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Form 3160-3 OPER. OGRID NO.	8 / 2	FORM APP				
, (August 1999) PROPERTY NO. 2	4477	OMB No. 10 Expires Novemb	04-0136 er 30, 2000			
	250	5. Lease Serial No.				
POOL CODE 30						
	ADD EFF. DATE					
APP APINO. 30-02	5-36531	6. If Indian, Allottee or Trib	·			
1a. Type of Work: 🛛 DRILL 🗖 REENTER		7. If Unit or CA Agreement,	Name and No.			
		 Lease Name and Well No HAWK B-1 38 				
1b. Type of Well: Oil Well Gas Well Oth						
	BONNIE JONES E-Mail: bonitaj@cableone.net	9. API Well No.	715-21			
3a. Address	3b. Phone No. (include area code)	10. Field and Pool, or Explo	<u>265 31</u>			
6120 SOUTH YALE, SUITE 1500	Ph: 505.624.9799	PENROSE SKELLY	14101.j			
TULSA, OK 74136-4224	Fx: 505.624.9799					
4. Location of Well (Report location cle	ance with any State requirements.*)	11. Sec., T., R., M., or Blk.	and Survey or Area			
At surface SWSE 1080FSL 2551FEL	LIKE APPROVAL BY STATE	Sec 9 T21S R37E M	er NMP			
At proposed prod. zone SWSE 1080FSL 2551FEL		SME: FEE				
	Unit U	12. County or Parish () 2.7 -	13. State			
14. Distance in miles and direction from nearest town or post 3 MILES NORTHWEST OF EUNICE, NM	office*	LEA	NM			
15. Distance from proposed location to nearest property or	16. No. of Acres in Lease	17. Spacing Unit dedicated	to this well			
lease line, ft. (Also to nearest drig. unit line, if any)		12				
1080'	958.25	40.00 A				
18. Distance from proposed location to nearest well, drilling,	19. Proposed Depth	20. BLM/BIA Bond No. on	file			
completed, applied for, on this lease, ft. 748.5	4150 MD	E Product				
	4150 TVD	10				
 Elevations (Show whether DF, KB, RT, GL, etc. 3492 GL 	22. Approximate date work will start 12/15/2003	23. Estimated duration 15 DAYS				
		<u> </u>				
	24. Attachments	in Controlled Water B				
The following, completed in accordance with the requirements of						
1. Well plat certified by a registered surveyor.	i 4. Bond to cover the operation	ons unless covered by an existin	g bond on file (see			
2. A Drilling Plan.	Item 20 above).	·····	C			
 A Surface Use Plan (if the location is on National Forest Syst SUPO shall be filed with the appropriate Forest Service Of 	fice). 6. Such other site specific in	formation and/or plans as may	be required by the			
	authorized officer.					
25. Signature	Name (Printed/Typed)		Date			
(Electronic Submission)	BONNIE JONES		11/17/2003			
		· · · · · · · · · · · · · · · · · · ·				
	Name (Printed/Typed)		L Data			
Approved by Signature /S/ JOE G. LARA	/S/ JOE G. LARA		Date UEC 1 5 2083			
	Office		L			
FIELD MANAGER	CARLSBAD FIEL	DOFFICE				
Application approval does not warrant or certify the applicant he operations thereon.	olds legal or equitable title to those rights in the subject l	ease which would entitle the ap	plicant to conduct			
Conditions of approval, if any, are attached.	A	PPROVAL FOF	1 YEAR			
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212,	·					
States any false, fictitious or fraudulent statements or representa-	tions as to any matter within its jurisdiction.	o make to any department of ag	, seney of the office			
Additional Operator Remarks (see next page)			. 1			
Electronic Submiss	ion #25169 verified by the BLM Well Inform	nation System				
For A	PACHE CORPORATION. sent to the Hobbs	5	KA			
APPROVAL SUBJECTOR DEC		2003 (04ALUU43AE)	NT			
GENERAL REQUIREMENTS AND DEC						
SPECIAL STIPULATIONS CEM ATTACHED CAS	ENT BEHAD THE 878 0	EMENT BEHAD	THE 5/2"			
CAS						
	ING MUST BE <u>CIRCULATED</u>	ASING MUST BE	CIRCOLATED			

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DISTRICT	I		
P.O. Ber 1986,	Bairbe,	ШĽ.	80241

DISTRICT II P.O. Brewer 30, Artenia, MK 88211-0719

DISTRICT III 1000 His Brazos Bd., Aztec, Md 87410

DISTRICT IV

Mes Sile

WELL LOCATION AND ACREACE DEDICATION PLAT

EXHIBIT D-Z

State Lease - 4 Copies For Lease - 5 Conter

Revised February 10, 1994 Submit to Appropriate District Office

Form C-102

P.G. HOX ROSS, SANT	1. PR, N.M. 87	100-1005	WELL LO	CATION	AND ACRE	AGE DEDICATI	ON PLAT	- AMENDEI	REPORT	
	Number	J-71								
SO-D Property		16 50	53 50350 Penrose Skelly; Grayburg							
24427					Property Nam HAWK B-			Well Num 38	neur	
CED N		1			Operator Nam	·	•	RLEVAT		
873				APA	CHE CORPO			349		
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		<u>L</u>	Bottom	Hole Lo	cation If Diffe	rent From Sur	face	anningen _{en e} fertenet an en	L	
UL or lot No.	Section	Township	Range	Lot Ida	Feet from the	North/South line	Fect from the	East/Vest line	County	
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		OR A N	ION-STAN	DARD UI	NT HAS BEEN	APPROVED BY	THE DIVISION			
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State of New Mexico

Inorgy, Minarals and Hatzers) Resources Dep

OIL CONSERVATION DIVISION

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

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	HAWK B-1	its is	01 ⁹¹⁵	B-1 #25	best of my host Highethere Printed Nam Title Date SURVEYC 1 hereby certify	uledge and ballog a R CERTIFICAT that the scall located		
	HAWK B-1	<u> </u>		B-1 #8	actual serveyo engersteon as correct to th Aug Date Surveyo Signature & Professional	made by me or d that the same to o best of my belief Ust 06, 2003 d Seal of Surveyor 03,11,0846 o. BOXALD J. EDDSC	AW.8.	

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i7 F-451

VICINITY MAP

**EXHIBIT E-1** 



SCALE: 1" = 2 MILES

SEC. 9 TWP. 21-S RGE. 37-E SURVEY N.M.P.M. COUNTY LEA DESCRIPTION 1080° FSL & 2551° FEL ELEVATION 3492° OPERATOR APACHE CORPORATION LEASE HAWK B-1

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



EXHIBIT E-2



LEASE BOUNDARY

Sup-12-2003 18:85 IN FOR APACE CORP DEPLEMENT DEPT DIRECTION TO PASSAGE PARTIES DEPT DIRECTION NAP

**EXHIBIT E-3** 



# EXHIBIT "F" Hawk B-1 #38 1080' FSL & 2551' FEL, Sec. 9, T21S-R37E Lea County, NM





Celler can be 4X4X4 If using a screw-on workwood Working Pits dug 5 below ground level



#### EXHIBIT "A" HAWK B-1 #38

#### **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	1286'
Yates	2667'
Grayburg	3750'
San Andres	4009'
TD	4150'

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

	<u>SUBSTANCE</u>	<u>DEPTH</u>	
	Oil	Penrose @ 3583'	
		Grayburg @ 3750'	
	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:

HOL	CASI SIZ			<u>WEIGHT</u> PER		SACKS	ESTIMATED TOC - REMARKS
<u>E</u> SIZE	OD	ID	<u>GRAD</u> <u>E</u>	FOOT	<u>DEPTH</u>	<u>CEMENT</u>	
12 1/4"	8 5/8" 8.097		J55 STC	24#	400' (Pursuant to Lea County Alternative Casing Program)	325	TOC - Surface 8.34 ppg Water-based Mud; 83° F Est. Static Temp; 80° F Est. Circ. Temp.
7 7/8"	5 ½" 4.892		J55 LTC	17#	4150'	755	TOC – Surface Float Collar set @ 4110'/ 10.20 ppg Water-based Mud; 118° F Est. Static Temp; 101° F Est. Circ. Temp.

### B. Proposed Cement Program:

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			<u>SLURRY</u>			DISPLA	ACEMENT
CASING	225 1		0.0	1		0 6 6 1- 7	Smach Water @
8 5/8"			C Cement $+ 2\%$ le $+ 0.125$ lbs/sac				Fresh Water @ 84 ppg
	+ 56.3%			ck Cello	o riake	0.5	54 ppg
	T 30.370		437 Vol. Cu Ft				
			1.35 Vol. Factor				
	Shurry W		ppg) 14.8				
	•		/sack) 1.35				
		•	Water (gps) 6.35				
			ed Pumping Time	•	BC		
	-		<u>v()-3:00;</u>	<u>, ,,,</u>			
				Casing:	Volume Calcu	ilations:	
400	) ft	x	0.4127 cf/ft	with	156% excess		423.0 cf
40		x	0.3576 cf/ft	with	0% excess		14.3 cf (inside pipe
			TOTAL SLUP	RRY VO		=	437.3 cf
						=	78 bbls
Spacer	30.01	obls Wa	ter @ 8.3 ppg				
CASING	]	LEADS	SLURRY		TAIL SLU	IRRY	DISPLACEM
	-						<u>NT</u>
5 1/2"		•	0) Poz (Fly		sacks (50:50) H		95.4 bbls Fresh
			ement + 5%		:Class C Ceme		-
			Chloride $+ 0.125$		w Sodium Chlo		110
			lake + 0.003 gps		FP-6L + 2% by		onite
			woc Bentonite +	+ 58.	.7% Fresh Wat		
	139.7%		,		323 Vol. (		
			ol. Cu Ft		1.29 Vol. 1		
			ol. Factor		y Weight (ppg		
	•		ppg) 11.8		y Yield (cf/sac	•	
	•	•	/sack) 2.44		unt of Mix Wa	ter (gps)	
			Water (gps)		9.91; 	• 17	- ^1
	14.0				unt of Mix Flu		
			Fluid (gps)		nated Pumping		/0
	14.0 Estimate		ing Time 70	E	BC (HH:MM)-	5:00;	
			<u>oing Time – 70</u> M)-4:00;				
	DU			7	Volume Col.		
40	00 ft	x	$\frac{5 \frac{1}{2}}{0.1926 \text{ cf/ft}}$	<u>_asing:</u> with	Volume Calcul 0% excess	<u>ations:</u> =	77.0 cf
	5 ft	x	0.1733 cf/ft	with	154% excess	=	1293.1 cf
	5 ft	x	0.1733 cf/ft	with	120% excess	=	318.2 cf
	0 ft	x	0.1305 cf/ft	with	0% excess	=	5.2 cf(inside pipe)
						=	1683.5 cf
			TOTAL SLUR		LOWIE	_	1005.5 01

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

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<u>DEPTH</u> 0 – 400'	MUD PROPERTIES 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	<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.
400' – 4000'	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 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.
4000' – 4150'	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 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. <u>Auxiliary Equipment:</u>

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.

### EXHIBIT "B" HAWK B-1 #38

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### HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

No H₂S is anticipated.

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#### EXHIBIT "C"

#### SURFACE USE AND OPERATIONS PLAN CULTURAL RESOURCES SURVEY APPROXIMATE REHABILITATION SCHEDULE

#### LOCALITY: HAWK B-1 #38 OPERATOR: APACHE CORPORATION

#### LOCATION: SW¼SE¼ 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.

1)	Surface Location:	
	SW ¹ / ₄ SE ¹ / ₄ of Section 9, Township 21	South, Range 37 East, N.M.P.M.
	Lea County, New Mexico	-
	1080' FSL, 2551' FEL, Unit O	
	See attached Exhibits "D" and "E"	
2)	Bottom Hole Location:	
	SW ¹ /4SE ¹ /4 of Section 9, Township 21	South, Range 37 East, N.M.P.M.
	Lea County, New Mexico	
	1080' FSL, 2551' FEL, Unit O	
	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) <u>Acres in Lease:</u>

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) Acres Dedicated to Well:

There are 40.00 acres dedicated to this well, which takes in the SW¹/₄SE¹/₄ of Section 9, Township 21 South, Range 37 East, N.M.P.M., Lea County, New Mexico.

#### <u>PART #2:</u>

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. Construction: 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) Source of Construction Materials: 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.
- Ancillary Facilities: None planned.
- 9) Well Site Layout:

8)

- 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) Plans for Restoration of the Surface:
  - 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 #38 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. Senior Representative (Manager, Engineering & Production):

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.

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Date: _____ 11-3-03 ____