DISTRICT I
P.O. Box 1980, Hobbs, NM 88241-1980

DISTRICT II
P.O. Drawer DD, Artesia, NM 88211-0719

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

DISTRICT IV
P.O. BOX 2088, SANTA FE, N.M. 87504-2088

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

EXHIBIT D

Subm

State Lease - 4 Copies
Fee Lease - 3 Copies

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code	Pool Name
30-025-35880	50350	Penrose Skelly; Grayburg

Property Code	Property Name	Well Number
24427	HAWK B-1	28

OGRID No.	Operator Name	Elevation
873	APACHE CORPORATION	3486

Surface Location

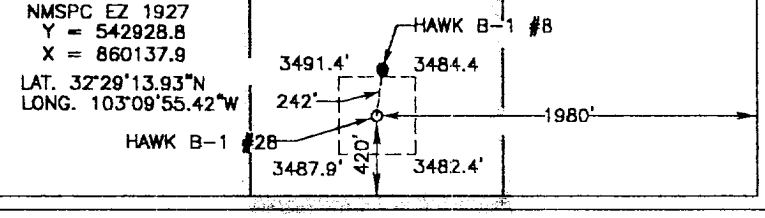
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
O	9	21-S	37-E		420	SOUTH	1980	EAST	LEA

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	Joint or Infill	Consolidation Code	Order No.
40			

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.

Harold Swain
Signature

Harold Swain
Printed Name

Eng. Tech
Title

1-14-02
Date

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 supervison, and that the same is true and correct to the best of my belief.

DECEMBER 18, 2001
Date Surveyed LA

Signature & Seal of Professional Surveyor

Gary L. Eidson 1/08/02

01.11.1301

Certificate No. RONALD J. EIDSON 3239
GARY EIDSON 12641

EXHIBIT "A"
HAWK B-1 #28

DRILLING PROGRAM

I. The geological surface formation is recent Permian with quaternary alluvium and other surficial deposits.

II. Estimated Tops of Geological Markers:

FORMATION	DEPTH
Quaternary alluvials	Surface
Rustler	1280'
Yates	2600'
Grayburg	3800'
San Andres	4000'
TD	4200'

III. Estimated depths at which water, oil, gas, or other mineral-bearing formations are expected to be encountered:

SUBSTANCE	DEPTH
Oil	Grayburg at 3800'
	San Andres at 4000'
Gas	None anticipated
Fresh Water	None anticipated

All fresh water and prospectively valuable minerals (as described by BLM) encountered during drilling will be recorded by depth and adequately protected. All oil and gas shows within zones of correlative rights will be tested to determine commercial potential.

IV. A. Proposed Casing Program:

HOLE SIZE	CASING SIZE OD	CASING SIZE ID	GRADE	WEIGHT PER FOOT	DEPTH	SACKS CEMENT	ESTIMATED TOC - REMARKS
12 ¼"	8 5/8"	8.097	J55 STC	24#	400'	350	TOC - Surface Float Collar set @ 358'/ 9.00 PPG Water-based Mud; 83 Deg. F Est. Static Temp; 80 Deg. F Est. Circ. Temp.
7 7/8"	5 ½"	4.892	J55 STC	17#	4450'	760	TOC - Surface Float Collar set @ 4370'/ 9.00 PPG Water-based Mud; 108 Deg. F Est. Static Temp; 99 Deg. F Est. Circ. Temp.

B. Proposed Cement Program:

CASING	SLURRY	DISPLACEMENT
8 5/8"	350 sacks Class C Cement + 2% bwoc Calcium Chloride + 56.4% Fresh Water 269 Vol. Cu Ft 1.35 Vol. Factor Slurry Weight (ppg) 14.8 Slurry Yield (cf/sack) 1.35 Amount of Mix Water (gps) 6.36; Amount of Mix Fluid (gps) 6.36; Estimated Pumping Time – 70 BC (HH:MM)-2:20; Free Water (mls) @ 80 Deg. F @ 90 Deg. Angle: 0.00 Fluid Loss (cc/30 min) at 1000 psi and 80 deg. F: 850.0 Compressive Strength: 12 hrs @ 80 Deg. F (psi) 1600 24 hrs @ 80 Deg. F (psi) 2350 72 hrs @ 80 Deg. F (psi) 3000	22.9 bbls Fresh Water @ 8.33 ppg

8 5/8" Casing: Volume Calculations:

400 ft	x	0.4127 cf/ft	with	178% excess	=	459.0 cf
40 ft	x	0.3576 cf/ft	with	0% excess	=	14.3 cf (inside pipe)
		TOTAL SLURRY VOLUME			=	473.3 cf
					=	84.3 bbls

B. Proposed Cement Program (Continued):

CASING	LEAD SLURRY	TAIL SLURRY	DISPLACEMENT
5 ½"	565 sacks (35:65) Poz (Fly Ash): Class C Cement + 5 lbs/sack Sodium Chloride + 0.003 gps FP-6L + 6% bwoc Bentonite + 99% Fresh Water; 1091 Vol. Cu Ft 1.93 Vol. Factor Slurry Weight (ppg) 12.7 Slurry Yield (cf/sack) 1.93 Amount of Mix Water (gps) 10.33; Amount of Mix Fluid (gps) 10.33; Estimated Pumping Time – 70 BC (HH:MM)-3:00; Free Water (mls) @ 98 Deg. F @ 90 Deg. Angle: 1.8; Fluid Loss (cc/30 min) at 1000 psi and 98 Deg. F: 950.0 Compressive Strength: 12 hrs @ 106 Deg. F (psi) 280 24 hrs @ 106 Deg. F (psi) 375 72 hrs @ 106 Deg. F (psi) 900	250 sacks Class C Cement + 3% bwow Potassium Chloride +0.2% bwoc CD-32 + 0.6% bwoc FL-62 + 0.2% bwoc Sodium Metasilicate + 56.6% Fresh Water 338 Vol. Cu Ft 1.35 Vol. Factor Slurry Weight (ppg) 14.8 Slurry Yield (cf/sack) 1.35 Amount of Mix Water (gps) 6.38; Amount of Mix Fluid(gps) 6.38; Estimated Pumping Time – 70 BC (HH:MM)-2:30; Free Water (mls) @ 98 Deg. F @ 90 Deg. Angle: 0.0; Fluid Loss (cc/30 min) at 1000 psi and 98 Deg. F: 300.0 Compressive Strength: 12 hrs @ 106 Deg. F (psi) 1200 24 hrs @ 106 Deg. F (psi) 1800 72 hrs @ 106 Deg. F (psi) 2300	100.2 bbls Fresh Water @ 8.33 ppg

5 ½" Casing: Volume Calculations:

400 ft	x	0.1926 cf/ft	with	0% excess	=	77.0 cf
3150 ft	x	0.1733 cf/ft	with	86% excess	=	1015.4 cf
700 ft	x	0.1733 cf/ft	with	174% excess	=	332.5 cf
80 ft	x	0.1336 cf/ft	with	0% excess	=	10.7 cf (inside pipe)
		TOTAL SLURRY VOLUME			=	1435.6 cf
					=	255 bbls

All slurries will be tested prior to loading to confirm thickening times and a lab report furnished to Apache. Fluid loss will be tested and reported on slurries with fluid loss additives. Lab test report will be furnished prior to pumping cement.

V. A. Proposed Mud Program

DEPTH	MUD PROPERTIES	REMARKS
0 – 400'	Weight: 8.6 – 9.2 ppg Viscosity: 32 – 40 sec/qt Plastic Viscosity: 2-10 cps Yield Point: 6-15 lbs/100' pH: 9-10 Filtrate: NC Solids: <4 % volume Chloride: <4,000 mg/L	Spud with Fresh Water AQUAGEL EZ-Mud, LCM, Lime. Add AQUAGEL and LIME to Fresh Water to build desired viscosity for hole cleaning, restricting system to steel pits. Additions of Fresh Water at the flowline will aid in controlling viscosity. HY-SEAL "sweeps" as needed for extra hole cleaning, seepage and severe losses. Should total circulation loss be encountered, add up to 20 ppb. LCM (BARO-SEAL = Maxiseal); (HY-SEAL = Drilling Paper); (PLUG-GIT = Cedar Fiber) and spot in loss zone. If returns cannot be established, then "dry-drill" to set surface casing.
400' – 3800'	Weight: 9.2 ppg Viscosity: 30 – 32 sec/qt Plastic Viscosity: 0-1 cps Yield Point: 0-1 lbs/100' pH: 9-10 Filtrate: NC Solids: <1 % volume Chloride: < 30K mg/L	Drill out from under the intermediate casing with Fresh Water. HY-SEAL should be added at 2 bags after every 100' drilled, if you have and drag or torque on connections. Begin adding 10# Brine 100' before drilling the salt section of the Rustler Formation for 9.7 + weight. LIME applications should be continued during this interval for a pH of 9.0-10.0, in addition, to flocculate solids and to minimize corrosion. Additions of CAUSTIC SODA may be needed to maintain pH at 9-10.
3800' – 4450'	Weight: 9.1 – 10.3 ppg Viscosity: 30 – 32 sec/qt Plastic Viscosity: 3-10 cps Yield Point: 4-6 lbs/100' pH: 9-10 Filtrate: 10-15 cm/30 min Solids: <2-4 % volume Chloride: < 170K mg/L	From 3800' to Total Depth, it is recommended the system be restricted to the steel pits, and, with Brine, mud up as follows: while circulating through the steel pits, add 3-4 #/bbl IMPERMX (starch) to lower fluid loss below 15 cc. If lost circulation is encountered, mix a viscous pit of mud and add 15 ppb LCM (Add 5#/bbl of the following: BARASEAL, HYSEAL & PLUG-GIT) and continue to drill. Sweep the hole with a viscous pill prior to coming out of the hole to log

VI. Proposed Control Equipment:

Will install on the 8 5/8" surface casing a 9" x 3000 psi WP Double Ram BOP and will test before drilling out of surface casing. **As expected pressures will not exceed 2000 psi, we request a waiver of the remote control requirement on the accumulator of the 3M BOP and a variance to run a 2M BOP, if available, and to test to 1500 psi using rig pumps.** See Exhibit "H" for BOP layout.

VII. Auxiliary Equipment:

9" x 3000 psi double BOP/blind & pipe ram **(2M BOP if available)**
41/2" x 3000 psi Kelly valve
9" x 3000 psi mud cross – H_2S detector on production hole
Gate-type safety valve 3" choke line from BOP to manifold
2" adjustable chokes – 3" blowdown line

VIII A. Testing Program: None planned

B. Logging Program: The following logs may be run:

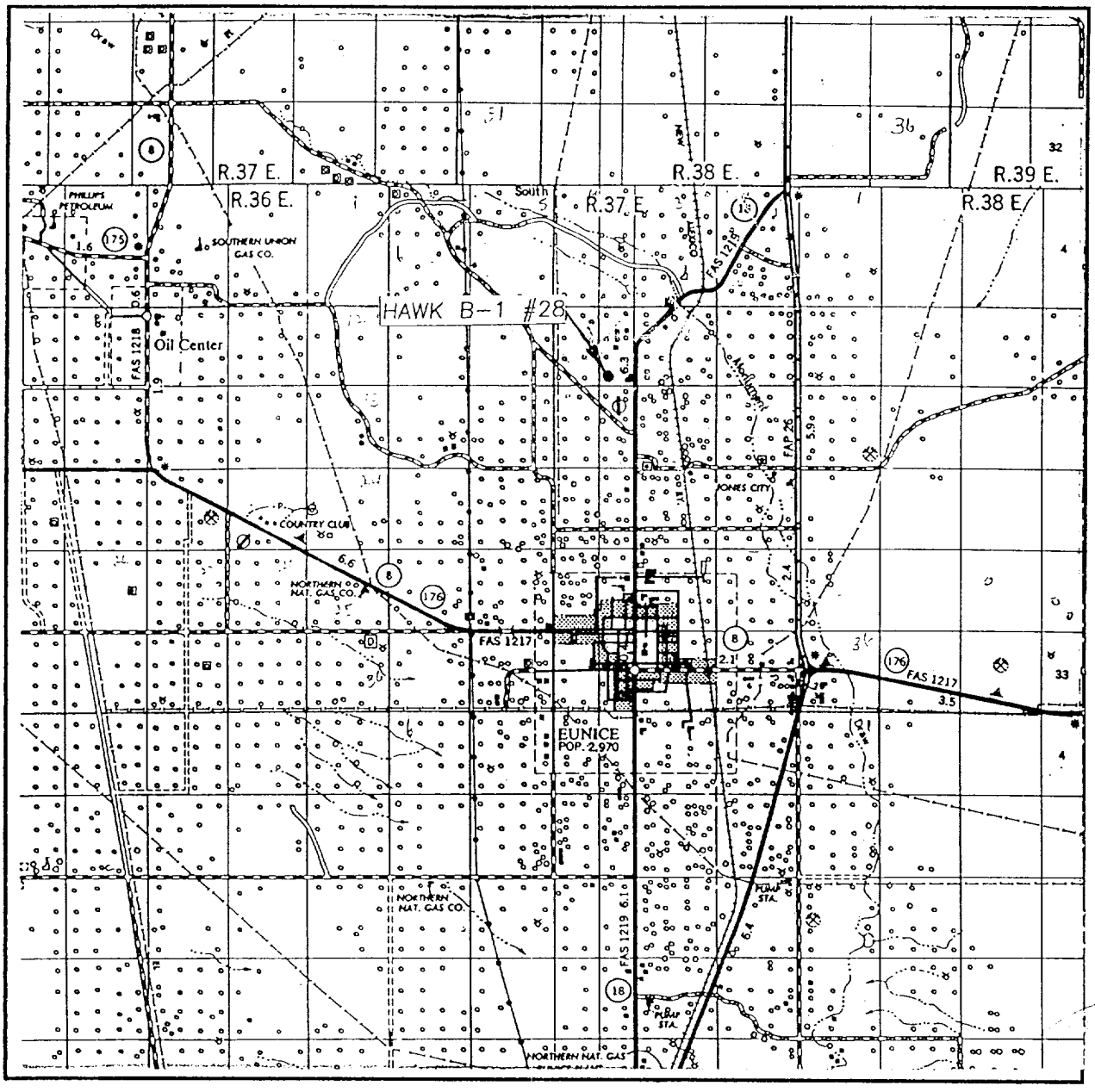
CNL, LDT, GR, CAL, DLL, MSFL, NGT from TD-2400'
CNL, GR from TD-Surface

C. Coring Program: None planned

IX. No abnormal pressures or temperatures are anticipated. In the event abnormal pressures are encountered, however, the proposed mud program will be modified to increase the mud-weight. The estimated maximum bottom hole pressure is 1980 psi.

EXHIBIT E-1

VICINITY MAP



SCALE: 1" = 2 MILES

SEC. 9 TWP. 21-S RGE. 37-E

SURVEY N.M.P.M.

COUNTY LEA

DESCRIPTION 420' FSL & 1980' FEL

ELEVATION 3486'

OPERATOR APACHE CORPORATION

LEASE HAWK B-1

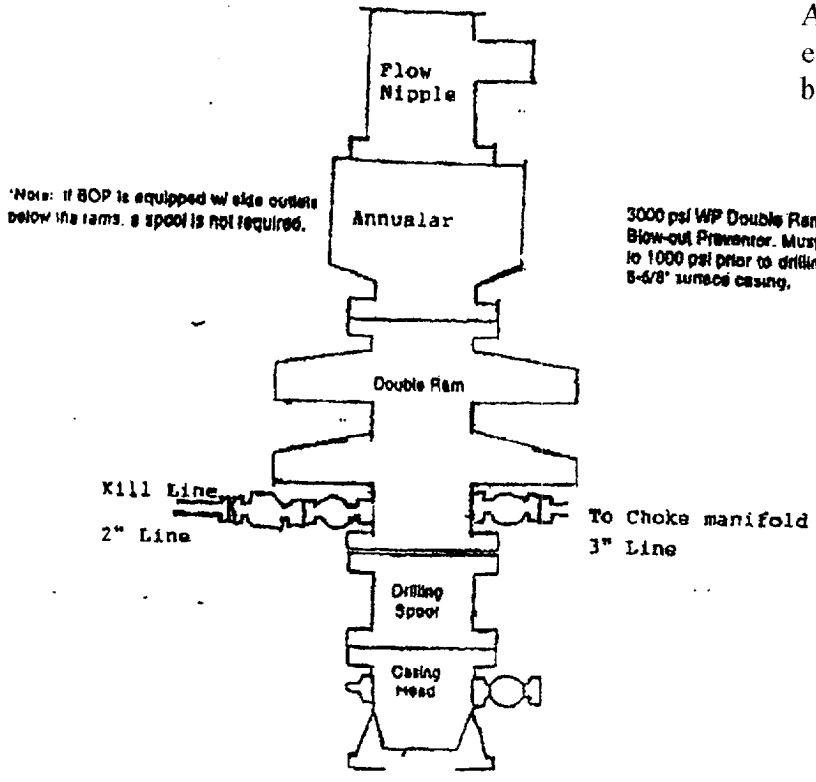
JOHN WEST SURVEYING
HOBBS, NEW MEXICO
(505) 393-3117

CAPSTAR DRILLING INC

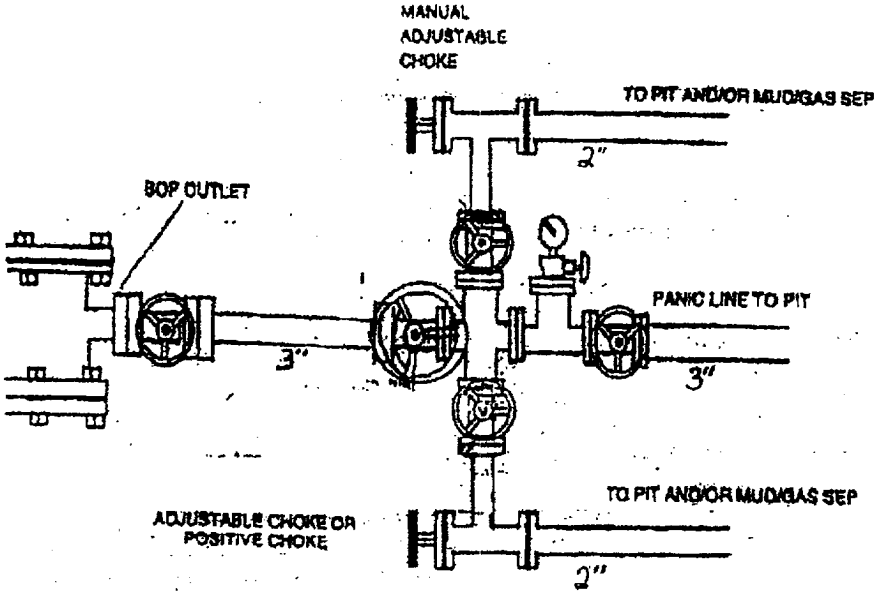
BOP SCHEMATIC
9" X 3000 psi

EXHIBIT "H"

As expected pressures will not exceed 2000 psi, a 2M BOP may be used if available.



Choke Manifold Schematic



ELF 6/5/02

ABOVE DATE DOES NOT
INDICATE WHEN
CONFIDENTIAL LOGS
WILL BE RELEASED