

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

CONTACT RE-OPENING  
OFFICE FOR NEAR  
OF COPIES REQUIRED  
(Other instructions on  
reverse side)

BLM Roswell District  
Modified Form No.  
NM060-3160-2

30-015-26806

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/> PLUG BACK <input type="checkbox"/>		5. LEASE DESIGNATION AND SERIAL NO. LC-029387(a)	
2. TYPE OF WELL OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/>		6. IF INDIAN, ALLOTTEE OR TRIBE NAME	
3. NAME OF OPERATOR Southland Royalty Company		7. UNIT AGREEMENT NAME	
3a. AREA CODE & PHONE NO. 915-686-5767		8. FARM OR LEASE NAME Shugart "A"	
4. ADDRESS OF OPERATOR P.O. Box 51810, Midland, TX 79710-1810		9. WELL NO. 12	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.) At surface K, 2310' FSL & 1650' FWL At proposed prod. zone		10. FIELD AND POOL, OR WILDCAT Shugart (Y, 7R, Qn, Gb)	
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE 14 miles Southwest of Maljamar, New Mexico		11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA 29, T-18-S, R-31-E	
15. DISTANCE FROM PROPOSED LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) 330'		12. COUNTY OR PARISH Eddy	
16. NO. OF ACRES IN LEASE 320		13. STATE New Mexico	
17. DISTANCE FROM PROPOSED LOCATION TO NEAREST WELL, DRILLING COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. 975'		17. NO. OF ACRES ASSIGNED TO THIS WELL 40	
18. PROPOSED DEPTH 4050'		20. ROTARY OR CABLE TOOLS Rotary	
21. ELEVATIONS (Show whether DF, RT, GR, ETC.) 3595.5' GR		22. APPROX. DATE WORK WILL START 8-10-91	

23. PROPOSED CASING AND CEMENTING PROGRAM

HOLE SIZE	CASING SIZE	WEIGHT/FOOT	GRADE	THREAD TYPE	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	8-5/8"	24#	K-55	STC	500'	310 sxs Circulate
7-7/8"	5-1/2"	15.5#	K-55	LTC	4050'	645 sxs Circulate

Drill 12-1/4" hole to 500'. Set 8-5/8" csg & cmt w/310 sx Class C w/2% calcium chloride Circ to surface. Drill 7-7/8" hole to 4050'. If productive, set 5-1/2" csg & cmt w/350 sx Class C Lite + 6% gel + 5pps salt + 0.25pps Celloseal. Tail w/295 sx Class C circ to surface. Stimulate for production

MUD PROGRAM: 0-500' Fresh water/gel/lime; 500'-3000' Saturated brine (160,000 ppm chlorides); 3000-4050' Mud up using saturated brine/starch for viscosity/fluid loss control. No abnormal pressures/temperatures anticipated.

BOP PROGRAM: 10"-3M BOP stack to be installed on the 8-5/8" and left on for the remainder of the drilling. The stack is to consist of an annular BOP, a blind ram BOP, and one pipe ram BOP. Test BOP's using an independent tester after setting the 8-5/8" csg.

\*\* This well #12 & Well #4 will be in the same 1/4 1/4 section. Only one will produce, the other will be converted to a water injection well following receipt of required approval.

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, 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 and true vertical depths. Give blowout preventer program, if any.

24. SIGNED Maria L. Perez TITLE Production Asst. DATE 7-11-91  
(This space for Federal or State office use)

PERMIT NO. \_\_\_\_\_ APPROVAL DATE \_\_\_\_\_

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE 8-7-91

CONDITIONS OF APPROVAL, IF ANY:  
APPROVAL SUBJECT TO  
GENERAL REQUIREMENTS AND  
SPECIAL STIPULATIONS

\*See Instructions On Reverse Side

ATTACHED  
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.

## INSTRUCTIONS

**GENERAL:** This form is designed for submitting proposals to perform certain well operations, as indicated, on all types of lands and leases for appropriate action by either a Federal 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.

**ITEM 1:** If the proposal is to redrill to the same reservoir at a different subsurface location or to a new reservoir, use this form with appropriate notations. Consult applicable State or Federal regulations concerning subsequent work proposals or reports on the well.

**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 14:** Needed only when location of well cannot readily be found by road from the land or lease description. A plat, or plats, separate or on this reverse side, showing the roads to, and the surveyed location of, the well, and any other required information, should be furnished when required by Federal or State agency offices.

**ITEMS 15 AND 18:** If well is to be, or has been directionally drilled, give distances for subsurface location of hole in any present or objective production zone.

**ITEM 22:** Consult applicable Federal or State regulations, or appropriate officials, concerning approval of the proposal before operations are started.

## NOTICE

The Privacy Act of 1974 and the regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.

**AUTHORITY:** 30 U.S.C. 181 et seq., 25 U.S.C. 396; 43 CFR Part 3160.

**PRINCIPAL PURPOSE:** The information is to be used to process and evaluate your application for permit to drill, deepen, or plug back an oil or gas well.

**ROUTINE USES:** (1) The analysis of the applicant's proposal to discover and extract the Federal or Indian resources encountered. (2) The review of procedures and equipment and the projected impact on the land involved. (3) The evaluation of the effects of proposed operation on surface and subsurface water and other environmental impacts. (4)(5) Information from the record and/or the record will be transferred to appropriate Federal, State, local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecutions, as well as routine regulatory responsibility.

**EFFECT OF NOT PROVIDING INFORMATION:** Filing of this application and disclosure of the information is mandatory only if the lessee elects to initiate drilling operation on an oil and gas lease.

The Paperwork Reduction Act of 1980 (44 U.S.C. 3501 et seq) requires us to inform you that:

This information is being collected to allow evaluation of the technical, safety, and environmental factors involved with drilling for oil and/or gas on Federal and Indian oil and gas leases.

This information will be used to analyze and approve applications.

Response to this request is mandatory only if the lessee elects to initiate drilling operations on an oil and gas lease.

Submit to Appropriate  
District Office  
State Leases - 4 copies  
Fee Leases - 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 1988, Hobbs, NM 88240

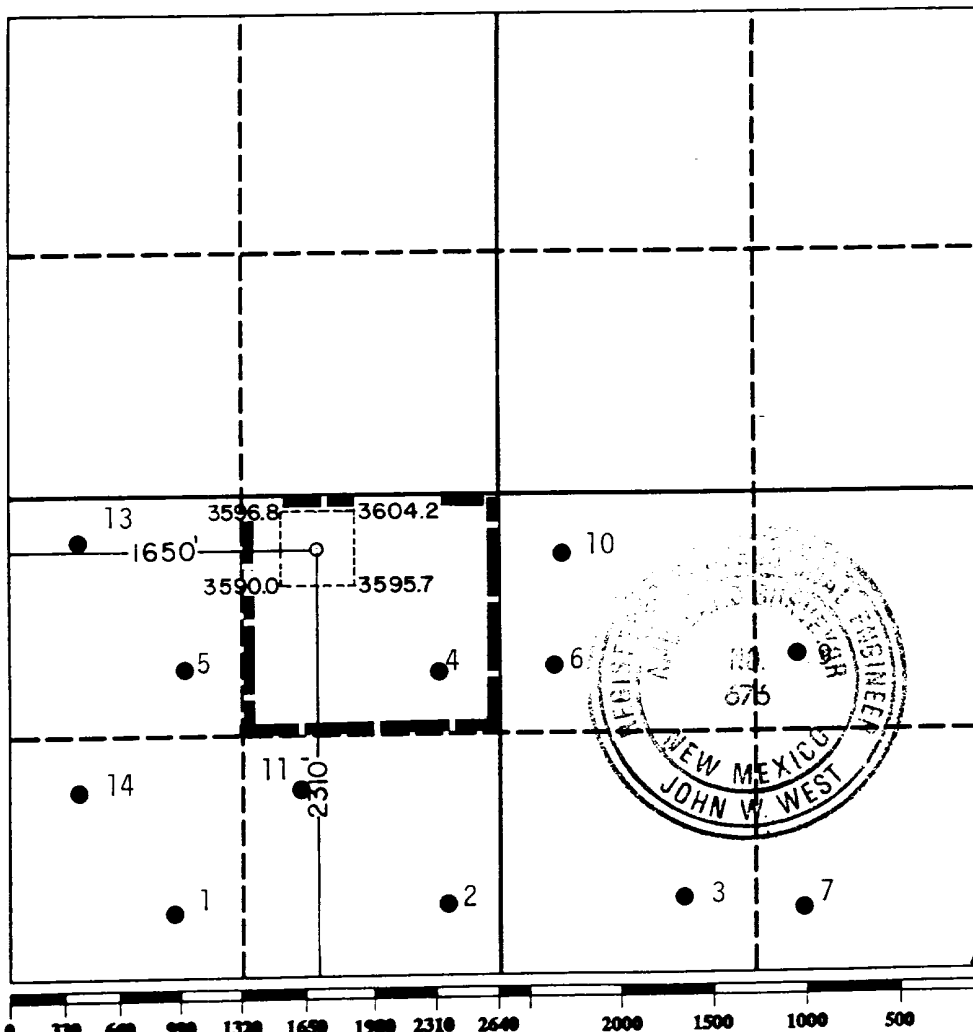
DISTRICT II  
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III  
1000 Rio Brancos 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 Shugart "A"		Well No. 12
Unit Letter K	Section 29	Township 18 South	Range 31 East	County Eddy	
Actual Footage Location of Well: 2310 feet from the South line and 1650 feet from the West line					
Ground level Elev. 3595.5		Producing Formation Qn, Penrose, Grayburg		Pool Shugart (Y, 7R, Qn, Gb)	
				Dedicated Acreage: 40 Acres	
<p>1. Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.</p> <p>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).</p> <p>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.?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No If answer is "yes" type of consolidation _____</p> <p>If answer is "no" list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____</p> <p>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.</p>					



OPERATOR CERTIFICATION

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

Signature

*Maria L. Perez*

Printed Name

Maria L. Perez

Position

Production Asst.

Company

Southland Royalty Company

Date

7-9-91

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 knowledge and belief.

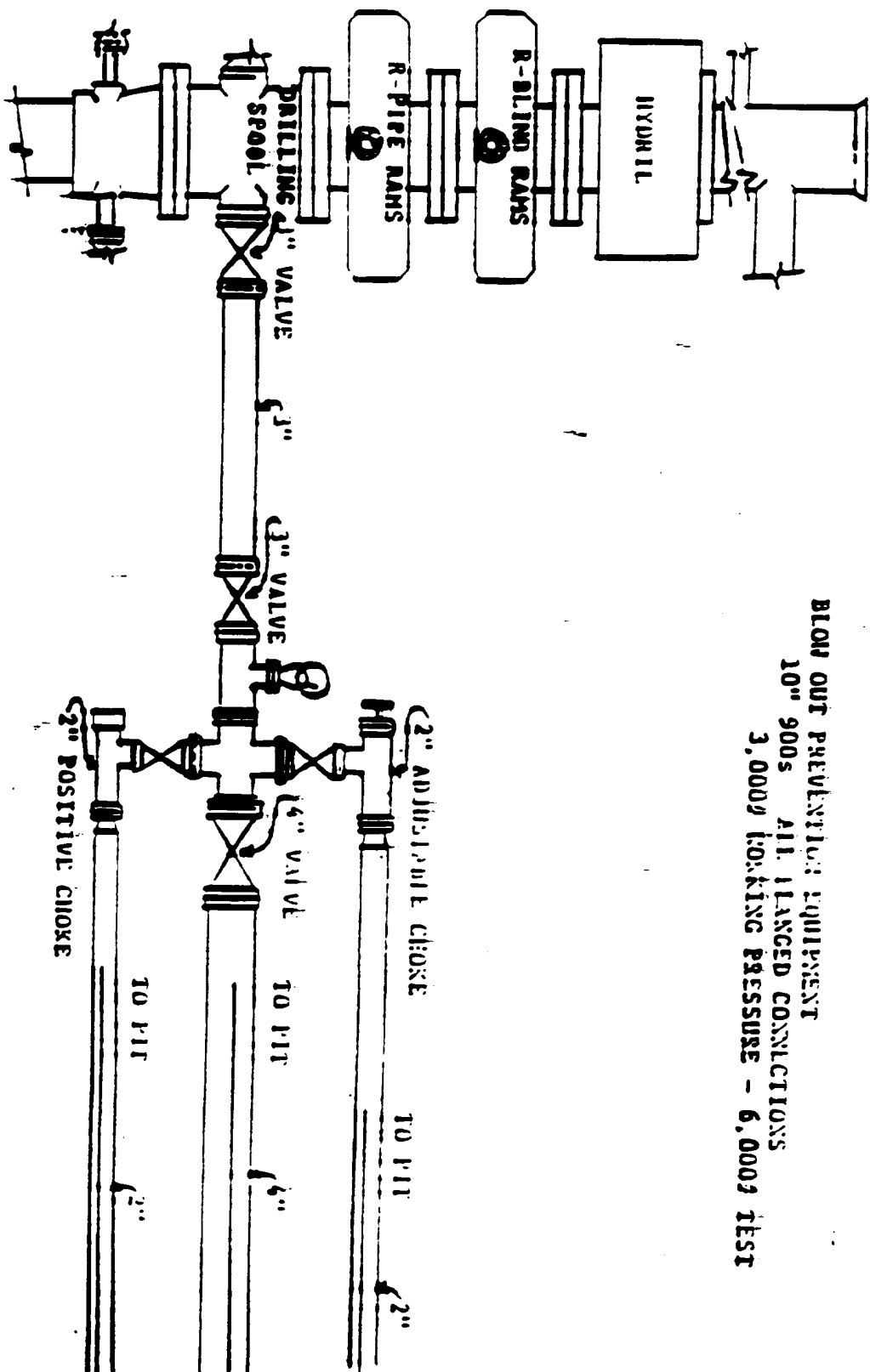
Date Surveyed

April 5, 1991

Signature & Seal of  
Professional Surveyor

*John W. West*

Certificate No. JOHN W. WEST, 676  
RONALD J. EIDSON, 3239



BLOW OUT PREVENTION EQUIPMENT  
 10" 900S ALL FLANGED CONNECTIONS  
 3,000 PSI WORKING PRESSURE - 6,000 PSI TEST

## SURFACE USE PLAN

SOUTHLAND ROYALTY COMPANY  
Shugart "A" #12  
K, 2310' FSL & 1650' FWL  
Sec. 29, T-18-S, R-31-E  
Eddy County, New Mexico  
LC-029387a

This plan is submitted with Application to Drill on above described well. The minerals are federal and the surface is leased for grazing (See below for surface lessee). The purpose of this plan is to describe the location, proposed construction activities and operations plans, magnitude of necessary surface disturbance and procedures to be followed in rehabilitating the surface after completion of the operation so that complete appraisal can be made of the environmental effects associated with the operations.

### 1. Existing Roads:

Exhibit "A" is a portion of a U.S.G.S. topographic map showing the location of the proposed well as staked.

Directions to the well are as follows: From Maljarmar, go west 8.3 miles on U. S. 82, thence south 6.0 miles on County Road 222 to a point on the north line of Section 29, +880' west of its northeast corner.

### 2. Planned Access Road:

An existing lease road will be used. 38' of access road will be constructed to the well site, per BLM standards.

### 3. Location of Existing Wells in Area:

See Exhibit "B"

### 4. Location of Proposed Facilities:

Location of proposed well site and tank battery is shown on Exhibit "C". The battery will be located on proposed well pad; no additional surface disturbance will be necessary.

### 5. Water Supply:

No available surface or sub-surface fresh water exists in the vicinity of the proposed well. Drilling water will be transported or pumped to the drill site from the nearest commercial source.

6. Source of Construction Material:

Caliche for surfacing access road and pad will be obtained from an existing pit located in the of NE/4 of Sec. 29 T18S, R31E. Alternately, caliche will be obtained from on-site or other suitable, BLM approved site.

7. Handling Waste Disposal:

- a. Drill cuttings - disposed into drilling pits.
- b. Drill fluids - allowed to evaporate in drill pits until pits dry.
- c. Produced water during testing - drill pits.
- d. Produced oil during testing - storage tank until sold.
- e. Current laws and regulations pertaining to disposal of human waste will be observed.
- f. Reserve pit will be plastic lined.
- g. Waste paper, garbage, and junk will be disposed of into a special container on location. All waste material will be regularly removed to an approved landfill.
- h. All trash and debris will be buried or removed from well site within 30 days after drilling and/or completion operations are finished.

8. Ancillary Facilities:

None

9. Plans for Restoration of Surface:

- a. After completion of drilling and/or completion of operations, all equipment and other material not needed for operations will be removed. Pits will be filled and locations cleaned of trash and junk to leave well in as aesthetically pleasing a condition as possible.
- b. Any unguarded pits containing fluids will be fenced until filled.
- c. After abandonment of well, surface restoration will be in accordance with the Bureau of Land Management Surface Requirements.

10. Topography and Soil:

New Mexico Archaeological Services, Inc. Report by Dr. J. Loring Haskell has been submitted to Mr. George Rubelmann, BLM, Carlsbad.

11. Land Use:

Grazing and hunting - Federal

Surface Lessee - Not Known

12. Surface Ownership:

Bureau of Land Management (Federal)

13. Operators Representatives:

Field representatives (Responsible for compliance with approved surface use and operations plan):

Meridian Oil Inc.  
416 East Main  
Artesia, NM 88210  
Office: 505-748-1321

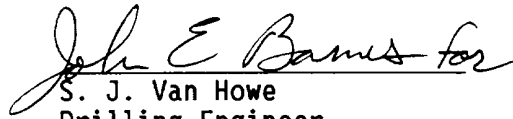
Mr. Johnny Ellis, Drilling Foreman, or a consultant  
Hobbs, New Mexico  
Home: 505-393-8150

Mr. Bill Dawson, Drilling Superintendent  
Midland, Texas Office: 915-686-5600  
Home: 915-682-9037

14. Certification:

I hereby certify that I, or persons under my supervision, have inspected the proposed drill site and access route; that I am familiar with conditions which presently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and the work associated with the operations proposed herein will be performed by Meridian Oil Inc. and its contractors and sub-contractors in uniformity with this plan and the terms and conditions under which it is approved.

Date: 7/11/91

  
S. J. Van Howe  
Drilling Engineer  
Meridian Oil Inc.

CLM/sm

SOUTHLAND ROYALTY COMPANY  
Shugart "A" No. 12  
K, 2310' FSL & 1650' FWL  
Eddy County, New Mexico  
LC-029387a

To supplement BLM Form 3160-3 Application to Drill the following additional information is submitted concerning questions on Page 5 of NTL-6:

1. See Form 3160-3
2. See Form 3160-3
3. The geological name of surface formation is: Ochoa
4. See Form 3160-3
5. See Form 3160-3
6. The estimated tops of important geological markers are:

San Andres	3,880	Grayburg	3,700
Queen Sand	3,250'	Penrose	3,500'
7. The estimated depths at which anticipated water, oil, gas, and mineral bearing strata are as follows:

Queen	2,950'- Oil
Grayburg	3,700'- Oil
Penrose	3,500'- Oil
8. See Form 3160-3. All casing will be new.
9. See Form 3160-3 for depths of strings. Cement volumes and additions as follows:
  - A. 8 5/8" csg: Cement w/250 sx Lite "C" cmt w/2%CaCl<sub>2</sub>. Circulated to surface.
  - B. 5 1/8" csg: Cement w/+350 sx Cl "C". Lite + 6% Gel + 5 pps salt + 0.25 pps celloseal and tail in w/295 sx Cl "C". Circ. to surface.

A caliper log will be run prior to setting 5-1/2" pipe to determine exact cement volumes required.



10. The pressure control diagram is attached to Form 3160-3. The following additional information is as follows:

8 5/8" casing installation: 10" - 3M BOP stack to be installed and tested by an independent tester to 1500 psi before drilling the 8 5/8" casing shoe. The BOP stack is to consist of one blind ram BOP and one pipe ram BOP.

11. See Form 3160-3.

12. A. DST Program: None

B. Core: None

C. Mud Logging: Two-man unit 2400' TD, one-man unit

D. Wire Line Logs:

The following suite of logs will be run in both of the listed intervals:

CNL/LDT/GR/CAL	TD - 2000'
DDL/MSFL/GR	TD - 2000'
GR/CNL	2000' - Surface

13. No abnormal pressures are anticipated. Bottom hole pressures to TD expected to be 500-5000 psi. Bottom hole temperature 105° F. Hydrogen sulfide expected to be <100 ppm. No crooked hole or abnormal deviation problems.
14. Anticipated starting date of spud - on or about 08-10-91. Anticipated drilling time expected to be 10 days from surface to TD.

T 18 S

T 18 S

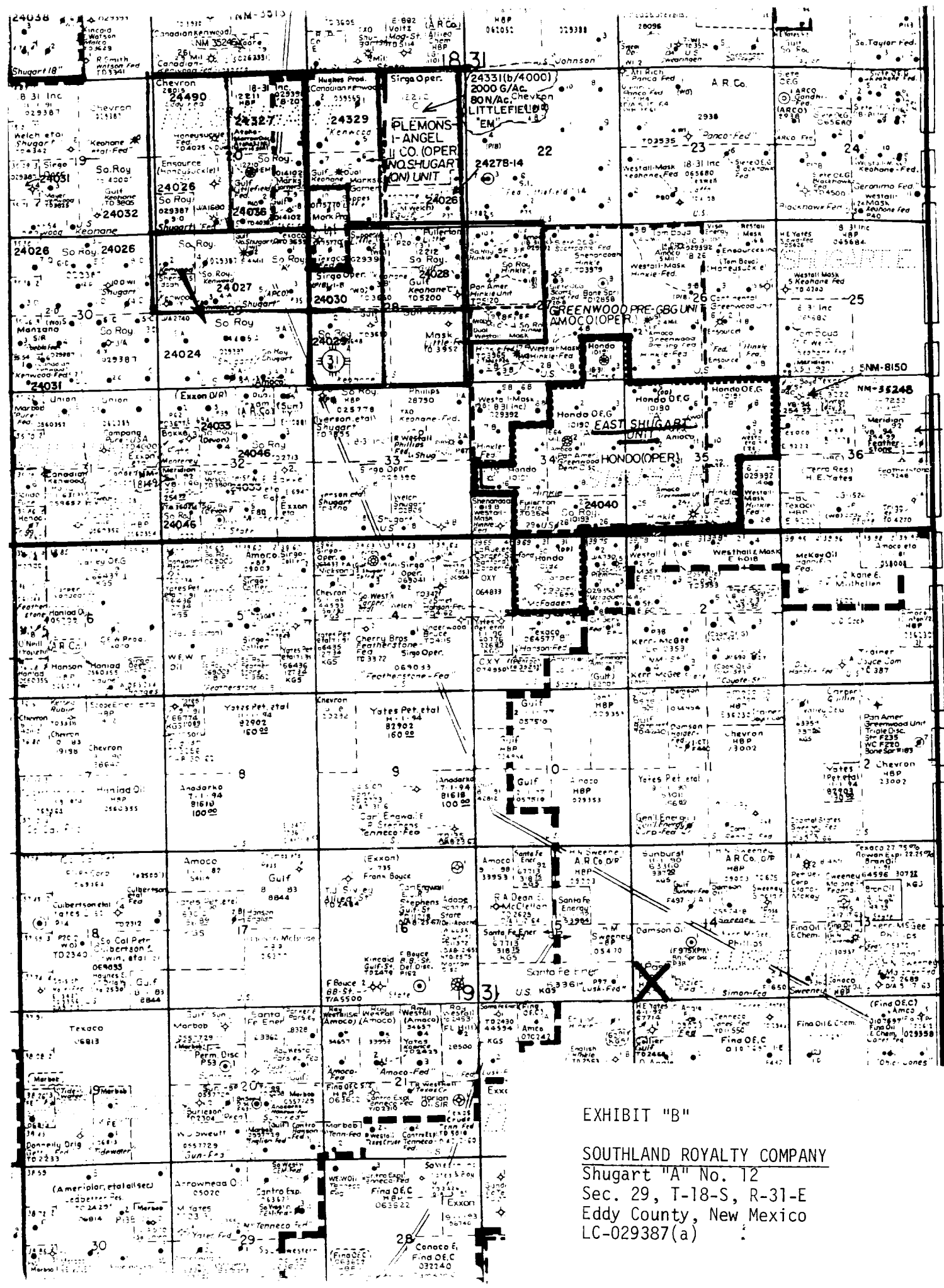


EXHIBIT "B"

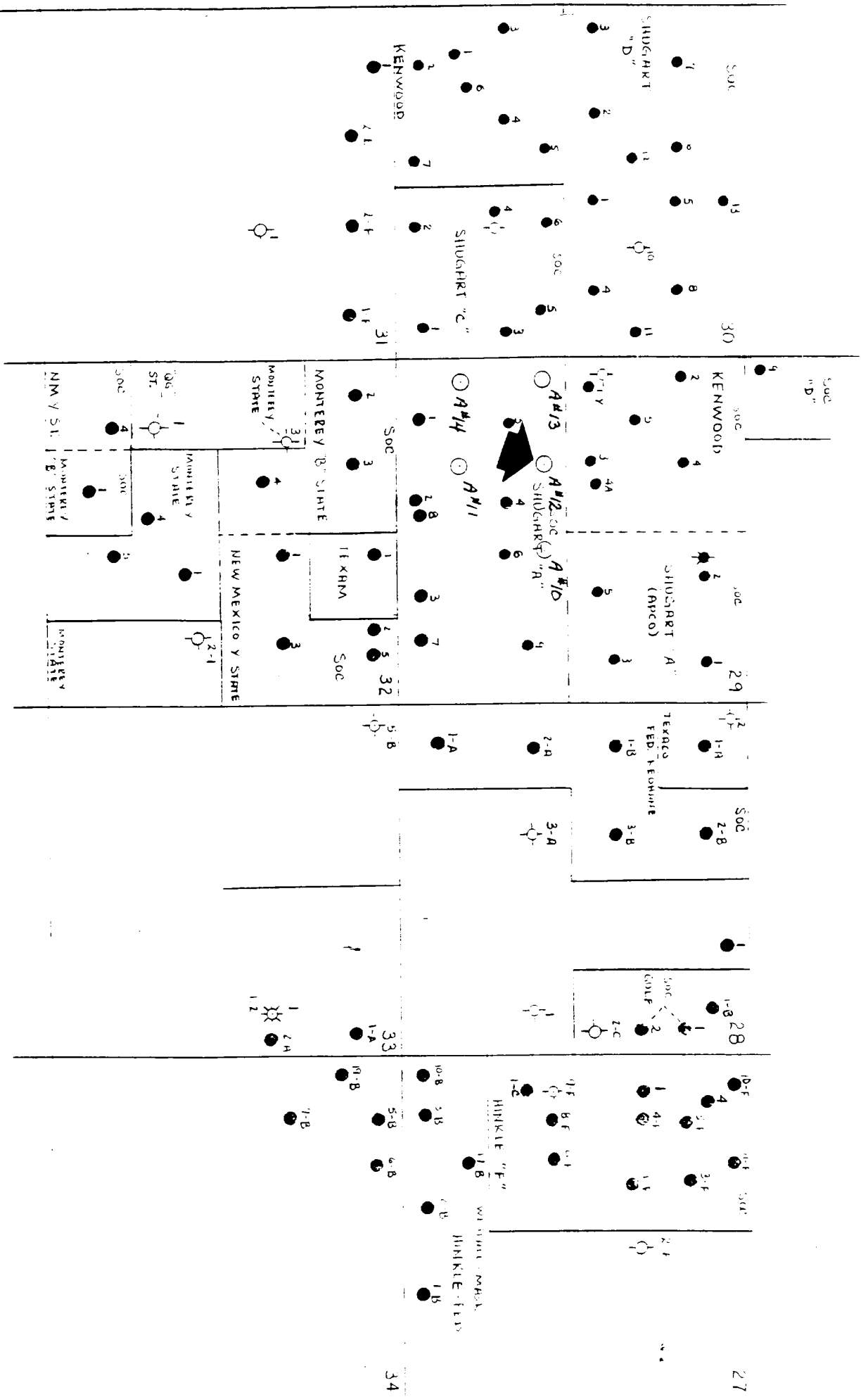
SOUTHLAND ROYALTY COMPANY

Shugart "A" No. 12

Sec. 29, T-18-S, R-31-E

Eddy County, New Mexico

LC-029387(a)



**MERIDIAN**  
**MIDLAND REGION**  
**DRILL WELL LOCATION SPECIFICATIONS**

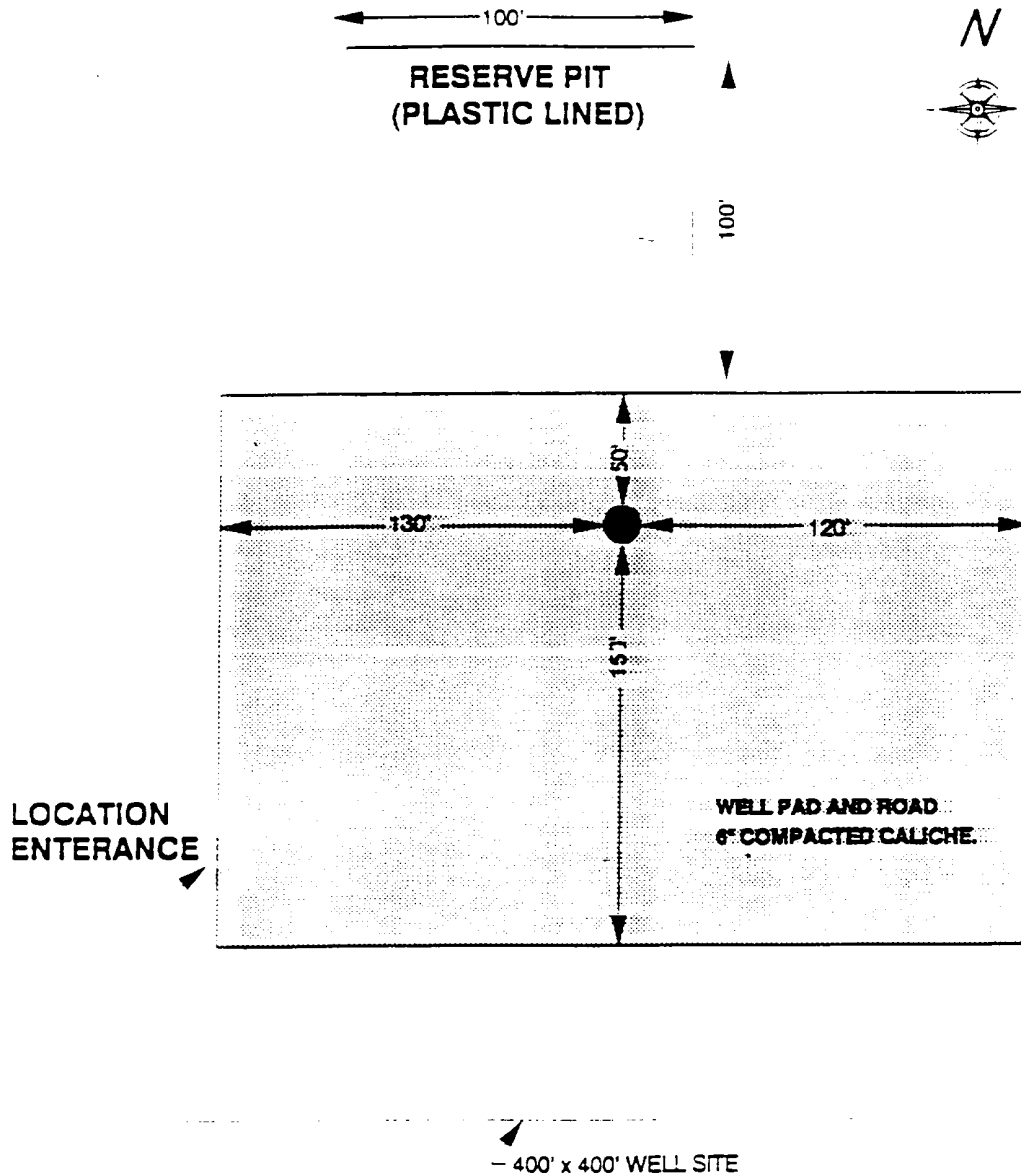


EXHIBIT "C"

SOUTHLAND ROYALTY COMPANY  
Shugart "A" No. 12  
Sec. 29, T-18-S, R-31-E  
Eddy County, New Mexico  
LC-029387

Well Name: Shugart A No.12  
Location: 2310/S & 1650/W, Sec. 29, T.18S., R.31E., Eddy Co., NM  
Directions: From Loco Hills, go east on highway 82 6 miles to St. Hwy. 31. Go south on ST. Hwy. 31. 7 miles to a caliche road. Turn right and go 2/3 mile and then north 2/3 mile to loc.

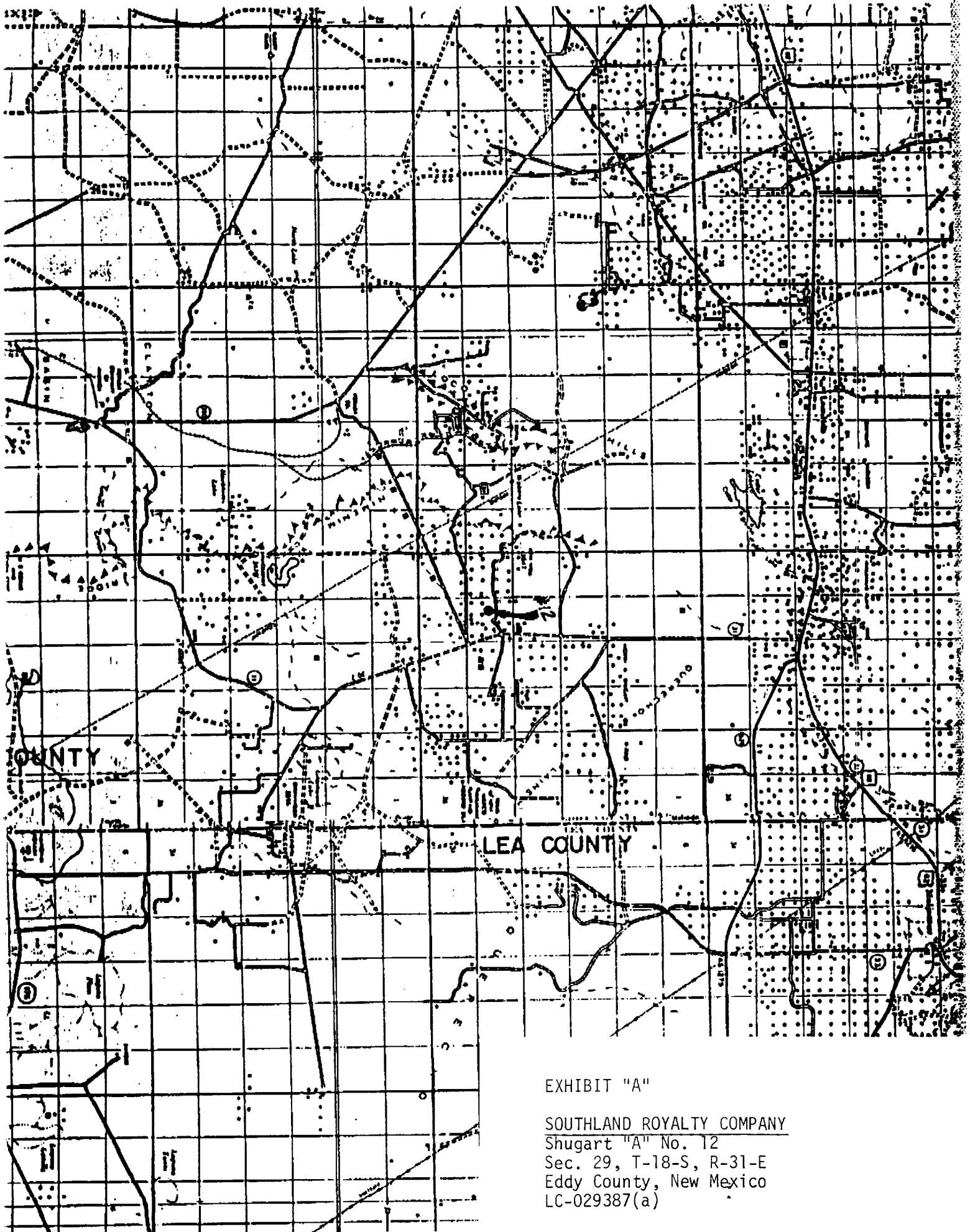
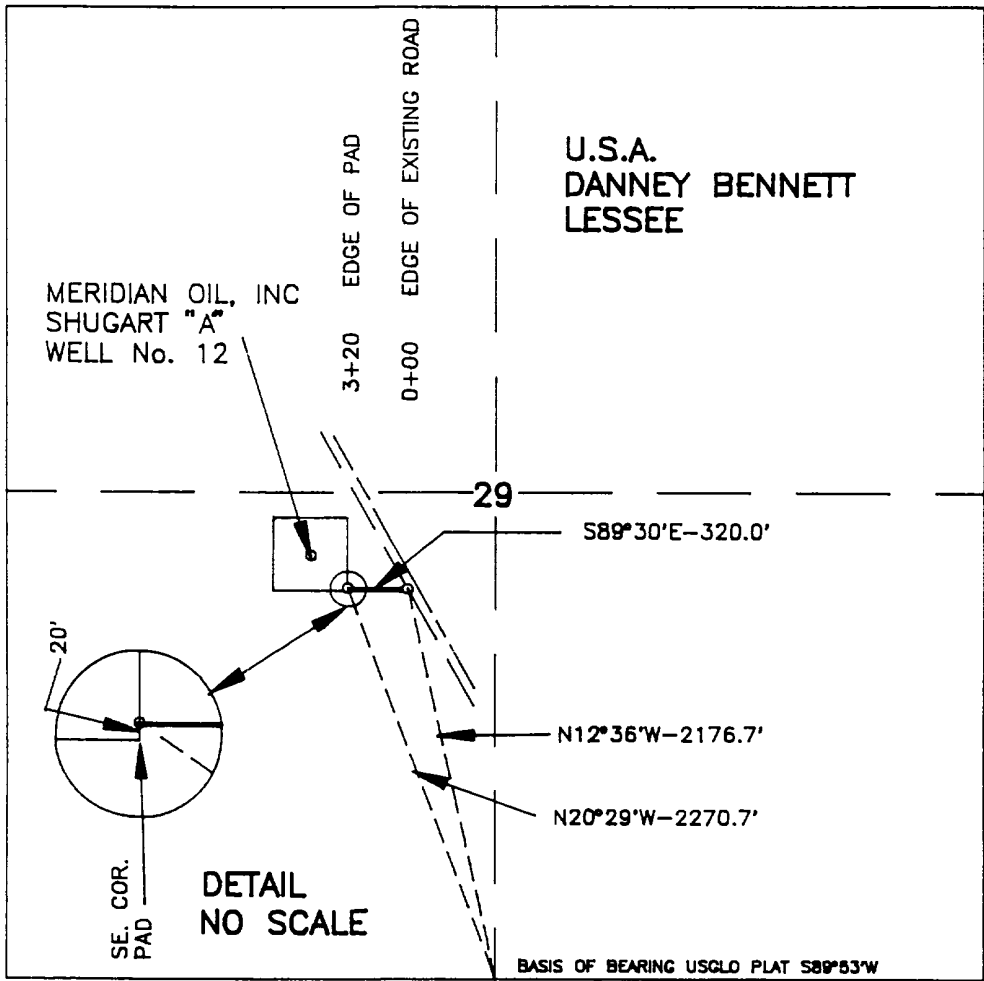


EXHIBIT "A"

SOUTHLAND ROYALTY COMPANY  
Shugart "A" No. 12  
Sec. 29, T-18-S, R-31-E  
Eddy County, New Mexico  
LC-029387(a)

SECTION 29, TOWNSHIP 18 SOUTH, RANGE 31 EAST, N.M.P.M.,  
EDDY COUNTY, NEW MEXICO



LEGAL DESCRIPTION

A STRIP OF LAND 50.0 FEET WIDE, AND 320.0 FEET OR 0.06 MILES IN LENGTH, BEING 25.0 FEET RIGHT AND 25.0 FEET LEFT OF THE ABOVE PLATTED SURVEY OF CENTERLINE.

NOTE: THIS ROAD CONNECTS AN EXISTNG ROAD TO THE SHUGART "A" WELL No. 12



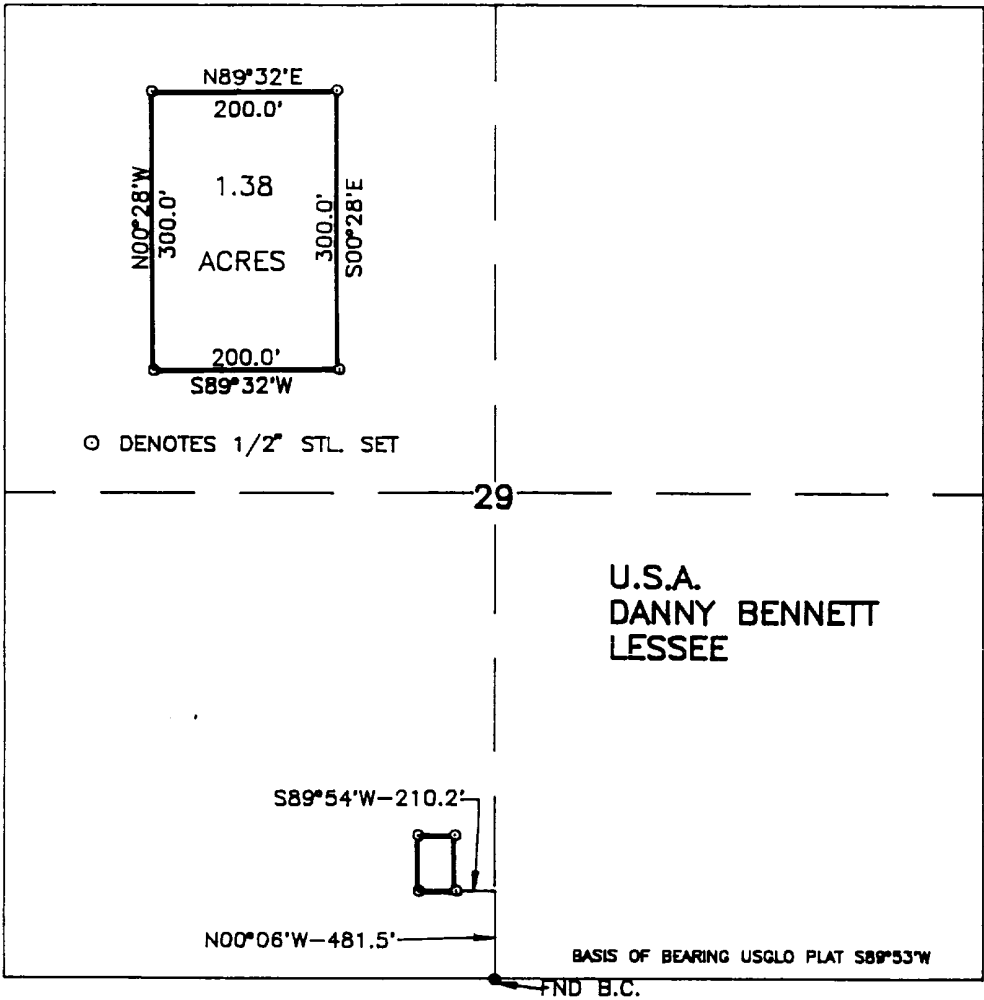
I HEREBY CERTIFY THAT THIS PLAT WAS PREPARED FROM FIELD NOTES OF AN ACTUAL SURVEY AND MEETS OR EXCEEDS ALL REQUIREMENTS FOR LAND SURVEYS AS SPECIFIED BY THIS STATE AND THE ABOVE SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

*John W. West*  
JOHN W. WEST, N.M. P.E. & P.S. No. 676  
TEXAS P.L.S. No. 1138  
GARY L. JONES N.M. P.S. No. 7977  
GARY G. EIDSON TEXAS P.L.S. No. 4735

SHUGART "A" #12 ROAD

SOUTHLAND ROYALTY COMPANY			
A PROPOSED ROAD CROSSING FEDERAL LAND IN SECTION 29, TOWNSHIP 18 SOUTH, RANGE 31 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO.			
JOHN W. WEST ENGINEERING COMPANY CONSULTING ENGINEERS & SURVEYORS - HOBBS, NEW MEXICO			
Survey Date: 4/16/91	Drawn By: PRESLEY		
Approved By:	Sheet 1 of 1 Sheets		
Project Number: 91-04-042	File Name: MOSHRD12		
Date: 4/17/91	Disk: JLP-1	Scale: 1" = 1000'	

SECTION 29, TOWNSHIP 18 SOUTH, RANGE 31 EAST, N.M.P.M.,  
EDDY COUNTY, NEW MEXICO



LEGAL DESCRIPTION

A TRACT OF LAND LOCATED IN SECTION 29, TOWNSHIP 18 SOUTH, RANGE 31 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS.

BEGINNING AT A POINT WHICH LIES N00°06'W A DISTANCE OF 481.5 FEET AND S89°54'W A DISTANCE OF 210.2 FEET FROM THE SOUTH QUARTER CORNER OF SAID SECTION 29; THENCE S89°32'W A DISTANCE OF 200.0 FEET TO A POINT; THENCE N00°28'W A DISTANCE OF 300.0 FEET TO A POINT; THENCE N89°32'E A DISTANCE OF 200.0 FEET TO A POINT; THENCE S00°28'E A DISTANCE OF 300.0 FEET TO THE POINT OF BEGINNING, CONTAINING 1.38 ACRES, MORE OR LESS.



I HEREBY CERTIFY THAT THIS PLAT WAS PREPARED FROM FIELD NOTES OF AN ACTUAL SURVEY AND MEETS OR EXCEEDS ALL REQUIREMENTS FOR LAND SURVEYS AS SPECIFIED BY THIS STATE AND THE ABOVE SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

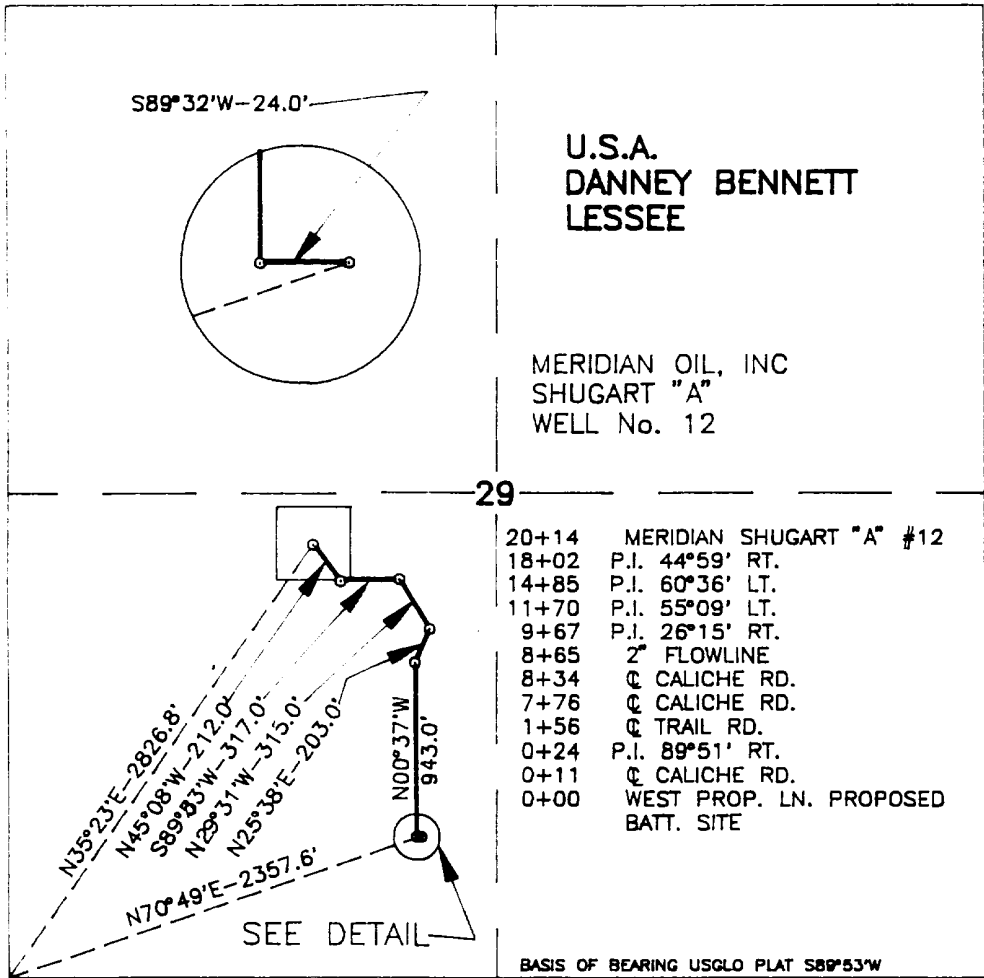
*John W. West*  
JOHN W. WEST, N.M. P.E. & P.S. No. 676  
TEXAS P.L.S. No. 1138  
GARY L. JONES N.M. P.S. No. 7977  
GARY G. EIDSON TEXAS P.L.S. No. 4735

SOUTHLAND ROYALTY COMPANY

A TRACT OF LAND LOCATED ON FEDERAL LAND IN SECTION 29, TOWNSHIP 18 SOUTH, RANGE 31 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO.

JOHN W. WEST ENGINEERING COMPANY  
CONSULTING ENGINEERS & SURVEYORS - HOBBS, NEW MEXICO

Survey Date: 4/16/91	Drawn By: PRESLEY
Approved By:	Sheet 1 of 1 Sheets
Project Number: 91-04-044	File Name: MOBATT29
Date: 4/17/91	Disk: JLP-1" Scale: 1"=1000'



LEGAL DESCRIPTION

A STRIP OF LAND 50.0 FEET WIDE, AND 2014.0 FEET OR 0.38 MILES IN LENGTH, BEING 25.0 FEET RIGHT AND 25.0 FEET LEFT OF THE ABOVE PLATTED SURVEY OF CENTERLINE.

NOTE: THIS PIPELINE CONNECT A PROPOSED TANK BATTERY SITE TO THE SHUGART "A" WELL No. 12.



I HEREBY CERTIFY THAT THIS PLAT WAS PREPARED FROM FIELD NOTES OF AN ACTUAL SURVEY AND MEETS OR EXCEEDS ALL REQUIREMENTS FOR LAND SURVEYS AS SPECIFIED BY THIS STATE AND THE ABOVE SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

*John W. West*  
JOHN W. WEST, N.M. P.E. & P.S. No. 676  
TEXAS P.L.S. No. 1138  
GARY L. JONES N.M. P.S. No. 7977  
GARY G. EIDSON TEXAS P.L.S. No. 4735

SHUGART "A" #12 FLOWLINE

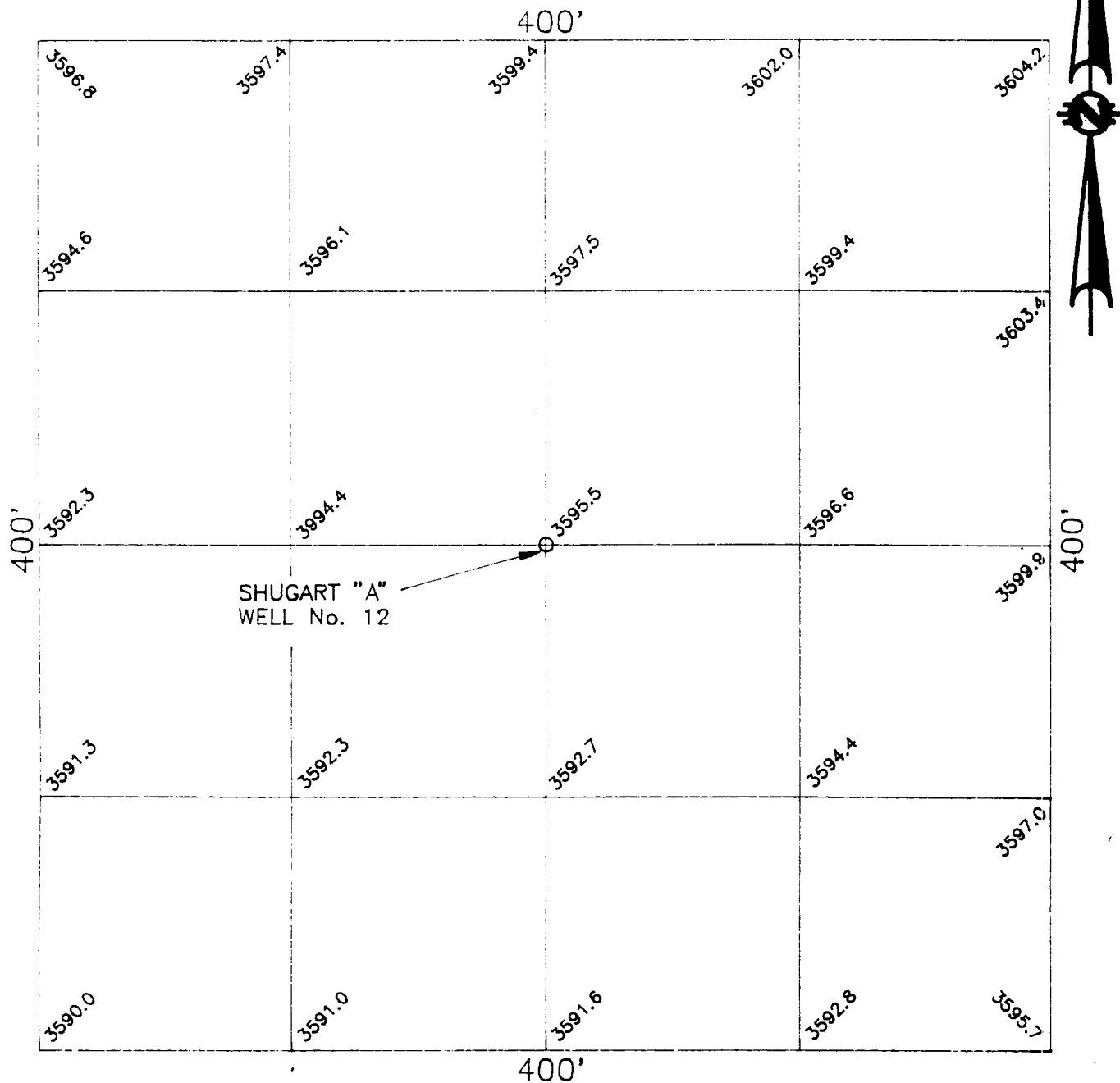
SOUTHLAND ROYALTY COMPANY	
A PROPOSED FLOWLINE CROSSING FEDERAL LAND IN SECTION 29, TOWNSHIP 18 SOUTH, RANGE 31 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO.	
JOHN W. WEST ENGINEERING COMPANY CONSULTING ENGINEERS & SURVEYORS - HOBBS, NEW MEXICO	
Survey Date: 4/16/91	Drawn By: PRESLEY
Approved By:	Sheet 1 of 1 Sheets
Project Number: 91-04-043	File Name: MOSHFL12
Date: 4/17/91	Disk: JLP-1 * Scale: 1"=1000'



SECTION 29, TOWNSHIP 18 SOUTH, RANGE 31 EAST, N.M.P.M.,

EDDY COUNTY,

NEW MEXICO



I HEREBY CERTIFY THAT THIS PLAT WAS PREPARED FROM FIELD NOTES OF AN ACTUAL SURVEY AND MEETS OR EXCEEDS ALL REQUIREMENTS FOR LAND SURVEYS AS SPECIFIED BY THIS STATE AND THE ABOVE SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

*John W. West*  
JOHN W. WEST, N.M. P.E. & P.S. No. 676  
TEXAS P.L.S. No. 1138  
GARY L. JONES N.M. P.S. No. 7977  
GARY G. EIDSON TEXAS P.L.S. No. 4735

SHUGART "A" #12 GRID

SOUTHLAND ROYALTY COMPANY		
A 100 FOOT GRID AROUND THE SHUGART "A" WELL No. 12, LOCATED IN SECTION 29, TOWNSHIP 18 SOUTH, RANGE 31 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO.		
JOHN W. WEST ENGINEERING COMPANY CONSULTING ENGINEERS & SURVEYORS - HOBBS, NEW MEXICO		
Survey Date: 4/16/91	Drawn By: PRESLEY	
Approved By:	Sheet 1 of 1 Sheets	
Project Number: 91-04-041	File Name: MOSHGR12	
Date: 4/17/91	Disk: JLP-1	Scale: 1"=60'