OPER. OGRID NO.	873	-					
Form 3160-3 • (August 1999) PROPERTY NO.	FORM AFPF OMB No. 10 Expires Novemb	04-01					
POOL CODE3	0350	5. Lease Serial No.					
EFF. DATE	14/14	NMNM90161					
APPLI API NO. 30-0	25.36533	6. If Indian, Allottee or Tribe	e Name				
1a. Type of Work: 🔀 DRILL 🔲 REENTER	COMEINENTIAL	7. If Unit or CA Agreement,	Name and No.				
1b. Type of Well: 🙀 Oil Well 🗖 Gas Well	Other Single Zone Multiple Zone	8. Lease Name and Well No. HAWK B-1 40					
	t: BONNIE JONES E-Mail: bonitaj@cableone.net	9. API Well No. 30.025	-36533				
3a. Address	3b. Phone No. (include area code)	10. Field and Pool, or Explor					
6120 SOUTH YALE, SUITE 1500 TULSA, OK 74136-4224	Ph: 505.624.9799 Fx: 505.624.9799	PENROSE SKELLY					
4. Location of Well (Report location clearly and in soo							
At surface SWSW 1310FSL 1280F At proposed prod. zone SWSW 1310FSL 1280F		Sec 9 T21S R37E M SME: FEE	er NMP				
14. Distance in miles and direction from nearest town or po 3 MILES NORTHWEST OF EUNICE, NM		12. County or Parish LEA	13. State				
15. Distance from proposed location to nearest property or	16. No. of Acres in Lease	17. Spacing Unit dedicated t					
lease line, ft. (Also to nearest drig. unit line, if any) 1310'	958.25	40.00					
 Distance from proposed location to nearest well, drillin completed, applied for, on this lease, ft. 	g, 19. Proposed Depth	20. BLM/BIA Bond No. on	file				
818.7'	4775 MD 4775 TVD						
21. Elevations (Show whether DF, KB, RT, GL, etc. 3510 GL	22. Approximate date work will start 12/15/2003	23. Estimated duration 15 DAYS					
	24. Attachments	Controlled Water Basin)				
The following, completed in accordance with the requirement	s of Onshore Oil and Gas Order No. 1, shall be attached t						
 Well plat certified by a registered surveyor. A Drilling Plan. A Surface Use Plan (if the location is on National Forest S 	0 21 mm 20 above).	·					
SUPO shall be filed with the appropriate Forest Service	office). 5. Operator securitication 6. Such other site specific i authorized officer.	nformation and/or plans as may l	be required by the				
25. Signature (Electronic Submission)	Name (Proved/Typed)		Date 11/17/2003				
Title AGENT	66 00 00 00 00 00 00 00 00 00 00 00 00 0	······································					
Approved by (Signature) /S/ JOE G. LARA	Name (Printed/Typed)	^	Date DEC 1 5 2003				
THELD MANAGER	Office CARLSBAD FIELD OFFICE						
Application approval does not warrant or certify the applicant	holds legal or equitable title to those rights in the subject	lease which would entitle the app					
operations thereon. Conditions of approval, if any, are attached.		PROVAL FOR 1					
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 121 States any false, fictitious or fraudulent statements or represen	make it a crime for any person knowingly and willfully tations as to any matter within its jurisdiction.	to make to any department or ag	ency of the United				
Additional Operator Remarks (see next page)							
Electronic Submission #25171 verified by the BLM Well Information System							
For APACHE CORPORATION, sent to the Hobbs APPROVAL SUBJECTCommitted to AFMSS for processing by ARMANDO LOPEZ on 11/12/2003 (04A1 0045AF) DECLARED WATER BASIN							
GENERAL REQUIREMENTS AND CEI	WENT BEHIND THE SAL	CEMENT ECHAD					
ATTACHED	SING MUST BE <u>CIRCULATED</u>						
** BLM REVISED ** BLM I	REVISED ** BLM REVISED ** BLM REVI	SED ** BLM REVISED *	~				

Additional Operator Remarks:

NO REMARK PROVIDED

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VICINITY MAP

EXHIBIT E-1



SCALE: 1" = 2 MILES

SEC. 9 TWP. 21-S. RGE. 37-F. SURVEY N.M.P.M. COUNTY LEA DESCRIPTION 1310' FSL & 1280' FWL ELEVATION 3510' OPERATOR APACHE CORPORATION LEASE HAWK B-1

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

LOCATION VERIFICATION MAP

EXHIBIT E-2



LEASE BOUNDARY

Sup-22-2005 09-55as Frankback CORP DRILLING REFT GIRIRIADE T-000 P.010/021 F-100 LOCATION VERIFICATION MAP **EXHIBIT E-3** 1950' CONTOUR INTE ELINICE N.M. Flow CONTOUR INTERVAL: 10' SCALE: 1" = 2000" SEC 9 TWP 21-5 RGE 37-E Flow-line Route SURVEY_____ N.M.P.M. JOHN WEST SURVEYING LEA COUNTY DESCRIPTION 1310 FSL & 1280 FWL HOBBS, NEW MEXICO ELEVATION 3510 (505) 393-3117 OPERATOR ______APACHE CORPORATION HAWK B-1 LEASE ACCESS

U.S.C.S. TOPOGRAPHIC MAP

LEASE BOUNDARY

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EXHIBIT "F" Hawk B-1 #40 1310' FSL & 1280' FWL, Sec. 9, T21S-R37E Lea County, NM



CapStar Drilling, Inc. LOCATION SPECIFICATIONS AND RIG LAYOUT FOR EARTH PITS









EXHIBIT "A" HAWK B-1 #40

DRILLING PROGRAM

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

II. Estimated Tops of Geological Markers:

FORMATION	<u>DEPTH</u>
Quaternary alluvials	Surface
Rustler	1290'
Yates	2695'
Grayburg	3763'
San Andres	4026'
TD	4775'

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

SUBSTANCE	DEPTH
Oil	Penrose @ 3595'
	Grayburg at 3763'
	San Andres at 4026'
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:

	CASI	NG		WEIGHT			ESTIMATED TOC -
<u>HOL</u>	<u>SIZ</u>	<u>E</u>		PER		<u>SACKS</u>	<u>REMARKS</u>
<u>E</u>	OD	ID	<u>GRAD</u>	<u>FOOT</u>	DEPTH	<u>CEMENT</u>	
<u>SIZE</u>			<u>E</u>				
12 1/4"	8 5/8"		J55	24#	400'	325	TOC - Surface
	8.097		STC		<u>(Pursuant</u>		8.34 ppg Water-based
					to Lea		Mud;
					<u>County</u>		83° F Est. Static Temp;
					<u>Alternative</u>		80° F Est. Circ. Temp.
					Casing		_
					Program)		
7 7/8"	5 1/2"		J55	17#	4775'	905	TOC – Surface
	4.892		LTC				Float Collar set @
							4735'/ 10.20 ppg
							Water-based Mud;
							118° F Est. Static
							Temp;
							101° F Est. Circ. Temp.
							-

B. Proposed Cement Program:

<u>SLURRY</u>					DISPLACEMENT			
CASING			0.0					
8 5/8"			C Cement $+ 2\%$				Fresh Water @	
Calcium Chloride + 0.125 lbs/sac + 56.3% Fresh Water					o Flake	8.:	34 ppg	
	+ 36.3%	Fresh						
			437 Vol. Cu Ft					
	C1 TT		1.35 Vol. Factor					
	•	• •	ppg) 14.8					
	•		Vsack) 1.35					
			Water (gps) 6.35					
			ed Pumping Time	<u>; </u>	<u>3C</u>			
		HH:M	<u>M)-3:00;</u>				· · · · · · · · · · · · · · · · · · ·	
			<u>8 5/8" (</u>	Casing	: Volume Calcu	<u>ilations:</u>		
400		х	0.4127 cf/ft	with	156% excess	. =	423.0 cf	
40 f	Ì	х	0.3576 cf/ft	with	0% excess	=	14.3 cf (inside pipe)	
			TOTAL SLUR	RY V	OLUME	=	437.3 cf	
						=	78 bbls	
pacer	30.0 ł	obls Wa	ater @ 8.3 ppg					
CASING]	LEAD	SLURRY		TAIL SLU	RRY	DISPLACEM	
	-						NT	
5 1/2"	505 sack	s (50:5	0) Poz (Fly	400	sacks (50:50) P	oz (Fly	110.0 bbls Fres	
		•	Cement + 5%		Class C Ceme		Water @	
	bwow S	odium (Chloride $+ 0.125$	bwo	w Sodium Chlo	oride +0.	-	
	lbs/sack	Cello H	Flake $+ 0.003$ gps	gps J	FP-6L + 2% bv	voc Bent		
	FP-6L + 10% bwoc Bentonite +				.7% Fresh Wat			
139.7% Fresh Water;					516 Vol. (Cu Ft		
		1232 V	ol. Cu Ft		1.29 Vol. I	Factor		
	2.44 Vol. Factor				ry Weight (ppg) 14.2		
	Slurry Weight (ppg) 11.8				ry Yield (cf/sac	,		
	Slurry Yield (cf/sack) 2.44				ount of Mix Wa)	
Amount of Mix Water (gps)					5.91;			
	14.07;				ount of Mix Flu	id(gps) :	5.91;	
	Amount	of Mix	Fluid (gps)		nated Pumping			
	14.0	7		I	BC (HH:MM)	3:00;		
	<u>Estimate</u>	d Pum	<u> ping Time – 70</u>					
	<u>BC (</u>	HH:M	<u>M)-4:00;</u>					
			5 1/2" (Casing:	Volume Calcul	ations:		
40) ft	x	0.1926 cf/ft	with	0% excess	=	77.0 cf	
301:		x	0.1733 cf/ft	with	154% excess	==	1328.4 cf	
13	50 ft	x	0.1733 cf/ft	with	120% excess	=	518.5 cf	
40) ft	x	0.1305 cf/ft	with	0% excess	=	5.2 cf(inside pipe)	
			TOTAL SLUR	RY VC	LUME	=	1929.1 cf	
			TOTAL BLOK	icr ic	LONID		1727.1 01	

Il 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

|--|

0 - 400'

400' - 4000'

4000'-4775'

Weight: 8.6 – 9.2 ppg Viscosity: 32 – 50 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

Weight: 9.2 ppg

pH: 9-10

pH: 9-10

Filtrate: NC

Viscosity: 30 – 32 sec/qt Plastic Viscosity: 0-1 cps

Yield Point: 0-1 lbs/100'

Solids: <1 % volume

Chloride: < 30K mg/L

Weight: 9.1 – 10.3 ppg

Viscosity: 30 - 32 sec/qt

Yield Point: 4-6 lbs/100'

Filtrate: 10-15 cm/30 min

Solids: <2-4 % volume

Chloride: < 170K mg/L

Plastic Viscosity: 3-10 cps

MUD PROPERTIES

<u>REMARKS</u>

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.

Drill out from under the surface 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 salt 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.

From 4000' 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. <u>Proposed Control Equipment:</u>

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 - H₂S 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.

4

EXHIBIT "B" HAWK B-1 #40

HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

No H₂S is anticipated.

EXHIBIT "C"

SURFACE USE AND OPERATIONS PLAN CULTURAL RESOURCES SURVEY APPROXIMATE REHABILITATION SCHEDULE

LOCALITY: HAWK B-1 #40 OPERATOR: APACHE CORPORATION

LOCATION: SW¹/4SW¹/4 OF SECTION 9, T21S-R37E, N.M.P.M. LEA COUNTY, NEW MEXICO

SUBMITTED TO:

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT ROSWELL DISTRICT OFFICE 2909 WEST 2ND STREET ROSWELL, NEW MEXICO 88201 TELEPHONE (505) 627-0272

This plan is submitted to provide permitting agencies with information necessary to allow an appraisal of the environmental effects associated with the proposed drilling operations. Within the context of typical drilling operations, this plan provides for protection of surface resources and other environmental components. This plan has been developed in conformity with the United States Geological Survey NTL-6 guidelines, Bureau of Land Management Oil and Gas Order No. 1, and in connection and consultation with the private surface owner of record, if other than the United States of America, as well as the Roswell District Office for the Bureau of Land Management and the United States Department of the Interior personnel. PART #1:

1)	Surface Location:	
	SW1/4SW1/4 of Section 9, Township	21 South, Range 37 East, N.M.P.M
	Lea County, New Mexico	-
	1310' FSL, 1280' FWL, Unit M	
	See attached Exhibits "D" and "E"	
2)	Bottom Hole Location:	
	SW ¹ / ₄ SW ¹ / ₄ of Section 9, Township 2	21 South, Range 37 East, N.M.P.M
	Lea County, New Mexico	
	1310' FSL, 1280' FWL, Unit M	
	See attached Exhibits "D" and "E"	
3)	Leases Issued: NM-90161	
4)	Record Lessee:	
	Apache Corporation	50%
	BP America Production Co.	25%
	Chevron USA Inc.	25%

5) Acres in Lease:

Township 20 South, Range 37 East, NMPM Section 13: SW¼NE¼, NW¼SW¼ Township 20 South, Range 38 East, NMPM Section 30: Lot 1 Township 21 South, Range 37 East, NMPM Section 4: Lots 3, 6 Section 6: NE¼SE¼, S½SE¼ Section 8: SE¼, E½SW¼ Section 9: S½, E½NW¼

Total Acres: 958.25

6) <u>Acres Dedicated to Well:</u>

There are 40.00 acres dedicated to this well, which takes in the SW¹/₄SW¹/₄ of Section 9, Township 21 South, Range 37 East, N.M.P.M., Lea County, New Mexico.

PART #2:

1) <u>Existing Roads</u>:

Exhibits "E-1" & "E-2" comprise maps showing the proposed well site in relation to existing roads and State Highway 18. The well is ± 3 miles northwest of Eunice, New Mexico. From Eunice, go north approximately 2.5 miles on State Highway 18. Turn northwest on existing lease roads to location as illustrated on Exhibit "E-2".

- 2) <u>Planned Access:</u>
 - A. <u>Length and Width:</u> Existing lease/access roads will be used into the well site. Application for a buried pipeline will be made if it becomes necessary.
 - B. <u>Construction</u>: The existing roads will be lightly graded and topped with compacted caliche as needed.
 - C. <u>Turnouts:</u> None required.
 - D. Culverts: None required.
 - E. Cuts and Fills: As needed.
 - F. Gates and Cattleguards: None required.
- 3) Location of Existing Wells:

Exhibit "F" shows existing wells within a 1-mile radius of the proposed well.

- 4) Location of Existing and/or Proposed Facilities:
 - A. There are production facilities within the area of the Northeast Drinkard Unit, which is adjacent to the wellsite.
 - B. If the oil well proves to be commercial, any necessary production facilities will be installed on the drilling pad, and flow lines will be installed along the proposed and existing roads to the production facilities and storage tanks. See Exhibit "E-3" for flow-line route.
- 5) Location and Type of Water Supply:

Apache Corporation plans to drill the proposed well with fresh and brine water which will be transported by truck over proposed and existing access roads.

6) <u>Source of Construction Materials:</u>

Caliche for surfacing access roads and the wellsite pad will be obtained from the location itself or from BLM pits in the area.

- 7) <u>Method of Handling Waste Material:</u>
 - A. Drill cuttings will be disposed of in the reserve pits.
 - B. Drilling fluids will be allowed to evaporate in the reserve pits until the pits are dry.
 - C. All pits will be fenced with normal fencing materials to prevent livestock from entering the area.
 - D. Water produced during operations will be collected in tanks until hauled to an approved disposal system.
 - E. Oil produced during operation will be stored in tanks until sold.
 - F. Apache Corporation will comply with current laws and regulations pertaining to the disposal of human waste.

- G. All waste materials will be contained to prevent scattering by the wind and will be removed from the well site within 30 days after drilling and/or completion operations are finished.
- 8) Ancillary Facilities: None planned.

9) Well Site Layout:

- A. Exhibit "G" shows the relative location and dimensions of the well pad, reserve pits, and major rig components. The pad and pit area have been staked and flagged.
- B. Mat Size: 140' x 200' plus reserve pits as shown on Exhibit "G".
- C. Cut & Fill: Only minor leveling of the drilling site is anticipated.
- D. The surface will be topped with compacted caliche and the reserve pits will be lined with 6 mil plastic.
- 10) <u>Plans for Restoration of the Surface:</u>
 - A. After completion of drilling and/or completion operations, all equipment and other material, not needed for operations, will be removed. Pits will be filled and the location cleaned of all trash and junk to leave the well site in as aesthetically pleasing a condition as possible.
 - B. Any unguarded pits containing fluids will be fenced until they are filled.
 - C. If the proposed well is non-productive, Apache Corporation will comply with all rehabilitation and/or vegetation requirements of the Bureau of Land Management, and such rehabilitation will be accomplished as expeditiously as possible. All pits will be filled and leveled within 90 days after abandonment.

11) Other Information:

- A. <u>Topography:</u> The wellsite and access road are located in the Querecho Plains and are relatively flat.
- B. <u>Soil:</u> The proposed location, access road and production facilities consist of sandy soil. Slope in the proposed area ranges from zero (0) to five (5) degrees.
- C. <u>Flora and Fauna:</u> Vegetation is one of a grassland environment and a scrub-grass, scrub disclimax community. The wildlife consists of rabbits, coyotes, rattlesnakes, lizards, dove, quail and other wildlife typical of the semi-arid desert land.
- D. <u>Ponds and Streams:</u> There are no ponds, lakes, streams or feeder creeks in the immediate area.
- E. <u>Residences and Other Structures:</u> There are no occupied residences or other structures on or near the proposed location.
- F. Land Use: The land is used for grazing cattle.
- G. <u>Surface Ownership:</u> The surface is owned by the Trustee of the Millard Deck Estate, c/o Tim Wolters, Bank of America, P. O. Box 270, Midland, TX 79702, 915-685-2864. <u>A Surface Damage Release agreement for this tract has been executed by the Millard Deck Estate and Apache Corporation.</u>
- H. Archaeological, Historical, and Other Cultural Sites:

Don Clifton, Archaeological Consultant, of Pep, New Mexico, will be conducting an archaeological survey of the proposed HAWK B-1 #40 well which covers the drilling location, production facilities, and access road, including a corridor along said access road for power and flow lines. His report will be filed under separate cover.

I. <u>Senior Representative (Manager, Engineering & Production):</u>

Jim McKinney Apache Corporation Suite 1500 – Two Warren Place 6120 South Yale Avenue Tulsa, Oklahoma 74136 (918) 491-4800

Project (Operations Engineer):

Kevin Mayes Apache Corporation Suite 1500 – Two Warren Place 6120 South Yale Avenue Tulsa, Oklahoma 74136 (918) 491-4972 Drilling Operations (Operations Engineer):

Glenn Bone Apache Corporation Suite 1500 – Two Warren Place 6120 South Yale Avenue Tulsa, Oklahoma 74136 (918) 491-4907

CERTIFICATION

I hereby certify that Apache Corporation has inspected the proposed drillsite and access route; that I am familiar with the conditions which presently exist; that the statements made in the plan are, to the best of my knowledge, true and correct; and, that the work associated with the operations proposed herein will be performed by Apache Corporation 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.

Beniva Dones

Bonita L. L. Jones, RLP, Consulting Landman Agent for Apache Corporation P. O. Box 8309 Roswell, New Mexico 88202-8309 (505) 624-9799 FAX (505) 624-9799 E-Mail: bonita@dfn.com

Date: _____11-3-03