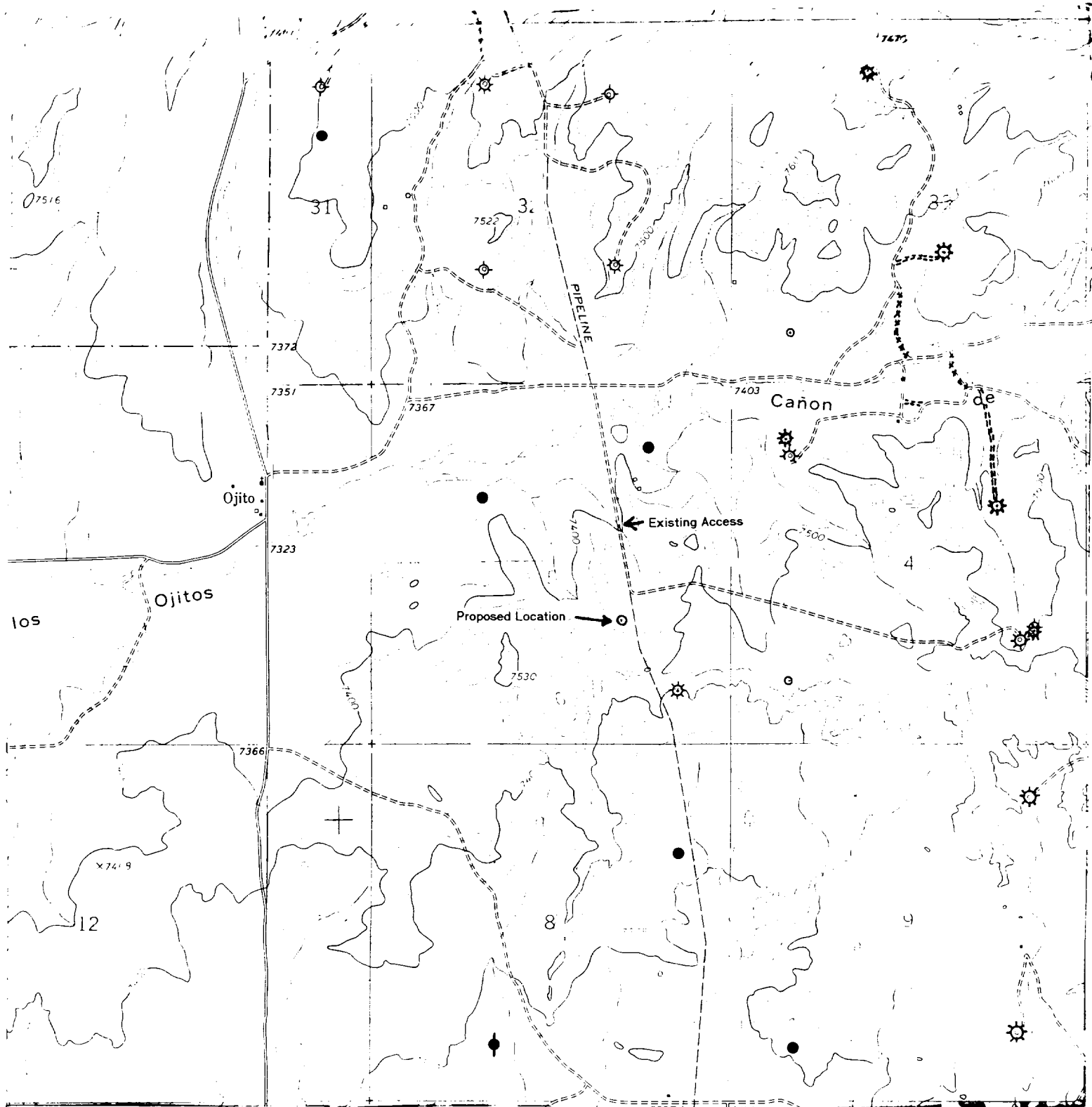
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief

R. E. Fielder
Signature
R. E. Fielder
Printed Name
Agent
Title
April 5, 2001
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.

MARCH 20, 2001
Date of Survey
Signature and Seal
NEALE C. EDWARDS
NEW MEXICO
6857
REGISTERED PROFESSIONAL SURVEYOR
Certificate Number 6857



Vicinity Map
 McElvain Oil & Gas Properties, Inc
 Cougar Com 5 No. 2
 1845 ' FSL - 1650 ' FEL
 Section 5, T 25 N, R 2 W, NMPPM
 Rio Arriba Co., New Mexico

McElvain Oil & Gas Properties Inc.
Cougar Com 5 No. 2
1845 ' FSL & 1650 ' FEL
Section 4, T25N, R2W, NMPM
Rio Arriba County, New Mexico
Lat./ Long.: N36°25'29" / W 107°04'12"

TEN POINT PROGRAM

1. **Surface Formation:** San Jose
2. **Surface Elevation:** 7439 ' GL.
3. **Estimated Formation Tops:**

<u>Formation</u>	<u>Top</u>	<u>Expected Production</u>
Nacimiento	1936'	
Ojo Alamo	3501'	
Fruitland	3701'	
Pictured Cliffs	3801'	GAS
Lewis	4041'	
Intermediate TD	4085'	
Huerfanito	4301'	
Chacra	4801'	
Mesa Verde	5051'	GAS
Cliff House	5551'	GAS
Menefee	5611'	GAS
Pt. Lookout	5926'	GAS
Upper Mancos	6151'	
TOTAL DEPTH	6300'	

4. **Casing and Cementing Program:**

A string of 9 5/8" 36# J-55 or K-55 ST&C casing will be set at 600' (±) in an 12 1/4" hole and cemented to the surface in a single stage with 320 sacks of Class "B" cement (yield = 1.18 cf/sk) containing 3% CaCl₂ and 1/4 lb/sack celloflake. Slurry volume assumes 100% excess over calculated hole volume. If the cement job does not circulate to surface, cement will be topped off using 1" pipe down the 12 1/4" by 9 5/8" annulus. Minimum clearance between couplings and hole is 1.625". Prior to drilling out the shoe, casing and BOPE will be tested to a minimum of 600 psig. Safety factors utilized in the design of this casing string were: burst = 1.1; collapse = 1.125; and tension = 1.8 or 100,000 lb overpull, whichever is greater.

Ten Point Drilling Program
McElvain Oil & Gas Properties Inc.
Cougar Com 5 No. 2
Page Two

Casing and Cementing Program: - continued

A string of 7" 20#, J-55 casing will be set at 4085' with a mechanical DV tool set 86' below the Nacimiento top. This string will be cemented in two stages as follows: Stage One: (4085' - 2022') Use a minimum of 175 sacks of Halliburton Light with 10 pps gilsonite and 0.25 pps celloflake. Slurry weight - 12.1 ppg. Yield - 2.12 cf/sack. Tail in with 100 sacks Class B with 10 pps gilsonite and 0.25 pps celloflake. Slurry weight - 14.4 ppg. Yield - 1.42 cf/sack. Circulate and WOC 4 hours between stages. Stage Two: (2022' - surface)Cement with a minimum of 195 sacks of Class B with 2 % metasilicate extender, 5 pps gilsonite, and 0.25 pps celloflake. Slurry weight - 14.2 ppg. Yield - 2.06 cf/sack. Tail in with 50 sacks Class B with 5 pps gilsonite and 0.25 pps celloflake. Slurry weight - 15.6 ppg. Yield - 1.18 cf/sack. Slurry volumes assume a 50 % excess over gauge hole volume. Volumes are subject to change after review of open hole caliper logs. Minimum clearance between coupling and hole is 0.547 inches. Safety factors used in the design of this casing string are: burst = 1.1; collapse = 1.125; and tension = 1.8 or 100,000 lb overpull, whichever is greater.

A 4½" 10.50#, J-55 production liner will be run from Total Depth to a minimum of 120 feet inside the intermediate casing. This string will be cemented in a single stage with a minimum of 110 sacks of Halliburton Light with 5 pps gilsonite and 0.25 pps celloflake. Slurry weight - 12.4 ppg. Yield - 1.99 cf/sack. Tail in with 150 sacks 50/50 Class B Poz containing 2% gel, 5 pps gilsonite, 0.25 pps celloflake, 0.4% FLA, and 0.2% retarder. Slurry weight - 13.7 ppg. Yield - 1.33 cf/sk. Slurry volume assumes a 70% excess over gauge hole volume. Cement volume is subject to change after review of open hole caliper log. Minimum clearance between couplings and hole is 0.9125". Safety factors utilized in the design of this casing string were: burst = 1.1; collapse = 1.125; and tension = 1.8 or 100,000 lb overpull, whichever is greater.

Centralizers: Surface string: 3 - 9½" X 12¼" bowspring run in middle of shoe joint and spaced evenly between shoe joint and 100'. Intermediate string: 7 - 7" X 8¾" bowspring across all prospective pay zones and 5 - 7" X 8¾" turbolizers will be spaced such that a minimum of two are located above and two are located below the Basal Fruitland Coal; a minimum of one turbolizer will be run just below the base and another into the base of the Ojo Alamo.

Float Equipment: Surface string: Cement nose guide shoe and self fill insert float valve. Intermediate string: Cement nose float shoe, self fill float collar, and one mechanical DV tools with accessories.

Following the completion of the cementing operations, a sundry notice detailing the cement volumes and densities for each job will be submitted.

Ten Point Drilling Program
McElvain Oil & Gas Properties Inc.
Cougar Com 5 No. 2
Page Three

5. **Pressure Control Equipment:**

A minimum of a 2M psi BOP well control system will be utilized. BOP's and choke manifold will be installed and pressure tested to a minimum of 600 psig before drilling out from under surface casing and then will be checked daily as to mechanical operation condition. The BOP stack and manifold will be tested to 1500 psig after removal to set 7" slips. 7" rams will be installed before running intermediate casing.

A full opening internal blowout preventor or drill pipe safety valve will be on the drill floor at all times and will be capable of fitting all connections.

6. **Mud Program:**

A fresh water low solids, non-dispersed mud system will be used to drill this well. Sufficient materials will be on location at all times to maintain mud properties and to control any unforeseen lost circulation problems or abnormal pressures. The mud volume in the rig pits will be visually monitored on a routine basis.

Mud properties guidelines:

<u>Interval (ft)</u>	<u>Mud Weight (ppg)</u>	<u>Viscosity (sec/qt)</u>
0 - 600	8.4 or less	40 - 50
600 - 4085'	8.6 - 9.2	35 - 40

Note: Maintain fluid loss at 6 - 8 cc from 600 ' to TD. Raise viscosity to 55 - 60 for logging. Thin to 40 - 45 viscosity to run casing. Fresh water will be used in the spud mud. Dakota and Mesa Verde produced water will be used to mix the mud in the production hole.

4085'- TD

Air/mist

7. **Auxiliary Equipment:**

An upper kelly cock with handle available will be utilized.

8. **Logging Program:**

Induction with GR and Epithermal Neutron and Formation Density will be run from Intermediate TD to surface casing shoe. The bulk density will be presented on the 5" scale log through the coals and the deep induction curve will be merged onto the porosity log. The same logging program will be used for the 6 1/4" hole.

Coring Program:

No cores are planned.