## UNITED STATES DEPARTMENT OF THE INTERIOR

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

2005 NOV 16 PET LEASE SENIE NO.

BUREAU OF LAND MAN	INTERIOR	2000		BIA 360	
•		DEENTED	RECE	V6- [f Indian, Allotee	or Tribe Name
APPLICATION FOR PERMIT TO	DRILL OR	REENIER 070 F		GT GIÇARILLA A	APACHE
la. Type of work: DRILL REENTE	ER			·	ement, Name and No.
lb. Typc of Well: Oil Well Gas Well Other	<b>✓</b> Sin	ngle ZoneMultip	le Zone	8. Lease Name and V BONANZA 9	Well No.
2. Name of Operator ELM RIDGE EXPLORATION COMP	'ANY, LLC			9. API Well No. 30-043- 2 (	002
3a. Address P. O. BOX 156 BLOOMFIELD, NM 87413	ì	(include area code) 32-3476		10. Field and Pool, or I LINDRITH G	Exploratory ALL-DAK, WEST
4. Location of Well (Report location clearly and in accordance with an	ty State requireme	ents.*)		11. Sec., T. R. M. or B	lk. and Survey or Area
At surface 1930' FSL & 1970' FEL  At proposed prod. zone SAME				J 12-22N-3W NI	МРМ
Distance in miles and direction from nearest town or post office*  15 AIR MILES NW OF CUBA, NM				12. County or Parish SANDOVAL	13. State
5. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig unit line if any)  1930'	16. No. of ac	cres in lease	17. Spacin	g Unit dedicated to this v	vell
(Also to nearest drig. unit line, if any)  8. Distance from proposed location* to nearest well, drilling, completed,	19. Proposed	l Depth	20. BLM/BIA Bond No. on file		
applied for, on this lease, ft. 1,146' (#6)	7,100'		BIA N	IATION WIDE 8864	41C
Elevations (Show whether DF, KDB, RT, GL, etc.) 7,186' GL	22. Approxim	nate date work will star 01/15/2006	rt*	23. Estimated duration 4 WEEKS	n
	24. Attac	hments		RC	WD MAR 3'11
ne following, completed in accordance with the requirements of Onshor	re Oil and Gas	Order No.1, shall be a	ttached to thi		L CONS. DIV.
. Well plat certified by a registered surveyor.  A Drilling Plan.  A Surface Use Plan (if the location is on National Forest System SUPO shall be filed with the appropriate Forest Service Office).	Lands, the	Item 20 above). 5. Operator certific	cation specific info	ormation and/or plans as	DIST. 3
5. Signature		(Printed/Typed) BRIAN WOOD			Date 11/16/2005
CONSULTANT	PHON	E: (505) 466-8120	FAX	K: (505) 466-9682	_
approved by (Signature)	<i>(</i>	(Printed/Typed)			Date 3/1/2
itle AEM	Office	FFO			
Application approval does not warrant or certify that the applicant hold conduct operations thereon.	ds legal or equi	table title to those righ	ts in the sub	ject lease which would e	entitle the applicant to

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 nave.2).

A COMPLETE C-144 MUST BE SUBMITTED TO AND APPROVED BY THE NMOCD FOR: A PIT, CLOSED LOOP SYSTEM, BELOW GRADE TANK, OR PROPOSED ALTERNATIVE METHOD, PURSUANT TO NMOCD PART 19.15.17, PRIOR TO THE USE OR CONSTRUCTION OF THE ABOVE APPLICATIONS.

Conditions of approval, if any, are attached.

HNDERFOR S. 9 compliance

MAR 1 6 2011



District I PO Box 1980, Hobbs, NM 88241-1980

State of New Mexico Energy, Minerals & Natural Resources Department

Form C-102 Revised February 21, 1994 Instructions on back Submit to Appropriate District Office State Lease - 4 Copies Fee Lease - 3 Copies

District II PO Drawer DD. Artesia, NM 88211-0719

Centificate Number

PO Drawer DD, Artesia, NM 88	11-0719	OIL		ION DIVISIO		Stat	e Leasi	strict Office e - 4 Copies e - 3 Copies
District III 1000 Rio Brazos Rd., Aztec, N	4 B7410	San	PO Box Ita Fe, NM	: 2088 : 87504-2088 <b>?(1)5</b>	NOU 16 P	M-12.5	Bune	D OEDODI
District IV 20 Box 2088, Santa Fe, NM 87	504-2088			(003			4E NOE	D HEPUHI
	WELL	LOCATI	- - חוו אוח או	CREAGE DED	RECEIV NAMBARTARI		IM	
'API Number	- 1	*Pool Cod		CHEAGE DEDY	Pool Name			<del></del>
36.643.2100	7	39189		LINDRITH	GALLUP -	DAKOTA	, WES	T
Property Code	•		Property BONA				We l	1 Number 9
3 16 15 '0GRID No.			Operator				*E1	evat ion
149052		ELM	•	SOURCES, INC.			-	7186
		:	<sup>10</sup> Surface			·		
UL or lot no. Section Towns J 12 22	1	Lot Idn	Feet from the	North/South line SOUTH	Feet from the	East/Nest EAS		SANDOVAL
	<sup>11</sup> Bottom	Hole L	ocation I		From Surf	ace	1	
UL or lot no. Section Towns	ip Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West	line	County
12 Dedicated Acres	<u> </u>	J	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>25</sup> Order No.	L	1	
160 .	•	•						
NO ALLOWABLE WILL O				ON UNTIL ALL			N CON	SOLIDATED
5280.00°		LONG	T: 36 '08 '57 'N G: 107 '06 '19 'W		Signator  Printed  Title  Date  18 SURV  I nereby shown on notes of my super and correct on the correct of the	Name  EYOR Coertify that this plat we actual survey vision and tect to the tool of Survey	BRIAN CONSI OV. 1. CERTII It the we's as plotte eys made that the uest of m y: MARC	WOOD ULTANT 6, 2005 FICATION 13 location 2d from field by me or under same is true

5280.00

## **Drilling Program**

## 1. ESTIMATED FORMATION TOPS

Formation Name	GL Depth	KB Depth	Elevation
San Jose	000'	12'	+7,186'
Ojo Alamo	2,236'	2,248'	+4,950'
Kirtland	2,356'	2,368'	+4,830'
Fruitland	2,461'	2,473'	+4,725'
Pictured Cliffs	2,561'	2,573'	+4,625°
Lewis Shale	2,686'	2,698'	+4,500'
Point Lookout	4,661'	4,673'	+2,525'
Mancos Shale	4,836'	4,848'	+2,350'
Gallup Ss	5,686'	5,698'	+1,500'
Graneros	6,751'	6,763'	+435'
Dakota	6,786'	6,798'	+400'
Total Depth (TD)	7,100'	7,112'	+86'

#### 2. NOTABLE ZONES

Oil & Gas Zones	Water Zones	Coal Zones
Pictured Cliffs	San Jose	Fruitland
Gallup	Ojo Alamo	
Dakota	·	

Water zones will be protected with casing, cement, and weighted mud. Fresh water encountered during drilling will be recorded by depth, cased, and cemented. Oil and gas shows will be tested for commercial potential based on the well site geologist's recommendations.

## 3. PRESSURE CONTROL

The drilling contract has not yet been awarded, thus the exact BOP model to



be used is not yet known. A typical 3,000 psi model is on PAGE 3. A  $\geq$ 3,000 psi BOP and choke manifold system will be installed and tested to 2,000 psi before drilling surface casing plug. It will remain in use until the well is completed or abandoned. A safety valve and sub with a full opening valve to fit the drill pipe and collars will be available on the rig floor in the open position at all times for use when kelly is not in use.

All BOP mechanical and pressure tests will be recorded on the driller's log. BOPs will be inspected and opened and closed at least daily to assure good mechanical working order. Inspections will be recorded on the daily drilling report. Pressure tests will be conducted before drilling out from under all casing strings which are set and cemented in place.

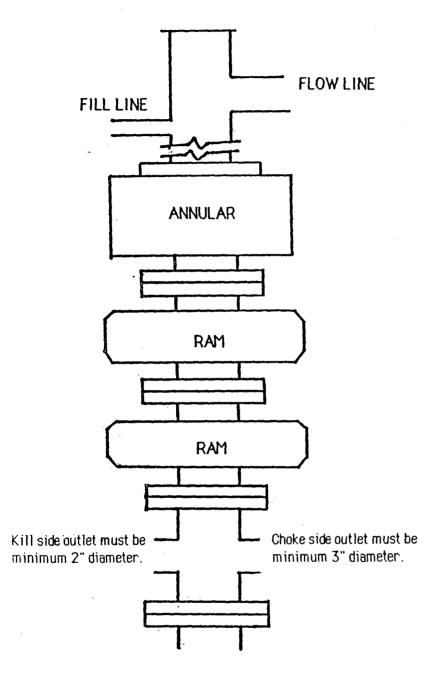
## 4. CASING & CEMENT

Hole Size	<u> O. D.</u>	Weight (lb/ft)	<u>Grade</u>	<u>Type</u>	<u>Age</u>	<b>GL Setting Depth</b>
12-1/4"	8-5/8"	24	K-55	ST&C	New	350'
7-7/8"	4-1/2"	10.5	J-55	LT&C	New	6,900'

Surface casing will be cemented to the surface with  $\approx 290$  cubic feet ( $\approx 246$  sacks) Class B with 1/4#/sk Flocele + 2% CaCl<sub>2</sub>. Yield = 1.18 cubic feet per sack. Weight = 15.2 pounds per gallon. Volume = 100% excess. Centralizers will be installed on the middle of the shoe joint and every other centralizer thereafter. Thread lock the guide shoe and bottom of float collar only. Use API casing dope.

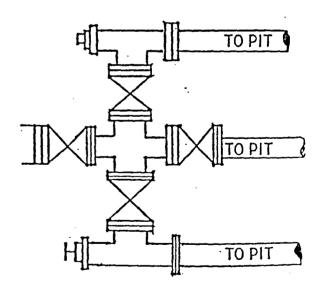
Production casing will be cemented to surface in 2 stages. Set stage tool @  $\approx 4,750$ '. Volume  $\geq 75\%$  excess, but caliper log will be used to determine actual volume needed. Centralizers will be installed on middle of the shoe joint and on every joint thereafter (total of  $\approx 30$  centralizers). Thread lock the guide shoe, bottom of float collar, and bottom of stage tool only. Use API casing dope.





## TYPICAL BOP STACK & CHOKE MANIFOLD

There will be at least 2 chokes and 2 choke line valves (3" minimum). The choke line will be 3" in diameter. There will be a pressure gauge on the choke manifold.



Kill line will be minimum 2" diameter and have 2 valves, one of which shall be a minimum 2" check valve.

Upper kelly cock will have handle available.

Safety valve and subs will fit all drill string connections in use.

All BOPE connections subjected to well pressure will be flanged, welded, or clamped.



First stage volume will be  $\approx 1,375$  cubic feet. First stage will consist of  $\approx 340$  sacks Halliburton light with 65/35 poz mix + 1/4 pound per sack Flocele + 2% CaCl<sub>2</sub> (yield = 1.87 cubic feet per sack & weight = 12.7 pounds per gallon) followed by  $\approx 630$  sacks Class B + 2% CaCl<sub>2</sub> (yield = 1.18 cubic feet per sack & weight = 15.2 pounds per gallon).

Second stage volume will be  $\approx 2,100$  cubic feet. Second stage will consist of  $\approx 1,100$  sacks of Halliburton light with 65/35 poz mix + 1/4 pound per sack Flocele + 2% CaCl<sub>2</sub> (yield = 1.87 cubic feet per sack & weight = 12.7 pounds per gallon) followed by  $\approx 50$  sacks Class B + 2% CaCl<sub>2</sub> (yield = 1.18 cubic feet per sack & weight = 15.2 pounds per gallon)..

#### 5. MUD PROGRAM

<u>Depth</u>	<u>Type</u>	ppg	<b>Viscosity</b>	Fluid Loss	Hq
0' - 350'	Fresh water gel	9.0	50	NC	9
350' - TD'	Fresh water gel	9.0	38-50	6.0	9

Sufficient material to maintain mud properties, control lost circulation, and contain a blowout will be available at the well site while drilling. Mud will be checked hourly by rig personnel. Material to soak up possible oil or fuel spills will be on site.

#### 6. CORES, TESTS, & LOGS

No cores or drill stem tests are planned. DIL/GR logs will be run from TD to surface. CNL/FDC logs may be run over selected segments. Samples will be collected every 10' from  $\approx 5,000$ ' to TD. Samples will be collected every 30' elsewhere.



## 7. DOWN HOLE CONDITIONS

No abnormal pressures, temperatures, or hydrogen sulfide are expected. Maximum bottom hole pressure will be  $\leq 2,840$  psi.

## 8. OTHER INFORMATION

The anticipated spud date is upon approval. It is expected it will take  $\approx$ 2 weeks to drill and  $\approx$ 2 weeks to complete the well.



### Surface Use Plan

## 1. <u>DIRECTIONS & EXISTING ROADS</u> (See Pages 11 & 12)

From the equivalent of Mile Post 80.5 on US 550 ...
Go North 3.0 miles on J-37
Then turn right and go East 2.0 miles on J-22
Then bear right and go Southeast 1.3 miles on a dirt road
Then turn left and go Northeast 91' cross country to the proposed pad

Roads will be maintained to a standard at least equal to their present condition.

## 2. ROAD TO BE BUILT OR UPGRADED

About 150' of the existing road will be detoured to the south to avoid the southwest corner of the pad. Ninety-one feet of new road will be built. All  $\approx$ 241' of road work will be crowned and ditched with a  $\approx$ 14' wide running surface. Maximum disturbed width will be 30'. Maximum grade will be 3%. Maximum cut or fill will be  $\approx$ 6'. One 18" x 30' culvert will be installed at the entrance to the pad. No turn out or cattle guard is needed.

## 3. EXISTING WELLS (See Page 12)

There are 11 gas or oil wells and 1 plugged and abandoned well within a mile radius. There are no water or injection wells within a mile.

## 4. PROPOSED PRODUCTION FACILITIES (See Page 13)

Production facilities will include a separator, dehydrator, meter run, and  $\approx 210$  barrel tank. All surface equipment will be painted a flat juniper green color.



A steel  $\approx$ 4-1/2" O. D. gas line will be laid south 1,259.1' beside an existing road to Elm Ridge's existing #6 well. The new line will operate at  $\approx$ 100 psi, be tested to  $\approx$ 300 psi, has a burst rating of >1,000 psi, and will be buried  $\geq$ 36" deep. Water bars will be installed in cut and skewed to drain away from the road every  $\approx$ 100 yards on the pipeline route. No compressor is needed.

## 5. WATER SUPPLY

Water will be trucked from Cuba, Lindrith, or Lybrook.

#### 6. CONSTRUCTION MATERIALS & METHODS

NM One Call will be notified (1-800-321-ALERT) at least 48 hours before construction starts. The top 6" of soil will be bladed and piled east of the pad and used to divert a wash. A diversion ditch will be cut on the south and west sides of the pad.

#### 7. WASTE DISPOSAL

A minimum 12 mil plastic liner will be installed in the reserve pit. The reserve pit will be fenced sheep tight on 3 sides with woven wire fence topped with barbed wire. The fourth side will be fenced once the rig moves off. The fence will be kept in good repair while the pit dries. Once dry, contents of the reserve pit will be buried in place.

All trash will be placed in a portable trash cage. It will be hauled to an approved landfill. There will be no burial or burning.

Human waste will be disposed of in chemical toilets or minimum 10' deep rat holes under trailers. Rat holes will be immediately filled when the trailers are removed.



## 8. ANCILLARY FACILITIES

There will be no air strip or camp. Camper trailers may be on location for the company man, tool pusher, and mud logger.

#### 9. WELL SITE LAYOUT

See Pages 14 and 15 for depictions of the well pad, cross section, cut and fill diagram, reserve pit, trash cage, access onto the location, parking, living facilities, and rig orientation.

## 10. RECLAMATION

Reclamation starts once the reserve pit is dry. It usually takes a year for a reserve pit to fully evaporate, at which point it will be back filled. The pad, road, pipeline, and back filled pit will be contoured to a natural appearance, soil spread evenly over disturbed areas, and disturbed areas ripped or harrowed. The south half seed mix will be drilled as prescribed by the BIA and Tribe. Bladed brush will used as mulch.

If the well is a producer, then the reserve pit and any other areas not needed for work overs will be reclaimed as previously described. All of the topsoil pile will be used to reclaim the reserve pit.

## 11. SURFACE OWNER

All construction is on lease and on surface and minerals owned by the Jicarilla Apache Nation.

#### 12. OTHER INFORMATION



1930' FSL & 1970' FEL Sec. 12, T. 22 N., R. 3 W. Sandoval County, New Mexico

The nearest clinics are an hour plus drive away in Cuba and Dulce. The nearest hospital is over two hours away in southwest Farmington.

Land use will be ...

Roads:  $30' \times 241' = 0.17$  acre

Well Site:  $170' \times 270' = 1.05$  acres + Pipeline:  $20' \times 1.259.1' = 0.58$  acres

Total = 1.80 acres

## 13. REPRESENTATION & CERTIFICATION

Anyone having questions concerning the APD should call:

Brian Wood, Consultant Permits West, Inc. 37 Verano Loop Santa Fe, NM 87508

(505) 466-8120

FAX: (505) 466-9682

Cellular: (505) 699-2276

## The field representative will be:

Terry Lindeman Elm Ridge Exploration Company, LLC P. O. Box 189 Farmington, NM 87499 (505) 632-3476

Elm Ridge Exploration Company, LLC has the necessary consents from the proper lease owners to conduct lease operations in conjunction with this well. Bond coverage pursuant to 43 CFR 3104 for lease activities and operations is being provided by Elm Ridge Exploration Company, LLC.

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which currently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and that the work associated with



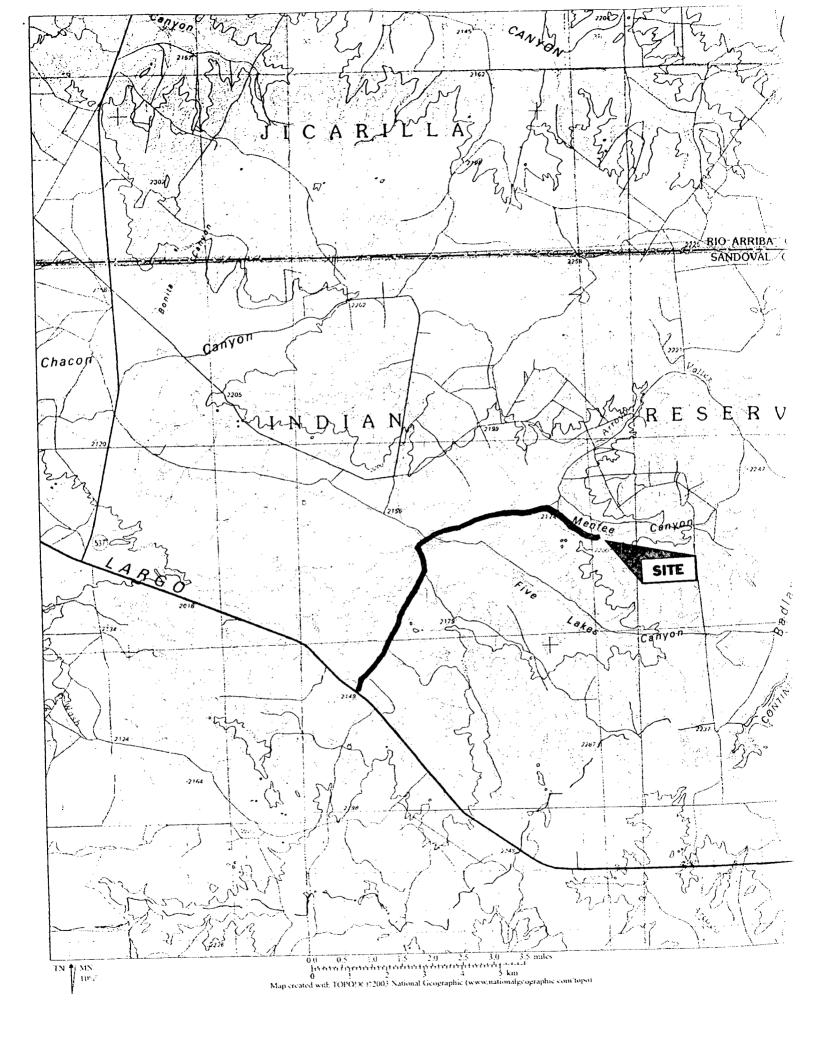
PAGE 10

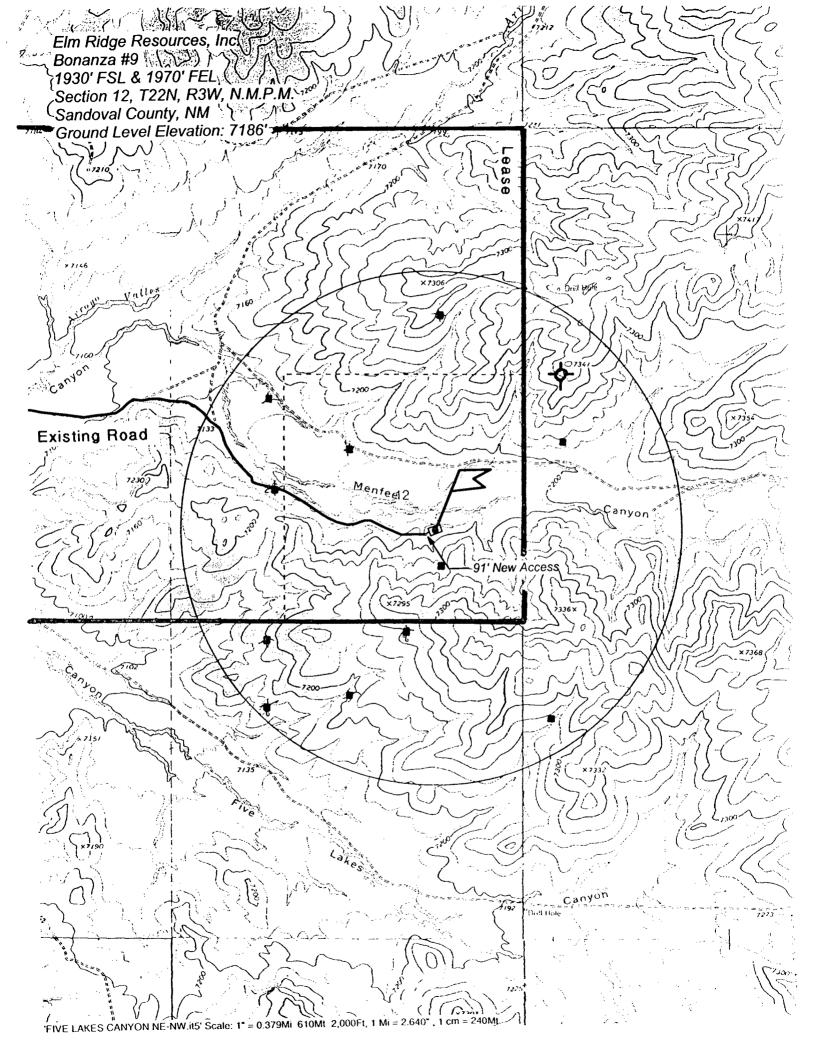
operations proposed herein will be performed by Elm Ridge Exploration Company, LLC, and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U. S. C. 1001 for the filing of a false statement.

Brian Wood, Consultant

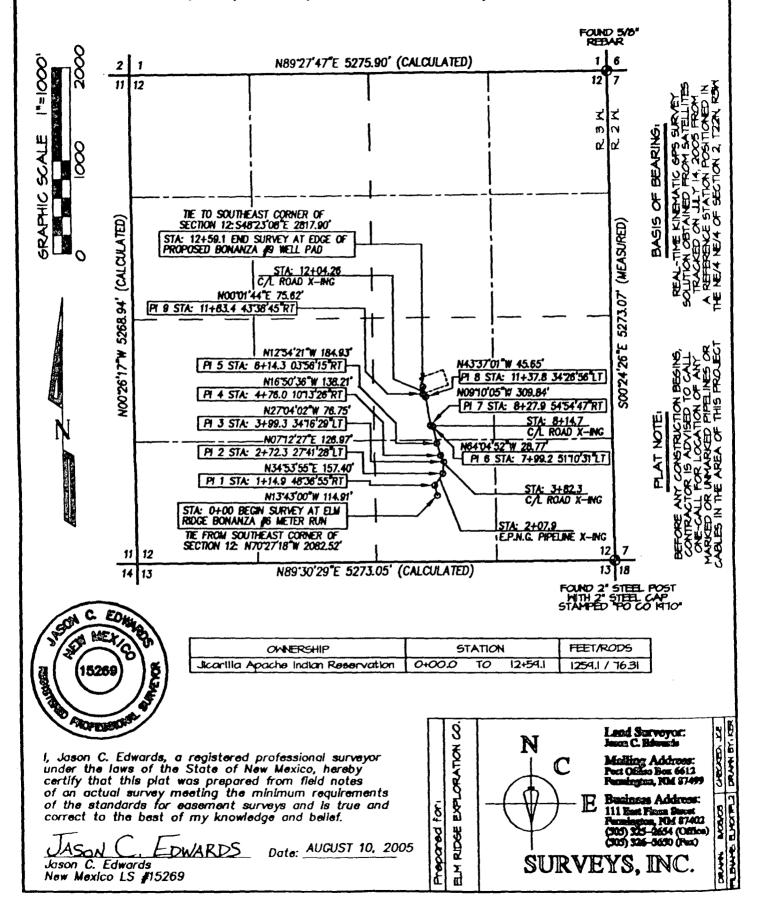
November 15, 2005







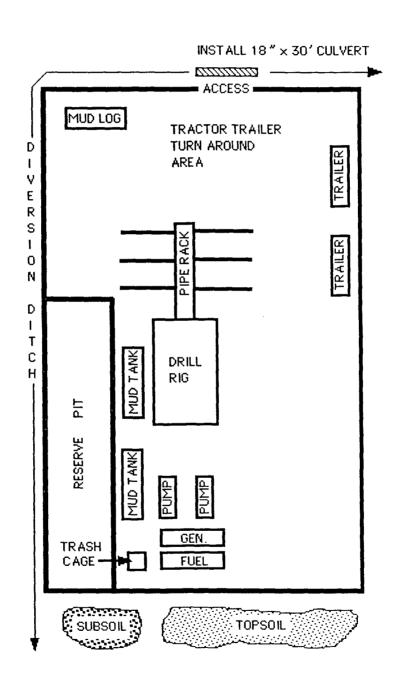
# ELM RIDGE EXPLORATION COMPANY, LLC: BONANZA #9 PROPOSED PIPELINE SURVEY LOCATED IN THE E/2 OF SECTION 12, T22N, R3W, N.M.P.M, SANDOVAL COUNTY, NEW MEXICO



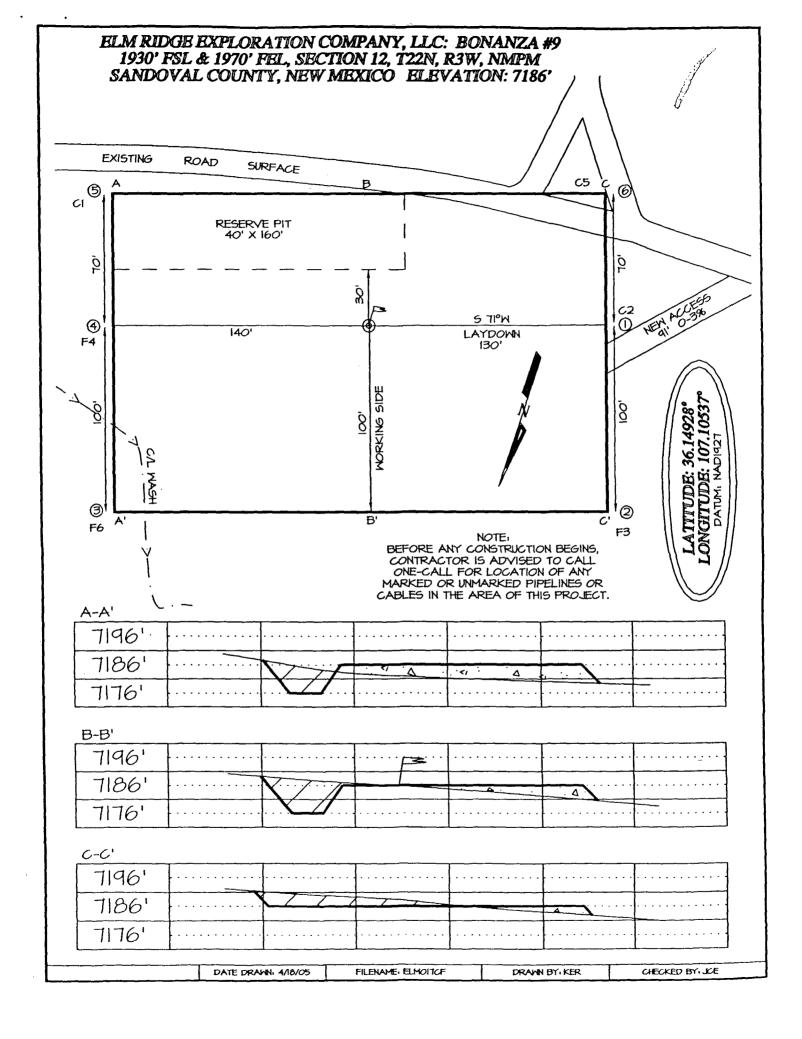
1930' FSL & 1970' FEL Sec. 12, T. 22 N., R. 3 W.

Sandoval County, New Mexico









Submit 3 Copies To Appropriate District Office	State of New Me			Form C-103
<u>District I</u> 1625 N. French Dr., Hobbs, NM 88240	Energy, Minerals and Natu	ral Resources	WELL API NO.	May 27, 2004
District II 1301 W. Grand Ave., Artesia, NM 88210	OIL CONSERVATION	DIVISION	30-043-	
District III 1000 Rio Brazos Rd., Aztec, NM 87410	1220 South St. Fran		5. Indicate Type of Lease STATE FE	E 🗀
District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505	Santa Fe, NM 87	7505	6. State Oil & Gas Lease No BIA 360	).
		UG BACK TO A	7. Lease Name or Unit Agre BONANZA	ement Name
1. Type of Well: Oil Well	Gas Well 🛛 Other		8. Well Number 9	
2. Name of Operator ELM RII	DGE EXPLORATION COMI	PANY, LLC	9. OGRID Number 14905	2
3. Address of Operator P.O. BO	X 156, BLOOMFIELD, NM	87413	10. Pool name or Wildcat LINDRITH GALLUP-DA	AKOTA, WEST
4. Well Location	1020	717	070	A C/T
Unit Letter J : Section 12	1930 feet from the SOUT	H line and 1 ange 3W		AST line SANDOVAL
Section 12	11. Elevation (Show whether DR		The state of the s	SANDOVAL
Pit or Below-grade Tank Application 🛛 o	7,186' GL			and the second
Pit type DRILLING Depth to Groundw		vater well >5,280' Dist	ance from nearest surface water_~l	00'
Pit Liner Thickness: 12 mil	Below-Grade Tank: Volume	bbls; Co	nstruction Material	
12. Check A	Appropriate Box to Indicate N	lature of Notice,	Report or Other Data	
NOTICE OF IN PERFORM REMEDIAL WORK TEMPORARILY ABANDON PULL OR ALTER CASING	ITENTION TO: PLUG AND ABANDON  CHANGE PLANS  MULTIPLE COMPL	SUB: REMEDIAL WORL COMMENCE DRI CASING/CEMENT	LLING OPNS. P AND A	F: G CASING []
OTHER: DRILLING PIT	$\overline{\mathbb{X}}$	OTHER:		
	eleted operations. (Clearly state all ork). SEE RULE 1103. For Multip			
I hereby certify that the information grade tank has been/will be constructed or	above is true and complete to the belosed according to NMOCD guidelines	est of my knowledg	e and belief. I further certify that or an (attached) alternative OCD-a	t any pit or below-
SIGNATURE /	TITLE_	CONSULTANT	DATE_	11-16-05
Type or print name BRIAN WO	OD E-mail a	ddress:brian@per	mitswest.com Telephone N	io.(505) 466-812
APPROVED BY:Conditions of Approval (if any):	TITLE		DATE_	