Form 9-330
(Rev. 5-63)

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*

RECEIVED
JUN 16 1987
BUREAU OF LAND MANAGEMENT
FARMINGTON RESOURCE AREA

5. LEASE DESIGNATION AND SERIAL NO.: Jicarilla Contract #47

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: Jicarilla Apache

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME: Jicarilla Tribal Contract #47

9. WELL NO.: 47-33

10. FIELD AND POOL, OR WILDCAT: South Lindrith Gallup-Dakota

11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA: Sec. 12, T23N, R4W

12. COUNTY OR PARISH: Rio Arriba

13. STATE: New Mexico

1a. TYPE OF WELL: OIL WELL [X] GAS WELL [ ] DRY [ ] Other

b. TYPE OF COMPLETION: NEW WELL [X] WORK OVER [ ] DEEP-EN [ ] PLUG BACK [ ] DIFF. RESVR. [ ] Other

2. NAME OF OPERATOR: Chace Oil Company

3. ADDRESS OF OPERATOR: 313 Washington SE, Albuquerque, New Mexico 87108

4. LOCATION OF WELL (*Report location clearly and in accordance with any State requirements*)*
At surface: 661' FSL & 1979' FWL, Unit 'N'
At top prod. interval reported below
At total depth

14. PERMIT NO. | DATE ISSUED

15. DATE SPUDDED	16. DATE T.D. REACHED	17. DATE COMPL. (*Ready to prod.*)	18. ELEVATIONS (DF, RKB, RT, GR, ETC.)*	19. ELEV. CASINGHEAD
5/19/87	5/30/87	6/10/87	7379' GR	7380'

20. TOTAL DEPTH, MD & TVD	21. PLUG, BACK T.D., MD & TVD	22. IF MULTIPLE COMPL., HOW MANY*	23. INTERVALS DRILLED BY	ROTARY TOOLS	CABLE TOOLS
7571' KB	7524' KB		→	0-7571' KB	None

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)*
Gallup 5964-6413 Dakota 'D' 7433-7447 Greenhorn 7190-7210
Dakota 'A' 7270-7288 Tocito 6978-6982

25. WAS DIRECTIONAL SURVEY MADE: yes

26. TYPE ELECTRIC AND OTHER LOGS RUN: Induction and Density

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"	24lb/ft.	234' KB	12 1/4"	See attached	none
4 1/2"	11.60 lb/ft.	7571' KB	7 7/8"	"	none

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)

30. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)
2 3/8"	7377.01' KB	
S.N. @	7340.65' KB	

31. PERFORATION RECORD (*Interval, size and number*)
See attached

JUN 19 1987
OIL CON. DIV.
DIST. 3

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

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
	See attached

33.* PRODUCTION

DATE FIRST PRODUCTION	PRODUCTION METHOD (*Flowing, gas lift, pumping—size and type of pump*)	WELL STATUS (*Producing or shut-in*)
6/11/87	Swabbing	producing

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD →	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO
6/12/87	24	2"		161	22	45	137

FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE →	OIL—BBL.	GAS—MCF.	WATER—BBL.	OIL GRAVITY-API (CORR.)
0	390 psi		161	22	45	43

34. DISPOSITION OF GAS (*Sold, used for fuel, vented, etc.*)
To be sold

TEST WITNESSED BY: Dale Burns

35. LIST OF ATTACHMENTS

ACCEPTED FOR RECORD
JUN 17 1987
FARMINGTON RESOURCE AREA

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

SIGNED Frank Welber TITLE Vice President Production DATE 6/15/87

*(See Instructions and Spaces for Additional Data on Reverse Side)

NMOCC

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.)

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.

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.
Ojo Alamo	2652		Sand - wet
Pic. Cliffs	3066		Sand- w/coal and shale streaks- no show
Chacra	3404		Shale w/ sd. streaks - no show
Cliff House	4584		Sand and shale - tight
Pt. Lookout	5146		Sand - wet
Gallup	5846		Sand and shale - oil and gas
Juana Lopez	6864		Sand and shale - poss. shows
Greenhorn	7160		Sandy lime - oil and gas shows
Dakota A	7249		Sand w/ shale streaks - oil and gas
Dakota D	7396		Sand w/ shale streaks - oil and gas
Burro Canyon	7500		Sand - wet

38. GEOLOGIC MARKERS

NAME	TOP	
	MEAS. DEPTH	TRUE VERT. DEPTH

U. S. GOVERNMENT PRINTING OFFICE : 1975 O - 574-472

871-233

JICARILLA APACHE 47-33 Attachments

28. Cementing Record:

8 5/8" Surface Casing Cement: 170 sks (200 cf) Class 'B'
3% $CaCl_2$, 1/4 lb./sk Flocele

4 1/2" Production Casing:

1st Stage: 910 sks (1301 cf) 50/50 Pozmix, 2% gel, 6 1/4 lb./sk Gilsonite, 6 lb./sk salt
2nd Stage: 525 sks (1113 cf) 65/35 Pozmix, 6% gel, 12 1/4 lb./sk Gilsonite
Tail In: 50 sks (59 cf) Class 'B' Neat

32. Perforations:

Dakota 'D' Zone: 7433, 7435, 7437, 7439, 7441, 7443, 7445, 7447
4 SPF, 32 holes

Dakota 'A' Zone: 7270, 7272, 7274, 7276, 7278, 7280, 7282, 7284, 7286, 7288
3 SPF, 30 holes

Greenhorn Zone: 7190, 7192, 7200, 7202, 7204, 7206, 7210
3 SPF, 21 holes

Tocito Zone: 6978, 6980, 6982
3 SPF, 9 holes

Gallup Zone: 5964, 6018, 6111, 6118, 6124, 6131, 6142, 6153, 6155, 6157, 6201, 6209, 6212, 6216, 6221, 6226, 6228, 6232, 6240, 6254, 6264, 6266, 6270, 6277, 6282, 6284, 6286, 6293, 6295, 6300, 6305, 6325, 6327, 6329, 6353, 6355, 6358, 6360, 6371, 6377, 6387, 6401, 6403, 6405, 6407, 6409, 6411, 6413
2 SPF, 96 holes

Acid-Fracture:

Dakota 'D': 250 gal 7½% Acetic Acid
90,000 lbs. 20/40 sand
1,470 bbls. water

Dakota 'A':
Greenhorn:
Tocito :
300 gal. 7½% Hcl
90,000 bbls. 20/40 sand
1,550 bbls. water

Gallup: 500 gal 7½% Hcl
150,000 lbs. 20/40 sand
3,900 bbls. water

JICARILLA APACHE 47-33 COMPLETION

06/05/87: Move in and rig up.

Pick up 2 3/8" tubing and 3 7/8" rock bit.

Drill out D.V. Tool at 3352' KB.

Clean out casing to float collar @ 7524' KB.

Circulate casing clean and pull 3 stands of tubing.

Shut down for weekend.

06/08/87: Run back in hole with 3 stands tubing.

Load casing with water.

7:32 A.M. Pressure test casing to 4000 psi

Spot 250 bal. 7½% Acetic Acid from 7447' KB.

Trip out of hole with tubing.

Go in hole with logging tools.

Run Cement Bond Log from TD to 5900 'KB

Loggers TD 7502'KB

and from 3400- 3000' KF

1:51 P.M. Perforate Dakota 'D' Zone @ 7433, 7435, 7437, 7439, 7441, 7443, 7445, 7447
4 SPF, 32 holes

2:20 P.M. Break down Dakota 'D' formation.

Broke @ 900 psi

Establish rate: 42 BPM @ 3500 psi

Shut down, ISIP 1000 psi

Start Balls, 2 balls/bbls for 24 bbls.

Total 48 balls 12 BPM @ 1370 psi

Increase rate to 35 BPM @ 2630 psi

Have good ball action at 3000 psi, 20 BPM

Have ball off @ 3950 psi

Jicarilla Apache 47-33, Completion

Surge balls off perforations.

Go in hole with junk basket.

Recover 49 balls.

DAKOTA 'D' FRAC:

3:47 P.M.	Start Pad	41 BPM @ 3410 psi
3:55 P.M.	On Pad	40 BPM @ 3560 psi
3:57 P.M.	Start 1 lb/gal sand	39 BPM @ 3560 psi
4:00 P.M.	1 ppg sand on formation	40 BPM @ 3480 psi
4:02 P.M.	Start 2 ppg sand	40 BPM @ 3320 psi
4:04 P.M.	2 ppg sand on formation	42 BPM @ 3460 psi
4:08 P.M.	Start 3 ppg sand	43 BPM @ 3420 psi
4:10 P.M.	3 ppg sand on formation	46 BPM @ 3030 psi
4:15 P.M.	Start 4 ppg sand	45 BPM @ 2900 psi
4:17 P.M.	4 ppg sand on formation	46 BPM @ 3180 psi
4:18 P.M.	On 4 ppg sand	46 BPM @ 3100 psi
4:19 P.M.	Cut sand, go to flush	46 BPM @ 3150 psi
		45 BPM @ 3320 psi

4:22 P.M. Flush away, shut down

ISIP: 1950 psi

5 min. 1550 psi

10 min. 1450 psi

15 min. 1475 psi

Total sand: (+) 90,000 lbs.

Total fluid: 1,470 bbls.

5:05 P.M. Set Howco Bridge Plug @ 7346' KB

5:22 P.M. Pressure test plug to 4000 psi

Trip in hole with tubing.

Spot 300 gal 7½% Hcl from 7288' up hole.

Trip out of hole with tubing.

9:01 P.M.	Perforate Tocito @:	6978, 6980, 6982 3 SPF, 9 holes
9:03 P.M.	Perforate Greenhorn @:	7190, 7192, 7200, 7202, 7204, 7206, 7210 3SPF, 21 holes
9:04 P.M.	Perforate Dakota 'A' @:	7270, 7272, 7274, 7276, 7278, 7280, 7282, 7284, 7286, 7288, 3 SPF, 30 holes

Well started flowing when Dakota 'A' zone was perforated.

Communication with Dakota 'D' zone

Open BOP to frac line, have 600 psi on casing

9:30 P.M. Break down Tocito Greenhorn and Dakota 'A' zones

Broke at 1500 psi	
Establish rate	38 BPM @ 3700 psi
Shut down	
ISIP: 950 psi	
Start balls,	
3 balls/bbl. for 30 bbls	12 BPM @ 2010 psi
Total of 90 balls.	
Increase rate to	31 BPM @ 2830 psi
Have good ball action	20 BPM @ 3320 psi

Bring pressure up to 3950-4000 psi twice

Have no ball off.

Surge balls off perforations.

Go in hole with junk basket.

Recover 90 balls.

Jicarilla Apache 47-33 Completion

TOCITO, GREENHORN, DAKOTA 'A' FRAC:

10:43 P.M.	Start pad	46 BPM @ 3250 psi
10:47 P.M.	On pad	43 BPM @ 3490 psi
10:52 P.M.	Start 1 ppg sand	43 BPM @ 3560 psi
10:55 P.M.	1 ppg sand on formation	44 BPM @ 3490 psi
10:57 P.M.	Start 2 ppg sand	44 BPM @ 3410 psi
10:59 P.M.	2 ppg sand on formation	45 BPM @ 3370 psi
11:02 P.M.	Start 3 ppg sand	45 BPM @ 3330 psi
11:04 P.M.	3 ppg sand on formation	46 BPM @ 3290 psi
11:07 P.M.	on 3 ppg sand	45 BPM @ 3310 psi
11:09 P.M.	Start 4 ppg sand	46 BPM @ 3270 psi
11:11 P.M.	4 ppg sand on formation	46 BPM @ 3190 psi
11:13 P.M.	Cut sand, go to flush	47 BPM @ 2940 psi
11:15 P.M.	Flush away, Shut down	

ISIP:	1700 psi
5 min.	1550 psi
10 min.	1500 psi
15 min.	1475 psi
Total sand	90,000 lbs.
Total fluid	1,550 bbls Water

06/09/87

12:02 A.M.	Set Baker Bridge plug @ 6470' KB
12:21 A.M.	Pressure test plug to 4000 psi
	Trip in hole with tubing
	Spot 500 gal 7½% Hcl from 6413' up hole
	Trip out of hole with tubing.
4:40 A.M.	Perforate Gallup zone @ 5964, 6018, 6111, 6118, 6124, 6131, 6142,

		6153, 6155, 6157, 6201, 2 SPF, 22 holes
5:15 A.M.	Perforate Gallup @	6209, 6212, 6216, 6221, 6226, 6228, 6232, 6240, 6254, 6264, 6266, 6270, 2 SPF, 24 holes
5:45 A.M.	Perforate Gallup @	6277, 6282, 6284, 6286, 6293, 6295, 6300, 6305, 6325, 6327, 6329, 6353, 6355, 6358, 6360 2 SPF, 30 holes
6:19 A.M.	Perforate Gallup @	6371, 6377, 6387, 6401, 6403, 6405, 6407, 6409, 6411, 6413 2 SPF, 20 holes
6:37 A.M.	Break down formation	
	Broke @ 1200 psi	
	Establish rate	79 BPM @ 3850 psi
	Shut down	
	ISIP: 600 psi	
	Start balls	
	48 balls/bbls for 36 balls	13 BPM @ 720 psi
	Total of 144 balls	
	Increase rate to	44 BPM @ 1630 psi
	Balls on perforations	43 BPM @ 1680 psi
	Good ball action. Bring pressure up to 4000 psi	
	Let bleed down to 2000 psi	
	Bring up to 4000 psi	
	No ball off	
	Surge balls off perforations	
	Go in hole with junk basket	
	Recover 145 balls	
	GALLUP FRAC:	
7:40 A.M.	Start pad	85 BPM @ 3800 psi
7:45 A.M.	On pad	86 BPM @ 3740 psi

Jicarilla Apache 47-33 Completion

7:47 A.M.	Start 1/2 lb./gal sand	87 BPM @ 3550 psi
7:48 A.M.	1/2 lb./gal sand on formation	87 BPM @ 3530 psi
7:49 A.M.	Start 1 ppg sand	87 BPM @ 3490 psi
7:50 A.M.	1 ppg sand on formation	88 BPM @ 3470 psi
7:55 A.M.	On 1 ppg sand	84 BPM @ 3710 psi
7:58 A.M.	On 1 ppg sand	82 BPM @ 3840 psi
8:00 A.M.	At 3900 psi, 82 BPM; slow rate down to 79 BPM @ 3770 psi on 1 ppg sand	
8:04 A.M.	Start 1 1/2 ppg sand	77 BPM @ 3780 psi
8:05 A.M.	1 1/2 ppg sand on formation	71 BPM @ 3600 psi
8:09 A.M.	on 1 1/2 ppg sand	62 BPM @ 3490 psi
8:15 A.M.	On 1 1/2 ppg sand	61 BPM @ 3190 psi
8:23 A.M.	On 1 1/2 ppg sand	66 BPM @ 3330 psi
8:29 A.M.	Cut sand, go to flush	67 BPM @ 3260 psi
8:32 A.M.	Flush away, shut down	

ISIP: 550 psi

5 min. 450 psi

10 min. 400 psi

15 min. 400 psi

Total sand: 150,000 lbs.

Total Fluid: 3,900 bbls.

12:00 P.M. Open well up; Flow Gallup back

Retrieve Baker bridge plug set at 6470' KB

Mill up bridge plug set at 7346' KB

Clean out casing to float collar at 7524' KB

Jicarilla Apache 47-33 Completion

06/10/87 Land production 226 joints 2 3/8" tubing with seating nipple at 7340.65' KB with a 4' perforated sub and a 32.36' tail joint below seating nipple.

End of tubing at 7377.01' KB