ROCKY MOUNTAIN GEO-ENGINEERING CO.

MELL SITE GEOLOGY - MUD LOGGER
3400 INDUSTRIAL BLVD. PHONE (505) 326-5244 GRAND JUNCTION, CO 81506

RECEIVED
JUN 4 1990
OIL CON. DIV.
DIST. 3

COMPANY	MERRIMAC/BALLARD/MAP	LOCATION	Sec.10-T23N-R13W
WELL	Sta Mia. Ute 20-14		1847' FSL 1112' FWL
		COUNTY	San Juan
FIELD	Verde	STATE	New Mexico
ELEVATION	GL-5557'	DRILLING FLUID	BHC (Bentonite Control)
	KB-5568.5		

FROM	12	DEPTH LOGGED	6236
TO	6232	DATE LOGGED	5/26/90 - 6/4/90

ENGINEERS GENARO ESPINOZA, DEAN GARCIA
GEOLOGIST DEAN GARCIA

SHALE | DOLOMITE | COAL
SANDSTONE | CHERT | MINY CHIP
LIMESTONE | SALT | SILTSTONE

DRILLING RATE IN MINUTS PER

CTS - CRUM THE SAND	TS - THE SAND		
SS - SANDSTONE	SH - SHALE		
WA - WITH LAND SAND	WS - WITH SAND		
LS - LIMESTONE WITH THE	LW - LIMESTONE		
DL - DOLOMITE WITH THE	DW - DOLOMITE		
TR - TRACE/SHOWING	NS - NO SAMPLE		
NO - NO SHOW	NF - NO FLUORESCENCE		
WF - WEAK FRESCENCE	SF - STRONG FLUORESCENCE		
CUT - CUT	FLOW - FLOWING		
OIL - OIL	GAS - GAS		

CHROMATOGRAPH HYDROCARBONS IN PPM

TOTAL GAS	C1	C2	C3
0	0	0	0

BHCE FLL: Dwin KCl Gel Gas
& Bentn by Ceo 5/29/90

9 5/8" Casing Set @ 6433'

Catching 10" Lagged Samples

NOTE: CHANGED OVER MUD
BEING DECLARE OFFICIAL
(BLANKET PAGES)

BO, w/dbcon, sbplty, fine-vf,
sub, slsbrk,tr sbrk & gyl

CONNECT

CONNECT

BR, dbpp,dbphbrn,sbblkp-
sbplty,ftm,sbltp lp,mica-
sub,fim,sslc

BR, dbpp,dbphbrn-sbplty-
vfbp,mica,sltp lp,sub-
sbrk,fim,sslc,tr sbrk

BR, dbpp,dbphbrn-sbplty-
vfbp,mica,sltp lp,sub-
sbrk,fim,sslc

SLTSTN, lt-mg,arn,sdy,sbpl
ccls,fm SDL VSL PLAN,NOD,
SDM STRNG CUT

BR, dbpp,dbphbrn,blk,sbblkp-
sbplty,ftm-vf,sub-sbrk,
fim,sslc,fnsm,SH VSL PLAN

SLTSTN, lt-mgy,gybrn,sdy,
sdy,tr SRC DMND MNRL PLAN,
NOSW VSL CUT,NO SDM

BR, dbpp,gybrn,sbblkp-sbplty
vfbp,sltp lp,sub-fim,sslc

BR, wh,dk-lt-tgy,sft-fpr,vert,
sub-sbrk,sbplty,sbltp lp,
LMNGLAM PLAN,SLW LMNG
STRNG CUT,I SHOWN OIL STN,
P-F VIS SOM

6.6 36 40 -- 15.3
<0.1 34-50 0-40 C1-C5

BR, dbpp,gybrn,mgy,sdy-
sbplty,sbltp lp,sub-fim,sslc
tr gyl & sltbr,sub,sbrk,tr
sbrk,SOFT CALC FRAC PLY
PLAN,SLW LMNG STRNG
CUT,fnsm

SLTSTN, mgy,dbpp,gybrn-
sbplty,sbltp lp,vf-fim,sslc
tr mica & gyl,SH VSL VSL
PLAN,SLW LMNG STRNG
CUT

BR, lbpp,wh,m-dbpp,vf-fpr,
vert,sub-sbrk,sbplty,sbltp
tr mica,P-F VIS POR,VSL
PLAN,SLW LMNG STRNG CUT

BR, AA,vbpp lp

SLTSTN, AA

BR, dbpp,dbpp,mgy,sbblkp-
sbplty,sbltp lp,sub-fim,
sub-sbrk,tr gyl & mica,sbr
ss stry,TR CALC FRAC PLY
PLAN,SLW LMNG STRNG
CUT

SLTSTN, mgy,lbpp,wh,vf,vert,
sub-sbrk,sbplty,sbltp lp,
sub-fim,tr CUT & PLAN AA

BR, dbpp,dbpp,mgy,sbblkp-
sbplty,sbltp lp,sub-fim,
sub-sbrk,tr gyl,tr mica,
sbr ss stry,TR CALC FRAC PLY
PLAN,SLW LMNG STRNG
CUT

SLTSTN, m-dbpp,gybrn,sbplty
sbblkp,vft-fim,sslc,sub-
sub-fim,tr CUT & PLAN

BR, dbpp,dbpp,lsbr-sbplty,
lsbr-sbplty,fim-vf,sub-
sbrk,sbplty,sbltp lp,tr
sbr ss stry,TR CALC FRAC PLY
PLAN,SLW LMNG STRNG
CUT

SLTSTN, m-dbpp,dbpp,mgy,
sub-fim,sslc,sbrk

NOTE: PASS BTL QUIT

BR, gybrn,m-dbpp,sbblkp-
sbplty,ftm-vf,sub-sbrk,
sbltp lp,sub-sbrk,tr gyl
tbr ss stry,sub lmp,NFSOC

SLTSTN, m-dbpp,sbblkp,ftm-
vf,sub-sbrk,sbltp lp,
w-sub,sbrk,tr gyl,NFSOC

BR, gybrn,m-dbpp,sbplty
sbltp,ftm-vf,sub-sbrk,
sub-fim,sslc,tr gyl

TR BR, m-lbpp,vfpr,vert
w-sub,sub,gyl,NFSOC

BR, gybrn,m-dbpp,sbplty
sbltp,ftm-vf,sub,sslc,
tr gyl,NFSOC

TR BR, m-lbpp,vfpr,vert
sub,sub,gyl,NFSOC

BR, gybrn,m-dbpp,sbplty
sbltp,ftm-vf,sub,sslc,
sub-fim,tr lsbr

BR, dbpp,dbpp,blk,sbplty
sbblkp,ftm,sbltp,sub,sslc
fim,sslc,tr lsbr

BR, dbpp,dbpp,blk,sbplty
sbblkp,ftm,sbltp,sub,sslc
tr lsbr,sslc,fim,SH VSL
CUT,NO SDM

BR, dbpp,dbpp,blk,sbplty
sbblkp,ftm,sbltp,sub,sslc
fim,sslc,tr lsbr

BR, dbpp,dbpp,blk,sbplty
sbblkp,ftm,sbltp,sub,sslc
tr lsbr,sslc,fim,SH VSL
CUT,NO SDM

BR, wh,lbpp,vf-fpr,shmg
vert,sub-sbrk,sbplty,ftm
sbltp,sub,sbrk,tr gyl
sbr ss stry,PRT SOLDRL
PLAN,SLW SDM STRNG CUT

BR, wh,lbpp,vf-fpr,
shmg,vert,sub-sbrk,
sbplty,ftm,sbltp,sub
sbrk,tr gyl,PRT SOLDRL
PLAN,SLW SDM STRNG CUT

BR, wh,lbpp,vf-fpr,shmg
vert,sub-sbrk,sbplty,ftm
sbltp,sub,PRT SOL PLAN,SLW
SDM STRNG CUT

BR, dbpp,dbpp,mgy,
sdy,sub,fm,sslc

NOTE: BLEEDING BACK MUD
FROM DRILL STEM TEST ZONE
(MUD LOOK LIKE DRILL MUD)
& FRAC SAND IN GOOD
SHOW OF OIL & GAS 5-3

BR, dbpp,dbpp,dbpp,dbpp
sbplty,ftf-mf,sub,sslc,sub,
fim,sslc,tr gyl,tr sbr ss
lmn,fim sa sslc,SOFT FRAC
PACK,SLW SH BLEED CUT

BR, dbpp,dbpp,dbpp,sbplty
fim-vf,sub-fim,sslc,sub-
shg,vert,post-sucrose,sslc,
sub,sbr ss stry,SOFT FRAC
PACK,SLW SH BLEED CUT
SH-P VIS SOM

BR, mmbp,tan,sub,tsmal,sltr
f-vf+sub sgr,sbrk,sub-gsmn
sbrk,sbplty,sbltp lp,sub-
lim SDL PLAN,SLW SH BLEED
CUT,P VIS SOM

BR, dbpp,dbpp,sbblkp-
sbplty,ftm-fmf,sub-
sbrk,sbplty,sbltp lp,sub-
fim,sslc,tr gyl,tr sbr ss
lmn,fim sa sslc,NO SHOW
BEED,TR PLAN

SLTSTN, lt-mgy,tan,sub-
m-vert,shmg,sucrose,sslc,
sub,sbr ss stry,SOFT FRAC
PRT SDM BLEED,SLW SH
POR

BR, dbpp,dbpp,blk-sbplty
sbplty,sbltp lp,sub,sslc-
fim,tgy-tsslc,fnsm

SH, BOT CONC SP PASSE TO
TRIP

BR, dbpp,lt-mgsbrn,sbplty
sbltp,sub,sbrk,tr gyl,sub
to sbrk,tr gyl,tr sbr ss
lmn,fim sa sslc,SH VSL
TR SOLDRL PLAN,SLW SH LP
VIS STRNG CUT

BR, gybrn,lbpp,fm-mf,
sub-sbrk,sbplty,sbltp lp
tr SPKL,SOFT SOLDRL PLAN
SLW LPVIS STRNG CUT,P-
VIS POR

BR, gybrn,blkp-sbplty,bd,
sbrk,sbplty,sbltp lp,
sub-fim,sslc,tr gyl,sub-
lsl,fim,tr SHOWN LPVIS
PLAN,SH VSL SDM CUT

BR, gybrn,m-f-mmc sgr,sub-
sbrk,sbplty,sbltp lp,
sub,CUT & PLAN AA,sh lsl

6.8 44 21 2 5.5

BR, gybrn,blkp-sbplty,bd,
slsbrk-sub,sbrk,sbplty,
sbltp lp sub sslc,TR PLAN
SH SDM STRNG CUT

BR, lt-dbpp,tsmal,vf-mmc
sbmg,m-sub,sub,sub,sbrk
sbplty,sbltp lp,sub-fim
sslc,TR PLAN,SH SOLDRL
PLAN,SH VSL SDM CUT

BR, dbpp,dbpp,dbpp,sbblkp
sbplty,ftm,sbltp,sub,sslc
fim,sslc

BR, dbpp,dbpp,dbpp,sbplty
sbltp,ftm,sbltp,sub,sslc
fim,sslc

BR, lt-dbpp,mm,tsmal,
f-mgr,sub sgr,sub,sub,
sub-sbrk,sbplty,sbltp lp
tr sbr ss lmn,fim,SOLDRL
TR SOLDRL PLAN,SH LP
VIS STRNG CUT

BR, gybrn,lbpp,fm-mf,
sub-sbrk,sbplty,sbltp lp
tr SPKL,SOFT SOLDRL PLAN
SLW LPVIS STRNG CUT,P-
VIS POR

BR, gybrn,blkp-sbplty,bd,
sbrk,sbplty,sbltp lp,
sub-fim,sslc,tr gyl,sub-
lsl,fim,tr SHOWN LPVIS
PLAN,SH VSL SDM CUT

BR, gybrn,m-f-mmc sgr,sub-
sbrk,sbplty,sbltp lp
sub,CUT & PLAN AA,sh lsl

6.8 44 21 2 5.5

BR, gybrn,blkp-sbplty,bd,
slsbrk-sub,sbrk,sbplty,
sbltp lp sub sslc,TR PLAN
SH SDM STRNG CUT

BR, lt-dbpp,tsmal,vf-mmc
sbmg,m-sub,sub,sub,sbrk
sbplty,sbltp lp,sub-fim
sslc,TR PLAN,SH SOLDRL
PLAN,SH VSL SDM CUT

BR, dbpp,dbpp,dbpp,sbplty
sbltp,ftm,sbltp,sub,sslc
fim,sslc

BR, dbpp,dbpp,dbpp,sbplty
sbltp,ftm,sbltp,sub,sslc
fim,sslc

BR, mmbp,tan,sub