

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
APPLICATION FOR PERMIT TO DRILL OR REENTER

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

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NM04208
1b. Type of Well: <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name
2. Name of Operator West Largo Corp.		7. If Unit or CA Agreement, Name and No.
3a. Address 8801 So. Yale, Suite 240, Tulsa, OK 74137-3535		8. Lease Name and Well No. Federal 14 No. 2
3b. Phone No. (include area code) (918)492-3239		9. API Well No. 30-045-32518
4. Location of Well (Report location clearly and in accordance with any State requirements*) At surface 900' FSL - 840' FEL, Section 14, T28N, R9W, NMPM At proposed prod. zone Same		10. Field and Pool, or Exploratory Basin Fruitland Coal
14. Distance in miles and direction from nearest town or post office* 7 miles southeast of Blanco, NM		11. Sec., T. R. M. or Blk. and Survey or Area p Section 14, T28N, R9W, NMPM
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 480' 840'	16. No. of acres in lease 2520.15	17. Spacing Unit dedicated to this well E/2 - 320.0 acs
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 600	19. Proposed Depth 2590'	20. BLM/BIA Bond No. on file NM2283
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 6059' GL	22. Approximate date work will start* 09/01/2004	23. Estimated duration 10 days

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, shall be attached to this form:

- Well plat certified by a registered surveyor.
- A Drilling Plan.
- A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).
- Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
- Operator certification
- Such other site specific information and/or plans as may be required by the authorized officer.

25. Signature <i>Robert E. Fielder</i>	Name (Printed/Typed) Robert E. Fielder	Date 08/09/2004
---	---	--------------------

Title  
Agent

Approved by (Signature) <i>Robert Adams</i>	Name (Printed/Typed) ROBERT ADAMS	Date 08/09/05
--	--------------------------------------	------------------

Title  
Acting ARM  
Office  
FARMINGTON DISTRICT OFFICE

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.  
Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

\*(Instructions on page 2)

This action is subject to technical and procedural review pursuant to 43 CFR 3165.3 and appeal pursuant to 43 CFR 3165.4

DRILLING OPERATIONS AUTHORIZED ARE  
SUBJECT TO COMPLIANCE WITH ATTACHED  
"GENERAL REQUIREMENTS".

NNIOCD

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

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

State Lease - 4 Copies  
Fee Lease - 3 Copies

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

**RECEIVED** REPORT

**AUG 12 2004**

WELL LOCATION AND ACREAGE DEDICATION PLAT

Bureau of Land Management  
Farmington Field Office

*API Number <b>30-045-32518</b>		*Pool Code <b>71629</b>	*Pool Name <b>BASIN FRUITLAND COAL</b>
*Property Code <b>14163</b>	*Property Name <b>FEDERAL 14</b>		*Well Number <b>2</b>
*UGRID No. <b>37197</b>	*Operator Name <b>WEST LARGO CORPORATION</b>		*Elevation <b>6059'</b>

<sup>10</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
<b>P</b>	<b>14</b>	<b>28N</b>	<b>9W</b>		<b>900</b>	<b>SOUTH</b>	<b>840</b>	<b>EAST</b>	<b>SAN JUAN</b>

<sup>11</sup> 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
<sup>12</sup> Dedicated Acres <b>320.0 Acres - (E/2)</b>					<sup>13</sup> Joint or Infill <b>Y</b>	<sup>14</sup> Consolidation Code	<sup>15</sup> 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

<div><p>16</p><p>5293.86'</p><p>5280.00'</p><p>14</p><p>5270.10'</p><p>840'</p><p>900'</p><p>LAT 36°39.4370'N LONG 107°45.0778'W DATUM: NAD27</p><p>LEASE SF-077123 Federal 14 # 1</p><p>LEASE NM-04208</p><p>AUG 2005</p></div>	<p><sup>17</sup> OPERATOR CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>Robert E. Fielder</i> Signature</p> <p><b>Robert E. Fielder</b> Printed Name</p> <p><b>Agent</b> Title</p> <p><b>July 6, 2004</b> Date</p>
	<p><sup>18</sup> SURVEYOR CERTIFICATION</p> <p>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</p> <p><b>Date of Survey: MARCH 10, 2004</b></p> <p>Signature and Seal of Professional Surveyor</p> <div><p><b>JASON C. EDWARDS</b> NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR 15269</p></div> <p><b>JASON C. EDWARDS</b> Certificate Number 15269</p>

Submit 3 Copies To Appropriate District Office  
District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Ave., Artesia, NM 88210  
District III  
1000 Rio Brazos Rd., Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals and Natural Resources

Form C-103  
March 4, 2004

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

WELL API NO.
5. Indicate Type of Lease STATE <input type="checkbox"/> FEE <input type="checkbox"/>
6. State Oil & Gas Lease No.
7. Lease Name or Unit Agreement Name Federal 14
8. Well Number 2
9. OGRID Number 37197
10. Pool name or Wildcat Basin Fruitland Coal

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 "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

1. Type of Well:  
Oil Well ☐ Gas Well ☒ Other

2. Name of Operator  
West Largo Corp

3. Address of Operator  
8801 S. Yale, Suite 240 Tulsa, OK 74137-3535

4. Well Location

Unit Letter P : 900 feet from the South line and 840 feet from the East line

Section 14 Township 28N Range 9W NMPM San Juan County

11. Elevation (Show whether DR, RKB, RT, GR, etc.)  
6059' GL

Pit or Below-grade Tank Application (For pit or below-grade tank closures, a form C-144 must be attached)

Pit Location: UL P Sect 14 Twp 28N Rng 9W Pit type Drilling Depth to Groundwater >100 ft Distance from nearest fresh water well >1000 ft  
Distance from nearest surface water >1000 ft Below-grade Tank Location UL        Sect        Twp        Rng        ;  
feet from the        line and        feet from the        line

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

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐

TEMPORARILY ABANDON ☐ CHANGE PLANS ☐

PULL OR ALTER CASING ☐ MULTIPLE COMPLETION ☐

OTHER: Construct drilling reserve pit ☒

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐

COMMENCE DRILLING OPNS. ☐ PLUG AND ABANDONMENT ☐

CASING TEST AND CEMENT JOB ☐

OTHER: ☐

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

Request permit to construct lined reserve pit in conjunction with construction of this location. Pit will be constructed in accordance with the guidelines of the interim pit regulations as shown on the attached cut and fill diagram. A closure permit will be obtained and the pit closed within six months of cessation of operations.

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

SIGNATURE Robert E. Fielder TITLE Agent DATE August 9, 2004

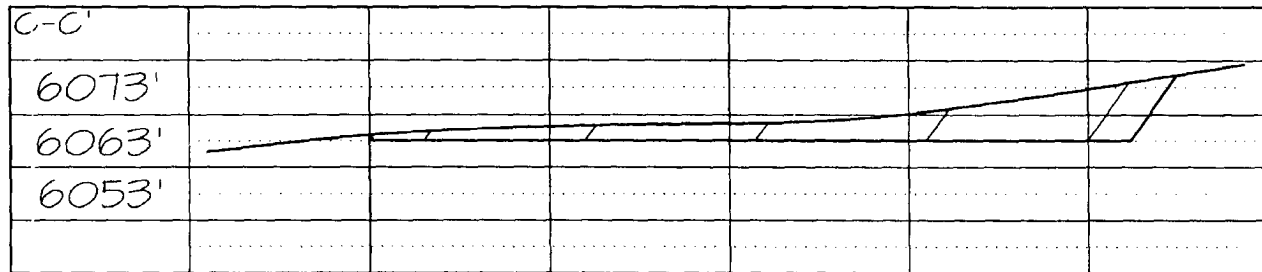
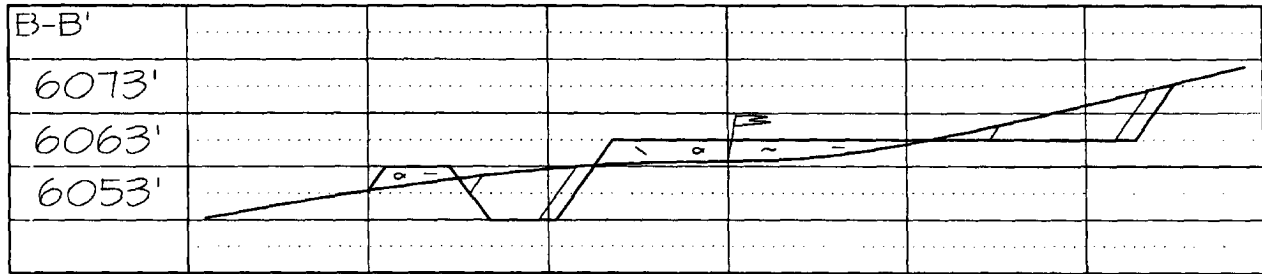
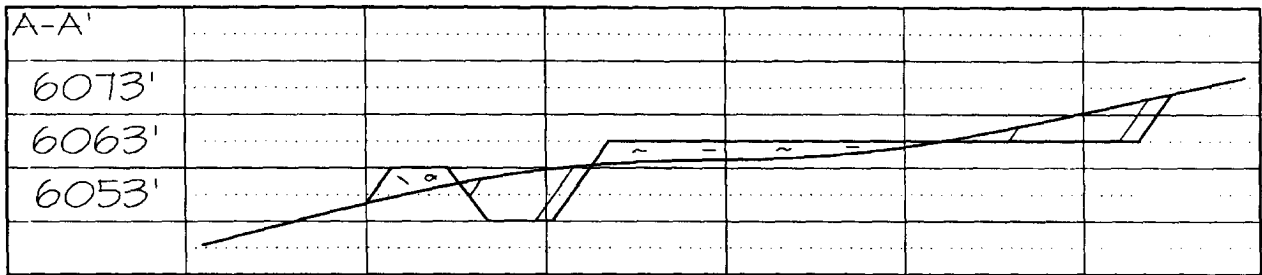
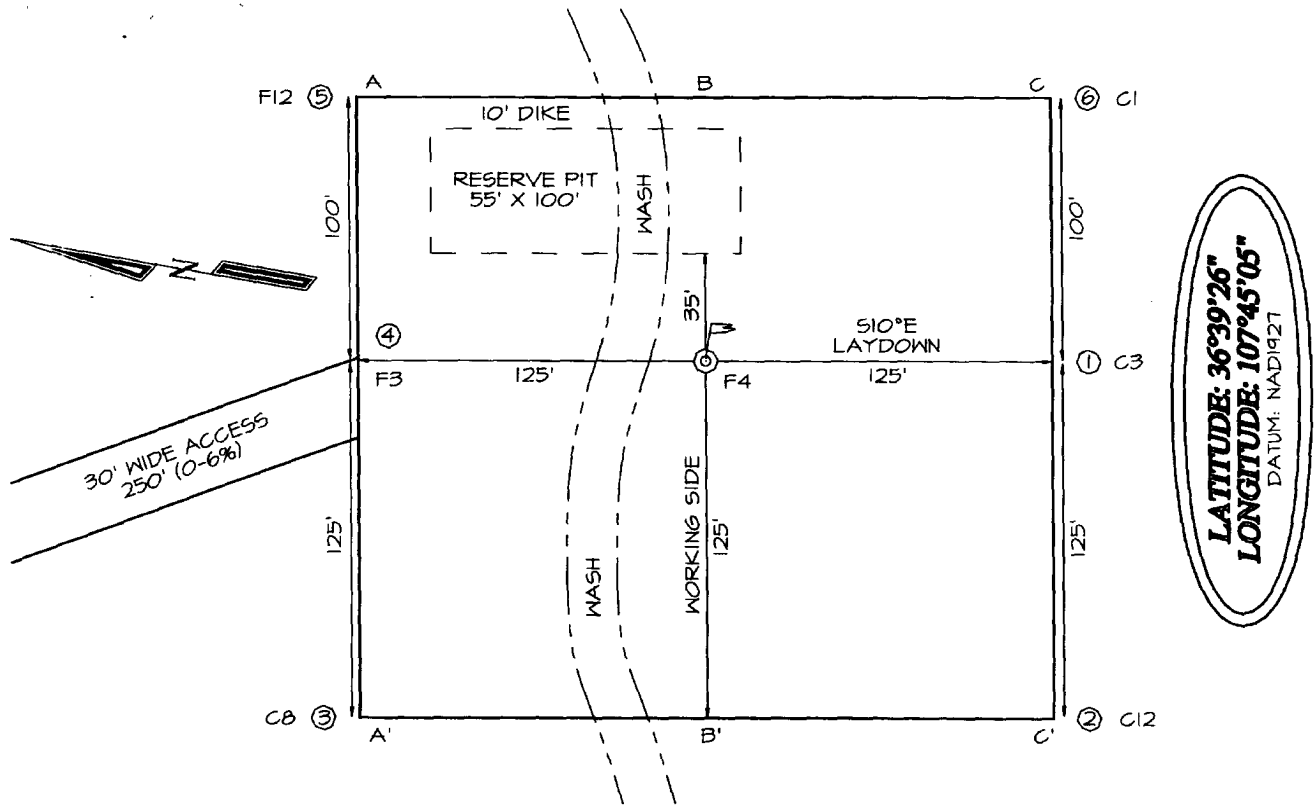
Type or print name Robert E. Fielder  
(This space for State use)

E-mail address: pmci@acs-online.net

Telephone No. (505)632-3869

APPROVED BY [Signature] TITLE DEPUTY OIL & GAS INSPECTOR, DIST. 4 DATE AUG 11 2004  
Conditions of approval, if any:

**WEST LARGO CORPORATION FEDERAL 14 #2**  
**900' FSL & 840' FEL, SECTION 14, T28N, R9W, NMPM**  
**SAN JUAN COUNTY, NEW MEXICO GROUND ELEVATION: 6059'**



FILENAME: 28914PT

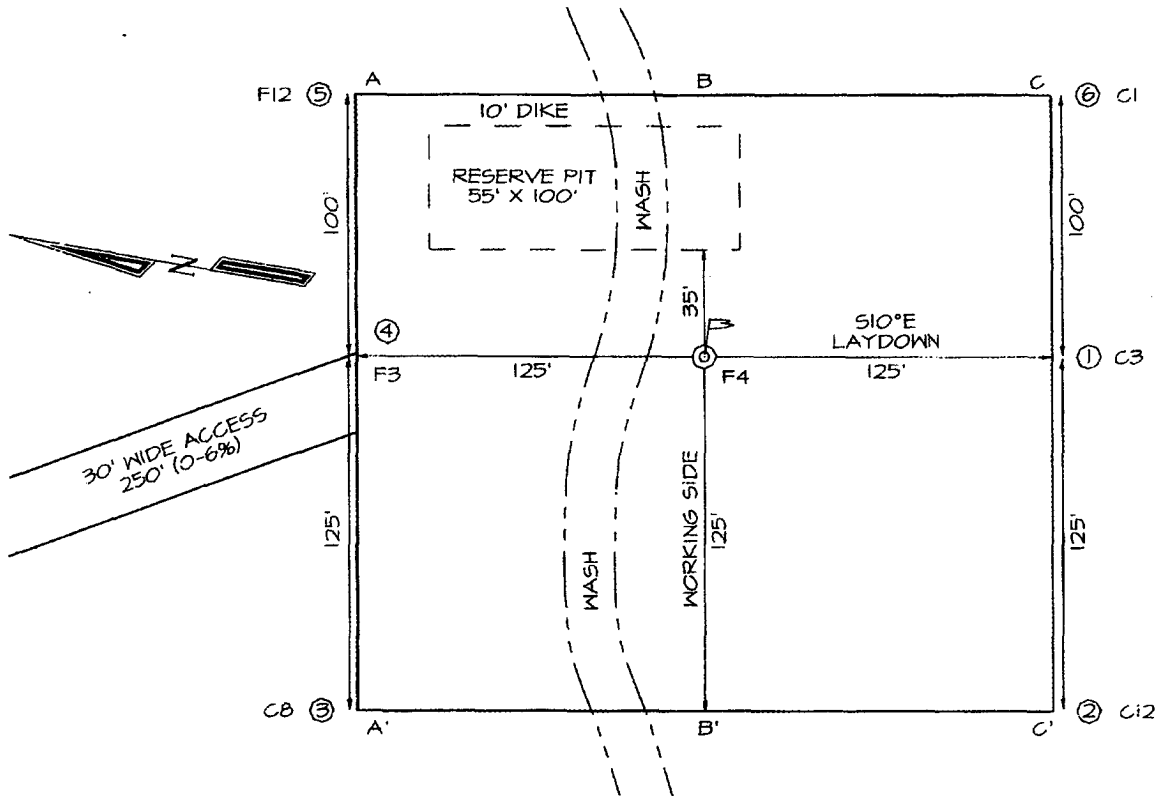
SHEET 2 OF 4

NCE SURVEYS, INC.

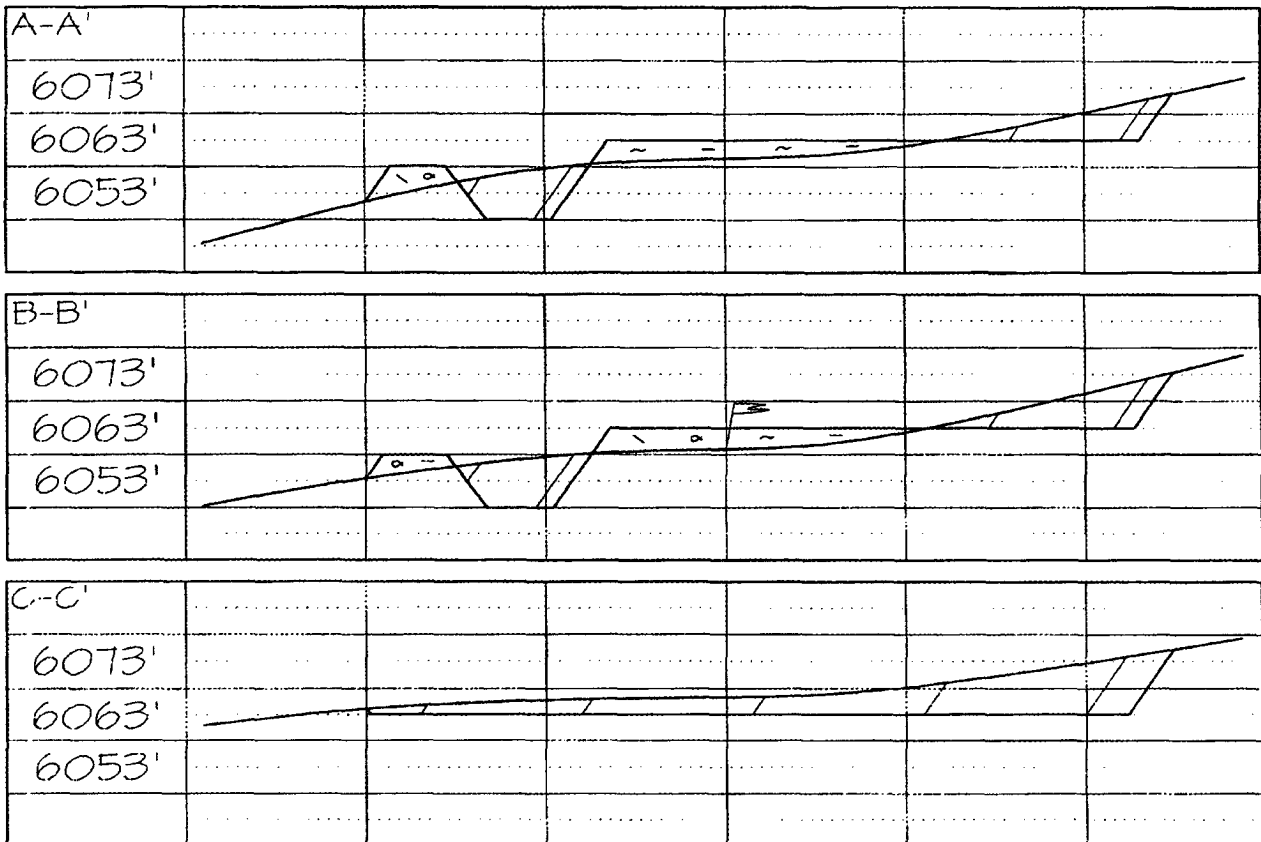
DRAWN BY: EDO

CHECKED BY: JCE

**900' FSL & 840' FEL, SECTION 14, T28N, R9W, NMPM  
SAN JUAN COUNTY, NEW MEXICO GROUND ELEVATION: 6059'**



**LATITUDE: 36°39'26"  
LONGITUDE: 107°45'05"**  
DATUM: NAD1927



**West Largo Corp.  
Federal 14 No. 2  
980' FSL & 840' FEL  
Section 14, T28N, R9W, NMPM  
San Juan County, New Mexico**

**TEN POINT DRILLING PROGRAM**

1. **Surface Formation:** Nacimiento

2. **Surface Elevation:** 5853' GL.

3. **Estimated Formation Tops:**

<u>Formation</u>	<u>Top - feet</u>	<u>Expected Production</u>
Nacimiento	surface	
Ojo Alamo	1345	
Kirtland	1498	
Farmington	1734	
Fruitland	2049	
Fruitland Coal	2355	GAS
Pictured Cliffs	2382	GAS
Lewis	2532	
TOTAL DEPTH	2590	

4. **Surface Hole Program:**

**Bit:** Drill an 12 $\frac{1}{4}$ " hole to 200' using a retip mill tooth, IADC Class 115 or 116, bit. WOB: all. RPM: 70 - 100.

**Mud:** Use a fresh water base spud mud with the following properties:

<u>Interval (ft)</u>	<u>Weight (ppg)</u>	<u>Ph</u>	<u>Vis(sec/qt)</u>	<u>Water Loss</u>
0 - 200	8.6 or less	9.0-9.5	40 - 50	No Control

**Casing and Cementing:** A string of 8 $\frac{5}{8}$ " 24 ppf J-55 or K-55 ST&C casing will be set and cemented to the surface in a single stage with 140 sacks (165.2 cf) of Class "B" cement (yield = 1.18 cf/sk) containing 3% CaCl<sub>2</sub> and 1/4 lb/sack celloflake. Slurry volume assumes 100% excess over calculated hole volume. If cement does not circulate to surface, cement will be topped off using 1" pipe down the 12 $\frac{1}{4}$ " by 8 $\frac{5}{8}$ " annulus. Minimum clearance between couplings and hole is 1.3125". 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.

WOC 12 HOURS. Nipple up 11" 2000# BOPE. Pressure test surface casing and BOPE to 600 psi for 15 minutes.

**Centralizers:** Run two (2) 8 $\frac{5}{8}$ " X 12 $\frac{1}{4}$ " regular bowspring centralizers. Install first one on stop ring in middle of shoe joint.

**Float Equipment:** Cement nose guide shoe thread locked. Also thread lock connection between first and second joint run.

## **Drilling Program**

**West Largo Corp.**

**Federal 14 No. 2**

Page Two

### **5. Production Hole Program:**

**Bit:** Drill an 7 $\frac{1}{2}$ " hole to 2590' using a TCI, IADC Class 447 bit. WOB: 30-35K. RPM: 60 - 75. Reduce RPM to 55 - 65 through Ojo Alamo.

**Mud:** Use a fresh water base polymer and water system to drill this section. If hole conditions dictate, mud up with a fresh water base LSND mud with the following properties:

<u>Interval (ft)</u>	<u>Weight (ppg)</u>	<u>Ph</u>	<u>Vis(sec/qt)</u>	<u>Water Loss</u>
200 - 2590	8.6 - 8.8	9.0-9.5	28 - 35	10 - 12

Fresh water will be used for dilution and building volume. Sufficient materials will be on location at all times to maintain mud properties and to control any lost circulation problem or unforeseen abnormal pressures. The mud volume in the surface pit will be visually monitored and recorded on a routine basis.

**Note:** If mud up is required, raise **viscosity** to 55 - 60 for logging. Thin to 40 - 45 viscosity to run casing.

**pH** is to be maintained with lime or caustic soda at the recommended levels to assure drill pipe corrosion protection.

Drispac will be used for control of fluid loss.

Lost Circulation can occur in the Fruitland Coal and Pictured Cliffs formation. Mud weights should be controlled as low as possible with solids control equipment then as low as practical with water dilution.

**Pressure Control:** 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. Mechanical operation of pipe rams will be checked daily and blind rams will be checked on each trip out of hole. 4 $\frac{1}{2}$ " rams will be installed before running production 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.

**Logging Program:** Dual Induction and Compensated Neutron/Formation Density logs will be run from TD to the surface casing shoe.

**Casing and Cementing Program:** Run 4 $\frac{1}{2}$ " 10.5 ppg J-55 production casing from surface to TD and cement in a single stage with 300 sacks (765.0 cf) of Class B containing 3% sodium metasilicate extender, 5 pps Gilsonite and 1/4 pps celloflake. Lead slurry mixed at 11.8 PPG to yield 2.55 cf/sk. Tail in with 100 sacks (119.0 cf) of Class B with 0.25 pps celloflake, 0.3% FLA and 5 pps gilsonite mixed at 15.6 PPG to yield 1.19 cf/sk.

**Drilling Program**  
**West Largo Corp.**  
**Federal 14 No. 2**  
Page Three

**5. Production Hole Program: -continued**

Slurry volumes assume a 50% excess over gauge hole volume to circulate to surface. Minimum clearance between couplings and hole is 1.4375". 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 over pull, whichever is greater.

**Centralizers:** 5 - 4½" X 7½" bowspring centralizers will be run across all prospective pays and 2 - 4½" X 7½" turbolizers will be spaced such that one (1) is just below the base of the Ojo Alamo and one (1) in the Ojo Alamo.

**Float Equipment:** Cement nose guide shoe, 1 joint 4½" casing, and float collar.

**6. Auxiliary Equipment:**

An upper kelly cock will be utilized. The handle will be available on rig floor at all times

**7. Logging Program:**

Dual Induction and Compensated Neutron / Formation Density will be run from TD to surface casing shoe. Bulk density will be presented on a 5 " scale through the coals. Deep induction curve will be merged onto the porosity log.

**Coring and Testing Program:**

No cores or drill stem tests are planned.

**8. Abnormal Pressure:**

Although not expected, abnormal pressures are possible in the Fruitland formation.

**Estimated Bottom Hole Pressure:**

250 - 300 psig.

**9. Anticipated Starting Date:**

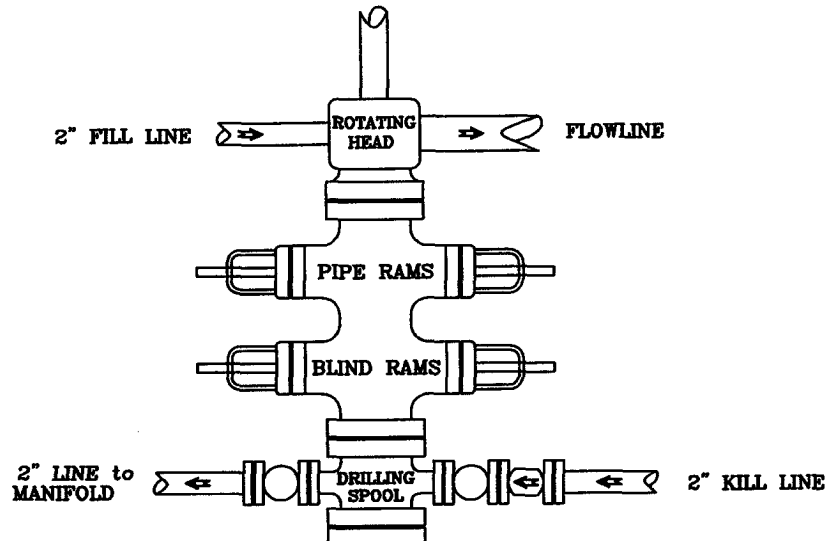
September 1, 2004

**Duration of Operations:** It is estimated a total of 6 days will be required for drilling operations and 5 days for the completion operation.



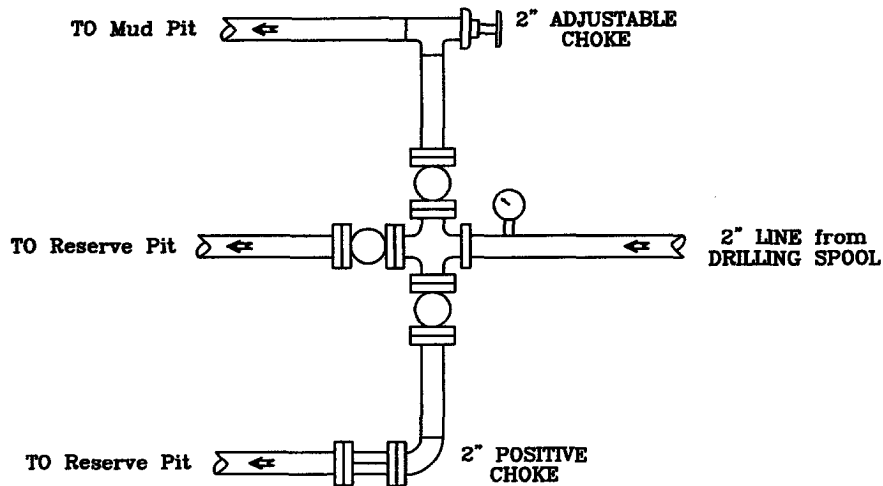
# PRESSURE CONTROL

## Wellhead Assembly



Preventer and Spools are to have a  
6" Bore or larger and a 2000 PSI  
or higher Pressure Rating

## Choke Manifold



*West Largo Corp*

Federal 14 No. 2

900' FSL - 840' FEL

Section 14, T28N, R9W, NMPM

San Juan County, New Mexico