

Barry
N.M. Oil Cons. DIV-Dist. 2
1301 W. Grand Avenue
Artesia, NM 88210 810

I-37

Form 3160-3
(April 2004)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0137
Expires March 31, 2007

RECEIVED

JUL 20 2005


APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		6. If Indian, Allottee or Tribe Name	
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		8. Lease Name and Well No. Canter Federal 4 11665	
2. Name of Operator Ray Westall 18862		9. API Well No. 30-015-34234	
3a. Address Box 4, Loco Hills, NM 88255		10. Field and Pool, or Exploratory GETTY Bone Springs	
3b. Phone No. (include area code) 505.677.2370		11. Sec., T, R, M. or Blk. and Survey or Area Sec 10, 20S-29E	
4. Location of Well (Report location clearly and in accordance with any State requirements.) At surface 660' FNL & 1980' FEL At proposed prod. zone same		12. County or Parish Eddy	
14. Distance in miles and direction from nearest town or post office* 15 miles North East of Carlsbad NM		13. State NM	
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 660'	16. No. of acres in lease 640	17. Spacing Unit dedicated to this well 40	
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 1320'	19. Proposed Depth 8300'	20. BLM/BIA Bond No. on file NM0322	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3306' Gr	22. Approximate date work will start* 09/01/2005	23. Estimated duration 14 days	

24. Attachments **Canter Controlled Water Basin**

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 	Name (Printed/Typed) Randall L. Harris	Date 06/13/2005
Title Geologist		

Approved by (Signature) /s/ Tony J. Herrell	Name (Printed/Typed) /s/ Tony J. Herrell	Date JUL 18 2005
Title FIELD MANAGER	Office CARLSBAD FIELD 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.

APPROVAL FOR 1 YEAR

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)

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS AND
SPECIAL STIPULATIONS
ATTACHED

WITNESS 16, 11 3/4, 8 5/8 CSG.

5-15
79.5

State of New Mexico

Energy, Minerals and Natural Resources Department

Form C-102

Revised JUNE 10, 2003

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

DISTRICT I

1301 N. FRENCH DR., HOBBS, NM 88240

DISTRICT II

1301 W. GRAND AVENUE, ARTESIA, NM 88210

DISTRICT III

1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV

1220 S. ST. FRANCIS DR., SANTA FE, NM 87505

OIL CONSERVATION DIVISION

1220 SOUTH ST. FRANCIS DR.

Santa Fe, New Mexico 87505

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code	Pool Name
Property Code	Property Name CANTER FEDERAL	Well Number 4
OGRID No.	Operator Name RAY WESTALL OPERATING	Elevation 3307'

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	10	20-S	29-E		660	NORTH	1980	EAST	EDDY

Bottom Hole Location If Different From Surface

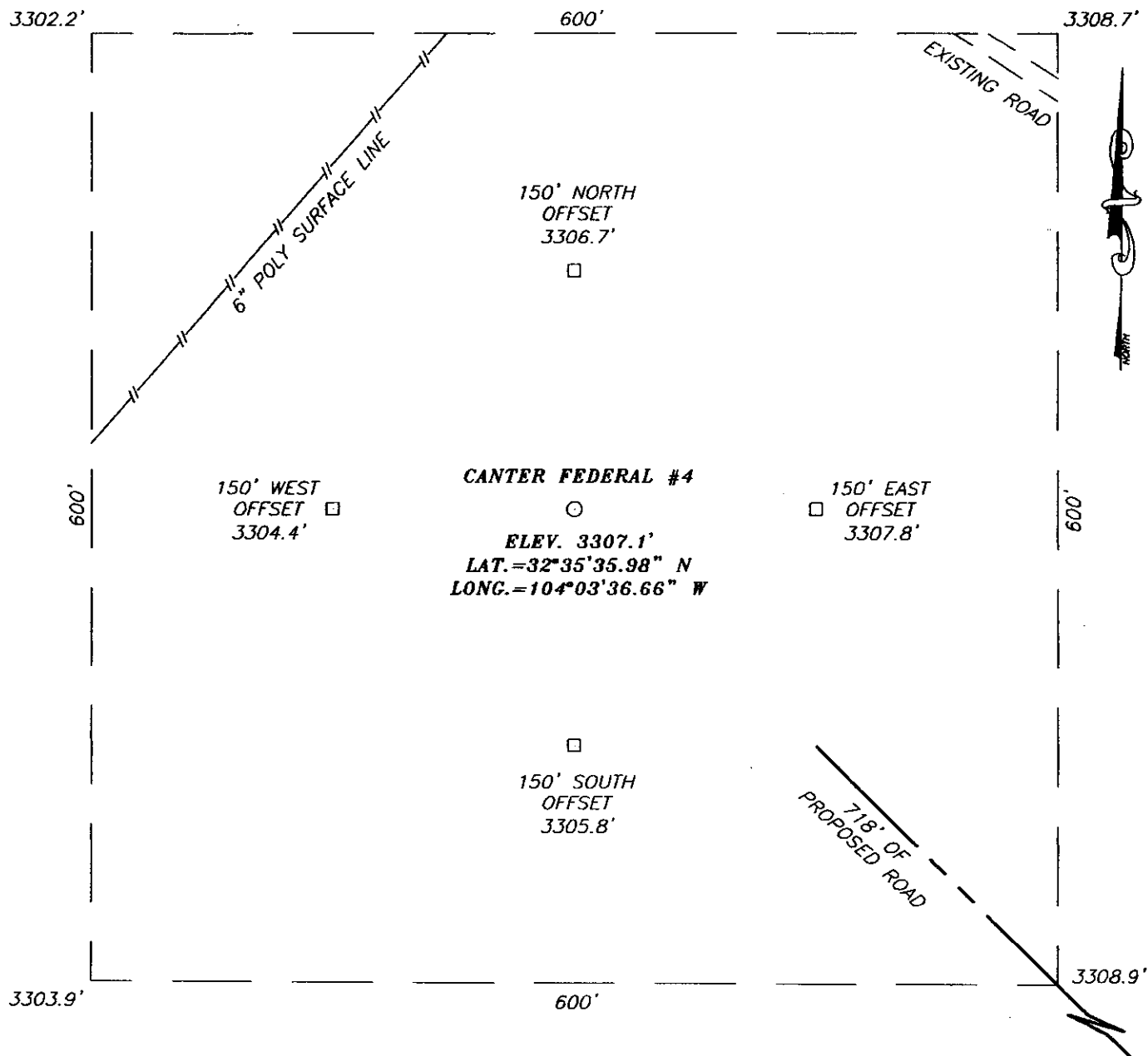
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

Dedicated Acres 40	Joint or Infill	Consolidation Code	Order No.
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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

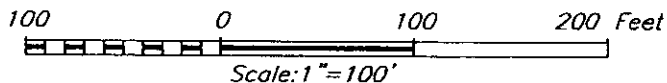
	OPERATOR CERTIFICATION I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief. Signature: <i>[Signature]</i> Printed Name: <u>RANDALL L HARRIS</u> Title: <u>GEOLOGIST</u> Date: <u>6/9/05</u>
	SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision and that the same is true and correct to the best of my belief. Date Surveyed: <u>APRIL 20, 2005</u> Signature & Seal: <i>[Signature]</i> Professional Surveyor: <u>GARY B. EDSON</u> Date: <u>4/28/05</u> Certificate No.: <u>05.11.0632</u> State: <u>NEW MEXICO</u> Certified: <u>GARY B. EDSON</u> License No.: <u>12641</u>
	GEODETIC COORDINATES NAD 27 NME Y=579671.8 N X=584125.0 E LAT.=32°35'35.98" N LONG.=104°03'36.66" W

SECTION 10, TOWNSHIP 20 SOUTH, RANGE 29 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO



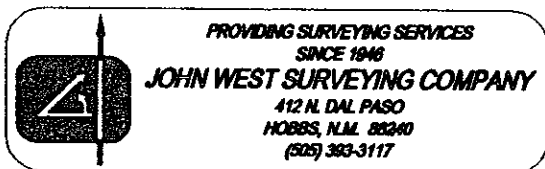
DIRECTIONS TO LOCATION

FROM THE INTERSECTION U.S. HWY. #62-180 (CARLSBAD-HOBBS HWY.) AND CO. RD. #238 (BURTON FLAT). GO NORTH ON CO. RD. #238 APPROX. 2.0 MILES TO WHERE CO. RD. BENDS LEFT (WEST). FOLLOW CALICHE RD. (NW) APPROX. 2.5 MILES AND TURN LEFT (WEST). GO APPROX. 0.25 MILES TO PROPOSED ROAD SURVEY ON RIGHT (NORTH). THIS LOCATION IS APPROX. 930' NORTHWEST.



RAY WESTALL OPERATING

CANTER FEDERAL #4 WELL
 LOCATED 660 FEET FROM THE NORTH LINE
 AND 1980 FEET FROM THE EAST LINE OF SECTION 10,
 TOWNSHIP 20 SOUTH, RANGE 29 EAST, N.M.P.M.,
 EDDY COUNTY, NEW MEXICO.



Survey Date: 04/20/05	Sheet 1 of 1 Sheets
W.O. Number: 05.11.0632	Dr By: DEL
Date: 04/25/05	Rev 1: N/A
Disk: CD#4	05110632
	Scale: 1"=100'

DRILLING PROGRAM

Attached to Form 3160-3
Ray Westall
Canter Federal #4
660' FNL & 1980' FEL
Section 10-20S-29E
Eddy County, New Mexico

1. Geologic Name of Surface Formation:

Permian

2. Estimated Tops of Important Geologic Markers:

Permian	Surface	Delaware	3400
Rustler	850	Bone Springs	5900
Yates	1420		
Seven Rivers Reef	1670		

3. Estimated Depth of Anticipated Fresh Water, Oil or Gas:

Yates	Oil	1420
Delaware	Oil	3400
Bone Springs	Oil	7100

No other formations are expected to give up oil, gas or fresh water in measurable quantities. The surface fresh water sands will be protected by setting 13 3/8 casing and circulating cement back to surface.

4. Casing Program:

Hole Size	Interval	OD Casing	Wt.	Grade	Type	WITNESS
20"	0-260'	16"	65#	H-40	STC	WITNESS
14"	260-1400'	11 3/4"	42#	H-40	STC	WITNESS
11"	1400-3300'	8 5/8"	32&24	J-55	STC	WITNESS
7 7/8"	3300-8300"	5 1/2"	17#	J-55	LTC	

Cement Program:

16" Surface Casing: Cemented to surface with 250 sx of Class C w/2% cc.

11 3/4" Intermediate Casing: Cemented to surface with 750 sx of Class C w/2% cc.

8 5/8" Intermediate Casing: Cemented to 1350' with 1500 sx

5 1/2" Production Casing: Cemented sufficient to cover 200' above all oil and horizons.

5. Minimum Specifications for Pressure Control:

The blowout preventer equipment (BOP) will consist of a double ram-type preventer. The unit will be hydraulically operated and will be equipped with blind rams and 5 1/2" drill pipe rams. A 3000 psi WP BOP will be installed on the 11 3/4" casing and tested per order #2 to 70% of casing burst. As per BLM Drilling Operations Order #2, prior to drilling out the 8 5/8" casing shoe, the BOP will be tested.

Pipe rams will be operationally checked each 24 hour period and each time the drill pipe is out of the hole. These functional tests will be documented on the daily drillers log. A 2" kill line and choke line will be incorporated in the drilling spool below the ram type BOP. Other accessory BOP equipment will include a Kelly cock, floor safety valve, choke lines and choke manifold having 5000 psi WP rating.

6. Types and Characteristics of the Proposed Mud System:

Depth	Type	Weight	Viscosity	Waterloss
0-260	Fresh Water (Spud)	8.5	28	N.C.
260-1400	Brine	9.8-10.2	28-36	N.C.
1400-3300	Fresh Water	8.6	28-36	N.C.
3000-TD	Cut Brine	8.6-9.4	28-36	N.C.

7. Auxiliary Well control and Monitoring Equipment:

A. A kelly cock will be kept in the drill string at all times.

8. **Logging, Testing, and Coring Program:**

A. There will be no DST's

B. The electric logging program will consist of Dual Laterolog Micro S.L., and Neutron Density Log.

C. No conventional coring is anticipated.

D. Further testing procedures will be determined after the 5 ½" production casing has been cemented at TD based on drill shows, and log evaluation, and drill stem test results.

9. **Abnormal Conditions, Pressures, Temperatures, and Potential Hazards:**

No abnormal pressures or temperatures are anticipated. The estimated bottom hole temperature (BHT) at TD is 135 and estimated bottom hole pressure (BHP) is 3700 psig.

10. **Anticipated Starting Date and Duration of Operations:**

Location and road work will not begin until approval has been received from the BLM. Once commenced, the drilling operation should be finished in approximately 15 days. If the well is productive, an additional 30 days will be required for completion and testing before a decision is made to install permanent facilities.

SURFACE USE AND OPERATING PLAN

Attached to form 3160-3

Ray Westall

Canter Federal #4

1. Existing Roads:
 - A. All roads to the location are shown in Exhibit #2. The existing roads are illustrated in read and are adequate for travel during drilling and production operations. Upgrading of the road prior to drilling will be done where necessary as determined during the onsite inspection.
 - B. Directions to location: From Carlsbad proceed east on US 62/180 11 miles to county road 238. Proceed north on 238 for 4.5 miles. Proposed new road will start here and go northwest 718 feet.
 - C. Routine grading and maintenance of existing roads will be conducted as necessary to maintain their condition as log as any operations continue on this lease.
2. Proposed Access Road: 718'. See Exhibit #2
3. Location of Existing and/or Purposed Facilities:
 - A. Ray Westall will construct facilities on well pad if well is productive.
 - B. If the well is productive, rehabilitation plans are as follows:
 1. The reserve pit will be back-filled after the contents of the pit are dry (within 10 months after the well is completed)
 2. Topsoil removed from the drill site will be used to recontour the pit area and any unused portions of the drill pad to the original natural level, as nearly as possible, and reseeded as per BLM specifications.
4. Methods of Handling Water Disposal:
 - A. Drill cuttings not retained for evaluation purposes will be disposed into the reserve pit.

OK



CONTOUR INTERVAL:
ILLINOIS CAMP SE, N.M. - 10'
SUPPLEMENTAL, N.M. - 5'

500.00
300.00



**PROVIDING SURVEYING SERVICES
SINCE 1946**

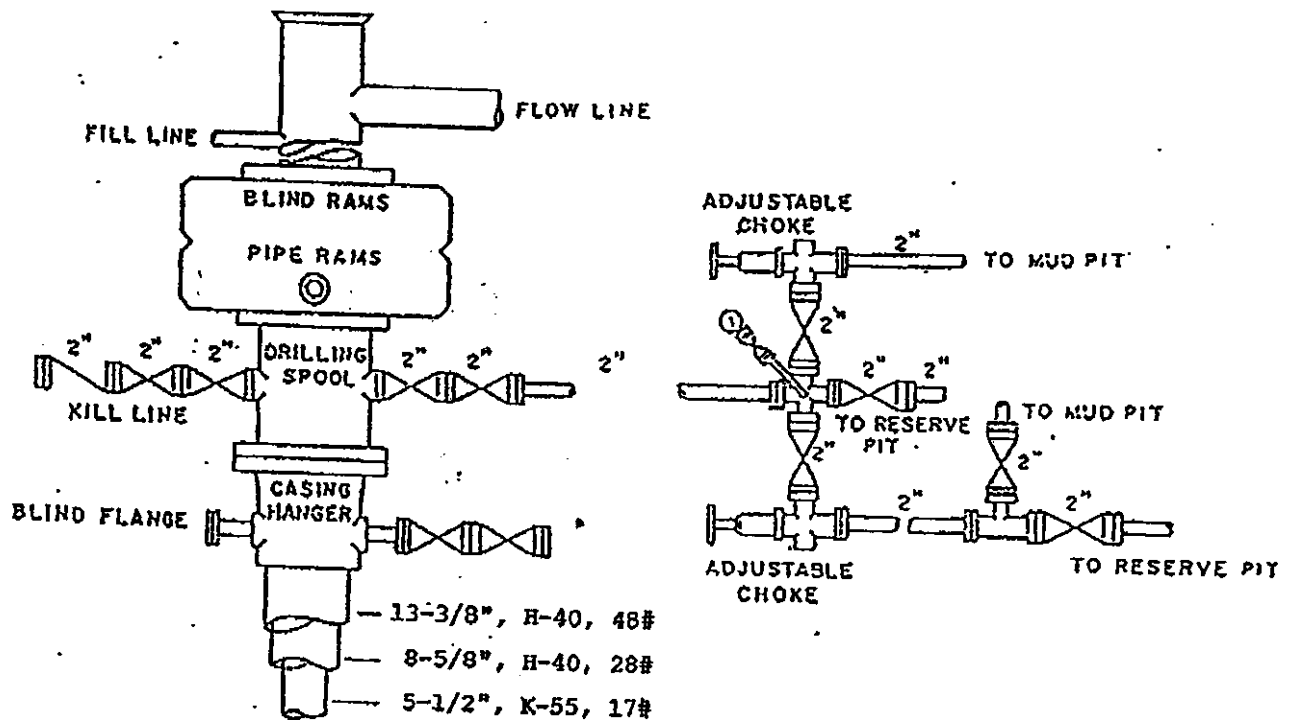
JOHN WEST SURVEYING COMPANY

412 N. DAL PASO
HOBBS, N.M. 88240
(505) 383-3117

LEASE CANTER FEDERAL

U.S.G.S. TOPOGRAPHIC MAP
ILLINOIS CAMP SE, N.M.

Riq 5



BOP DIAGRAM

3000# Working Pressure
Rams Operated Daily

CONDITIONS OF APPROVAL - DRILLING

Operator's Name: Ray Westall
Well Name & No. Canter Federal #4
Location: 660' FNL, 1980' FEL, Section 10, T. 20 S., R. 29 E., Eddy County, New Mexico
Lease: NM-0556290

I. DRILLING OPERATIONS REQUIREMENTS:

1. The Bureau of Land Management (BLM) is to be notified at the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (505) 361-2822 for wells in Eddy County in sufficient time for a representative to witness:

A. Well spud

B. Cementing casing: 16 inch 11-3/4 inch 8-5/8 inch 5-1/2 inch

C. BOP tests

2. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.

3. Submit a Sundry Notice (Form 3160-5, one original and five copies) for each casing string, describing the casing and cementing operations. Include pertinent information such as; spud date, hole size, casing (size, weight, grade and thread type), cement (type, quantity and top), water zones and problems or hazards encountered. The Sundry shall be submitted within 15 days of completion of each casing string. The reports may be combined into the same Sundry if they fall within the same 15-day time frame.

4. The API No. assigned to the well by NMOCD shall be included on the subsequent report of setting the first casing string.

II. CASING:

1. The 16 inch surface casing shall be set at approximately 260 feet and cement circulated to the surface. If cement does not circulate to the surface the appropriate BLM office shall be notified and a temperature survey or cement bond log shall be run to verify the top of the cement. Remedial cementing shall be completed prior to drilling out that string.

2. The minimum required fill of cement behind the 11-3/4 inch first intermediate casing is to be circulated to the surface.

2. The minimum required fill of cement behind the 8-5/8 inch second intermediate casing is to be circulated to the surface.

3. The minimum required fill of cement behind the 5-1/2 inch production casing is to reach at least 200 feet above the top of the uppermost hydrocarbon productive interval.

4. Whenever a casing string is cemented in the R-111-P Potash Area, cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

5. Other

III. PRESSURE CONTROL:

1. All BOP systems and related equipment shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2. The BOP and related equipment shall be installed and operational before drilling below the 11-3/4 inch casing shoe and shall be tested as described in Onshore Order No. 2. Any equipment

7/7/2005

acs

failing to test satisfactorily shall be repaired or replaced.

2. Minimum working pressure of the blowout preventer and related equipment (BOPE) shall be 3000 psi.
3. The appropriate BLM office shall be notified in sufficient time for a representative to witness the tests.
 - The tests shall be done by an independent service company.
 - The results of the test shall be reported to the appropriate BLM office.
 - Testing fluid must be water or an appropriate clear liquid suitable for sub-freezing temperatures. Use of drilling mud for testing is not permitted since it can mask small leaks.
 - Testing must be done in a safe workman-like manner. Hard line connections shall be required.

7/7/2005

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7/7/2005

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July 26, 2005
Ray Westall
P.O. Box 4
Loco Hills, NM 88255
Attn: Mr. Randall Harris

RE: APPLICATION FOR PERMIT TO DRILL
RAY WESTALL
CANTER FEDERAL # 4
SECTION 10, R-20-S, T-29-E,
660' FNL & 1980' FEL
Eddy County, New Mexico

Dear Mr. Randall Harris,

The above permit to drill identified above has been received from the BLM at this office will need to have the following stipulations (in part) for approval:

Ray Westall is to catch drilling mud samples for the flow line in order to determine the chloride levels of the drilling mud. Samples are to be taken from the '1st intermediate' casing setting depth of @ 1400' down to setting of the 2nd intermediate casing setting depth of @ 3300'.

Results are theses test are to be submitted to our office and the Bureau of Land Management.

Thank you for your assistance.

Sincerely,

Bryan G. Arrant
PES, District II Artesia NMOCD