



May 2, 1989

RECEIVED
MAY 10 1989
OIL CON. DIV.
DIST. 3

New Mexico Oil & Gas Commission
P. O. Box 2088
Santa Fe NM 87509-2088

Attention: Mr. David Catanac

Re: Hospah No. 63 Conversion
Sec. 12 T17N, R9W
McKinley County, New Mexico

Gentlemen:

Citation Oil & Gas Corp. requests approval under provisions of Division Order R4389A to convert the subject well to Lower Hospah water injector. The well is currently an active Lower Hospah Producer.

Please find attached a completed NMOCC Form C-108 with appropriate attachments that provide the required information concerning our proposal.

- I. Form C-108.
- II. #63 wellbore schematic and completion history.
- III. Area map designating the area of review.
- IV. Data outlining proposed operations.
- V. Proof-of Notice

As outlined in previous correspondence (refer to letter of March 29, 1989) Citation desires to re-establish injection into the portion of the reservoir where No. 63 is located. This was previously accomplished by the No. 56 dual injection well which is currently T&A'd due to mechanical problems. It is believed that ultimate oil recovery will be improved not only by re-establishing injection, but also by improving pattern symmetry.

Please note on Form C-108 the reference made to several division and administrative orders that have been approved and are on file with the NMOCC concerning waterflood initiation and various expansions at Hospah. The areas of review for these division orders totally encompass the area of review for Citation's current proposal. (Refer to attached area map.) Mr. Ernie Bush of the Aztec, New Mexico Division Office has been very helpful in determining which orders were specific to which wells, and where duplicate offset well information had previously been submitted.

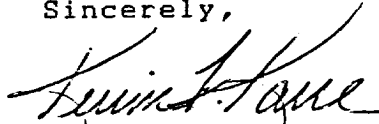
Listed below are, as we understand, the specific order number with its' corresponding injection well. This information is provided in lieu of resubmitting previously submitted information.

<u>Company</u>	<u>Order No.</u>	<u>Injection Well</u>
Tenneco	R-4389A	A-54, 57, 58, 59, 60, 61
Tenneco	R-5506	58, 59
Tenneco	R-3957	41, 42
Tenneco	R-3848	23
Tenneco	PMX 56	A-54, 57, 58, 59, 60, 61
Tesoro	PMX 59	A-87

In conjunction with the attached information and that which has been filed for and approved in the past, Citation Oil & Gas Corp. respectfully requests administrative approval to commence with conversion of the subject well #63.

Thank you for your consideration in this matter. If you require any additional information, please contact me at (505) 327-0408.

Sincerely,



Kevin F. Kane
Area Engineer
Rocky Mountain Area
P. O. Box 2487
Farmington NM 87499

cc: Frank Chavez-Aztec NMOCC
Mr. Richard Porter - Citation Oil & Gas Corp.
Mr. Marley Stewart - American Exploration

APPLICATION FOR AUTHORIZATION TO INJECT

- I. Purpose: ☒ Secondary Recovery ☐ Pressure Maintenance ☐ Disposal ☐ Storage
Application qualifies for administrative approval? ☒ yes ☐ no
- II. Operator: CITATION OIL & GAS CORP.
Address: P. O. Box 2487, Farmington NM 87499
Contact party: Kevin F. Kane Phone: (505) 327-0408
- 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 R-4389A.
- 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: Kevin F. Kane Title Area Engineer
Signature: *Kevin F. Kane* Date: May 3, 1989
- * 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. R5506, R3957, R3848, PMX 56, PMX 87

III. WELL DATA

A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:

- (1) Lease name; Well No.; location by Section, Township, and Range; and footage location within the section.
- (2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.
- (3) A description of the tubing to be used including its size, lining material, and setting depth.
- (4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.

- (1) The name of the injection formation and, if applicable, the field or pool name.
- (2) The injection interval and whether it is perforated or open-hole.
- (3) State if the well was drilled for injection or, if not, the original purpose of the well.
- (4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.
- (5) Give the depth to and name of the next higher and next lower oil or gas zone in the area of the well, if any.

XIV. PROOF OF NOTICE

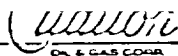
All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

- (1) The name, address, phone number, and contact party for the applicant;
- (2) the intended purpose of the injection well; with the exact location of single wells or the section, township, and range location of multiple wells;
- (3) the formation name and depth with expected maximum injection rates and pressures; and
- (4) a notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, P. O. Box 2088, Santa Fe, New Mexico 87501 within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.



RECOMMENDED REMEDIAL WORK

DATE: May 3, 1989

LEASE: Lower Hospah WELL NO. 63 CITATION WI 1.000
RI .845

710' FNL 1325' FEL
LOCATION: Unit A, Sec 12, T17N, FIELD NO. CO McKinley STATE NM
R9W

TD DRILLED 1695 PETD 1647 KB ELEV 6979 COMP. DATE 12-3, 1978

COMPLETION METHOD Casing cemented to T.D. - Jet perforated

KB 13 FEET ABOVE GROUND

PAY ZONES

Name	<u>Lower Hospah</u>			
Top	<u>1597</u>			
Base	<u>1619</u>			
Net Pay	<u>22</u>			

CASING AND LINER RECORD

Size	Weight	Depth	Cement	Hole Size	Date	Remarks
<u>9-5/8</u>	<u>36</u>	<u>90</u>	<u>90 sx</u>	<u>13-3/4</u>	<u>11/78</u>	
<u>7</u>	<u>23</u>	<u>1690</u>	<u>375 sx</u>	<u>8-3/4</u>	<u>11/78</u>	

CURRENT PROD. TEST: OIL WATER GAS HOURS

REASON FOR REMEDIAL WORK: Convert to Lower WIW

ESTIMATED COSTS

GROSS: \$

NET: \$

RECOMMENDED BY:

APPROVED BY:

LEASE: Lower Hospah

WELL NO. 63

9-5/8 " OD. 36 LB. K-55 CSG. W/ 90 SX

TOC 2 Surface

7 " OD. 23 LB. K-55 CSG. W/ 375 SX

TOC 3 125' (Calc)

DETAILED PROCEDURE:

- 1) MIRUSU. NDWH.
- 2) POOH. Lay down pump & rods.
- 3) POOH. Lay down 2-7/8" tbg.
- 4) RIH w/7' Lokset PKR on 2-3/8" tbg.
- 5) Load annulus w/PKR fluid.
- 6) Set PKR @ 1500'±
- 7) Land tbg. NUWH.
- 8) Pressure test tbg-csg annulus. (NMOCC to witness).
- 9) Put well on injection.

1598'
4SPF
1614'

LOWER
HOSPAN

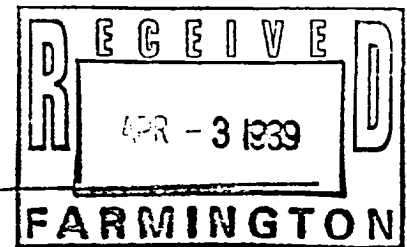
PBTD
@ 1647'

1690'

ATTACHMENT IV

PROPOSED INJECTION OPERATIONS
FOR LOWER HOSPAH WIW #63

Injection Rate, BWPB:	1200 (Avg.)	2000 (Max.)
Injection Pressure, PSIG:	175 (Avg.)	350 (Max.)
Water Source:	Hospah produced water	
Closed System:	i.e.: 2-3/8" tbg w/pkr, set @1500 +/- (within 100' of perfs)	



March 29, 1989

New Mexico Oil & Gas Commission
P. O. Box 2088
Sante Fe, New Mexico 87504-2088

Attn: Mr. David Catanac

Gentlemen,

Citation Oil & Gas Corp. owns and operates production in the Hospah field in McKinley Co., New Mexico. Our production was purchased from Tenneco Oil Company and is directly offset by production owned and operated by American Exploration Company who purchased their interests from Tesoro Petroleum Corporation. Both operators produce from the same two reservoirs, Upper and Lower Hospah, and both reservoirs are being waterflooded by both operators.

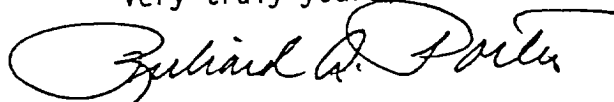
Citation had to suspend the use of Well No. 56, a dual injector into both zones, due to mechanical problems. This has resulted in a loss in daily production and is adversely affecting the waterflood's efficiency. If corrective measures are not taken, this could ultimately affect the cumulative recovery of oil and lead to premature abandoning of producing wells. Citation would like to convert Well No. 63 (approximately 450 feet north of Well No. 56) from a producer in the Lower Hospah Zone to an injection well in the Lower Hospah. Our area engineer, Mr. Kevin Kane, checked on this and was told that we would have to go through a permitting process to obtain approval to do so. This involves supplying information on all wells within a one-half mile radius of the proposed well. We believe there are sufficient existing injection wells on all sides of Well No. 63 (see attached plat) whose one-half mile radius exceeds the one-half mile radius around the proposed Well No. 63, that an exception to the permitting process could be made and an administrative approval given. We believe it is in the best interest of all parties concerned (working interest owner as well as royalty interest owners) that this approval be given as expeditiously as possible. This will minimize any waste that might occur since Citation is prepared to spend the necessary funds for the conversion of the well as soon as approval is received.

I would like to point out that in the past Tenneco and Tesoro jointly drilled and operated several lease line wells in order to obtain the most efficient injection pattern to maximize production and ultimate recovery. Today, both Citation and American are cooperating in lease line injection as it is mutually beneficial to the production and recovery of the oil reserves by both companies. American is also actively injecting in both zones in various wells within the boundaries of their portion of the field.

In conclusion, Citation respectfully requests that permission be granted to convert Well No. 63 from producer status to injection status. If necessary, we will follow up with the required formal application in a timely manner.

Your consideration of this request and cooperation is deeply appreciated. Please feel free to call either myself at the letterhead number or Mr. Kevin Kane at our Farmington office (505/327-0408).

Very truly yours,



Richard A. Porter
Area Production Manager

RAP/wb
attachment

cc: Jerry M. Crews
Field File
✓ Farmington
Mr. Frank Chavez
NMOGC, Aztec

Affidavit of Publication

STATE OF NEW MEXICO,

) ss

COUNTY OF MCKINLEY

Norma L. Toledo

being duly sworn upon

oath, deposes and says:

As Legal Clerk of the Gallup Independent, a newspaper published in and having a general circulation in McKinley County, New Mexico, and in the City of Gallup, therein; that this affiant makes this affidavit based upon personal knowledge of the facts herein sworn to. That the publication, a copy of which is hereto attached was published in said newspaper during the period and time of publication and said notice was published in the newspaper proper, and not in a supplement thereof,

for Three Times, the first publication being on the

3rd day of May, 19 89 the

second publication being on the 4th day of

May, 19 89 the third publication

on the 5th day of May, 19 89

and the last publication being on the _____ day of

_____, 19 _____

That such newspaper, in which such notice or advertisement was published, is now and has been at all times material hereto, duly qualified for such purpose, and to publish legal notices and advertisements within the meaning of Chapter 12, of the statutes of the State of New Mexico, 1947 compilation.

Norma L. Toledo

Affiant.

Sworn and subscribed to before me this 8th day of

May

AD, 19 89

Linda Kay Delaney

Notary Public.

My commission expires

8-29-89

LEGAL NOTICE

Citation Oil & Gas Corp., P.O. Box 248, Farmington, New Mexico 87401, is applying to the Oil and Gas Conservation Commission for authorization to conduct a hydraulic fracturing operation in the lower Eschsch formation in the Lower Eschsch Waterflood. The contact for Citation is Kevin Kama, Area Engineer. He can be contacted at (505) 277-0400. The well to be converted to injection is the _____.

Howe-Weiss
SANTA FE, NEW MEXICO
Sec. 12, T10N, R5W

Citation plans continuous injection into the lower Eschsch formation at an average depth of 165'. Citation plans a maximum daily injection rate of 200 BPD at a maximum injection pressure of 50 psi. If any interested party located adjacent to these locations has any objections to the proceeding action, please contact the Oil Conservation Division, P.O. Box 228, Santa Fe, New Mexico 87504 within 10 days.

LEGAL NOTICE
Legal Notice Published in The Gallup Independent May 3, 4, 5, 1989.

Santa Fe R. "A" S.F.P. No. 3487

STENNECO

SOUTH

HOSPAH

SAND

UNIT

- DUAL
- UPPER
- LOWER
- PRODUCER
- ⊙ INJECTER
- - LOWER OFFSET PRODUCER

Citation
OIL & GAS CORP.

HOSPAH FIELD
McKinley County, New Mexico

SOUTH HOSPAH SAND UNIT

2000' 0 2000'



May 8, 1989

Mr. Marley Stewart
American Exploration
2100 Republic Bank Center
700 Louisiana
Houston TX 77002-2725

Re: Hospah #63
Sec. 12 T17N, R9W
Conversion to Injection

Dear Mr. Stewart:

Please find enclosed an application for waterflood conversion of one of our Hospah producing wells.

This package has been sent to the NMOCC for approval.

If you have any questions or concerns, please contact me at our Farmington office at (505) 327-0408.

Sincerely,

A handwritten signature in dark ink, appearing to read "Kevin F. Kane", is written over a horizontal line.

Kevin F. Kane
Area Engineer
P. O. Box 2487
Farmington NM 87499

KFK:mfm

Enclosures

cc: Mr. Rick Porter
Citation Oil & Gas Corp.