(formerly 9-331C) UNITED STATES (Other instructions on reverse side) Budget Bureau No. 1004-0135
DEPARTMENT OF THE INTERIOR Expires August 31, 1985
BUREAU OF LAND MANAGEMENT 30-039-25228

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK: DRILL ☒ DEEPEN ☐ PLUG BACK ☐

b. TYPE OF WELL: OIL WELL ☒ GAS WELL ☐ OTHER SINGLE ZONE ☐ MULTIPLE ZONE ☐

2. NAME OF OPERATOR: American Hunter Exploration Ltd. 577

3. ADDRESS OF OPERATOR: 410 - 17 Street, Suite #1220, Denver, Colorado 80202

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: 1000'FNL, 1300'FEL (NE NE) Sec 2 T27N R2W
At proposed prod. zone: 1000'FNL, 1300'FEL (NE NE) Sec 2 T27N R2W

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: + 30 miles southwest of Dulce, New Mexico

5. LEASE DESIGNATION AND SERIAL NO.: Contract 701-90-0001
6. IF INDIAN, ALLOTTEE OR TRIBE NAME: Jicarilla Apache
7. UNIT AGREEMENT NAME: N/A
8. FARM OR LEASE NAME: Jicarilla 2A
9. WELL NO.: 2-I
10. FIELD AND POOL, OR WILDCAT: West Puerto Chiquito Mancos 50440
11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: 2-T27N-R2W
12. COUNTY OR PARISH: Rio Arriba 13. STATE: New Mexico

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)	16. NO. OF ACRES IN LEASE	17. NO. OF ACRES ASSIGNED TO THIS WELL
1000'	N/A	640
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.	**19. PROPOSED DEPTH**	**20. ROTARY OR CABLE TOOLS**
N/A	7450' TVD	Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.): 7169' GR

This action is subject to technical and procedural review pursuant to 43 CFR 3165.3 and appeal pursuant to 43 CFR 3165.4.

22. APPROX. DATE WORK WILL START*: September 1, 1992

23. PROPOSED CASING AND CEMENTING PROGRAM

DRILLING OPERATIONS AUTHORIZED ARE SUBJECT TO COMPLIANCE WITH ATTACHED "GENERAL REQUIREMENTS"

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12 1/4"	8 5/8"	24#	400'	To Surface
7 7/8"	5 1/2"	17#	7450'	To Surface

A 12¼" vertical surface hole will be drilled to ± 400'. A 7⅞" hole will then be drilled to a total depth of approximately 7450'. At this point casing will be run and cemented in accordance with NTL-FRA 90-1.

RECEIVED BLM 92 AUG 26 PM 2:44 FARMINGTON, N.M.

EXHIBITS ATTACHED

"A"	Location Survey Plat	"F"	Cross Section of Drilling Pad
"B"	Drilling Program	"G"	Drill Rig Layout
"C"	Wellbore Schematic	"H"	Access Road
"D"	Blowout Prevention Diagram	"I"	Surface Use Program
"E"	Drilling Pad Layout		

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24. SIGNED B Thistle Bruce Thistle TITLE Drilling Technologist DATE August 21, 1992

(This space for Federal or State office use)

PERMIT NO. RECEIVED SEP 18 1992 OIL CON. DIV. DIST. 3 APPROVAL DATE

APPROVED AS AMENDED SEP 16 1992 AREA MANAGER

APPROVED BY TITLE

CONDITIONS OF APPROVAL, IF ANY: NMOCD

R-9719

*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.

EXHIBIT A

Submit to Appropriate
District Office
State Lease - 4 copies
Fee Lease - 3 copies

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

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

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

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

Form C-102
Revised 1-1-89

RECEIVED
BLM
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070 FARMINGTON, NM

WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the outer boundaries of the section

Operator	Lease	Well No.
American Hunter Exploration Ltd.	Jicarilla 2 A	#1

Unit Letter	Section	Township	Range	County
A	2	27 North	2 West NMPM	Rio Arriba

Actual Footage Location of Well:
1000 feet from the North line and 1300 feet from the East line

Ground level Elev.	Producing Formation	Pool	Dedicated Acreage:
7169	Mesa Verde	W. Lindrith Gallup Dakota EXT	320 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.

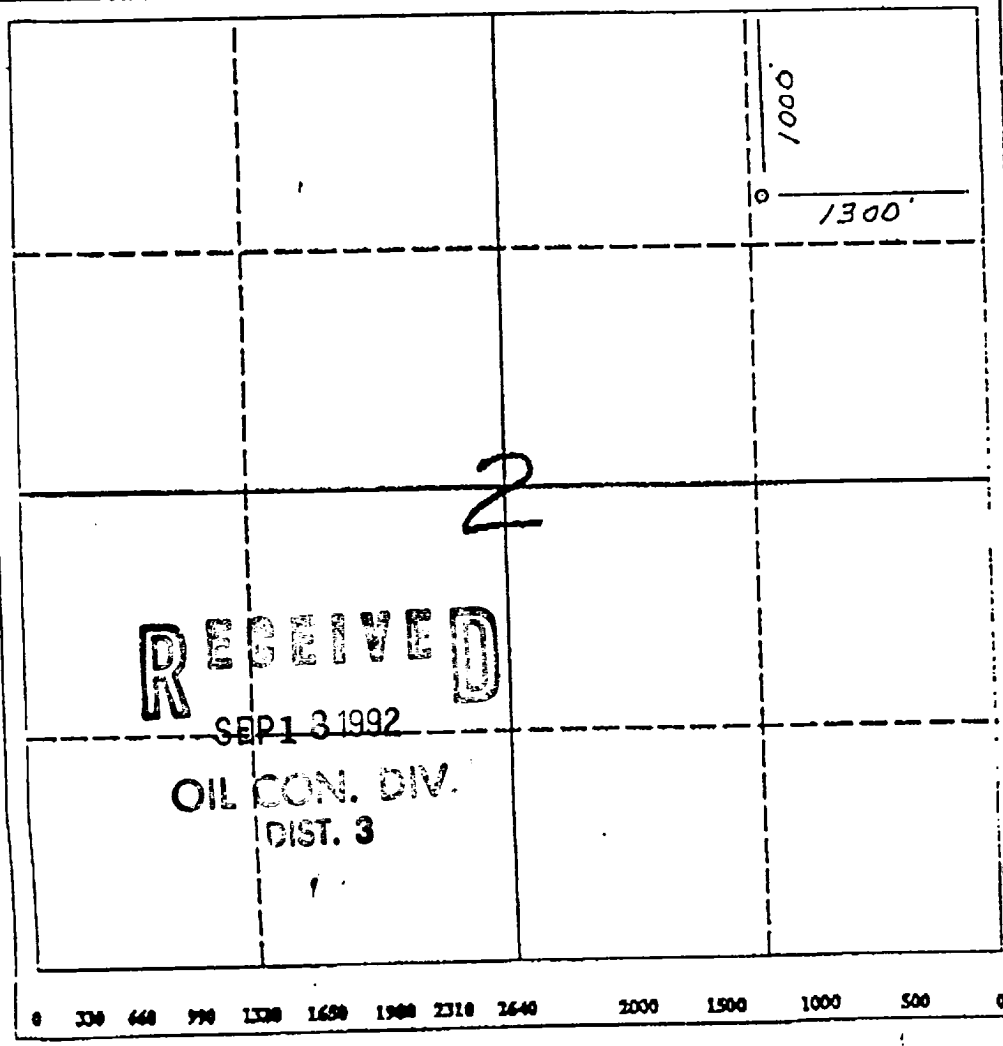
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

3. If more than one lease of different ownership is dedicated to the well, have the interest of all owners been consolidated by communitization, unitization, force-pooling, etc.?

☐ Yes ☐ No If answer is "yes" type of consolidation _____

If answer is "no" list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary. _____

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interest, has been approved by the Division.



RECEIVED
SEP 13 1992
OIL CON. DIV.
DIST. 3

OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

B Thistle

Signature
BRUCE C. THISTLE
Printed Name
DRILLING TECHNOLOGIST
Position
AMERICAN HUNTER
Company
21/08/92
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 supervision, and that the same is true and correct to the best of my knowledge and belief.

8-6-92
Date Surveyed
Signature & Seal of Professional Surveyor
NEALE C. EDWARDS
9857
Certificate No.
6857

EXHIBIT "B"

DRILLING PROGRAM

AMERICAN HUNTER EXPLORATION LTD.
Jicarilla 2A-1
NENE 2-27N-2W

1000' FNL & 1300' FEL (Surface & TD locations)
Rio Arriba County, New Mexico

1. SURFACE FORMATION: San Jose

2&3. ESTIMATED GEOLOGICAL FORMATION TOPS:

FORMATION	VERTICAL		COMMENTS
	SubSea Elev (ft.)	Drilling Depth (ft MD)	
San Jose (surface)	+ 7170	15	
Ojo Alamo	+ 4013	3172	
Fruitland	+ 3693	3492	
Pictured Cliffs	+ 3643	3542	possible gas
Lewis Shale	+ 3408	3777	
Cliff House	+ 1553	5632	
Point Lookout	+ 1298	5887	possible gas
Mancos Shale	+ 1098	6087	
Grey Zone	+ 165	7020	
Niobrara A	+ 51	7134	possible oil/gas
Niobrara B	- 19	7204	possible oil/gas
Niobrara C	- 135	7320	
T.D.	- 265	7450	

4. WELL DESIGN

Surface hole will be drilled to 400' then 8⅝" casing will be set. The casing will be cemented to surface with 100% excess. A 7⅞" main hole will then be drilled to a TD of 7115' - approximately 50' below the base of the Niobrara "C". 5½" production casing will then be run to TD and cemented back to surface.

CASING PROGRAM

HOLE SIZE	INTERVAL	LENGTH	CASING SIZE	WEIGHT	GRADE	CONN	COND
12¼	0 - 400'	400'	8⅝"	24.0	K-55	STC	New
7⅞	400 - 7450'	7000'	5½"	17.0	L-80	LTC	New

CEMENTING PROGRAM

The 8⅝" surface casing will be cemented to surface with 290 sacks Class G + 2% $CaCl_2$.

The 5½" production casing will be cemented to surface as follows:

- 7450 - 7000' 90 sx Class G + 0.5% D59 + 0.4% D65 + 0.2% D136 + 0.25% D79
- 7000' - Surface 850 sx Litepoz + 2% $CaCl_2$ + 6% Bentonite

Cement slurry volumes will be calculated as follows:

- 100% excess over gauge (annular) hole volume for surface casing.
- 30% excess over annular hole volume (based on calliper log) for production casing.

5. PRESSURE CONTROL EQUIPMENT

Exhibit "D" is a schematic diagram of the proposed blowout preventer equipment.

Ram type preventers and associated equipment (choke manifold, kelly cocks, etc.) shall be pressure tested to 100% of their rated working pressure (with BOP stack isolated from casing by a test plug) for a period of 10 minutes. Annular preventers shall be tested to 50% of rated working pressure for 10 minutes. Tests will be run after initial installation, prior to drilling out of surface casing shoe and after any use under pressure, or a minimum of once every 14 days. Pipe rams will be operationally checked each 24 hour period, as will blind rams and annular preventer each time pipe is pulled out of the hole. Annular preventers will be functionally operated at least weekly. BOP checks will be noted on daily drilling reports.

6. MUD PROGRAM

	MW	WL	VIS	TYPE
0 - 400'	8.5 - 9.0	NC	35 - 50	Water/Gel-Lime
400 - 7450'	8.5 - 8.8	8 - 10	32 - 36	KOH-PHPA

7. AUXILIARY EQUIPMENT

1) Upper and lower kelly cock.

2) Drillpipe float (except for lost circulation drilling conditions).

3) A mud logging unit with gas detecting device will be used to detect any influx of formation fluids.

4) A sub on the floor with a full opening valve to be stabbed into drillpipe when a kelly is not in the string.

8. EVALUATION

	INTERVAL	LOG RUN
LOGGING:	T.D. to Surface	1. BHC Sonic/GR/Caliper 2. DIL/SFL/SP/GR

CORING: No cores will be cut.

TESTING: No DSTs are planned.

MUD LOGGING: Full mud logging services from surface casing to T.D.

STIMULATION: Stimulation procedures will be determined after evaluation of logs. If treatment is indicated, appropriate sundry notice will be submitted for approval.

9. ABNORMAL PRESSURES

No abnormal pressures or temperatures have been noted or reported in wells drilled in the area nor at the depths anticipated in this well. The Niobrara is an underpressured reservoir (0.28 psi/ft max). Maximum expected bottomhole pressure is 1990 psi.

10. TIMING

The anticipated starting date for this well is set for September 1, 1992. Operations will require 16 days for drilling and 7 days for completion.

EXHIBIT C

WELLBORE SCHEMATIC

AHEL JICARILLA 2A-1

Rio Arriba County, New Mexico

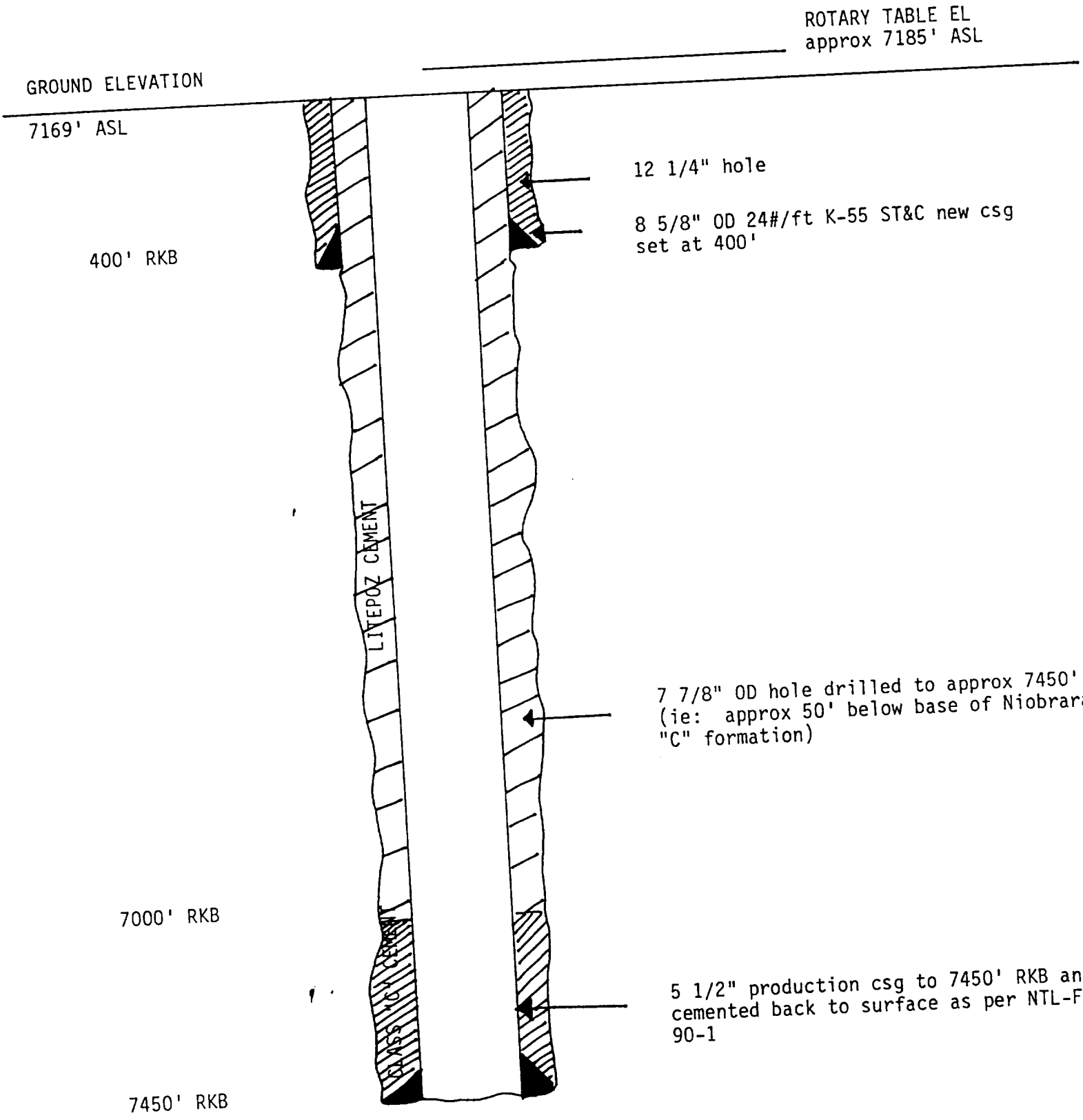



EXHIBIT H
J-16 2 mi
ACCESS
Tule Lake
CONTINENTAL DIVIDE
J30
ACCESS
ACCESS
Compañero
J30
Arroyo
Compañero
T28N R2W
T27N R2W
000' FNL 1300' FEL
ACCESS
LEAVRY CANYON QUAD. 1" = 2000'
DIVIDE

EXHIBIT I

MULTIPLE-POINT SURFACE USE PLAN

JICARILLA 2A-1

1. EXISTING ROADS

To reach the proposed location travel east from Farmington, New Mexico on Highway US 65 to the junction of US 64 and NM 537 turn south (right) on NM 537 and travel approximately 9.1 miles to the junction of NM 537 and J-16. Turn east (left) on J-16 and travel approximately 6.5 miles to a junction with J-30. Turn south (right) on an unimproved road (J-30) and travel approximately 4.5 miles, then turn west (right) for another 0.5 of a mile.

2. PLANNED ACCESS ROADS

A new access road will be built running 200 yards northwest to location. New roads will not exceed 30 ft wide. This road will be built upon approval of the Regulatory authorities and the Jicarilla Tribe.

3. LOCATION OF EXISTING WELLS

No wells could be identified in the immediate area.

4. LOCATION OF PRODUCTION FACILITIES

Given the exploratory nature of this project, the type and quantity of facility is yet to be determined. If successful, production facilities will be located on a reduced drill pad which will be fenced with a dike sufficient to contain all fluids held on site. Production equipment shall be painted in accordance with BIA and BLM requests of a green complimentary color. Upon completion of drilling the reserve pit prior to closing will be fenced. All trash and debris shall be removed as per agreement.

5. WATER SUPPLY

Water for drilling and completion operations will be hauled by truck from either Hayden Lake or from a multiple of fresh water sources for completion/cementing purposes based on analysis.