

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-101

OIL CONSERVATION DIVISION
P. O. Box 2088
Santa Fe, New Mexico 87504-2088

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK		API NO. (assigned by OCD on new well)			
----- Plugback		5. Indicate Type of Lease Fee			
6. State Oil & Gas Lease No. Fee		7. Lease Name or Unit Agreement Name Lawson			
1a. Type of Work b. Type of Well GAS		8. Well No. #1			
2. Name of Operator Meridian Oil Inc.		9. Pool Name or Wildcat Basin Fruitland Coal			
3. Address of Operator P.O. BOX 4289 FARMINGTON, NM 87499					
4. Well Location / 1650' FSL, 1090' FWL, Section 12, T31N, R11W, San Juan County, New Mexico					
10. Proposed Depth	11. Formation Fruitland	12. Rotary or C.T.			
13. Elevation 5842' GL	14. Bond Type	15. Drill Contractor	16. Est. Start Date See Note Below:		
17. PROPOSED CASING AND CEMENT PROGRAM					
SIZE HOLE	SIZE CASING	WT. PER FT.	SET. DEPTH	SKS OF CEMENT	EST. TOP
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This remedial cement/plugback procedure is currently in progress.
Verbal approval to proceed with this project was received from
Mr. Charles Gholson on October 1, 1991.

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

SIGNATURE Reggie Madpall SHL) TITLE Regulatory Affairs DATE 10-9-91
=====

(This space for State Use)

APPROVED BY Erin Busch DEPUTY OIL & GAS INSPECTOR, DIST. #3 TITLE _____ DATE OCT 15 1991
Conditions of approval, if any:

RECEIVED
OCT 15 1991
OIL CON. DIV.
DIST. 3

Submit to Appropriate
District Office
State Lease - 4 copies
Fee Lease - 3 copies

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised 1-1-89

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

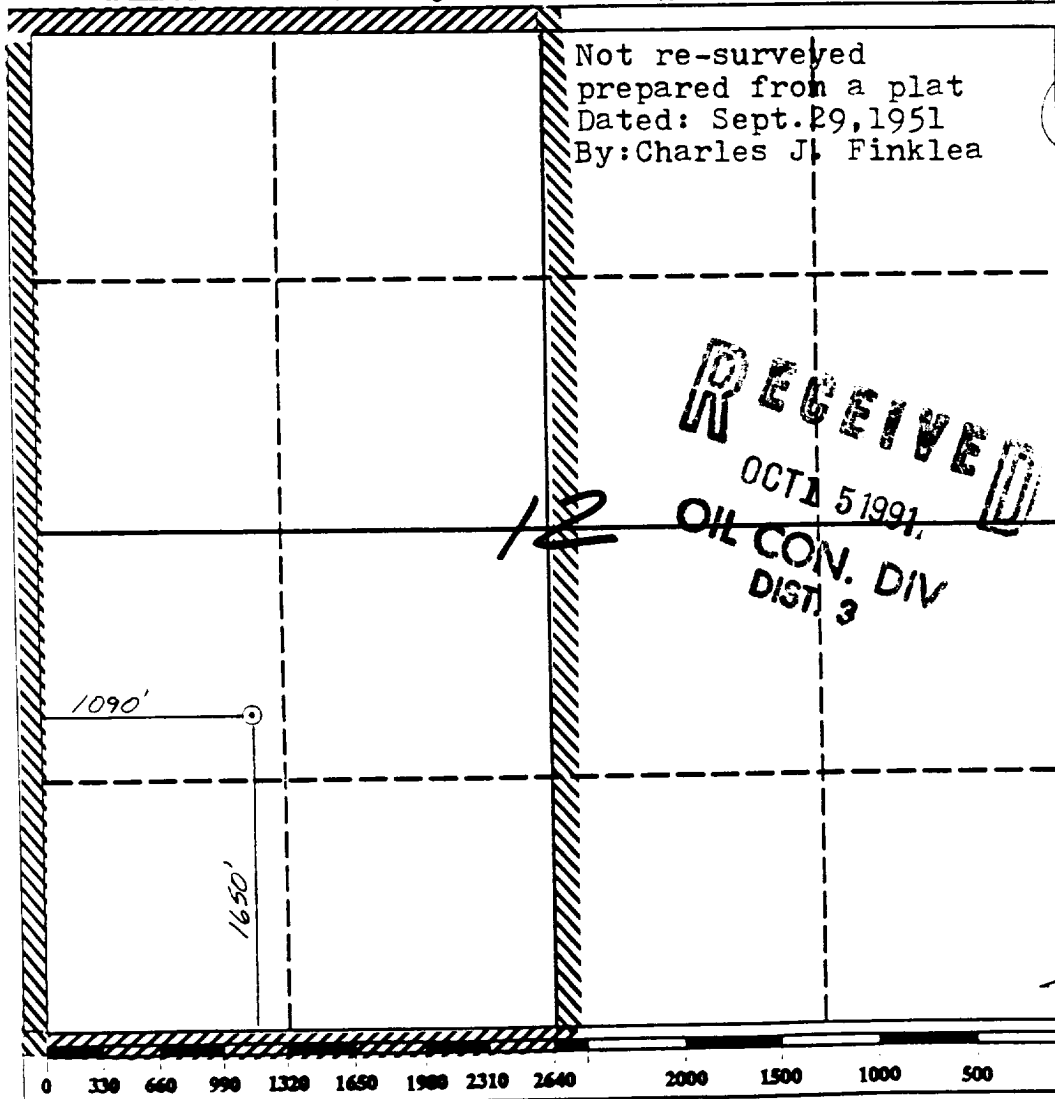
DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

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

WELL LOCATION AND ACREAGE DEDICATION PLAT
All Distances must be from the outer boundaries of the section

Operator Southland Royalty Company			Lease Lawson		Well No. 1
Unit Letter L	Section 12	Township 31 North	Range 11 West	NMPM	County San Juan
Actual Footage Location of Well: 1650 feet from the South line and 1090 feet from the West line					
Ground level Elev. 5842'	Producing Formation Fruitland Coal		Pool Basin		Dedicated Acreage: 320 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interest of all owners been consolidated by communitization, unitization, force-pooling, etc.?
☐ Yes ☐ No If answer is "yes" type of consolidation _____
If answer is "no" list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.)
No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interest, has been approved by the Division.



OPERATOR CERTIFICATION

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

Peggy Bradford
Signature

Peggy Bradford
Printed Name

Regulatory Affairs
Position

Southland Royalty
Company

9-20-91
Date

SURVEYOR CERTIFICATION

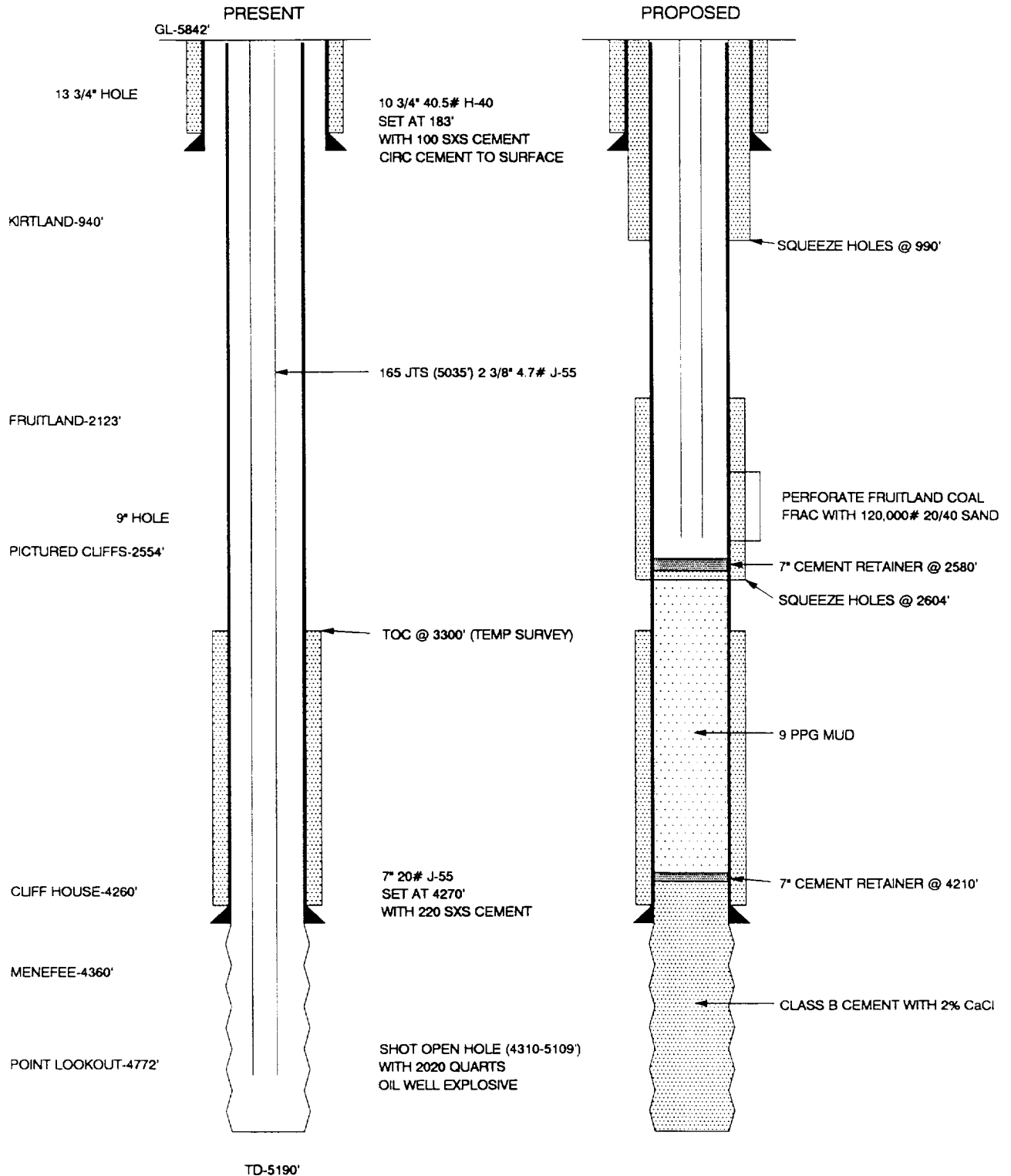
I hereby certify that the well location shown on this plat was plotted from field notes actual surveys made by me or under supervision, and that the same is true and correct to the best of my knowledge and belief.

9-20-91
Date Surveyed
Neale C. Edwards
Signature & Seal of
Professional Surveyor

Neale C. Edwards
Certificate No. 6857

LAWSON #1

UNIT L, SEC 12, T31N-R11W
SAN JUAN COUNTY, NEW MEXICO



Lawson #1
Recommended Recompletion Procedure

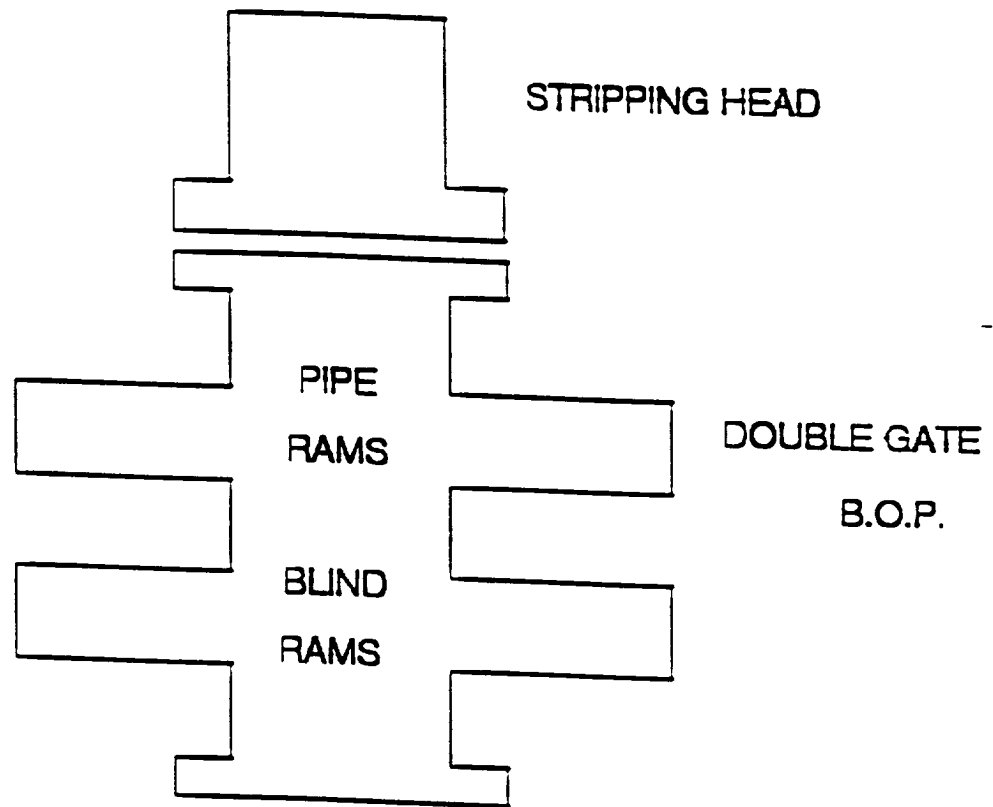
1. Move in blow tank for wellbore fluids. Install and test anchors as necessary.
2. MOL and RU workover rig equipped with power swivel, pump and steel pit. Hold safety meeting and comply with all BLM, NMOCD and MOI regulations.
3. RU return line to blow tank, record casing, tubing and bradenhead pressures. Blow well down and kill as required with water.
4. ND wellhead and NU 6" 3,000 PSI BOP and stripping head. Pressure test to 2000 PSI.
5. TOOH with 165 joints of 2 3/8" 4.7# J-55 tubing.
6. TIH with 6 1/4" bit and 7" casing scraper and clean out to bottom of 7" casing @ 4270'. TOOH.
7. Establish a rate with water down 7" casing into the Mesaverde open hole section. TIH with 2 3/8" tubing and 7" cement retainer. Set retainer at 4210', pressure test tubing to 2000 PSI, sting into retainer and establish a rate with water into the Mesaverde open hole section, mix and pump 414 sacks (100% excess) of class B cement with 2% CaCl. Sting out of retainer and spot 6 sacks of class B cement with 2% CaCl on top of retainer. Pull up one stand and reverse circulate with water.
8. Pump 65 BBLs of 9 PPG mud with a minimum viscosity of 50 sec/qt down 2 3/8" tubing. Pull up to 2605' and reverse circulate tubing with water. TOOH.
9. Pressure test 7" casing to 2000 PSI. RU wireline and run CNL-GR-CCL across the Fruitland from 2600' to 2000'.
10. RU wireline and perforate 4 squeeze holes at 2604' (**Make certain wellbore is full prior to firing**). Open bradenhead valve and establish circulation down 7" casing with water. TIH with 2 3/8" tubing and 7" cement retainer, set retainer at 2580'. Pressure test tubing to 2000 PSI. Sting into retainer and establish circulation into squeeze holes with water. Mix and pump 300 sacks of class B 50/50 POZ cement with 2% CaCl, tailed with 50 sacks of class B cement with 2% CaCl. (150% excess to cover from 50' below the top of the Pictured Cliffs to 1645') Sting out of retainer, close bradenhead valve and spot 6 sacks of class B cement on top of retainer. Pull up one stand and reverse circulate tubing with water. TOOH. WOC.
11. Pressure test 7" casing to 2000 PSI. RU wireline and run GR-CBL-CCL from 2500' to surface. (If necessary, squeeze cement to bring top of cement to 2023') Perforate squeeze holes at 990' (**Make certain wellbore is full prior to firing**). TIH with 2 3/8" tubing and 7" fullbore packer, set packer at 940', open bradenhead valve and establish circulation with water. Mix and pump 249 sacks of class B 50/50 POZ cement, circulate cement to surface. Once cement has been circulated to surface tail with 50 sacks of class B cement with 2% CaCl, close bradenhead valve and displace tubing and packer with water. WOC 30 minutes, release packer and reverse circulate 2 tubing volumes of water, pull 2 stands, reset packer and reapply squeeze pressure.

12. WOC. Release packer and TOOH. TIH with 6 1/4" bit and 7" casing scraper and clean out to 2570'. Pressure test squeeze to 2000 PSI. TOOH.
13. RU wireline and perforate Fruitland Coal 4 SPF using 4" guns, 0.5" diameter holes at 23 grams/shot.

Perforation interval will be selected from CNL log.

14. TIH with Baker SAP tool and breakdown perforation interval with 20 gallons/perf-ft of 7 1/2% HCL with 0.3% quaternary amine clay stabilizer. Record breakdown pressures and volume of fluid for each set of perforations. TOOH.
15. TIH with 3 1/2" 9.3# workstring with 7" Baker Retrievmatic Packer. Set packer at 2250'. Pressure test packer and 3 1/2" tubing to 3000 PSI.
16. Prepare to fracture stimulate down 3 1/2" work string. Pressure up 7" casing to 1000 PSI and monitor during fracture stimulation.
17. Flow well back immediately following fracture stimulation through variable choke at approximately 10 GPM. Monitor wellhead pressures for 20 minutes during flowback. Shut well in for 6 hours to allow gel to break.
18. Flow well back through variable choke and monitor flow. Check for broken gel during flowback.
19. Release packer and TOOH with packer and 3 1/2" workstring.
20. TIH with 2 3/8" tubing and clean out to COTD @ 2570'.
21. TIH with 2 3/8" tubing and SN one joint off bottom. Gauge well on 30 minute and 60 minute intervals. Land tubing 15' above bottom perforation. ND BOP and NU wellhead. Return well to production.

WORKOVER / RECOMPLETION B.O.P. SCHEMATIC



MINIMUM: 6" 2000 PSI DOUBLE GATE B.O.P.
MAXIMUM ANTICIPATED SHUT-IN WELLHEAD
PRESSURE IS LESS THAN 2000 PSI