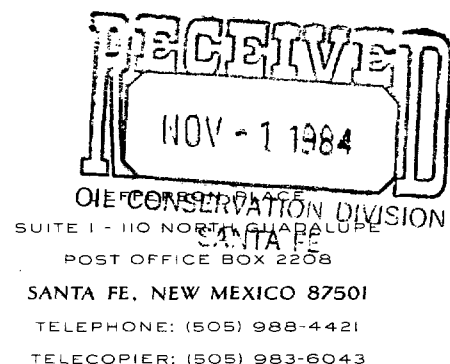


CAMPBELL & BLACK, P.A.

LAWYERS

JACK M. CAMPBELL
BRUCE D. BLACK
MICHAEL B. CAMPBELL
WILLIAM F. CARR
BRADFORD C. BERGE
J. SCOTT HALL
PETER N. IVES
RUTH S. MUSGRAVE
LOURDES A. MARTINEZ



October 30, 1984

Mr. R. L. Stamets
Acting Director
Oil Conservation Division
New Mexico Department of
Energy and Minerals
Post Office Box 2088
Santa Fe, New Mexico 87501

Re: Oil Conservation Division Case 8255: Application of
Arco Oil & Gas Company for Amendment of Division Order
No. R-7395, San Juan County, New Mexico.

Dear Mr. Stamets:

As you are aware, on July 11, 1984, Arco came before the Division in the above-referenced case seeking amendment of Division Order No. R-7395 to delete Requirement No. 5 therefrom which required annual tracer surveys on all injection wells in the Horseshoe Gallup Polymer project.

Pursuant to our conversation of this date, I am writing this letter to advise the Division that, to date, no order has been entered in this case and it is not the intention of Arco Oil & Gas to conduct these tracer surveys until an order is entered. If you desire that we take some action pending the entry of an order in this matter, please advise.

Your attention to this matter is appreciated.

Very truly yours,

William F. Carr

WFC/cv

cc: Dr. Maurice Miller



STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
AZTEC DISTRICT OFFICE

TONY ANAYA
GOVERNOR

1000 RIO BRAZOS ROAD
AZTEC, NEW MEXICO 87410
(505) 334-6178

August 10, 1984

Mr. Dick Stamets
Oil Conservation Division
P.O. Box 2088
Santa Fe, NM 87501

Dear Dick:

Please find enclosed the letters I wrote to Arco Oil & Gas Company and their reply to each of the letters. Testing procedure for the Horseshoe Gallup Unit #22 is enclosed under the heading HGU #22 WIW. Testing procedure for the Horseshoe Gallup Unit #7 is incorporated into the letter to Arco, dated 6-22-84.

The geological setting for the area of interest is as follows: Mancos Shale makes up most of the surface for the Arco lease, although some of their wells sit on Point Lookout sandstone. The HGU #7 sits on Point Lookout and the HGU #22 sits on Mancos.

Dave Boyer and I have looked for fresh water sources in the area in question, following is what we have found: There are shallow wells $\frac{1}{2}$ township to the south in the San Juan River alluvium also a shallow Menefee well about 3 miles to the east of the area of interest. Thus far in our investigation, there is no evidence of any water wells in either the Point Lookout or Mancos formations, in the area. The Mancos formation does contain sandstone members that store fresh water, several townships to the south and the Point Lookout is listed as an aquifer in other parts of the San Juan Basin.

I will continue the investigation, by monitoring these wells and collecting samples as often as I can. The bottom line may be, although not conclusive, that there is no fresh water to protect on the Arco lease.

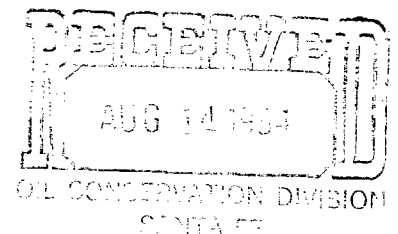
Yours truly,

Ernie Busch
Geologist II

EB/sw

cc: EB

Enclosures





STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
AZTEC DISTRICT OFFICE

TONY ANAYA
GOVERNOR

1000 RIO BRAZOS ROAD
AZTEC, NEW MEXICO 87410
(505) 334-5178

June 22, 1984

Arco Oil & Gas Co.
P.O. Box 2197
Farmington, NM 87401

Re: Horseshoe Gallup Unit #7, SE, NW, Sec. 30, T31N, R16W,
San Juan County, N.M.

Gentlemen:

On June 21st, 1984, Bill Duncan and myself inspected the above referenced well for tubing or packer leaks. Our method of investigation was as follows:

First - Read casing and tubing pressure as well as being injected. Casing read 760#, tubing read 760#.

Second - Shut off injection water to both zones for 5 minutes. No change in pressure.

Third - Flowed tubing into a tank through a 2" hose, wide open for 8 minutes. Casing pressure began to drop rapidly to 560#.

Fourth - We stopped back flowing tubing. Pressure on tubing and casing equalized rapidly.

Conclusion - Hole in tubing or packer leak.

Please schedule this well for necessary repairs as soon as possible.

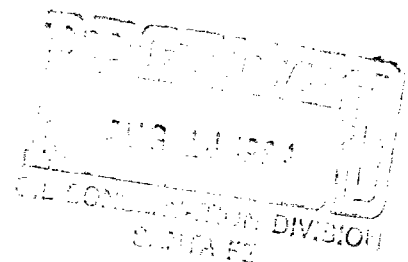
If you have any questions, please contact this office.

Yours truly,

Ernie Busch
Deputy Oil & Gas Inspector

EB/dj

xc: E. Busch
D. Stamets
UIC File
Well File
Operator File





STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
AZTEC DISTRICT OFFICE

TONY ANAYA
GOVERNOR

1000 RIO BRAZOS ROAD
AZTEC, NEW MEXICO 87410
(505) 334-6178

July 3, 1984

Arco Oil & Gas Co.
P.O. Box 2197
Farmington, NM 87401

Re: Horseshoe Gallup Unit #22 J-29-31N-16W
San Juan County, NM

Gentlemen:

On June 28th, 1984, C. R. Thompson, of Arco Oil & Gas Company, and I inspected the above referenced well for tubing, packer and casing leaks. There is strong evidence to indicate lower zone communication on the outside of the casing, by the appearance of large quantities of oil and water through the bradenhead valve. We request that this well be repaired immediately.

If you have any questions, please contact this office.

Yours truly,

A handwritten signature in cursive script, appearing to read "Ernie Busch".

Ernie Busch
Deputy Oil & Gas Inspector

EB/dj

xc: E. Busch ✓
D. Stamets
BLM Farmington
UIC File
Well File
Operator File

H64 # 22 W/W

6-28-84
(CET)

TIME	CASING P	TBNG P	BH	
1140	110	98	108	SHUT BOTH ZONES IN
1145	105	93	-	
1150	102	93	-	OPENED TBNG CASING S/IN
1155	104	99		
1158	OPENED BH INTO TANK			TANK DIMENSIONS: 5' DIA X 8' HIGH
1200	80	70		
1205	60	47		
1210	50	38		SHUT TBNG IN, SHUT BH IN TANK FULL
1215	65	42		TRIED TO DETERMINE OIL & WATER % W/COLOR KIT PASTE - NOT SUCCESSFUL
1220	78	42		SHUT TBNG IN
1225	-	-		OPEN C&T - BH SHOT IN
1230	90	72		
1235	93	75		
1240	98	79		
1245	99	81		
1300	101	89		SHUT BOTH ZONES IN
1305	OPEN BH INTO TANK			
1310	59	35		
1315	43	32		
1320	40	32		
1325	39	32		
1330	39	32		SHUT BH IN - TANK FULL
1345	OPENED BOTH ZONES BACK TO NORMAL OPERATIONS			

TESTED BY: G.R. Thompson Jr. AR60 OIL & GAS

WITNESSED BY: Ernie Buech NWMOCS

ARCO Oil and Gas Company
Four Corners Sub-District
Post Office Box 2197
Farmington, New Mexico 87401
Telephone 505 325 7527



R-7395
Case 8255
Amending R-7395

July 9, 1984

Energy and Minerals Department
Oil Conservation Division
1000 Rio Brazos Road
Aztec, New Mexico 87410

Re: Horseshoe Gallup Unit WIW #7, SE, NW, Sec. 30, T31N, R16W,
San Juan County, New Mexico

Gentlemen:

Your letter, dated June 22, 1984, signed by Mr. Ernie Busch indicates that our water injection well #7 may have a hole in the tubing, or a packer leak. Thank you for bringing this matter to our attention.

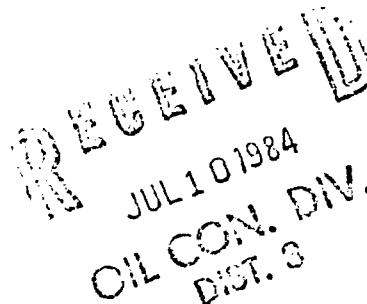
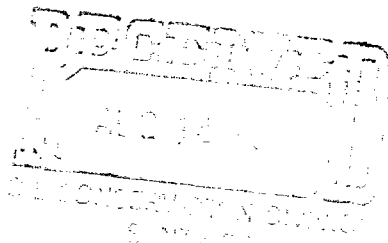
By approval of the attached sundry notice dated 4/1/66, ARCO Oil and Gas was granted permission by the State to inject into both the upper and lower Gallup perforations. Injection water is the same for both zones, and injection pressures are essentially the same. Communication between the two zones via a packer leak, or a hole in tubing would simply change the volume injected into the perforations. Injection volumes are varied routinely throughout the field.

Your conclusions will be noted in our files, however we find that no repairs are necessary at this time.

Very truly yours,

James E. Taylor

JET/jgb



UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN TRIPPLICATE
(Other instructions on re-
verse side)

Form approved.
Budget Bureau No. 42-R1424.

6. LEASE DESIGNATION AND SERIAL NO.

14-20-603-734

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

Navajo - Ute Mtn.

7. UNIT AGREEMENT NAME

Horseshoe Gallup Uni

8. FARM OR LEASE NAME

Horseshoe Gallup Uni

9. WELL NO.

7

10. FIELD AND POOL, OR WILDCAT

Horseshoe Gallup

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

Sec. 30, T-31N, R-16

12. COUNTY OR PARISH

San Juan

13. STATE

New Mex.

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—" for such proposals.)

1. OIL WELL GAS WELL OTHER Water Injection

2. NAME OF OPERATOR
The Atlantic Refining Company

3. ADDRESS OF OPERATOR
Box 2197, Farmington, New Mexico

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*
See also space 17 below.)
At surface

1980' FNL & 2067' FWL (Unit F) Section 30

14. PERMIT NO.

15. ELEVATIONS (Show whether DF, RT, OR, etc.)

GR 5701', RKB 5709'

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF
FRACTURE TREAT
SHOOT OR ACIDIZE
REPAIR WELL
(Other)

PULL OR ALTER CASING
MULTIPLE COMPLETE
ABANDON*
CHANGE PLANS

SUBSEQUENT REPORT OF:

WATER SHUT-OFF
FRACTURE TREATMENT
SHOOTING OR ACIDIZING
(Other)

REPAIRING WELL
ALTERING CASING
ABANDONMENT*

Convert To Water Inj.

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

On 3/25/66 treated perms. 1518-1545 and 1398'-1430' separately with mixture of 468 gal. butane and 315 gal. distillate; followed by 2000 gal. water containing 5% Visco 1111 (detergent); followed by 1000 gal. Hcl. Swabbed back.

Ran Baker Model "A" tension packer on 2" tubing. Set packer at 1451'. Started injecting water into upper zone through casing tubing annulus and into lower zone through 2" tubing on 3/28/66.

JUL 10 1984
OIL CON. DIV.
DIST. 3

RECEIVED
APR 4 1966
U. S. GEOLOGICAL SURVEY
FARMINGTON, N. M.

18. I hereby certify that the foregoing is true and correct

SIGNED

B. J. Bastain

TITLE

Dir. Prod. Supv.

DATE

4/1/66

(This space for Federal or State office use)

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

ARCO Oil and Gas Company
Four Corners Sub-District
Post Office Box 2197
Farmington, New Mexico 87401
Telephone 505 325 7527



July 18, 1984

New Mexico Oil Conservation Division
1000 Rio Brazos Road
Aztec, New Mexico 87410
Attn: Mr. Ernie Busch

Dear Sir:

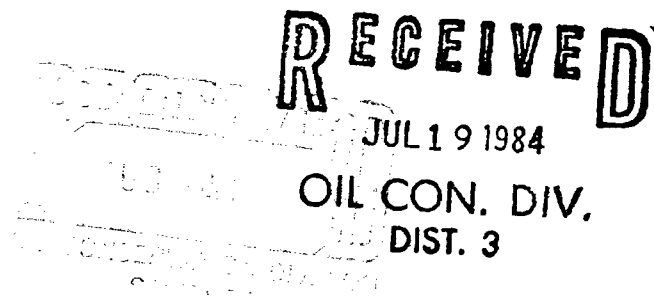
Referring to your letter of July 3, 1984 concerning our Horseshoe Gallup Unit #22, we have shut-in this well on a temporary basis while we study the problem. A review of the well's condition and its importance in our waterflood pattern is underway at this time. As a result of this evaluation, we will decide whether to repair the well or to plug and abandon it. In either case, it will be necessary for us to secure our co-owner's approval.

This process will take some time but we should be able to notify you and submit the appropriate forms for approval in the relatively near future. It is our belief that the well being shut-in will prevent any damage in the interim. I hope the above explains our plans adequately. If you have any questions, please feel free to contact me.

Yours truly,

J. E. Taylor
Sr. Production Supervisor

JET/jgb



ARCO Oil and Gas Company
Four Corners Sub-District
Post Office Box 2197
Farmington, New Mexico 87401
Telephone 505 325 7527



R-7395
Case 8255
Amending R-7395

July 9, 1984

Energy and Minerals Department
Oil Conservation Division
1000 Rio Brazos Road
Aztec, New Mexico 87410

Re: Horseshoe Gallup Unit WIW #7, SE, NW, Sec. 30, T31N, R16W,
San Juan County, New Mexico

Gentlemen:

Your letter, dated June 22, 1984, signed by Mr. Ernie Busch indicates that our water injection well #7 may have a hole in the tubing, or a packer leak. Thank you for bringing this matter to our attention.

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Horseshoe Gallup Unit

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SUBSEQUENT REPORT OF:

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JUL 10 1984
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