COMPANY SIRGO OPERATING, INC.
WELL WEST PEARL QUEEN UNIT NO.193
LOCATION SECTION 28 TWP. 19S RGE. 35E
COUNTY LEA STATE NEW MEXICO
ELEVATION DR. GL 3712' KB
SUPERVISING ENGR. M.L. PIERCE
DEPTH LOGGED FROM 4300' TO 5075'
DATE LOGGED FROM 5-12-90 TO 5-15-90

NRB — NEW BIT
DCR — DIAMOND CORE BIT
DST — DRILL STEM TEST
NR — NO RETURN
CO — CIRCULATED OUT

MORCO GEOLOGICAL SERVICES

SAND · LIMESTONE · GRANITE WASH · SILTSTONE · DOLOMITE · CONGLOMERATE · SHALE · ANHYDRITE · CHERT

GAS CHROMATOGRAPH ANALYSIS
METHANE · BUTANE · ETHANE · PENTANE · PROPANE

DRILLING RATE (MIN/FT, FT/HR) · TIME BRKDN · LITHOLOGY · LATCHED FLOW · OIL STAIN · HYDROCARBON ANALYSIS LOG · MAIN SERVICE CHROMATOGRAPH · TOTAL GAS · REMARKS (W V F CK PH CL)

8:00AM 5-12-90 MET AT 4400
BIT NO.4 7 7/8"
MAKE UP: NO DEVIATION 1.5 DEG
IN 4 HRS
PETERSON RIG 2
DEV AT 4852 1/4°
4300

BEGIN ONE MAN LOGGING 11:45 MST 5-12-90
RIG SAMPLES
HOT WIRE CALIBRATION
% CH4 = 100 UNITS
CHROMATOGRAPH TEST
C1 = 245
C2 = 350
C3 = 290
C4 = 175
C5 = 20
DRILLING WITH BRINE

MUD: 8.6PPG
RPM: 55
SPM: 90
SPP: 1000
4400

MW 8.6
VIS 29
FW NC
PH 9.0
CL 200000

4500

SWITCH TO MORNING TOURS
BEGIN MIDDOWN II

4600

4700

MUD: 10.0PPG
RPM: 55
SPM: 90
SPP: 1300

MW 10.3
VIS 32
FL 4
PH 9
CL 194000

4800

NOTE — CORRECT PIPE TALLEY MINUS 17'

4900

5:15-90

5000

5:15-90 8:00AM 5-15-90

PREPARE TO RUN E-LOGS

DOLO: beige, lt brn, tan, off wht, vfn to micro xln dns, frm to hrd, v/ anhy sm sil sndy inprt

ANHY: clr, wht, off wht, vinto fn xln, sm massive

SS: lt gry, vfn grn, wll srtd, sub ang to sub rndd ~~fair fr to mod cemn~~, sm frts in prt

DOLO: crm, tan,off wht, wht, sm lt brn, lt gry, pred micro xln, sm vfn xln, dns, frm to hrd, v/ anhy sm grdg to sndy dolo

SS: lt gry, vfn grn, wll srtd, sub ang to sub rndd fr to mod cemn, sm frts, v/ dolo

DOLO: lt gry, crm, buff, off wht, wht, sm lt brn, vfn to micro xln, dns, frm, sm v/ sndy

SS: same as above, lt gry, clr, sm frstd, vfn grn, wll srtd, sub ang to sub rndd, v/ dolo, no floor, no cut

ANHY: clr, wht, off wht, sm crm, vfn to fn xln, sm massive

ABUNDANT CAVINGS

SS: lt gry, vfn grn, wll srtd, sub ang to sub rndd fr to mod cemn, sm frts, v/ dolo

DOLO: crm, buff, off wht, wht, lt brn, vfn to micro xln, dns, frm to hrd, sm v/ sndy in prt

CHRT CHECK

DOLO: beige, tan, buff, off wht, micro xln, sm vfn xln dns, frm to hrd, v/ anhy, sm sndy inprt

50% OF SAMPLE IS CAVINGS

DOLO: beige, tan, off wht, vfn to micro xln, dns, fr to hrd, v/ anhy, tr sndy in prt

SS: tan, pink off wht, vfn grn, wll srtd, frm, sub ang to sub rndd, fair, v/c dolo inprt, grding to dolo snd

DOLO: beige, off wht, buff, tan, tr lt gry, vfn to micro xln, dns, frm to hr v/ sndy inprt

DOLO: buff,tan, beige, off wht, vfn to micro xln, dns frm to hrd, sm v/ sndy

SS: same as above, tan, pink lt gry, sm lt brn, vfn grn, wll srtd, ch floor, no cut

SS: lt gry, clr, gry-wht, vfn grn, wll srtd, frm, sm frts, gd odor, tr dull floor, trdull yell dry cut

DOLO: crm, tan, off wht, wht, beige, vfn to micro xln,dns, frm to hrd, sndy inprt

SS: lt gry, vfn grn, wll srtd sub ang to sub rndd, sm frts, v/ dolo

DOLO: same as above, becoming more gry, sm v/ sndy

SS: lt off, off wht, clr, sm frstd, vfn grn, wll srtd poorly indurated, sft to fr frm, sm slt frts, v/ dolo

SS: lt gry, off wht, clr, vfn grn, wll srtd, poorly indurated, abundant loose grns, occ bldg gas, 20% dull to bright yell floor gd milky dry cut

DOLO: crm, beige, off wht, vfn to micro xln, dns, frm to hrd, v/ sndy, grdg frm sndy dolo to dolo snd

SS: crm, lt gry, vfn grn, wll srtd, fr to mod indurated, sub ang to sub rndd, v/ lt dolo in prt

DOLO: same as above, crm, off wht, grdg to sndy dolo

SS: crm, vfn grn, wll srtd fr to mod indurated, sub ang to sub rndd, frm to sm frts, v/ dolo, grdg to sndy dolo

DOLO: crm, off wht, vfn xln dns, frm, v/ sndy, grdg to dolo snd

SS: crm, clr, vfn grn,wll srtd, sub ang to sub rndd fr, frm frts inprt, v/ sndy grdg to dolo snd

DOLO: crm, off wht, vfn xln dns, v/ cln, v/ sndy grdg to dolo snd

SS: crm, vfn grn, wll srtd fr to mod indurated, v/ dolo grdg to sndy dolo

DOLO: crm, off wht, vfn xln, dns,frm, v/ cln, v/ sndy