

Frank Chavez gave  
them verbal permission  
on 12/15/83.

Call Frank in two  
weeks 1/18/84.

Hold up because of  
pool name changes.

JPP  
1/4/84

Talked with Frank Chavez  
on 1/20/84. The next  
nomenclature changes  
will affect this application  
so wait until then.

SPQ  
Σ  
1/20/84

3/26/84

Talked with  
Danny Powell.

Pool names have  
not yet been changed.

Frank advises to go  
~~at~~ ahead with the  
application. Application  
will be released today.

SPQ

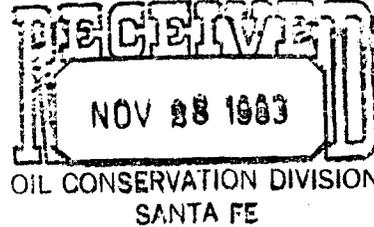


Mark K. Mosley  
Division Manager  
Production Department  
Hobbs Division  
North American Production

Conoco Inc.  
P. O. Box 460  
726 E. Michigan  
Hobbs, NM 88240  
(505) 393-4141

November 18, 1983

New Mexico Oil Conservation Division  
P. O. Box 2088  
Santa Fe, New Mexico 87501



Attention: Mr. Gilbert Quintana

Gentlemen:

In 1976, the Otero Gallup oil and Basin Dakota gas formations were downhole commingled in Well Nos. 1 through 8 of Conoco's Northeast Haynes lease under authority of Order No. R-5205. We are now requesting approval to downhole commingle Otero Gallup and Basin Dakota production in the following six infill wells.

Northeast Haynes No. 1E	Unit O, Sec. 9-24N-5W
Northeast Haynes No. 2E	Unit G, Sec. 16-24N-5W
Northeast Haynes No. 3E	Unit L, Sec. 16-24N-5W
Northeast Haynes No. 6E	Unit B, Sec. 15-24N-5W
Northeast Haynes No. 7E	Unit J, Sec. 10-24N-5W
Northeast Haynes No. 8E	Unit L, Sec. 15-24N-5W

These six infill wells currently produce from the Basin Dakota; none have been completed in the Gallup except for Well No. 2E. During May, 1983 Well No. 2E was completed in the Gallup in order to test and obtain bottom-hole pressure information. It is not economical for us to complete the remaining wells in the Gallup until we are assured of downhole commingling approval.

Additional data relative to this application is listed as follows:

- 1) Attached is a plat of the Northeast Haynes lease.
- 2) C-116's are included showing current well tests from the Dakota on all wells and a test from the Gallup for Well No. 2E.
- 3) Decline curves are attached for Dakota production from all wells. Also enclosed is the Well Completion Report for the Gallup zone of Well No. 2E. Future Gallup reserves for each well are estimated to be 13,000 BO, and 125 MMCFG. The producing rate for each well the first year is estimated at 5 BOPD and 23 MCFPD.

4) Bottom-hole pressure information is listed as follows:

<u>Well</u>	<u>S.I. Time</u>	<u>Pressure</u>	<u>Date</u>	<u>Formation</u>
2E	7 days	912 psi	10/83	Dakota
	11 days	1036 psi	5/83	Gallup
6E	16 days	1040 psi	10/83	Dakota
7E	16 days	902 psi	10/83	Dakota

Northeast Haynes Nos. 1E, 3E, and 8E are expected to have similar Dakota bottom-hole pressures as Well Nos. 2E, 6E, and 7E. Gallup bottom-hole pressures for all wells are anticipated to be within 100 psi of Well No. 2E.

- 5) Since the Dakota and Gallup are presently commingled on the lease, the fluids from these zones will not be incompatible in the well-bore nor will their value be reduced.
- 6) Based on the well test from Northeast Haynes No. 2E, we recommend that the following percentage be used for the allocation of production from these six infill wells.

	<u>Oil</u>	<u>Gas</u>
Otero Gallup	63%	7%
Basin Dakota	<u>37%</u>	<u>93%</u>
	100%	100%

7) By copy of this letter we are notifying the Bureau of Land Management and all offset operators (as per the attached address list) of this proposed commingling.

If you should have questions, please contact Danny Powell of this office. We appreciate your prompt attention to this application.

Yours very truly,



DDP:cyg  
cc: Bureau of Land Management  
Offset Operators (Per Attached List)  
Enc.

Mobil Producing Texas and New Mexico  
Petroleum Plaza  
Farmington, NM 87404

Amerada Hess Corp.  
P.O. Box 2040  
Tulsa, OK 74102

Dugan Production Corp.  
P.O. Box 208  
Farmington, NM 87401

Gulf Oil Exploration and Production Co.  
P.O. Box 1150  
Midland, TX 79702

Union Texas Petroleum Corp.  
1300 Wilco Bldg.  
Midland, TX 79701

Amoco Production Co.  
501 Airport Dr.  
Farmington, NM 87401

R&G Drilling Co., Inc.  
c/o Walsh Engineering  
P.O. Drawer 419  
Farmington, NM 87401

NEW MEXICO OIL CONSERVATION COMMISSION  
GAS - OIL RATIO TESTS

C-116  
Revised 1-1-65

Operator <b>Conoco Inc.</b>		Pool <b>Basin Dakota</b>		County <b>Rio Arriba</b>											
Address <b>P. O. Box 460, Hobbs, NM 88240</b>		TYPE OF TEST - (X) <input type="checkbox"/> Scheduled <input checked="" type="checkbox"/> Special		Completion <input type="checkbox"/> <input checked="" type="checkbox"/> Special											
LEASE NAME	WELL NO.	LOCATION			DATE OF TEST	STATUS	CHOKE SIZE	TBG. PRESS.	DAILY ALLOWABLE	LENGTH OF TEST HOURS	PROD. DURING TEST			GAS M.C.F.	GAS - OIL RATIO CU.FT./BBL
		U	S	T							R	WATER BBLs.	GRAV. OIL		
Northeast Haynes	1E	0	9	24	5	11/8/83	F	NA	190	24	12	45	3	190	63,333
Northeast Haynes	2E	G	16	24	5	11/8/83	F	NA	100	24	0	46	3	325	108,333
Northeast Haynes	3E	L	16	24	5	11/8/83	F	NA	110	24	1	46	3	332	110,667
Northeast Haynes	6E	B	15	24	5	11/8/83	F	NA	48	24	1	45	1	50	50,000
Northeast Haynes	7E	J	10	24	5	11/8/83	F	NA	106	24	1	45	1	160	160,000
Northeast Haynes	8E	L	15	24	5	11/8/83	F	NA	94	24	7	46	2	350	175,000

No well will be assigned an allowable greater than the amount of oil produced on the official test.  
 During gas-oil ratio test, each well shall be produced at a rate not exceeding the top unit allowable for the pool in which well is located by more than 25 percent. Operator is encouraged to take advantage of this 25 percent tolerance in order that well can be assigned increased allowables when authorized by the Commission.  
 Gas volumes must be reported in MCF measured at a pressure base of 15.025 psia and a temperature of 60° F. Specific gravity base will be 0.60.  
 Report casing pressure in lieu of tubing pressure for any well producing through casing.  
 Mail original and one copy of this report to the district office of the New Mexico Oil Conservation Commission in accordance with Rule 301 and appropriate pool rules.

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

*Louis J. Singer*  
 (Signature)  
 Administrative Supervisor  
 (Title)  
 November 18, 1983  
 (Date)

NEW MEXICO OIL CONSERVATION COMMISSION  
GAS-OIL RATIO TESTS

C-116  
Revised 1-1-65

Operator Conoco Inc.		Pool Otero Gallup		County Rio Arriba										
Address P. O. Box 460, Hobbs, NM 88240		TYPE OF TEST - (X)		Scheduled <input type="checkbox"/> Special <input checked="" type="checkbox"/>										
LEASE NAME Northeast Haynes	WELL NO. 2E	LOCATION			DATE OF TEST 9/2/83	CHOKE SIZE ---	TBG. PRESS. ---	DAILY ALLOW-ABLE ---	LENGTH OF TEST HOURS 24	Completion <input type="checkbox"/> Special <input checked="" type="checkbox"/>				
		U	S	T						R	WATER BBLs.	PROD. DURING TEST GRAV. OIL BBLs.	OIL BBLs.	GAS M.C.F.
	G	16	24	5	9/2/83	P	---	---	24	1	45	5	25	5000

No well will be assigned an allowable greater than the amount of oil produced on the official test.  
During gas-oil ratio test, each well shall be produced at a rate not exceeding the top unit allowable for the pool in which well is located by more than 25 percent. Operator is encouraged to take advantage of this 25 percent tolerance in order that well can be assigned increased allowables when authorized by the Commission.  
Gas volumes must be reported in MCF measured at a pressure base of 15,025 psia and a temperature of 60° F. Specific gravity base will be 0.60.

Report casing pressure in lieu of tubing pressure for any well producing through casing.  
Mail original and one copy of this report to the district office of the New Mexico Oil Conservation Commission in accordance with Rule 301 and appropriate pool rules.

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

*David L. Storer*  
(Signature)  
Administrative Supervisor  
(Title)  
November 18, 1983  
(Date)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

SUBMIT IN DUPLICATE  
(See other instructions on reverse side)

Form approved.  
Budget Bureau No. 42-R355.5.

WELL COMPLETION OR RECOMPLETION REPORT AND LOG \*

1a. TYPE OF WELL: OIL WELL  GAS WELL  DRY  Other \_\_\_\_\_

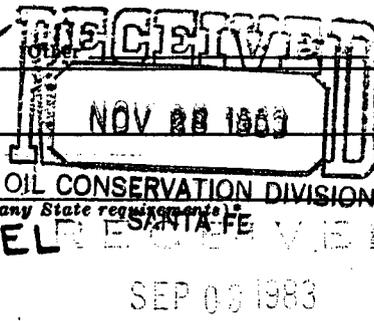
b. TYPE OF COMPLETION: NEW WELL  WORK OVER  DEEP-EN  PLUG BACK  DIFF. RESVR.  OTHER

2. NAME OF OPERATOR  
CONOCO INC.

3. ADDRESS OF OPERATOR  
P. O. Box 460, Hobbs, N.M. 88240

4. LOCATION OF WELL (Report location clearly and in accordance with any State regulations)  
At surface 1850' FNL + 1840' FEL

At top prod. interval reported below  
At total depth



5. LEASE DESIGNATION AND SERIAL NO.  
CONTRACT 36

6. IF INDIAN, ALLOTTEE OR TRIBE NAME  
JICARILLA APACHE

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME  
NORTHEAST HAYNES

9. WELL NO.  
2E

10. FIELD AND POOL, OR WILDCAT  
OTERO GALLUP

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

Sec. 16, T-24N, R-5W

12. COUNTY OR PARISH  
RIO ARRIBA

13. STATE  
NM

14. PERMIT NO. FARMING DATE ISSUED SOURCE AREA

15. DATE SPUDDED  
16. DATE T.D. REACHED  
17. DATE COMPL. (Ready to prod.) 8/25/83  
18. ELEVATIONS (DF, REB, RT, GR, ETC.)\* 6537' GR  
19. ELEV. CASINGHEAD

20. TOTAL DEPTH, MD & TVD 6830'  
21. PLUG, BACK T.D., MD & TVD 6300'  
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)\*  
5562'-5758' GALLUP  
25. WAS DIRECTIONAL SURVEY MADE  
No.

26. TYPE ELECTRIC AND OTHER LOGS RUN  
GR-CCL  
27. WAS WELL CORED  
No.

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

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
8 5/8"	24 #	377'	12 1/4"	359 sxs	CIRC
5 1/2"	15.5 #	6809'	7 7/8"	1902 sxs	-

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)
		NONE		

30. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)
2 3/8"	5400'	-

31. PERFORATION RECORD (Interval, size and number)

5562', 72', 74', 75', 80', 82', 83', 88',  
5621', 24', 27', 29', 31', 34', 45',  
46', 48', 49', 5720', 28', 30', 32',  
35', 40', 46', 53', 57', + 5758'.  
(SEE BACK)

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

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
5562'-5758'	100 BBLs 7 1/2% NE-FE-HCL, 814 BBLs FOAM FRAC, 7600 LBS 20/40 SAND, 681563 SCF NITROGEN.

33.\* PRODUCTION

DATE FIRST PRODUCTION	PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump)	WELL STATUS (Producing or shut-in)
5/23/83	PUMPING 2" x 1 1/4" x 12	PRODUCING

DATE OF TEST	HOURS TESTED	CHOKED SIZE	PROD'N. FOR TEST PERIOD	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO
8/28/83	24	-	-	9	36	3	4000

FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE	OIL—BBL.	GAS—MCF.	WATER—BBL.	OIL GRAVITY-API (CORR.)
-	-	-	9	36	3	N/A

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.)  
VENTED PENDING DHC APPROVAL.  
TEST WITNESSED BY  
G. D. FLOWERS

35. LIST OF ATTACHMENTS  
ACCEPTED FOR RECORD

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

SIGNED W. A. Butterfield TITLE Administrative Supervisor  
DATE SEP 19 1983 / 83

# INSTRUCTIONS

**General:** This form is designed for submitting a complete and correct well completion report and log on all types of lands and leases to either a Federal agency or a State agency, or both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office. See instructions on Items 22 and 24, and 33, below regarding separate reports for separate completions.

If not filed prior to the time this summary record is submitted, copies of all currently available logs (drillers, geologists, sample and core analysis, all types electric, etc.), formation and pressure tests, and directional surveys, should be attached hereto, to the extent required by applicable Federal and/or State laws and regulations. All attachments should be listed on this form, see Item 35.

**Item 4:** If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.

**Item 18:** Indicate which elevation is used as reference (where not otherwise shown) for depth measurements given in other spaces on this form and in any attachments. **Items 22 and 24:** If this well is completed for separate production from more than one interval zone (multiple completion), so state in Item 22, and in Item 24 show the producing interval, or intervals, top(s), bottom(s) and name(s) (if any) for only the interval reported in Item 33. Submit a separate report (page) on this form, adequately identified, for each additional interval to be separately produced, showing the additional data pertinent to such interval.

**Item 29: "Sacks Cement":** Attached supplemental records for this well should show the details of any multiple stage cementing and the location of the cementing tool.

**Item 33:** Submit a separate completion report on this form for each interval to be separately produced. (See instruction for Items 22 and 24 above.)

BASIN DAKOTA PERFS @ 6676'-6745' ISOLATED w/ RBP @ 6300' PENDING  
 APPROVAL OF DOWNHOLE COMMINGLING.

37. SUMMARY OF POROUS ZONES: SHOW ALL IMPORTANT ZONES OF POROSITY AND CONTENTS THEREOF; CORED INTERVALS; AND ALL DRILL-STEM TESTS, INCLUDING DEPTH INTERVAL TESTED, CUSHION USED, TIME TOOL OPEN, FLOWING AND SHUT-IN PRESSURES, AND RECOVERIES		38. GEOLOGIC MARKERS	
FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.
GALLUP	5552'	5760'	OIL, GAS, + WATER
DAKOTA	6587'	6793'	OIL, GAS, + WATER

NAME	MEAS. DEPTH	TOP TRUE VERT. DEPTH
PICTURED CLIFFS	2284'	
LEWIS	2362'	
CHACRA	3136'	
MESAVERDE	3833'	
MANCOS	4683'	
GALLUP	5552'	
GREENHORN	6477'	
GRENEROS	6548'	
DAKOTA	6587'	

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

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 Form 9-331-C for such proposals.)

1. oil well  gas well  other

2. NAME OF OPERATOR  
CONOCO INC.

3. ADDRESS OF OPERATOR  
P. O. Box 460, Hobbs, N.M. 88240

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)  
AT SURFACE: 1850' FNL + 1840' FEL  
AT TOP PROD. INTERVAL:  
AT TOTAL DEPTH:

16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

5. LEASE  
CONTRACT 36

6. IF INDIAN, ALLOTTEE OR TRIBE NAME  
JICARILLA APACHE

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME  
NORTHEAST HAYNES

9. WELL NO.  
2E

10. FIELD OR WILDCAT NAME  
OTERO GALLUP / BASIN DAKOTA

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
SEC. 16, T-24N, R-5W

12. COUNTY OR PARISH | 13. STATE  
Rio ARRIBA | NM

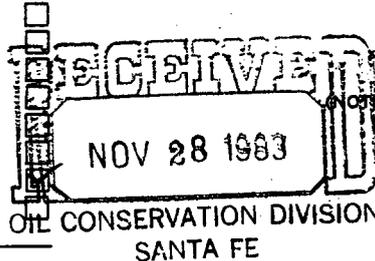
14. API NO.

15. ELEVATIONS (SHOW DF, KDB, AND WD)

REQUEST FOR APPROVAL TO:

- TEST WATER SHUT-OFF
- FRACTURE TREAT
- SHOOT OR ACIDIZE
- REPAIR WELL
- PULL OR ALTER CASING
- MULTIPLE COMPLETE
- CHANGE ZONES
- ABANDON\*
- (other) \_\_\_\_\_

SUBSEQUENT REPORT OF:



NOTE: Report results of multiple completion or zone change on Form 9-330.)

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.)\*

MIRU 9/16/83. REL RBP @ 6300'. SET MODEL "C" BORE PKR @ 5977' TO ISOLATE GALLUP. RAN DAKOTA PRODUCTION EQUIPMENT. TESTED 5 BO, 1 BW, + 419 MCF IN 24 HRS 9/30/83. DAKOTA WILL BE PRODUCED PENDING APPROVAL OF DOWNHOLE COMMINGLING.

Subsurface Safety Valve: Manu. and Type \_\_\_\_\_ Set @ \_\_\_\_\_ Ft.

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

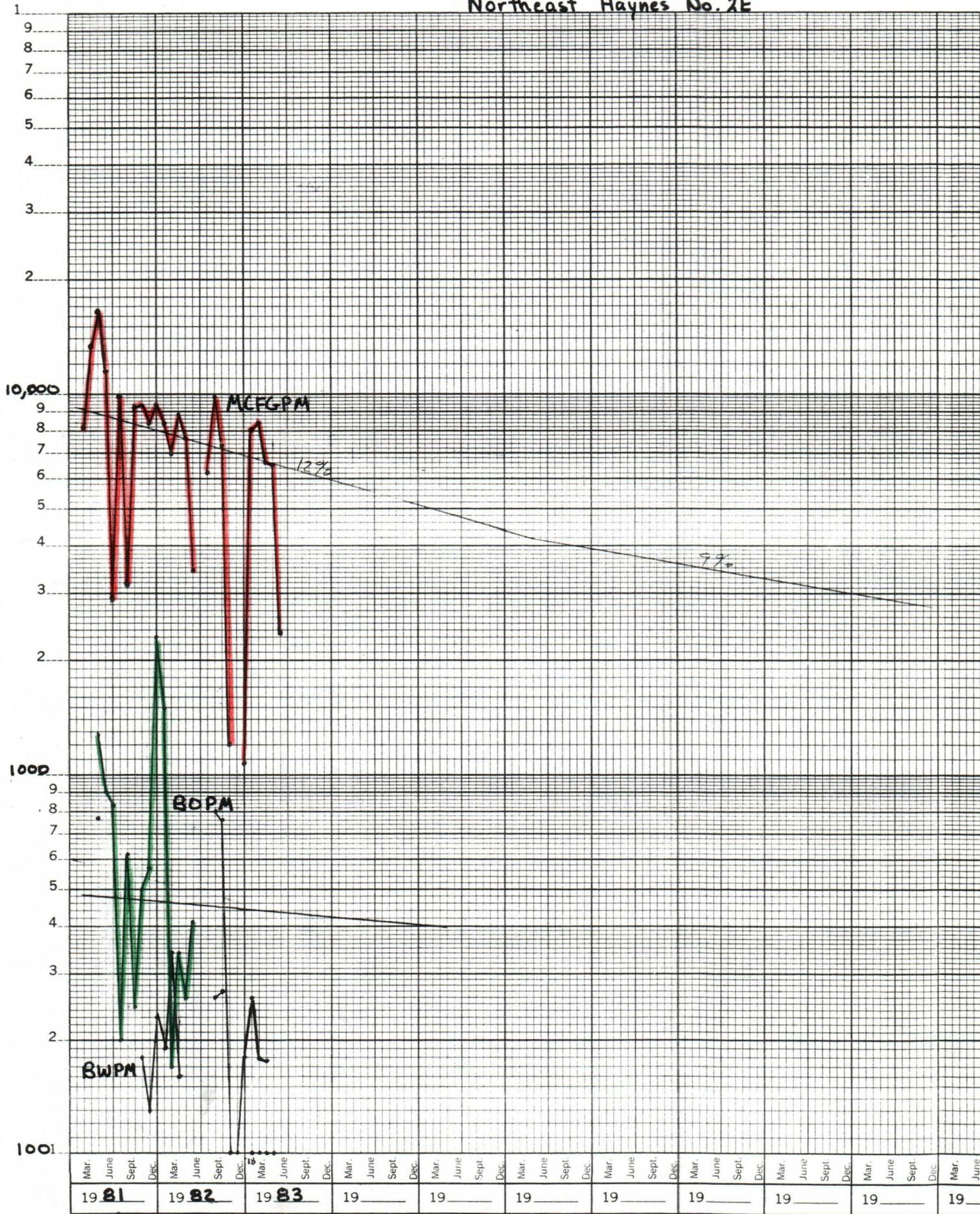
SIGNED Wm A. Butterfield TITLE Administrative Supervisor DATE 11/17/83

(This space for Federal or State office use)

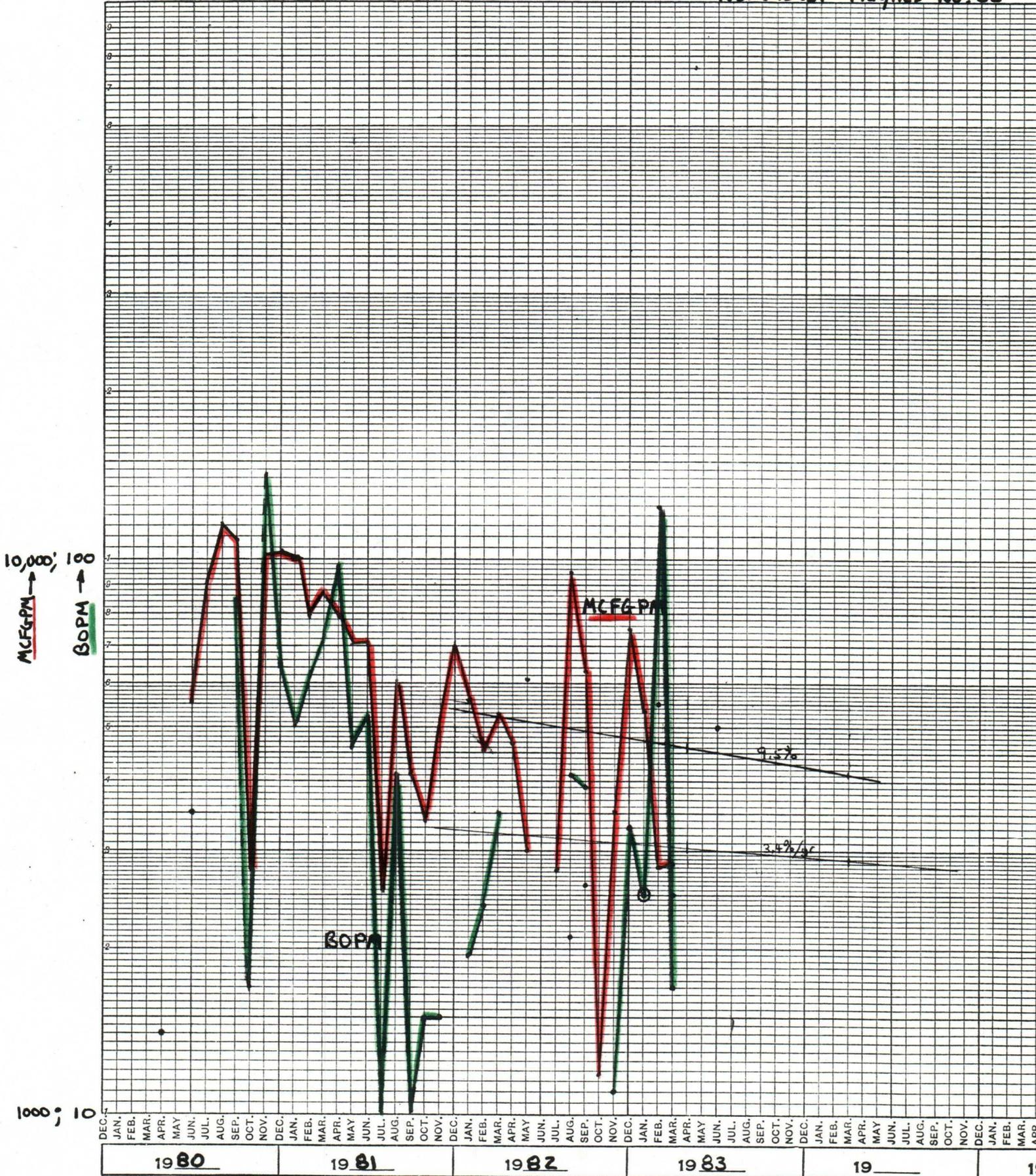
APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
CONDITIONS OF APPROVAL, IF ANY:



# Northeast Haynes No. 2E

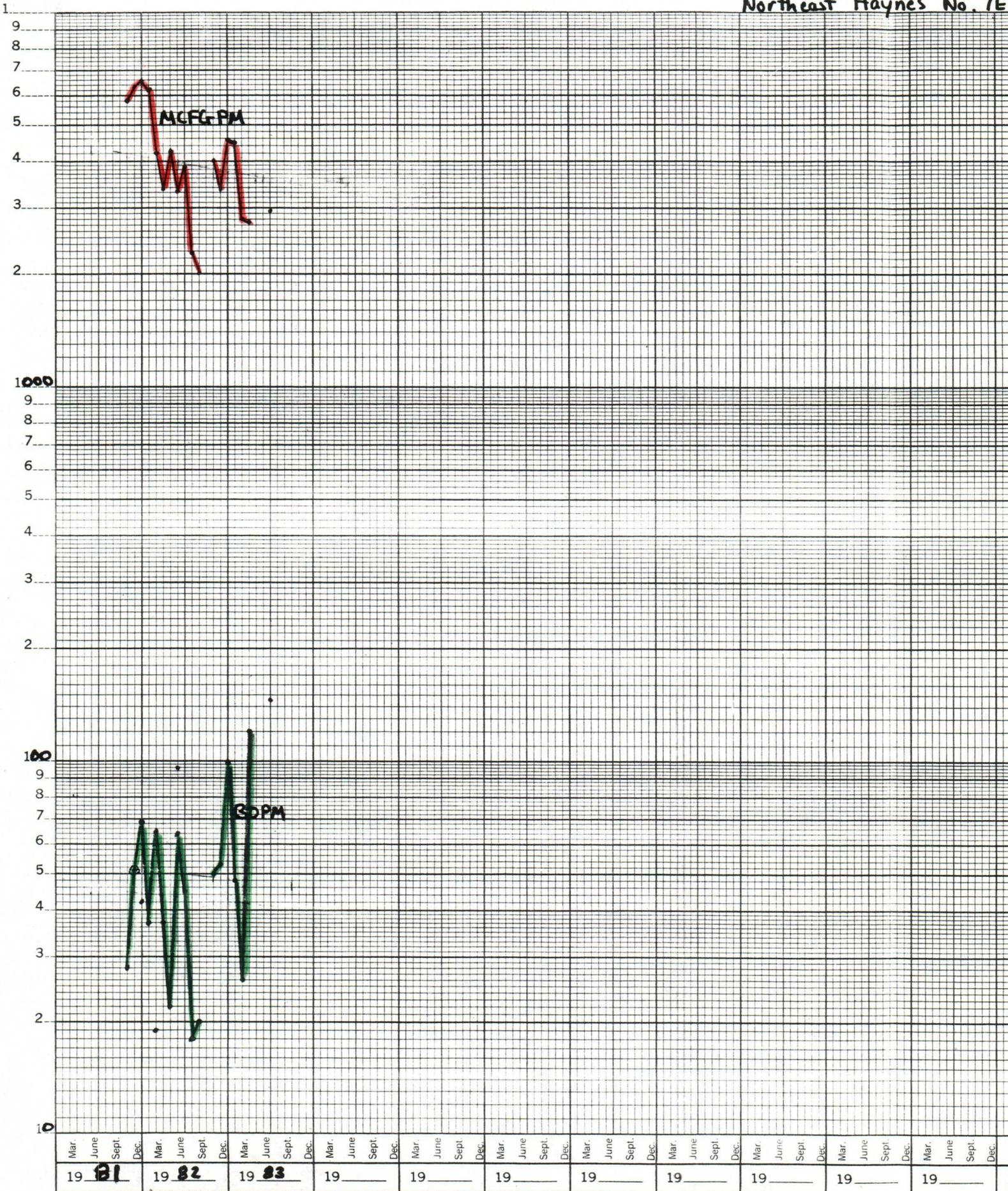


# Northeast Haynes No. 3E





Northeast Haynes No. 7E

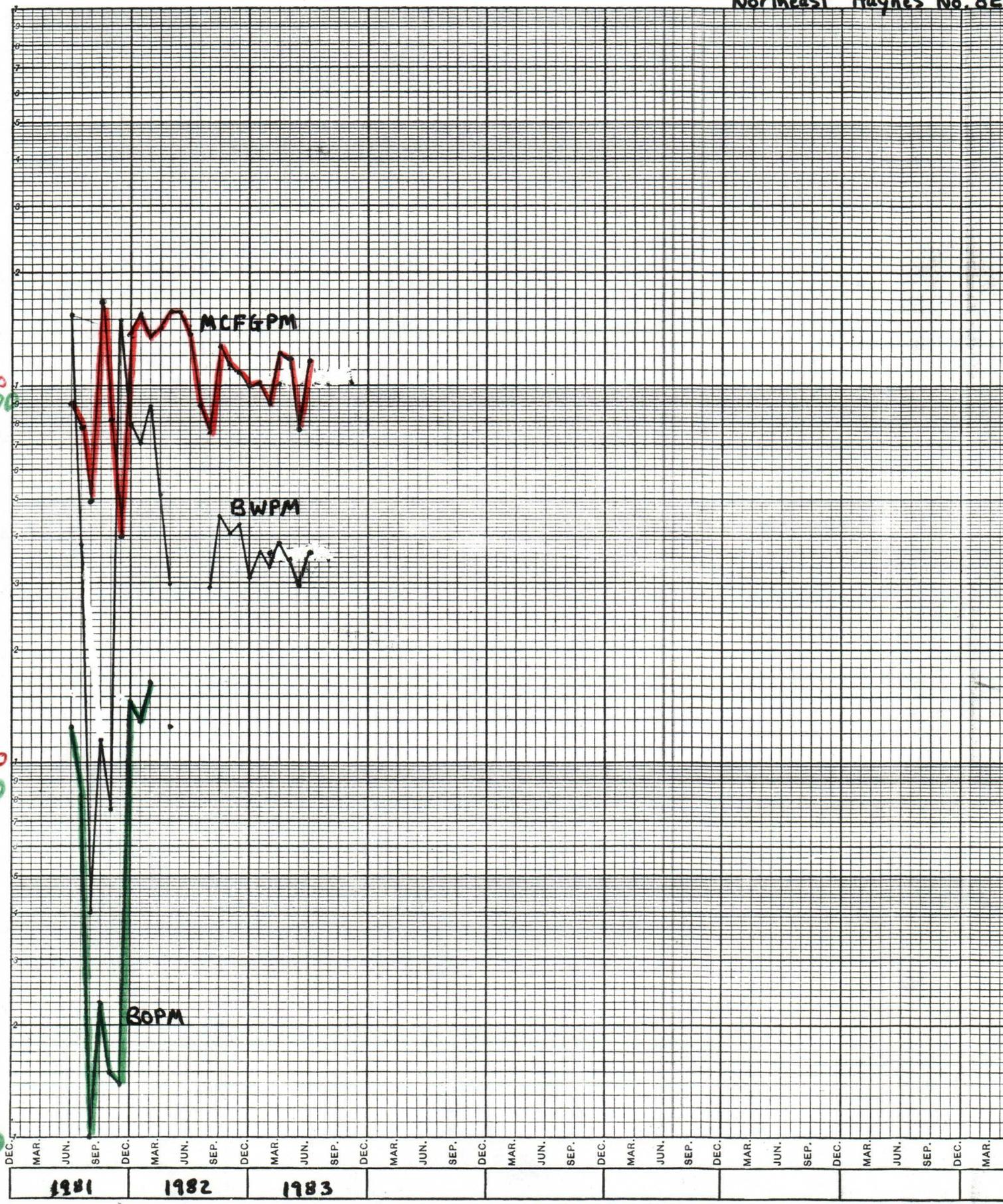


Northeast Haynes No. 8E

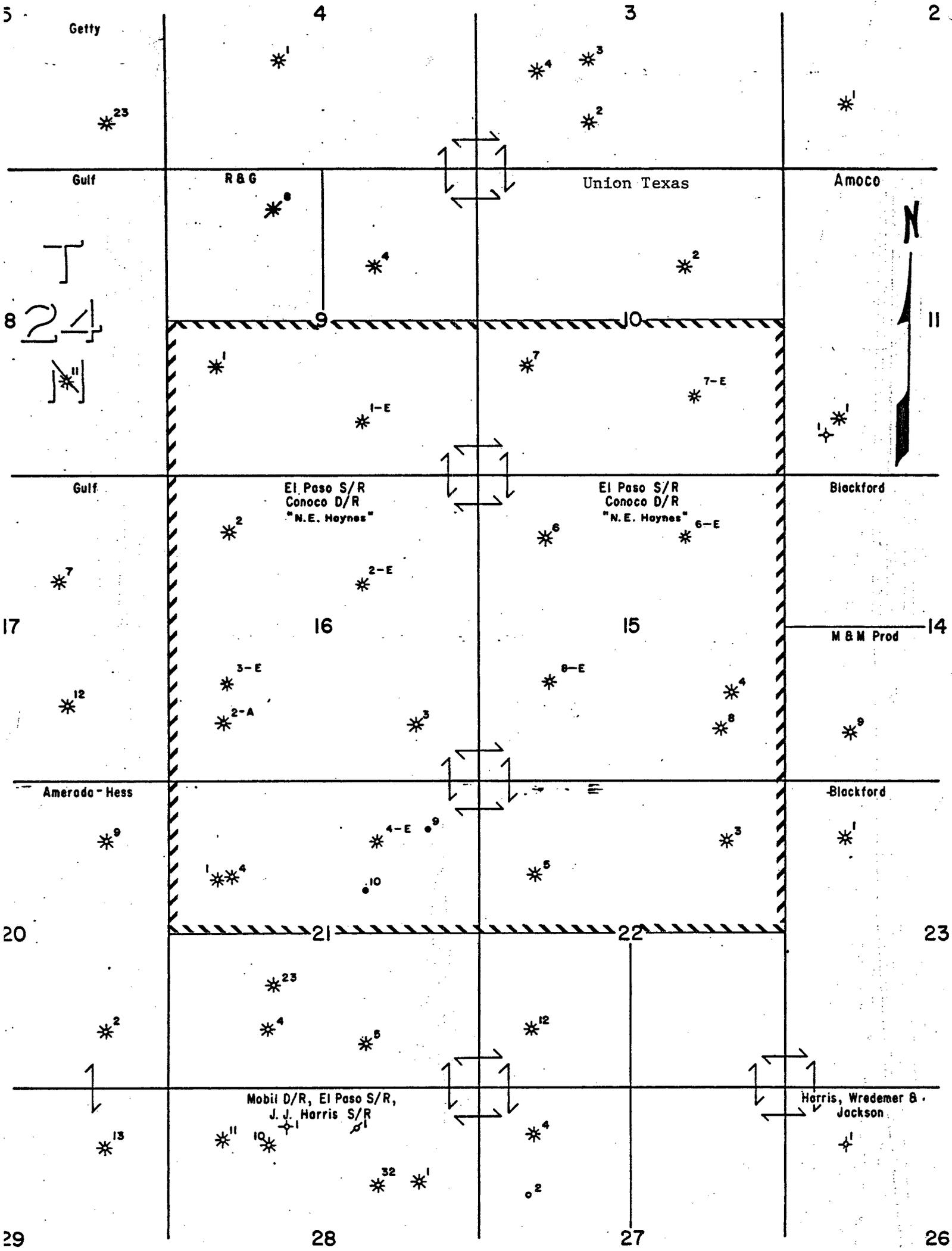
10,000  
1,000

1,000  
100

100  
10



DEC. 1981    MAR. 1982    JUN. 1982    SEP. 1982    DEC. 1982    MAR. 1983    JUN. 1983    SEP. 1983    DEC. 1983    MAR. 1984



R 5 W

<b>CONOCO</b>	
PRODUCTION DEPARTMENT	HOBBS DIVISION
<b>N. E. HAYNES</b> RIO ARRIBA COUNTY, NEW MEXICO	
SCALE 	
LEGEND: * LOCATION ○ DRY WELL	◇ DRY HOLE ▲ INJECTION WELL ✕ ABANDONED WELL
	⊕ SALT WATER DISPOSAL WELL ○ DEEPER WELL