Form 3160-3
(November 1983)
(formerly 9-331C)

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 1004-0136
Expires August 31, 1985

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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 ☐

RECEIVED
MAR 29 1991
O. C. D.
ARTESIA, OFFICE

2. NAME OF OPERATOR: Phillips Petroleum Company

3. ADDRESS OF OPERATOR: 4001 Penbrook Street, Odessa, Texas 79762

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)
At surface: Unit J, 1980' FSL & FEL
At proposed prod. zone: Unit J, 1980' FSL & FEL

5. LEASE DESIGNATION AND SERIAL NO.: LC-028793-C
6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
7. UNIT AGREEMENT NAME:
8. FARM OR LEASE NAME: Burch C Federal
9. WELL NO.: 4
10. FIELD AND POOL, OR WILDCAT: Gb/Jackson-SR-Q-G-SA
11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: 23, 17-S, 29-E
12. COUNTY OR PARISH: Eddy
13. STATE: NM

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: 3-1/2 miles West of Loco Hills

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any): 1980'
16. NO. OF ACRES IN LEASE: 1115.20
17. NO. OF ACRES ASSIGNED TO THIS WELL: 40
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.: 330'
19. PROPOSED DEPTH: 3385'
20. ROTARY OR CABLE TOOLS: Rotary
21. ELEVATIONS (Show whether DF, RT, GR, etc.): 3594'
22. APPROX. DATE WORK WILL START*:

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
NR	8-5/8"	24#	427'	50 sx
7-7/8"	7"	24#	2581'	100 sx
6-1/4"	5-1/2"	14#	3267'	35 sx

See attached sheets for detailed procedure.

RECEIVED
MAR 25 11 33 AM '91
CARLSBAD, NEW MEXICO

-over-

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: L. M. Sanders — TITLE: Reg. & Proration Supv. — DATE: 03-21-91

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY: Orig. Signed by Richard L. Manus — TITLE: PETROLEUM ENGINEER — DATE: 3-28-91

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions On Reverse Side

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

NOTE: 1. This is a No Category well.
2. Notify NMOCD and BLM 24 hours before commencing work.

1. MI and RU DDU. Pull rods and pump. Install BOP. COOH with 2-3/8" production tbg.

2. PU 4-3/4" bit, DC's and 2-3/8", 4.7#/ft workstring. Drill out to ±3385' (60' deeper than current TD) with produced water. Circulate hole clean. COOH & LD bit & DC's.

3. MI & RU __service company__ to perforate the following zones through the 5-1/2" & 7" csg with a 4" perforating gun and 1/2" GSC charges, 1 JSPF, at the following depths (Note: Correlate perforating depths to Lane's GR-Neutron log dated 5/27/56):

Lower San Andres
3203', 3205', 3206' (total 3 shots).

San Andres
3046', 3049', 3053', 3062', 3064', 3065', 3094', 3096' (total 8 shots).

Jackson
2779', 2781', 2789'-2794' (6 shots), 2805'-2814' (10 shots), 2821'-2830' (10 shots), 2848', 2858', 2872', 2878', 2889', 2899', 2913', 2918', 2932', 2933', 2939, 2951', 2982', 2984' (total 42 shots).

Premier
2509', 2511', 2514', 2516', 2518' (total 5 shots).

Metex
2356', 2358', 2387'-2402' (16 shots), 2410', 2416', 2417', 2422'-2428' (7 shots), 2450', 2453', 2455' (total 31 shots).

Loco Hills
2258', 2262', 2263', 2279', 2283', 2284', 2289', 2291' (total 8 shots).

TOTAL SHOTS = 97 shots

4. GIH with 5-1/2" RTTS-type pkr on ±700' of 2-7/8", 6.5#/ft, EUE 8rd N-80 tbg and ±2530' 3-1/2", 9.3 lb/ft, EUE 8rd N-80 tbg. Test tbg to 5000 psi while GIH. Set packer @ ±3230'.

5. Service company to acidize Keely open hole at 3267'-3385' with 3800 gals Pentol 200 (20% NEFe HCl) using 1080 lb rock salt in 1080 gals 9 ppg brine as a blocking agent, as follows:

   a. Pressure test lines to 4000 psi. Load annulus, if possible, and monitor casing pressure throughout treatment for any indication of communication.
   b. Pump 950 gals Pentol 200.
   c. Pump 360 gals blocking agent.
   d. Repeat steps b and c twice.
   e. Pump 950 gals Pentol 200.
   f. Flush to 3385' with produced water.

   Maximum Treating Pressure = 3500 psi
   Maximum Treating Rate = 5 BPM

6. Shut-in for four hours. Swab back load from Keely.

7. Service company to fracture treat Keely open hole zone at 3267'-3385' with 21,000 gals polyemulsion (2/3 lease crude and 1/3 30 lb gelled 2% KCl water with non-ionic emulsifier) carrying 63,500 lbs 20/40 mesh Vulcan Texsan sand, as follows:

   Note:
   * Review **Attachment** I on safety precautions for polyemulsion treatments.
   * Nipple up wellhead so that well can be flowed back within 30 seconds of pump shut down.
   * Install flow meter so that a rate of 5-10 gals/min can be monitored.
   * Leave pressure connected to the van so that the fracture pressure can be monitored.
   * Ensure that choke is completely closed before start of flowback.
   * **LEASE CRUDE MUST BE IN FRAC TANKS OR STOCK TANK BARRELS AT ATMOSPHERIC PRESSURE AT LEAST 24 HOURS PRIOR TO JOB.**

   a. Test all lines to 5000 psi. Install pressure relief valve on treating line and set it to relieve at 5000 psi. Load annulus, if possible, and monitor casing pressure throughout treatment for any indication of communication.
   b. Pump 7500 gals polyemulsion as pad.
   c. Pump 2000 gals with 2 ppg of 20/40 mesh sand.
   d. Pump 2000 gals with 3 ppg of 20/40 mesh sand.
   e. Pump 2500 gals with 4 ppg of 20/40 mesh sand.
   f. Pump 2500 gals with 5 ppg of 20/40 mesh sand.
   g. Pump 2500 gals with 6 ppg of 20/40 mesh sand.
   h. Pump 2000 gals with 8 ppg of 20/40 mesh sand.
   i. Flush to 3230' (RTTS depth) with 1/4 polyemulsion and 3/4 gelled water. **DO NOT OVERFLUSH.**

j. SI, record ISIP, then flow back within 30 seconds of pump shutdown. Monitor for closure, and continue to flow at a maximum rate of 10 gal/min for 30 minutes after fracture closure. After closure, flow at a maximum rate of 1/2 bbl/min until well dies.

Max. Treating Pressure = 4500 psi
Max. Treating Rate = 15 BPM

Minimum Inventory to Have on Location Prior to Treatment:

* 76,500 lbs Vulcan Texsan 20/40 sand.
* Frac tanks with 16,380 gals (390 bbls) lease crude.
* Frac tanks with 8,778 gals (209 bbls) gelled water.
* Firefighting equipment, sample bottles, and Fann 35 viscometer to be supplied by service company.

8. COOH with RTTS & workstring. LD RTTS & GBIH with workstring and CO to TD. COOH. PU 5-1/2" RBP & RTTS & GBIH on 3-1/2" x 2-7/8" workstring. Test tubing in hole to 5000 psi. Set RBP @ ±3240'. Test to RBP to 500 psi. Reset RTTS @ ±3150'.

9. Service company to acidize new Lower San Andres perfs at 3203'-3206' with 800 gals 15% NEFe HCl acid containing fines suspension agents and clay stabilizers. Test lines to 3500 psi. Max Pressure = 3000 psi. Treating Rate = 5 BPM. Flush to 3206' with produced water.

10. Swab back load from Lower San Andres perfs. Continue to swab and report results to Pam Boring (x1618).

Note: A decision will be made dependent upon the test results whether or not to frac the Lower San Andres. If decision is to frac, proceed with step 11. If not, go to step 13.

11. Service company to fracture treat Lower San Andres perfs at 3203'-3206' with 10,000 gals polyemulsion (2/3 lease crude and 1/3 30 lb gelled 2% KCl water with non-ionic emulsifier) carrying 26,000 lbs 16/30 mesh Vulcan Texsan sand, as follows:

Note: Review the six Notes listed in step 7, page 2.

a. Test all lines to 5000 psi. Install pressure relief valve on treating line and set it to relieve at 5000 psi. Load annulus, if possible, and monitor casing pressure during treatment for any indication of communication.
b. Pump 3500 gals polyemulsion as pad.
c. Pump 1000 gals with 2 ppg of 16/30 mesh sand.
d. Pump 1500 gals with 3 ppg of 16/30 mesh sand.
e. Pump 1500 gals with 4 ppg of 16/30 mesh sand.
f. Pump 1500 gals with 5 ppg of 16/30 mesh sand.
g. Pump 1000 gals with 6 ppg of 16/30 mesh sand.
h. Flush to 3150' (RTTS depth) with 1/4 polyemulsion and 3/4 gelled water. **DO NOT OVERFLUSH.**

i. SI, record ISIP, then flow back within 30 seconds of pump shutdown. Monitor for closure, and continue to flow at a maximum rate of 10 gal/min for 30 minutes after fracture closure. After closure, flow at a maximum rate of 1/2 bbl/min until well dies.

Maximum Treating Pressure = 4500 psi
Maximum Treating Rate = 12 BPM

Minimum Inventory to Have on Location Prior to Treatment:

* 31,500 lbs Vulcan Texsan 16/30 sand.
* Frac tanks with 7,896 gals (188 bbls) lease crude.
* Frac tanks with 4,494 gals (107 bbls) gelled water.
* Firefighting equipment, sample bottles, and Fann 35 viscometer to be supplied by service company.

12. COOH with RTTS & workstring. LD RTTS & GBIH with workstring and CO to top of RBP. COOH. PU 5-1/2" RTTS & RBP setting tool & GBIH on 3-1/2" x 2-7/8" workstring. Reset RBP @ ±3130'. Test to RBP to 500 psi. Reset RTTS @ ±3000'.

13. Service company to acidize new San Andres perfs at 3046'-3096' with 700 gals 15% NEFe HCl acid containing fines suspension agents and clay stabilizers. Test lines to 4000 psi. Max Pressure = 3500 psi. Treating Rate = 8 BPM. Flush to 3096' with produced water.

14. Swab back load from San Andres perfs @ 3046'-3096'.

15. Service company to fracture treat San Andres perfs at 3046'-3096' with 17,000 gallons polyemulsion (2/3 lease crude and 1/3 30# gelled 2% KCL water with non-ionic emulsifier) carrying 44,500 lbs. 16/30 Vulcan Texsan sand as follows:

Note: Review the six Notes listed in step 7, page 2.

a. Test all lines to 5000 psi. Install pressure relief valve on treating line and set it to relieve at 5000 psi. Load annulus, if possible, and monitor casing pressure throughout treatment for any indication of communication.
b. Pump 6000 gals polyemulsion as pad.
c. Pump 2000 gals with 2 ppg of 16/30 mesh sand.
d. Pump 2000 gals with 3 ppg of 16/30 mesh sand.
e. Pump 2500 gals with 4 ppg of 16/30 mesh sand.
f. Pump 2500 gals with 5 ppg of 16/30 mesh sand.
g. Pump 2000 gals with 6 ppg of 16/30 mesh sand.
h. Flush to 3000' (RTTS depth) with 1/4 polyemulsion and 3/4 gelled water. **DO NOT OVERFLUSH.**
i. SI, record ISIP, then flow back within 30 seconds of pump shutdown. Monitor for closure, and continue to flow at a maximum rate of 10 gal/min for 30 minutes after fracture closure. After closure, flow at a maximum rate of 1/2 bbl/min until well dies.

Max. Treating Pressure = 4500 psi
Max. Treating Rate = 15 BPM

Minimum Inventory to Have on Location Prior to Treatment:

* 53,400 lbs Vulcan Texsan 16/30 sand.
* Frac tanks with 12,685 gals (302 bbls) lease crude.
* Frac tanks with 7,014 gals (167 bbls) gelled water.
* Firefighting equipment, sample bottles, and Fann 35 viscometer to be supplied by service company.

16. COOH with RTTS & workstring. LD RTTS & GBIH with workstring and CO to top of RBP. COOH. PU 5-1/2" RTTS & RBP setting tool & GBIH on 3-1/2" x 2-7/8" workstring. Test tubing in hole to 5000 psi. Reset RBP @ ±3020'. Test RBP to 500 psi. Reset RTTS @ ±2730'.

17. Service company to acidize Jackson perfs at 2779'-2984' with 6000 gals Pentol 200 (20% NEFe HCl), diverting with 60 1.3 sg RCN ball sealers, as follows:

a. Pressure test lines to 3500 psi. Load annulus, if possible, and monitor casing pressure throughout job for any indication of communication.
b. Establish pump-in rate with produced water. If 5 BPM rate cannot be established, release pkr and spot 200 gals 15% HCl with fines suspension agents & stabilizers across perfs. Reset pkr and bullhead acid to break down perfs.
c. Pump 1500 gals Pentol 200 (20% NEFe HCl).
d. Pump 3000 gals Pentol 200 (20% NEFe HCl), dropping 60 balls spaced evenly.
e. Pump 1500 gals Pentol 200 (20% NEFe HCl).
f. Flush to 2984' with produced water.

Maximum Treating Pressure = 3000 psi
Maximum Treating Rate = 5 BPM

18. Shut in four hours. Release pkr & knock ball sealers off perfs. Reset pkr & swab back load from Jackson perfs. COOH & LD 5-1/2" RBP & RTTS.

19. PU 7" RBP & RTTS & GIH on 3-1/2" workstring. Test tubing to 5000 psi while going in hole. Set RBP @ ±2530'. Test RBP to 500 psi. Reset RTTS @ ±2465'.

20. RU service company to spot 500 gals 7-1/2% NEFe HCl containing fines suspension agents and clay stabilizers across new Premier perfs at 2509'-2518'. Set packer @ ±2465' & bullhead acid into perfs with produced water. Max Pressure = 3500 psi.

21. Swab back load from Premier.

22. Service company to fracture treat Premier perfs at 2509'-2518' with 10,000 gals polyemulsion (2/3 lease crude and 1/3 30 lb gelled 2% KCl water with non-ionic emulsifier) carrying 26,000 lbs 16/30 mesh Vulcan Texsan sand, as follows:

Note: Review the six Notes listed in step 7, page 2.

a. Test all lines to 4000 psi. Install pressure relief valve on treating line and set it to relieve at 4000 psi. Load annulus, if possible, and monitor casing pressure during treatment for any indication of communication.
b. Pump 3500 gals polyemulsion as pad.
c. Pump 1000 gals with 2 ppg of 16/30 mesh sand.
d. Pump 1500 gals with 3 ppg of 16/30 mesh sand.
e. Pump 1500 gals with 4 ppg of 16/30 mesh sand.
f. Pump 1500 gals with 5 ppg of 16/30 mesh sand.
g. Pump 1000 gals with 6 ppg of 16/30 mesh sand.
h. Flush to 2465' (RTTS depth) with 1/4 polyemulsion and 3/4 gelled water. **DO NOT OVERFLUSH.**
i. SI, record ISIP, then flow back within 30 seconds of pump shutdown. Monitor for closure, and continue to flow at a maximum rate of 10 gal/min for 30 minutes after fracture closure. After closure, flow at a maximum rate of 1/2 bbl/min until well dies.

Maximum Treating Pressure = 3500 psi
Maximum Treating Rate = 12 BPM

Minimum Inventory to Have on Location Prior to Treatment:

* 31,500 lbs Vulcan Texsan 16/30 sand.
* Frac tanks with 7,896 gals (188 bbls) lease crude.
* Frac tanks with 4,494 gals (107 bbls) gelled water.
* Firefighting equipment, sample bottles, and Fann 35 viscometer to be supplied by service company.

23. COOH with RTTS & workstring. LD RTTS & GBIH with workstring and CO to top of RBP. COOH. PU 7" RTTS & RBP setting tool & GBIH on 3-1/2" workstring. Reset RBP @ ±2480'. Test to RBP to 500 psi. Reset RTTS @ ±2300'.

24. Service company to acidize Metex perfs at 2356'-2455' with 1100 gals 7-1/2% NEFe HCl containing fines suspension agents and clay stabilizers, diverting with 45 1.3 SG RCN ball sealers, as follows:

a. Pressure test lines to 4000 psi. Load annulus, if possible, and monitor casing pressure throughout treatment for any indication of communication.
b. Establish pump-in rate with produced water. If 5 BPM rate cannot be established, release pkr and spot 200 gals 15% HCl with fines suspension agents & stabilizers across perfs. Reset pkr and bullhead acid to break down perfs.
c. Pump 275 gals 7-1/2% NEFe HCl.
d. Pump 550 gals 7-1/2% NEFe HCl dropping 45 balls spaced evenly.
e. Pump 275 gals 7-1/2% NEFe HCl.
f. Flush to 2455' with lease produced water.

Maximum Treating Pressure = 3500 psi
Maximum Treating Rate = 6 BPM

25. Release pkr & knock ball sealers off perfs. Reset packer @ ±2300'. Swab back load from Metex.

26. Service company to fracture treat Metex perfs at 2356'-2455' with 20,000 gals polyemulsion (2/3 lease crude and 1/3 30 lb gelled 2% KCl water with non-ionic emulsifier) carrying 67,000 lbs 16/30 mesh Vulcan Texsan sand, as follows:

Note: Review the six Notes listed in step 7, page 2.

a. Test all lines to 4000 psi. Install pressure relief valve on treating line and set it to relieve at 4000 psi. Load annulus, if possible, and monitor casing pressure throughout job for any indication of communication.
b. Pump 6500 gals polyemulsion as pad.
c. Pump 1000 gals with 2 ppg of 16/30 mesh sand.
d. Pump 2000 gals with 3 ppg of 16/30 mesh sand.
e. Pump 2500 gals with 4 ppg of 16/30 mesh sand.
f. Pump 3000 gals with 5 ppg of 16/30 mesh sand.
g. Pump 3000 gals with 6 ppg of 16/30 mesh sand.
h. Pump 2000 gals with 8 ppg of 16/30 mesh sand.
i. Flush to 2300' (RTTS depth) with 1/4 polyemulsion and 3/4 gelled water. **DO NOT OVERFLUSH.**
j. SI, record ISIP, then flow back within 30 seconds of pump shutdown. Monitor for closure, and continue to flow at a maximum rate of 10 gal/min for 30 minutes after fracture closure. After closure, flow at a maximum rate of 1/2 bbl/min until well dies.

Maximum Treating Pressure = 3500 psi
Maximum Treating Rate = 15 BPM

Minimum Inventory to Have on Location Prior to Treatment:

* 80,500 lbs Vulcan Texsan 16/30 sand.
* Frac tanks with 15,582 gals (371 bbls) lease crude.
* Frac tanks with 7,938 gals (189 bbls) gelled water.
* Firefighting equipment, sample bottles, and Fann 35 viscometer to be supplied by service company.

27. COOH with RTTS & workstring. LD RTTS & GBIH with workstring and CO to top of RBP. COOH. PU 7" RBP setting tool & RTTS & GIH on 3-1/2" workstring. Test tubing in hole to 5000 psi. Set RBP @ ±2330'. Test to RBP to 500 psi. Reset RTTS @ ±2200'.

28. Service company to acidize Loco Hills perfs at 2258'-2291' with 800 gals 7-1/2% NEFe HCl acid containing fines suspension agents and clay stabilizers, diverting with 12 1.3 sg RCN ball sealers, as follows:

a. Pressure test lines to 4000 psi. Load annulus & pressure to 500 psi. Monitor casing pressure throughout treatment for any indication of communication.
b. Establish pump-in rate with produced water. If rate of 5 BPM cannot be established, release pkr and spot 200 gals 15% HCl with fines suspension agents and stabilizers across perfs. Reset pkr @ 2200' and bullhead acid to break down perfs.

c. Pump 200 gals 7-1/2% NEFe HCl acid.
d. Pump 400 gals 7-1/2% NEFe HCl acid, dropping 12 balls spaced evenly.
e. Pump 200 gals 7-1/2% NEFe HCl acid.
f. Flush to 2291' with produced water.

Maximum Treating Pressure = 3500 psi
Maximum Treating Rate = 5 BPM

29. Release pkr. Knock ball sealers from perfs at 2258'-2291'. Reset packer @ ±2160' & swab back load from Loco Hills perfs.

30. Service company to fracture treat Loco Hills perfs at 2258'-2291' with 13,500 gallons polyemulsion (2/3 lease crude and 1/3 30 lb gelled 2% KCl water with non-ionic emulsifier) carrying 37,000 lbs 20/40 mesh Vulcan Texsan sand, as follows:

Note: Review the six Notes listed in step 7, page 2.

a. Test all lines to 4000 psi. Install pressure relief valve on treating line and set it to relieve at 4000 psi. Load annulus, if possible, and monitor casing pressure throughout treatment for any indication of communication.
b. Pump 4500 gals polyemulsion as pad.
c. Pump 500 gals with 1 ppg of 20/40 mesh sand.
d. Pump 1000 gals with 2 ppg of 20/40 mesh sand.
e. Pump 1500 gals with 3 ppg of 20/40 mesh sand.
f. Pump 2000 gals with 4 ppg of 20/40 mesh sand.
g. Pump 2000 gals with 5 ppg of 20/40 mesh sand.
h. Pump 2000 gals with 6 ppg of 20/40 mesh sand.
i. Flush to 2160' (RTTS depth) with 1/4 polyemulsion and 3/4 gelled water. **DO NOT OVERFLUSH.**
j. SI, record ISIP, then flow back within 30 seconds of pump shutdown. Monitor for closure, and continue to flow at a maximum rate of 10 gal/min for 30 minutes after fracture closure. After closure, flow at a maximum rate of 1/2 bbl/min until well dies.

Max. Treating Pressure = 3500 psi
Max. Treating Rate = 10 BPM

Minimum Inventory to Have on Location Prior to Treatment:

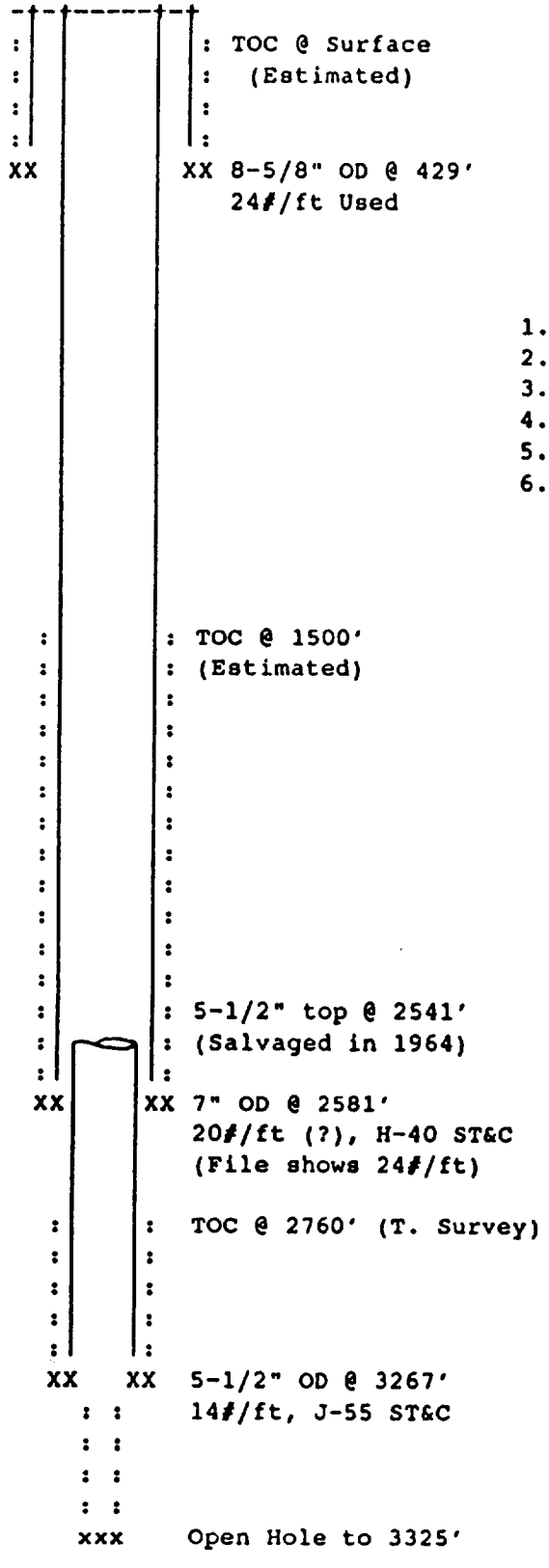
* 44,400 lbs Vulcan Texsan 20/40 sand.
* Frac tanks with 10,374 gals (247 bbls) lease crude.
* Frac tanks with 5,124 gals (122 bbls) gelled water.
* Firefighting equipment, sample bottles, and Fann 35 viscometer to be supplied by service company.

31. COOH with RTTS & workstring. LD RTTS & GBIH with workstring and CO to top of RBP. COOH. PU 7" RBP setting tool & GBIH & retrieve RBP. COOH & LD RBP. GBIH with workstring & clean out to TD, if necessary. COOH & LD workstring.

32. PU & GIH with 2-3/8" production string. Remove BOP and run rods and pump. Place well on production & report daily tests on DDR.

PHILLIPS PETROLEUM COMPANY--PERMIAN BASIN REGION

RKB@_____
CHF@_____
GL@ 3594'



Area North Date: March 11, 1991
Subarea Loco Hills
Lease & Well No. Burch "C" Fed. #4 NOT A CATEGORY WELL
Legal Description 1980' FEL & 1980' FSL, Section 23, T-17-S & R-29-E, Eddy County, New Mexico
Field Grayburg-Jackson
Status Pumping 4.8 BO, 1.5 BW & 7.1 MCF (Test 6-23-89)
Tubing: 2-3/8", 4.7# J-55 @ 3251'
Packer: None
Tubing Head: Not shown in records

Stimulation History:

	Interval	Date	Type	Gallons	Lbs. Sd	MP	ISIP	IR
1.	2591'-2915'	12/42	acid	500	---	?	?	?
2.	2591'-2915'	12/42	acid	1000	---	?	?	?
3.	2591'-2915'	12/42	acid	2000	---	?	?	?
4.	2591'-2915'	12/42	acid	3500	---	?	?	?
5.	3267'-3325'	5/56	20%	882	---	1900	1200	?
6.	3267'-3325'	5/56	FRAC	35,000	54,000	2200	1600	26

Hole/Casing Condition: As shown. Drilled 1942. Deepened in 1956. Salvaged top 2541' of 5-1/2" in 1964.

Workover Proposal: Add 60' open hole & perforate the San Andres, Jackson, Premier, Metex & Loco Hills zones. Treat each zone and return well to production.

Recommended Procedure: See Attached.

	5-1/2" 14#/ft J-55	7", 20# H-40
ID	5.012"	6.456"
Drift	4.887"	6.331"
Collapse	2,940 psi	1,860 psi
Burst	4,000 psi	2,550 psi
Tension	105,000 lbs	117,000 lbs

	2-3/8" 4.7#, J-55	3-1/2" 9.3#, N-80	2-7/8" 6.5#, N-80
ID	1.995"	2.992"	2.441"
Drift	1.901"	2.867"	2.347"
OD Cplg	3.063"	4.500"	3.668"
Collapse	7,040 psi	9,160 psi	9,710 psi
Burst	6,290 psi	7,950 psi	8,270 psi
Tension	47,700 lbs	133,700 lbs	93,500 lbs