	(July 1992)  association with the drilling of this  DEPAR well, an OCD nit permit							instruc erse si	JO.	FORM APPROVED OMB NO. 1004-0136 Expires: February 28, 1995  5. LEASE DESIGNATION AND SERIAL NO.		
-	BURI obtained prior to pit construction.									NM-104666		
	APPLICATION FURTHERING TO SERVICE EN									6. IF INDIAN, ALLOTTEE OR TRIBE NAME		
1	la. TYPE OF WOR		ILL 🖾		DEEPEN [			ECE	ΛĒŪ	7. UNIT AGREEMENT NAME		
	b. TYPE OF WEL						F	NEC	(-aa			
3	OIL WELL	TV	ELL X	227	001	ZONE X		D-AD	TESIA	8. FARM OR LEASE NAME WELL NO. BUENA VISTA 24-25"		
	I ATTCO PI	ሞው∩፣ 1	FUM TNC					أسطأنها صديتن	IESIA	FEDERAL # 1		
3	LATIGO PETROLEUM, INC. (JOE CLEMENT 432-684-4293)  ADDRESS AND TELEPHONE NO.  9. ANI WELL NO.  30 - 015 - 34454											
	550 WEST	TEXAS	S AVE. S	UTTE 700	תא זמדא ר	TEYAS 7070	1 (	/22 <b>6</b>	87 730	310. PIELD AND POOL, OR WILDCAT		
4	LOCATION OF	WELL (R	eport location	n clearly and	in accordance wit	h any State requir	ements	s.*)_	M 1	MORROW 8134		
	At surface 1470	' FSL	& 1755 <b>'</b>	FEL SEC	CTION 24 T	'26S-R25E	םמכ	æj.		11. SEC., T., R., M., OR BLK.		
					•					section 24. T26S-R25E		
		,	660' F	NL & 198	80' FWL SEC	TION 25 T2	6S-I	R25E				
ī	14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE®									12. COUNTY OR PARISH   13. STATE		
_	Approximately 15 miles Southeast of White City New Mexico									EDDY CO. NM		
1	5. DISTANCE FR LOCATION TO	NEAREST	r C	•		16. NO. OF ACRES			17. NO. O	F ACRES ASSIGNED		
	PROPERTY OR (Also to nea	LEASE L	.INE, FT. g. unit line, i	( any, 660 t	'	1280				320		
1	S. DISTANCE FR TO NEAREST OR APPLIED FO	WELL, D	RILLING, COM	PLETED.	NA	19. PROPOSED DEP MD-11,500	RY OR CABLE TOOLS					
2	1. ELEVATIONS (	Show who	ether DF, RT	GR. etc.)					<u>'</u>	22. APPROX. DATE WORK WILL START*		
	3524' GR. SUBJECT TO LIKE APPROVAL BY STATE WHEN APPROVED											
2	23. PROPOSED CASING AND CEMENTING PROGRAM											
-	SIZE OF HO	LE	GRADE, SIZE	WEIGHT PER FO	PER FOOT SETTING DEPTH				QUANTITY OF CEMENT			
-	26"		Conduct	or 20"	NA		0'	<del></del>	Redi-n	nix cement to surface		
WITÑ			H-40 13		48#	42				c. circulate to surface		
<b>-</b> -	121"			5/8"	32#	_5150			1500 S			
_	7 7/	8"	P-110 5		17#	11,500	' MI	)	1000 S	Sx. estimate TOC 7500'		
1.	Drill 26 Redi-mix		e to 40.	'. Set 4	0' of 20"	conductor p	ipe	and o	cement	to surface with		
2.										C&C casing. Cement culate cement to surface		
3.	with 100	0 Sx.	of Clas	ss "C" I	ight Weigh	t Cement +	addi	ltives	s, tail	T&C casing. Cement in with 500 Sx. to surface.		
4	LT&C ca tail in cement	sing. with 7500'	Cement 400 Sx from s	with 60 . of Cla urface.	00 Sx. of Cass "H" Pres	lass "H" Li mium Plus c	ght emer	Weigh	nt ceme additiv	o' of 5½" 17# P-110 ent + additives, ves, estimate top of ove the top of the		
	upper m	ost p	ay inte	rval.				CAR	LSBAD C	CONTROLLED WATER BASIN		
	LATIGO	PETRO	LEUM, I	NC ACCEP	THE RESP	ONSIBILITY	FOR	THE (	OPERATI	ON OF THIS LEASE.		
IN de	N ABOVE SPACE :	DESCRIBI	E PROPOSED F	ROGRAM: If postion	proposal is to deepen, particularly and treasured and and treasured and and treasured and and treasured and and and and and and and and and an	give data on present p ue vertical depths. Giv	roducti e blowe	ve zone a out preven	nd proposed ter program,	new productive zone. If proposal is to drill or if any.		
2	<u> </u>	<i>/-/-</i>		$\overline{}$						BJECT TO 101 (05		

NOV 3 0 2005 /s/ Joe G. Lara APPROVED BY \*See Instructions On Reverse Side 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.

CONDITIONS OF APPROVAL, IF ANY:

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.

ATTACHED

#### State of New Mexico

DISTRICT I 4 A 1625 N. FRENCH DE., HOBBS, NM 88240

Energy, Minerals and Natural Resources Department

Form C-102 Revised JUNE 10, 2003

Revised JUNE 10, 2003 Submit to Appropriate District Office

DISTRICT II 1301 W. GRAND AVENUE, ARTESIA, NM 88210 OIL CONSERVATION DIVISION 1220 SOUTH ST. FRANCIS DR. Santa Fe, New Mexico 87505

State Lease — 4 Copies Fee Lease — 3 Copies

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

DISTRICT IV 1220 S. ST. FRANCIS DR., SANTA FE, NK 87505	WELL LOCATION AND	□ AMENDED REPORT	
API Number	Pool Code	Pool Name	
	81340	UN DOS MILEPOST MORROW	
Property Code	Pro	perty Name	Well Number
	BUENA VISTA	"24-25" FEDERAL	1
OGRID No. 227001	Оре	erator Name	Elevation
227001	LATIGO PI	ETROLEUM, INC.	3524'

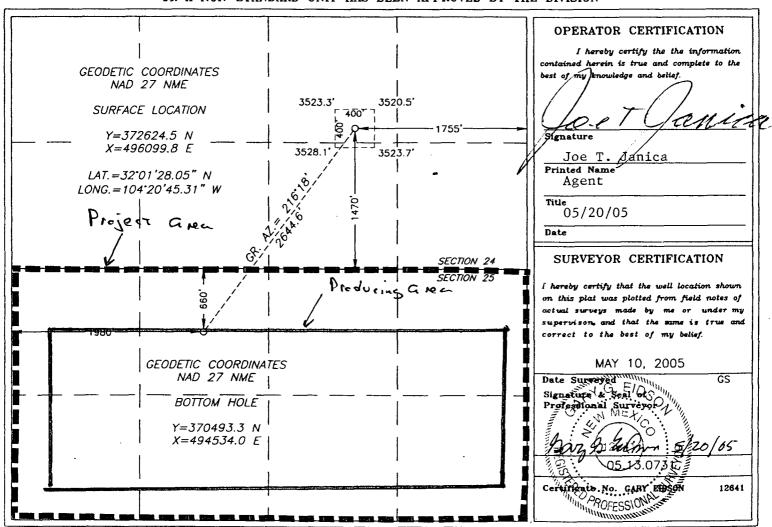
#### Surface Location

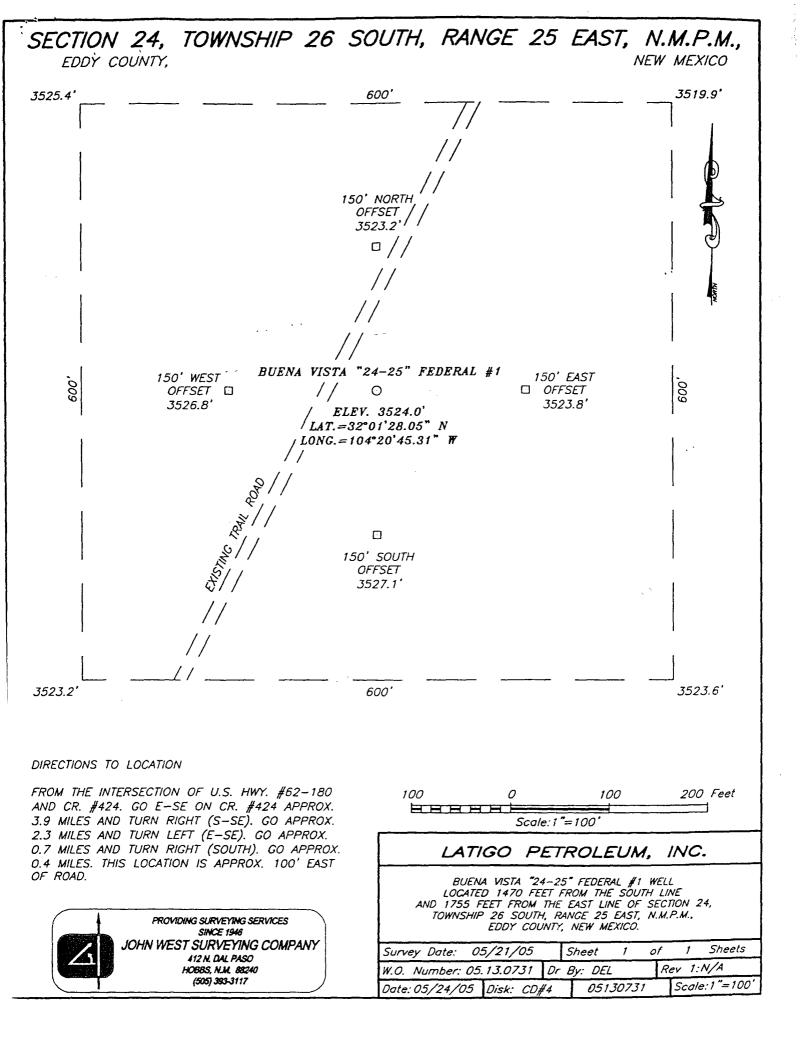
ĺ	UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
	J	24	26-S	25-E	,	1470	SOUTH	1755	EAST	EDDY

# Bottom Hole Location If Different From Surface

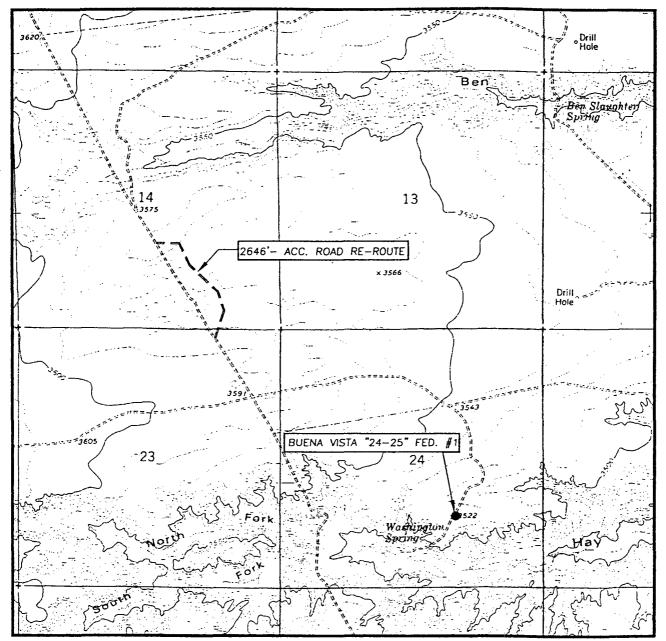
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C 25 26-S 25-		25-E		660	NORTH	1980	WEST	EDDY	
Dedicated Acre	s Joint o	r Infill Co	nsolidation	Code Or	der No.				•
320									

# 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





# LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

JUMPING SPRING, N.M.

CONTOUR INTERVAL: 10' JUMPING SPRING, N.M.

SEC. 24 T	WP. <u>26-S</u> RGE. <u>25-E</u>
SURVEY	N.M.P.M.
COUNTY	EDDY
DESCRIPTION	1470' FSL & 1755' FEL
ELEVATION	3524'
OPERATORL	ATIGO PETROLEUM, INC.
LEASE BUENA	VISTA "24-25" FEDERA
HECE TOP	OCRAPHIC MAP



PROVIDING SURVEYING SERVICES
SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO
HOBBS, N.M. 88240
(505) 383-3117

### APPLICATION TO DRILL

# LATIGO PETROLEUM, INC.

BUENA VISTA "24-25" FEDERAL #1
SL UNIT "J" SECTION 24
BHL UNIT "C" SECTION 25
T26S-R25E EDDY CO. NM

In response to questions asked under Section II B of Bulletin NTL-6 the following information is provided for your consideration:

1. Location: Surface location 1470' FSL & 1755' FEL SEC. 24 T26S-R25E Bottom hole location 660' FNL & 1980' FWL SEC. 25 T26S-R25E

2. Elevation above sea level: 3524' GR.

# 3. Geologic name of surface formation:

- 4. <u>Drilling tools and associated equipment:</u> Conventional rotary drilling rig using fluid as a circulating medium for solids removal.
- 5. Proposed drilling depth: MD 11,540' TVD 10,700'

# 6. Estimated tops of geological markers:

Lamar	1530'	Strawn	8960'
Brushy Canyon	3970¹	Atoka	9440'
Bone Spring Wolfcamp	4975 7750' 8720'	Morrow Lime Lower Morrow Sand Chester Sand	9870' 10,190' 10,350'

7. Possible mineral bearing formation:

Brushy Canyon Oil/Gas Morrow Lime Gas
Strawn Gas Lower Morrow Sand Gas

# 8. Casing program:

Hole size	Interval	OD casing	Weight	Thread	Collar	Grade
26"	0-40	20"	NA	NA	NA	Conductor
17½"	0-420	13 3/8"	48#	8-R	ST&C	H-40
12½"	0-5150'	8 5/8"	32#	8-R	ST&C	J-55
7 5/8"	0-11,500	5½ <sup>tr</sup>	17#	8-R & Butt.	LT&C	P-110

### APPLICATION TO DRILL

LATIGO PETROLEUM, INC.
BUENA VISTA "24-25" FEDERAL #1
SL UNIT "J" SECTION 24
BHL UNIT "C" SECTION 25
T26S-R25E EDDY CO. NM

# 9. CEMENTING & SETTING DEPTH:

20"	Conductor	Set 40' of 20" conductor pipe and cement to surface with Redi-mix.
13 3/8"	Surface	Set 400' of 13 3/8" 48# H-40 ST&C casing. Cement with 500 Sx. of Class "C" cement + 2% CaCl, + $\frac{1}{2}$ # Flicele/Sx. circulate cement to surface.
8 5/8"	Intermediate	Set 5150' of 8 5/8" 32# J-55 ST&C casing. Cement with 1000 Sx. of Class "C" Light cement + additives, tail in with 500 Sx. of Class "C" cement + 2% CaCl, + ½# of Flocele/Sx. Circulate cement to surface.
5½"	Production	Set 11,500° of 5½" 17# P-110 LT&C,BTC cement with with 600 Sx. of Class "H" Light cement + additives, tail in with 400 Sx. of Class "H" Premium Plus cement + additives, estimate top of cement 7500°, or at least 500° above the upper most pay interval.

10. PRESSURE CONTROL EQUIPMENT: Exhibit "E" shows a 1500 Series 5000 PSI working pressure B.O.P. consisting of an annular bag type preventor, middle blind rams and bottom pipe rams. The B.O.P. will be nippled up on the 13 3/8" casing and tested to API specifications. The B.O.P. will be operated at least once in each 24 hour period and the blind rams will be operated when drill pipe is out of hole on trips. Full opening stabbing valve and upper kelly cock will be utilized. Exhibit "E-1" shows a hydraulically operated closing unit and a 2" 5000 PSI choke manifold with dual adjustable chokes. No abnormal pressures or temperatures are expected.

# 11. PROPOSED MUD CIRCULATING SYSTEM:

			•	
DEPTH	MUD WT.	VISC.	FLUID LOSS	TYPE MUD SYSTEM
40-400'	8.4-8.7	29–34	NC	Fresh water spud mud use paper to control . seepage.
400-5150'	8.4-8.7	29-38	, NC	Fresh water mud system use paper to control seepage and high viscosity sweeps to clean hole.
5150-8900'	8.4-8.7	29-36	NC	Same as above.
8900-11,500'	8.6-8.9	32-38	10 cc or Less	Fresh water system use Gel for viscosity, use a Polymer system to control water loss and use high viscosity sweeps to clean hole.

Sufficient mud materials will be kept on location at all times in order to combat lost circulation, or unexpected kicks. In order to run DST's, open hole logs, and casing viscosity and/or water loss may have to be adjusted to meet these needs.

#### APPLICATION TO DRILL

#### LATIGO PETROLEUM, INC.

BUENA VISTA "24-25" FEDERAL #1
SL UNIT "J" SECTION 24
BHL UNIT "C" SECTION 25
T26S-R25E EDDY CO. NM

# 12. LOGGING, CORING, AND TESTING PROGRAM:

- A. Dual Laterolog, CNL, LDT, MSFL, Gamma Ray, Caliper from 5150' to 13 3/8" casing shoe. Gamma Ray, Neutron from 13 3/8" casing shoe to surface. Dual laterolog, CNL, LDT, MSFL, Gamma Ray and Caliper from TD back to 8 5/8" casing shoe.
- B. Mud logger on hole at 5150' to TD, Cores and DST's as needed to evaluate pay zones.

# 13. POTENTIAL HAZARDS:

No abnormal pressures or temperatures are expected. There is no known presence of  $\mathrm{H}^2\mathrm{S}$  in this area. If  $\mathrm{H}^2\mathrm{S}$  is encountered the operator will comply with the provisions of Onshore Oil and Gas Order No. 6. No lost circulation is expected to occur. All personnel will be familiar with all aspects of safe operation of equipment being used to drill this well. Estimated BHP 6000 PSI, and Estimated BHT 195°

# 14. ANTICIPATED STARTING DATE AND DURATION OF OPERATION:

Road and location construction will begin after the BLM has approved the APD. Anticipated spud date will be as soon after BLM approval and as soon as a rig will be available. Move in operation and drilling is expected to take 50 days. If production casing is run then an additional 30 days will be needed to complete well and construct surface facilities and/or lay flowlines in order to place well on production.

### 15. OTHER FACETS OF OPERATIONS:

After running casing, cased hole Gamma Ray, Neutron Collar logs will be run from TD back to all possible productive zones. The Morrow formation will be perforated and stimulated in order to establish production. The well will be swab tested and potentialed as a gas well.

- 1. All Company and Contract personnel admitted on location must be trained by a qualified H<sub>2</sub>S safety instructor to the following:
  - A. Characteristics of H<sub>2</sub>S
  - B. Physical effects and hazzards
  - C. Proper use of safety equipment and life support systems.
  - D. Principle and operation of H2S detectors, warning system and briefing areas.
  - E. Evacuation procedure, routes and first aid.
  - F. Proper use of 30 minute pressure demand air pack.
- 2. H<sub>2</sub>S Detection and Alarm Systems
  - A. H<sub>2</sub>S detectors and audio alarm system to be located at bell nipple, end of blooie line (mud pit) and on derrick floor or doghouse.
- 3. Windsock and/or wind streamers
  - A. Windsock at mudpit area should be high enough to be visible.
  - B. Windsock at briefing area should be high enough to be visible.
  - C. There should be a windsock at entrance to location.
- 4. Condition Flags and Signs
  - A. Warning sign on access road to location.
  - B. Flags to be displayed on sign at entrance to location. Green flag, normal safe condition. Yellow flag indicates potential pressure and danger. Red flag, danger, H2S present in dangerous concentration. Only emergency personnel admitted to location.
- 5. Well control equipment
  - A. See exhibit "E" & "E-1"
- 6. Communication
  - A. While working under masks chalkboards will be used for communication.
  - B. Hand signals will be used where chalk board is inappropriate.
  - C. Two way radio will be used to communicate off location in case of emergency help is required. In most cases cellular telephoned will be available at most drilling foreman's trailer or living quarters.
- 7. Drillstem Testing
  - A. Exhausts will be watered.
  - B. Flare line will be equipped with an electric ignitor or a propane pilot light in case gas reaches the surface.
  - C. If the location is near to a dwelling a closed DST will be performed.

- 8. Drilling contractor supervisor will be required to be familiar with the effects H2S has on tubular goods and other mechanical equipment.
- 9. If  $\rm H_2S$  is encountered, mud system will be altered if necessary to maintain control of formation. A mud gas seperator will be brought into service along with  $\rm H_2S$  scavengers if necessary.

# LATIGO PETROLEUM, INC.

BUENA VISTA "24-25" FEDERAL #1
SL UNIT "J" SECTION 24
BHL UNIT "C" SECTION 25
T26S-R25E EDDY CO. NM

- 1. EXISTING ROADS & PROPOSED ROADS: Area maps; Exhibit "B" is a reproduction of a County General Hi-way Map. Exhibit "C" is a reproduction of a USGS Topographic Map, showing existing and proposed roads. All existing roads will be maintained in a condition equal to or better than current conditions. Any new roads will be constructed to BLM specifications.
  - A. Exhibit "A" shows the proposed well site as staked.
  - B. From White City New Mexico take U.S. Hi-way 62-180, Southwest toward Elpaso, go 6.8 miles to CR. 424, turn Left (East) follow road-4.2 miles, cross cattle guard, turn Right (South and follow 2 tract road2.4 miles, turn (Left) follow road South and East for 1.3 miles and location is on the East side of road.
  - C. Exhibit "B" is a county map showing the road from White City to loaction, Exhibit "C" is a topographic map showing a more detailed portion of the road that will needed to be repaired.
- 2. PLANNED ACCESS ROADS: Approximately 4 miles of road will be up graded from a two track to a lease road.
  - A. The access roads will be crowned and ditched to a 12' wide travel surface with a 40' Right-of-Way.
  - B, Gradient of all roads will be less than 5.00%.
  - C. If turn-outs are necessary they will be constructed.
  - D. If needed roads will be surfaced with a mimimum of 4" of caliche. This material will be obtained from a local source.
  - E. Center-line for new roads will be flagged. Earth-work will be will be done as field conditions require.
  - F. Culverts will be placed in the access road if they are necessary. The roads will be constructed to utilaze low water crossings for drainage as required by topography.
- 3. LOCATIONS OF EXISTING WELLS IN A ONE MILE RADIUS. EXHIBIT "A-1"

A. Water wells - One approximately 1.5 miles South of location.

B. Disposal wells - None known

C. Drilling wells - None known

D. Producing wells - As shown on Exhibit ™A-1"

E. Abandoned wells - As shown on Exhibit "A-1"

#### LATIGO PETROLEUM, INC.

BUENA VISTA "24-25" FEDERAL #1
SL UNIT "J" SECTION 24
BHL UNIT "C" SECTION 25
T26S-R25E EDDY CO. NM

4. If on completion this well is a producer the operator will lay pipelines and construct powerlines along existing road R-O-W's or other existing R-O-W's. Exhibit "C" shows possible gas flowline to sales point.

# 5. LOCATION AND TYPE OF WATER SUPPLY:

Water will be purchased locally from a commercial source and trucked over the access roads or piped to location in flexible lines laid on top of the ground.

# 6. SOURCE OF CONSTRUCTION MATERIAL:

If possible construction material will be obtained from the excavation of drill site, if additional material is needed it will be obtained from a local source and transported over the access roads as shown on Exhibit "C".

# 7. METHODS OF HANDLING WASTE MATERIAL:

- A. Drill cuttings will be disposed of in the reserve pits.
- B. All trash, junk and other waste material will be contained in trash cages or trash bins to prevent scattering. When the job is completed all contents will be removed and disposed of in a approved sanitary land fill.
- C. Salts remaining after completion of well will be picked up by the supplier, including broken sacks.
- D. Waste water from living quaters will be drained into holes with a minium of 10'. These holes will be covered during drilling and will be back filled when the well is completed. A Porto-John will be provided for the rig crews. This equipment will be properly maintained during the drilling and completion operations and will be removed when all operations are complete.
- E. Remaining drilling fluids will be allowed to evaporate in the reserve pits until the pits are dry enough to be broken out for furthed drying. If the drilling fluids do not evaporate in a reasonable time they will be hauled off by transports to a state approve disposal site. Later pips will be broken out to speed drying. Water produced during completion will be put in reserve pits. Oil and condensate produced will be put in storage tanks and sold.

### 8. ANCILLARY FACILITIES:

A. No camps or air strips will be constructed on location.

# LATIGO PETROLEUM, INC.

BUENA VISTA "24-25" FEDERAL #1
SL UNIT "J" SECTION 24
BHL UNIT "C" SECTION 25
T26S-R25E EDDY CO. NM

### 9. WELL SITE LAYOUT

- A. Exhibit "D" shows the proposed well site layout.
- B. This exhibit indicated proposed location of reserve and sump pits and living facilities.
- C. Mud pits in the active circulating system will be steel pits & the reserve pit is proposed to be unlined unless subsurface condition encountered during pit construction indicate that lining is needed for lateral containment of fluids.
- D. If needed, the reserve pit is to be lined with polyethelene. The pit liner will be 6 mils thick. Pit liner will extend a minimum 2'00" over the reserve pits dikes where the liner will be anchored down.
- E. The reserve pit will be fenced on three sides with four strands of barbed wire during drilling and completion phases. The fourth side will be fenced after all drilling operations have ceased. If the well is a producer, the reserve pit fence will be torn down. The reserve pit and those areas of the location not essential to production facilities will be reclaimed and seeded per BLM requirements.

# 10. PLANS FOR RESTORATION OF SURFACE

Rehabilitation of the location and reserve pit will start in a timely manner after all drilling operations cease. The type of reclamation will depend on whether the well is a producer or a dry hole.

However, in either event, the reserve pit will be allowed to dry properly, and fluid removed and disposed of in accordance with Article 7.B as previously noted. The pit area will then be leveled and contoured to conform to the original and surrounding area. Drainage systems, if any, will be reshaped to the original configuration with provisions made to alleviate erosion. These may need to be modified in certain circumstances to prevent inundation of the location's pad and surface facilities. After the area has been shaped and contoured, topsoil from the spoil pile will be placed over the disturbed area to the extent possible. Revegetation procedures will comply with BLM standards.

If the well is a dry hole, the pad and road area will be contoured to match the existing terrain. Topsoil will be spread to the extent possible. Revegetation will comply with BLM standards.

Should the well be a producer, the previously noted procedures will apply to those areas which are not required for production facilities.

# LATIGO PETROLEUM, INC.

BUENA VISTA "24-25" FEDERAL # 1
SL UNIT "J" SECTION 24
BHL UNIT "C" SECTION 25
T26S-R25E EDDY CO. NM

# 11. OTHER INFORMATION:

- A. Topography consists of a flat open plane with the Southern boundry nearing a small canyon rim. Vegetation consists of Snakeweed, Mesquite, Creosote, Yucca, Cordilia, and Allthorne. Soil is caliche with a trace of tan sand.
- B. The surface is owned by The U.S. Department of Interior and is administered by The Bureau of Land Management. The surface is used for the grazing of livestock and the production of Oil & Gas.
- C. An Archaeological survey has been completed and the report is on file at The Bureau Of Land Management fiels office in Carlsbad New Mexico.
- D. There are no dwellings in the near vicinity of this location.

# 12. OPERATIOR'S REPRESENTIVES:

# Before Construction:

TIERRA EXPLORATION, INC. P.O. BOX 2188
HOBBS, NEW MEXICO 88241
OFFICE Ph. 505-391-8503
JOE T. JANICA

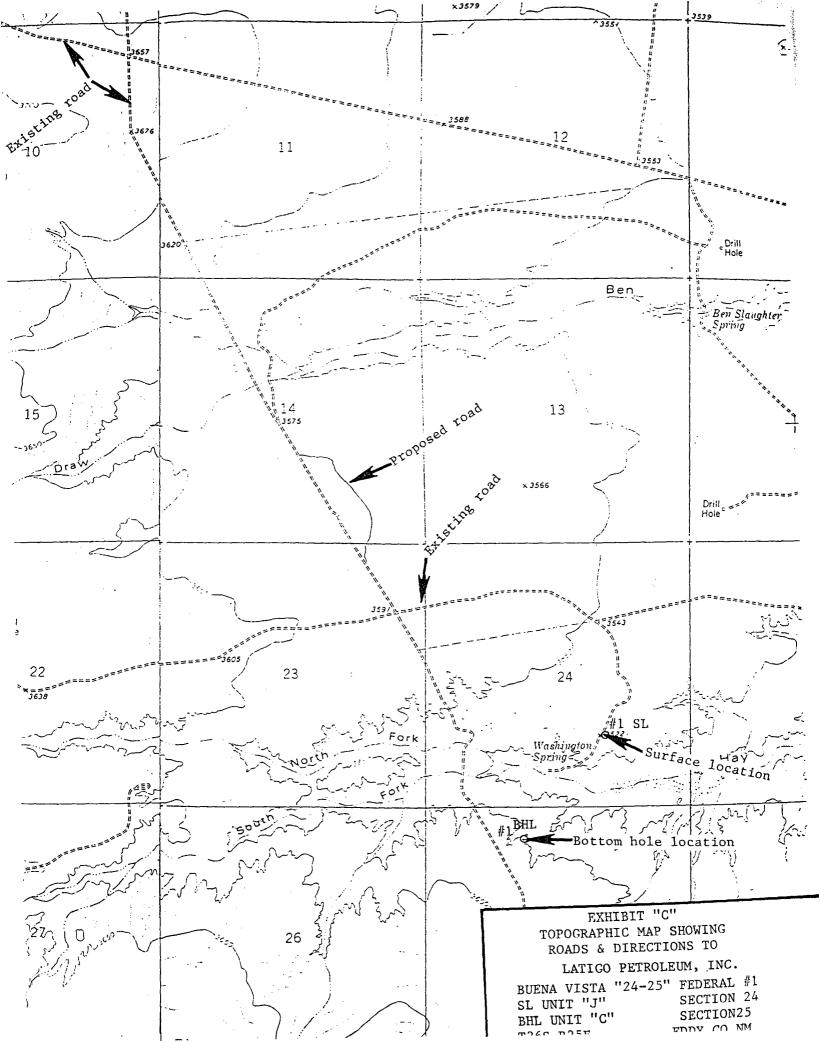
# During and after Construction:

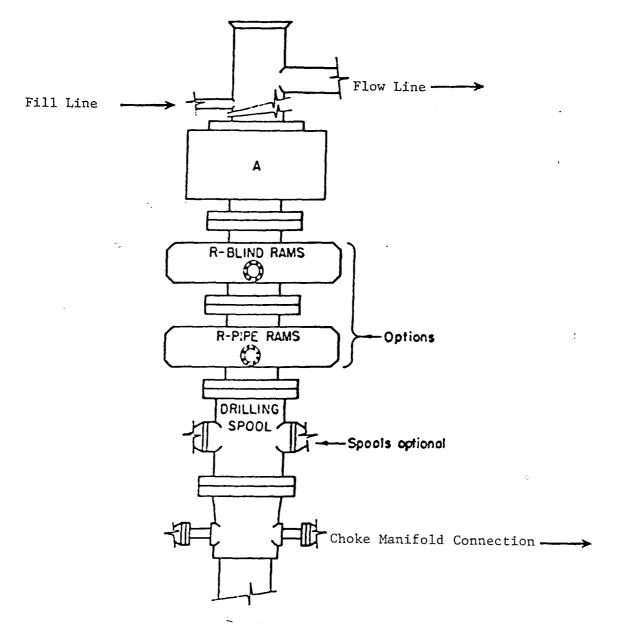
LATIGO PETROLEUM, INC. 550 WEST TEXAS AVE. SUITE 700 MIDLAND, TEXAS 79701 JOE CLEMENT 432-684-4293

13. CERTIFICATION: I hereby certify that I, or persons under my direct supervision have inspected the proposed drill site and the access roads, and that I am familiar with the conditions which currently exist, that the statements made in this plan are to the best of my knowledge are true and correct, and that the work associated with the operations proposed herein will be performed by LATIGO PETROLEUM, INC. it's contractors/subcontractors is in confirmity with this plan and the terms and conditions under which it is approved. This statement is subject to the provision of U.S.C. 1001 for the filing of a false report.

NAME : OP/01/05

TITLE : Agent





# ARRANGEMENT SRRA

1500 Series 5000 PSI WP

EXHIBIT "E"

SKETCH OF B.O.P. TO BE USED ON

LATIGO PETROLEUM, INC.

BUENA VISTA "24-25" FEDERAL #1

SL UNIT "J" SECTION 24

BHL UNIT "C" SECTION 25

T26S-R25E EDDY CO. NM



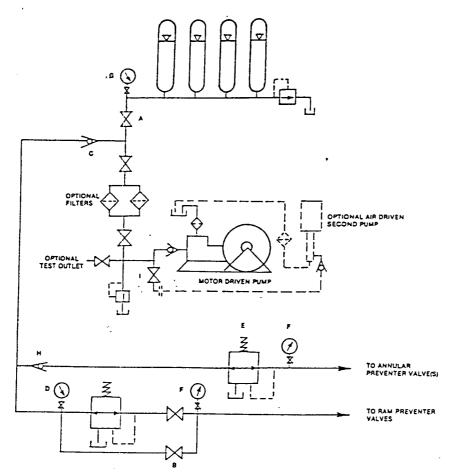


FIGURE K6-1. The schematic sketch of an accumulator system shows required and optional components.

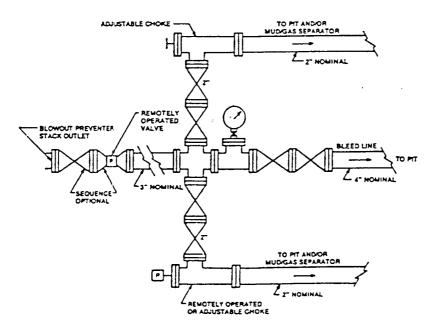


FIGURE K4-2. Typical choke manifold assembly for 5M rated working pressure service — surface installation.

EXHIBIT "E1"
CHOLE MANIFOLD & CLOSING UNIT

LATIGO PETROLEUM, INC.

BUENA VISTA "24-25" FEDERAL #1 SL UNIT "J" SECTION 24

BHL UNIT "C" SECTION 25

T26S-R25E EDDY CO. NM

Pure Resources Company: Field: Buena Vista

Buena Vista 24-25 Federal #1 🕏 Site:

Well: Wellpath:

Date: 4/21/2005 Time: 10:31:49
Co-ordinate(NE) Reference: Well: #1, Grid North Vertical (TVD) Reference: SITE 0.0

Section (VS) Reference:

User (0.00N,0.00E,216.00Azi)

Page:

1

Plan

Buena Vista Field:

Map System: US State Plane Coordinate System 1927

Geo Datum: NAD27 (Clarke 1866) Sys Datum: Mean Sea Level

Plan:

New Mexico, Eastern Zone

Map Zone: Coordinate System: Well Centre igrf2005 Geomagnetic Model:

Buena Vista 24-25 Federal #1 Site:

Site Position: Local Only From:

Northing: Easting:

Latitude: ft

Longitude: North Reference:

Slot Name:

Grid

Position Uncertainty: 0.00 ft 0.00 ft

Ground Level:

Grid Convergence:

deg

Well: Well Position:

0.00 ft Northing: +N/-SEasting:

0 nT

ft Latitude:

+E/-W Position Uncertainty:

0.00 ft 0.00 ft

ft Longitude:

Wellpath: 1 **Current Datum:** Magnetic Data:

Field Strength:

Vertical Section:

SITE 4/21/2005

Height

0.00 ft

+N/-S

ft

0.00

Drilled From: Tie-on Depth: Above System Datum: Declination:

0.00 ft Mean Sea Level 0.00 deg

Mag Dip Angle: +E/-W ft

0.00 deg Direction

deg 216.00 0.00

Plan:

Plan

0.00

ft

Depth From (TVD)

Date Composed: Version:

4/21/2005

Surface

Principal: No Tied-to:

User Defined

#### **Plan Section Information**

MD ft	Inci deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg	Target		
4500.00	0.00	216.00	4500.00	0.00	0.00	0.00	0.00	0.00	0.00			
5835.32	40.06	216.00	5729.15	-362.52	-263.39	3.00	3.00	0.00	216.00			
8502.89	40.06	216.00	7770.85	-1751.44	-1272.50	0.00	0.00	0.00	0.00			
9838.20	0.00	216.00	9000.00	-2113.96	-1535.88	3.00	-3.00	0.00	180.00	Target		
11538.20	0.00	216.00	10700.00	-2113.96	-1535.88	0.00	0.00	0.00	216.00			

#### Section 1: Start Build 3.00

Section	7. Out Duit 0.00											
MD ft	Incl deg	Azim deg	TVD ft	+N/-S ;;	+E/-W ft	VS . ft	DLS deg/100ft	Build deg/100ft	Turn deg/100fl			
4500.00	0.00	216.00	4500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4600.00	3.00	216.00	4599.95	-2.12	-1.54	2.62	3.00	3.00	0.00	0.00		
4700.00	6.00	216.00	4699.63	-8.46	-6.15	10.46	3.00	3.00	0.00	0.00		
4800.00	9.00	216.00	4798.77	-19.02	-13.82	23.51	3.00	3.00	0.00	0.00		
4900.00	12.00	216.00	4897.08	-33.76	-24.53	41.74	3.00	3.00	0.00	0.00		
5000.00	15.00	216.00	4994.31	<b>-52</b> .65	-38.25	65.08	3.00	3.00	0.00	0.00		
5100.00	18.00	216.00	5090.18	-75.62	-54.94	93.48	3.00	3.00	0.00	0.00		
5200.00	21.00	216.00	5184.43	-102.63	-74.56	126.85	3.00	3.00	0.00	0.00		
5300.00	24.00	216.00	5276.81	-133.58	-97.05	165.12	3.00	3.00	0.00	0.00		
5400.00	27.00	216.00	5367.06	-168.41	-122.35	208.16	3.00	3.00	0.00	0.00		
5500.00	30.00	216.00	5454.93	-207.01	-150.40	255.87	3.00	3.00	0.00	0.00		
5600.00	33.00	216.00	5540.18	-249.27	-181.11	308.12	3.00	3.00	0.00	0.00		
5700.00	36.00	216.00	5622.59	-295.09	-214.40	364.75	3.00	3.00	0.00	0.00		
5800.00	39.00	216.00	5701.91	-344.33	-250.17	425.62	3.00	3.00	0.00	0.00		
5835.32	40.06	216.00	5729.15	-362.52	-263.39	448.10	3.00	3.00	0.00	0.00		

Company: Pure Resources Field: Buena Vista

Buena Vista 24-25 Federal #1 Site: #1

Well: Wellpath: 1

Date: 4/21/2005 Time: 10:31:49
Co-ordinate(NE) Reference: Well: #1, Grid North
Vertical (TVD) Reference: SITE 0.0
User (0.00N,0.00E,216.00Azi)

Page:

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Section	2:	Start	Hold
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MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg	
5900.00	40.06	216.00	5778.66	-396.20	-287.85	489.73	0.00	0.00	0.00	0.00	
6000.00	40.06	216.00	5855.20	-448.26	-325.68	554.09	0.00	0.00	0.00	0.00	
6100.00	40.06	216.00	5931.73	-500.33	-363.51	618.44	0.00	0.00	0.00	0.00	
6200.00	40.06	216.00	6008.27	-552.40	-401.34	682.80	0.00	0.00	0.00	0.00	
6300.00	40.06	216.00	6084.81	-604.47	-439.17	747.16	0.00	0.00	0.00	0.00	
6400.00	40.06	216.00	6161.35	-656.53	-477.00	811.52	0.00	0.00	0.00	0.00	
6500.00	40.06	216.00	6237.89	-708.60	-514.83	875.88	0.00	0.00	0.00	0.00	
6600.00	40.06	216.00	6314.42	-760.67	-552.66	940.24	0.00	0.00	0.00	0.00	
6700.00	40.06	216.00	6390.96	-812.73	-590.49	1004.59	0.00	0.00	0.00	0.00	
6800.00	40.06	216.00	6467.50	-864.80	-628.31	1068.95	0.00	0.00	0.00	0.00	
6900.00	40.06	216.00	6544.04	-916.87	-666.14	1133.31	0.00	0.00	0.00	0.00	
7000.00	40.06	216.00	6620.57	-968.93	-703.97	1197.67	0.00	0.00	0.00	0.00	
7100.00	40.06	216.00	6697.11	-1021.00	-741.80	1262.03	0.00	0.00	0.00	0.00	
7200.00	40.06	216.00	6773.65	-1073.07	-779.63	1326.39	0.00	0.00	0.00	0.00	Ì
7300.00	40.06	216.00	6850.19	-1125.14	<b>-817.46</b>	1390.74	0.00	0.00	0.00	0.00	
7400.00	40.06	216.00	6926.72	-1177.20	<b>-85</b> 5.29	1455.10	0.00	0.00	0.00	0.00	
7500.00	40.06	216.00	7003.26	-1229.27	-893.12	1519.46	0.00	0.00	0.00	0.00	
7600.00	40.06	216.00	7079.80	-1281.34	-930.95	1583.82	0.00	0.00	0.00	0.00	
7700.00	40.06	216.00	7156.34	-1333.40	-968.77	1648.18	0.00	0.00	0.00	0.00	
7800.00	40.06	216.00	7232.87	-1385.47	-1006.60	1712.54	0.00	0.00	0.00	0.00	
7900.00	40.06	216.00	7309.41	-1437.54	-1044.43	1776.89	0.00	0.00	0.00	0.00	1
8000.00	40.06	216.00	7385.95	-1489.60	-1082.26	1841.25	0.00	0.00	0.00	0.00	
8100.00	40.06	216.00	7462.49	-1541.67	-1120.09	1905.61	0.00	0.00	0.00	0.00	
8200.00	40.06	216.00	7539.02	-1593.74	-1157.92	1969.97	0.00	0.00	0.00	0.00	
8300.00	40.06	216.00	7615.56	-1645.81	-1195.75	2034.33	0.00	0.00	0.00	0.00	
8400.00	40.06	216.00	7692.10	-1697.87	-1233.58	2098.69	0.00	0.00	0.00	0.00	
8502.89	40.06	216.00	7770.85	-1751.44	-1272.50	2164.90	0.00	0.00	0.00	0.00	

Plan:

Section 3: Start Drop -3.00

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100f	Build t deg/100f	Turn t deg/100ft	TFO deg	
8600.00	37.15	216.00	7846.73	-1800.46	-1308.11	2225.49	3.00	-3.00	0.00	-180.00	
8700.00	34.15	216.00	7927.99	-1847.60	-1342.36	2283.76	3.00	-3.00	0.00	180.00	
8800.00	31.15	216.00	8012.18	-1891.24	-1374.06	2337.70	3.00	<b>-3</b> .00	0.00	180.00	
8900.00	28.15	216.00	8099.08	-1931.25	-1403.13	2387.15	3.00	-3.00	0.00	180.00	
9000.00	25.15	216.00	8188.45	-1967.53	-1429.49	2432.00	3.00	-3.00	0.00	180.00	
9100.00	22.15	216.00	8280.04	-1999.97	-1453.06	2472.10	3.00	-3.00	0.00	180.00	
9200.00	19.15	216.00	8373.61	-2028.49	-1473.79	2507.36	3.00	-3.00	0.00	180.00	
9300.00	16.15	216.00	8468.89	-2053.02	-1491.60	2537.67	3.00	-3.00	0.00	180.00	
9400.00	13.15	216.00	8565.63	-2073.47	-1506.46	2562.95	3.00	-3.00	0.00	180.00	
9500.00	10.15	216.00	8663.56	-2089.80	-1518.33	2583.13	3.00	-3.00	0.00	180.00	
9600.00	7.15	216.00	8762.41	-2101.96	-1527.16	2598.16	3.00	-3.00	0.00	180.00	
9700.00	4.15	216.00	8861.92	-2109.92	-1532.94	2608.00	3.00	-3.00	0.00	180.00	
9800.00	1.15	216.00	8961.80	-2113.65	-1535.66	2612.62	3.00	-3.00	0.00	180.00	
9838.20	0.00	216.00	9000.00	-2113.96	-1535.88	2613.00	3.00	-3.00	0.00	-180.00	

Section 4: Start Hold

Section 4	. Stait Ho	<u> </u>								· · · · · · · · · · · · · · · · · · ·
MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ff	Build deg/100ft	Turn deg/100ft	TFO deg
9900.00	0.00	216.00	9061.80	-2113.96	-1535.88	2613.00	0.00	0.00	0.00	216.00
10000.00	0.00	216.00	9161.80	-2113.96	-1535.88	2613.00	0.00	0.00	0.00	216.00
10100.00	0.00	216.00	9261.80	<i>-</i> 2113.96	-1535.88	2613.00	0.00	0.00	0.00	216.00
10200.00	0.00	216.00	9361.80	-2113.96	-1535.88	2613.00	0.00	0.00	0.00	216.00
10300.00	0.00	216.00	9461.80	-2113.96	-1535.88	2613.00	0.00	0.00	0.00	216.00
10400.00	0.00	216.00	9561.80	-2113.96	-1535.88	2613.00	0.00	0.00	0.00	216.00
10500.00	0.00	216.00	9661.80	<i>-</i> 2113.96	-1535.88	2613.00	0.00	0.00	0.00	216.00
10600.00	0.00	216.00	9761.80	-2113.96	-1535.88	2613.00	0.00	0.00	0.00	216.00
10700.00	0.00	216.00	9861.80	-2113.96	-1535.88	2613.00	0.00	0.00	0.00	216.00
10800.00	0.00	216.00	9961.80	-2113.96	-1535,88	2613.00	0.00	0.00	0.00	216.00
10900.00	0.00	216.00	10061.80	-2113.96	-1535.88	2613.00	0.00	0.00	0.00	216.00
11000.00	0.00	216.00	10161.80	-2113.96	-1535.88	2613.00	0.00	0.00	0.00	216.00
11100.00	0.00	216.00	10261.80	-2113.96	-1535,88	2613.00	0.00	0.00	0.00	216.00

Company: Pure Resources
Field: Buena Vista
Site: Buena Vista 24-25 Federal #1

Well: #1 Wellpath: 1

Date: 4/21/2005 Time: 10:31:49
Co-ordinate(NE) Reference: Well: #1, Grid North
Vertical (TVD) Reference: SITE 0.0 Vertical (TVD) Reference: Section (VS) Reference:

Plan:

User (0.00N,0.00E,216.00Azi)

Page:

Plan

Section	4	:	Start	Hold
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M ft		•	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg	
11200.	0.0	0 216.00	10361.80	-2113.96	-1535.88	2613.00	0.00	0.00	0.00	216.00	
11300	0.0	0 216.00	10461.80	-2113.96	-1535.88	2613.00	0.00	0.00	0.00	216.00	1
11400.	0.0	0 216.00	10561.80	-2113.96	-1535.88	2613.00	0.00	0.00	0.00	216.00	Į
11500.	0.0	0 216.00	10661.80	-2113.96	-1535.88	2613.00	0.00	0.00	0.00	216.00	
11538.	20 0.0	0 216.00	10700.00	-2113.96	-1535.88	2613.00	0.00	0.00	0.00	216.00	

### Survey

MD ft	Incl deg	Azim deg	TVD ft	+N/-S	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
4500.00	0.00	216.00	4500.00	0.00	0.00	0.00	0.00	0.00	0.00	
4600.00	3.00	216.00	4500.00	-2.12	-1.54	2.62	3.00	3.00	0.00	
4700.00	6.00	216.00	4699.63	-8.46	-6.15	10.46	3.00	3.00	0.00	
4800.00	9.00	216.00	4798.77	-19.02	-13.82	23.51	3.00	3.00	0.00	
4900.00	12.00	216.00	4897.08	-33.76	-24.53	41.74	3.00	3.00	0.00	
1000.00	12,00	2.0.00	1007.00	00.70	21.00	****	0.00	0.00		
5000.00	15.00	216.00	4994.31	-52.65	-38.25	65.08	3.00	3.00	0.00	
5100.00	18.00	216.00	5090.18	-75.62	-54.94	93.48	3.00	3.00	0.00	
5200.00	21.00	216.00	5184.43	-102.63	<i>-</i> 74.56	126.85	3.00	3.00	0.00	
5300.00	24.00	216.00	5276.81	-133.58	-97.05	165.12	3.00	3.00	0.00	•
5400.00	27.00	216.00	5367.06	-168.41	-122.35	208.16	3.00	3.00	0.00	
5500.00	30.00	216.00	5454.93	-207.01	-150.40	255.87	3.00	3.00	0.00	
5600.00	33.00	216.00	5540.18	-249.27	-181.11	308.12	3.00	3.00	0.00	
5700.00	36.00	216.00	5622.59	-295.09	-214.40	364.75	3.00	3.00	0.00	
5800.00	39.00	216.00	5701.91	-344.33	-250.17	425.62	3.00	3.00	0.00	
5835.32	40.06	216.00	5729.15	-362.52	-263.39	448.10	3.00	3.00	0.00	
0000.02	10.00	210.00	0.2.00	002.02	200.00		0.00			
5900.00	40.06	216.00	5778.66	-396.20	-287.85	489.73	0.00	0.00	0.00	
6000.00	40.06	216.00	5855.20	-448.26	-325.68	554.09	0.00	0.00	0.00	
6100.00	40.06	216.00	5931.73	-500.33	-363.51	618.44	0.00	0.00	0.00	
6200.00	40.06	216.00	6008.27	-552.40	-401.34	682.80	0.00	0.00	0.00	
6300.00	40.06	216.00	6084.81	-604.47	-439.17	747.16	0.00	0.00	0.00	*
6400.00	40.06	216.00	6161.35	-656.53	-477.00	811.52	0.00	0.00	0.00	
6500.00	40.06	216.00	6237.89	-708.60	-514.83	875.88	0.00	0.00	0.00	
6600.00	40.06	216.00	6314.42	-760.67	-552.66	940.24	0.00	0.00	0.00	
6700.00	40.06	216.00	6390.96	-812.73	-590.49	1004.59	0.00	0.00	0.00	
6800.00	40.06	216.00	6467.50	-864.80	-628.31	1068.95	0.00	0.00	0.00	
					•					
6900.00	40.06	216.00	6544.04	-916.87	-666.14	1133.31	0.00	0.00	0.00	
7000.00	40.06	216.00	6620.57	-968.93	-703.97	1197.67	0.00	0.00	0.00	
7100.00	40.06	216.00	6697.11	-1021.00	-741.80	1262.03	0.00	0.00	0.00	
7200.00	40.06	216.00	6773.65	-1073.07	-779.63	1326.39	0.00	0.00	0.00	
7300.00	40.06	216.00	6850.19	-1125.14	-817.46	1390.74	0.00	0.00	0.00	
7400.00	40.06	216.00	6926.72	-1177.20	-855.29	1455.10	0.00	0.00	0.00	
7500.00	40.06	216.00	7003.26	-1229.27	-893.12	1519.46	0.00	0.00	0.00	
7600.00	40.06	216.00	7079.80	-1281.34	-930.95	1583.82	0.00	0.00	0.00	
7700.00	40.06	216.00	7156.34	-1333.40	-968.77	1648.18	0.00	0.00	0.00	
7800.00	40.06	216.00	7232.87	-1385.47	-1006.60	1712.54	0.00	0.00	0.00	
7000.00	40.00	040.00	7000 44	4 407 5 1	4044.45	4770.00		0.00	0.00	
7900.00	40.06	216.00	7309.41	-1437.54	-1044.43	1776.89	0.00	0.00	0.00	
8000.00	40.06	216.00	7385.95	-1489.60	-1082.26	1841.25	0.00	0.00	0.00	
8100.00 8200.00	40.06 40.06	216.00 216.00	7462.49 7539.02	-1541.67 1502.74	-1120.09 -1157.92	1905.61 1969.97	0.00 0.00	0.00 0.00	0.00 0.00	
8300.00	40.06	216.00	7539.02 7615.56	-1593.74 -1645.81	-1157.92	2034.33	0.00	0.00	0.00	
0500.00	40.00	210.00	7010.00	-10-0.01	-1133.73	2004.00	0.00	0.00	0.00	
8400.00	40.06	216.00	7692.10	-1697.87	-1233.58	2098.69	0.00	0.00	0.00	
8502.89	40.06	216.00	7770.85	-1751.44	-1272.50	2164.90	0.00	0.00	0.00	
8600.00	37.15	216.00	7846.73	-1800.46	-1308.11	2225.49	3.00	-3.00	0.00	
8700.00	34.15	216.00	7927.99	-1847.60	-1342.36	2283.76	3.00	-3.00	0.00	
8800.00	31.15	216.00	8012.18	-1891.24	-1374.06	2337.70	3.00	-3.00	0.00	
1										

Company: Pure Resources Field: Buena Vista

Buena Vista 24-25 Federal #1

Site: Well: Wellpath: 1

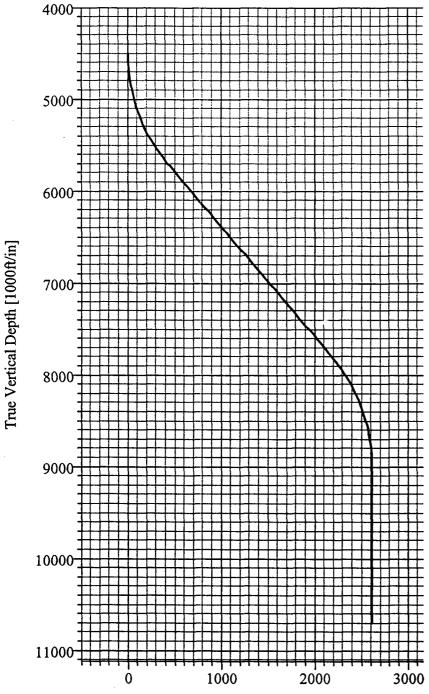
Co-ordinate(NE) Reference: Well: #1, Grid North
Vertical (TVD) Reference: SITE 0.0
Section (VS) Reference: User (0.00N.0.00E 24) User (0.00N,0.00E,216.00Azi)

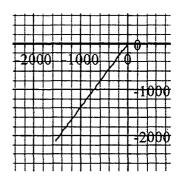
Page:

Survey										
MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
8900.00	28.15	216.00	8099.08	-1931.25	-1403.13	2387.15	3.00	-3.00	0.00	
9000.00	25.15	216.00	8188.45	-1967.53	-1429.49	2432.00	3.00	-3.00	0.00	
9100.00	22.15	216.00	8280.04	-1999.97	-1453.06	2472.10	3.00	-3.00	0.00	
9200.00	19.15	216.00	8373.61	-2028.49	-1473.79	2507.36	3.00	-3.00	0.00	
9300.00	16.15	216.00	8468.89	-2053.02	-1491.60	2537.67	3.00	-3.00	0.00	•
9400.00	13.15	216.00	8565.63	-2073.47	-1506.46	2562.95	3.00	-3.00	0.00	
9500.00	10.15	216.00	8663.56	-2089.80	-1518.33	2583.13	3.00	-3.00	0.00	
9600.00	7.15	216.00	8762.41	-2101.96	-1527.16	2598.16	3.00	-3.00	0.00	
9700.00	4.15	216.00	8861.92	-2109.92	-1532.94	2608.00	3.00	-3.00	0.00	
9800.00	1.15	216.00	8961.80	-2113.65	-1535.66	2612.62	3.00	-3.00	0.00	
9838.20	0.00	216.00	9000.00	-2113.96	-1535.88	2613.00	3.00	-3.00	0.00	
9900.00	0.00	216.00	9061.80	-2113.96	-1535.88	2613.00	0.00	0.00	0.00	
10000.00	0.00	216.00	9161.80	-2113.96	-1535.88	2613.00	0.00	0.00	0.00	
10100.00	0.00	216.00	9261.80	-2113.96	-1535.88	2613.00	0.00	0.00	0.00	
10200.00	0.00	216.00	9361.80	-2113.96	-1535.88	2613.00	. 0.00	0.00	0.00	
10300.00	0.00	216.00	9461.80	-2113.96	-1535.88	2613.00	0.00	0.00	0.00	
10400.00	0.00	216.00	9561.80	-2113.96	-1535.88	2613.00	0.00	0.00	0.00	
10500.00	0.00	216.00	9661.80	-2113.96	-1535.88	2613.00	0.00	0.00	0.00	
10600.00	0.00	216.00	9761.80	-2113.96	-1535.88	2613.00	0.00	0.00	0.00	
10700.00	0.00	216.00	9861.80	-2113.96	-1535.88	2613.00	0.00	0.00	0.00	
10800.00	0.00	216.00	9961.80	-2113.96	-1535.88	2613.00	0.00	0.00	0.00	
10900.00	0.00	216.00	10061.80	-2113.96	-1535.88	2613.00	0.00	0.00	0.00	
11000.00	0.00	216.00	10161.80	-2113.96	-1535.88	2613.00	0.00	0.00	0.00	
11100.00	0.00	216.00	10261.80	-2113.96	-1535.88	2613.00	0.00	0.00	0.00	
11200.00	0.00	216.00	10361.80	-2113.96	-1535.88	2613.00	0.00	0.00	0.00	
11300.00	0.00	216.00	10461.80	-2113.96	-1535.88	2613.00	0.00	0.00	0.00	
11400.00	0.00	216.00	10561.80	-2113.96	-1535.88	2613.00	0.00	0.00	0.00	
11500.00	0.00	216.00	10661.80	-2113.96	-1535.88	2613.00	0.00	0.00	0.00	5.
11538.20	0.00	216.00	10700.00	-2113.96	-1535.88	2613.00	0.00	0.00	0.00	



# PUR RESOURCES Buena Vista 24-25 Federal #1 EDDY COUNTY, NM





West(-)/East(+) [2000ft/in]

Vertical Section at 216.00° [1000ft/in]

	SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target	
1 2 3 4	4500.00 5835.32 8502.89 9838.20	0.00 40.06 40.06 0.00	216.00 216.00 216.00 216.00	4500.00 5729.15 7770.85 9000.00	0.00 -362.52 -1751.44 -2113.96	0.00 -263.39 -1272.50 -1535.88	0.00 3.00 0.00 3.00	0.00 216.00 0.00 180.00	0.00 448.10 2164.90 2613.00	Target	
\$	11538.20	0.00	216.00	10700.00	-2113.96	-1535.88	0.00	216.00	2613.00	5	

South(-)/North(+) [2000ft/in]

# **CONDITIONS OF APPROVAL - DRILLING**

**Operator's Name:** 

LATIGO PETROLEUM, INC.

Well Name & No.

1 – BUENA VISTA '24-25' FEDERAL

Location:

1470' FSL & 1755' FEL – SEC 24 – T26S – R25E – EDDY COUNTY (SHL) 660' FNL & 1980' FWL – SEC 25 – T26S – R25E – EDDY COUNTY (BHL)

Lease: NM-104666

I. DRILLING OPERATIONS REQUIREMENTS:

1. The Bureau of Land Management (BLM) is to be notified at the Roswell Field Office, 2909 West Second St., Roswell NM 88201, (505) 627-0272 for wells in Chaves and Roosevelt Counties; the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (505) 234-5909 or (505) 361-2822 (After hours) - for wells in Eddy County; and the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (505) 393-3612 for wells in Lea County, in sufficient time for a representative to witness:

- A. Spudding
- B. Cementing casing: <u>13-3/8</u> inch <u>8-5/8</u> inch <u>5-1/2</u> 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 <u>13-3/8</u> inch surface casing shall be set at <u>420 feet</u>, below usable water 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 <u>8-5/8</u> inch intermediate casing is <u>circulate cement to the surface.</u>
- 4. The minimum required fill of cement behind the 5-1/2 inch production casing is cement shall extend upward a minimum of 500 feet above the uppermost hydrocarbon bearing interval.

### **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 13-3/8 inch casing shoe and shall be tested as described in Onshore Order No. 2. Any equipment failing to test satisfactorily shall be repaired or replaced.
- 2. Minimum working pressure of the blowout preventer and related equipment (BOPE) required for drilling the surface and intermediate casing shall be <u>2000</u> psi. Minimum working pressure of the blowout preventer and related equipment (BOPE) required for drilling below the **8-5/8** inch casing 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.
- BOPE must be tested prior to drilling into the Wolfcamp Formation by an independent service company.

# **IV. DRILLING MUD:**

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the **Wolfcamp** Formation, and shall be used until production casing is run and cemented. Monitoring equipment shall consist of the following:

- 1. Recording pit level indicator to indicate volume gains and losses.
- 2. Mud measuring device for accurately determining the mud volumes necessary to fill the hole during trips.
- 3. Flow-sensor on the flow line to warn of abnormal mud returns from the well.