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NEW MEXICO OIL CONSERVATION COMMISSION

Form C-103
Supersedes Old
C-102 and C-103
Effective 1-1-65

SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT -" (FORM C-101) FOR SUCH PROPOSALS.)		5a. Indicate Type of Lease State ☐ Fee ☒
		5. State Oil & Gas Lease No.
1. ☒ OIL WELL ☐ GAS WELL ☐ OTHER-		7. Unit Agreement Name
2. Name of Operator Jerome P. McHugh		8. Farm or Lease Name Greener Grass
3. Address of Operator P O Box 809, Farmington, NM 87499		9. Well No. 1
4. Location of Well UNIT LETTER <u>J</u> <u>1850</u> FEET FROM THE <u>South</u> LINE AND <u>1850</u> FEET FROM THE <u>East</u> LINE, SECTION <u>10</u> TOWNSHIP <u>24 N</u> RANGE <u>2W</u> NMPM.		10. Field and Pool, or Wildcat Gavilan Mancos/Dakota
15. Elevation (Show whether DF, RT, GR, etc.) 7255' GL; 7267' KB		12. County Rio Arriba

16. Check Appropriate Box To Indicate Nature of Notice, Report or Other Data
NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐	PLUG AND ABANDON ☐
TEMPORARILY ABANDON ☐	CHANGE PLANS ☒
PULL OR ALTER CASING ☐	OTHER ☐

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐	ALTERING CASING ☐
COMMENCE DRILLING OPNS. ☐	PLUG AND ABANDONMENT ☐
CASING TEST AND CEMENT JOB ☐	OTHER ☐

17. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1703.

Plan to change drilling program as follows: Plan to drill with spud mud to set surface csg @ 200'. Will then drill with water-mud-gel mixture to test the Dakota and Mancos formations sufficiently. Plan to run IES, CDL, and CNL logs. If well appears productive, will run 5½" csg, cemented in one stage with 2,000 gal Super Flush, 100 sk 50/50 poz mix (13.5 #/gal) cap; 750k sk class "B" Foam Cement (9.0 #/gal) and 375 sk class "B" cement (15.6 #/gal). (see attachment) Will selectively perforate frac, and complete well using 2-7/8" O.D. tubing.

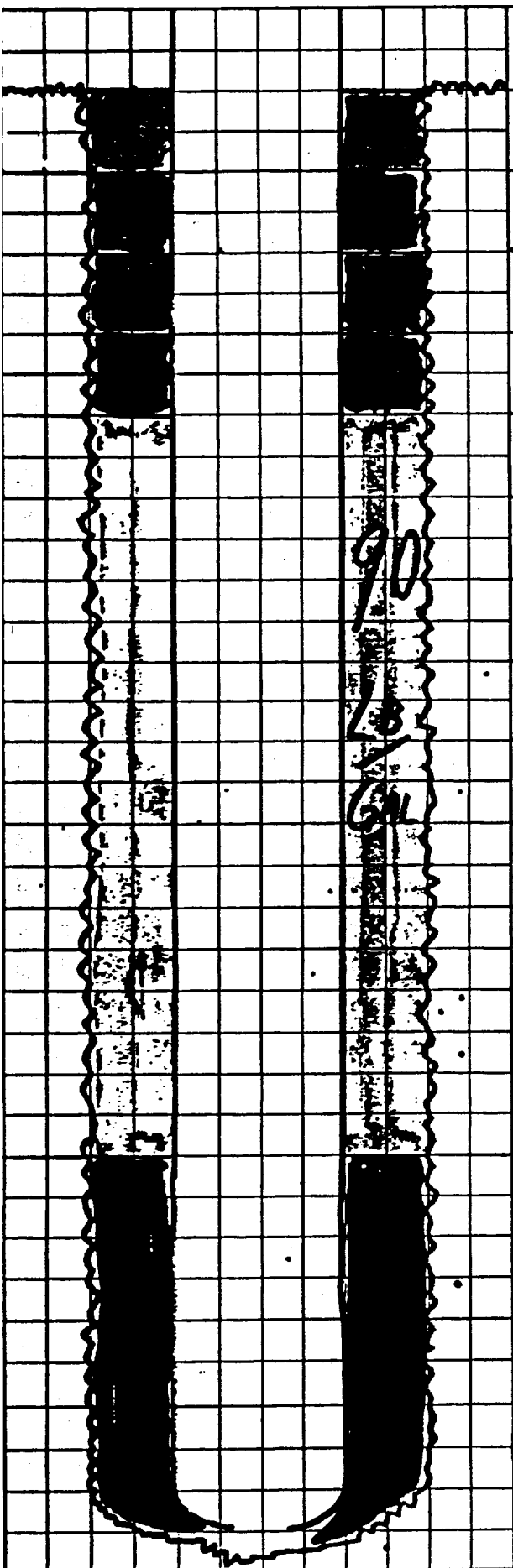
RECEIVED
JUN 10 1985
OIL CON. DIV.]
DIST. 3

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

SIGNED James S. Hazen TITLE Field Supt. DATE 6/4/85

APPROVED BY Original Signed by FRANK T. CHAVEZ TITLE SUPERVISOR DISTRICT # 3 DATE JUN 10 1985

CONDITIONS OF APPROVAL, IF ANY:



0'	500' Cement Cap (not foamed) 13.5 lb/gal
500'	500' Foam Cement 12.0 lb/gal, 1.57 cu.ft/sk, 57 scf/bbl
1000'	500' Foam Cement 11.0 lb/gal, 1.71 cu.ft/sk, 130 scf/bbl
1500'	500' Foam Cement 10.0 lb/gal, 1.90 cu. ft.sk, 235 scf/bbl
2000'	500' Foam Cement 9.0 lb/gal, 2.14 cu.ft/sk, 383 scf/bbl
2500'	500' Foam Cement 9.0 lb/gal, 2.15 cu.ft/sk, 450 scf/bbl
3000'	500' Foam Cement 9.0 lb/gal, 2.16 cu.ft/sk, 516 scf/bbl
3500'	500' Foam Cement 9.0 lb/gal, 2.18 cu.ft/sk, 582 scf/bbl
4000'	500' Foam Cement 9.0 lb/gal, 2.19 cu.ft/sk, 646 scf/bbl
4500'	500' Foam Cement 9.0 lb/gal, 2.21 cu.ft/sk, 709 scf/bbl
5000'	500' Foam Cement 9.0 lb/gal, 2.22 cu.ft/sk, 771 scf/bbl
5500'	500' Foam Cement 9.0 lb/gal, 2.23 cu.ft/sk, 831 scf/bbl
6000'	500' Foam Cement 9.0 lb/gal, 2.25 cu.ft/sk, 890 scf/bbl
6500'	
8200'	1,700' Tail-In Cement 15.6 lb/gal

8200'
TD

HALLIBURTON SERVICES

FOAM CEMENT DESIGN PROGRAM -- VERSION 12-1-82

MC HUGH AND ASSOCIATES
 GARY JOHNSON
 8200' FOAM CEMENT JOB

INTERVAL		FLUID DENSITY - LB/GAL				PRESSURE		AVG.	GAS	AVG. EXP.
NO.	LENGTH FT	SURFACE	DOWN-HOLE			PSI		TEMP	SCF	FACTOR
		UN- FOAMED	AVG.	TOP	BOTTOM	TOP	BOTTOM	DEG F	PER BBL	BBLs FOAM PER BBL SLURRY
1	500.	13.5	13.5	13.5	13.5	0.	351.	85.	0.	1.000
2	500.	15.6	11.9	11.0	12.8	351.	662.	90.	57.	1.328
3	500.	15.6	11.0	10.4	11.5	662.	948.	95.	130.	1.448
4	500.	15.6	10.0	9.5	10.4	948.	1208.	100.	235.	1.606
5	500.	15.6	9.0	8.7	9.3	1208.	1442.	105.	383.	1.811
6	500.	15.6	9.0	8.7	9.3	1442.	1675.	110.	450.	1.822
7	500.	15.6	9.0	8.7	9.2	1675.	1909.	115.	516.	1.834
8	500.	15.6	9.0	8.8	9.2	1909.	2143.	120.	582.	1.846
9	500.	15.6	9.0	8.8	9.2	2143.	2377.	125.	646.	1.858
10	500.	15.6	9.0	8.8	9.2	2377.	2610.	130.	709.	1.870
11	500.	15.6	9.0	8.8	9.2	2610.	2844.	135.	771.	1.882
12	500.	15.6	9.0	8.9	9.1	2844.	3078.	140.	831.	1.893
13	500.	15.6	9.0	8.9	9.1	3078.	3312.	145.	890.	1.904
14	1700.	15.6	15.6	15.6	15.6	3312.	4689.	165.	0.	1.000

Bottom-hole hydrostatic gradient $\Rightarrow$ 0.57 psi/ft
 Equivalent fluid density of column $\Rightarrow$ 11.0 lb/gal

Mr. Gary Johnson
 JEROME P. McHUGH and ASSOCIATES
 Foam Cement Design
 May 15, 1985
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RECOMMENDED PROCEDURE:

Preflush - 2,000 gallons Super Flush.

Cap Cement - 100 sacks 50/50 Pozmix Cement with 2% gel, 10% salt, 10% CAL-SEAL, 0.4% Halad-322, and 1/4 pound/sack Flocele.

Foam Cement - 750 sacks Class "B" Cement with 1.5% Howco suds (foaming agent) by volume of mixing water and 0.75% HC-2 (foam stabilizer) by volume of mixing water. Foam with nitrogen as per attached schedule.

Tail-In Cement - 375 sacks Class "B" Cement with 0.2% Gas Chek II, 0.5% Halad-322, and 1/4 pound/sack Flocele.

SLURRY PROPERTIES:

	<u>Cap</u>	<u>Foam Base</u> <u>Slurry & Downhole</u> <u>Tail-In</u> <u>Foam *</u>	
Weight	13.5	15.6	10 to 12* pounds/gallon
Yield	1.41	1.18	1.56 to 2.25* cubic feet/sack
Water	6.05	5.2	5.0 gallons/sack
Nitrogen	-	-	57 to 890* scf/bbl

* See attached detailed Foam Cement Schedule.

HALLIBURTON CASING EQUIPMENT:

1	-	Differential Fill Float Shoe
1	-	Differential Fill Float Collar
25	-	Centralizers
1	-	each, Top and Bottom 5W Plug
1	-	EZ Lok Limit Clamp
2	-	Pounds, Halco Weld

Add 100 SK
 50/50 Pozmix
 for stand-by
 To ASSURE
 CAP @ Job
 Finish.

JH

Mr. Gary Johnson
JEROME P. McHUGH and ASSOCIATES
Foam Cement Design
May 15, 1985
Page Two

WELL DATA:

Hole Size	-	7 7/8"
Casing Size	-	5 1/2"
Total Depth	-	8,200'
Top of Pay Zone	-	±6,750'

SLURRY REQUIREMENTS:

500' Cap	-	500' to surface
6,000' Foam	-	6,500' to 500'
<u>1,700' Tail-In</u>	-	8,200' to 6,500' (250' above top of pay zone)
8,200' Total		

True Hole Volume	-	1,421 cubic feet
With 50% Excess	-	2,132 cubic feet

Actual volumes ^{will} ~~should~~ be calculated from caliper log.