



614 PATTON ROAD P.O. DRAWER 1367
GREAT BEND, KANSAS 67530
PHONE (316)793-5610

TO: MOHAWK DRILLING, INC.
PO Box 1362
GREAT BEND, KANSAS 67530

RE: BROUGNER OIL, INC.
#1 HAMPEL
SW NW NW
SEC 34-17s-15w
BARTON COUNTY, KANSAS
API#: 15-009-23,924

Gentlemen:

Following are the geologic requirements on the above well, and should be observed, unless otherwise instructed by the operator.

1. DRILLING TIME: One foot: 2900 FEET TO TOTAL DEPTH
2. SAMPLES: Ten foot: 3000 FEET) Dry all samples. Start WET samples
Five foot: AT GEO'S REQUEST) at 3000'.

DRILLERS: a.) Fill out complete headings on all drilling time sheets, b.) Record any rough drilling (R-Rough, SR-Slightly Rough, T-Torque), c.) Record mud checks and any mud additives on the drilling time sheet.

3. *MUD: By ~~XXXXX~~ 3200 feet. The mud and hole should be in condition to DST, log, and conduct any other normal operations required by the operator.
4. MEASUREMENT: a.) Strap pipe on last trip above 3000 feet, or on first DST. DO NOT CORRECT BOARD.
b.) Straight hole surveys should be made at regular intervals and at Total Depth.
5. CALL POINT: 3000 AND 3100 FEET
6. STOP POINT: 3315 FEET
7. MICL: a.) *Mud Properties: should be maintained at all times as follows:
VISCOSITY: 42-45 IN LANSING-KANSAS CITY, 46-52 AT 3520' TO TOTAL DEPTH.
WEIGHT: 9.0-9.4
WATER LOSS: 9-13
Follow treatment recommendations of mud engineer. There should be no excuse for mud not being in shape for samples, DST's, logs, etc.
b.) Record and call-in the top and base of the Anhydrite (Stone Corral). This slow drilling break should be at 1040 feet if present.
8. WE COULD NOT GET TO BOTTOM WITH THE LOG ON THE #1 SCHREIBER. WE HIT A BRIDGE AT 3531 (CONGLOMERATE). MAKE SURE YOU KEEP A CLOSE EYE ON THE MUD PROPERTIES.
9. GL:1997 DF:2005 KB:2007

CHEMICAL MUD

10. EXPECTED TOPS: TOPEKA 2995
HEEBNER 3227
LANSING 3305
BKC 3521
ARBUCKLE 3548

Sincerely,
Brent B. Reinhardt
Brent B. Reinhardt
Geologist (Mob Unit No.): 792-0784
(O): 316-793-5610
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