STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION DIVISION FOR THE PURPOSE OF CONSIDERING:

CASE NO. 8167
Order No. R-7518

APPLICATION OF AMOCO PRODUCTION COMPANY FOR SALT WATER DISPOSAL, LEA COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8 a.m. on April 25, 1984, at Santa Fe, New Mexico, before Examiner Michael E. Stogner.

NOW, on this 3rd day of May, 1984, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

(1) That due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.

(2) That the applicant, Amoco Production Company, is the owner and operator of the State "FU" Well No. 3, located 1700 feet from the North line and 660 feet from the West line of Section 25, Township 18 South, Range 35 East, NMPM, Air Strip-Upper Bone Spring and Air Strip-Lower Bone Spring Pools, Lea County, New Mexico.

(3) That the applicant proposes to utilize said well to dispose of produced salt water into the Bone Spring formation, with injection into the perforated interval from approximately 9206 feet to 9285 feet and from approximately 10,207 feet to 10,237 feet.

(4) That the injection should be accomplished through 2 7/8-inch internally plastic lined tubing installed in a packer set at approximately 9100 feet; that the casing-tubing annulus should be filled with an inert fluid; and that a pressure gauge or approved leak detection device should be attached to the

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OIL CONSERVATION DIVISION
Amoco EXHIBIT NO. 1
CASE NO. 8470

annulus in order to determine leakage in the casing, tubing, or packer.

(5) That the injection well or system should be equipped with a pressure limiting switch or other acceptable device which will limit the wellhead pressure on the injection well to no more than 1800 psi.

(6) That the Director of the Division should be authorized to administratively approve an increase in the injection pressure upon a proper showing by the operator that such higher pressure will not result in migration of the injected waters from the Bone Spring formation.

(7) That the operator should notify the supervisor of the Hobbs district office of the Division of the date and time of the installation of disposal equipment so that the same may be inspected.

(8) That the operator should take all steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape to other formations or onto the surface.

(9) That approval of the subject application will prevent the drilling of unnecessary wells and otherwise prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

(1) That the applicant, Amoco Production Company, is hereby authorized to utilize its State "FU" Well No. 3, located 1700 feet from the North line and 660 feet from the West line of Section 25, Township 18 South, Range 35 East, NMPM, Air Strip-Upper Bone Spring and Air Strip-Lower Bone Spring Pools, Lea County, New Mexico, to dispose of produced salt water into the Bone Spring formation, injection to be accomplished through 2 7/8-inch tubing installed in a packer set at approximately 9100 feet, with injection into the perforated interval from approximately 9206 feet to 9285 feet and from approximately 10,207 feet to 10237 feet;

PROVIDED HOWEVER, that the tubing shall be internally plastic-lined; that the casing-tubing annulus shall be filled with an inert fluid; and that a pressure gauge shall be attached to the annulus or the annulus shall be equipped with an approved leak detection device in order to determine leakage in the casing, tubing, or packer.

(2) That the injection well or system shall be equipped with a pressure limiting switch or other acceptable device which will limit the wellhead pressure on the injection well to no more than 1800 psi.

(3) That the Director of the Division may authorize an increase in injection pressure upon a proper showing by the operator of said well that such higher pressure will not result in migration of the injected fluid from the Lone Spring formation.

(4) That the operator shall notify the supervisor of the Hobbs district office of the Division of the date and time of the installation of disposal equipment so that the same may be inspected.

(5) That the operator shall immediately notify the supervisor of the Division's Hobbs district office of the failure of the tubing, casing, or packer, in said well or the leakage of water from or around said well and shall take such steps as may be timely and necessary to correct such failure or leakage.

(6) That the applicant shall conduct disposal operations and submit monthly reports in accordance with Rules 702, 703, 704, 705, 706, 708, and 1120 of the Division Rules and Regulations.

(7) That jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

JOE D. RAMEY,
Director

S E A L

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

CASE NO. 8167
Order No. R-7518-A

APPLICATION OF AMOCO PRODUCTION COMPANY FOR SALT WATER DISPOSAL, LEA COUNTY, NEW MEXICO.

NUNC PRO TUNC ORDER

BY THE DIVISION:

It appearing to the Division that Order No. R-7518, dated May 3, 1984, does not correctly state the intended order of the Division,

IT IS THEREFORE ORDERED:

(1) That Finding Paragraph No. (2) on page 1 of Division Order No. R-7518 is hereby amended to read in its entirety as follows:

"(2) That the applicant, Amoco Production Company, is the owner and operator of the State "FU" Well No. 3, located 1700 feet from the North line and 660 feet from the West line of Section 25, Township 18 South, Range 34 East, NMPM, Air Strip-Upper Bone Spring and Air Strip-Lower Bone Spring Pools, Lea County, New Mexico."

(2) That Ordering Paragraph No. (1) on page 2 of said Division Order No. R-7518 is hereby amended to read in its entirety as follows:

"(1) That the applicant, Amoco Production Company, is hereby authorized to utilize its State "FU" Well No. 3, located 1700 feet from the North line and 660 feet from the West line of Section 25, Township 18 South, Range 34 East, NMPM, Air Strip-Upper Bone Spring and Air Strip-Lower Bone Spring Pools, Lea County, New Mexico, to dispose of produced salt water into the Bone Spring formation, injection to be accomplished through 2 7/8-inch tubing installed in a packer set at approximately 9100 feet, with injection into the perforated interval from approximately 9206 feet to 9285 feet and from approximately 10,207 feet to 10,237 feet;

PROVIDED HOWEVER, that the tubing shall be internally plastic-lined; that the casing-tubing annulus shall be filled with an inert fluid; and that a pressure gauge

shall be attached to the annulus or the annulus shall be equipped with an approved leak detection device in order to determine leakage in the casing, tubing, or packer."

(3) That the corrections set forth in this order be entered nunc pro tunc as of May 3, 1984.

DONE at Santa Fe, New Mexico, on this 21st day of May, 1984.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

JOE D. RAMEY
Director

S E A L

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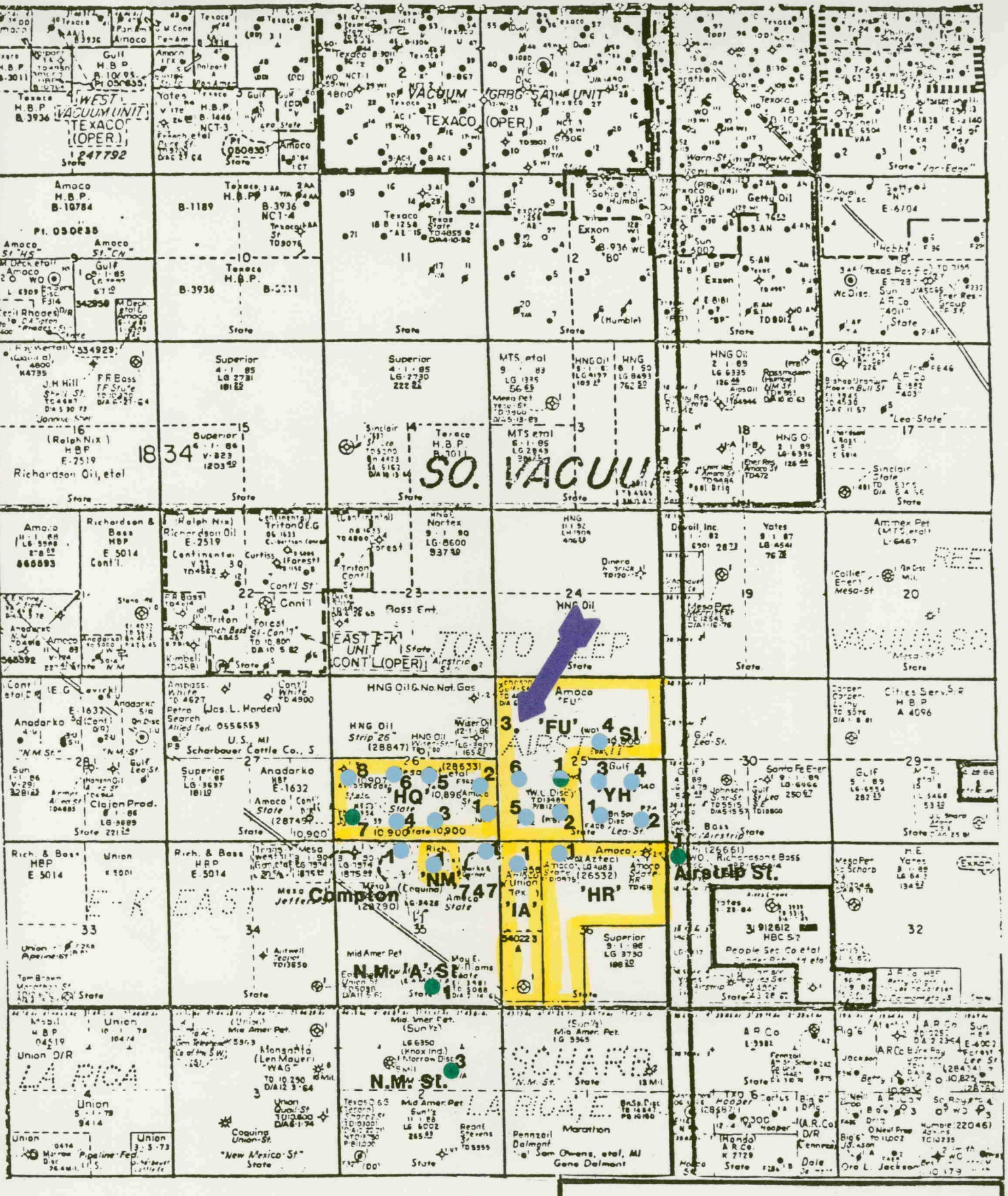

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OIL CONSERVATION DIVISION
Amoco EXHIBIT NO. 2
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LEGEND

- Airstrip (Bone Spring) Producer
- Airstrip (Wolfcamp) Producer
- Amoco Operated Acreage
- Proposed SWDW

Air Strip Field Well Test Data
Amoco Operated Wells

Lease	Well No.	Completion	Latest Test (12/84) BOPD x BWPD x MCFD	Status
State "FU"	#1	DHC-Bone Spring/Wolfcamp	38 x 27 x 37	Pumping
State "FU"	#2	Bone Spring	55 x 10 x 152	Pumping
State "FU"	#4	Bone Spring	---	SI
State "FU"	#5	Bone Spring	312 x 6 x 316	Pumping
State "FU"	#6	Bone Spring	57 x 281 x 187	Pumping
State "HQ"	#1	Bone Spring	10 x 3 x 1	Pumping
State "HQ"	#2	Bone Spring	1 x 1 x 2	Pumping
State "HQ"	#3	Bone Spring	21 x 6 x 43	Pumping
State "HQ"	#4	Bone Spring	209 x 9 x 126	Pumping
State "HQ"	#5	Bone Spring	27 x 1 x 1	Pumping
State "HQ"	#6	Bone Spring	21 x 1 x 1	Pumping
State "HQ"	#7	Wolfcamp	48 x 296 x 1	Pumping
State "HQ"	#8	Bone Spring	34 x 1 x 8	Pumping
State "HR"	#1	Bone Spring	22 x 1 x 15	Pumping
State "IA"	#1	Bone Spring	11 x 3 x 20	Pumping
State "NM"	#1	Bone Spring	280 x 0 x 151	Flowing

Total Water Production 12/84 - 646 BWPD

SS/gg
OP15ER090/3
01/22/85

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OIL CONSERVATION DIVISION
Amoco EXHIBIT NO. 3
CASE NO. 8470

State FU #3 SWDW
Historical Injection Performance

Mo - Yr	BWIPM	BWIPD	Avg. Inj. Press.	Cumm. Inj. Vol.
7-84	1880	61	Gravity Feed	1880
8-84	1907	61	Gravity Feed	3787
9-84	1433	48	Gravity Feed	5220
10-84	1800	58	Gravity Feed	7020
11-84	6007	200	1280 psi	13027
12-84	1643	53	1800 psi	14670
*1-85	744	24	1800 psi	15414

*Based upon injection performance for first 7 days of January

SS/gg
OP15ER090/1
01/22/85

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OIL CONSERVATION DIVISION
Amoco EXHIBIT NO. 4
CASE NO. 8470

Amoco Production Company	State "FU"			
OPERATOR	LEASE			
3	1700' FNL x 660' FWL	25	18-S	34-E
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE

Schematic

Tabular Data

Surface Casing

Size 13 3/8" Cemented with 300 sx.

TOC Circ. 10 sx. feet determined by _____

Hole size 17½"

Intermediate Casing

Size 9 5/8" Cemented with 1500 sx.

TOC Circ. 75 sx. feet determined by _____

Hole size 12 ¼"

Long string

Size 7" Cemented with 1400 sx.

TOC 6285 feet determined by Temp. Survey

Hole size 8 3/4"

Total depth 10,802

Injection interval - existing (Bone Spring)

9206-9285' and 10,207-37 feet
(perforated or open-hole, indicate which)

Additional injection interval - proposed (Wolfcamp) 10,574-10,621' and 10,744-10,766' (perforated)

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Tubing size 2 7/8" lined with Plastic (material) set in a Baker Lockset (Plastic Coated) (brand and model) packer at 9108' feet

(or describe any other casing-tubing seal).

Other Data

1. Name of the injection formation Bone Springs/Wolfcamp

2. Name of Field or Pool (if applicable) Airstrip (Bone Spring) (Wolfcamp)

3. Is this a new well drilled for injection? ☐ Yes ☒ No

If no, for what purpose was the well originally drilled? The FU #3 was drilled with the intent to complete in the Bone Spring & Wolfcamp.

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used)

Perforate Wolfcamp 10,574-621' & 10,744-66'. Abandon w/CIBP @ 10,350' covered w/35' cmt. Perf. upper Bone Spring 9205-15' & 9260-9270'. Sqz w/250 sx cmt. Perf. lower Bone Spring 10,207-37'. SI after apparent depletion.

5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.

Underlying Oil and Gas zone - None

Overlying Oil and Gas zone - Bone Spring (lowest B.S. potential in area 10,350'

STATE "FU" NO. 3 (CURRENT)
AIRSTRIP - LOWER BONE SPRINGS

UNIT E, 1700' FNL X 660' FWL, SEC. 25, T-18-S, R-34-E
LEA COUNTY, NEW MEXICO

COMPLETED: 3-20-80

ELEVATION: 3975 G.L.

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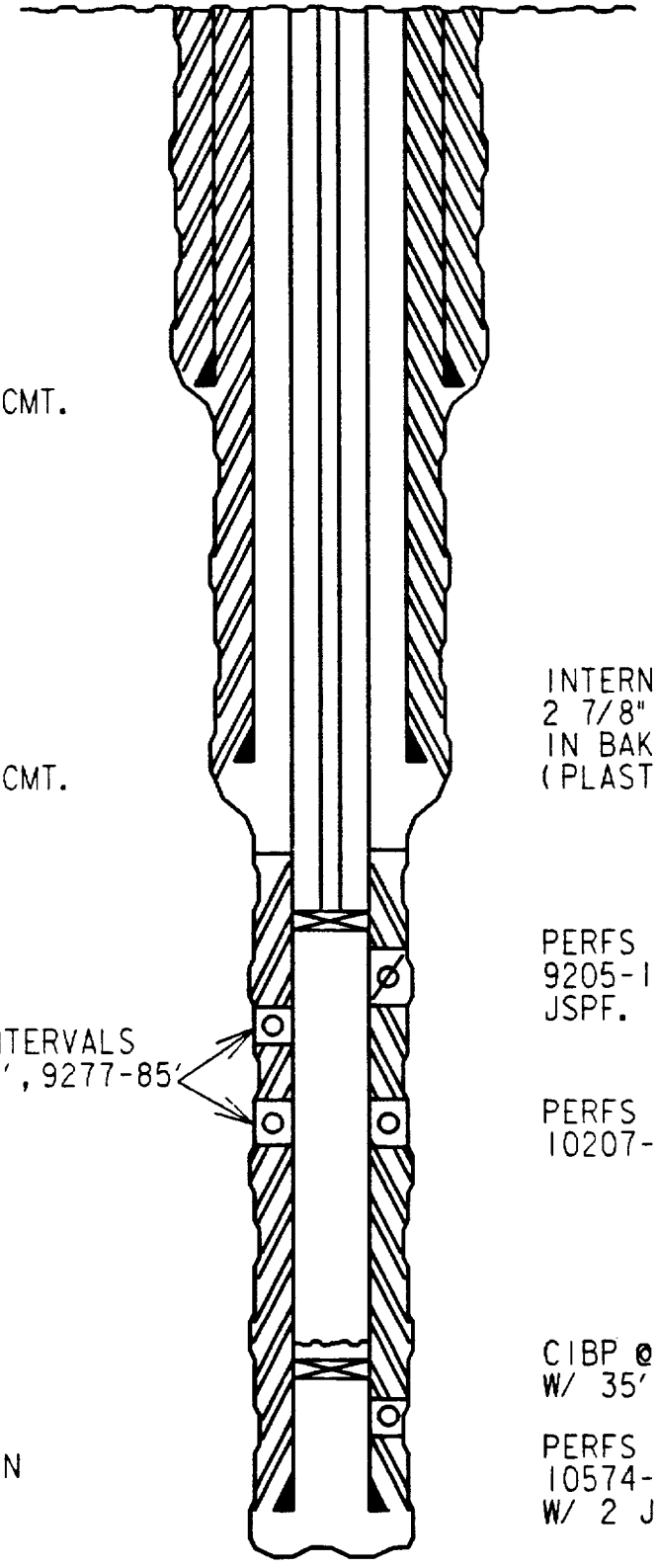
OIL CONSERVATION DIVISION
Amoco EXHIBIT NO. 56
CASE NO. 8470



13 3/8" CSA 320'
48# K-55 ST & C.
CMT W/300 SACKS IN
17 1/2" HOLE CIRC. CMT.

9 5/8" CSA 4000'
36# K-55
CMT W/1500 SACKS IN
12 1/4" HOLE CIRC. CMT.

CURRENT INJECTION INTERVALS
UBS 9206-26', 9264-68', 9277-85'
LBS - 10,207-37'

7" CSA 10,802'
23# S-95
26# K-55
29# N-80
CMT. W/1400 SACKS IN
8 3/4" HOLE.
TCMT. 6258' BY
TEMP SURVEY

TD: 10,802'
PBD: 10,315'

INTERNALLY PLASTIC COATED
2 7/8" 6.5# N-80 TBG LA 9108'
IN BAKER LOCKSET
(PLASTIC COATED)

PERFS (UPPER BONE SPRINGS):
9205-15' X 9260-70' W/2
JSPF. SQUEEZED 250 SACKS CMT.

PERFS (LOWER BONE SPRINGS):
10207-37' W/2 JSPF.

CIBP @ 10,350' CAPPED
W/ 35' CMT.

PERFS (WOLFCAMP):
10574-621 X 10744-66
W/ 2 JSPF

FILE 021, LEVEL 23A

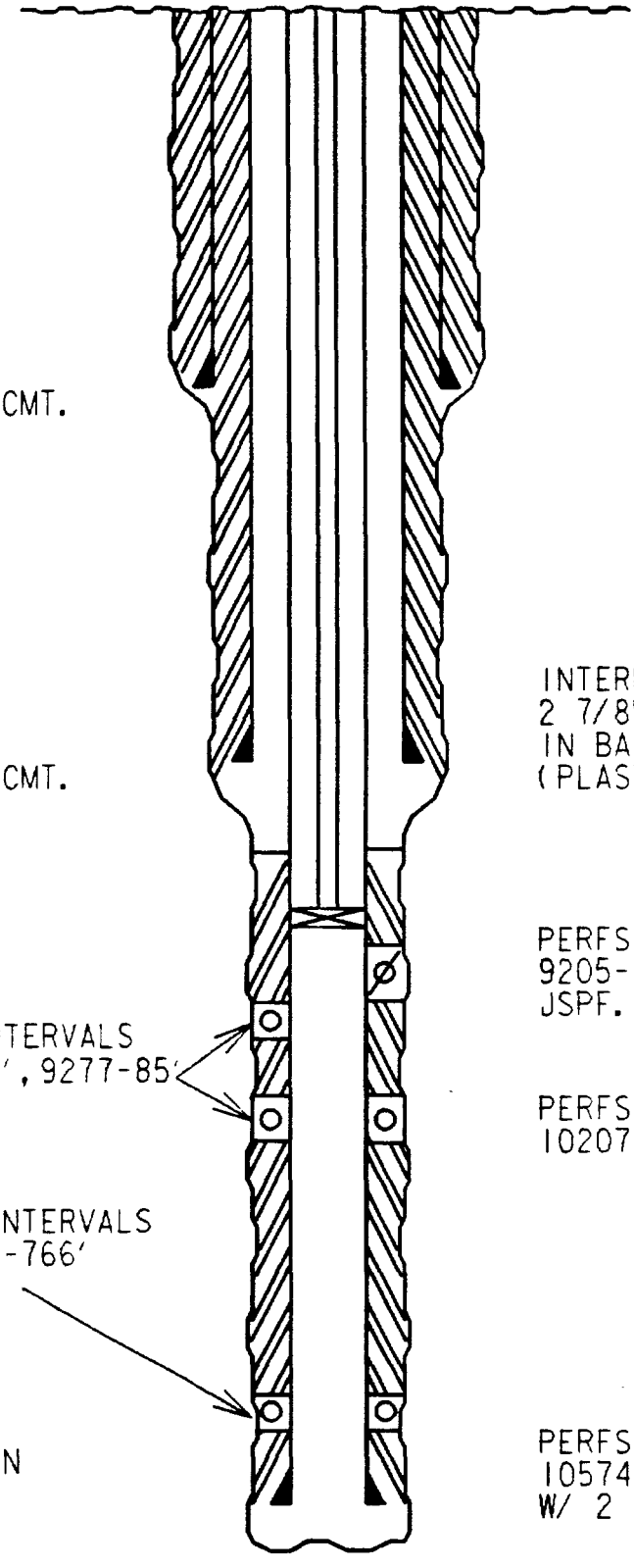
STATE "FU" NO. 3 (PROPOSED)
AIRSTRIP - LOWER BONE SPRINGS

UNIT E, 1700' FNL X 660' FWL, SEC. 25, T-18-S, R-34-E
LEA COUNTY, NEW MEXICO

COMPLETED: 3-20-80

ELEVATION: 3975 G.L.

BEFORE EXAMINER STOGNER
OIL CONSERVATION DIVISION
Amoco EXHIBIT NO. 5C
CASE NO. 8470



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CMT W/1500 SACKS IN
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CURRENT INJECTION INTERVALS
UBS 9206-26', 9264-68', 9277-85'
LBS - 10,207-37'

PROPOSED INJECTION INTERVALS
WC 10574-621', 10744-766'

7" CSA 10,802'
23# S-95
26# K-55
29# N-80
CMT. W/1400 SACKS IN
8 3/4" HOLE.
TCMT. 6258' BY
TEMP SURVEY

TD: 10,802'
PBD: 10,315'

INTERNALLY PLASTIC COATED
2 7/8" 6.5# N-80 TBG LA 9100'
IN BAKER LOCKSET
(PLASTIC COATED)

PERFS (UPPER BONE SPRINGS):
9205-15' X 9260-70' W/2
JSPF. SQUEEZED 250 SACKS CMT.

PERFS (LOWER BONE SPRINGS):
10207-37' W/2 JSPF.

PERFS (WOLFCAMP):
10574-621 X 10744-66
W/ 2 JSPF

FILE 021, LEVEL 23B