PKRV0207456583 SWD 3/30/02

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

FORM C-108
Revised 4-1-98

APPLICATION FOR AUTHORIZATION TO INJECT

I. PURPOSE: _____Secondary Recovery Pressure Maintenance ___X__Disposal _____Storage
Application qualifies for administrative approval? ____X____Yes _____No

II. OPERATOR: DUGAN PRODUCTION CORP.

ADDRESS: P.O. Box 420, Farmington, NM 87499

CONTACT PARTY: John Alexander PHONE: (505) 325-1821

III. WELL DATA: Complete the data required on the reverse side of this form for each well proposed for injection. Additional sheets may be attached if necessary.

IV. Is this an expansion of an existing project? _____Yes ____X____No
If yes, give the Division order number authorizing the project: _____

V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.

VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.

VII. Attach data on the proposed operation, including:

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1. Proposed average and maximum daily rate and volume of fluids to be injected;
2. Whether the system is open or closed;
3. Proposed average and maximum injection pressure;
4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and,
5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).

*VIII. Attach appropriate geologic data on the injection zone including appropriate lithologic detail, geologic name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such sources known to be immediately underlying the injection interval.

IX. Describe the proposed stimulation program, if any.

*X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted).

*XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.

XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.

XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.

XIV. Certification: I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

NAME: John Alexander TITLE: Vice-President

SIGNATURE: John Alexander DATE: 3/12/2002

* If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstances of the earlier submittal: _____

DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate District Office

III. WELL DATA

A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:

(1) Lease name; Well No.; Location by Section, Township, and Range; and footage location within the section.

(2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.

(3) A description of the tubing to be used including its size, lining material, and setting depth.

(4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District Offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.

(1) The name of the injection formation, and if applicable, the field or pool name.

(2) The injection interval and whether it is perforated or open-hole.

(3) State if the well was drilled for injection or, if not, the original purpose of the well.

(4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.

(5) Give the depth to and name of the next higher and next lower oil or gas zone in the area of the well, if any.

XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the publication has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

(1) The name, address, phone number, and contact party for the applicant;

(2) The intended purpose of the injection well; with the exact location of single wells or the section, township, and range location of multiple wells;

(3) The formation name and depth with expected maximum injection rates and pressures; and

(4) A notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, 2040 South Pacheco Street, Santa Fe, NM 87505 within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the data this application was mailed to them.

Attachment III – Dugan Production Corp. Locke 1, Salt Water Disposal Application

The following information headers correspond to the C-108 numbering. A wellbore schematic is shown in Attachment III A.

A.

1) Locke 1, Sec.3, Twn. 29N, Rng. 14W, 1120' fsl & 1120' fel (30-045-25630)

2) 8-5/8 set at 236', cemented with 189 cu. ft. Class B, circulated to surface 4-1/2, 10.5 lb./ft. set at 5988' in 7-7/8" hole, cemented in three (3) stages with stage tools at 2453' and 3810' as follows: stage 1 – 276 cu. ft. Class B 50/50 Pozmix with 6% gel and tailed with 13 cu. ft. Class B, 2% $CaCl_2$; stage 2 – 730 cu. ft. Class B 50/50 Pozmix, 6% gel and tailed with 59 cu. ft. Class B; stage 3 - 201 cu. ft. 50/50 Pozmix, 6% gel and tailed with 59 cu. ft. Class B, 2% $CaCl_2$.

Stage 1 cement top calculated at 5038' by using 75% of cement volume in gauge hole. Cement bond log shows cement above 5050', where log was stopped.

Stage 2 cement top calculated at 1970' using caliper from open hole log. Stage tool above is at 2453, so cement probably was wrapped. A cement bond log was run which shows cement still present at 3550'. The log was stopped at this point.

Stage 3 cement top was reported at 800' by temperature survey. The cement bond log shows the top of cement at 2250'.

This well was plugged and abandoned on 2/7/1996. Following is the record of plugging:
Set cement retainer at 5655'. Pumped 19 sks. Class B below retainer. Spotted 12 sks cement above retainer. Cement top is at 5497'. Perforated casing at 4800'. It was not possible to pump into this perforation. Perforated at 4750'. It was not possible to pump into this perforation. Spotted 17 sks. cement 4644' – 4868' inside casing. Spotted 12 sks. cement 2103' – 2261' inside casing. Spotted 44 sks. cement 519' – 1099' inside casing. Perforated at 314'. Filled casing inside and outside to surface. An additional 20 sks. cement was used to fill the 4-1/2" x 8-5/8" annulus after the wellhead was cut off to install the dry hole marker.

Attachment Conversion Plan is a conversion procedure. The cement bond log run during the original completion does not match the primary cement reports. The discrepancies are discussed in the procedure. A copy of that bond log is attached.

3) Injection tubing is plastic lined 2-3/8" EUE 4.7 lb./ft. Setting depth is at packer depth.

4) Packer is Baker Model AD-1 tension packer. It is plastic lined. Setting depth is 50' above the injection interval, at approximately 3165'.

Attachment III - Dugan Production Corp. Locke 1, Salt Water Disposal, Application

B.

1) Mesaverde formation.

2) Point Lookout 3515' – 3550', Menefee 3190' – 3255', 3480 - 3500.

3) The well was originally drilled as a Dakota producer in 1983. It was plugged and abandoned in 1996.

4) The Dakota was perforated at 5728' – 5744' with a total of 4 holes. The plugging program is detailed in section A 2) above.

5) The next higher oil and gas production interval is the Pictured Cliffs at 1020'. The next lower oil and gas production interval is the Gallup at 4750'.

Dugan Production Corp.
Locke 1 – Conversion to Disposal
Completion Procedure Attachment

The Situation

A comparison of the primary cement reports and a cement bond log run on 6/23/1983 during completion of the well are inconsistent. Following a summary of the inconsistencies:

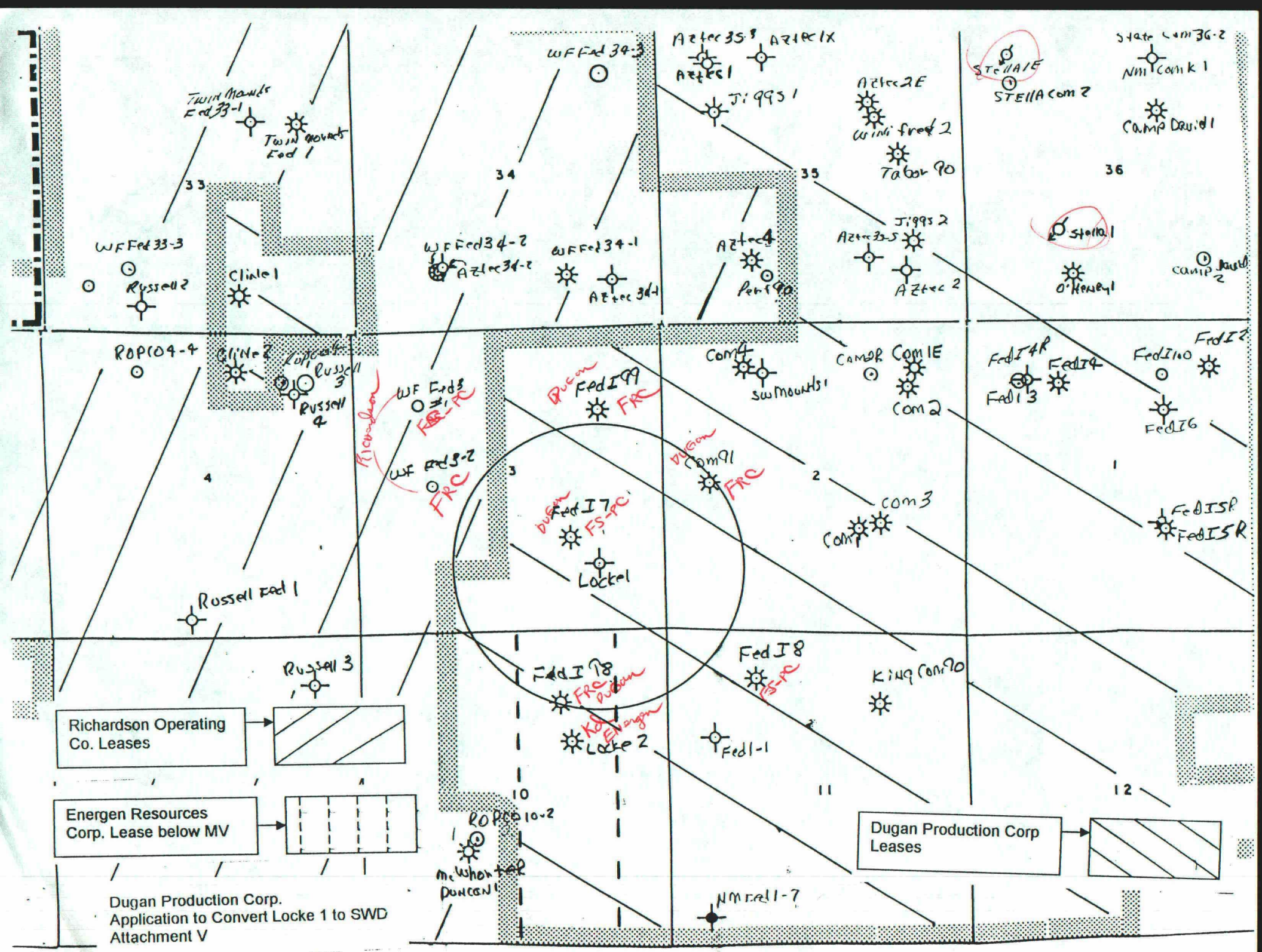
1. The first stage cement job is of no concern because the Dakota is already plugged.
2. The second stage cement job (across the Mesaverde proposed injection interval) consisted of 730 cu. ft. Class B 50/50 Pozmix, 6% gel and tailed with 59 cu. ft. Class B. This is a total of 789 cu. ft. of cement placed through a stage tool at 3810'. The open hole log showed an average hole size of 10". The 789 cu. ft. of cement should cover 1800' of annular volume, putting the cement top at 2000'. There is a second stage tool at 2453', so the cement should have been wrapped to the second stage tool. No mention of any lost circulation is made in any of the cement reports. The cement bond log shows that some cement is present to 3550' where the log was stopped. The bond log starts again at 3000' where little bonding is indicated, but the signal is not free pipe.
3. The third stage was cemented with 201 cu. ft. 50/50 Pozmix, 6% gel and tailed with 59 cu. ft. Class B, 2% $CaCl_2$. above a stage tool at 2453'. The 260 cu. ft of cement should have covered 475' (using an 11" average hole diameter), putting the cement top at 1975'. The cement bond log shows a top at 2266', which is close to the calculated top of cement. The original cement report shows an 800' depth to cement by temperature survey.

Conclusion

The Mesaverde is covered with cement. There is the possibility that most of the cement could have been lost to the hole, but that is inconsistent with other wells in the area. The light cement used on this stage, and other stages, can cause problems with proper interpretation of acoustic bond logs. The bond log makes no mention of the log being run under pressure. The calibration of the log does show that it was correctly done to register free pipe. The log interval above 2256' shows free pipe, but the remainder of the logged interval indicates some cement is present. To mitigate any problems with the existing bond log interpretation, we plan to run a bond log during the completion as outlined below.

PROCEDURE TO CONVERT LOCKE 1 TO INJECTION SERVICE

1. Re-attach production casing to surface and install well head.
2. Plug Gallup and Dakota formations to BLM requirements.
3. Set a cast iron bridge plug at 3700'.
4. Pressure test casing at 1500 psi.
5. Run a cement bond log over the injection interval. The log will be pulled to the top of cement. NMOCD will be notified to observe this operation. The remainder of the procedure will be contingent on the recognition of adequate bond to assure injection zone isolation.
6. Perforate the Point Lookout section of the Mesaverde from 3460' – 3550' in selected sand zones with 4 jspf. Perforate the Menefee section of the Mesaverde from 3215' – 3255' in selected sand zones with 4 jspf.
7. Preparation of the well for injection is covered in other parts of this application.


Richardson Operating Co. Leases
Energen Resources Corp. Lease below MV
Dugan Production Corp Leases
Dugan Production Corp.
Application to Convert Locke 1 to SWD
Attachment V

operator	well_name	well_no	pool	form	twn	rge	sec	ul	ftage_ns	ftage_ew	status
DUGAN PRODUCTION CORP	FEDERAL I	100	BASIN FRUITLAND COAL	FT	29N	14W	01	B	950/N	1835/E	CO
DUGAN PRODUCTION CORP	FEDERAL I	4	HARPER HILL FT SAND PC	PC	29N	14W	01	C	1100/N	1600/W	SI
DUGAN PRODUCTION CORP	FEDERAL I	3	BASIN DAKOTA	DK	29N	14W	01	D	1030/N	1070/W	PA
DUGAN PRODUCTION CORP	FEDERAL I	4R	HARPER HILL FR SND PC	PC	29N	14W	01	D	1090/N	900/W	CO
DUGAN PRODUCTION CORP	FEDERAL I	6	HARPER HILL FT SAND PC	FP	29N	14W	01	G	1590/N	1800/E	PA
DUGAN PRODUCTION CORP	FEDERAL I	5	HARPER HILL FT SAND PC	FP	29N	14W	01	J	1850/S	1850/E	PA
DUGAN PRODUCTION CORP	FEDERAL I	5R	HARPER HILL FT SAND PC	PC	29N	14W	01	J	1790/S	1820/E	CO
DUGAN PRODUCTION CORP	COM	2	HARPER HILL FT SAND PC	FP	29N	14W	02	A	1125/N	1070/E	SI
DUGAN PRODUCTION CORP	COM	1E	BASIN DAKOTA	DK	29N	14W	02	A	666/N	1097/E	CO
DUGAN PRODUCTION CORP	COM	2R	HARPER HILL FRUITLAND PC	PC	29N	14W	02	B	907/N	1575/E	CO
DUGAN PRODUCTION CORP	SW MOUNDS COM	1	BASIN DAKOTA	DK	29N	14W	02	C	870/N	1790/W	PA
DUGAN PRODUCTION CORP	COM	4	HARPER HILL FT SD PC EXT	FP	29N	14W	02	C	790/N	1450/W	CO
DUGAN PRODUCTION CORP	COM	3	HARPER HILL FT SAND PC	FP	29N	14W	02	J	1850/S	1450/E	CO
DUGAN PRODUCTION CORP	COM	1	BASIN FRUITLAND COAL	FT	29N	14W	02	J	1750/S	1820/E	CO
DUGAN PRODUCTION CORP	COM	1	BASIN DAKOTA	DK	29N	14W	02	J	1750/S	1820/E	ZA
DUGAN PRODUCTION CORP	COM	91	BASIN FRUITLAND COAL	FT	29N	14W	02	L	2510/S	790/W	CO
RICHARDSON OPERATING CO	WF FEDERAL 3	1	TWIN MOUNDS FT SD PC EXT	PC	29N	14W	03	D	1265/N	1095/W	CO
DUGAN PRODUCTION CORP	FEDERAL I	99	BASIN FRUITLAND COAL	FT	29N	14W	03	H	1488/N	1106/E	CO
DUGAN PRODUCTION CORP	FEDERAL I	7	HARPER HILL FR SD PC	FP	29N	14W	03	J	1560/S	1605/E	CO
RICHARDSON OPER CO	WF FEDERAL 3	2	BASIN FRUITLAND COAL	FT	29N	14W	03	L	2495/S	1290/W	CO
CONOCO INC	FC FEDERAL COM	30	BASIN FRUITLAND COAL	FT	29N	14W	03	M	875/S	945/W	AL
SOUTHLAND ROYALTY CO	LOCKE	1	BASIN DAKOTA	DK	29N	14W	03	P	1120/S	1120/E	PA
RICHARDSON OPERATING CO	ROPCO 4	1	BASIN FRUITLAND COAL	FT	29N	14W	04	A	870/N	1205/E	SP
RICHARDSON OPERATING CO	ROPCO 4	1	TWIN MOUNDS FT SD PC	PC	29N	14W	04	A	870/N	1205/E	CO
PUBCO DEVELOPMENT	RUSSELL	4	WC D3;PICTURED CLIFFS	PC	29N	14W	04	A	990/N	990/E	PA
DUGAN PRODUCTION CORP	CLINE	2	TWIN MOUNDS FRUITLAND PC	PC	29N	14W	04	B	660/N	1980/E	CO
RICHARDSON OPERATING CO	ROPCO 4	4	TWIN MOUNDS PC	PC	29N	14W	04	C	685/N	1855/W	CO
RICHARDSON OPERATING CO	ROPCO 4	2	TWIN MOUNDS PC	PC	29N	14W	04	I	1552/S	784/E	PE
RICHARDSON OPERATING CO	ROPCO 4	3	BASIN FRUITLAND COAL	FT	29N	14W	04	L	1830/S	1060/W	PE
RICHARDSON OPERATING CO	ROPCO 4	3	TWIN MOUNDS FT SND PC	FT	29N	14W	04	L	1830/S	1060/W	PE
PUBCO PET	RUSSELL FED	1	TWIN MOUNDS MV	MV	29N	14W	04	N	330/S	2390/W	PA
CONOCO INC	FC FEDERAL	14	BASIN FRUITLAND COAL	FT	29N	14W	05	H	1920/N	930/E	PA
PUBCO	PUBCO CARR	1	TWIN MOUNDS MV		29N	14W	08	A	790/N	990/E	PA
DUGAN PRODUCTION CORP	STERLING	1	WC D3;PICTURED CLIFFS	PC	29N	14W	08	H	1790/N	1140/E	PA
DUGAN PRODUCTION CORP	STERLING	1Y	TWIN MOUNDS FRUITLAND PC	FP	29N	14W	08	H	1790/N	1145/E	PA
RICHARDSON OPERATING CO	ROPCO 9	1	TWIN MOUNDS FT SND PC	PC	29N	14W	09	A	835/N	860/E	PE
PUBCO	RUSSELL	3	TWIN MOUNDS MV	MV	29N	14W	09	A	800/N	800/E	PA

operator	well_name	well_no	pool	form	twn	rge	sec	ul	ftage_ns	ftage_ew	status
RICHARDSON OPERATING CO	ROPCO 9	1	BASIN FRUITLAND COAL	FT	29N	14W	09	A	835/N	860/E	PE
RICHARDSON OPER CO	ROPCO 9	4	TWIN MOUNDS PC	PC	29N	14W	09	F	1438/N	1910/W	PE
CONOCO INC	FC FEE COM	6	BASIN FRUITLAND COAL	FT	29N	14W	09	K	1800/N	1800/W	AL
RICHARDSON OPERATING CO	ROPCO 9	3	TWIN MOUNDS FT SND PC EX	PC	29N	14W	09	K	1404/S	1508/W	PE
RICHARDSON OPERATING CO	ROPCO 9	3	BASIN FRUITLAND COAL	FT	29N	14W	09	K	1404/S	1508/W	PE
RICHARDSON OPERATING CO	ROPCO 9	2	TWIN MOUND PC	PC	29N	14W	09	P	1075/S	715/E	PE
DUGAN PRODUCTION CORP	FEDERAL I	98	BASIN FRUITLAND COAL	FT	29N	14W	10	B	1200/N	1850/E	CO
RICHARDSON OPERATING CO	ROPCO 10	1	HARPER HILL FT SND PC	PC	29N	14W	10	D	1272/N	673/W	PE
ENERGEN RESOURCES CORP	LOCKE	2	BASIN DAKOTA	DK	29N	14W	10	G	1850/N	1650/E	CO
RICHARDSON OPERATING CO	ROPCO 10	2	BASIN FRUITLAND COAL	FT	29N	14W	10	K	1772/S	1948/W	SP
RICHARDSON OPERATING CO	ROPCO 10	2	HARPER HILL FT SND PC	PC	29N	14W	10	K	1772/S	1948/W	CO
ENERGEN RESOURCES CORP	MCWHORTER DUNCAN	1	BASIN DAKOTA	DK	29N	14W	10	K	1565/S	1820/W	CO
CONOCO INC	FC FEE COM	7	BASIN FRUITLAND COAL	FT	29N	14W	10	M	990/S	990/W	AL
DUGAN PRODUCTION CORP	KING COM	90	BASIN FRUITLAND COAL	FT	29N	14W	11	B	1128/N	1511/E	CO
DUGAN PRODUCTION CORP	FEDERAL I	8	HARPER HILL FR SD PC EXT	FP	29N	14W	11	C	790/N	1530/W	CO
DUGAN PRODUCTION CORP	FEDERAL 1	1	WC D3;MESAVERDE	MV	29N	14W	11	E	1850/N	790/W	PA
SUNRAY	NM FEDERAL I	7	TOTAH GALLUP	GP	29N	14W	11	M	510/S	684/W	PA
RICHARDSON OPERATING CO	NAVAJO 14	2	W KUTZ PC	PC	29N	14W	14		1948/N	1037/E	
RICHARDSON OPERATING CO	NAVAJO 14	2	BASIN FRUITLAND COAL	FT	29N	14W	14		1948/N	1037/E	
SUNRAY MID CONTINENT	NM FEDERAL I	5	TOTAH GALLUP	GP	29N	14W	14	C	330/N	2510/W	PA
MERRION O&G CORP	NAVAJO TRIBAL H	11	TOTAH GALLUP	GP	29N	14W	14	C	2090/N	1840/E	PA
RICHARDSON OPERATING CO	NAVAJO TRIBAL H	12	W KUTZ PC	PC	29N	14W	14	E	1830/N	810/W	CO
RICHARDSON OPERATING CO	NAVAJO TRIBAL H	12	TOTAH GALLUP	GP	29N	14W	14	E	1830/N	810/W	ZA
RICHARDSON OPERATING CO	WF NAVAJO 14	1	W KUTZ PICTURED CLIFFS	PC	29N	14W	14	I	1690/S	660/E	CO
MERRION O&G CORP	NAVAJO TRIBAL H	8	TOTAH GALLUP	GP	29N	14W	14	I	1905/S	710/E	PA
RICHARDSON OPERATING CO	BENALLY 14	3	BASIN FRUITLAND COAL	FT	29N	14W	14	K	1592/S	1320/W	PE
RICHARDSON OPERATING CO	BENALLY 14	3	W KUTZ PICTURED CLIFFS	PC	29N	14W	14	K	1592/S	1320/W	PE
SUNRAY	NM FEDERAL I	6	TOTAH GALLUP	GP	29N	14W	15	A	510/N	555/E	PA
CANDADO	DUNCAN	1	TWIN MOUNDS MV	MV	29N	14W	15	B	747/N	1511/W	PA
CONOCO INC	FC STATE COM	35	BASIN FRUITLAND COAL	FT	29N	14W	16	B	1075/N	1495/E	AL
RICHARDSON OPER CO	ROPCO 16	1	TWIN MOUNDS PC	PC	29N	14W	16	B	997/N	1563/E	PE
RICHARDSON OPER CO	ROPCO 16	1	BASIN FRUITLAND COAL	FT	29N	14W	16	B	997/N	1563/E	PE
DUGAN PRODUCTION CORP	MAYRE	4R	HARPER HILL FR SND PC	PC	30N	14W	27	O	790/S	1850/E	CO
JEROME P MCHUGH	MAYRE	3	WC D3;PICTURED CLIFFS	PC	30N	14W	27	P	890/S	810/E	PA
DUGAN PRODUCTION CORP	MAYRE	4	HARPER HILL FT SAND PC	FT	30N	14W	27	P	790/S	800/E	SI
CELSIUS ENERGY CO	GREG	1	BASIN DAKOTA	DK	30N	14W	27	P	1050/S	1060/E	PA
RICHARDSON OPERATING CO	WF FEDERAL 33	1	TWIN MOUNDS PC	PC	30N	14W	33	B	770/N	1978/E	PE

operator	well_name	well_no	pool	form	twn	rge	sec	ul	ftage_ns	ftage_ew	status
RICHARDSON OPERATING CO	WF FEDERAL 33	1	BASIN FRUITLAND COAL	FT	30N	14W	33	B	770/N	1978/E	PE
RICHARDSON OPERATING CO	WF FEDERAL 33	2	TWIN MOUNDS FT SND PC	PC	30N	14W	33	E	1637/N	746/W	PE
CONOCO INC	FC FEDERAL	36	BASIN FRUITLAND COAL	FT	30N	14W	33	G	1685/N	1495/E	AL
MESA PETROLEUM CO	TWIN MOUNDS FED 33	1	BASIN DAKOTA	DK	30N	14W	33	G	1760/N	1785/E	PA
CONOCO INC	TWIN MOUNDS FEDERAL	1	BASIN DAKOTA	DK	30N	14W	33	H	1850/N	940/E	CO
CONOCO INC	FC FEDERAL COM	31	BASIN FRUITLAND COAL	FT	30N	14W	33	K	1890/S	2005/W	AL
RICHARDSON OPER CO	WF FEDERAL 33	3	TWIN MOUNDS FRT SAND PC	FP	30N	14W	33	N	1070/S	1454/W	CO
CONOCO INC	RUSSELL	2	TWIN MOUNDS FRT SND PC	FP	30N	14W	33	N	500/S	1688/W	PA
RICHARDSON OPERATING CO	WF FEDERAL 33	3	BASIN FRUITLAND COAL	FT	30N	14W	33	N	1070/S	1454/W	SP
DUGAN PRODUCTION CORP	CLINE	1	TWIN MOUNDS FRUITLAND PC	FP	30N	14W	33	O	660/S	1980/E	CO
RICHARDSON OPERATING CO	WF FEDERAL 34	3	HARPER HILL FTSND PC	PC	30N	14W	34	A	1060/N	975/E	CO
RICHARDSON OPERATING CO	WF FEDERAL 34	3	BASIN FRUITLAND COAL	FT	30N	14W	34	A	1060/N	975/E	CO
RICHARDSON OPERATING CO	WF FEDERAL 34	2	BASIN FRUITLAND COAL	FT	30N	14W	34	N	1055/S	1470/W	CO
RICHARDSON OPERATING CO	WF FEDERAL 34	2	HARPER HILL FT SD PC EXT	PC	30N	14W	34	N	1055/S	1470/W	CO
LADD PET CORP	AZTEC 34	2	HARPERHILL FRT SAND PC	FP	30N	14W	34	N	1120/S	1540/W	PA
RICHARDSON OPERATING CO	WF FEDERAL 34	1	HARPER HILL FT SD PC EXT	PC	30N	14W	34	O	895/S	1595/E	CO
COMPASS EXPLORATION	AZTEC 34	1	BASIN DAKOTA	DK	30N	14W	34	P	790/S	790/E	PA
LADD PET CORP	AZTEC	1X	BASIN DAKOTA	DK	30N	14W	35	C	790/N	1850/W	PA
THOMAS A DUGAN	AZTEC	1	HARPERHILL FRT SND PC EXT	FP	30N	14W	35	D	890/N	890/W	PA
DUGAN PRODUCTION CORP	AZTEC 35	3	HARPERHILL FRT SAND PC	FP	30N	14W	35	D	790/N	790/W	PA
DUGAN PRODUCTION CORP	JIGGS	1	HARPER HILL FR SD PC	FP	30N	14W	35	E	1735/N	1010/W	CO
DUGAN PRODUCTION CORP	WINIFRED	2	HARPER HILL FT SAND PC	FP	30N	14W	35	G	1850/N	1500/E	SI
RICHARDSON OPERATING CO	AZTEC	2E	BASIN DAKOTA	DK	30N	14W	35	G	1600/N	1600/E	CO
DUGAN PRODUCTION CORP	TABOR COM	90	BASIN FRUITLAND COAL	FT	30N	14W	35	H	2510/N	1100/E	CO
DUGAN PRODUCTION CORP	JIGGS	2	HARPER HILL FR SD PC	FP	30N	14W	35	I	1450/S	910/E	CO
RICHARDSON OPERATING CO	AZTEC	4	HARPER HILL FT SAND PC	FP	30N	14W	35	N	1120/S	1600/W	CO
RICHARDSON OPER CO	PERF	90	BASIN FRUITLAND COAL	FT	30N	14W	35	N	790/S	1800/W	CO
LADD PET CORP	AZTEC 35	5	HARPERHILL FRT SAND PC	FP	30N	14W	35	O	1120/S	1640/E	PA
LADD PET CORP	AZTEC	2	BASIN DAKOTA	DK	30N	14W	35	P	890/S	990/E	PA
DUGAN PRODUCTION CORP	STELLA NEEDS A COM	1	BASIN DAKOTA	DK	30N	14W	36	K	1650/S	1650/W	ZA
DUGAN PRODUCTION CORP	STELLA NEEDS A COM	1	SWD; MESAVERDE	MV	30N	14W	36	K	1650/S	1650/W	WD
DUGAN PRODUCTION CORP	O HENRY	1	BASIN FRUITLAND COAL	FT	30N	14W	36	N	790/S	1850/W	CO
HENRY S BIRDSEYE	PUBCO STATE 36	1	WC D3;PICTURED CLIFFS		30N	14W	36	N	790/S	1850/W	PA
DUGAN PRODUCTION CORP	CAMP DAVID COM	2	HARPER HILL FT SND PC	PC	30N	14W	36	O	970/S	1600/E	CO

Attachment VI – XII

VI

No wells penetrate the injection interval within the area of review.

VII

1) Proposed average injection rate is 700 bwpd with a maximum of 1000 bwpd.

2) System will be closed.

3) Proposed average and maximum injection pressure 650 psi.

4) Source of injected water will be Fruitland Coal wells and Gallup/Dakota wells within the immediate area. Attachment VIIa is an analysis of the Fruitland water and Attachment VIIb is the Gallup/Dakota water analysis.

5) An analysis of the disposal zone water is in Attachment VIIc.

VIII

The geologic information for the Point Lookout and Menefee members of the Mesaverde was previously submitted in Administrative Order SWD-595 (6/7/1995) and Order No. R-11371 (4/20/2000) and R-11371A (10/19/2000). The ladder Order is for the Stella Needs A Com No. 1 SWD well located approximately 10,000' Northeast of the Locke 1 location.

There are no underground sources of drinking water present.

IX

If needed, stimulation will be 4,000 gal. 15% HCl acid.

X

Logs are on file with the Division.

XI

There are no fresh water wells within one mile of this location.

XII

Dugan Production Corp. has examined available geologic and engineering data and found no evidence of open faults or any other hydrologic connection between the disposal zone and any underground source of drinking water.

Attachment VIID
Dugan Production Corp.
Locke 1 – Conversion to SWD

...MPANY OF NORTH A...RICA

API W A T E R A N A L Y S I S

...pany: DUGAN PROD.
Field:
Well: STELLA NEEDS A COM #1E
Depth:
Formation: POINT LOOKOUT/MESA VERDE
State: N.M.
County:

W.C.N.A. Sample No.: S106695
Legal Description:
Lease or Unit:
Water.B/D:
Sampling Point: SWAB
Sampled By: J. ALEXANDER
Date Sampled: 04/24/95

Type of Water(Produced,Supply, ect.):

PROPERTIES

pH:	6.30	Iron, Fe(total):	250
Specific Gravity:	1.050	Sulfide as H2S:	0
Resistivity (ohm-meter):	.13	Total Hardness:	
Tempature:	78F	(see below)	

D I S S O L V E D SOLIDS

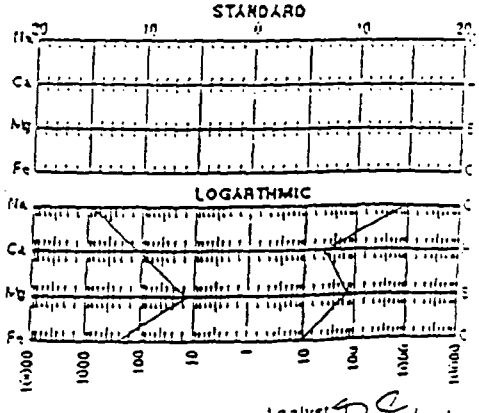
CATIONS	mg/l		me/l			
Sodium, Na:	20470	:	890			
Calcium, Ca:	2084	:	104	Sample(ml):	1.0 ml of EDTA:	5.20
Magnesium, Mg:	170	:	14	Sample(ml):	1.0 ml of EDTA:	.70
Barium, Ba:	N/A	:	N/A			
Potassium, K:		:				

ANIONS	mg/l		me/l			
.5000Chloride, Cl:	31905	:	900	Sample(ml):	1.0 ml of AgNO3:	1.80
Sulfate, SO4:	3750	:	78			
Carbonate, CO3:		:		Sample(ml):	1.0 ml of H2SO4:	
Bicarbonate, HCO3:	1830	:	30	Sample(ml):	1.0 ml of H2SO4:	.30

Total Dissolved Solids (calculated): 60209
Total Hardness: 5900 Sample(ml): 1.0 ml of EDTA:

REMARKS AND RECOMMENDATIONS:

WATER PATTERNS-me/l



Analyst: DC
Date Analized: 4/24/95

Attachment VIIa
Dugan Production Corp.
Locke 1 – Conversion to SWD

COMPANY

WATER ANALYSIS #FW01W363

FARMINGTON LAB

GENERAL INFORMATION			
OPERATOR:	DUGAN PRODUCTION	DEPTH:	
WELL:	FEDERAL "I" 5R	DATE SAMPLED:	01/29/99
FIELD:		DATE RECEIVED:	01/29/99
SUBMITTED BY:		COUNTY:	STATE:NM
WORKED BY	:D. SHEPHERD	FORMATION:	
PHONE NUMBER:			

SAMPLE DESCRIPTION

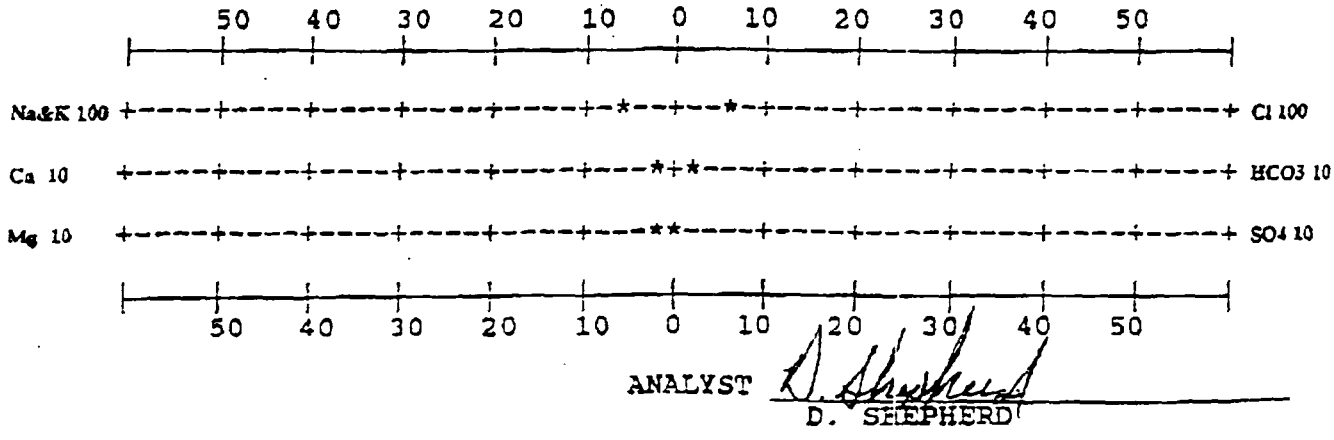
SAMPLE FOR ANALYSIS

PHYSICAL AND CHEMICAL DETERMINATIONS

SPECIFIC GRAVITY:	1.023 @ 76°F	PH:	7.55
RESISTIVITY (MEASURED):	0.200 ohms @ 78°F		
IRON (FE++) :	0 ppm	SULFATE:	0 ppm
CALCIUM:	235 ppm	TOTAL HARDNESS	1,125 ppm
MAGNESIUM:	131 ppm	BICARBONATE:	990 ppm
CHLORIDE:	19,061 ppm	SODIUM CHLORIDE(Calc)	31,355 ppm
SODIUM+POTASS:	12,214 ppm	TOT. DISSOLVED SOLIDS:	33,390 ppm
H2S: NO TRACE		POTASSIUM (PPM):	56

REMARKS

STIFF TYPE PLOT (IN MEQ/L)



ANALYST D. Shepherd
D. SHEPHERD

** TOTAL PAGE.03 **

Attachment XIV
Dugan Production Corp.
Application to Convert Locke 1 to SWD

Proof of notice to the following parties is attached:

Surface Owner
BLM
1235 La Plata Highway
Farmington, NM 87401

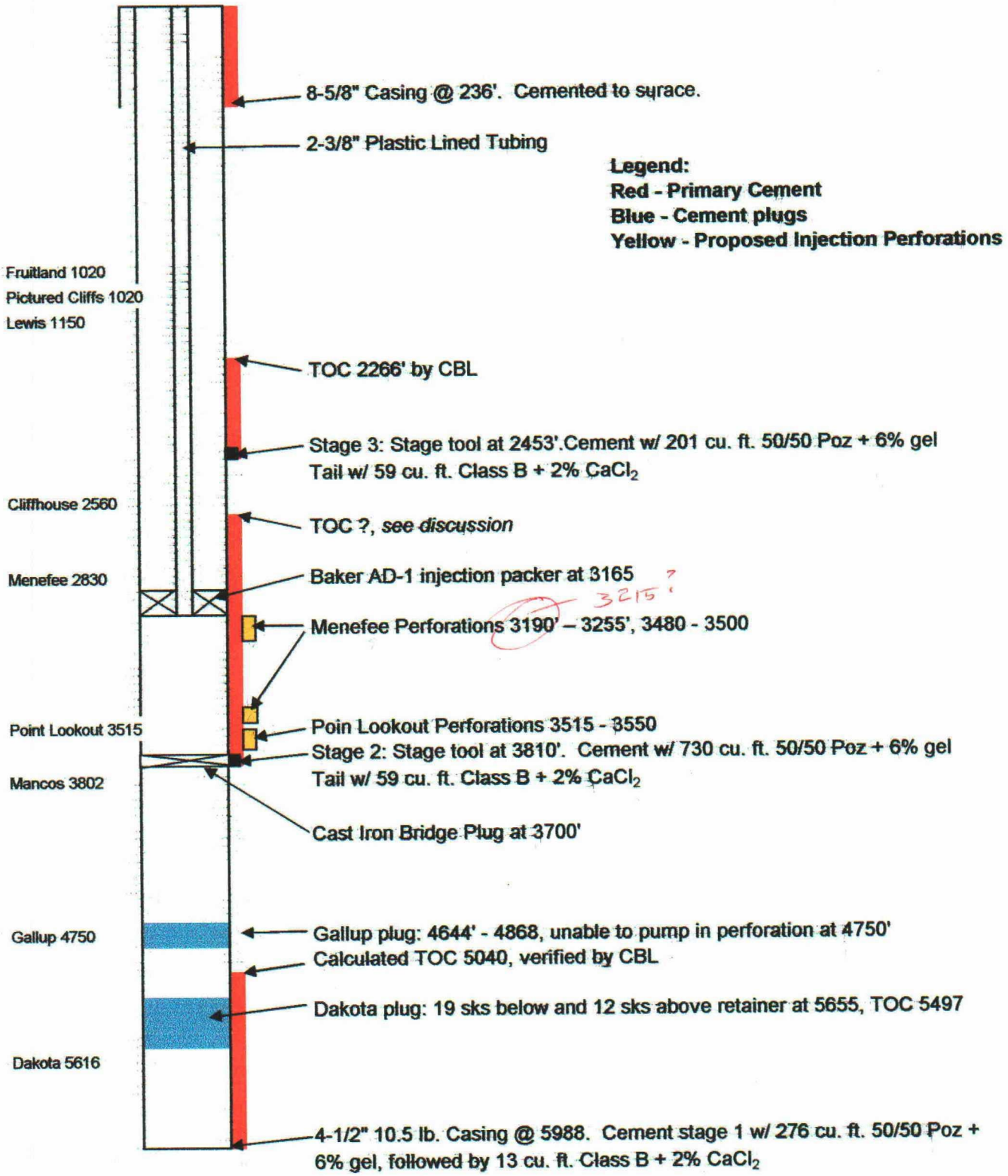
Grazing Owner
Ms. Rilla King
P.O. Box 186
Dolores, CO 81323

Offset Operator
Richardson Operating Co.
1700 Lincoln, Suite 1700
Denver, CO 80203

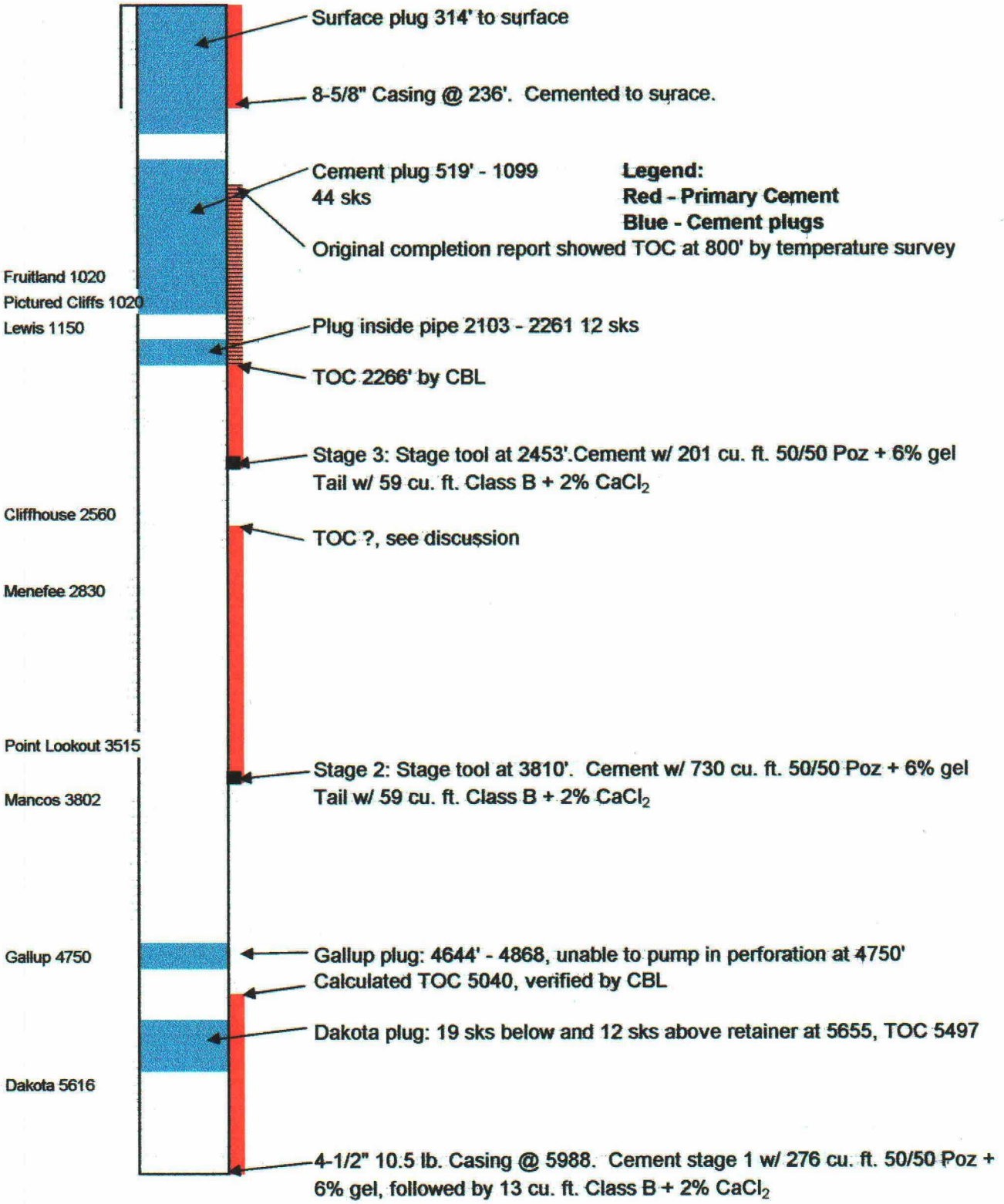
Offset Operator
Energen Resources Corporation
2198 Bloomfield Highway
Farmington NM 87401

Attached is a proof of publication in the Farmington Daily Times with circulation in the San Juan County, NM area.

DUGAN PRODUCTION CORP.
Locke 1, 1120' fsl & 1120' fel, S.3-T.29N-R.14W, San Juan Co, NM
Wellbore Schematic - **As Prepared to Inject**



DUGAN PRODUCTION CORP.
Locke 1, 1120' fsl & 1120' fel, S.3-T.29N-R.14W, San Juan Co, NM
Wellbore Schematic - **As Plugged**



ENDER: COMPLETE THIS SECTION

Co e items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
Print your name and address on the reverse so that we can return the card to you.
Attach this card to the back of the mailpiece, or on the front if space permits.

Article Addressed to:

ls. Rilla King
P.O. Box 186
Dolores, CO 81323

COMPLETE THIS SECTION ON DELIVERY

A. Received by *(Please Print Clearly)* | B. Date of Delivery 2/28/02

C. Signature
X
☐ Agent
☐ Addressee

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☑ No

3. Service Type
☒ Certified Mail ☐ Express Mail
☐ Registered ☒ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? *(Extra Fee)* ☐ Yes

Article Number *(Copy from service label)* 7000 1670 0010 0492 7354

S Form 3811, July 1999 Domestic Return Receipt 102595-00-M-0952

SENDER: COMPLETE THIS SECTION

- Co e items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

BLM
1235 La Plata Highway
Farmington, NM 87401

COMPLETE THIS SECTION ON DELIVERY

A. Received by *(Please Print Clearly)* Virginia Barber | B. Date of Deliver 2/28/0

C. Signature
X Virginia Barber
☐ Agent
☐ Addresse

D. Is delivery address different from item ? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☒ Certified Mail ☐ Express Mail
☐ Registered ☒ Return Receipt for Merchandis
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? *(Extra Fee)* ☐ Yes

2. Article Number *(Copy from service label)* 7000 1670 0010 0492 7347

PS For 3811, July 1999 Domestic Return Receipt 102595-00-M-095

ENDER: COMPLETE THIS SECTION

Cor e items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
Print your name and address on the reverse so that we can return the card to you.
Attach this card to the back of the mailpiece, or on the front if space permits.

Article Addressed to:

Mr. Gary Brink
Energen Resources Corporation
2198 Bloomfield Highway
Farmington, NM 87401

COMPLETE THIS SECTION ON DELIVERY

A. Received by *(Please Print Clearly)* Audrey Close | B. Date of Delivery 2/28/02

C. Signature
X Audrey Close
☑ Agent
☐ Addressee

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☒ Certified Mail ☐ Express Mail
☐ Registered ☒ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? *(Extra Fee)* ☐ Yes

Article Number *(Copy from service label)* 7000 1670 0010 0492 7361

PS Form 3811, July 1999 Domestic Return Receipt 102595-00-M-0952

SENDER: COMPLETE THIS SECTION

- Co te items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Mr. Dave Richardson
Richardson Operating
1700 Lincoln, Suite 1700
Denver, CO 80203

COMPLETE THIS SECTION ON DELIVERY

A. Received by *(Please Print Clearly)* | B. Date of Deliv 3/4/0

C. Signature
X
☐ Agent
☐ Addres

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☒ *Certified Mail* ☐ *Express Mail*
☐ Registered ☒ Return Receipt for Merchanc
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? *(Extra Fee)* ☐ Yes

2. Article Number *(Copy from service label)* 7000 1670 0010 0492 7378

PS Form 3811, July 1999 Domestic Return Receipt 102595-00-M-09

AFFIDAVIT OF PUBLICATION

Ad No. 45751

STATE OF NEW MEXICO
County of San Juan:

CONNIE PRUITT, being duly sworn says: That she is the Classified Manager of THE DAILY TIMES, a daily newspaper of general circulation published in English at Farmington, said county and state, and that the hereto attached Legal Notice was published in a regular and entire issue of the said DAILY TIMES, a daily newspaper duly qualified for the purpose within the meeting of Chapter 167 of the 1937 Session Laws of the State of New Mexico for publication on the following day(s): Wednesday, February 27, 2002.

And the cost of the publication is $21.48

Connie Pruitt

ON 2/28/02 CONNIE PRUITT appeared before me, whom I know personally to be the person who signed the above document.

Penny Beck

My Commission Expires April 2, 2004.

COPY OF PUBLICATION

918 Legals

Dugan Production Corp., P.O. Box 420, Farmington, NM 87401, John Alexander, has applied for permission to convert the Locke No. 1 well to salt water disposal. The well is located 1120' fsl & 1120' fel, S.3-T.29N-R.14W, San Juan Co., NM. The injection interval will be the Mesaverde from 3215' to 3550'. Maximum injection rate will be 1,000 bwpd at a maximum pressure of 650 psi. Interested parties must file objections with the New Mexico Oil Conservation Division, 1220 South St, Frances Drive, P.O. Box 6429, Santa Fe, NM 87505 within 15 days.

Legal No. 45751, published in The Daily Times, Farmington, New Mexico, Wednesday, February 27, 2002.

Form 9-330
(Rev. 5-63)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN DUPLICATE* (See other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R355.5.

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

RECEIVED
JUL 25 1983
OIL CON. DIV.
DIST. 3

RECEIVED
JUL 14 1983
U. S. GEOLOGICAL SURVEY
FARMINGTON, N. M.

5. LEASE DESIGNATION AND SERIAL NO.: SF-078110

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME: Locke

9. WELL NO.: 1

10. FIELD AND POOL, OR WILDCAT: Basin Dakota

11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA: Section 3, T29N, R14W

12. COUNTY OR PARISH: San Juan

13. STATE: New Mexico

1a. TYPE OF WELL: OIL WELL ☐ GAS WELL XX DRY ☐ Other

b. TYPE OF COMPLETION: NEW WELL XX WORK OVER ☐ DEEP-EN ☐ PLUG BACK ☐ DIFF. RESVR. ☐ Other

2. NAME OF OPERATOR: Southland Royalty Company

3. ADDRESS OF OPERATOR: P. O. Drawer 570, Farmington, New Mexico 87499

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)*
At surface: 1120' FSL & 1120' FEL
At top prod. interval reported below
At total depth

14. PERMIT NO.

15. DATE SPUDDED	16. DATE T.D. REACHED	17. DATE COMPL. (Ready to prod.)	18. ELEVATIONS (DF, RKB, RT, GR, ETC.)*	19. ELEV. CASINGHEAD
6-6-83	6-15-83	6-25-83	5488' KB	5476' GL

20. TOTAL DEPTH, MD & TVD	21. PLUG, BACK T.D., MD & TVD	22. IF MULTIPLE COMPL., HOW MANY*	23. INTERVALS DRILLED BY	ROTARY TOOLS	CABLE TOOLS
6000'	5945'		→	0-6000'	----

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)*: 5728'-5744' (Dakota)

25. WAS DIRECTIONAL SURVEY MADE: Devation

26. TYPE ELECTRIC AND OTHER LOGS RUN: CDL/CNL, IEL and CBL

27. WAS WELL CORED: No

28. CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
8-5/8"	24#	236'	12-1/4"	**SEE REVERSE SIDE**	
4-1/2"	10.5#	5988'	7-7/8"	" " "	

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)
----	---	-----	-----	

30. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)
2-3/8"	5738'	-

31. PERFORATION RECORD (Interval, size and number)
Dakota: (Total of 4 holes)
5728', 5732', 5737', 5744'

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
5728'-5744'	Frac'd with 40,124 gals of frac fluid and 25,000# of 20/40 sand.

33.* PRODUCTION

DATE FIRST PRODUCTION	PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump)	WELL STATUS (Producing or shut-in)
7-8-83	Flowing	Shut-In

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD →	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO
7-8-83	3	3/4"		---	83	----	----

FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE →	OIL—BBL.	GAS—MCF.	WATER—BBL.	OIL GRAVITY-API (CORR.)
46	269		----	666	----	---

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.): To be sold

TEST WITNESSED BY: Tom Wagner

35. LIST OF ATTACHMENTS

ACCEPTED FOR RECORD

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

SIGNED Esther J. Grayson TITLE Secretary DATE JUL 22 1983

*(See Instructions and Spaces for Additional Data on Reverse Side)

NMOCC

FARMINGTON RESOURCE AREA
FARMINGTON, NEW MEXICO
BY SMF

INSTRUCTIONS

General: This form is designed for submitting a complete and correct well completion report and log on all types of lands and leases to either a Federal agency or a State agency, or both, pursuant to applicable Federal and/or State laws 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 and/or State office. See instructions on items 22 and 24, and 33, below regarding separate reports for separate completions.

If not filed prior to the time this summary record is submitted, copies of all currently available logs (drillers, geologists, sample and core analysis, all types electric, etc.), formation and pressure tests, and directional surveys, should be attached hereto, to the extent required by applicable Federal and/or State laws and regulations. All attachments should be listed on this form, see item 35.

Item 4: If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.

Item 18: Indicate which elevation is used as reference (where not otherwise shown) for depth measurements given in other spaces on this form and in any attachments.

Items 22 and 24: If this well is completed for separate production from more than one interval zone (multiple completion), so state in item 22, and in item 24 show the producing interval, or intervals, top(s), bottom(s) and name(s) (if any) for only the interval reported in item 33. Submit a separate report (page) on this form, adequately identified, for each additional interval to be separately produced, showing the additional data pertinent to such interval.

Item 29: "*Sacks Cement*": Attached supplemental records for this well should show the details of any multiple stage cementing and the location of the cementing tool.

Item 33: Submit a separate completion report on this form for each interval to be separately produced. (See instruction for items 22 and 24 above.)

#28 8-5/8" casing cemented with 189 cu.ft. of Class "B" containing 1/4# flocele and 3% $CaCl_2$. PD @ 11:00 AM 6-6-83. Cmt circulated.

4-1/2" casing cemented 1st stage with 276 cu.ft. of Cl B 50/50 Poz, 6% gel & 1/4# celloflake, tailed in w/13 cu.ft. Cl B neat & 2% $CaCL_2$. PD @ 7:30 PM 6-15-83. 2nd stage cmtd w/730 cu.ft. Cl B 50/50 Poz, 6% gel & 1/4# celloflake, tailed in w/59 cu.ft. Cl B neat & 2% $CaCl_2$. PD @ 11:45 PM 6-15-83. 3rd stage cmtd w/201 cu.ft. Cl B 50/50 Poz, Tailed w/59 cuft Cl B + 2% $CaCl_2$

37. SUMMARY OF POROUS ZONES:
SHOW ALL IMPORTANT ZONES OF POROSITY AND CONTENTS THEREOF; CORED INTERVALS; AND ALL DRILL-STEM TESTS, INCLUDING DEPTH INTERVAL TESTED, CUSHION USED, TIME TOOL OPEN, FLOWING AND SHUT-IN PRESSURES, AND RECOVERIES

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.
ESTIMATED			6% gel and 1/4# celloflake, tailed in with 59 cu.ft. Cl B neat and 2% $CaCl_2$. PD @ 3:50 AM 6-16-83.
Fruitland	700'		
Pictured Cliffs	1020'		
Lewis	1150'		
Chacra	1668'		
DV tool	2453'		
Cliff House	2560'		
Point Lookout	3515'		
DV Tool	3810'		
Gallup	4750'		
Graneros	5563'		
Dakota	5616'		

38. GEOLOGIC MARKERS

NAME	TOP MEAS. DEPTH	TOP TRUE VERT. DEPTH

RECEIVED
AUG - 4 1983
OIL CONSERVATION DIVISION
SANTA FE

U.S. GOVERNMENT PRINTING OFFICE 043—16—83828-1

Submitted in lieu of Form 3160-5

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED
BLM MAIL ROOM
96 MAR 1 AM 8 52
96 FEB 23 AM 8:39

Sundry Notices and Reports on Wells

070 FARMINGTON, NM

RECEIVED
FEB 28 1996
OIL CON. DIV.
DIST. 3

1. **Type of Well**
GAS

2. **Name of Operator**
MERIDIAN OIL

3. **Address & Phone No. of Operator**
PO Box 4289, Farmington, NM 87499 (505) 326-9700

4. **Location of Well, Footage, Sec., T, R, M**
1120'FSL, 1120'FEL, Sec.3, T-29-N, R-14-W, NMPM

5. **Lease Number**
SF-078110

6. **If Indian, All. or Tribe Name**

7. **Unit Agreement Name**

8. **Well Name & Number**
Locke #1

9. **API Well No.**
30-045-25630

10. **Field and Pool**
Basin Dakota

11. **County and State**
San Juan Co, NM

12. **CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OTHER DATA**

Type of Submission	Type of Action		
___ Notice of Intent	_X_ Abandonment	___ Change of Plans	
	___ Recompletion	___ New Construction	
_X_ Subsequent Report	___ Plugging Back	___ Non-Routine Fracturing	
	___ Casing Repair	___ Water Shut off	
___ Final Abandonment	___ Altering Casing	___ Conversion to Injection	
	___ Other -		

13. **Describe Proposed or Completed Operations**

2-5-96 MIRU. ND WH. NU BOP. TOOH w/182 jts 2 3/8" tbg. SDON.

2-6-96 TIH w/4 1/2" gauge ring to 5700'. TOOH. TIH w/4 1/2" cmt retainer, set @ 5655'. PT tbg to 1500 psi, OK. Load hole & circ w/10 bbl wtr. PT csg to 500 psi/5 min, OK. Establish injection into Dakota perfs. Plug #1: pump 19 sx Class "B" cmt below cmt retainer into Dakota perfs, 12 sx Class "B" cmt above cmt retainer, TOC @ 5497'. TOOH. TIH, perf 3 sqz holes @ 4800'. Load hole w/10 bbl wtr. Attempt to establish injection. (Verbal approval to change plans from Marilyn Deaton, BLM). Perf 3 sqz holes @ 4750'. Load hole w/1 bbl wtr. Attempt to establish injection. TIH to 4868'. Plug #2: pump 17 sx Class "B" cmt inside csg @ 4644-4868'. TOOH to 2261'. Load hole w/5.5 bbl wtr. Plug #3: pump 12 sx Class "B" cmt inside csg @ 2103-2261'. TOOH to 1099'. Load hole w/3 bbl wtr. Plug #4: pump 44 sx Class "B" cmt inside csg @ 519-1099'. TOOH to 314'. Establish circ down csg & out bradenhead. Plug #5: pump 33 sx Class "B" cmt down csg & out bradenhead. Circ 2 bbl cmt to surface. TOOH. WOC. SDON.

2-7-96 ND BOP. Cut off WH. Fill 4 1/2" x 8 5/8" csg annulus w/20 sx Class "B" cmt. Install dry hole marker w/5 sx Class "B" cmt. RD. Rig released. Well plugged and abandoned 2-7-96.

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

Signed Peggy Bradfield Title Regulatory Administrator Date 2/14/96

(This space for Federal or State Office use)
APPROVED BY _____ Title _____ Date _____
CONDITION OF APPROVAL, if any:

APPROVED
FEB 2[illegible] 1996
DISTRICT MANAGER

NMOCD

Form 9-331
Dec. 1973

Form Approved.
Budget Bureau No. 42-R1424

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use Form 9-331-C for such proposals.)

1. oil well ☐ gas well ☒ other

2. NAME OF OPERATOR
Southland Royalty Company

3. ADDRESS OF OPERATOR
P.O. Drawer 570, Farmington, NM 87499

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)
AT SURFACE: 1120' FNL & 1120' FEL
AT TOP PROD. INTERVAL:
AT TOTAL DEPTH:

5. LEASE
SF-078110

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME
Locke

9. WELL NO.
#1

10. FIELD OR WILDCAT NAME
Basin Dakota

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
Section 3, T29N, R14W

12. COUNTY OR PARISH
San Juan

13. STATE
New Mexico

14. API NO.

15. ELEVATIONS (SHOW DF, KDB, AND WD)
5476' GL

16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

REQUEST FOR APPROVAL TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF	☐		☐
FRACTURE TREAT	☐		☐
SHOOT OR ACIDIZE	☐		☐
REPAIR WELL	☐		☐
PULL OR ALTER CASING	☐		☐
MULTIPLE COMPLETE	☐		☐
CHANGE ZONES	☐		☐
ABANDON*	☐		☐
(other) Cement & Casing Report	X		

RECEIVED
JUL 25 1983
U. S. GEOLOGICAL SURVEY
FARMINGTON, N. M.

(NOTE: Report results of multiple completion or zone change on Form 9-330.)

RECEIVED
JUN 29 1983
OIL CON. DIV.
DIST. 3

17. 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.)*

6-15-83 Drilled 7-7//8" hole to a total depth of 6000'. Ran 146 joints (5976') of 4-1/2", 10.5#, K55 casing set at 5988'. Cemented first stage with 276 cubic feet of Class "B" + 6% Gel + 50/50 POZ + 1/4# celloflake. Tail in with 13 cubic feet of Class "B" neat + 2% CaCL2. Plug down at 7:30 pm, on 6-15-83. Cemented second stage with 730 cubic feet Class "B" + 6% Gel + 50/50 POZ + 1/4# Celloflake. Tail in with 59 cubic feet Class "B" Neat + 2% CaCL2. Plug down at 11:45 pm on 6-15-83. Cement third stage with 201 cubic feet of Class "B" + 50/50 POZ + 6% Gel + 1/4# celloflake. Tail in with 59 cubic feet Class "B" Neat plus 2% CaCL2. Plug down at 3:50 am on 6-16-83. Top of cement by temperature survey 800' which indicates adequate separation between Fruitland top at 700' and Pictured Cliff top at 1020'. Ojo Alamo not present.

Subsurface Safety Valve: Manu. and Type _____ Set @ _____ Ft.

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

SIGNED Sherry Morley TITLE Secretary DATE June 20, 1983

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____
CONDITIONS OF APPROVAL, IF ANY:

ACCEPTED FOR RECORD
JUN 28 1983
FARMINGTON DISTRICT
BY SMM

*See Instructions on Reverse Side

NMOCC