APPROVED BY	TITLE		г	DATE 12-4-54	, ,
hereby certify that the foregoing is true and correct SIGNED I The Market Signature This space for Federal or State office use)	TITLE Eng	ineering Tech III	I	DATE 12/1/86	
					and a second sec
				- 1 9 2 1986 - 1	
SEE ATTACHED PROCEDURE			, A		
nent to this work.					
Other) Complete Queen & Penrose DESCRIBE PROPOSED OR COMPLETED OFERATIONS (Clearly St proposed work. If well is directionally drilled, give nent to this work.) •	XX tate all pertinent subsurface location	Completion or Rec	completion Re	lpie completion on We port and Log form.) g estimated date of si for all markers and a	
FRACTURE TREAT MULTIPLE COMPLET SHOOT OR ACIDIZE ABANDON® REPAIR WELL CHANGE PLANS	ε	FRACTUBE TREATMENT Shooting or acidizing (Other)		ALTERING CASING ABANDON MENT [®]	
NOTICE OF INTENTION TO : TEST WATER SHUT OFF	ING []	SUI Water Shut-Off	BSEQUENT BEP	ORT OF: REPAIRING WELL	[]
Check Appropriate Box 3	To Indicate No	ature of Notice, Report,	or Other D	ata	
	Show whether DF. Unk <u>nown</u>	RT, GR. etc.)	5ec 12. co Edd	29, T-18-S, UNTY OB PARISH 13.	R-31-1 state N.M.
330' FSL & 1650' FEL, Sec. 29,	T-18-S, R-	-31 - E	11. 58	C., T., B., M., OR BLE. AN Subvey or Area	
21 Desta Drive, Midland, Texas LOCATION OF WELL (Report location clearly and in accor See also space 17 below.) At surface	79705 dance with any s	State requirements.		ELD AND POOL OR WILL Int (Y, SR, Q, G)	DCAT
Southland Royalty Company		DEC -8 1986		igart "A"	
ALL XXX WELL OTHER		RECEIVED BY		T AGREEMENT NAME	
CDG not USP this form for proposals to drill or to C USP "APPLICATION FOR PERMI	deepen or plug ba	ick to a different reservoir	ſ	INDIAN, ALLOTTRE OR T	LIDE N. L

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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.

Shugart A #3

- 1. MIRUPU. Unload ± 3800' 2 3/8" workstring. ND wellhead. NU BOP.
- RIH w/pkr & RBP & set RBP @ ± 2400⁻. Set pkr & press test RBP to ± 1000#. Spot ± 20' sand on top RBP. Press test csg to 500# to check for holes. POH w/pkr.
- 3. RU electric line. Perf two sqz holes @ 850' w/4" OD csg guns.
- 4. Tie onto 5 1/2" csg. Break circ between 5 1/2" & 8 5/8" csg. Circ out \pm 50 bbl prod wtr. Low-press cmt sqz by pmpg \pm 165 sx Cl "C" w/2% CaCl & displ w/ \pm 20 bbl in order to leave 50' cmt in 5 1/2" csg. Close in bradenhead & obtain \pm 500 psi sqz. SION.
- 5. RU reverse unit. Set 1-500 bbl steel tank & load w/prod wtr. RIH w/4 3/4" bit w/ \pm 6-3 1/2" DC. DO cmt. Press test sqz to \pm 500#. POH w/bit.
- 6. RIH w/RBP catcher & circ snd off & POH w/RBP.
- 7. RIH w/bit w/±6-3 1/2" DC's. DO cmt @ 5 1/2" csg shoe @ 2694'. CO probable cmt, wood & gravel in open hole to original TD @ 3763'. Circ hole clean w/prod wtr. POH w/bit.
- 8. Unload <u>+</u> 3800' 4" flush joint csg. Drift & visually inspect @ location. PU & RIH w/4" full-length liner.
- 9. Circ annular volume twice to clean hole. While rotating the 4" liner, cmt in place w/±500 gals reactive spacer + 475 sx 50/50 pozmix Cl "C" cmt. Cmt volume designed to circ to surf w/50% excess in open hole & 25% excess in cased hole.
- 10. Install 4" x 5 1/2" 2000# csg head. Cut off excess 4" liner. SION.
- 11. RU reverse unit. RIH w/bit. Clean & DO cmt to float shoe. Circ hole clean w/2% KCl. POH w/bit & LD workstring.
- 12. RU electric line. Run GR-CNL-CCL from PB to \pm 2000'. Run CBL log from PB to \pm 2000' w/both O and \pm 1000# press.
- 13. RDPU for preparation of completion procedure & obtain stimulation bids. Pick perfs & determine if channels exist & if cmt sqz is needed.
- 14. Based on offset wells, 3 intervals (lower Penrose (± 3650) , Upper Penrose (± 3500) & Queen (± 3250)) will be separately completed. Each should involve ± 20 ' of perfs, ± 2000 gals acid clean ups & $\pm 25,000$ gals 30 ppg cross-linked 2% KCl wtr & $\pm 60,000$ # 20/40 snd frac jobs. Shown below is a general procedure for one interval:
 - a. Perf <u>+</u>20' w/3 1/8" OD csg guns @ 2 JSPF.
 - b. RIH w/pkr to btm perf. Spot \pm 200 gals 15% HCl.
 - c. Breakdwn perfs & acdz w/<u>+</u>2000 gals 7 1/2% HCl + additives + RCNBS @ minimum 4 BPM.
 - d. Swb back acid load & test.
 - e. If needed, frac dwn 2 3/8" tbg w/± 25,000 gals 30 ppg cross-linked 2%
 KCl wtr + 60,000# 20/40 sd @ ± 10 BM. Flush w/slick 2% KCl wtr.
 - f. Pull & set RBP above perfs. Press test. POH w/pkr.
 - g. Repeat step #14 for each zone.
- 15. POH w/pkr & RBP. LD & truck away workstring.
- 16. MIRUPU on Shugart A #5. POH & LD insert pmp & steel rods. POH & LD 2 3/8" tbg. RDPU. Leave well shut-in. Move tbg & rods to #3.
- 17. PU & RIH w/prod tbg from #5 as follows: ±3100', ±100 jts 2 3/8" tbg, cup type SN @ ±3100', 1-2 3/8" x 4' perf sub @ ±3101' & 1 jt 2 3/8" mud anchor w/bull plug to ± 3131'.
- 18. RIH w/pmp & rods from #5 as follows: 25'-1" x 1 1/4" polish rod, 3050' -122-3/4" steel rods (grade D) & 1-2" x 1 1/2" x 12' insert pmp. RDPU.
- 19. Transfer from Shugart "A" #5 a Conventional Cabot 57-95-48 pmpg unit & 15 hp electric motor & set on subject well. Tie into electric system. Set on full 48" storke & ± 10 spm.
- 20. Tie flowline to pmpg tee. Hook up portable tester. Start well pmpg. Report daily tests. When frac snd stops being prod, lower pmp to below btm perf.