

WELL ABANDONMENT PROCEDURE

WELL: New Mexico "K" State No. 22 **DATE:** 02/17/87

OBJECTIVE: To plug and abandon well.

BACKGROUND: While preparing to stimulate well, it was determined that the 4-1/2" production casing was parted. Since the acid job planned for this well will not increase production enough to justify repairing the parted casing, it is recommended to plug and abandon the well.

Formation psi: <u><500</u> #	Prod. Csg.: 4-1/2", 9.5# & 11.6#
W.O. Fluid: <u>9.5</u> ppg, <u>BWM</u> type	Minimum Drift ID: <u>3.875</u> "
Max Anticipated SITP: <u><500</u> #	Max Burst (w/ 1.1 sf): <u>3980</u> #
BOP Class: I II <u>III</u> IV	H ₂ S: <u>3000</u> ppm
BOP Variances Apply: <u>Yes</u> No	BOP Service: Sweet <u>Sour</u>
	High Risk H ₂ S Equip Req: <u>Yes</u> No

PROCEDURE:

NOTE: Contact the State of New Mexico Oil Conservation Division 24 hours prior to beginning actual plugging operations.

INSTALL A CLASS III BOP AND TEST PER COMPANY GUIDELINES.

1. MIRU WSU. Pick up muleshoe and TIH on 2-3/8" tubing string to approximately 6150'. Suspected casing part is at 2400'; work pipe carefully through this spot to avoid getting outside of casing. If unable to work tubing through casing part, proceed with step No. 4.

2. If able to work pipe through part in casing to desired depth, spot a 25 sx balanced cement plug across the Glorieta perfs from 6150'-5790' using 25 sxs of class "C" neat cement (14.8 ppg, 1.32 cfps, 6.30 gps water required). Precede cement with 5 bbls fresh water and displace cement with 2 bbls fresh water followed by 20.5 bbls brine mud.

3. Pull up hole to 2800' - or approximately 400' below casing part at 2400'. Spot a second 25 sx balanced cement plug inside the 4-1/2" casing from 2800' up to 2440' as above. After spotting plug, pick tubing up through casing part and reverse circulate cement above parted section out of the hole. POH with tubing. Nipple down BOP and tubinghead.

4. Weld 4-1/2" lift sub to top of 4-1/2" casing. Install a class III BOP with 4-1/2" pipe rams on top of the A-section. Rig up 4-1/2" casing pulling equipment. Try to pull 4-1/2" casing free. (Suspected casing part is at 2400'. Air weight of 4-1/2" casing above part is 28000#.) If initially unable to pull casing free, tie pump truck into 4-1/2" casing and try to establish circulation down casing and up 4-1/2" by 8-5/8" casing annulus. If unable to get returns to surface, try to reverse fluids down casing annulus and up 4-1/2" casing string. Circulate behind pipe at least one annular volume, then re-try pulling out of hole with free 4-1/2"