

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK

DRILL ☒DEEPEN ☐PLUG BACK ☐

b. TYPE OF WELL

OIL
WELL ☒GAS
WELL ☐

OTHER

SINGLE
ZONE ☒MULTIPLE
ZONE ☐

2. NAME OF OPERATOR

DUGAN PRODUCTION CORP.

3. ADDRESS OF OPERATOR

P. O. Box 208, Farmington, New Mexico 87499

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

At surface

77.15 730' FWL - 990' FSL

At proposed prod. zone

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE

3 Miles southwest from Ojito, NM

15. DISTANCE FROM PROPOSED*

LOCATION TO NEAREST
PROPERTY OR LEASE LINE, FT.
(Also to nearest drlg. unit line, if any)

730'

16. NO. OF ACRES IN LEASE

1040

17. NO. OF ACRES ASSIGNED
TO THIS WELL

160

18. DISTANCE FROM PROPOSED LOCATION*

TO NEAREST WELL, DRILLING, COMPLETED,
OR APPLIED FOR, ON THIS LEASE, FT.

Approx. 900'

19. PROPOSED DEPTH

8270'

20. ROTARY OR CABLE TOOLS

Rotary.

21. ELEVATIONS (Show whether DF, RT, GR, etc.)

7320' GL; 7332' RKB

22. APPROX. DATE WORK WILL START*

ASAP

23. PROPOSED CASING AND CEMENTING PROGRAM

DRILLING OPERATIONS AUTHORIZED ARE
SUBJECT TO COMPLIANCE WITH ATTACHED

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	9-5/8"	36#	200'	150 cf circ. to surface
7-7/8"	5-1/2"	15.5#	8270'	2050 cf circ. to surface

Plan to drill a 12-1/4" hole and set 200' of 9-5/8" OD, 36#, J-55 surface casing; then plan to drill a 7-7/8" hole to total depth with gel-water-mud program to test Dakota formation. Plan to run IES and CDL logs. If deemed productive, will run 4-1/2", 10.5#, J-55 casing, selectively perforate, frac, clean out after frac and complete well.

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24.

SIGNED

Sherman E. Dugan
Sherman E. Dugan

TITLE

Geologist

4/23/87

(This space for Federal or State office use)

APPROVED
AS AMENDED

PERMIT NO.

APPROVAL DATE

APPROVED BY

CONDITIONS OF APPROVAL, IF ANY:

TITLE

DATE

APR 24 1987

AREA MANAGER

*See Instructions On Reverse Side

OIL CONSERVATION DIVISION

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENTP. O. BOX 2088
SANTA FE, NEW MEXICO 8750Form C-102
Revised 10-1-78

All distances must be from the outer boundaries of the Section.

Operator Dugan Production Corporation		Lease Hurt		Well No. 5
Unit Letter M	Section 14	Township 25 North	Range 3 West	County Rio Arriba
Actual Footage Location of Well:				
990	feet from the	South	line and	730
			feet from the	West
Ground Level Elev. 7320	Producing Formation Gallup/Dakota	Pool West Lindrith Gallup/Dakota	Dedicated Acreage: 160 Acres	

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

☐ Yes ☐ No If answer is "yes," type of consolidation _____

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Division

<p>RECEIVED APR 24 1987 BUREAU OF LAND MANAGEMENT FARMINGTON RESOURCE AREA</p>	<p>RECEIVED OCT 04 1985 BUREAU OF LAND MANAGEMENT FARMINGTON RESOURCE AREA</p>
<p>SEC. 14</p>	
<p>730' —●— 990'</p>	<p>Dugan Prod. Corp. SF 080539A</p>

CERTIFICATION

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

Name

Sherman E. Dugan

Position

Geologist

Company

Dugan Production Corp.

Date

10-3-85

I hereby certify that the well location shown on this plat was plotted from field notes of October 1, 1985, made by me or under my supervision, and that the same is true and correct to the best of my knowledge.

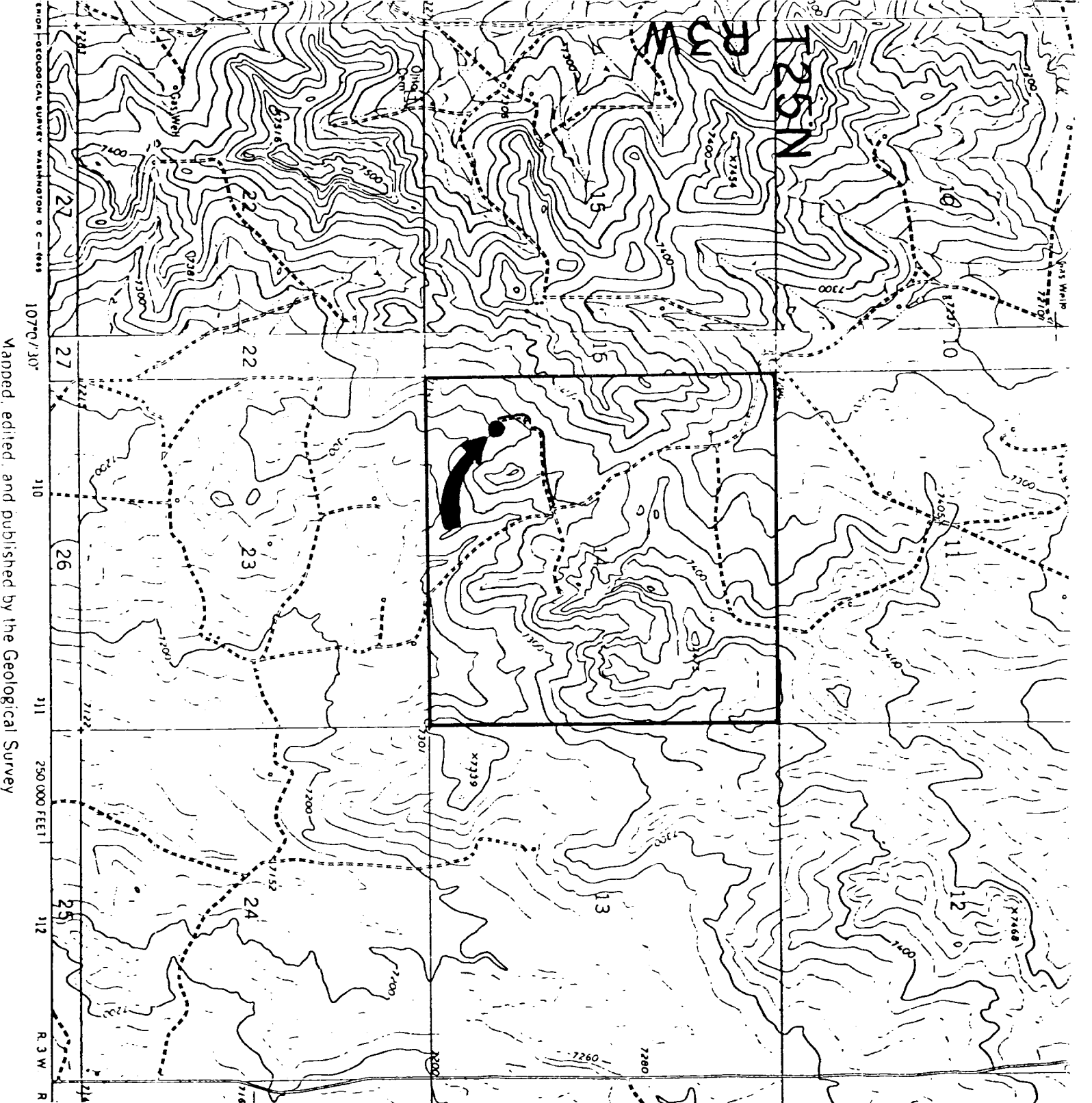
Date Surveyed

October 1, 1985

Registered Professional Engineer
and/or Land Surveyor

Edgar L. Risenbough

Certificate No. 5979



DUGAN PRODUCTION CORP. - Hurt #5 Exhibit E
 Existing Roads

Distance from nearest town or reference pt.
 3 miles southwest of Ojito, NM

Type of surface dirt

Conditions good

Other _____

DUGAN PRODUCTION CORP. - Hurt #5 Exhibit F
 Planned Access Road(s)

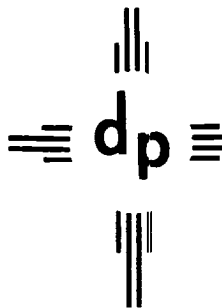
Width 20' Maximum grades 2%
 Drainage design where required

Cuts & Fills _____

Surfacing material _____

- ☒ Turnouts
- ☒ Culverts
- ☒ Gates
- ☒ Cattleguards
- ☒ Fence cuts

Mapped, edited, and published by the Geological Survey



dugan production corp.

July 10, 1987

New Mexico Oil Conservation Division
1000 Rio Brazos Road
Aztec, NM 87410

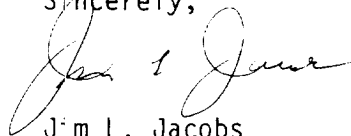
Re: DUGAN PRODUCTION CORP.
Hurt #5
Unit M, 990' FSL - 730' FWL
Sec. 14, T25N, R3W, NMPM
Rio Arriba County, NM

Gentlemen:

This is to certify that deviation tests were run on the captioned well
and the following is a true report of those tests:

3/4° @ 124'	1-1/4° @ 1873'	3/4° @ 4016'	1-1/2° @ 6160'
3/4° @ 210'	1° @ 2176'	3/4° @ 4232'	3/4° @ 6660'
3/4° @ 713'	1° @ 2647'	3/4° @ 4480'	1° @ 7137'
1° @ 1119'	1-1/4° @ 3185'	3/4° @ 4742'	1-1/4° @ 7636'
1° @ 1369'	1/4° @ 3672'	1-1/4° @ 5260'	3/4° @ 7960'
1-1/4° @ 1614'	3/4° @ 3909'	1-1/4° @ 5386'	1/2° @ 8156'
		1° @ 5941'	3/4° @ 8311'

Sincerely,


Jim L. Jacobs

cg

State of New Mexico) ss
County of San Juan)

Subscribed and sworn to before me this 10th day of July, 1987.

OFFICIAL SEAL
LOIS CUNNINGHAM
Notary Public, State of New Mexico
My Commission Expires: 3/7/91


Notary Public

5 BLM 1 File
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPLICATE*
(Other instructions on re-
verse side)

Form approved.
Budget Bureau No. 1004-0135
Expires August 31, 1985

5. LEASE DESIGNATION AND SERIAL NO.

SE 080539A

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Hurt

9. WELL NO.

5

10. FIELD AND POOL, OR WILDCAT

West Lindrith Gallup/
Dakota Ext.

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

Sec. 14, T25N, R3W, NMPM

12. COUNTY OR PARISH 13. STATE

Rio Arriba

NM

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

2. NAME OF OPERATOR

DUGAN PRODUCTION CORP.

3. ADDRESS OF OPERATOR

P O Box 208, Farmington, NM 87499

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

At surface

990' FSL - 730' FWL

BUREAU OF LAND MANAGEMENT
FARMINGTON RESOURCE AREA

14. PERMIT NO.

15. ELEVATIONS (Show whether OF, RT, GR, etc.)

7320' GL; 7332' RKB

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*

Spud & Surface Casing

(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.) *

Moved in & rigged up Four Corners Drilling Company Rig #14. Spudded 12 1/4" hole @ 1:45 PM 4-26-87. Drilled to 210'. Ran 5 jts. 9-5/8" OD, 43.50#, 8 Rd, LT&C casing (T.E. 189.16') set @ 202'. Cemented with 115 sacks class "B" plus 2% CaCl₂ (total cement slurry = 136 cf). P.O.B. @ 5:30 PM 4-26-87. Circulated 3 bbls cement to surface. (Pressure tested B.O.P. & surface casing 600 psi for 30 minutes before drilling out - held OK.)

RECEIVED

APR 30 1987

OIL CON. DIST. 3

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

SIGNED

Jim L. Jacobs

TITLE

Geologist

DATE

4-27-87

(This space for Federal or State office use)

ACCEPTED FOR RECORD

APPROVED BY

CONDITIONS OF APPROVAL, IF ANY:

TITLE

DATE

APR 28 1987

FARMINGTON RESOURCE AREA

BY

*See Instructions on Reverse Side

NMMA

5 BLM 1 File
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 1004-0135
Expires August 31, 1985

5. LEASE DESIGNATION AND SERIAL NO.

SF 080539A

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Hurt

9. WELL NO.

5

10. FIELD AND POOL OR WILDCAT

West Lindrith Gallup/
Dakota Ext.

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

Sec. 14, T.25N, R.3W, NMPM

12. COUNTY OR PARISH 13. STATE

Rio Arriba NM

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

2. NAME OF OPERATOR
DUGAN PRODUCTION CORP.

3. ADDRESS OF OPERATOR
P O Box 208, Farmington, NM 87499

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

990' FSL - 730' FWL

BUREAU OF LAND MANAGEMENT
FARMINGTON RESOURCE AREA

14. PERMIT NO.

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

7320' GL; 7332' RKB

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)

PELL OR ALTER CASING

MULTIPLE COMPLETE

ABANDON*

CHANGE PLANS

SUBSEQUENT REPORT OF:

WATER SHUT-OFF

FRACTURE TREATMENT

SHOOTING OR ACIDIZING

(Other) T.D., 5 1/2" casing & cement

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

REPAIRING WELL

ALTERING CASING

ABANDONMENT*

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.)*

See Attached Page

RECEIVED
MAY 20 1987
OIL CON. DIV.
DIST. 3

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

SIGNED

Jim L. Jacobs

TITLE

Geologist

(This space for Federal or State office use)

APPROVED BY

CONDITIONS OF APPROVAL, IF ANY:

TITLE

ACCEPTED FOR RECORD
DATE 5-19-87

MAY 18 1987

DATE

FARMINGTON RESOURCE AREA

BY

*See Instructions on Reverse Side

NMOCC

DUGAN PRODUCTION CORP.

Hurt #5

Reached T.D. on 5-10-87. Driller's T.D.=8350'. Logger's T.D.=8358'

Ran 5½" casing as follows:

1 - Baker Guide Shoe	0.75'
1 - jt. 5½", 15.5# ST&C casing	40.18'
1 - Baker Diff. Fill Float Collar	1.50'
44 - jts. 5½" OD, 20#, N-80-Buttress thrd. casing	1848.36'
2 - jts. 5½" OD, 15.5#, K-55, 8 Rd ST&C casing	83.74'
1 - Ind. Rubber Stage Tool	1.25'
68 - jts. 5½" OD, 15.5#, K-55, 8 Rd ST&C casing	2544.33'
1 - Ind. Rubber Stage Tool	1.25'
87 - jts. 5½" OD, 15.5#, K-55, 8 Rd ST&C casing	3099.13'
17 - jts. 5½" OD, 17#, K-55, 8 Rd LT&C casing	695.77'
1 - jt. 5½" OD, 20#, N-80 Buttress thrd.	43.00'
TOTAL EQUIPMENT	8359.26'
Less Cut Off	15.26'
RKB to top Casing Head	12.00'
SET @	8356.00'

Cemented first stage as follows: pumped 10 bbls mud flush followed by 295 sacks 50-50 pos plus 2% gel, 6¼# gilsonite per sack and ¼# celloflake per sack (total cement slurry 413 cubic feet). (*Note: top of cement as calculated from Schlumberger caliper log is 6500'.) Full mud returns during cementing, reciprocated casing while cementing. Bumped plug with 1500 psi - float held OK. Dropped opening bomb. Opened stage tool @ 6380'. Circulated with rig pump for 2½ hours.

Cemented 2nd stage as follows: pumped 10 bbls mud flush followed by 145 sacks 65-35 plus 12% gel and ¼# celloflake per sack followed by 295 sacks 50-50 pos +2% gel & ¼# celloflake/sack (total cement slurry second stage 694 cubic feet). (*Note: cement top and stage as calculated from Schlumberger caliper log is 4450'.) Full mud returns while cementing. Closed stage tool with 2500 psi - held OK. Dropped opening bomb. Opened stage tool @ 3835'. Circulated with rig pump for 1½ hours.

Cemented 3rd stage as follows: pumped 10 bbls mud flush followed by 575 sacks 65-35 plus 12% gel and ¼# celloflake per sack followed by 85 sacks 50-50 pos plus 2% gel and ¼# celloflake per sack (total cement slurry 3rd stage 1378 cubic feet). Had full returns while mixing cement and 40 bbls into displacement. Lost returns while lacking 50 bbls displacement. (*Note: ran temperature survey and found top of cement to be 1500'). Closed stage tool with 2500 psi. Job complete @ 10:30 AM 5-11-87. Set 5½" casing slips, nipped down BOP, installed Christmas tree and released rig @ 12:30 PM 5-11-87. Total cement slurry used in all 3 stages = 2485 cf.