

CHECKLIST for ADMINISTRATIVE INJECTION APPLICATIONS

Operator: MARINO, INC. Well: CHARGER '29' Fed. No. 1
Contact: RICHARD GILL Title: P.E. Phone: 915-689-7441
DATE IN 5-28-96 RELEASE DATE 6-12-96 DATE OUT 6-28-96

Proposed Injection Application is for: WATERFLOOD Expansion Initial

Original Order: R- Secondary Recovery Pressure Maintenance

SENSITIVE AREAS

X **SALT WATER DISPOSAL** Commercial Well

1 SECTION
70 SW

WIPP Capitan Reef

Data is complete for proposed well(s)? YES Additional Data Req'd NO

AREA of REVIEW WELLS

3 Total # of AOR

0 # of Plugged Wells

YES Tabulation Complete

S Schematics of P & A's

YES Cement Tops Adequate

AOR Repair Required

INJECTION FORMATION

Injection Formation(s) DELAWARE Compatible Analysis YES

Source of Water or Injectate AREA PRODUCTION (BRUSHY CANYON ETC.)

PROOF of NOTICE

✓ Copy of Legal Notice

YES Information Printed Correctly

✓ Correct Operators

N/A Copies of Certified Mail Receipts

NO Objection Received

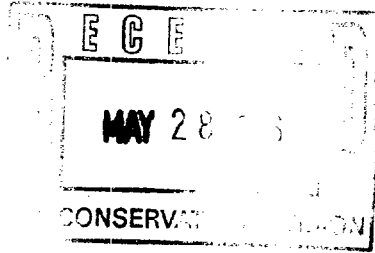
Set to Hearing Date

NOTES:

APPLICATION QUALIFIES FOR ADMINISTRATIVE APPROVAL? YES

COMMUNICATION WITH CONTACT PERSON:

1st Contact:	<u>Telephoned</u>	<u>Letter</u>	<u>Date</u>	Nature of Discussion <u></u>
2nd Contact:	<u>Telephoned</u>	<u>Letter</u>	<u>Date</u>	Nature of Discussion <u></u>
3rd Contact:	<u>Telephoned</u>	<u>Letter</u>	<u>Date</u>	Nature of Discussion <u></u>



May 24, 1996

Engineering Department
New Mexico Energy & Minerals Department
Oil Conservation Division
2040 South Pacheco
Santa Fe, NM 87505

RE: Form C-108 Application of Maralo, Inc. for Salt Water
Disposal, Lea County, New Mexico

Attention: Michael Stogner

Under the provisions of Rule 701 (B), enclosed please find
Form C-108 application of Maralo, Inc. for authorization to
inject into the Charger "29" Federal Well #1, API
#30-015-28808, located 1780 feet from the North line and 810
feet from the West line (Unit E) of Section 29, Township 23
South, Range 30 East, NMPM, Eddy County, New Mexico.

Sincerely,

Dorothea Logan
Regulatory Analyst

Enclosures/Attachments (18)

cc: OCD/Artesia w/Attachments
BLM/Carlsbad -Surface Owner - Application w/Attachments

APPLICATION FOR AUTHORIZATION TO INJECT

- I. Purpose: ☐ Secondary Recovery ☐ Pressure Maintenance ☒ Disposal ☐ Storage
Application qualifies for administrative approval? ☐ yes ☐ no
- II. Operator: MARALO, INC.
Address: P. O. BOX 832, MIDLAND, TX 79702
Contact party: RICHARD A. GILL, PETROLEUM ENGINEER - Phone: (915) 684-7441
- III. Well data: Complete the data required on the reverse side of this form for each well proposed for injection. Additional sheets may be attached if necessary.
- IV. Is this an expansion of an existing project? ☐ yes ☒ no
If yes, give the Division order number authorizing the project _____.
- V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.
- * VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.
- VII. Attach data on the proposed operation, including:
1. Proposed average and maximum daily rate and volume of fluids to be injected;
 2. Whether the system is open or closed;
 3. Proposed average and maximum injection pressure;
 4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and
 5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).
- *VIII. Attach appropriate geological data on the injection zone including appropriate lithologic detail, geological name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such source known to be immediately underlying the injection interval.
- IX. Describe the proposed stimulation program, if any.
- * X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division they need not be resubmitted.)
- * XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.
- XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground source of drinking water.
- XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.
- XIV. Certification
- I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.
- Name: DOROTHEA LOGAN Title: REGULATORY ANALYST
Signature: *Dorothea Logan* Date: MAY 24, 1996
- * If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be duplicated and resubmitted. Please show the date and circumstance of the earlier submittal.

Application For Authorization To Inject
Maralo, Inc
Charger "29" Federal Well #1
UL E, Section 29-T23S-R30E
Eddy County, New Mexico

- I. The purpose of completing this well is to make a disposal well for produced Delaware water into the Delaware formation.

Maralo, Inc. plans to convert this well to a water disposal well into the Delaware formation.

- II. Operator: Maralo, Inc.
P. O. Box 832
Midland, TX 79702
Richard A. Gill (915) 684-7441
- III. Well Data : See Attachment A
- IV. This is not an expansion of an existing project.
- V. See attached map, Attachment B
- VI. There are 3 wells within the area of review which penetrate the proposed injection zone. (Attachments B1 B2 & B3)
- VII. 1. Proposed average daily injection volume approximately 1500 BWPD.
Maximum Daily injection volume approximately 2000 BWPD.
2. This will be a closed system.
3. Proposed average injection pressure--unknown
Proposed maximum injection pressure--1095 psi.
4. Sources of injected water would be produced water from the Delaware. (Attachment C)
5. See Attachment C.
- VIII. The proposed injection interval is the portion of the Delaware formation consisting of sandstone from the 5479 - 7220' depth.

Application for Authorization to Inject
Charger "29" Federal #1

-2-

continued

Overlying fresh water zones data is not available or has not been defined. There are no fresh water zones underlying the formation.

- IX. The proposed disposal interval may be acidized with 15% HCL acid and a small frac treatment.
- X. Well Logs are filed at the Artesia OCD office.
- XI. No windmill or fresh water well has been located within a one mile radius of the subject location.
- XII. Maralo, Inc. has examined geologic and engineering data and has found that there is no evidence of faulting in the proposed interval.
- XIII. Proof of Notice
 - A. Certified application letter sent to the Bureau of Land Management, Surface Owner. There are no Offset Operators.
 - B. Copy of legal advertisement (Attachment D) attached.
- XIV. Certification is signed.

MARALO, INC.
CHARGER "29" FEDERAL #1
E-29-23S-30E
EDDY COUNTY, NEW MEXICO

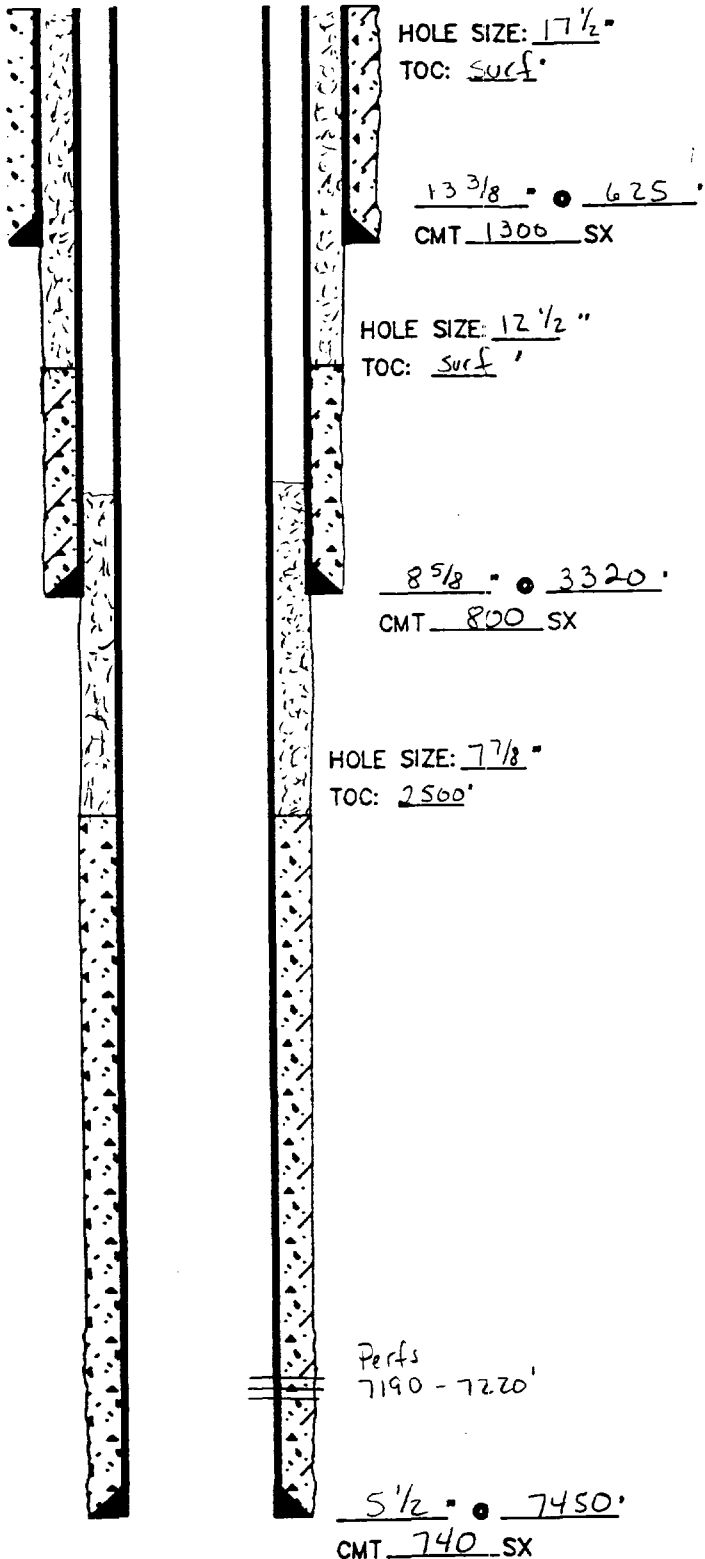
Attachment A
Page 1

III. Well Data

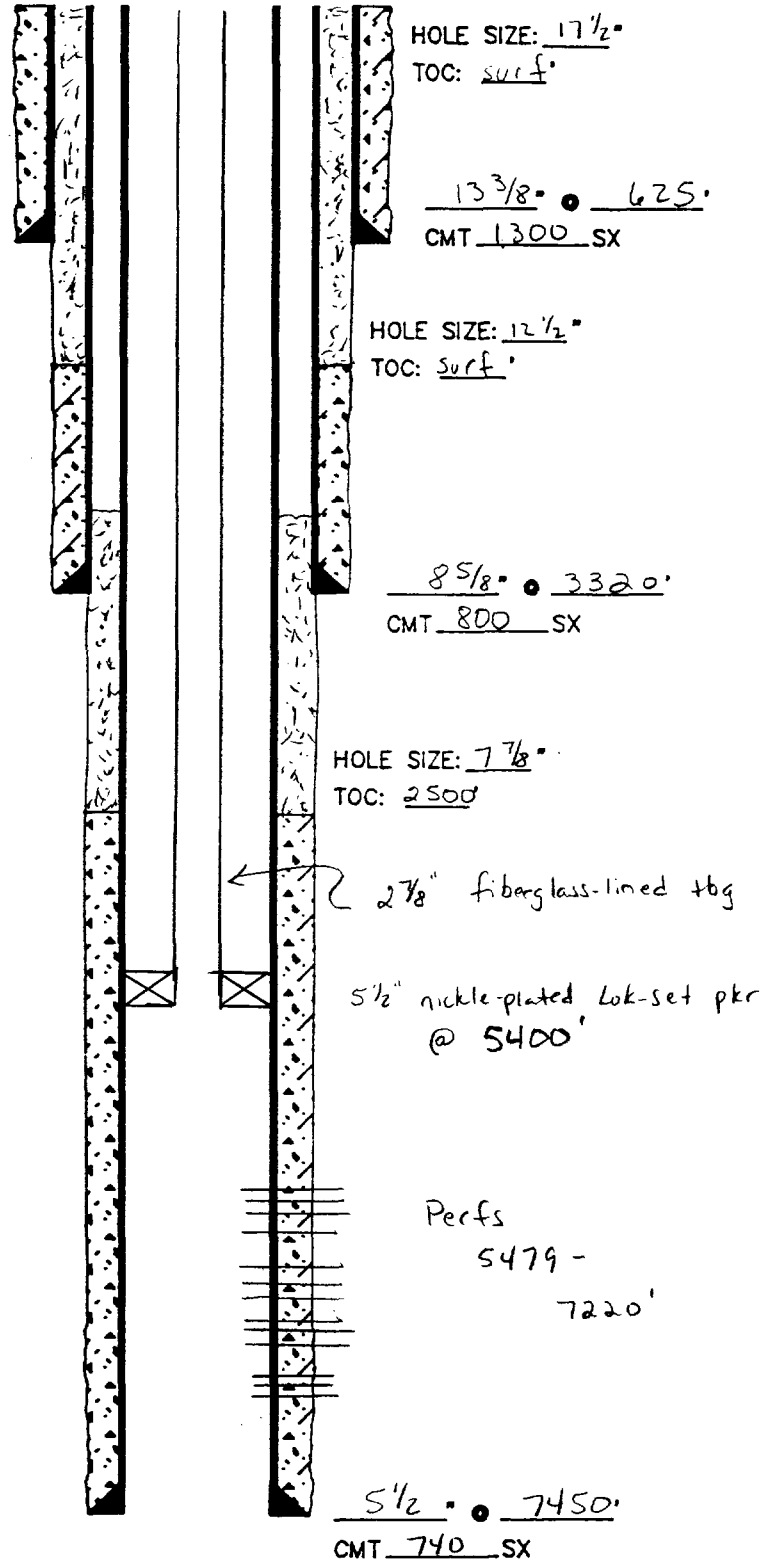
- A. 1. Lease Name/Location
Charger "29" Federal, Well #1
E 29-23S-30E
1780' FNL & 810' FWL
- 2. Casing Strings:
Present Well Condition:
13-3/8" 48# H40 @ 625' w/800 sx (circ)
8-5/8" 32# J55 @ 3320' w/800 sx (circ)
5-1/2" 15.5# @ 7450' w/740 sx Lite & "H"
TOC @ 2500' TS
- 3. Proposed well condition:
Casing and Liner same as above.
2-7/8" 6.5# K-55 duo-line plastic coated
injection tubing @ 5400'.
- 4. Propose to use Baker nickel-plated Loc-Set
packer set at +/- 5400'.
- B. 1. Injection Formation: Delaware
Field/Pool: Nash Draw; Brushy Canyon
- 2. Injection Interval will be through
perforations at approximately 5479 - 7220'.
- 3. Well was original drilled as a Delaware "Z" sand
oil well. Tests proved well to be non-
commercial. The well will be a Delaware
saltwater disposal well (5479 - 7220') when work
is completed.
- 4. Additional Perforations: None
- 5. There is no higher nor lower oil or gas zones
within the area of interest.

LEASE & WELL NAME: Charger 29 Fed. #1
 FIELD: Nash Draw COUNTY: Eddy ST.: NM
 LOCATION: 1780' FNL ± 810' FWL, Sec. 29
T23S R30E
 DATE: 5/21/96 BY: RAG REV.: _____ BY: _____

CURRENT



PROPOSED





maral^{inc}

CHARGER 29 FEDERAL #1
EDDY COUNTY, NEW MEXICO

SCALE : 1" = 4,000'

WELLBORE SKETCH AND WELL HISTORY

#101-D

ELEV.: KB 3110.5 ", 26.5 ' ABOVE GLLEASE & WELL NAME: Gold Rush "30" Fed #1FIELD: Nash Draw COUNTY: Eddy ST.: NMLOCATION: 1980' FNL - 1980' FEL Sec 30T235 R30EDATE: 5/21/96 BY: RAC REV.: _____ BY: _____

CASING RECORD

SURFACE CASING

O.D.	WT/FT	GRADE	SET AT
13 3/8"	54.5 #	J-55	651'
9 5/8"	36 #		3400'

PRODUCTION CASING

7"	26 & 29 #	P110	10,610'
4 1/2"	15.1 #	P110	14,200'

TUBING

NO. JTS.	O.D.	THD.	TYPE	WT.	GDE.	SET AT
226	2 7/8"					7120'

WELL HISTORY:

7/4/94 Spud well

10/2/94 Released Rig

10/24/94 Perf 13,625-13,655'

10/28/94 A/ 1900 gals 7 1/2% MCA

11/3/94 Set plug in plr @ 13,562'. Cap
w/ 35' cmt.

Perf 12,740-12,770'

11/8/94 A/ 2000 gals 15% NEFE

11/15/94 A/ 5000 gals 15% NEFE

11/29/94 Set plug in plr @ 12,669'. Cap
w/ 35' cmt.

12/1/94 Perf 11,647-11,704'

12/2/94 A/ 4000 gals 15% NEFE

2/25/95 Set CIBP @ 10,010' Cap w/
35' cmt.

2/27/95 Perf 7094-7109'

2/28/95 A/ 750 gals 7 1/2% MCA

3/2/95 F/ 12,000 gals + 32,000 #

3/6/95 OPT F 126 BD + 176 BW + 300 MCF
20/64" chd, FTP-150 psi

9/1/95 put well on rod pump

HOLE SIZE: 17 1/2"TOC: surf13 3/8" • 651'CMT 990 SXHOLE SIZE: 12 1/4"TOC: surf9 5/8" • 3400'CMT 1800 SXHOLE SIZE: 8 1/2"TOC: 3000'

Perfs 7094-7109'

Liner top - 10,048'

7" • 10,610'CMT 1305 SX4 1/2" @ 14,200'CMT - 600 SXTD: 14,200 ' PBD: 9975 'CIBP @
10,010'

Perfs 11,647-704'

Perf 12,740-704'

Plug @ 13,562'

Perfs
13,625-55'

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN THIS MANNER

See other instructions on reverse side

FOR APPROVED
OMB NO. 1004-0137
Expires: December 31, 1991

WELL COMPLETION OR RECOMPLETION REPORT AND LOG *

1a. TYPE OF WELL: OIL WELL ☒ GAS WELL ☐ DRY ☐ Other ☐		5. LEASE DESIGNATION AND SERIAL NO. NM-81622	
b. TYPE OF COMPLETION: NEW WELL ☒ WORK OVER ☐ DEEP-EN ☐ PLUG BACK ☐ DIFF. CENVR. ☐ Other ☐		6. IF INDIAN, ALLOTTEE OR TRIBE NAME	
2. NAME OF OPERATOR MARALO, INC.		7. UNIT AGREEMENT NAME	
3. ADDRESS AND TELEPHONE NO. P. O. BOX 832, MIDLAND, TX 79702		8. FARM OR LEASE NAME, WELL NO. GOLD RUSH "30" FED COM #1	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements) At surface 1980' FNL & 1980' FEL, SEC. 30, T23S, R30E New Mexico		9. API WELL NO. 30-015-28032	
At top prod. interval reported below 1980' FNL & 1980' FEL		10. FIELD AND POOL, OR WILDCAT WILDCAT (DELAWARE)	
At total depth 1980' FNL & 1980' FEL		11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA SEC. 30, T23S, R30E	
14. PERMIT NO.		DATE ISSUED	
15. DATE STUDDED 07-04-94		16. DATE T.D. REACHED 09-26-94	
17. DATE COMPL. (Ready to prod.) 03-06-95		18. ELEVATIONS (OF, RKB, RT, GR, ETC.) 3084' GR	
19. ELEV. CASINGHEAD		20. TOTAL DEPTH, MD & TVD 14,200'	
21. PLUG, BACK T.D., MD & TVD 9975'		22. IF MULTIPLE COMPL., HOW MANY?	
23. INTERVALS DRILLED BY ROTARY TOOLS CABLE TOOLS		24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD) 7094 - 7109' (DELAWARE)	
25. WAS DIRECTIONAL SURVEY MADE YES		26. TYPE ELECTRIC AND OTHER LOGS RUN GR/CNL/LDT, GR/DLL/MSFL & GR/BHC, GR/CBL/CCL TO TOC @ 4400'	
27. WAS WELL CORRED YES		28. CASING RECORD (Report all strings set in well)	
Casing Size/Grade		Weight, LB./FT.	
13-3/8"		54.5#	
9-5/8"		36#	
7"		26# & 29#	
Depth Set (MD)		Hole Size	
650'		17-1/2"	
3400'		12-1/4"	
10610'		8-1/2"	
DV @ 7194'		TOP OF CEMENT, CEMENTING RECORD	
		SURF. 900 SXS CL. "C"	
		SURF. 1400 HALCO LT + 400 PREM	
		3000' 1ST STAGE - 225 HALCO LT + 250 50/50 POZ	
		2ND STAGE - 330 HALCO LT + 500 50/50 POZ	
29. LINER RECORD		30. TUBING RECORD	
Size		Top (MD)	
4-1/2"		10048'	
Bottom (MD)		Sacks Cement	
14200'		600 PREM	
Screen (MD)		Size	
		2-7/8	
Depth Set (MD)		Packer Set (MD)	
6933'		6933'	
31. PERFORATION RECORD (Interval, size and number) 13625 - 13655' 12740 - 12770' 11647 - 11704' 78 HOLES 7094 - 7109' 16 HOLES - 1 JSPF		32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.	
Depth Interval (MD)		Amount and Kind of Material Used	
13625 - 13655'		CAP PKR W/35' CNT. NEW PBTD @ 13517'	
12740 - 12770'		CAP PKR W/35' CNT. NEW PBTD @ 12634'	
11647 - 11704'		SET 4 1/2" CIBP @ 11550' W/35' CENT ON TOP	
		SET 7" CIBP @ 10010' W/35' CENT ON TOP	
33. PRODUCTION 7094 - 7109' FRAC'D W/8000 INVERTERFAC + 12000 GALS. GEL		DATE FIRST PRODUCTION 03-06-95	
PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump) FLOWING		WELL STATUS (Producing or shut-in) PRODUCING	
DATE OF TEST 03-09-95		HOURS TESTED 24	
CHOKE SIZE		PROD'N. FOR TEST PERIOD	
		OIL—BSL. 126	
		GAS—MCF. 300	
		WATER—BSL. 176	
		GAS-OIL RATIO 2381	
FLOW, TUBING PRESS.		CASING PRESSURE	
150		-	
CALCULATED 24-HOUR RATE		OIL GRAVITY-API (CORR.) 40.8	
34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.) VENTING - AWAITING PIPELINE EVALUATION		TEST WITNESSED BY PHILLIP SMITH	
35. LIST OF ATTACHMENTS TEMPERATURE SURVEY, DEVIATION REPORT, C-104, LOGS (2)		36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records	
SIGNED <u>Donna L. Lagan</u>		TITLE <u>REGULATORY ANALYST</u>	
DATE <u>MARCH 13, 1995</u>			

*(See Instructions and Spaces for Additional Data 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.

WELLBORE SKETCH AND WELL HISTORY

#101-D

ELEV.: KB 3125', 11' ABOVE GL

LEASE & WELL NAME: Gold Rush "30" Fed. #3

FIELD: Nash Draw COUNTY: Eddy ST.: NM

LOCATION: 1980' ENL - 660' FEL, Sec. 30

T23S, R30E

DATE: 5/21/96 BY: RAG REV.: BY:

CASING RECORD

SURFACE CASING

O.D.	WT/FT	GRADE	SET AT
13 3/8"	54.5#	J-SS	664'
8 5/8"	32#	K-SS	3400'

PRODUCTION CASING

5 1/2"	15.5#	K-SS	7384'

TUBING

NO. JTS.	O.D.	THD.	TYPE	WT.	GDE.	SET AT
230	2 7/8"					7109'

WELL HISTORY:

10/2/95 Spud well

10/19/95 Release rig

10/28/95 Perf 7119-7181'

acidize w/ 1500 gals 7 1/2% MCA

10/31/95 frac w/ 34,000 gals + 121,500 " 161

11/6/95 OPTF 250 BO + 155 BW + 248 MCF

22 1/4" chk FTP - 250 psi

11/21/95 put well on rod pump

HOLE SIZE: 17 1/2"

TOC: surf'

13 3/8" • 664'

CMT 995 SX

HOLE SIZE: 12 1/4"

TOC: surf'

8 5/8" • 3400'

CMT 1275 SX

HOLE SIZE: 7 7/8"

TOC: 5250'

Perfs 7119-7181'

5 1/2" • 7384'

CMT 750 SX

TD: 7384' PBD: 7339'

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN DUPLICATE

(See other instructions on reverse side)

FOR APPROVED
OMB NO. 1004-0137
Expires: December 31, 1991

5. LEASE DESIGNATION AND SERIAL NO.

NM-81622

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME, WELL NO.

GOLD RUSH "30" FEDERAL #3

9. API WELL NO.

30-015-28671

10. FIELD AND POOL, OR WILDCAT

NASH DRAW; BRUSHY CANYON

11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA

SEC. 30, T23S, R30E

12. COUNTY OR PARISH

EDDY

13. STATE

NM

WELL COMPLETION OR RECOMPLETION REPORT AND LOG *

1a. TYPE OF WELL: OIL WELL ☒ GAS WELL ☐ DRY ☐ Other

b. TYPE OF COMPLETION:

NEW WELL ☒ WORK OVER ☐ DEEPEN ☐ PLUG BACK ☐ DIFF. GENVR. ☐ Other

2. NAME OF OPERATOR

MARALO, INC.

3. ADDRESS AND TELEPHONE NO.

P. O. BOX 832, MIDLAND, TX 79702

(915) 684-7441

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)*

At surface

1855' FNL & 520' FEL

At top prod. interval reported below

1855' FNL & 520' FEL

At total depth

1855' FNL & 520' FEL

14. PERMIT NO.

DATE ISSUED

15. DATE SPUDDED	16. DATE T.D. REACHED	17. DATE COMPL. (Ready to prod.)	18. ELEVATIONS (DF, RKB, RT, GR, ETC.)*	19. ELEV. CASINGHEAD
10/02/95	11/17/95	11/01/95	3116'	

20. TOTAL DEPTH, MD & TVD	21. PLUG BACK T.D., MD & TVD	22. IF MULTIPLE COMPL., HOW MANY*	23. INTERVALS DRILLED BY	ROTARY TOOLS	CABLE TOOLS
7400'			→	0 - TD	

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)*

7119 - 7181' BRUSHY CANYON

25. WAS DIRECTIONAL SURVEY MADE
YES

26. TYPE ELECTRIC AND OTHER LOGS RUN

AIT, DENSITY-NEUTRON, GR-NEUTRON

27. WAS WELL CORRED

NO

28. CASING RECORD (Report all strings set in well)

CASING SIZE/GRADE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	TOP OF CEMENT, CEMENTING RECORD	AMOUNT PULLED
13-3/8"	54#	664'	17-1/2"	200 THIXSET, W/675 CL. "C", -	DID NOT CIRC.
				PUMPED 120 SXS CL. "C". CNT CIRC	TO SURF.
8-5/8"	32#	3400'	12-1/4"	1025 HALCO LT + 250 PREM. - CIRC	TO SURF.
5-1/2"	15.5#	7400'	7-7/8"	750 SXS 50/50 POZ - TOC @ 5250'	

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	BACKS CEMENT*	SCREEN (MD)

30. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)
2-7/8"	7052'	7052'

31. PERFORATION RECORD (Interval, size and number)

1 SPF @ 7119, 7121, 7123, 7125, 7127, 7131, 7133,
7135, 7138, 7140, 7142, 7144, 7146, 7149,
7151, 7154, 7159, 7161, 7167, 7169, 7180,
7181. (TOTAL 22 HOLES)

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
7119 - 7181'	TREAT W/1500 GALS 7½% MUD CLEAN OUT AC.
7119 - 7181'	FRAC'D W/34000 GALS 35# X-LINKD GEL +
	30000# 16/30 OTTAWA SAND + 91500# 16/30
	RESIN-COATED SAND.

33.* PRODUCTION

DATE FIRST PRODUCTION		PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump)				WELL STATUS (Producing or shut-in)	
11/01/95		FLOWING				PRODUCING	
DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD	OIL—BSL.	GAS—MCF.	WATER—BSL.	GAS-OIL RATIO
11/06/95	24	22/64	→	250	248	155	992
FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE	OIL—BSL.	GAS—MCF.	WATER—BSL.	OIL GRAVITY-API (CORR.)	
250 PSI	-	→				42.3	

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.)

SOLD

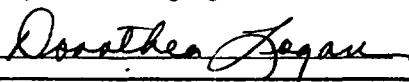
TEST WITNESSED BY
PHILLIP SMITH

35. LIST OF ATTACHMENTS

TEMPERATURE SURVEY, DEVIATION SURVEY, C-104, C-102 (AMENDED), LOGS (2 SETS)

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

SIGNED



TITLE

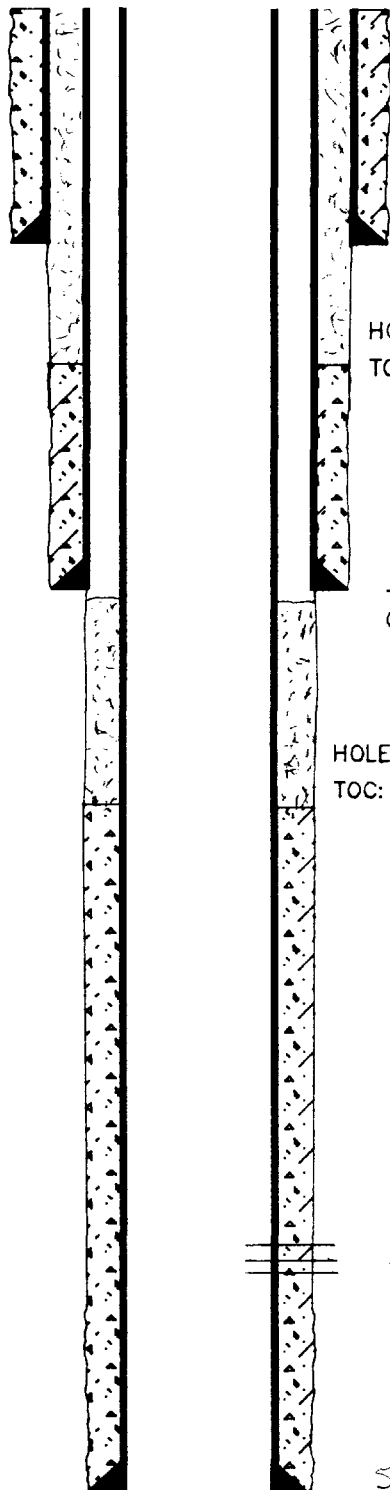
REGULATORY ANALYST

DATE 11/13/95

*(See Instructions and Spaces for Additional Data on Reverse Side)

WELLBORE SKETCH AND WELL HISTORY

#101-D

ELEV.: KB 3086 ", 12 ' ABOVE GLLEASE & WELL NAME: Gold Rush 30
FIELD: Wash Draw COUNTY: Eddy ST: NM
LOCATION: 2500' FSL 660' CEL Sec 30
T23S R30EDATE: 5/21/96 BY: RAC REV.: _____ BY: _____HOLE SIZE: 17 1/2 "
TOC: surf13 3/8 " • 674 '
CMT 2310 SXHOLE SIZE: 12 1/2 "
TOC: surf8 5/8 " • 3232 '
CMT 1200 SXHOLE SIZE: 7 7/8 "
TOC: 3700

perfs 7088-7126'

5 1/2 " • 7240 '
CMT 800 SX

CASING RECORD

SURFACE CASING

O.D.	WT/FT	GRADE	SET AT
13 3/8"	54.5 #	J-55	674'
8 5/8"	32 #	J-55	3232'

PRODUCTION CASING

5 1/2"	15.5 #	J-55	1240'

TUBING

NO. JTS.	O.D.	THD.	TYPE	WT.	GDE.	SET AT
	2 7/8					

WELL HISTORY:

4/24/96 Spore well
5/7/96 Reamed in
5/17/96 Perf 7088 - 7126'
A/ 1500 gal 7 1/2 % MCA
5/20/96 F/ 34,000 gal + 121,500 # 16/30

TD: 7240 ' PBD: 7192 '

UNICHEM

A Division of BJ Services Company

Lab Test No : 10111

Texaco

Sample Date : 4/22/96

Lab Date In : 4/26/96

Lab Date Out : 5/9/96

Water Analysis

Listed below please find water analysis report from : Rhamuda Basin

State #1

Specific Gravity : 1.223
 Total Dissolved Solids : 312555
 pH : 5.95
 Conductivity (uohms):
 Ionic Strength : 6.440

Brushy Canyon

=====

Cations: mg/l

Calcium	(Ca++):	34667
Magnesium	(Mg++):	2430
Sodium	(Na+):	81384
Iron	(Fe++):	189.00
Dissolved Iron	(Fe++):	
Barium	(Ba++):	10.20
Strontium	(Sr):	
Manganese	(Mn++):	8.13
Resistivity :		.040 @ 72

Anions:

Bicarbonate	(HCO3-):	61
Carbonate	(CO3--):	0
Hydroxide	(OH-):	0
Sulfate	(SO4--):	13
Chloride	(Cl-):	194000

=====

Gases: ppm

Carbon Dioxide	(CO2):	400.00
Oxygen	(O2):	
Hydrogen Sulfide	(H2S):	0.00

=====

Scale Index (positive value indicates scale tendency) a blank indicates some tests were not run

Temperature	CaCO3 SI	CaSO4 SI
86F 30.0C	2.89	0.27
104F 40.0C	2.89	0.27
122F 50.0C	2.89	0.27
140F 60.0C	2.89	0.27
168F 70.0C	2.89	0.27
176F 80.0C	2.89	0.27

Comments :

If you have any questions or require further information, please contact us.

Sincerely,

John Paul Gonzalez

cc: Isaac Huskey

Joe Hay

Laboratory Technician

UNICHEM

A Division of BJ Services Company

Lab Test No : 10112

Texaco

Sample Date : 4/22/96

Lab Date In : 4/26/96

Lab Date Out : 5/9/96

Water Analysis

Listed below please find water analysis report from : Rhamuda Basin

State #2

Specific Gravity : 1.225

Total Dissolved Solids : 314765

pH : 5.94

Conductivity (uohms):

Ionic Strength : 6.495

Brushy Canyon

=====

Cations: mg/l

Calcium (Ca++): 32000

Magnesium (Mg++): 4050

Sodium (Na+): 82670

Iron (Fe++): 42.00

Dissolved Iron (Fe++):

Barium (Ba++): 10.20

Strontium (Sr):

Manganese (Mn++): 8.06

Resistivity : .038 @ 72

Anions:

Bicarbonate (HCO3-): 37

Carbonate (CO3--): 0

Hydroxide (OH-): 0

Sulfate (SO4--): 9

Chloride (Cl-): 196000

=====

Gases: ppm

Carbon Dioxide (CO2): 510.00

Oxygen (O2):

Hydrogen Sulfide (H2S): 0.00

=====

Scale Index (positive value indicates scale tendency) a blank indicates some tests were not run

Temperature		CaCO3 SI	CaSO4 SI
86F	30.0C	2.62	0.19
104F	40.0C	2.62	0.19
122F	50.0C	2.62	0.19
140F	60.0C	2.62	0.19
168F	70.0C	2.62	0.19
176F	80.0C	2.62	0.19

Comments :

If you have any questions or require further information, please contact us.

Sincerely,

John Paul Gonzalez

cc: Isaac Huskey

Joe Hay

Laboratory Technician

P.O. Box 61427, Midland, TX 79711 • 4312 S. County Rd. 1298, Midland, TX 79765

Office: (915) 563-0241 • Fax: (915) 563-0243

UNICHEM

A Division of BJ Services Company

Lab Test No : 10113

Texaco

Sample Date : 4/22/96

Lab Date In : 4/26/96

Lab Date Out : 5/9/96

Water Analysis

Listed below please find water analysis report from : Rhamuda Basin

State #3

Specific Gravity : 1.233
Total Dissolved Solids : 326416
pH : 5.98
Conductivity (uohms):
Ionic Strength : 6.886

Cherry Canyon

=====

Cations: mg/l

Calcium (Ca++): 37333
Magnesium (Mg++): 4860
Sodium (Na+): 80190
Iron (Fe++): 48.00
Dissolved Iron (Fe++):
Barium (Ba++): 8.90
Strontium (Sr):
Manganese (Mn++): 9.15
Resistivity : .036 @ 72

Anions:

Bicarbonate (HCO3-): 24
Carbonate (CO3--): 0
Hydroxide (OH-): 0
Sulfate (SO4--): 9
Chloride (Cl-): 204000

=====

Gases: ppm

Carbon Dioxide (CO2): 410.00
Oxygen (O2):
Hydrogen Sulfide (H2S): 0.00

=====

Scale Index (positive value indicates scale tendency) a blank indicates some tests were not run

Temperature	CaCO3 SI	CaSO4 SI
86F 30.0C	2.55	0.19
104F 40.0C	2.55	0.19
122F 50.0C	2.55	0.19
140F 60.0C	2.55	0.19
168F 70.0C	2.55	0.19
176F 80.0C	2.55	0.19

Comments :

If you have any questions or require further information, please contact us.

Sincerely,

John Paul Gonzalez

cc: Isaac Huskey

Joe Hay

Laboratory Technician

UNICHEM

A Division of BJ Services Company

Lab Test No : 10110

Texaco

Sample Date : 4/22/96

Lab Date In : 4/26/96

Lab Date Out : 5/9/96

Water Analysis

Listed below please find water analysis report from : Rhamuda Basin

Fee -1

Specific Gravity : 1.218
Total Dissolved Solids : 305878
pH : 5.70
Conductivity (uohms):
Ionic Strength : 6.388

Brushy Canyon

=====
Cations: mg/l
Calcium (Ca++): 32000
Magnesium (Mg++): 4860
Sodium (Na+): 77916
Iron (Fe++): 218.00
Dissolved Iron (Fe++):
Barium (Ba++): 10.20
Strontium (Sr):
Manganese (Mn++): 1.67
Resistivity : .041 @ 72

Anions:
Bicarbonate (HCO3-): 85
Carbonate (CO3--): 0
Hydroxide (OH-): 0
Sulfate (SO4--): 16
Chloride (Cl-): 191000

=====
Gases: ppm
Carbon Dioxide (CO2): 450.00
Oxygen (O2):
Hydrogen Sulfide (H2S): 0.00

=====
Scale Index (positive value indicates scale tendency) a blank indicates some tests were not run

Temperature	CaCO3 SI	CaSO4 SI
86F 30.0C	2.75	0.33
104F 40.0C	2.75	0.33
122F 50.0C	2.75	0.33
140F 60.0C	2.75	0.33
168F 70.0C	2.75	0.33
176F 80.0C	2.75	0.33

Comments :

If you have any questions or require further information, please contact us.

Sincerely,

John Paul Longaker

cc: Isaac Huskey

Joe Hay

Laboratory Technician

UNICHEM

A Division of BJ Services Company

Lab Test No : 10114

Texaco

Sample Date : 4/22/96

Lab Date In : 4/26/96

Lab Date Out : 5/9/96

Water Analysis

Listed below please find water analysis report from : Rhamuda Basin

State #4

Specific Gravity : 1.166

Total Dissolved Solids : 231758

pH : 6.12

Conductivity (uohms):

Ionic Strength : 4.853

Brushy Canyon

Cations:

Calcium (Ca++): 17333
Magnesium (Mg++): 7290
Sodium (Na+): 61012
Iron (Fe++): 33.80
Dissolved Iron (Fe++):
Barium (Ba++): 23.70
Strontium (Sr):
Manganese (Mn++): 3.99
Resistivity : .049 @ 72

Anions:

Bicarbonate (HCO3-): 37
Carbonate (CO3--): 0
Hydroxide (OH-): 0
Sulfate (SO4--): 86
Chloride (Cl-): 146000

Gases:

Carbon Dioxide (CO2): 140.00 ppm
Oxygen (O2):
Hydrogen Sulfide (H2S): 0.00

Scale Index (positive value indicates scale tendency) a blank indicates some tests were not run

Temperature	CaCO3 SI	CaSO4 SI
86F 30.0C	0.60	-9.49
104F 40.0C	1.07	-9.49
122F 50.0C	1.53	-10.16
140F 60.0C	2.53	-10.25
168F 70.0C	2.53	-10.36
176F 80.0C	2.53	-9.82

Comments :

If you have any questions or require further information, please contact us.

Sincerely,

John Paul Gonzalez

cc: Isaac Huskey

Joe Hay

Laboratory Technician

UNICHEM

A Division of BJ Services Company

Lab Test No : 10195

Texaco

Sample Date : 5/9/96

Lab Date In : 5/13/96

Lab Date Out : 5/13/96

Water Analysis

Listed below please find water analysis report from : Remuda Basin

Fed #2

Specific Gravity : 1.142

Total Dissolved Solids : 198507

pH : 5.80

Conductivity (uohms):

Ionic Strength : 4.292

Brusley Canyon

Cations:

Calcium (Ca++): 22667 mg/l

Magnesium (Mg++): 4860

Sodium (Na+): 45858

Iron (Fe++): 70.00

Dissolved Iron (Fe++):

Barium (Ba++): 9.10

Strontium (Sr):

Manganese (Mn++): 9.95

Resistivity :

Anions:

Bicarbonate (HCO3-): 73

Carbonate (CO3--): 0

Hydroxide (OH-): 0

Sulfate (SO4--): 49

Chloride (Cl-): 125000

Gases:

Carbon Dioxide (CO2): 250.00 ppm

Oxygen (O2):

Hydrogen Sulfide (H2S): 17.00

Scale Index (positive value indicates scale tendency) a blank indicates some tests were not run

Temperature		CaCO3 SI	CaSO4 SI
86F	30.0C	0.28	-8.63
104F	40.0C	0.64	-8.63
122F	50.0C	1.00	-8.83
140F	60.0C	1.65	-8.94
168F	70.0C	2.29	-9.04
176F	80.0C	2.63	-9.08

Comments :

If you have any questions or require further information, please contact us.

Sincerely,

John Paul Gonzalez

cc: Isaac Huskey

Laboratory Technician

Joe Hay

P.O. Box 61427, Midland, TX 79711 • 4312 S. County Rd. 1298, Midland, TX 79765

Office: (915) 563-0241 • Fax: (915) 563-0243

Affidavit of Publication

No. 15456

STATE OF NEW MEXICO,

County of Eddy:

Gary D. Scott being duly sworn, says: That he is the Publisher of The Artesia Daily Press, a daily newspaper of general circulation, published in English at Artesia, said county and state, and that the hereto attached Legal Notice

was published in a regular and entire issue of the said Artesia Daily Press, a daily newspaper duly qualified for that purpose within the meaning of Chapter 167 of the 1937 Session Laws of the state of New Mexico for 1 consecutive weeks on the same day as follows:

First Publication May 7, 1996

Second Publication _____

Third Publication _____

Fourth Publication _____

Gary D. Scott
Subscribed and sworn to before me this 21st day of May 19 96

Barbara Ann Boans
Notary Public, Eddy County, New Mexico

My Commission expires September 23, 1999

Copy of Publication

LEGAL NOTICE

Marulo, Inc., P.O. Box 832, Midland, Texas 79702, is filing Form C-108 (Application for Authorization to Inject) with the New Mexico Oil Conservation Division seeking administrative approval for an injection well. The proposed well, the Charger "29" Federal #1, is located 1780' TNL and 810' FWL, Section 29, Township 23 South, Range 30 East, Eddy County, New Mexico, will be used for saltwater disposal. Disposal waters from the Delaware formation will be injected into the Delaware formation at a depth of 5479 - 7220 feet with a maximum pressure of 1095 psi and a maximum rate of 2000 BWPD.

All interested parties opposing the aforementioned must file objections or requests for a hearing with the Oil Conservation Division, P.O. Box 6429, Santa Fe, New Mexico, 87505-6429, within 15 days. Additional information can be obtained by contacting R. A. Lowery at (915) 684-7441. Published in the Artesia Daily Press, Artesia, N.M. May 7, 1996.

Legal 15456