

District I
PO Box 1980, Hobbs, NM 88241-1980
District II
PO Drawer DD, Artesia, NM 88211-0719
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals & Natural Resources Department

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

Form C-101
Revised February 21, 1994
Instructions on back
Submit to Appropriate District Office
State Lease - 6 Copies
Fee Lease - 5 Copies

☐ AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

Operator Name and Address. THOMPSON ENGINEERING & PRODUCTION CORP. 7415 E. Main Farmington, New Mexico 87402		OGRID Number 037581
		API Number 30-045-29429
Property Code 20122	Property Name Steward Com	Well No. 1

Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	28	32N	13W		790	N	790	E	San Juan

Proposed 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
71629									
Proposed Pool 1 Basin Fruitland Coal					Proposed Pool 2 N/320				

Work Type Code N	Well Type Code G	Cable/Rotary R	Lease Type Code P	Ground Level Elevation 5983
Multiple No	Proposed Depth 2185	Formation Pictured Cliffs	Contractor N/A	Spud Date 1/15/97

Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
12 1/4	8 3/4	24	120	85	Surface
7 7/8	5 1/2	15.5	2085	246 & 100	Surface

Describe the proposed program. If this application is to DEEPEN or PLUG BACK give the data on the present productive zone and proposed new productive zone. Describe the blowout prevention program, if any. Use additional sheets if necessary.

Drill a vertical well to test and produce the Basin Fruitland Coal Formation according to the attached Operation Plan.

RECEIVED
DEC 30 1996

I hereby certify that the information given above is true and complete to the best of my knowledge and belief. Signature: <i>Paul C. Thompson</i> Printed name: Paul C. Thompson Title: President Date: 12/17/96		OIL CONSERVATION DIVISION Approved by: <i>Ernie Busch</i> Title: DEPUTY OIL & GAS INSPECTOR, DIST. #2 Approval Date: DEC 30 1996 Expiration Date: DEC 30 1997 Conditions of Approval: <i>Hold C-104 For NSL</i> Attached <input type="checkbox"/>	
--	--	---	--

District I
PO Box 1980, Hobbs, NM 88241-1980
District II
PO Drawer DD, Artesia, NM 88211-0719
District III
1000 Rio Grande Rd., Aztec, NM 87410
District IV
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals & Natural Resources Department

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

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-045-29429		Pool Code 71629	Pool Name Basin Fruitland Coal
Property Code 20122	Property Name Steward Com		Well Number 1
OGRID No. 037581	Operator Name THOMPSON ENGINEERING & PRODUCTION CORPORATION		Elevation 5983'

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Ida	Feet from the	North/South line	Feet from the	East/West line	County
P	28	32N	13W		790	South	790	East	S.J.

¹¹ Bottom Hole Location If Different From Surface

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

¹² Dedicated Acres 320	¹³ Joint or Infill N	¹⁴ Consolidation Code C	¹⁵ Order No. Pending
--------------------------------------	------------------------------------	---------------------------------------	------------------------------------

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>16</div> <div>2634.06'</div> <div>2715.24'</div> <div>2534.40'</div> <div>2568.72'</div> <div>28</div>	<div>2634.72'</div> <div>RECEIVED</div> <div>DEC 30 1996</div> <div>OIL CON. DIV.</div> <div>DIST 3</div>	<div>17 OPERATOR CERTIFICATION</div> <div>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief</div> <div>Paul C. Thompson</div> <div>Signature</div> <div>Paul C. Thompson</div> <div>Printed Name</div> <div>President</div> <div>Title</div> <div>12/17/96</div> <div>Date</div>
	<div>5306.40'</div> <div>790'</div> <div>2659.14'</div> <div>18 SURVEYOR CERTIFICATION</div> <div>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.</div> <div>10/11/96</div> <div>Date of Survey</div> <div>HELEN C. EDMONDSON</div> <div>Signature and Seal of Professional Surveyor</div> <div>8837</div> <div>Certificate Number</div>	

THOMPSON ENGINEERING

STEWARD COM #1
790' FSL & 790' FEL
SECTION 28, T32N R13W
SAN JUAN COUNTY, NEW MEXICO
Ground Level Elevation 5983'

OPERATIONS PLAN

1. Estimated Tops of important Geologic Markers:

Kirtland	Surface
Fruitland	1585
Basal Fruitland Coal	2085
Pictured Cliffs	2115
Total Depth	2185

2. Estimated depths of anticipated water, oil, gas, and other mineral bearing formations which are expected to be encountered:

Water and gas - 2085'.

There are no over pressured zones expected in this well. No H₂S zones will be penetrated in this well.

3. Minimum Blowout Control Specifications:

Double ram type or annular type 2000 psi working pressure BOP with a rotating head. See the attached exhibits (#1 through #3) for details on the BOP equipment. All ram type preventers and related equipment will be hydraulically tested at nipple-up and after any use under pressure to 1000 psi. The blind rams will be hydraulically activated and checked for operational readiness each time pipe is pulled out of the hole. All checks of the BOP stack and equipment will be noted on the daily drilling report. The BOP equipment will include a kelly cock, floor safety valve, and choke manifold all rated to 2000 psi.

4. Supplementary Information:

Cementing of both surface and production strings of casing will be accomplished in separate single stage operations. All cement volumes are calculated to circulate cement to surface.

Casing Program:

Hole Size	Depth	Casing Size	Wt. & Grade
12-1/4"	120'	8-3/4"	24# J-55
7-7/8"	2180'	5-1/2"	15.5# J-55

Cementing:

Surface casing: 8-5/8" - Use 85 sx (100 cu. ft.) of Cl "B" with 2% CaCl_2 (Yield = 1.18 cu. ft./sk; slurry weight = 15.6 PPG). 100% excess to circulate cement to surface. WOC 12 hours. Pressure test surface casing to 600 psi for 30 min.

Production Casing: 5-1/2" - Before cementing circulate hole with at least 1-1/2 hole volumes of mud. Precede cement with 30 bbls of fresh water. Lead with 246 sx (507 cu.ft) of Cl "B" with 2% metasilicate. (Yield = 2.06 cu.ft./sk; slurry weight = 12.5 PPG). Tail with 100 sx (118 cu.ft.) of Cl "B" with 2% CaCl_2 (Yield = 1.18 cu. ft./sk; slurry weight = 15.6 PPG) Total cement volume is 625 cu.ft. (75% excess to circulate cement to surface).

Float Equipment:

a) Surface Casing: None

b) Production Casing: 5-1/2" cement guide shoe, 3 joints of casing, self fill insert float collar, external casing packer, and casing. Five centralizers spaced every other joint above float and five turbolizers every other joint from the top.

5. Proposed Circulating Medium:

The surface hole will be drilled with a fresh water mud.

The production hole will be drilled with a fresh water polymer mud. The weighting material will be drill solids or if conditions dictate, barite. The maximum mud weight expected is 8.7 ppg.

6. No cores or drill stem tests are planned for this well. A gamma ray log will be run prior to perforating.

7. The maximum expected bottom hole pressure is 500 psi. This pressure will be contained as specified in No. 5 above. No other potential hazards are anticipated.

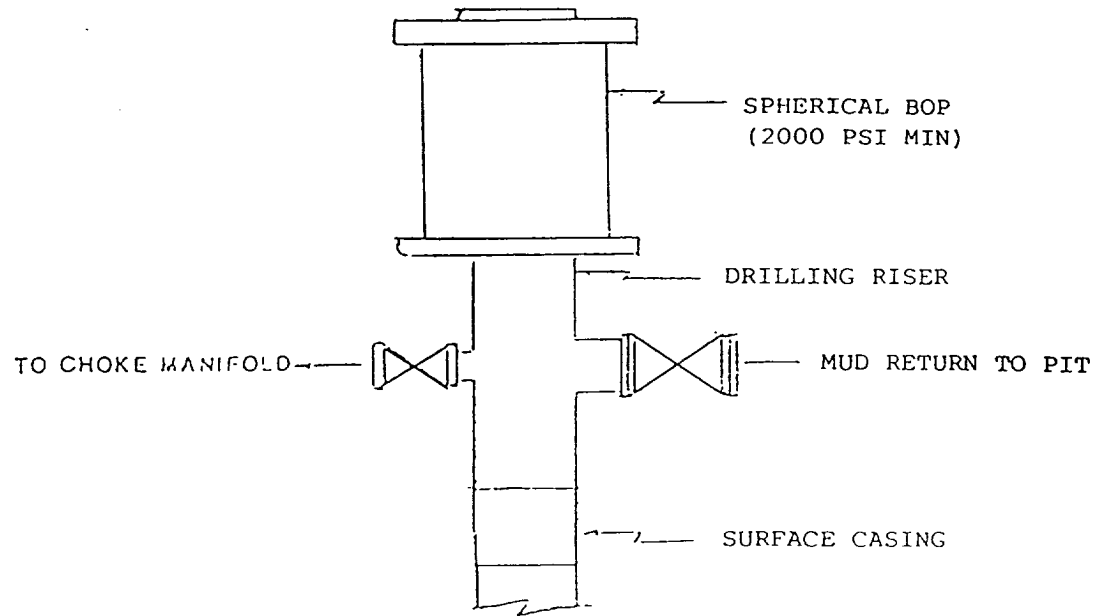
8. Optimum solids control equipment will be used to keep the mud in good shape.

Construction of the wellpad will begin as soon as the APD is approved.

- SURFACE WELL CONTROL EQUIPMENT -

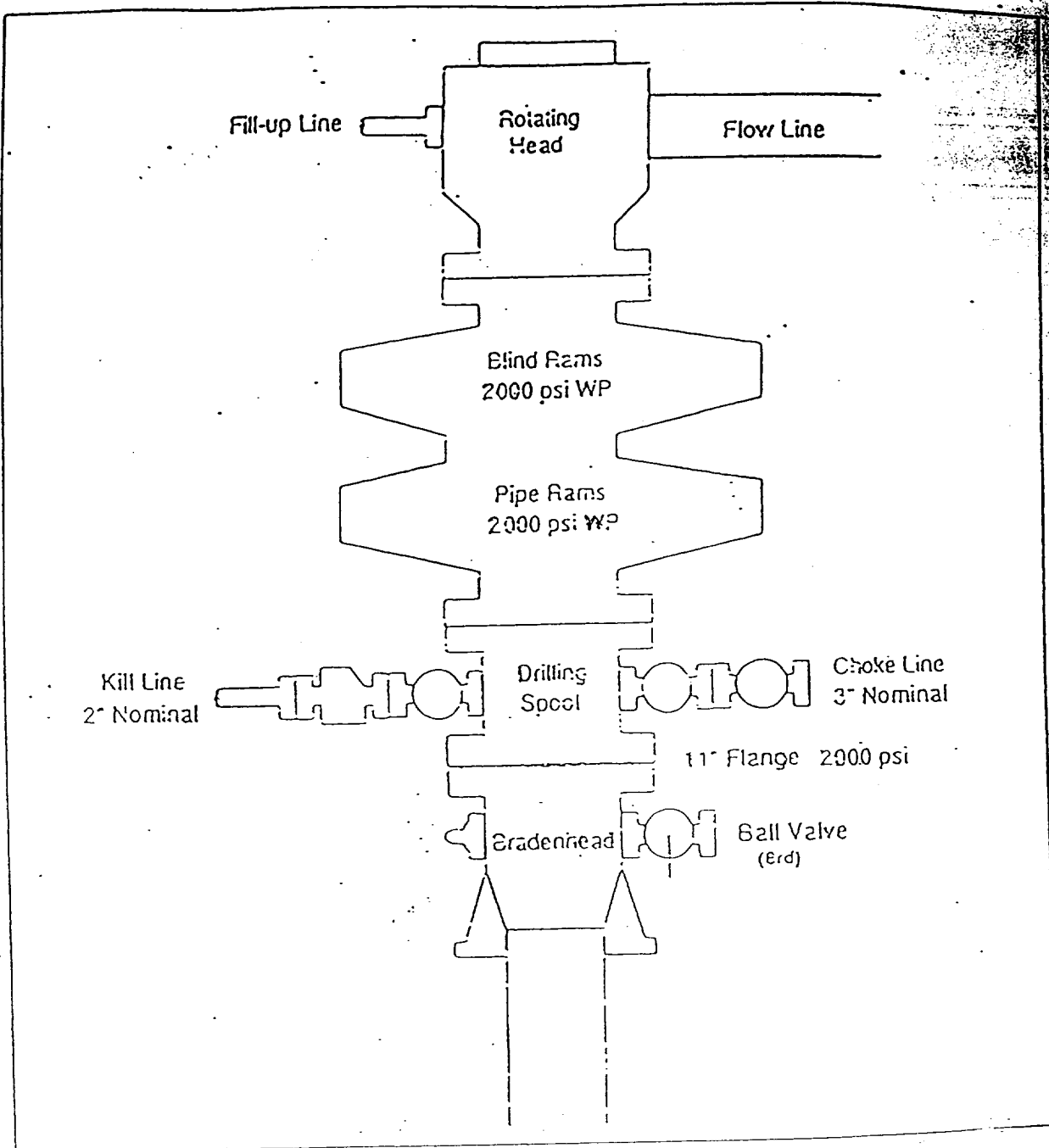
SCHEMATIC

EXHIBIT #1



BOP STACK ARRANGEMENT

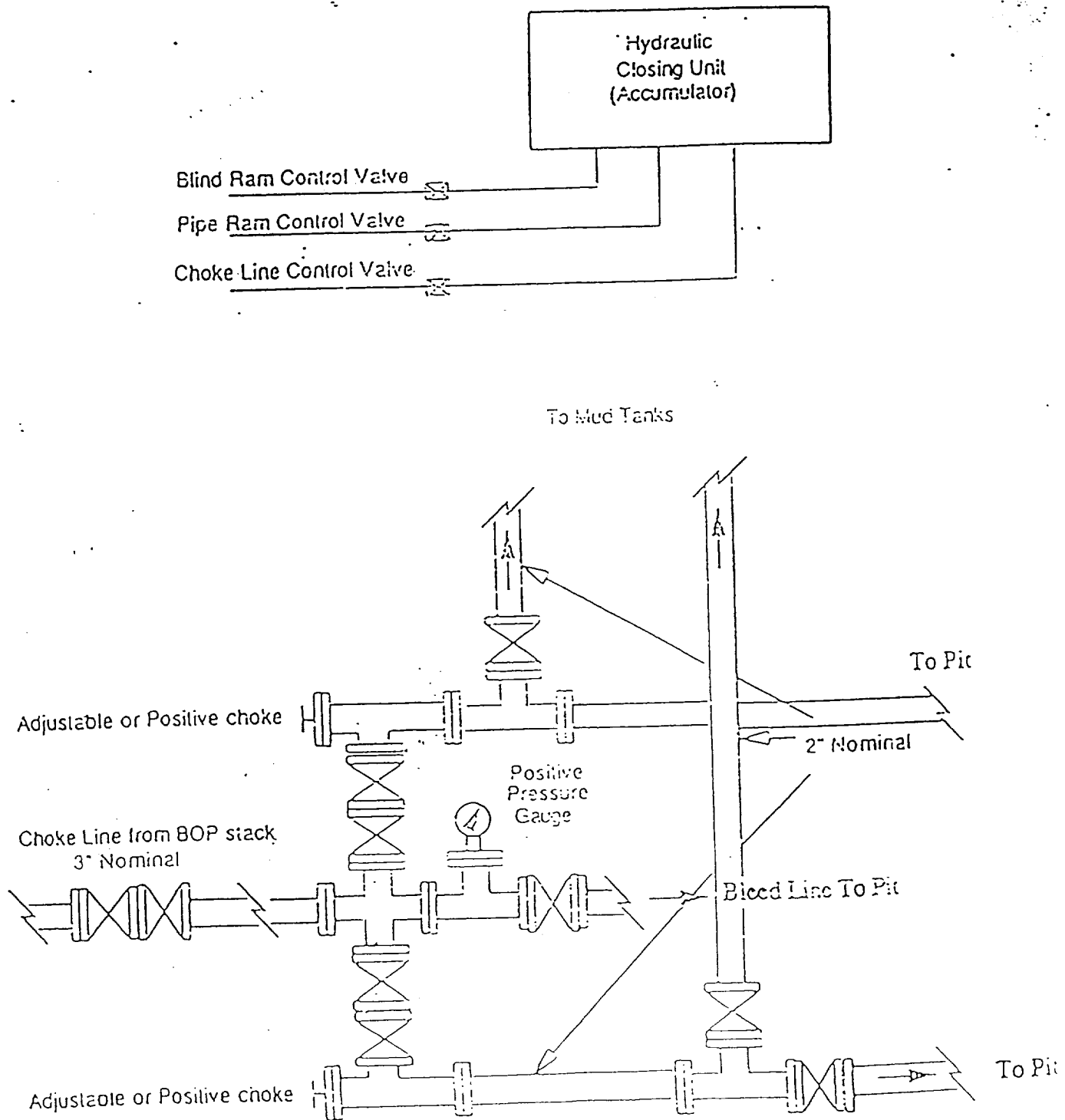
EXHIBIT #2

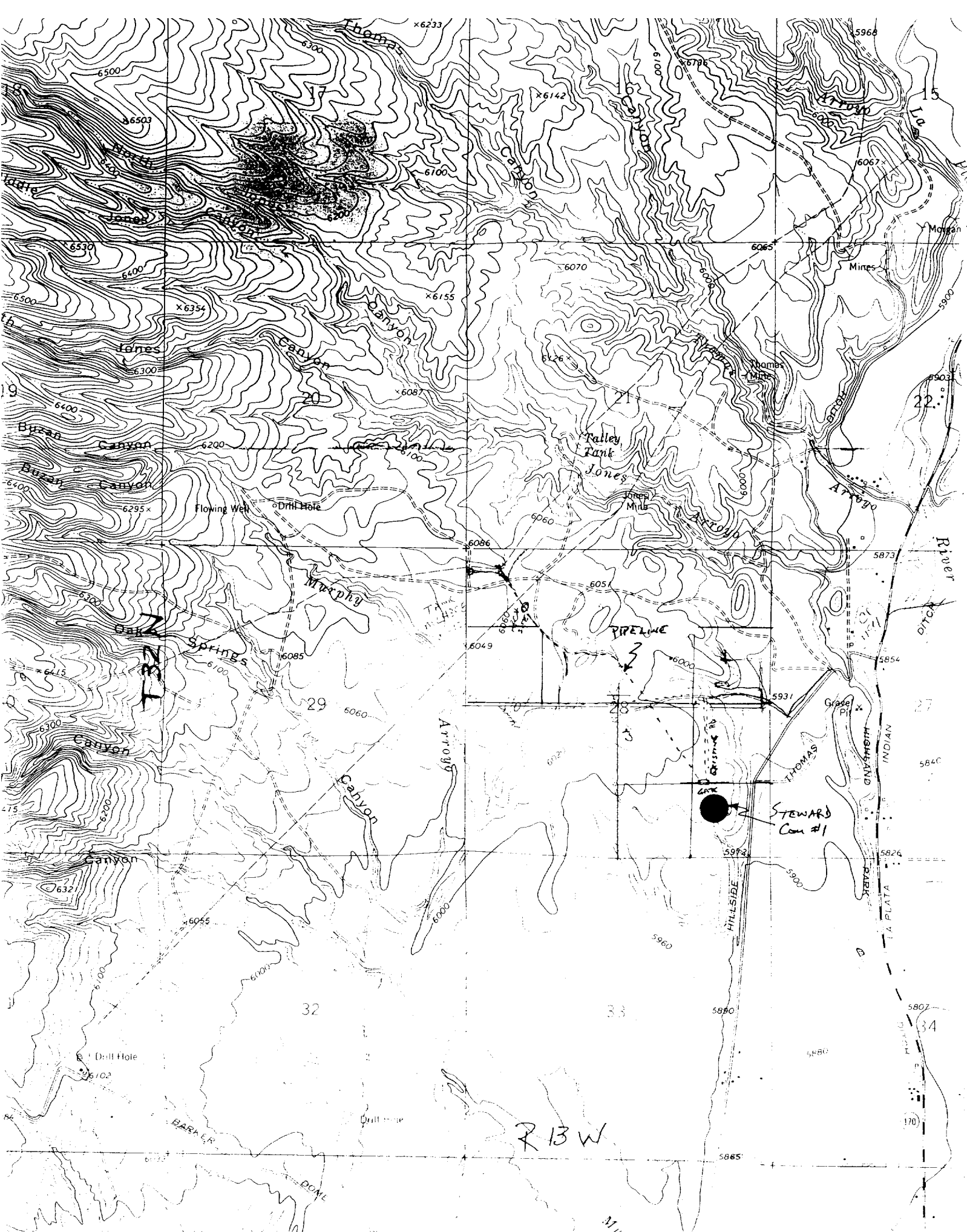


All ram type preventers and related equipment will be hydraulically tested at nipple-up and after any use under pressure to 1500 psi. The blind rams will be hydraulically activated and checked for operational readiness each time pipe is pulled out of the hole. All checks of the BOP stack and equipment will be noted on the daily drilling report. The BOP equipment will include a cock with handle, floor safety valve with change overs for each tool joint in the string, and choke manifold all rated to 2000 psi.

Choke Manifold & Accumulator Schematic

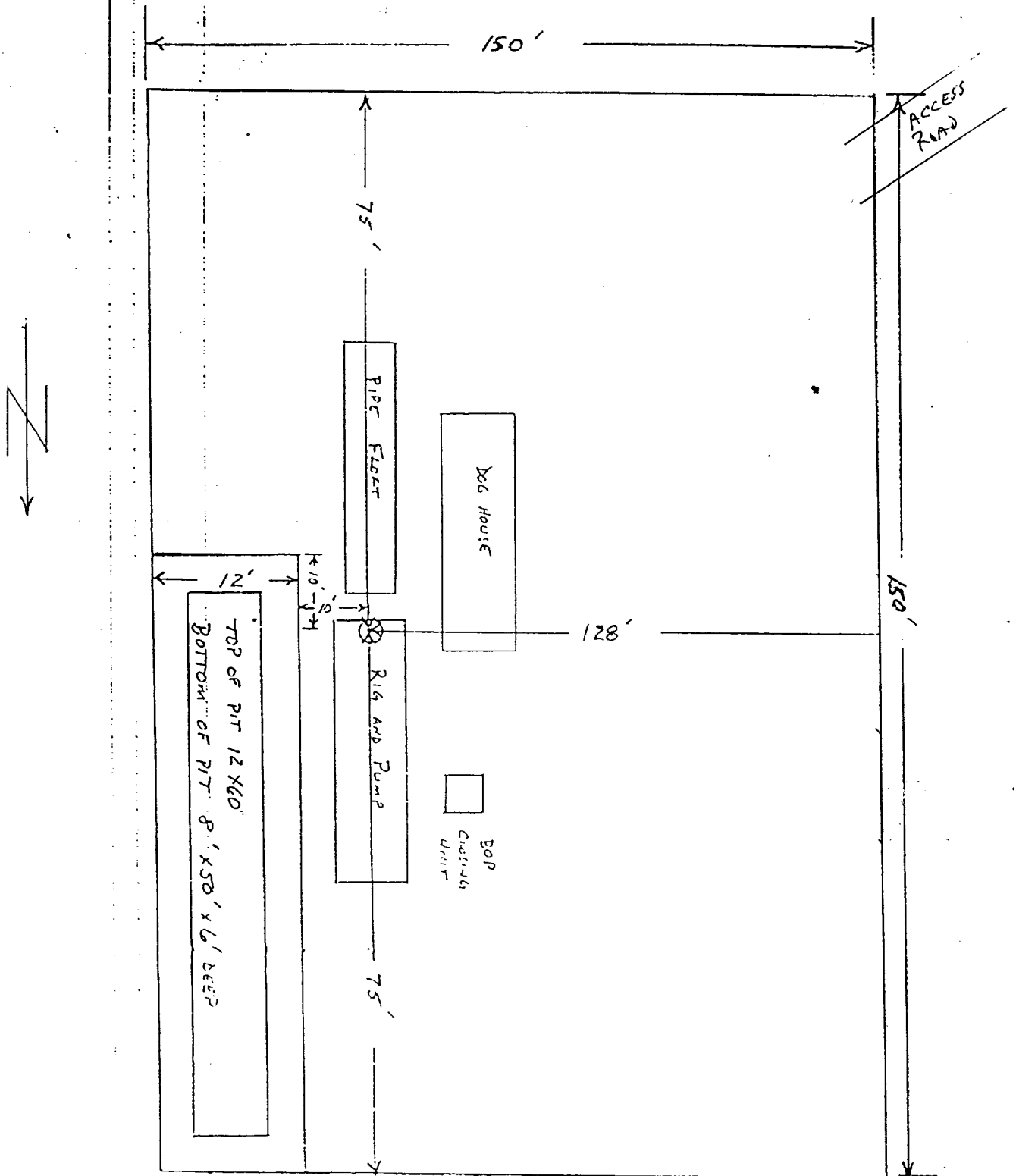
EXHIBIT #3



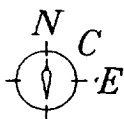


PROPOSED RIG LAYOUT

PLAT NO. 3



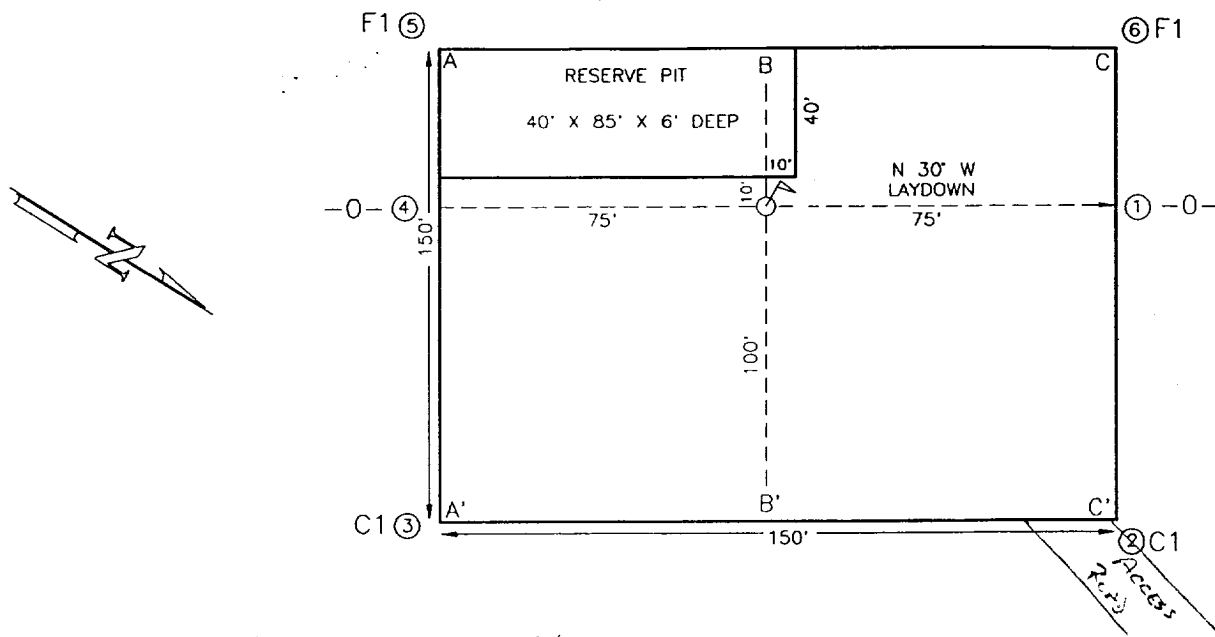
PC 1/18/93



SURVEYS, INC.

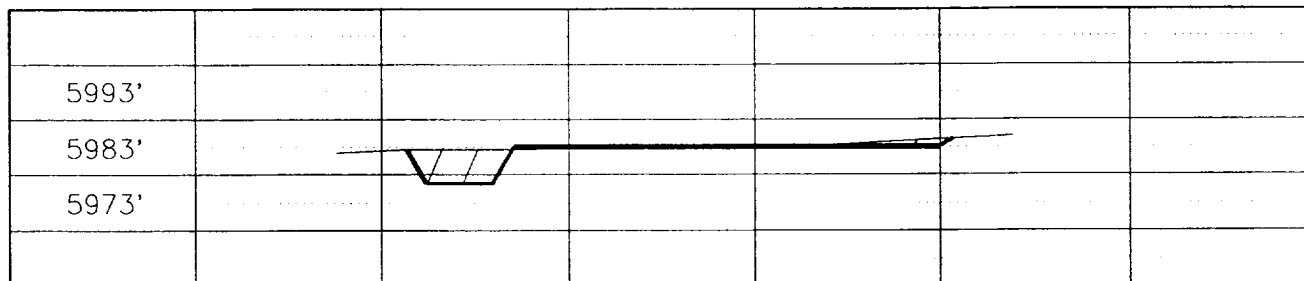
P.O. BOX 6612
FARMINGTON, NEW MEXICO 87499
OFFICE: (505) 325-2654
FAX: (505) 326-5650

OPERATOR: THOMPSON ENGINEERING & PRODUCTION CORP.
NAME: STEWARD COM #1
FOOTAGE: 790' FSL 790' FEL
SECTION: 28 T 32 N, R 13 W, NMPM
COUNTY: SAN JUAN STATE: NEW MEXICO
ELEVATION: 5983' DATE: 10/11/96



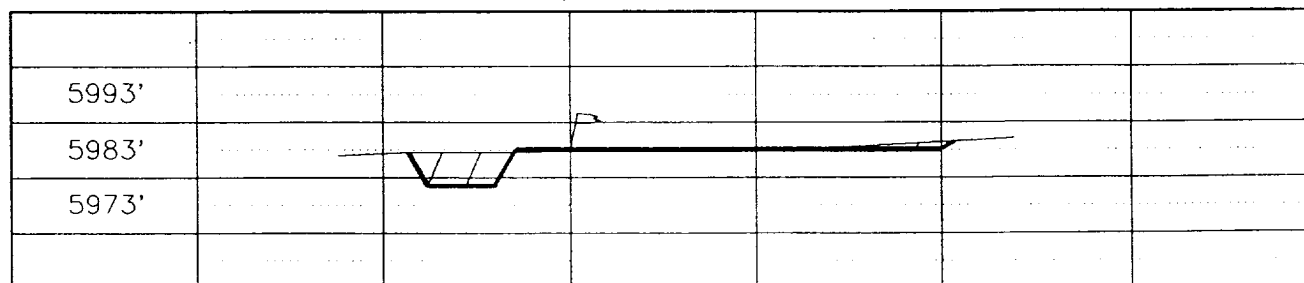
A-A'

C/L



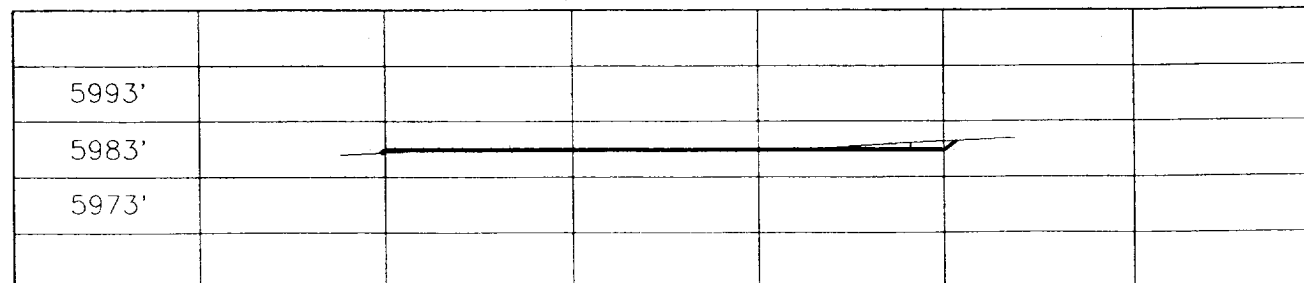
B-B'

C/L



C-C'

C/L



Hallwood Energy Companies

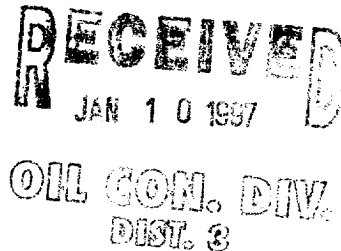
4582 South Ulster Street Parkway • Stanford Place III • Suite 1700 • Post Office Box 378111
Denver, Colorado 80237 • (303) 850-7373

January 9, 1997

CERTIFIED MAIL NO. P 324 481 644

Mr. William J. LeMay - Director
State of New Mexico
Oil Conservation Division
2040 S. Pacheco
Santa Fe, New Mexico 87504-2088

RE: Non-Standard Spacing Unit
Steward Com #1
SE SE Section 28-T32N-R13W
(790' FSL x 790' FEL)
San Juan County, New Mexico



Dear Mr. LeMay:

Hallwood Petroleum Inc. is in receipt of notification of the proposed non-standard spacing unit well in the Basin Fruitland Coal Gas Field. Hallwood Petroleum Inc. is an offset operator with twenty two (22) Basin Fruitland Coal wells within four (4) miles of the proposed well. We are not opposing the non-standard location for this well, as Hallwood has also benefitted from two similar non-standard wells.

Hallwood is concerned about an issue directly related to this well and other potential new wells to be drilled in the vicinity of our developed acreage and wanted to address that with the Oil Conservation Division. The issue is - shallow Fruitland Coal Gas well development and gas seeps. As you or members of your staff are aware, the issue of shallow gas seeps adjacent to or in close proximity to coal gas well development is very controversial directly North in LaPlata County, Colorado.

As previously mentioned, Hallwood Petroleum Inc. currently operates 22 Fruitland Coal Gas wells in the immediate vicinity of the proposed Steward Com #1 well. All of Hallwood's wells are between a subsea depth of +4000 to +3700 and a measured depth of 1850' to 2070' (perforations). Hallwood's cumulative gas production since 1990 is 21 BCF and 1.10 MMBW. To our knowledge and to date, there have been no occurrences of any gas seeps in the immediate area of our wells. Hallwood would like this information to be entered in the record because we are concerned that shallower Fruitland Coal wells, coupled with large hydraulic fracturing or a wellbore that intersects extensive natural fracturing, could increase the potential for a gas seep. Additionally, as an offset operator we are concerned about new well development in close proximity to the Fruitland Coal

Mr. William J. LeMay - Director
State of New Mexico
Oil Conservation Division
January 9, 1997
Page 2

outcrop. Hallwood's closest well to the outcrop is approximately 1.25 mile away, while the Steward Com #1 location and other operator's producing wells are 0.75 mile (or less).

The information supplied by Walsh Engineering (Exhibit #1) suggests the Steward Com #1 will penetrate the coal at +3900', or a measured depth of approximately 2083'. Based on Hallwood's data for the area we believe the Basal Fruitland Coal will be penetrated at +4950' subsea, and thus a measured depth of approximately 1033'. We have also been approached by another company about a similar "non-standard" well location under consideration in the SE SE of section 22-T32N-R13W. At this location we project the Basal Fruitland coal would be encountered at +5125', or only an estimated 775' measured depth.

To summarize Hallwood's position and purpose of this letter, we are not objecting to the Steward Com #1 well location, as each mineral owner is entitled to developing their own lease within the established rules of the State. In addition, Hallwood is not attempting to raise unnecessary concerns or fears about gas seeps in this area, but simply wishes to make note to the Oil Conservation Division that up until this point there has been no record of, or occurrence of any gas seeps in the vicinity of Hallwood operated wells in Township 31 and 32 North, Range 12 West of San Juan County, New Mexico

Thank you for your interest and attention to this matter. Please contact me at (303) 850-7373 should you have any additional questions.

Sincerely,

HALLWOOD PETROLEUM, INC.



Kevin E. O'Connell
Drilling and Production Manager

KEO

Attachment

Mr. William J. LeMay - Director
State of New Mexico
Oil Conservation Division
January 9, 1997
Page 3

cc: John Genziano
Betty Dieter
Bruce Bowman

New Mexico-OCD
1000 Rio Brazos Road
Aztec, New Mexico 87410
ATTN:Ernie Busch

Walsh Engineering & Production Corp.
7415 East Main
Farmington, New Mexico 87402

KEO97.001



WALSH ENGINEERING & PRODUCTION CORP.

Petroleum Engineering Consulting
Lease Management
Contract Pumping

7415 East Main
Farmington, New Mexico 87402
(505) 327-4892

CERTIFIED RETURN RECEIPT

December 23, 1996

Mr. Jim Bonaventura
Hallwood Energy Company
463 Turner Dr., Unit 101
Durango, CO 81301

*Received in
Durango
12/26/96*

Re: Non-Standard Spacing Unit
Thompson Engineering
Steward Com #1
790' FSL, 790' FEL
Section 28, T32N R13W
San Juan County, NM
Basin Fruitland Coal

Dear Mr. Bonaventura,

Enclosed you will find a copy of the above referred to application that has been submitted to the New Mexico Oil Conservation Division for administrative approval. As an offset operator you are being notified of this application pursuant to NMOCD rules.

If you desire to submit remarks concerning the application, please send them to Mr. William J. LeMay, Director, New Mexico Oil Conservation Division, Santa Fe, New Mexico, within 20 from the receipt of this notice. A copy of any remarks to the undersigned would be appreciated.

Thank you for your consideration in this matter and if you have any questions, please do not hesitate to call upon me.

Sincerely,

Paul C. Thompson

Paul C. Thompson, P.E.
President, Walsh Enginggring