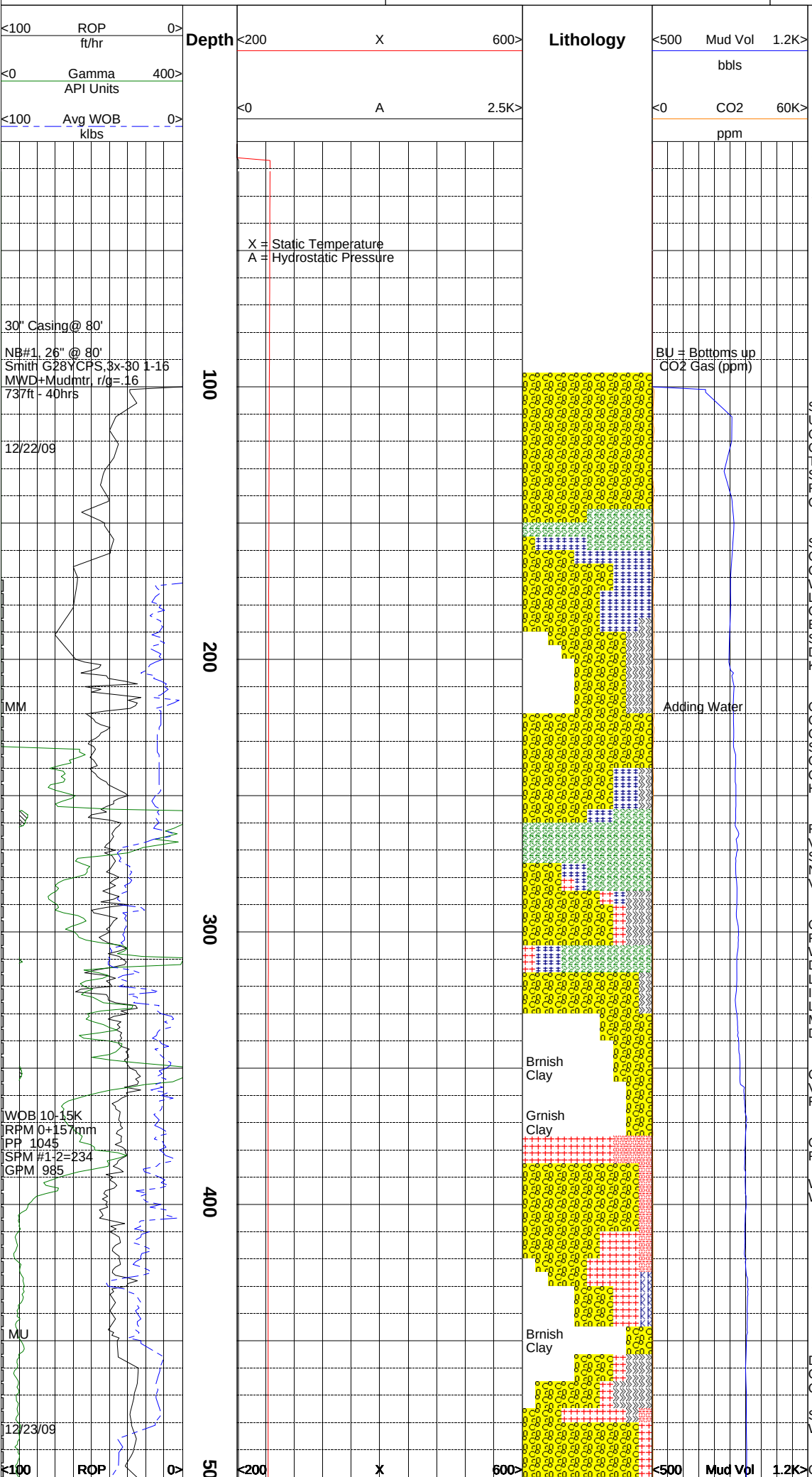
Coso Operating Co.	BLM North 33A-7	4/8/2010



Remarks

Survey Data, Mud Reports, Other Info.

CO2 CALIBRATED 5% = 50,000 PPM; TEMPERATURE REPORTED IN DEGREES FAHRENHEIT; MUD LOSSES REPORTED IN BBL/MIN; LITHOLOGY COLORS ARE FROM WET CUTTINGS, AND ARE REFERENCED TO THE GEOLOGICAL SOCIETY OF AMERICA'S ROCK COLOR CHART.

BEGIN LOGGING OUTSIDE 30" CONDUCTOR SET @ 80', START RETRIEVING SAMPLES @ 100 FT WITH 26" BIT AND 9.5" DC'S ON 12/21/09 @ 22:24 HRS.

NOTE: GLASSY TUFF SYMBOL DENOTES RHYOLITE; ALL DEPTHS ARE DRILLER'S DEPTHS.

SANDSTONE= WHTISH GRAY TO GRAY; UNCONSOLIDATED; ANGULR TO SUBRNDED GRNS; CLEAR QTZ GRAINS TO OPQUE FELD GRNS; WEAK HCL; OCC HEM STAINING; TR PYRITE; DARK MAFIC LITHICS; TR CHLR STAINING; POORLY SORTED; POLISHED TO ROUGH SURFACE; MED GRND TO COARSELY GRND.

SANDSTONE = GRAY-WHTISH GRAY W/ HUES OF ORG, GRN; SOFT-MUSHY; DOM ANGULAR CORSE GRNS, OCC MED SUBROUNDED GRNS; WEAK HCL; CLR QTZ GRNS; DARK GRN/BLK LITHICS; PRLY SRTD; FELD DOM OCC QTZ CLEAR TO QPAQ GRNS; TR SMOKY QTZ; TR EPIDOTE; TR CHLORITE STNING; COM HEM STNING; COM CLASTS OF QTZ DIORITE AND DIORTIE, MAY BE DRILLING ALONG CONTACT. KAOLINITIC MATRIX.

GRANITIC WASH = VARIABL COLR; ORNG-LT GRY; BLK-CLR; CONGLOMERITIC; FN GR-VRY CRS, COM>10mm CLAST;ABUNDNT LIMONITE STNG; ENFERD COLLUVM BOULDR DEPOS; OXIDZD BROKEN/WASHED SEDIMENT; COM QTZ/FELSIC; TR DIORITE/QTZ DIORITE FRAC; HYPID QTZ DIORITE W/CHLOR STN.

RHYOLITE = LT GRY TO SIMI OFF WHT; OPAQ VRY HRD; CRS; MICROXLN TEX; GRNULR SURF TEX; TR BEDDING/VIBROUS APPRNC; NON CALC;REMNT KAOLNITIC SUPRT MATRX; VRY LT-TR HEM STN.

GRANITIC WASH SEDIMENT = VARIED COLRD FRAGMNTS; BLK-LT GRY; GRN-YEL; OPAQUE W/ORGSH-YEL LIMONITE STN; ASRTD LITH DIORITE/GRANODRT+QTZ W/ABNDNT FELSIC LITHICS; VRY HRD, CRS; ANGULR; NON CALC; INCRS SOLUBLE CLAYS @ 335'; CONTINUED LRG >15mm SIZE CLAST; COM CLUMPY/ MUSHY SOL CLAYS W/SUSPEND FN GRAIND DETRITL SEDIMENTS; UNIFORM NONCALC.

CLAY = SOLUBLE GREENISH GRY CLAYS; VRY MUSHY-CLUMPY; DRK GRN-BLK VRY FN GRAINS MATRL SUSPND IN CLAY MASS.

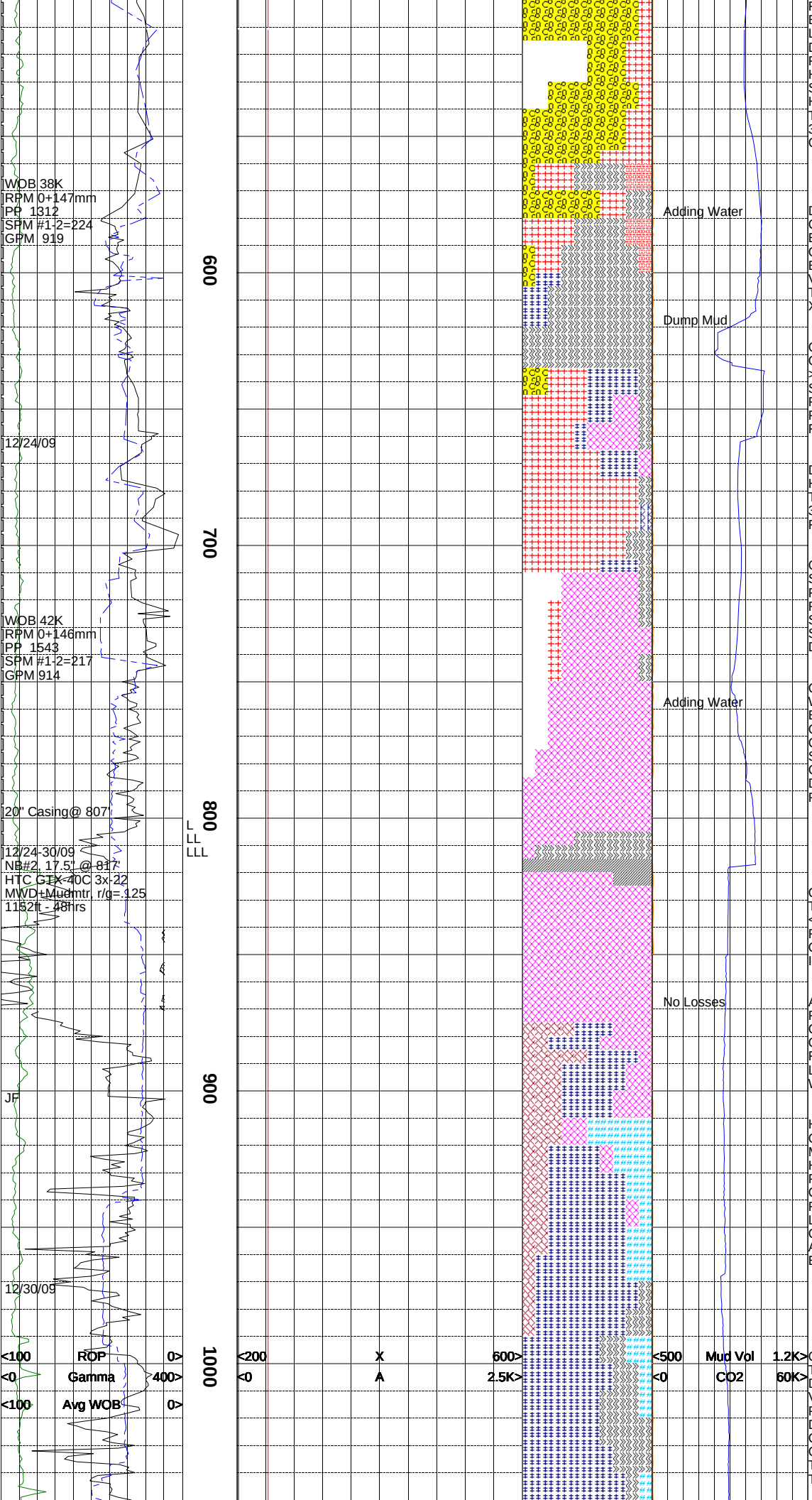
GRANODIORITE/GRANITE = YELISH ORNG PINK, LT GRY; OPAQUE; GRANITIC; VRY HRD MED CRS-GRNULR; FUSED ORTHO; VIS WEATHR SURFS; GRANITIC WASH SEDIMNT W/UNIFORM HYPIDIO TEX+LIM STN.

MW 8.8 VIS 46 PV 14 YP 20 PH 10 CL 1900 GEL 8/14 SOL 3.2 Snd.10 Ca40 MBT 17.5

CLAY = SLIGHTLY SOL YELWISH BRN CLAY; VRY MUSHY-CLUMPY;FN DRK GRN-BLK GRNS -MED WHITE-YELLOWISH GRNS SUSPND IN CLAY MASS.

DIORTIE = BLK TO BLUISH GRAY; V HARD; OPAQUE; FN GRND; PORPH TEXTRE; SCAT OCC HEM STAINING; SCATTERED MICAS; WK RXTION TO HCL; FRAGMENTS RANGE IN SIZE FROM 5 TO 20 mm; FOUND W/GRANITIC WASH SEDIMENT.

GRANITIC WASH SEDIMENT = VARIED COLOR



FRAGMENTS, OVERALL COLOR LT BRN TO BRNISH GRY; VISBLE DRK-GRN FN GRND LITHICS, GRANODIORITE/GRANITE OCC DIORITE AND INDIVIDUAL QTZ GRNS; COM FELSIC MATERIAL; CORSE TO FN GRND; COM HEM STAINING; WEAK CALC; COM SLIGHTLY SOLUBLE CLAYS; CLAY ACTS AS MATRIX AND HAS CLUMPY TEX; GRNS VARY FROM V HRD TO MOD HARD; CLASTS RANGE IN SIZE FRM 3mm TO 15mm; FELSIC GRNS ANGULAR; QTZ GRNS OCC ROUNDED.

MW 8.8 VIS 46 PV 6 YP 6 PH 10 CL 1900
GEL 8/14 SOL 4.0 Snd.13 Ca40 MBT 17.5

DIORITE = BLK, DRK GRYISH BLK; VRY HRD CRS LARG >10mm SIZE FRAGS, VRY FINE EQUIGRANULAR GR SUPRT; APHAN W/DOM GRANLUR TEX; WK EPID; FUSED HRNBLD/ BIOT MINLS; INTRSTITL/CEMNTD CALC; SLI-V WK CHLOR STN W/DEPTH; <15%QTZ; VRY TR SECDRY PINPT HEM STN; MICROPORPH XLN TEX W/PLAG FELSPRS.

GRANODIORITE = YELLOWISH ORG TO PINK, OCC GRAY; HYPODIDO TEXTRE; CRS LARGE >10mm FRAGS; HARD TO V HARD; RR HEM STNING; RARE SCATRD BIOTITE;WEAK CALC; FRESH TO OCC WHETHERD SURF;FRAG OCC PORPH TEXTRE W/ LARGE GRNS OF FELDS; FOUND IN OCCURENCE W/ GRANITIC WASH.

DIORITE = DARK GRAY TO BLK; V HARD TO HARD; PORPH TEXTR TO OCC EQUIGRANULR TEXTRE;CRS MEDIUM TO LARGE SIZE FRAGS 3mm-10mm; TR HEM STANING; OCC FRAC FILLED W/ KAOLINITIC MATERIAL.

GRANITIC WASH = BRN TO YELLOWISH BRN; SOFT TO MUSHY W/ CLUMPY TEXTRE; DOM FN GRND W/ OCC LARGE FRAGS;ANGULAR TO ROUNDED GRS;QTZ GRNS PREDM ROUNDED; STRONG RXTION TO HCL; COM SLIGHTLY SOLUABLE CLAY; CLAY MATRIX; CONTAINS DIORTIE AND GRANODIORITE CLASTS >5mm.

QUARTZ MONZONITE = PL-DRK ORNG; LT GRY-WHT; TR SPCKLD DRK INSITU MIN, BIOT/HRN-BLN; VRY HRD;MED CRS-FN, BROKN SED;COM GRANULR-HYPIDIO TEX; CALC;STRNG RXN-HCL COM ORTHO/PLAG FLDSPR; VISIBLE QTZ; 30% SOLUBL CLAYS W/INTRSTL MUSHY KAOLIN CLAY CONTENT; COM SECDRY HEM STN; TR DRK GRNSH-GRY ALTRD MAFICS W/LRG PLAG PHENO; CALC W/INCRS TRNSITNL DIORITE.

NOTE: DRILL TO 817', CSG PT, RUN 20" CASING TO 807',INSTALL/TEST NEW BOPE;

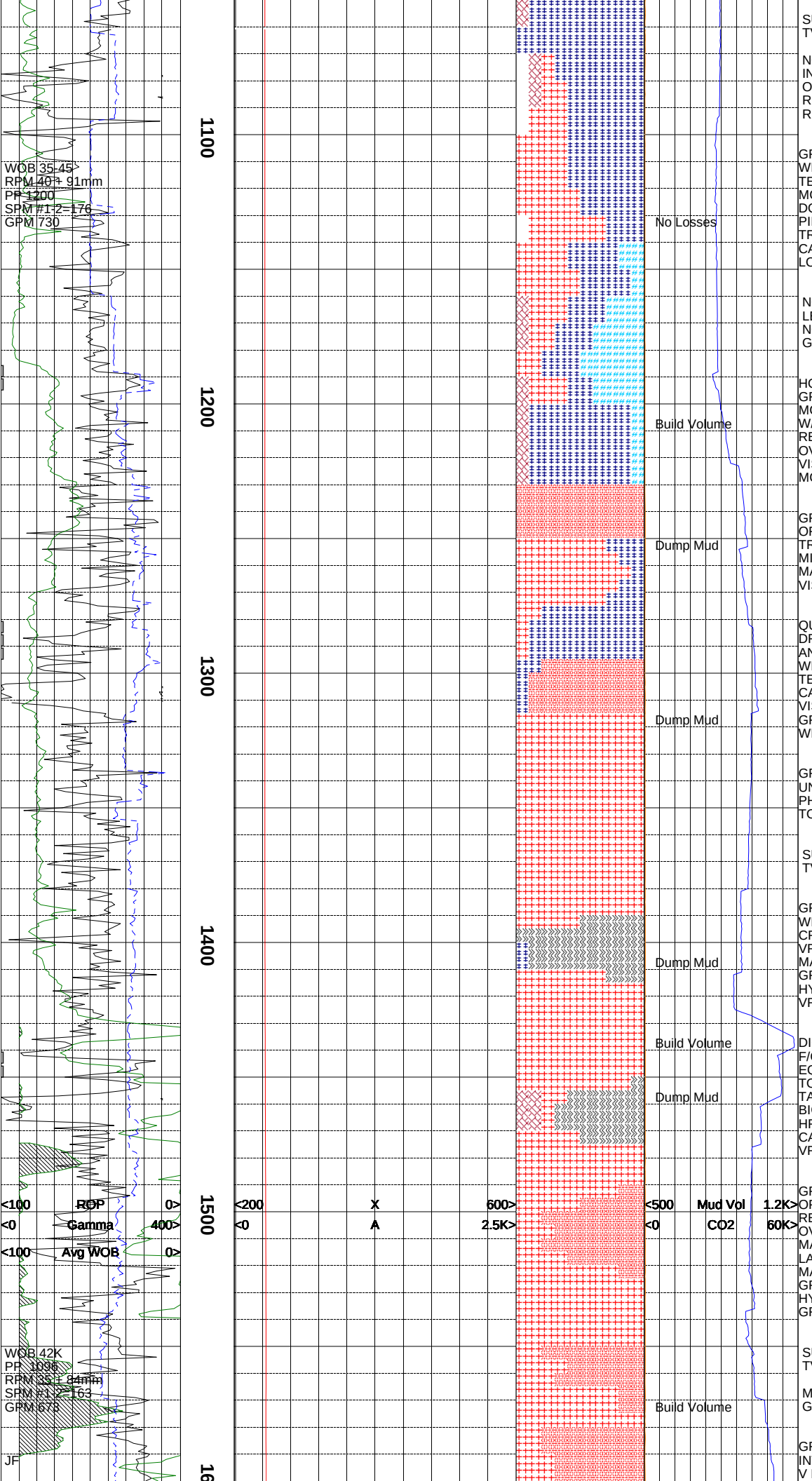
QUARTZ MONZONITE =PL-DRK ORNG; OPAQ TO LT GRY; WHT-TAN; VRY HRD, MED CRS <13% CALC; ORTHOCLASE/PLAG FLDSPRS; RDG EDGES; HYPIDIO-GRANULR TEX; TR QTZ MIN; COM HEM OVERGRWTHS; W/TR INTRSTL GRNISH GRY CHLORZD VNG.

ALTERED ZONE = LT GRY TO GRNISH GRY; PL ORNG-WHT; RED, VRY-MOD HRD; CRS; CALC; PLAG W/COM ORTHO; COM ALTRED QTZ DIORITE; VIS REDSH HEM STNS; OCC FRIABL CTNGS; COM ALTRD MAFICS W/OPQ LARGE ANGULR PLAG PHENO; CHLORZD W/VIS LOC ALTRD.

HORNBLENDE QTZ DIORITE = COM BLK-DRK GRY, TRNSL-WHT, VITRS; V HRD-HRD; V CRS-MOD CRS HYPIDIO-GRANULR TEX; ABUND HBLNDE W/ MICRO-FIBROUS TEX, OCC VIS PURE CTGS IN SAMPLE; TR-RR VIS QTZ W/ CONCHDL FRAC; TR DRK RED XLN MATL RESMBLNG GARNET; COM HEM+OXID STN; LT PINK-DRK ORNGE PLAG PHENOCRSTS, CRS-V CRS; OVERALL MOD-SLI WK CHLOR ALTRN; STRONG-MOD CALC OVERALL; VIS EPID VEINLETS; TR SUBHED PYR.

MW 8.8 VIS 35 PV 6 YP 6 PH 11 CL 2400
GEL 2/6 SOL 4.0 Snd.13 Ca60 MBT 15

QUARTZ DIORITE = DOM DRK GRY-BLK, OPQE-TRNSL, VITRS, SLI DRK BLUISH-GRN HUES; DOM CRS-MOD CRS GRANULAR TEX, COM VIS CRS HYPIDIO; V HRD-HRD; ABUND LOC PINKISH-ORNGE PLAG XTALS; COM EUHED DRK YELLISH GRN EPID; COM VIS HBLNDE, COM VIS FIBROUS TEXTRE, POSS OCC VIS GLAUCOPHANE; MOD-STRONG CALC OVRAL; TR SUB-EUHED PYR; MOD CHLOR ATLRN THROUGHOUT.



SURVEY @ 1036', 0.2 DEG, 135.2 AZI
TVD 1036.00', 0.36' N, 0.20' W.

NOTE: LOC ABUND SOLUBLE CLAY VISABL IN SAMPLE @ 1070'; GRY-LT REDSH BRWN; OVERALL NON CALC; POSS KAOLINITC OR RHYOLITIC DIKE MAT'L; LOCAL DRK ORNGE-REDDISH HUE, POSS HEM STAINING.

GRANODIORITE = LT-DRK GRY, TRNSL-OPAQ WHT, VITRS; DOM UPPR-MOD CRS GRNULR TEXTRE, OCC CRS HYPIDIO; V HRD-HRD; MOD CHLOR ALTRN; RR MICA, BIOT+MUSC; DOM BLK FIBROUS HBLNDE; TR CRS GRND PINKISH-ORNGE PLAG XTALS; ABUND WHT-TRNSL K-SPAR, POSS ALBITE; MOD-SLI WK CALC OVERALL; TR SUB-EUHED EPID, PYR; LOC ABUND-MOD HEM STAIN.

NOTE = CLY CONTENT IN SAMPLE MUCH LESS PREVALENT; CTGS OVER SHAKERS NO LONGER CLUMPED; SAMPLE DOM GRAVEL-LIKE CONSTNCY.

HORNBLENDE QTZ DIORITE = DOM BLK-DRK GRY, VITRS, TRNSL; V HRD-HRD; UPPR CRS-MOD CRS GRANULR TEX; ABUND HBLNDE W/ VIS TWINNING+FIBROUS TEX; TR DRK RED HEM STAIN; STRNG CHLOR ALTRN OVERALL W/ DRK BLUISH-GRN HUES; LOC VIS V CRS PINK PLAG PHENOCRSTS; WK-MOD CALC OVERALL.

GRANITE = PINK-ORNG OPAQ TO LT GRY, DRK ORNG; VRY HRD; UNIFORM; MED CRS-CRS; TR SUSPND QTZ/PLAG PHENO;ABNDT ORTHO MINRLS; COM GRANULR HBIT; CALC; NO VIS MAFICS; WK-MOD CALC; NON ALTRD W/NO VIS CHLOR STN.

QUARTZ DIORITE = MED LT GRY; OPAQ-DRK GRY-BLK; SPECKLED W/BIOT/HRNBL AND PLAG MINRLS; VRY HRD-HRD; MED CRS WKLY ALTRD; FNT CHLOR STNG; HYPIDIO TEX; QTZ>20%; TR SUBHED EPID; HEM STN; CALC; AND VRY RECTV TO 10% HCL; CONTIN VIS OFF WHT SECNDRY INSITU CALC DEPOS; GRDES TO GRANITE/QTZ DIORITE W/SUBTL WK CHLOR STN ON QTZ DIORITE FRAGS.

GRANODIORITE = WHT, OPQUE TO LT GRY; UNIFORM; VRY HRD; MED CRS-CRS; GRANO-PHYRIC TEX; CALC VNG; SPL APPRS-GRD TO WHT GRANITE.

SURVEY @ 1323', 0.2 DEG, 199.2 AZI
TVD 1322.99', 1.87' N, 0.24' W.

GRANODIORITE = WHT-LT GRY; COM PURE WHT TO TRANSLU; OPAQUE; VRY HRD; MED CRS-CRS; MASS STRUC; RR MICROPORPH; VRY TR MICROMAFIC PEPPRD TEX; INCRS MAFICS W/DEPTH; FELSIC W/TR QTZ, CM PLG; GRDNG FRM GRANOPHYRIC TEX TO PORPH/HYPIDIO/GRANULR TEX; GRANIT-GRANODR; VRY WK CALC W/DEPTH; UNALTERED.

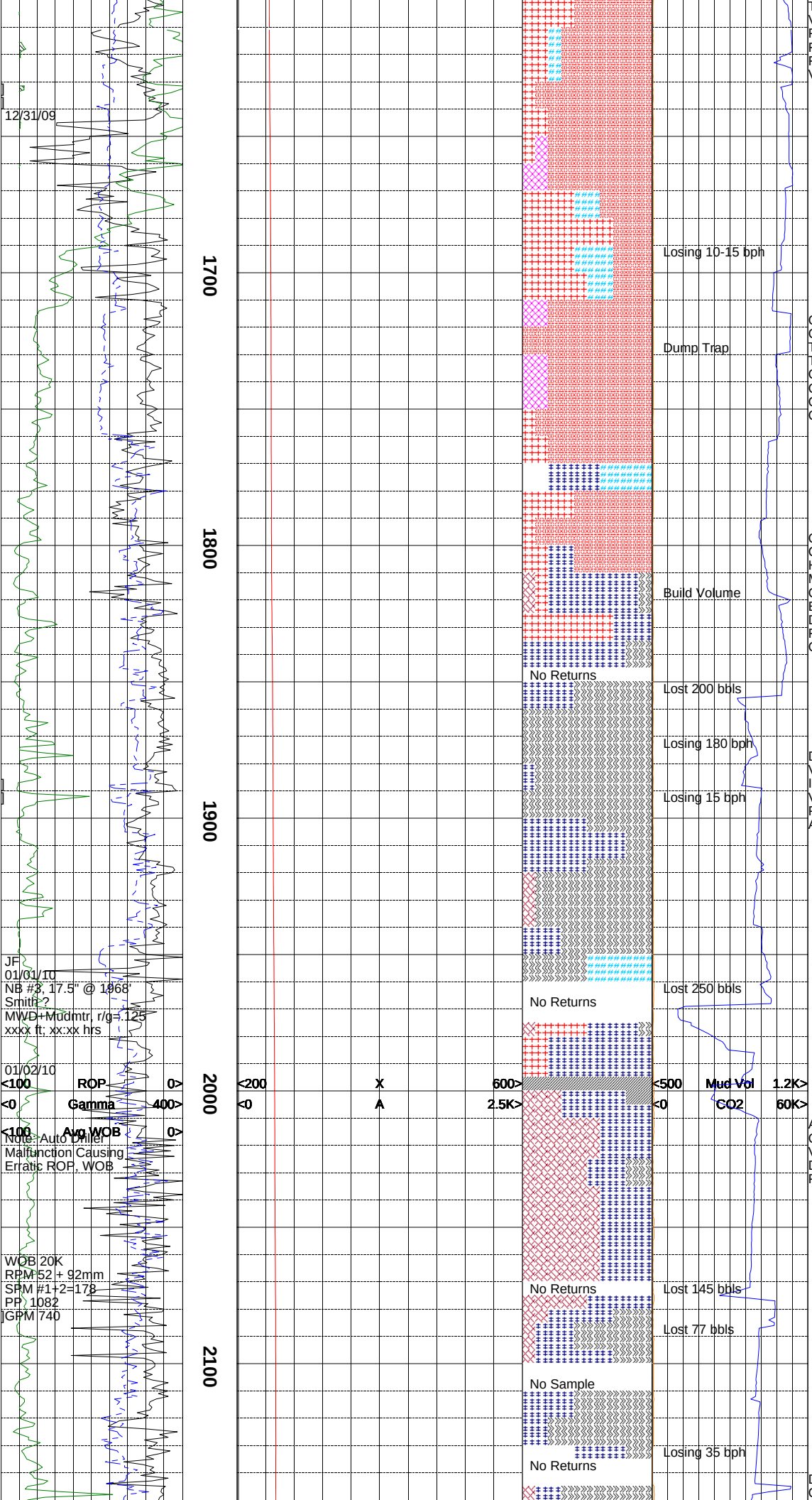
DIORITE = DRK GRY-BLK, OCC WHT STRKS F/CALC VEINS; VRY HRD;CRS ASSRD PHENO; EQUIGRANULR; HYPIDIOMORPHIC GRANULR TO PORPHYRITIC; VARIABL STRUCTR W/ TABULR PLAG/HORNBLEND MINRLZTN; COM BIOT; TR-SCT SUBHED HEM STN; OVR PR HRNBLND CONTENT; MAFIC; VIS VEINLIKE CALC VNG THRU CTNGS; APPR AS SUTURS; VRY GD RXN TO HCL; WK-NON ALTRD.

GRANODIORITE = LT GRY-WHT; TRANSLU-OPAQUE; OPAQUE-CLR; DOM OPQ, FELSIC REPEAT LITH W/SLI INCRS IN ORTHO MINL OVRL VRY HRD-HRD; MED CRS-VRY CRS; MASSIVE STRUCTURE; RR MICROPORPH; LACKNG MICROMAFIC PEPPRD TEX; INCRS MAFICS W/DEPTH; FELSIC W/TR QTZ, CM PLG; GRDNG F/GRANOPHYRIC TEX TO PORPH-HYPIDIO/GRANULR TEX; VIS GRADING TO GRANITE; STRNG RXN TO HCL; NONALTRD.

SURVEY @ 1515', 0.2 DEG, 78.2 AZI
TVD 1514.99', 1.24' N, 0.08' W.

MW 8.8 VIS 35 PV 6 YP 6 PH 11 CL 2400 GEL 2/6 SOL 4.0 Snd.13 Ca60 MBT 15

GRANITE = DOM LT GRY-TAN GRY, GRADING INTO DOM LT PINKISH-ORNGE, TRNSL, VITRS; V HRD-HRD; V CRS-MOD CRS GRANULR



TEXTRE; ABUND ORTHO MINRLS+QTZ, OCC VIS TWINNG; PINKISH HUES POSS DUE TO PRESNCE OF PLAG; SCAT LOC HBLNDE DIORT FRAGS THRUOUT SAMPLE; TR SUBHED PYR, FAINT LT BLUISH GRN CHLOR; DOM UNALTRD; V WK-MOD CALC OVERALL.

NOTE: BEGIN LOSING APPROX 10-15 BPH OF MUD BEGINNING AT ~1650'; DECREASE IN FLOW OUT FROM 60-70%, GRADING DWN TO 30-40%; DECREASE IN PUMP PRESSURE OF APPROX 120 PSI.

NOTE:FLOW OUT PADDLE MAY BE WORKING INCORRECTLY; RETURN FLOW VALUE LESS THAN 10%, ON RW,HOWEVR NO SIGNIFICANT DECREASE IN PIT VOLUME (>10-15 BPH) OR VIS CHANGES IN FLOW FROM THE FLOW LINE NEAR THE SHAKERS.

GRANITE = DOM LT-DRK ORNGISH PINK, LT GRY, SPECKLED DARK GRN-BLK MAFICS, TRNSL, VITRS;V HRD-HRD;CRS-MOD GRANLR TEXTRE, OCC VIS MOD EQUIGRANULR; ABUND ORTHO+QTZ,OCC VIS TWINNG; DOM UNALTRD, OCC VIS LOC CHLORITZN W/ LT BLU-GRN OPQE CHLOR THRUOUT; WK-MOD CALC OVERALL; RR SUBHED PYR; NO EPID, HEM.

NOTE: ABUND LT GRY CLAY IN SAMPLE F/ 1780-1790; ASSOC W/ DARKER ROCK-CLAY IS NOT PRESENT IN LIGHTER GRAN-ITIC SAMPLE, ONLY IN DRK GRY QUARTZ DIORITE.

QUARTZ DIORITE = LT GRY, TO GRNISH GRY; CLR-TRANSLU; OPAQUE; BLK-DRK GRY; VRY HRD; MED CRS-CRS GR; HYPIDIO TEX; SLI-MOD CALC; MOD TO WKLY ALTRD; COM-TR GRNISH CHLORIZD STN; FELSIC W/PEPPERD BIOT/HRNBLND AMIPHBLS; PLAG W/SCT QTZ; DISM-SUHED EPI; FUSED HEM STN, POSS FLSH MNRLZTN; OVRL MOD ALTRD; GRDS TO GRANODIORITE W/INCRS CALC VNG.

EARTHQUAKE OCCURED @ 1853' MD
NOTE: DRILL TO 1855',LOSE RETURNS; LOST 200+ BBLS,
NOTE: LOSE RETURNS @ 1877'

DIORITE = BLK-DRK GRY; FNT DRK GRN HUE VRY HRD; CRS; EQUIGRNULR HYPIDIO TEX; INSITU CALC DEPOS; ABNDNT SUBHED EPIDT VIS HEM VNG, VIS CALCT VNG; BIOT/MAFICS PYRT XLS; INSITU PLAG PHENO; CLN-WKLY ALTRD.

SURVEY @ 1897', 0.1 DEG, 124.1 AZI
TVD 1896.99', 0.65' N, 0.06' E.

NOTE: POOH @ 1968' FOR BIT CHANGE; LOSE RETURNS WHILE CIRC BOTTOMS UP; LOST 250bbls;80bbls to FILL HOLE; LOST ADDITIONL 150bbls DURING TRIP. DRILL F/1969'-1974' W/NO RETURNS;

POOH @ 1992' TO SET CEMENT PLUG.

SET CMT PLUG #1 @ 1992',200 LINEAR FEET, TAG@ 1746', BASE@ 1992'

NOTE: CHLORITIZED ALTERED MAFICS.

ALTERED ZONE = LT GRN-GRNISH GRY; LT GRY W/PEPRD BLK MAFICS; CRS; MD HRD-V HRD; HVLY CHLORIZED; VIS RMNT HYPI-DIO TEX; HEM VNG;COM INSITU CALC DEPOS PYRT XLS; STRNG RXN TO 10%HCL;

NOTE: DRIL TO 2079', MAKE CONCTN; CYCLE PUMPS; LOSING FLUID; LOSE RETURNS; LOST 145bbls, REGAIN CIRC, DRILL.

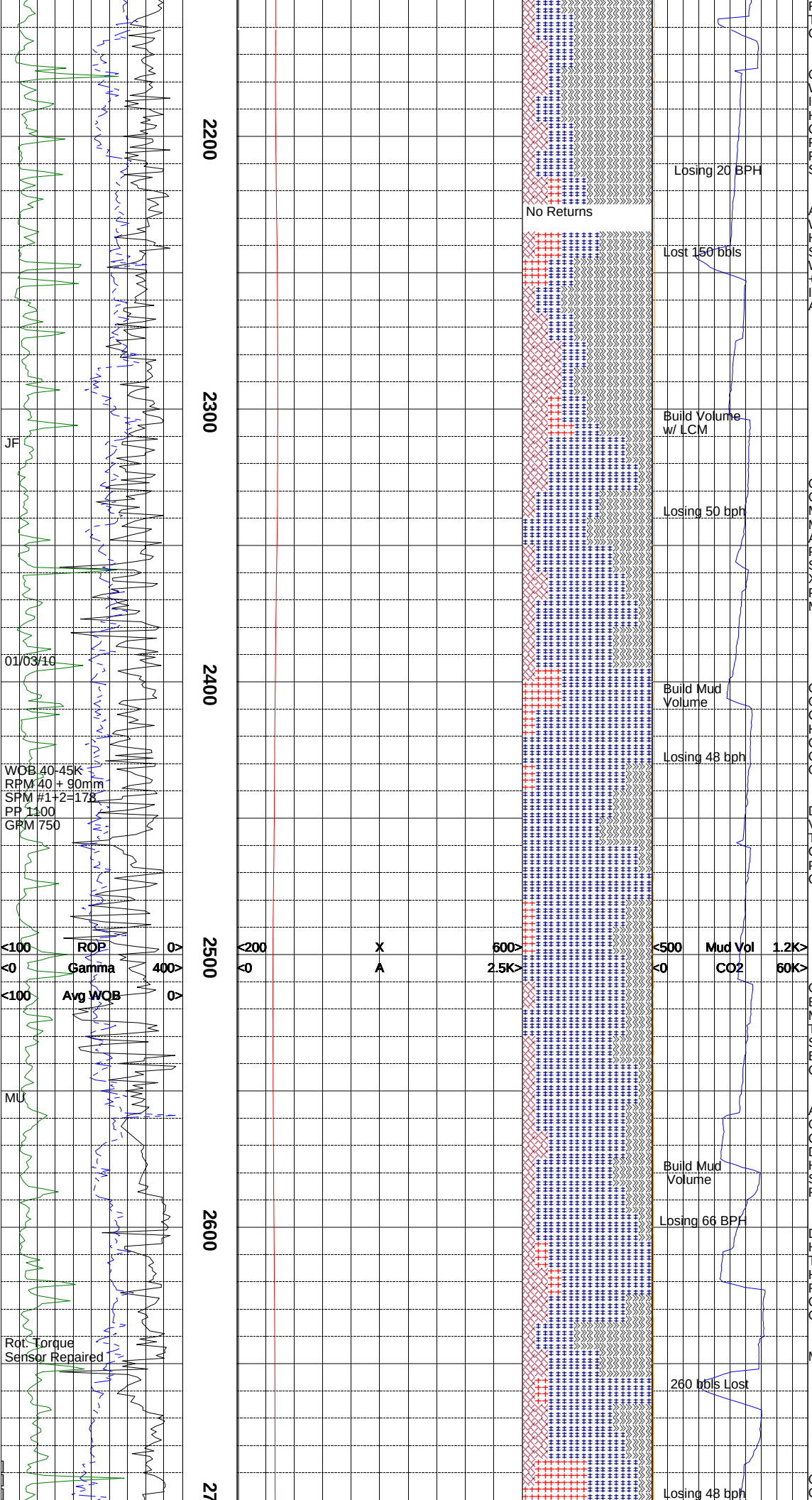
NOTE: ABT ALTERED HVY CHLORTZD LITH.

NOTE: PULL OFF BOTTOM @ 2087'; LOSE RETURNS; LOST 77bbls

NOTE: DRIL TO 2112', MAKE CONCTN; LOSE RETURNS; LOST 135bbls, REGAIN CIRC. CONTINUE LOSING @20-35 BPH.

SET CMT PLUG #2 @ 2144', 100 LINEAR FEET, TAG@ 2029', BASE@ 2144'

DIORITE = DARK GRAY TO BLK; V HARD; CRS GRND; PORPHR TEXTRE; COM HORNBLENDE;



RARE SCTRD BIOTITE; COM CHLORITE STNING; TR EPIDOTE; STRONG RXTION TO HCL; INSITU CALC DEPOSIT; WEAKLY ALTERED.

QUARTZ DIORITE = WHITISH GRAY TO GRAY WITH HUES OF GRN; V HARD; HYPODIDO TEXTR INSITU CALC DEPOSIT; STRONG RXTION TO HCL; VIS HEM VEINING; RARE EUHED EPIDOTE COM CHLORITE STNING; TR CALCL-PYRITE FOUND W/ EPIDOTE; ENLARGED GRNS OF PLAGIOCLASE; COM HORNBLENDE; COM SCATRD BIOTITE; OCC WEAKLY ALTRD.

ALTERED ZONE = GRN-GRNISH SCT OPAQUE WHITE; SCTRD MAFICS; VERY HARD TO MOD HARD; CRS; HEAVILY CHLORITIZED; WHTHRD SURFACE TEXTRE; RMNT HYPODIDO TEXTRE W/ OCC RMNT PORPH TEX; RARE EPIDOTE + HEM VEINING; STRNG RXTION WITH HCL; INSITU CALC DEPOSIT; TR PYRITE W/HEM AND EPIDOTE VEINING.

MW 8.9 VIS 50 PV 15 YP 12 PH 11 CL 2300 GEL 7/15 SOL 5.0 Snd 0.25 Ca 60 MBT 15

NOTE: BEGIN PUMPING LCM INTO MUD @ ~2300'; PERCENTAGE OF LCM BASED ON AMOUNT IN SAMPLE COMING OVER THE SHAKERS.

QUARTZ DIORITE = DOM DRK-LT BLUISH GRN, DRK-LT GR, BLK, TRNSL VITRS; DOM MED-LOWR CRS HYPIDIO TEXTRE, OCC VIS MED EQUIGRANLR; V STRNG-STRNG CHLOR ALTRN W/ ABUND WAXY BLU-GRN CHLOR, PERVADNG MICAS; HRD-MOD HRD; V STRNG-STRNG CALC W/ VIS TRNSL VITRS CALC XTAL CTGS, IN SITU CALC; OCC LOC VIS LT PINK-ORNGE MICROVEINS,POSS SILICIC DIKE MATL.

SURVEY @ 2375', 0.3 DEG, 19.3 AZI TVD 2374.99', 1.8' N, 2.2' W.

GRANODIORITE = DOM LT GRY, SLI PINKISH ORNGE, TRNSL-OPQE, VITRS; V HRD-HRD; CRS GRANULR TEXTRE; ABUND-COM SUB-HED EPID W/ VIS MICROVEINLETS; MOD CALC OVERALL; SCAT BLK SPECKLD MAFICS; WK CHLOR ALTRN COMPARED W/ ADJOINED QTZ DIORITE.

DIORITE = DOM BLK-V DRK GRY, OPQE-TRNSL VITRS; V HRD-HRD; DOM MED-FN EQUIGRNLR TEXTRE; ABUND BLK MAFICS+BIOT; WK-MOD CALC OVERALL; MOD-WK CHLOR ALTRN, COM-PARED W/ STRONG ALTRN IN ADJOINING QTZ DIORITE/ALTERED MATL.

NOTE: NO LCM PRESENT IN SAMPLE FROM SHAKERS; LOSS RATE REDUCED OVERALL FROM 2300-2500' BY ~20-30 BPH.

QUARTZ DIORITE = DOM DRK-LT GRY, BLK, BLU-GRN, TRNSL VITRS; HRD-MOD HRD; DOM MED-FN GRANULR, OCC VIS CRS HYPIDIO TEXTRE; MOD-STRONG CHLOR ALTRN; MOD-STRONG CALC OVERALL; COM BIOT; SCAT BLK MAFICS; TR EU-SUBHED PYR, EPID; COM VIS WHT-TRNSL PLAG W/ VIS TWINNG.

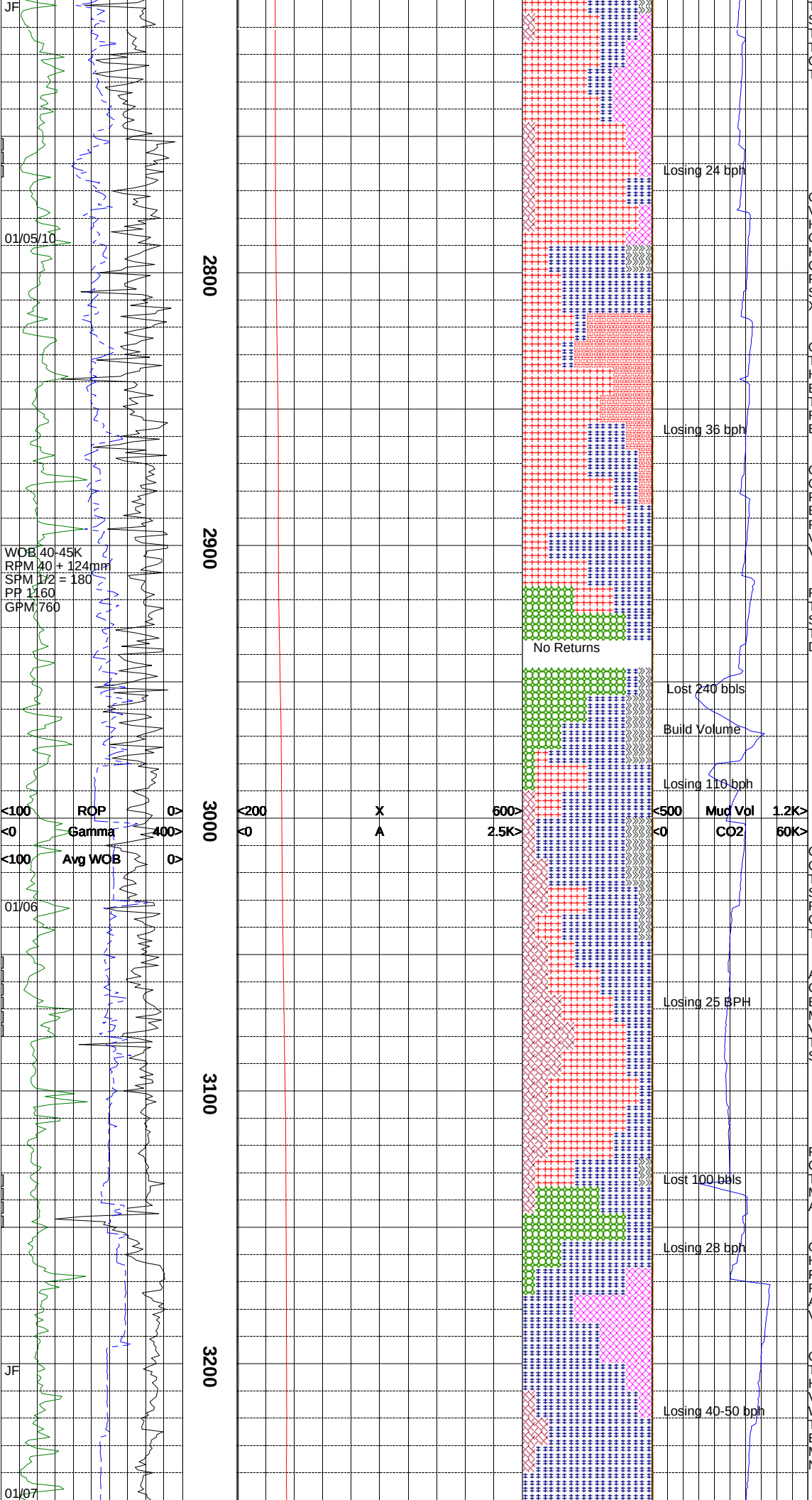
ALTERED ZONE = MUTED PALE GRN TO DARK GRN, OCC OPAQUE WHT; SCATRD BLK MAFICS CRS; RARE EPIDOTE VEINING; INSITU CALC DEPOSIT; MOD RXN TO HCL; MOD HARD-HARD; GRANULAR TO OCC PORPH TEXTRE; STRNG CHLORITZN; TR CUBIC PYRITE FOUND W/ EPIDOTE.

DIORITE = BLK TO DRK GRAY; HRD TO V HRD; FN EQUIGRANULR TEX, VIS PORPH TEXTUR; COM SCATTERED BIOTITE AND HORNBLND; INSITU CALC DEPOSIT; STRNG RXTION W/ HCL; HEAVILY ALTERED; COM CHLORITE; TR TO RARE EPIDOTE; OCC CALC VEINING.

MW 8.8 VIS 56 PV 21 YP 13 PH 11.1 CL2300 GEL 7/15 SOL 5.0 Snd 0.25 Ca 60 MBT 15

NOTE: LOSE 260 BBLS @ 2652'; LOSE RTRNS UNTIL 2659'; BEGIN TO MIX _PUMP LCM IN TO MUD.

QUARTZ MONZONITE = GRAY TO TAN-SALMON OCC ORANGE GRAY; HARD TO V HARD; PORPH



TEXTRE; SCATTERED BLACK MIRCO MAFICS; SCATTERED RARE BIOTTIE; INSITU CALC; MOD TO WEAK RXTION W/ HCL; TR HEM STNING; TR CHLORITE STNING; OCC TR EUH EPIDTE; OCC WEAKLY ALTRD, CHLORITE ALTERATION; TR DISSEM PYRITE.

NOTE: PRESENCE OF LCM IN SAMPLE DECR-EASED TO 1-2%; REDUCED LOSS RATES FROM -60 BHP -25 BHP; NO LCM IN SAMPLE BY 2780'

GRANODIORITE = DOM LT GRY-WHT, TRANSL VITRS, OCC LT PINKISH ORANGE-SALMON; V HARD TO HARD; DOM CRS GRANULAR-MOD CRS GRANOPHYR TEXTRE; ABUND LOC SALMON HUES, POSS ABUND PLAG; OCC LOC ABUND CLORITIZED MAFIC; LOC TR EUHED CUBIC PYRITE; RR EPID, HEM+STN; OVERALL MOD-SLI STRONG CALC V/ VIS TRNSL VITRS CTGS+ XTALS, RR MICROVEINLETS.

GRANITE = WHITE TO GRAY-LIGHT GRAY, OCC TAN-ORANGE-SALMON; HARD TO V HARD; HYPODIDO TO OCC PORPH TEXTRE; SCATRD BLACK MAFICS + BIOTITE; OCC RR HORNBLND; TR HEM STNING; VIS CALC XTALS; MOD RXTION TO HCL; TR CHLORITE STNING; TR EUHEDRAL CUBIC PYRITE.

QUARTZ DIORITE = GRAY TO WHITISH GRAY OVRALL; HARD TO V HARD; GRANULAR TO PORPH TEXTRE; SCATRD BIOTITE COM AND BLACK MAFICS; INSITU CALC DEPOSIT; MOD RXTION TO HCL; TR EPIDOTE, EPIDOTE VEINGING; TR PYRITE; TR HEM STNING; COM VIS WHITE TRANSL PLAG; COM CLORITE ALT.

FELSIC DIKE = TAN TO ORNGE GRAY, OPAQUE TO OCC TRANSLUCENT; HARD TO V HARD; SCATRD MICRO MAFIC MATERIAL; SUCROSIC TEXTRE; MOD TO WEAK RXTION W/ HCL; CALC DEPOSITED ALONG FRAC SURFACE.

NOTE: LOST CIRCULATION AT 2947'; PUMP 80 bbl LCM SWEEP - 20-30% OF SAMPLE F/ SHAKERS INITIALLY; LCM CONTENT REDUCD TO 1-2% BY 3000'; POOH @ 3001' FOR BIT CHANGE; CHECK FLUID LOSSES OUT OF HOLE - 8 bbls TO FILL HOLE.

NOTE: ERRATIC ROP DUE TO AUTO DRILLER MALFUNCTION; MECHANISM REPAIRED AT APPROX 2990'.

QUARTZ DIORITE = LIGHT GRAY TO GRNISH-GRAY; HARD TO MOD HARD; EQUIGRANULAR TEXTRE; COM BIOTITE, SCTRD MIRCOMAFICS; SCATRD CALC MICROVEINLETS; V STRONG RXTION W/ HCL; STONGLY ALTERED; DOM CHLORITE ALTERATION, OCC KAOLIN ALT; TR HEM STNING.

ALTERED ZONE = DARK TO LIGHT GRN, OCC GRNISH GRAY TO WHITE; MOD HARD TO SOFT; EXTENSIVE CHLORITE REPLACEMENT; TR SCTRD MICROMAFICS; COM MICROVEINLETS OF CALC; V STRONG RXTION TO HCL; OCC KAOLIN ALT; TR HEM STNING; AJOINING GRANODIORITE SIGNIFICANTLY ALTERD; CRS GRANLR TEXTRE.

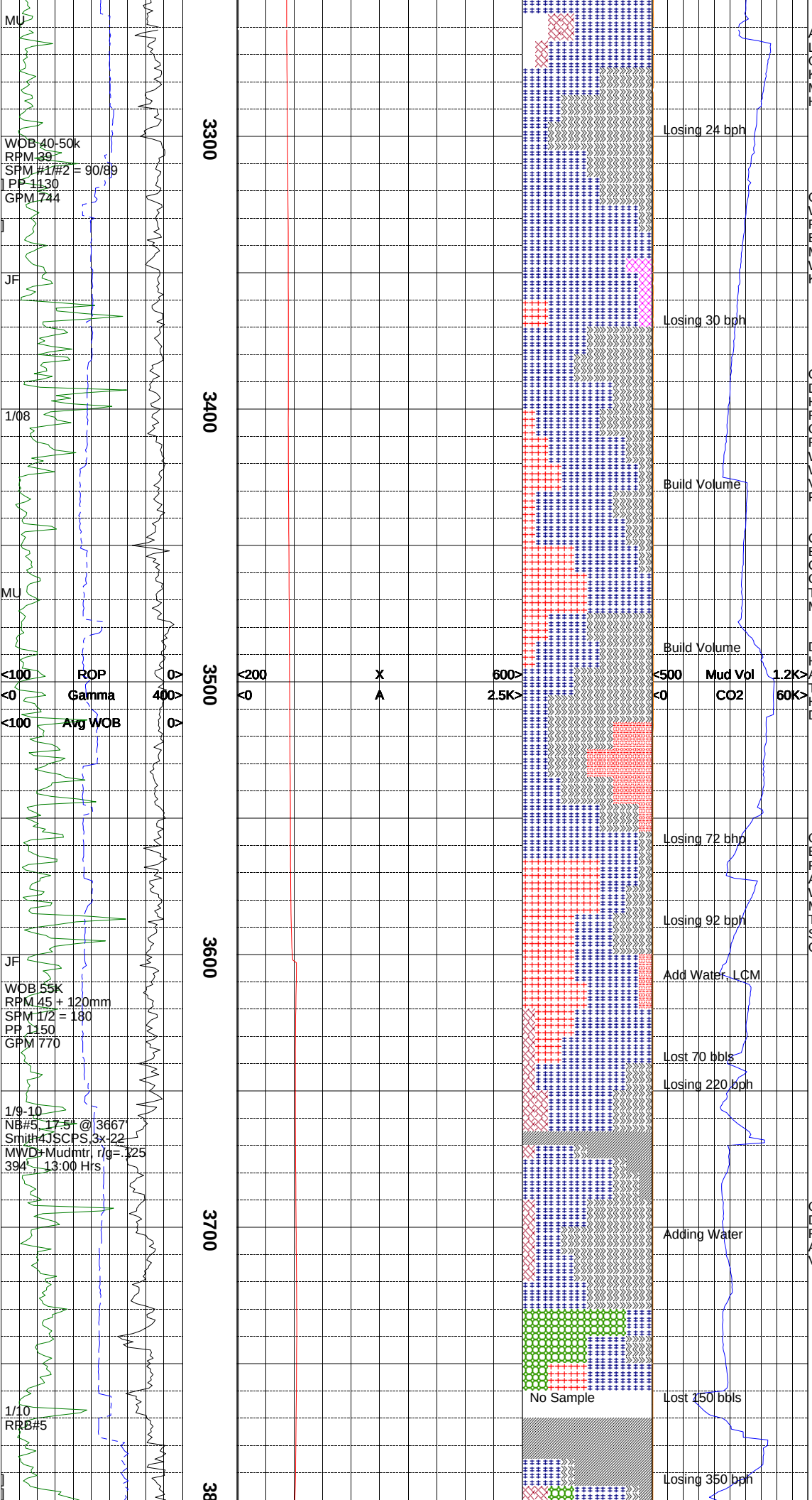
MW 8.8 VIS 52 PV 12 YP 13 PH11.4 CL2300 GEL 6/14 SOL 4.0 Snd 0.25 Ca 40 MBT17.5

FELSIC DIKE = OPAQUE WHITE WITH HUES OF GRAY AND OCC TRANSL; HARD TO VERY HARD; TR SCATRD CUBIC PYRITE; SCATTERED MICRO MAFICS; NO CLEAR CRYSTAL STRUCTURE APPARENT, VITREOUS TEXTRE.

GRANODIORITE = GRAY TO LIGHT-GRAY W/ HUES OF GRN-GRNISH GRAY; HRD-MOD HRD; FN TO CRS EQUIGRANULAR TEXTRE, VARY FROM FRAGMENT TO FRAGMENT; WEAK CHLORITE ALTERATION; STRONG RXTION TO HCL; MICRO-VENILETS OF CALC.

QUARTZ DIORITE = DOM DRK GRY-GREEN, BLK, TRNSL VITRS, OCC SLI BLU-GRN; HRD-MOD HRD; UPPR CRS-MED HYPIDIO TEXTRE, OCC VIS MED-FN GRANULR; V STRNG-STRNG CALC, W/ VIS WHT SLI MARL-LIKE TEXTRE, VIS TRNSL VEINLETS; COM-ABUND EU-SUBHED EPID; MOD-STRNG CHLOR ALTRN; SCAT BLK MAFICS+BIOT; SCAT ORNGE-PINK QTZ MONZO-NITE FRAGS.

NOTE: CIRCULATE AND POOH @ 3255' DUE TO



MALFUNCTION IN DIR. TOOLS.

ALTERED ZONE = OPAQUE WHITE TO TAN, OCC LIGHT GRN-GRNISH GRAY; FN GRND EQUI-GRANULAR TEXTRE; ABUNDANT CHLORITE + KAOLINITIC CLAY; 30-40% CLAY BY VOLUME; MICRO CALC VEINLETS; STRONG RXTION W/ HCL.

SURVEY @ 3223', 0.3 DEG, 356.3 AZI
TVD 3322.95', 1.34' N, 6.21' W.

GRANODIORITE = LIGHT GRAY TO DARK GRAY W/ HUES OF GRN; HARD TO VERY HARD; PORPH TEXTRE; CRS; SCTRD MICROMAFICS + BIOTITE; TR EUHED EPIDOTE; OCC CALC MICRO VEINS; MOD TO WEAK RXTION TO HCL; WEAK TO MOD CHLORITE ALTERATION; OCC KAOLINITIC ALTERATION.

MW 8.8 VIS 48 PV 10 YP 15 PH11.5 CL2400
GEL 5/12 SOL 4.0 Snd 0.25 Ca 40 MBT17.5

QUARTZ DIORITE = DOM DRK GRY-BLK, SLI DRK BLU-GRN HUES, TRNSL VITRS; V HRD-HRD; DOM UPPR CRS-MED HYPIDIO, VIS COM FN-MED GRNULR; VIS TRNSL IN SITU QTZ W/ CONCHOIDL FRAC; TR EU-SUBHED EPID; RR PYR; V STRNG-STRNG CALC OVERALL W/ VIS WHT-TRNSL VEINLETS; RR HEM STN ASSOC W/ CALC VEINLETS; MOD CHLOR ALTRN W/ VIS SLI CHLORTZD BIOT; SCAT DRK ORNGE-PINK QTZ MONZNONTE FRAGS.

GRANODIORITE = DOM LT-MED DRK GRY, SCAT BLK, SLI LT BLU-GRN HUES; V HRD-HRD; DOM CRS GRANULR, COM VIS GRANOPHYR; MOD-WK CHLOR ALTRN; MOD CALC; COM VIS MICA+BIOT TR-COM EPID; RR PYR; SCAT ORNGE-PINK QTZ MONZONITE FRAGS.

DIORITE = BLK TO DARK GRAY; V HRD; CRS HYPIDIO TEXTRE; MOD TO WEAK CHLORITE ALTERATION; TR EPIDOTE; TR HEM VEINING; TR CUBIC PYRITE; AJOINING QUARTZ DIORTIE HAS WEAK KAOLIN ALTERATION; INSITU CALC DEPOSIT; MOD CALC OVERALL.

MW 9.0 VIS 47 PV 11 YP 15 PH11.3 CL2400
GEL 4/13 SOL 5.0 Snd 0.50 Ca 40 MBT17.5

NOTE: CHANGE CO2 SCALE @ 3518'. 0-60K

QUARTZ DIORITE = DOM LT-DRK GRYISH BLU-GRN, BLK, TRNSL VITRS; DOM CRS-FN HYPIDIO TEXTRE; MOD-STRNG CHLOR ALTRN W/ VIS ALTRD MICA; V STRNG CALC W/ VIS TRNSL VEINLETS, MOD SOFT WHT MARL-TEXTRD MATL; TR VIS EPID VEINLETS; TR PYR, DRK RED HEM SPOTS+STNING; SCAT LT PINK-SALMON FRAGS, POSS GRANITIC-QUARTZ MONZONITE.

NOTE: BEGIN ADDING WATER TO PITS TO COMPENSATE FOR INCREASE LOSS RATES OF UP TO 220 bph; BEGIN ADDING LCM TO MUD @ ~3650'; 20-30 BBLS TO FILL HOLE DURING CONNECTIONS; POOH @ 3667' TO CEMENT PLUG #3.

SET CMT PLUG #3 @ 3667', 150 LINEAR FEET, TAG@ 3471', BASE@ 3667'

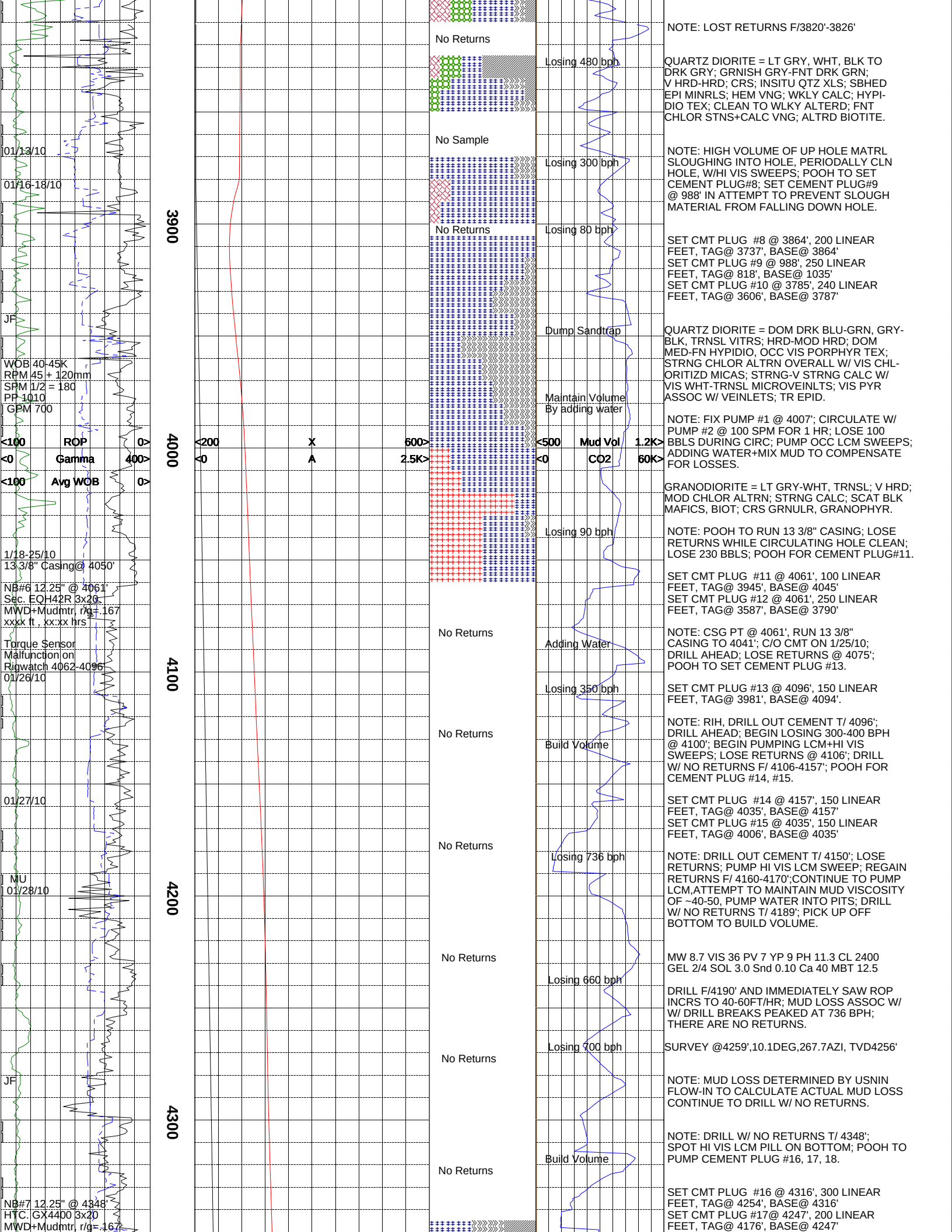
NOTE: CONTINUED LOSS RATES OF ~60-70 BPH; CONTINUE ADDING LCM TO MUD; BEG-IN ADDING WATER @ 3668'; MUD LOSS EQUAL TO ADD RATE; BEGIN LOSING ~100 BPH @ 3728'.

QUARTZ DIORITE = DOM DRK BLU-GRN, LT-DRK GRY, BLK, TRNSL VITRS; V HRD; DOM FN-MED HYPIDIO, OCC CRS; STRNG CHLOR ALTRN; V STRNG CALC; VIS DRK RED HEM VEINLETS, YEL-GRN EUHED EPID VEINLETS.

NOTE: LOSE RETURNS @ 3761'; LOST 90 BBLS TO FILL HOLE DURING CONNECTION; DRILL T/ 3769, SPOT HIGH VIS LCM PILL.

SET CMT PLUG #4 @ 3767', 200 LINEAR FEET, TAG@ 3491', BASE@ 3767'
SET CMT PLUG #5 @ 2639', 200 LINEAR FEET, TAG@ 2506', BASE@ 2701'
SET CMT PLUG #6 @ 2040', 200 LINEAR FEET, TAG@ "UNDETERMINED"
SET CMT PLUG #7 @ 2008', 200 LINEAR FEET, TAG@ 1733', BASE@ 2196'

NOTE: ADDING LCM TO MUD SYSTEM; MAINTAIN 25%LCM, INCRSD TO 35%LCM. CONTINUE TO LOSE 360 BPH.



NOTE: LOST RETURNS F/3820'-3826'

QUARTZ DIORITE = LT GRY, WHT, BLK TO DRK GRY; GRNISH GRY-FNT DRK GRN; V HRD-HRD; CRS; INSITU QTZ XLS; SBHED EPI MINRLS; HEM VNG; WKLY CALC; HYPI-DIO TEX; CLEAN TO WLKY ALTERD; FNT CHLOR STNS+CALC VNG; ALTRD BIOTITE.

NOTE: HIGH VOLUME OF UP HOLE MATRL SLOUGHING INTO HOLE, PERIODALLY CLN HOLE, W/HI VIS SWEEPS; POOH TO SET CEMENT PLUG#8; SET CEMENT PLUG#9 @ 988' IN ATTEMPT TO PREVENT SLOUGH MATERIAL FROM FALLING DOWN HOLE.

SET CMT PLUG #8 @ 3864', 200 LINEAR FEET, TAG@ 3737', BASE@ 3864'
SET CMT PLUG #9 @ 988', 250 LINEAR FEET, TAG@ 818', BASE@ 1035'
SET CMT PLUG #10 @ 3785', 240 LINEAR FEET, TAG@ 3606', BASE@ 3787'

QUARTZ DIORITE = DOM DRK BLU-GRN, GRY-BLK, TRNSL VITRS; HRD-MOD HRD; DOM MED-FN HYPIDIO, OCC VIS PORPHYR TEX; STRNG CHLOR ALTRN OVERALL W/ VIS CHL-ORITIZD MICAS; STRNG-V STRNG CALC W/ VIS WHT-TRNSL MICROVEINLTS; VIS PYR ASSOC W/ VEINLETS; TR EPID.

NOTE: FIX PUMP #1 @ 4007'; CIRCULATE W/ PUMP #2 @ 100 SPM FOR 1 HR; LOSE 100 BBLS DURING CIRC; PUMP OCC LCM SWEEPS; ADDING WATER+MIX MUD TO COMPENSATE FOR LOSSES.

GRANODIORITE = LT GRY-WHT, TRNSL; V HRD; MOD CHLOR ALTRN; STRNG CALC; SCAT BLK MAFICS, BIOT; CRS GRNULR, GRANOPHYR.

NOTE: POOH TO RUN 13 3/8" CASING; LOSE RETURNS WHILE CIRCULATING HOLE CLEAN; LOSE 230 BBLS; POOH FOR CEMENT PLUG#11.

SET CMT PLUG #11 @ 4061', 100 LINEAR FEET, TAG@ 3945', BASE@ 4045'
SET CMT PLUG #12 @ 4061', 250 LINEAR FEET, TAG@ 3587', BASE@ 3790'

NOTE: CSG PT @ 4061', RUN 13 3/8" CASING TO 4041'; C/O CMT ON 1/25/10; DRILL AHEAD; LOSE RETURNS @ 4075'; POOH TO SET CEMENT PLUG #13.

SET CMT PLUG #13 @ 4096', 150 LINEAR FEET, TAG@ 3981', BASE@ 4094'.

NOTE: RIH, DRILL OUT CEMENT T/ 4096'; DRILL AHEAD; BEGIN LOSING 300-400 BPH @ 4100'; BEGIN PUMPING LCM+HI VIS SWEEPS; LOSE RETURNS @ 4106'; DRILL W/ NO RETURNS F/ 4106-4157'; POOH FOR CEMENT PLUG #14, #15.

SET CMT PLUG #14 @ 4157', 150 LINEAR FEET, TAG@ 4035', BASE@ 4157'
SET CMT PLUG #15 @ 4035', 150 LINEAR FEET, TAG@ 4006', BASE@ 4035'

NOTE: DRILL OUT CEMENT T/ 4150'; LOSE RETURNS; PUMP HI VIS LCM SWEEP; REGAIN RETURNS F/ 4160-4170';CONTINUE TO PUMP LCM,ATTEMPT TO MAINTAIN MUD VISCOSITY OF ~40-50, PUMP WATER INTO PITS; DRILL W/ NO RETURNS T/ 4189'; PICK UP OFF BOTTOM TO BUILD VOLUME.

MW 8.7 VIS 36 PV 7 YP 9 PH 11.3 CL 2400 GEL 2/4 SOL 3.0 Snd 0.10 Ca 40 MBT 12.5

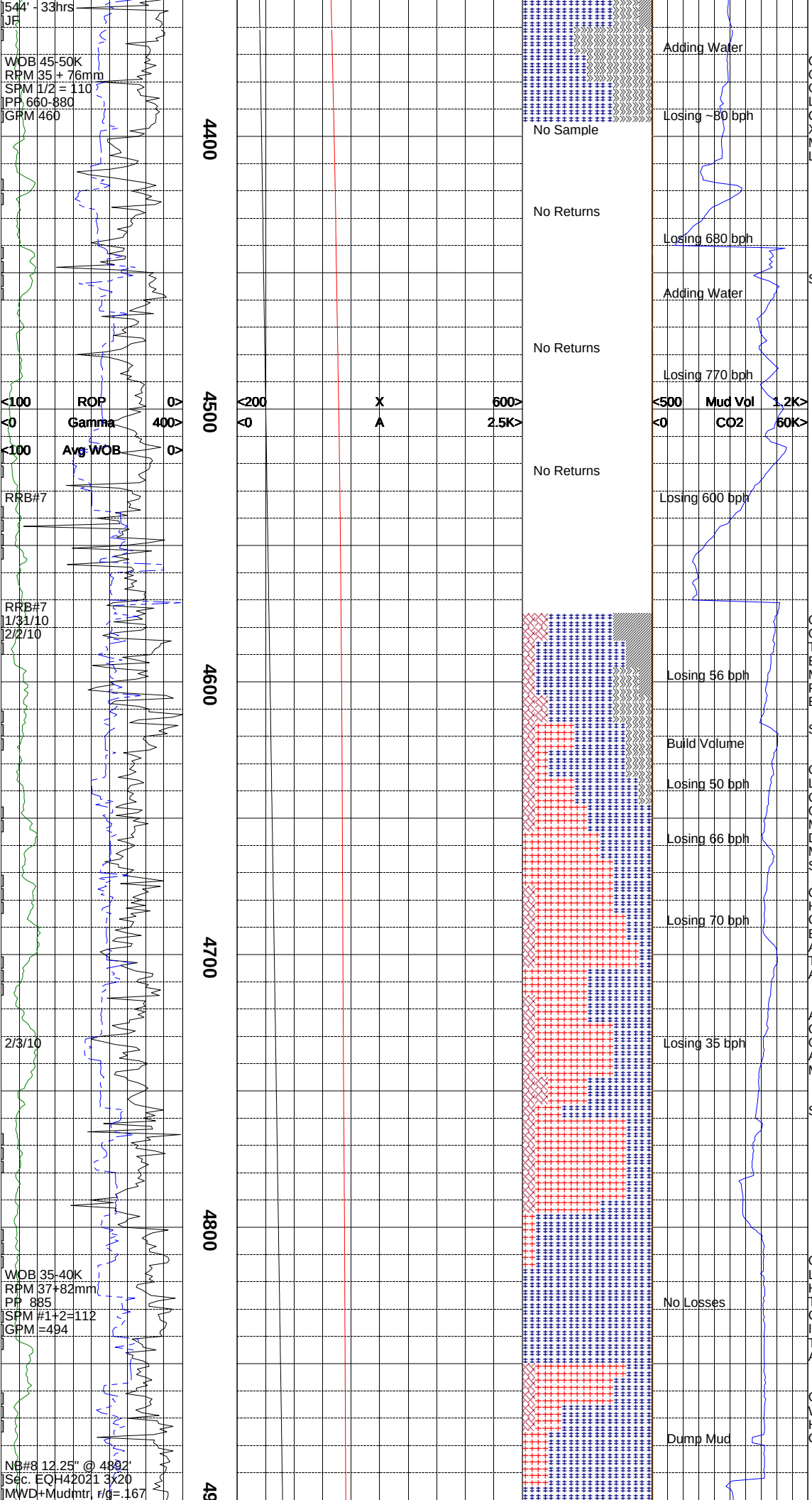
DRILL F/4190' AND IMMEDIATELY SAW ROP INCRS TO 40-60FT/HR; MUD LOSS ASSOC W/ W/ DRILL BREAKS PEAKED AT 736 BPH; THERE ARE NO RETURNS.

SURVEY @4259',10.1DEG,267.7AZI, TVD4256'

NOTE: MUD LOSS DETERMINED BY USNIN FLOW-IN TO CALCULATE ACTUAL MUD LOSS CONTINUE TO DRILL W/ NO RETURNS.

NOTE: DRILL W/ NO RETURNS T/ 4348'; SPOT HI VIS LCM PILL ON BOTTOM; POOH TO PUMP CEMENT PLUG #16, 17, 18.

SET CMT PLUG #16 @ 4316', 300 LINEAR FEET, TAG@ 4254', BASE@ 4316'
SET CMT PLUG #17@ 4247', 200 LINEAR FEET, TAG@ 4176', BASE@ 4247'



SET CMT PLUG #18 @ 4176', 200 LINEAR FEET, TAG@ 4117', BASE@ 4176'

QUARTZ DIORITE = DOM BLK, DRK BLUISH-GRN, GRY, TRNSL VITRS; DOM V FN EQUI-GRNLR, PREDOM CRS-MED HYPIDIO TEX; LOC ABUND EUHED+CUBIC PYR; COM VIS CHLORTZD MICA+UNALTRD BIOT; TR QTZ XTALS W/ VIS CONCHDL FRAC, TR INSITU; MOD-STRNG CHLOR ALTRN; WK-MOD CALC; LOC VIS LT PINK PLAG.

NOTE: LOSE RETURNS @ CONN; 25-30 BBLS TO FILL HOLE; INTERMITTENT PERIOD OF NO ~25-30 BBLS TO FILL HOLE; INTERMITTENT RETURNS T/ 4430'; LOSE RETURNS; NO SPL AFTER 4390'; POH; BUILD VOL; RAISE VIS; BRING LCM TO ~30%; RIH.

SURVEY @4450',12.7DEG,267.4AZI, TVD4443'

MW 8.8 VIS 47 PV11 YP15 PH 11.3 CL 2400 GEL4/13 SOL 4.0 Snd 0.15 Ca 0 MBT 15

NOTE: NO RETURNS; MUD VISCOSITY IS BETWEEN 36-40; PUMPING 30% LCM; PUMP PRESSURE OCCASIONALLY FLUX BETWEEN 106-572 PSI.

DRILL TO 4570' W/NO RETURNS; POOH.

RUN WITH PACKER TO 3806', PUMP CMT FOAM PLUG; WOC; RIH, TAG TOP OF FOAM PLUG @ 4315', SET ADDITIONAL PLUG @ 4315', BASE OF FOAM PLUG @ 4570'

SET CMT PLUG #20 @ 4315', 200 LINEAR FEET, TAG@ 4200', BASE@ 4315'
SET CMT PLUG #21 @ 4200', 300 LINEAR FEET, TAG@ 4029'/3880', BASE@ 4200'

QUARTZ DIORITE = LIGHT GRAY TO GRAY W/ OCC HUES OF GREEN; HRD TO V HRD; CRS TO FN GRND HYPIDIO TEXTRE; LOC ABUND EUH-PYRITE; COM CHLORITIZED MICAS; MOD REXTION W/ HCL; OCC VIS LIGHT PINK PLAG; MOD CHLORITE ALTERATION; TR EUHEDRAL EPIDOTE.

SURVEY @4641',16.4DEG,274.1AZI, TVD4628'

GRANODIORITE = WHITE TO LIGHT GRAY, OCC LIGHT BROWN TO ORANGE; HARD TO V HARD; CRS TO FN GRND HYPIDIO TEXTRE; LARGE GRNS OF ORANGE-BRN PLAG;SCT MICACEOUS MATERIAL; OCC CHLORITIZED BIOTITE; TR DISEM PYRITE; MOD KAOLINTIC ALTERATION; MOD TO LOW RXTION W/ HCL; OCC TR HEM STNING; OCC TR EPIDOTE.

QUARTZ DIORITE = lIGHT GRAY TO GRAY W/ HUES OF PALE GREEN; HARD TO MOD HARD; CRS TO FN GRND HYPIDIO TEXTRE; COM BIOTITE; BIOTITE COM TO RARE CHLORITE ALTERATION; OCC TR EUHD EPIDOTE; MOD TO WEAK RXTION TO HCL; OCC KAOLINTIC ALTERATION.

ALTERED ZONE = WHITE TO PALE GREEN-OCC DARK GREEN; MOD HARD TO HARD; GRANULAR TEXT; OPAQUE WHT KAOLINTIC ALTERATION WITH CLORITIZED MICACEOUS MATERIAL; MOD TO WEAK RXTION W/ HCL.

SURVEY @4736',17.8DEG,275.6AZI, TVD4719'

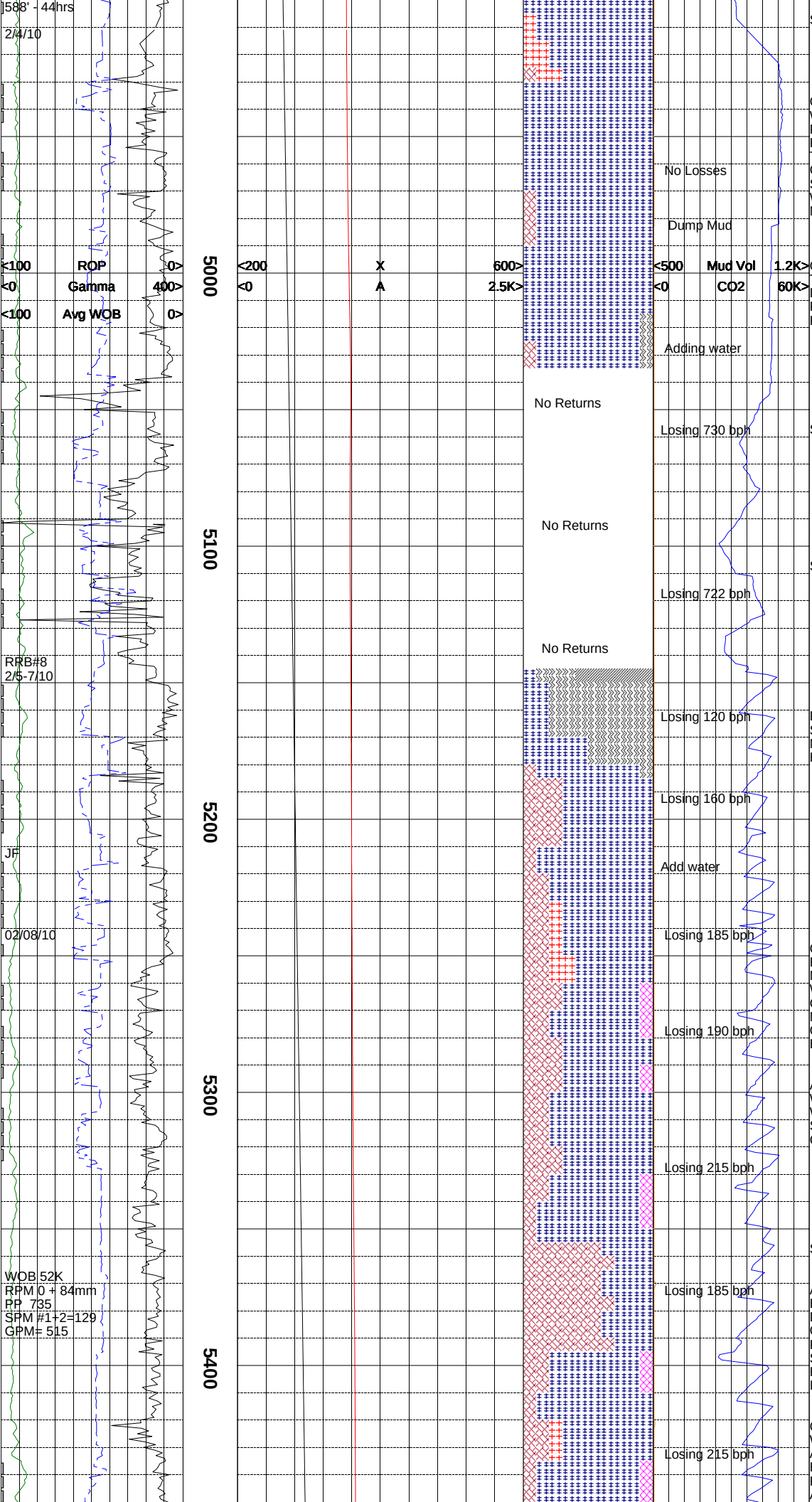
SAMPLE 4780' RECOVERED AFTER MUD SYSTEM WAS BYPASSED FROM SHAKER.

NOTE: CONTINUE BY-PASSING SHAKERS. RAISE % OF LCM, FROM 10% TO 30%.

QUARTZ DIORITE = DRK GRY, GRNISH GRY; LT GRY-BLK; VRY HRD, CRS, MOTTLD HUES; HYPIDIO TEX; RR HEM STNS;RR ANHED EPID; TR ALTRD MAFICS/HRNBLND-MICAS; COM CHLOR STN; TR EUHED PYRITE; SCT WHT INSITU CALC DEPOS;SCT FRAGS W/VIS LOC HI TEMP MINRL ALTERATN; DOM WKLY TO NON-ALTRD SCT FRAG W/ALTRD RELIC TEX.

GRANODIORITE = LT GRY-WHT, OCC DRK GRY W/OCC PINK HUES F/ORTHOCLASE MIN; VRY HRD; CRS; HYPIDIO W/COM INSITU QTZ; COM CHLORITIZATION ALTERATIONS.

POOH @ 4892', FOR NEW BIT.



SURVEY @4927',20.7DEG,277.3AZI, TVD4899'

NOTE: CONTINUE BY-PASSING SHAKERS.

QUARTZ DIORITE = DRK GRY, BLK, LT GRY WHT, COM SPECKLD GRNISH HUES; APPRS PEPPERED; VRY HRD; CRS; OCC SOFT WHT FUSED KAOLN CLY MAT; COM HYPIDIO TEX; TR ALTRD FRAG W/RELIC TEX; COM INSITU CALC DEPOS; TR HEM SPECKS; TR EPID, RR SCT REMNT CHLOR STN; COM BLK HRNBLND W/ASSOC ALTRD MAFICS; PRDM CLN W/TR MOD ALTRD FRAGS.

QUARTZ DIORITE = DRK GRY-BLK; LT GRY TO OFF WHT; OPAQUE; VRY HRD; CRS; COM DRK HORNBLND/MICA MIN; SEC HEM FRAC FILL; TR CALC VEINLETS/DEPOS; TR EPID;TR PYRITE; TR WKLY-MOD ALTRD FRAGS;

LOST RETURNS @ 5043', DRIL BRK F/5043' TO 5049'; BUILD VOLUME PLUS PUMP LCM SWEEPS; MAINTN 40 VIS; CONTINUE TO DRILL AHEAD BLIND.

SURVEY @5022',22.3DEG,275.2AZI, TVD4988'

NOTE: LOST PUMP PRESSURE @ 5087; DRILL BREAK OF 162 FT/HR @ 5092.

DRILL TO 5143', W/NO RETURNS.

SURVEY @5118',23.9DEG,278.1AZI, TVD5076'

SET CMT PLUG#22@5143',300 LIN FT, TAG PLUG@5050', BASE@ ????', SET PLUG#23 @5050', TAG @5049', SET PLUG#24@5049' TAG @5049',SET PLUG#25@5046',TAG @5048' SET PLUG#26, TAG @5049, SET PLUG#27 @5048', 300' LIN FT, TAG @4850',

DIORITE = DRK BLK, TR GRN, W/LT GRY-WHT STRKS; V HRD, CRS; HYPIDIO; EQUIGRNLR MAFICS-HRNBLD/MICA; SUBHED EPID; TR HEM+INSITU CALC; DOM CLN WKLY ALTRD.

NOTE: CONTINUE BY-PASSING SHAKERS; ATTEMPT TO MAINTAIN PIT VOLUME OF ~1030; ADD WATER ROUGHLY EVERY HOUR TO COMPENSATE FOR LOSSES OF 160-190 BPH.

MW 8.6 VIS 40 PV10 YP16 PH 11.5 CL 2500 GEL3/11 SOL 3.0 Snd 0.25 Ca 40 MBT 17.5

QUARTZ DIORITE = DOM DRK-LT GRY, DOM BLUISH-GRN, TRNSL-VITRS; V HRD-MOD HRD; MED-CRS HYPIDIO TEXTRE; V STRNG CALC W/ VIS TRNSL VEINLETS+IN SITU; V STRNG CHLOR ALTRN THRUOUT, W/ VIS CHLORTZD MICAS+DOM LT BLU-GRN HUES; TR LT PINK QTZ MONZO FRAGS; TR EPID VEINLETS, SUB-EUHED PYR, HEM STN.

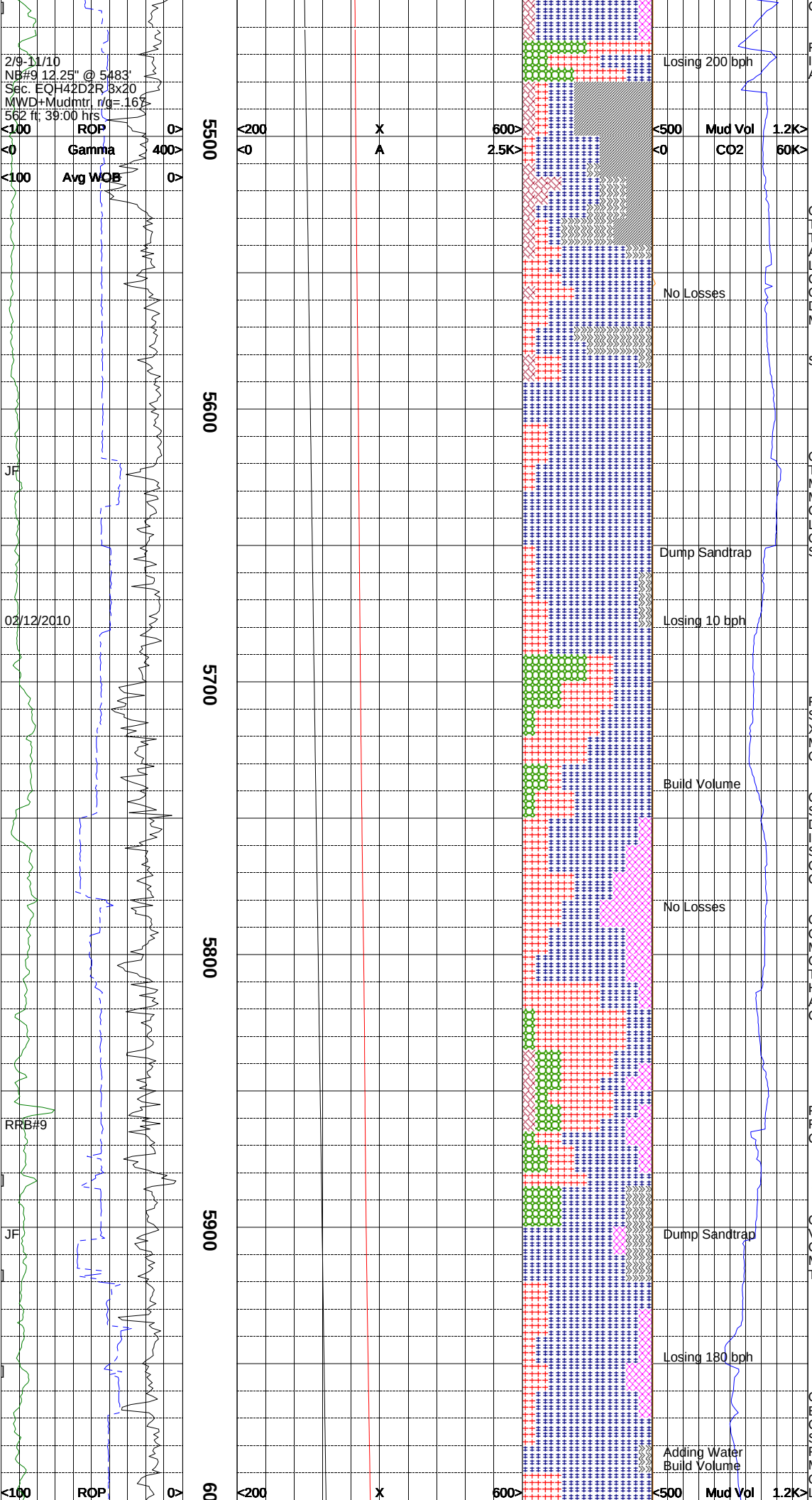
ALTERED ZONE MAT'L = DOM LT BLU-GRN, WHT-LT GRY; HRD-MOD FIRM; COM VIS WAXY TEXTRE, FN HYPIDIO IN MASSIVE SAMPLE; V STRNG CALC; ABUND CHLOR+ CHLORTZD MICAS; WHT MAT'L LWR FIRM.

NOTE: ADDING WATER EVERY HOUR; LOSS RATE 175-215 BPH; MAINTAIN 30% LCM IN MUD SYSTEM+40VIS.KEEP PITS ABV 900bbl

SURVEY @5404',27.1DEG,277.0AZI, TVD5332'

ALTERED ZONE = COM GRNISH GRY; LT GRY-BLK; WHT-DRK GRY; OPAQUE; MOD HRD-SOFT DENSE-CRUB; UNIFORM; PROPYLITIC; SCT OFF WHT KAOLN W/HEM STNS; MICROPORPHY RELIC TEX; ABUDNT INSITU CALC DEPOS; MOD STRNG RXN TO HCL; SUBHD EPID; TR SPECKLR HEM; TR EUHED PYRITE; MOD-HIGHLY ALTERD INTERVAL W/HVY CHLORITIZATION.

QUARTZ DIORITE = DRK GRY, BLK-LT GRY WHT, REMANT GRNISH GRY HUES; COM ALTRD MAFICS; MOD CHLORITIZATION; VRY HRD; CRS-MED CRS; PEPPERED HYPIDIO TEX FELSIC W/TR K-SPR; LSE QTZ >5%; PORPHY/ ALTRED FRAG W/RELIC TEX; CONTIN INSITU



CALC DEPOS; CLN-WKLY ALTRD.

FELSIC DIKE = WHT, CLR, OPQUE; TR ORNG INFERD SPL-5480', V HRD; MILKY MICROXLN APPRNC; TR EPID/PYR;TR EVD QTZ MONZONT.

POOH @ 5483',FOR CEMENT PLUGS/NEW BIT.

SET CMT PLUG#28@5483',300 LIN FT, TAG PLUG@5295', BASE@ 5483', SET PLUG#29 @5295', 300' LIN FT, TAG @5055'.

QUARTZ DIORITE = LT GRY, CLR, DRK BLK TO DRK GRY; GRNISH GRY-WHT; VRY HRD TO BRITL; OCC SOFT; ALTRD KAOLN W/COM ALTERED CHLORTZD FRAGS; VARIED-UNIFRM LITH; MINR PROPYLITIC/RELIC TEX; W/COM CLN HYPIDIO TEX; EUHD EPID; TR PYRITE; OCC FNT HEM STRKS; CONTND INSITU CALC DEPOS; SCT FELSICS; >10%QTZ; COM HRNBLD MICA/FSPR; MOD-WKLY ALTRD FRAGS.

SURVEY @5594',27.6DEG,273.6AZI, TVD5501'

MW 8.9 VIS 40 PV10 YP16 PH 11.2 CL 2600 GEL4/11 SOL 5.0 Snd 0.25 Ca 40 MBT 17.5

QUARTZ DIORITE = DOM DRK GRY-BLK, TRNSL VITRS, OCC SLI BLUISH-GRN HUES; MED-CRS HYPIDIO TEXTRE; ABUND BIOT+ MICA; WK-MOD CALC OVERALL; V WK-WK CHLOR ALTRN, SLI VIS CHLORTZN; ABUND LOC EUHED EPID, COM VIS VEINLETS; OCC DRK GRY CLAY-LIKE CONSTNCY IN SAMPLE; TR LOC SUBHED PYR, HEM STN.

NOTE: CONTINUE DRILLING WITH FULL RETURNS AND LOSS RATE OF 5-15 BPH; NO LCM IN MUD SYSTEM; MIXING AND BUILDING VOLUME W/O ADDING H2O; DUMP SANDTRAP EVERY OTHER CONN-ECTION.

FELSIC DIKE = DOM LT PINK-TRNSL PINK, SCAT DRK GRN MICRO-SPECKS; MICRO-XTALLNE TEXTRE; ABUND DRK GRN MAFICS; WK CALC OVERALL; SURRNDING QTZ DIORITE MOD CHLOR ALTRN.

GRANODIORITE = DOM DRK-LT GRY, OCC SLI BLUISH-GRN HUES, BLK, TRNSL VITRS; DOM GRANOPHYR, OCC VIS MED-CRS HYP-IDIO TEXTRE; V HRD-HRD; SCAT BLK MAFICS; SCAT LT PINKISH FRAGS, POSS QTZ MONZO OR PLAG; WK-MOD CALC OVERALL; WK CHLOR ALTRN.

QUARTZ MONZONITE = DOM LT-BRITE PINK, OCC VITRS-TRNSL, OPQE; V HRD-HRD; DOM MED-CRS HYPIDIO/GRANLR TEXTRE; VIS PYR GROWTH IN QTZ, POSS INDICATVE OF HYDRO-THRML VEINING; STRNG-MOD CALC; TR SPOTY HEM STNS; COM YEL-GRN MINRL, POSS EPID; ABUND PINK PLAG THRUOUT; MOD-STRNG CHLOR ALTRN IN SURR QTZ DIORITE.

DRILL TO 5864', POOH TO SHOE FOR RIG REPAIRS IN SCR HOUSE.

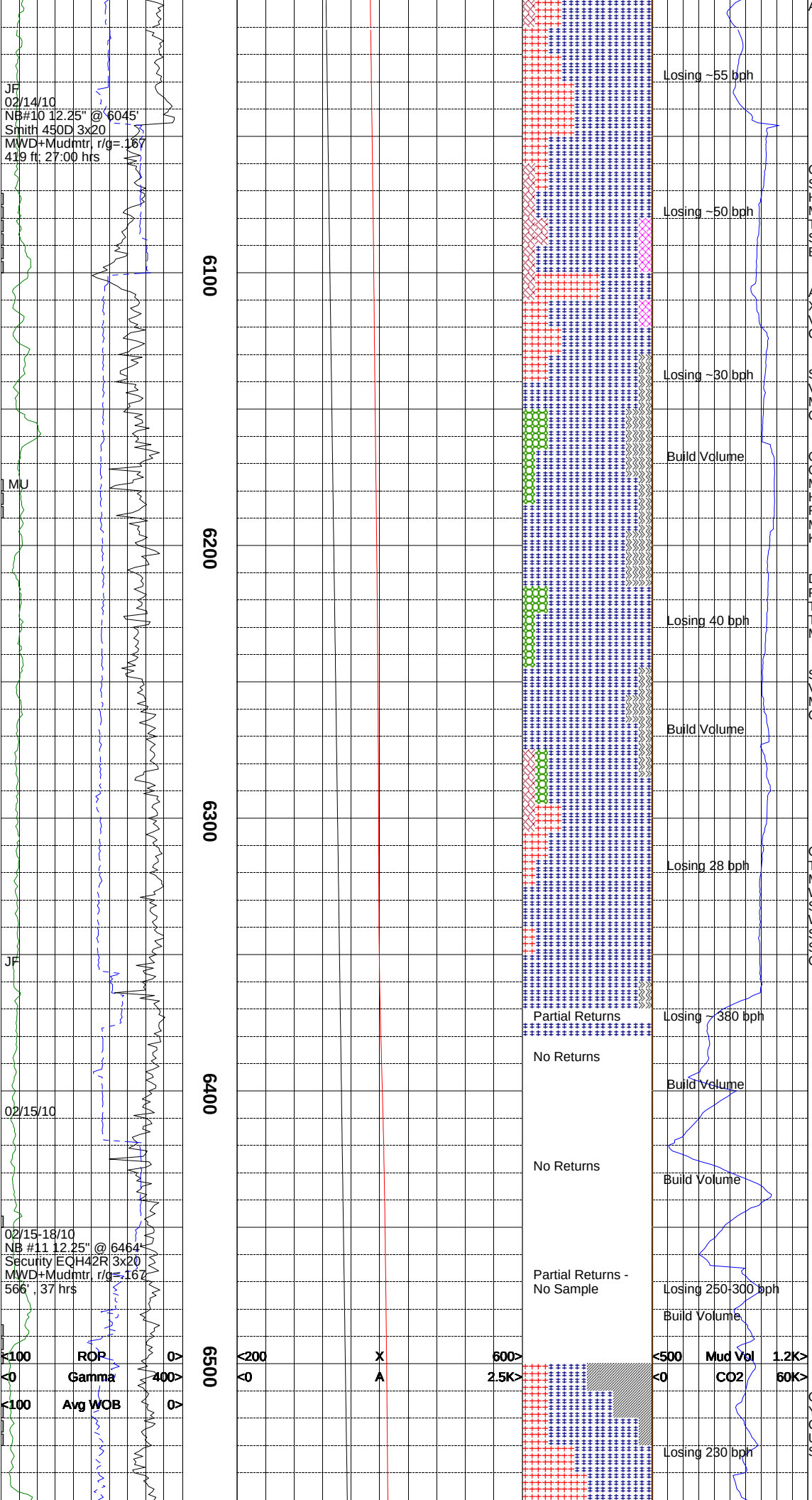
FELSIC DIKE = LT GRY-OPAQUE; VRY HRD; FNT INSITU BLK SPECS/MAFICS; PROPHY; COM CHLOR QTZ DIORITE FRAGS.

SURVEY @ 5881', 25.9 DEG, 275.00 AZI TVD 5758.05', 55.87'N, 628.78'W

QTZ DIORITE = DOM DRK GRY-BLK, TRNSL VITRS; HRD-MOD HRD; CRS-MED HYPIDIO; COM VIS SUBHED PYR CLUSTRS ASSOC W/ MOD CHLOR ALTRN+QTZ; MOD-STRNG CALC; TR SUB-EUHED YEL-GRN EPID, RD HEM STN.

NOTE: DRILL BREAK @ 5933'; ROP OF 43 FT/HR; BEGIN LOSING FLUID AT ~180 BPH; BEGIN ADDING WATER TO PITS; RUN LCM SWEEPS EVERY 2 HOURS.

QUARTZ DIORITE = DOM DRK BLUISH GRN, BLK, TRNSL VITRS; MOD HRD-HRD; DOM CRS HYPIDIO TEXTRE; VIS DRK RED HEM SPTS+STN BTWN BIOT CLVGE PLANES; TR PYR THRUOUT, OFT ASSOC W/ CHLORTZD MAFICS; STRNG CALC; STRNG CHLOR ALTRN OVERALL; SCAT QTZ MONZONTE FRAGS; LOC COM PINK PLAG; SCAT WHT, SLI FRI-



ABLE NON CALC MAT'L, POSS KAOL.

NOTE: DECREASED LOSSES DUE TO LCM SWEEPS; FLUID LOSS RATES REDUCED TO ~50-60 BPH; ~15-20% LCM IN MUD SYSTEM.

POOH @ 6045',FOR NEW BIT. LOST 443+bbls DURING TRIP.

QUARTZ DIORITE = DOM LT GRNISH-GRY W/ SLI YEL-GRN HUES; HRD-MOD HRD; CRS-MED HYPIDIO TEXTRE; ABUND EPID+YEL EU-SUBHED MINRL; DRK YEL-GRN-BLU CHLOR ALTRN; TR COM PYR ASSOC W/ CHLOR+QTZ; NO HEM STN; MOD-STRNG CALC OVERALL; TR MICA+ BIOTITE.

ALTERED MATERIAL = WHT-OFF WHT; MICRO-XTALLNE; SLI FRIABLE-FIRM; DOM NON CALC; VIS PYR GRWTH INSIDE WHT MAT'L; VIS CHLOR STNING.

SILICIC DIKE = DOM DRK-LT GRY, TRNSL-SLI VITRS, MICRO GRN DRK SPECKS; V HRD; DOM MICRO-CRYPTOXTALNE TEXTRE, SLI SUCR-OSIC; VIS PYR IN TRNSL MATRIX.

QUARTZ DIORITE = DOM GRAY TO LGHT GRAY OCC GRNISH HUES; MOD HRD TO HRD; CRS TO MED GRND HYPIDIO TEXTRE; COM BIOTITE; TR HEM STNING FOUND W/ SLTERD MATERIAL; RARE TO COM CHLORITE; TR EUHED EPIDOTE; MOD RXTION W/ HCL; MOD TO V ALTERED, KAOLINITIC + CHLORITE ALT.

DIORITE = BLK TO DRK GRAY; HRD TO V HRD; RARE BIOTTIE; TR CHLORITE STNING; OCC TR HEM STNING; FN GRND HYPIDIO TEXTRE; TR DISSEM PYRITE; MOD RXTION W/ HCL; MOD CHLORITE ALTERATION.

SILICIC DIKE = DOM LT GRY, TRNSL-SLI VITRS, MICRO DRK MAFIC SPKS; V HRD; DOM MICRO-CRYPTOXTALNE TEXTRE, SLI SUCR-OSIC; VIS PYR IN TRNSL MATRIX.

SURVEY @ 6169', 26.3 DEG, 273.40 AZI
TVD 6016.97', 64.88'N, 754.55'W

MW 8.8 VIS 40 PV 13 YP 11 PH11 CL2800
GEL 6/12 SOL 3.0 Snd 0.15 Ca 60 MBT17.5

QUARTZ DIORITE = DOM DRK GRY-BLK, TRNSL-VITRS, SLI LT BLU-GRN HUES; V HRD-MOD HRD; DOM CRS-MED HYPIDIO TEXTRE; WK-MOD CALC OVERALL; TR SUBHED EPID; SUBHED PYR; NO HEM STN; MOD CHLOR W/ ASSOC SUBHED PYR; TR DRK RED HEM STNS; COM SUB HED LT YEL-GRN EPID; SCAT LT PINKISH PLAG; TR BIOT W/ VIS CHLORTZD MICAS.

NOTE: DRILL BREAK @ 6363'; ROP SPIKES OF 37 FT/HR, DIP IN WOB OF ~10K LBS; BEGIN LOSING ~380 BPH; BEGIN ADDING LCM+COTTONSEED, WATER, GEL; ATTEMPT TO MAINTAIN 38-40 VISCOSITY; LOSE RETURNS @ 6392', 80 BBLS TO FILL HOLE; REGAIN PARTIAL RETURNS @ 6397'; LITTLE TO NO SAMPLE @ SHAKERS.

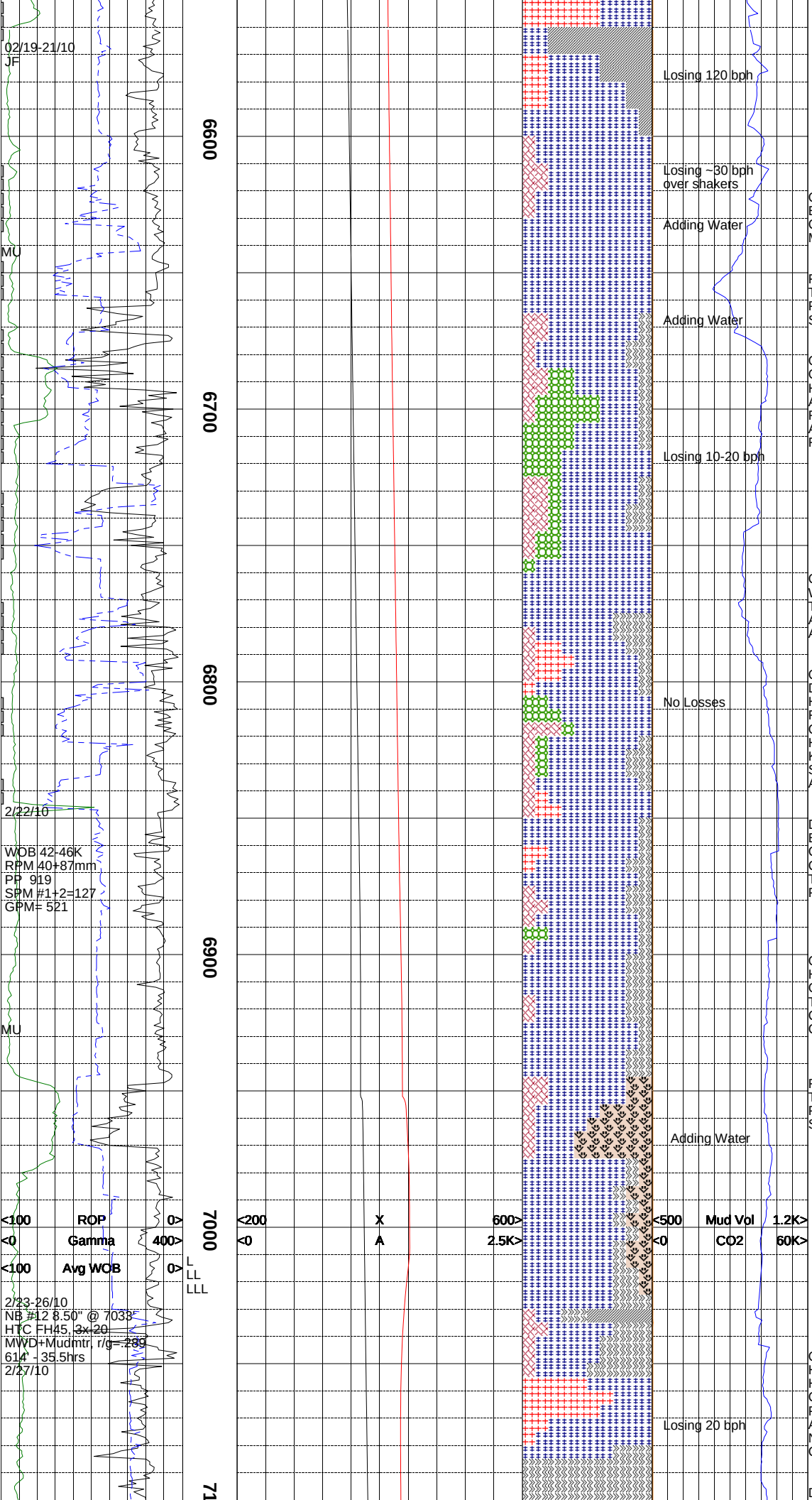
NOTE: LOSE FULL RETURNS @ 6413'; RUN HI VIS LCM SWEEPS 1-2 TIMES PER HOUR; DRILL W/ NO RETURNS TO 6464'; POOH TO SET CEMENT PLUG #30.

SET CMT PLUG#30@ 6454',300 LIN FT, TAG PLUG@6387', BASE@ 6454'; SET PLUG#31 @6359', 300' LIN FT, TAG @6129', BASE @ 6359'; SET CMT PLUG#32 @ 6110'; 300 LN FT, TAG PLUG @ 5952', BASE @ 6110'; SET CMT PLUG#33 @ 5950', 300 LIN FT, TAG PLUG @ 5588', BASE @ 5950'.

NOTE: DRILL OUT OF CMT @ 6464'; BEGIN LOSING UP TO 150 BPH; BEGIN ADDIN LCM, WATER; LOSING 80-150 BBLS TO FILL HOLE AT EVERY CONNECTION; PARTIAL RETURNS AT SHAKERS, NO SAMPLE F/ 6464-6510'.

QUARTZ DIORITE = DRK GRY-BLK, COM DRK YEL-GRN, TRNSL; HRD; MED HYPIDIO; WK CHLOR ALTRN; ABUND BIOT; DOM FRESH UNALTRD APPRNCE; V FN CTGS FROM SHAKRS; MOD CALC OVERALL.

NOTE: CONTINUE W/ PARTIAL RETURNS; LOSSES RANGE F/ 200-250 BPH; POOH @



6566' TO SET CEMENT PLUG #34-37.

SET CMT PLUG#34@ 6559',300 LIN FT, TAG PLUG@6385', BASE@ 6559'; SET PLUG#35 @6365', 300' LIN FT, TAG @6166', BASE @ 6365'; SET CMT PLUG#36 @ 5093'; 300 LN FT, TAG PLUG @ 4902'; SET CMT PLUG #37 @4203',300 LIN FT;TAG@4042'; BASE@4225.

NOTE: DRILL OUT OF CEMENT @ 6566' W/ FULL RETURNS; MIX 1.5 PALETTES LCM PER HOUR; INITIALLY LOSING 120 BPH; SLOW LOSSES TO 50 BPH.

QUARTZ DIORITE = DOM LT BLU-GRN, GRY, BLK; HRD-MOD HRD; MED HYPIDIO; STRNG CHLOR ALTRN W/ VIS CHLRTZD BIOT; ABUND MICRO PYR; LOC STRNG CALC; HEM STN.

FELSIC DIKE = OPAQUE WHITE; MICROXTALLIN TEXTRE; V HARD; MOD TO ABUNDANT CUBIC PYRITE; OCC TR TO RARE CHLORITE AND HEM STNING ALONG CONTACT WITH QUARTZ DIORITE

QUARTZ DIORITE = LIGHT GRAY TO OCC DRK GRAY W/ HUES OF GRN; HRD TO V HRD; HYPIDIO TEXTRE; STRONG CHLORITE ALTERATION W/ OCC RAR CLAY ALT; TR TO RARE HEM STNING AND VEINING; MOD TO ABUNDANT CUBIC PYRITE, OCC DISSEM; RARE TO COM SUBHED YEL-GRN EPIDOTE;

MW 8.7 VIS42 PV10 YP 18 PH11.5 CL2800 GEL 4/14 SOL 3.0 Snd 0.25 Ca 60 MBT17.5

SURVEY @ 6742', 26.6 DEG, 277.00 AZI TVD 6535.23', 82.78'N, 998.06'W

QUARTZ DIORITE = LIGHT GRAY TO DRK GRAY W/ HUES OF GRN; HRD TO V HRD; HYPIDIO TEXTRE; STRONG CHLORITE ALT W/ OCC CLAY ALT; SUBHED YEL-GRN EPIDOTE; MOD TO ABUNDANT CUBIC PYRITE, OCC DISSEM;

QUARTZ DIORITE = DRK GRY-GRNSH GRY;BLK DRK GRNSH GRY; WHT RHYOLITIC FRAG; COM HYPIDIO TEX; CLR-TRNSLU FELSIC DIKE MAT FRAGS; VARIABL LITH; VRY HRD TO BRITTL; OCC SFT;MED CRS-FN; INSITU CALC; TR HEM-HEM VNG; COM EUHED PYRITE; COM EPI; K-SPR, >10%QTZ; SCT PLAG; VIS MAFICS W/ SCT LSE ALTRD MICA FLKS;PROPYLITIC/NON ALTRD TO CLN; COM-WK CHLORITZD STNG.

DIORITE = DRK GRY TO BLK; SUBTLE GRNSH BLK HUE; VRY HRD; V FINE; EQUIGRANLUR; CALC; TR EPID;ALTRD MICA;COM PYRITE; FNT CHLORITZD STN; WKLY ALTRD W/VIS RELIC TEX; SPL PREDOM CLN QTZ DIORITE W/HY-PIDIO TEX AND INSITU MICA/CALC MIN.

SURVEY @ 6837', 27.4 DEG, 279.60 AZI TVD 6619.87', 89.02'N, 1040.73'W

QUARTZ DIORITE = GRAY TO DRK GRAY W/ HUES OF LIGHT GRN TO DRK GRN; DOM FN GRND HYPIDIO TEXTRE W/ OCC PORPH TEXTRE; HRD TO V HRD; INSITU CALC; COM CUBIC PYRITE; MOD CHLORITE ALT W/ RARE CLAY ALT; ABUNDANT MICAS; COM EPIDOTE; OCC ENLARGED K-SPAR GRNS.

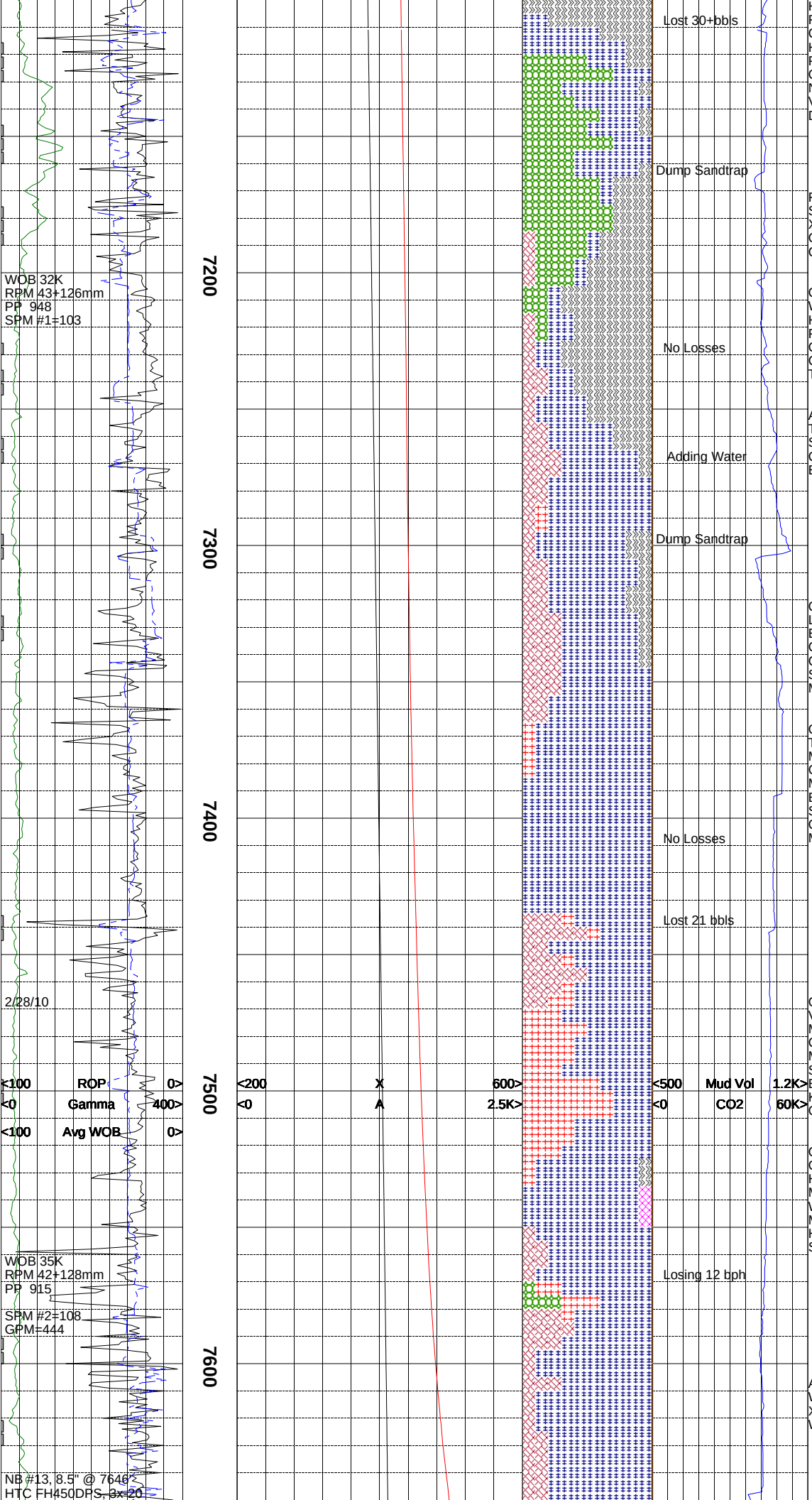
RHYOLITE = OPAQUE WHT;MICROXLN PORPHY TEXTRE; MD HARD; MOD TO ABUNDANT CUBIC PYRITE; OCC TR TO RARE CHLORITE AND HEM STNG ALONG CONTACT WITH QUARTZ DIORITE

MW 8.8 VIS38 PV7 YP 10 PH11.3 CL3300 GEL 4/14 SOL 4.0 Snd 0.50 Ca 60 MBT17.5

NOTE: DRILL TO 7030', CSG PT DETERMINED BY GEOLOGIST;WIPE HOLE, BUT=159F; POOH STRAP OUT W/NO DEPTH ADJUSTMENT; SET 9 5/8" CASING @7024', DRILL OUT SHOE W/ MAX SURFACE TEMP OF 181F, POOH, RIH W/ DIR TOOLS, MAX DOWNHOLE TEMP OF 235°F @ 5445', RTB, CIRCULATE W/MAX SURFACE TEMP OF 188°F

QUARTZ DIORITE = DRK-LT GRY W/GRNISH HUE; HRD, CRUMBLY-SOFT TO BRITL; COM HYPIDIO TEX; VARIBLE RELIC TEX; MED CRS; PNPT INSITU CALC; CHLOR STN; TR PYR; TR EPID; SCT ALTRD DRK MAFICS; COM ALTRD QTZ DIORT W/CRMBLY-BRITL HABIT NON-WKLY ALTRD FRAG;GRDS TO NONALT CRS-GRNULR GRNODIORITE.

DIORITE = BLK-V DRK GRY; SLI GRN HUE;



HRD-BRTL; CRS; DISAGG BLK BIOT; CRS FELSIC CLST; EQUIGRNULR; <10%QTZ; CALC; PNPT HEM MIN W/EUHED PYR; ALTR HRNBLN; LOC PROPYLITIC/RELIC TEX; SCT PLAG/KSPR, FELSIC DIKES; LOC EPIDOTE; OCC CRUMBLY, MINR CHLOR STNG. DOM NONALTRD W/FN MICROLITE INCLUSNS. VIS V THN HEM+PLAG VNG ON DIORIT/QTZ DIORIT CTNG FRAGMNTS.

SURVEY @ 7181', 26.6 DEG, 272.50 AZI
TVD 6928.78', 114.52'N, 1189.74'W

FELSIC DIKE = DOM CLEAR TO OCC WHITE; SUCROSIC TEXTRE; VITREOUS SHEEN; MICRO-XTALLINE; SCATTERED BLACK MICRO MAFICS; OCC PYRITE AND EPIDOTE FOUND ALONG CONTACT BTWN DIKE AND DIORITE.

QUARTZ DIORITE = LIGHT GRAY TO DRK GRAY W/ OCC HUES OF GRN; HRD TO V HRD; HYPIDIO TEXTRE; COM BIOTITE; RARE DISSEM PYRITE; OCC GRNS OF KSPAR; MOD CHLORITE ALT; OCC MOD CLAY ALT; RARE TO COM EPIDOTE; TR HEM STNING; MOD RXTION TO HCL.

ALTERED ZONE = OPAQUE WHITE TO DRK GRN TO OCC LIGHT YEL-GRN; GRANULAR TEXTRE; SOFT TO MOD HRD; STRONG CHLORITE AND CLAY ALTERATION; RARE HEM VEINING, COM EPIDOTE VEINING.

MW 8.8 VIS38 PV9 YP 13 PH11.1 CL3300
GEL 4/9 SOL 3.0 Snd 0.15 Ca 40 MBT17.5

NOTE: DOWN HOLE TEMP 176°F @7320'

QUARTZ DIORTIE = DOM GRNISH GRAY TO LIGHT GRAY; MOD HRD TO V HRD; DOM EQUIGRANIULAR OCC PORPH TEXTRE; STRNG CHLORITE ALT, OCC CLAY ALT; RARE HEM AND CALC VEINING; COM EPIDOTE; TR TO RARE SUBHED PYRITE AND OCC SCATTERED MICACEOUS MATERIAL.

QUARTZ DIORITE = LT GRY-DRK GRY; CLR TRANSLU-OPAQU;WHT,BLK F/INCRSD MAFIC MIN, PRI MICROGRAPHC QTZ+PLAG, TR FNT GRNISH HUE,MOD HRD-BRITL; OCC CRUMBL MED CRS-CRS; PLAG, PORPHY HRNDBLND/ BIOT; W/EPID VNG; INSITU PYR W/LSE CUBIT SOLITARY PYR; HYPIDIOMORPHIC; COM ANG QTZ PHENO/FILL; WKLY CALC; LOC WK ALTRD MATRL; V WK CHLOR STN; DOM CLN-UNALTRD.

SURVEY @ 7467', 27.4 DEG, 269.0 AZI
TVD 7182.31', 118.46'N, 1321.96'W

NOTE: DRILL BREAK @7438', 85 FT/HR. LOST 21 BBLS FROM DRILL BREAK. COM ALTRD FRAGS WITH RELIC TEX AND INCRSD LT-GRN CHLORITIC STAINING.

GRANODIORITE = OPAQUE WHT,CLR-TRNSLU VARIABLE GRYSH HUES;GRDS TO QTZ DIORT; MOD HARD TO FRIABL; TR V HRD; MED CRS-CRS; HYPIODIO TEX; SPECKLD W/LRG INSITU MAFIC CLAST; V WK-NON CALC TR EUHED PYR SUBHED EPI; DISSEM BLK MAFICS W/FN-CRS BIOT, TR/PYRO,QTZ>10%+PLAG; FELSIC, SCT KSPR; PREDOM UNALTERD W/VARIABL AMTS OF WHT TO GRNISH WHT ALTRD FRAGS.

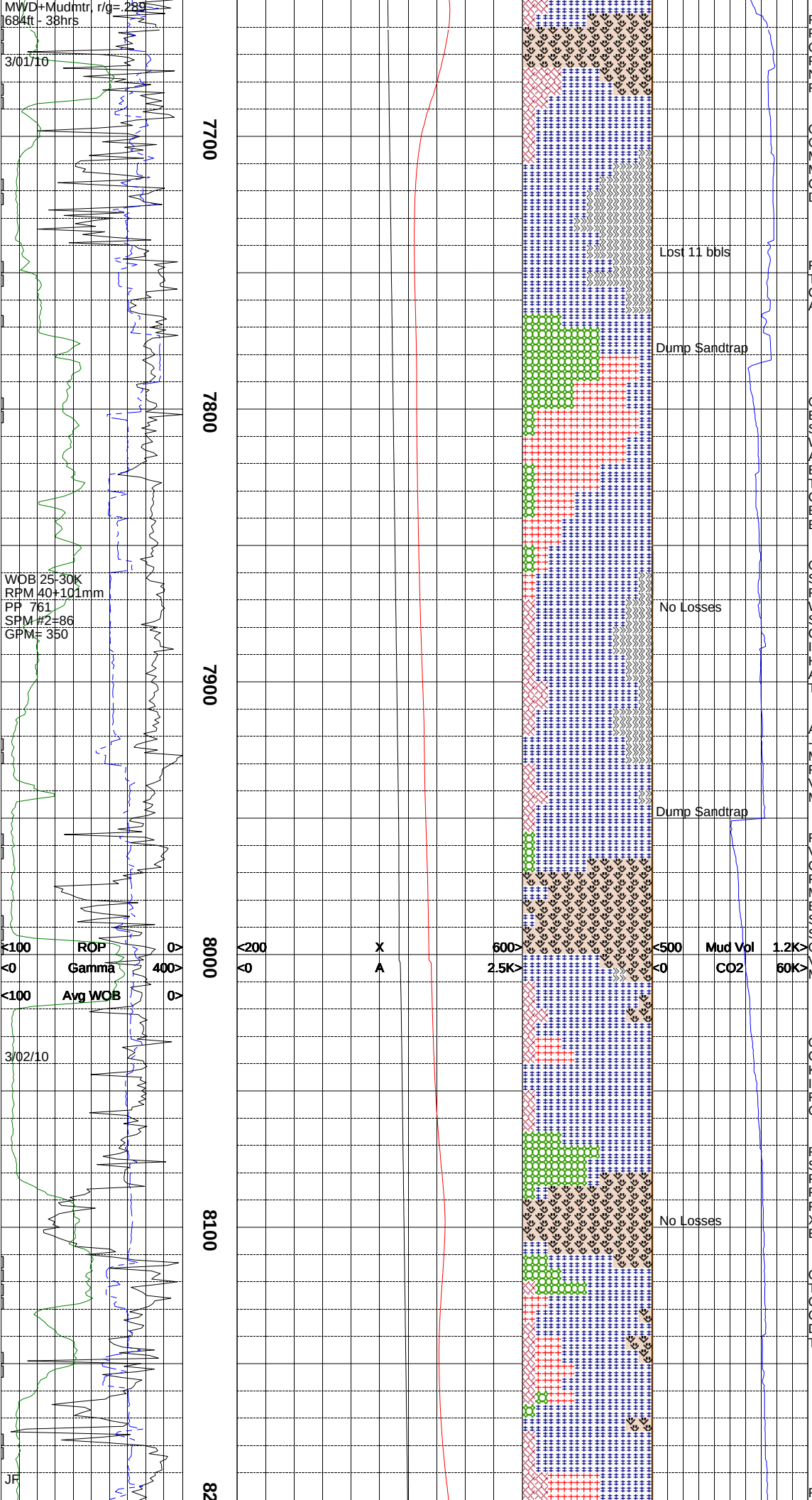
QUARTZ DIORITE = LT GRY-WHT, CLR-DRK GRY TO BLK; TRANSLU-OPAQUE; MOD HRD-HRD-BRITL; FELSIC W/COM QTZ+PLAG FSPR; MED CRS-CRS; GRANULR-HYPIDIO TEX; BIOT W/RR IDIO CRS XLS; COM LT GRNSH ALTRD MATRL W/RELIC TEX; SCT CHLOR STN; SUB HED EPID; FUSED PYR; WK INSITU CALC; SELVG KSPR W/LOC ALTERATN.

NOTE: MULTIPLE DRILL BRKS, LOST 16 BBLS @ 7598', ABUNDANT OFF WHT-LT GRNSH-GRY ALTERD QTZ DIORITE.

SURVEY @ 7562', 26.6 DEG, 269.9 AZI
TVD 7266.95', 118.04'N, 1365.09'W

ALTERED ZONE MATERIAL = DOM WHT-OFF WHT, GRY; FIRM-FIRM FRIABLE; MICRO-XTTLNE TEXTRE; DOM NON CALC; VIS ASSOC W/ EPID + CHLOR FORMTN IN SAMPLE.

POOH @ 7646' FOR NEW BIT. STAG-IN HOLE TO COOL TOOLS; LOST APPROX 70+BBLS.



RYHOLITE = WHT, OPAQUE; MOD HRD-BRITL; PORHY TEX W/PHENO; MICROGRNULR; FINE-GR;FELSIC,INSITU SEC MIN-PRISMATIC CUBIC PYRIT XLS; ROUGH PERLITIC SURF W/SUBTLE NODULE APPRNC; VIS LSE CUBIT PYRITE MIN; REMNT-ALTRD LT BRNISH HEM STNS.

QTZ DIORITE = DRK GRY-BLK GRY; BLK W/LT GRN SPECKLR EPI; COMLY GRDS TO DIORITE MED CRS-CRS; HRD-V HRD; PEPPRD W/BLK MAFICS; VARIBL QTZ PHENO; TR SFT-FRIA CLY SILICATES; EUHED EPID; WK-NON CALC; DECRS IN ALTRD LITH W/DEPTH.

SURVEY @ 7737', 29.2 DEG, 271.20 AZI
TVD 7421.4', 118.57'N, 1447.28'W

FELSIC DIKE = LT GRY-DRK GRY W/COM. TINY INSITU MICROXLN/MICROSPECS; OCC CLR, DOM OPAQUE-WHT; PORPHY TEX; APHAN; HRD TO BRITL; NONALTRD.

MW 8.8 VIS 39 PV10 YP 14 PH11.1 CL3300
GEL 4/9 SOL 3.0 Snd 0.20 Ca 40 MBT 17.5

GRANODIORITE = DOM DRK-LT GRY, ABUND BLK MICRO-SPECKS, TRNSL-VITRS; V HRD-SLI BRITTLE; DOM FN-MED FN GRANOPHYR, W/ VIS SUCROSIC TEXTRES, MICROXTLLNE; ABUND LT-DRK YELLSH GRN EPID W/ ASSOC EUHED CUBIC PYR; SCAT DRK GRY/BLK-TRNSL DIKE FRAGS, V HRD, NON CALC; NON CALC OVERALL; V WK-NO CHLOR ALTRN; VIS BLK-DRK GRY FOLIATNS, RESMBLE GNIESSC BANDING.

QUARTZ DIORITE = DOM DRK GRY-BLK, SLI DRK BLU, OCC TRNSL-VITRS; HRD-FIRM FRIABLE, OCC SLI SOFT MARL CONSTNCY WHEN BLU; DOM FN-MED MICROGRNLR, SLI SUCROSIC, TR HYPIDIO TEXTRE; VW-NON CALC; V WK-WK CHLORTZN, OCC VIS BAND-ING+FOLIATNS W/ DRK GRN HUES; RR VIS HBLNDE, LNG BLADE-LIKE XTALS; TR PYR ASSOC W/ EPID, BLU COLRTN; OCC VIS OPQE TRNSL CALC XTALS.

ALTERED ZONE MATERIAL = WHT-LT GRY, LT -DRK BLU-GRN; FIRM-SLI SOFT; MICROXTLLNE MARL-LIKE TEXTRE; DOM NON CALC, OCC SLI RXN W/ HCL; MOD-STRNG CHLOR ALTRN; OCC VIS ASSOC PYR NEAR CONTACT W/ HRDER MATERIAL.

RYHOLITE = MILKY WHT, SLI GRNSH HUE; V HRD-BRITL; CRS; FELSIC/ALKALI FSPRS+ COM QTZ COMPOSITION, VRY FN; APHAN-PORPHY TEX; DOM ANHED XL W/SEC PRIS-MATIC-CUBIC PYRITE MINERALS; SCATRD EUHED PYRITE; V TR HEM STRKS ON KLN; SUBTLE RNDLIKE PITTED SURFS; SPL RE-SEMBLING WHT GRANITE. CONT SCATRD QTZ DIORITE FRAGS PREDM CLN W/FNT-NO VIS ALTERTN; SCT PURE WHITE ALTERED MATRL W/VIS CHLOR STN AND HEM MIN.

SURVEY @ 8023', 27.2 DEG, 273.80 AZI
TVD 7673.62', 125.93'N, 1581.91'W.

QUARTZ DIORITE = DRK GRY-BLK; TRANSL CLR W/OCC GRNISH HUE; HARD-FRIA; SOFT KAOLN/MARL CONSISTENCY; COM MICROXLS INSITU LITH; MICROGRNULR; ABUNDNT CLN FRAGS W/GD HYPIDIOMORPHIC TEX; NON CALC; LSE CUBIC PYRT CHIPS; TR CHLOR.

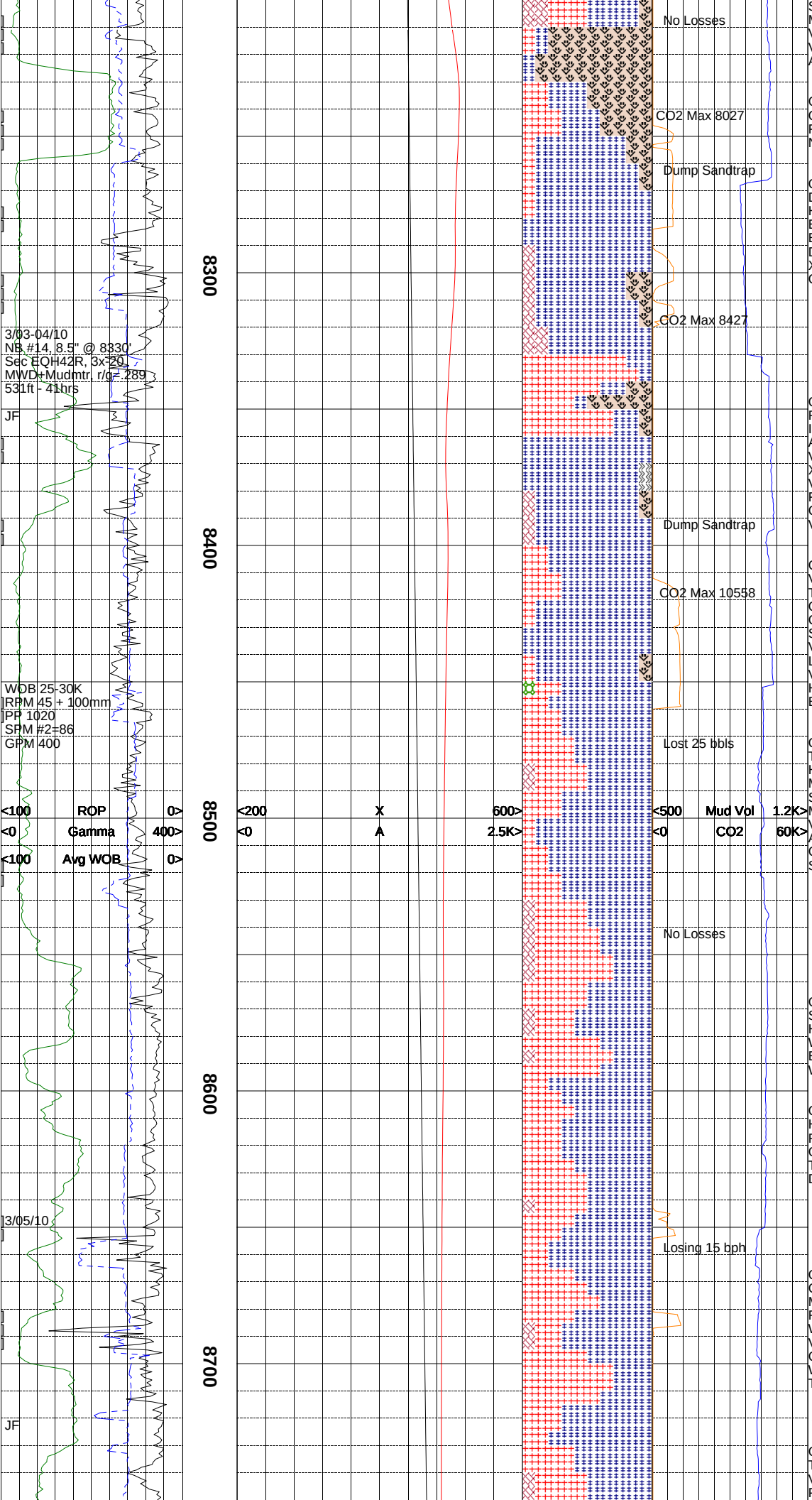
REPEAT RHYOLITE SPL DESCRIP; WHT W/ SLI GRNISH TINT; VRY HARD-BRITL; FELSIC POSS GRDNG TO GRANODIORITE; SUCROSIC-PORPHY TEX; COM QTZ COMPOSITION, VRY FINE; APHAN W/MICROXLS; DOM ANHED XLS W/SECDRY PRISMTC-CUBIC PYRT EM-BEDDED ON CTNG SURFACES.

QUARTZ DIORITE = LT GRY-DRK GRY; BLK TO WHT, SLI GRNISH HUE; HRD-SOFT; NON CALC; GRNULR-HYPIDIO TEX; DISSM MAFICS; COM/SCT LT GRY FELSIC DIKE FRAG W/VIS DRK INSITU MAFIC RICH MICROLITES; WK TO MOD ALTERD; POSS FRACTRD INTRVL.

MW 8.8 VIS38 PV9 YP 13 PH11.1 CL3300
GEL 4/9 SOL 3.0 Snd 0.15 Ca 40 MBT17.5

SURVEY @ 8215', 26.7 DEG, 274.40 AZI
TVD 7845.56', 133.21'N, 1667.04'W.

RHYOLITE = DOM WHT, OCC VIS BLU-GRN



SPECKS; HRD-BRITTLE, SLI FRIABLE; DOM MICRO-XTALLNE TEXTRE, SLI CHALKY, APHAN; VIS IN SITU CUBIC PYR XTALS; OCC LOC VIS LT BLU-GRN SPECKS, POSS WK CHLOR ALTERATION.

GRANODIORITE = DOM LT-DRK GRY, TRNSL-OPQE; V HRD-HRD; DOM GRANOPHYR, LOC FN EQUIGRNLR TEXTRE; SCAT BLK MAFICS; NON CALC; NO CHLOR ALTRN.

QUARTZ DIORITE = DOM BLK-DRK GRY, ABUN DRK YEL-GRN HUES, TRNSL-VITRS; HRD-V HRD; DOM CRS HYPIDIO TEXTRE, OCC VIS CRS EQUIGRNULR; V WK-NO CHLOR ALTRN; COM BLK-V DRK GRN BIOT, OCC VIS IRRDSCNT; DOM NON CALC, RR VIS OPQE-TRNSL CALC XTALS; V ABUND SUB-EUHED EPID, GRADES OUT; LOC ABUND RHYOLTE FRAGS.

POOH @ 8330' FOR BIT CHANGE; CONNECT BLOOIE LINE TO BOP STACK; R/U BLOOIE LINE SENSORS; STAGE IN HOLE TO COOL TOOLS.

QUARTZ DIORITE = DOM V DRK GRY-BLK, RR WHT, TRNSL VITRS; DOM CRS-MED HYP-IDIO, OCC FN-MED EQUIGRNLR; DOM UN-ALTRD APPRNCE; V WK-NO CHLOR ALTRN; V HRD-HRD; V WK-NO CALC, RR VIS OPQE XTALS; LOC ABUND DRUSY EPID, LONG VIS COLUMNAR XTALS; RR VIS FELSIC DIKE FRAG; OCC VIS BLK BANDING/FOLIATNS IN CRYPTOXTALLNE MATRIX; VIS EPID VEINS+ VEINLETS.

GRANODIORITE = DOM DRK-LT GRY, TRNSL VITRS; V HRD-HRD; DOM MED-FN GRANOPHR TEXTRE, COM VIS FN EQUIGRNLR-MICROXTLN, OCC SLI SUCROSIC TEXTRES; OVERALL NON CALC, RR VIS TRNSL XTALS RCT W/ HCL; SCAT LOC LT PINK FELSIC DIKE FRAGS W/ VIS DRK GRN MICROMAFICS; OCC SCAT RHYO-LITE DIKE FRAGS W/ ASSOC IN SITU PYR; V WK-NO CHLOR ALTRN, RR VIS BLU-GRN HUES IN WHT MICROXTLNE MAT'L; OCC VIS BLK-DRK GRY BANDING+FOLIATNS.

QUARTZ DIORITE = DOM BLK-V DRK GRY, TRNSL VITRS-SLI OPQE, RR BLU-GRN HUES; HRD-SLI BRTTLE; DOM CRS HYPIDIO, COM MICROXTLNE-FN EQUIGRNLR TEXTRES; TR SUB-EUHED EPID, RR VIS VEINLETS; V WK-MOD CHLOR ALTRN W/ VIS DRK GRN FOLIATN; V WK-WK CALC OVERAL; DOM UNALTRD APPRNCE, GRADING INTO SLI MORE CHLORITZD; TR SUBHED PYR; COM LOC HEM STAINING.

SURVEY @ 8502', 30.0 DEG, 269.30 AZI
TVD 8096.15', 139.05'N, 1806.66'W.

MW 8.9 VIS 40 PV 9 YP 16 PH 11.4 CL3300 GEL 4/12 SOL 3.0 Snd 0.25 Ca 60 MBT17.5

GRANODIORITE = DOM LT-DRK GRY, TRNSL, SMOKY-OPQE, VITRS, BLK; V HRD; DOM CRS HYPIDIO-GRANOPHYR; MOD CHLOR ALTRN, W/ BLU-GRN COLRTN; V WK-NO CALC; TR EPID, PYR, HEM STN; TR FELSIC DIKE FRAG W/ BLACK MICROMAFICS.

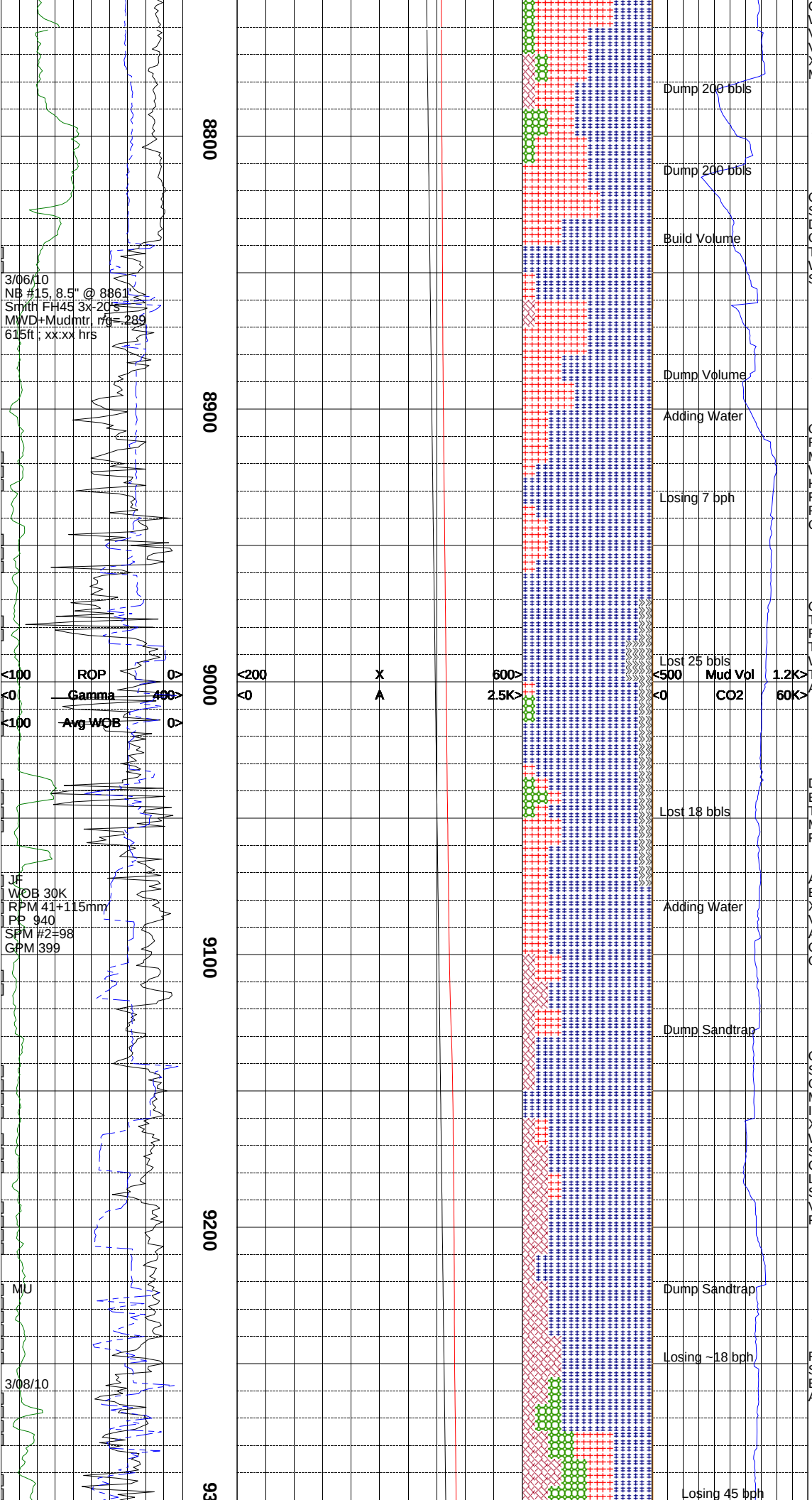
QTZ DIORITE = LT GRY-TRANSLU, CLR; VRY HRD TO FRIABLE; CRS; DECRS PYR; COM PEPPERED W/BLK INSITU MAFICS; MICRO-GRAPH QTZ+PLAG; GRANULR-HYPIDIO TEX; TR HEM STN; TR EPI; COMLY GRDS-GRANO DIORITE; VARIBL WK-MOD ALTRD FRAG

NOTE: LOST 12 BBLS F/8650', LOSS RATE OF APPROX 15 BPH F/8639'-8650'

QUARTZ DIORITE = LT GRY, TRANSLU-DRK GRY; VRY HRD-FRIABLE; GRANULR; COM MICRO/HYPIDIO TEX; SCT/INCRSD PROPY RELIC TEX; OCC SOFT WHN ALTERD; OFF WHT-PURE MINRLS; MINR CHLOR STNS; V TR EUHED PYRITE; EPI, >10%QTZ; FELSIC COM ALTRD MAFICS, HRNBLN/MICA; VRY WK ALTERATN W/PINPT CALC; VIS GRADNG TO GD; TR RHYOLITE FRAGS.

SURVEY @ 8693', 29.5 DEG, 264.70 AZI
TVD 8261.94', 134.09'N, 1901.34'W.

GRANODIORITE = DOM LT-DRK GRY, BLK, TRNSL-VITRS, WHT, OCC BLU-GRN HUES; V HRD-SLI BRITTLE; DOM MED-FN GRANO-PHYR, OCC SLI SUCROSIC-MICROXTLNE;



COM WHT SLI FRIABLE ALTERD ZONE MAT'L W/ VIS CHLORITZN + BLU/GRN BLOTCHES; V WK-NO CALC; COM SUBHED EPID W/ TR VIS VEINLETS + VIS DRUSY COLUMNAR XTALS; TR SUB-EUHED PYR, V FN GRWTHS; MOD CHLOR ALTRN OVERALL.

NOTE: BEGIN DUMPING VOLUME @ ~8778' AND ADDING WATER TO COOL MUD TEMP IN; REPAIR MUD COOLER; 200 BBLS DUMP-ED; DUMP ADDITIONAL 200 BBLS @ ~8807'.

QUARTZ DIORITE = DOM DRK GRY-BLK, SMOKY TRNSL-CLR VITRS; V HRD-HRD; DOM FRESH UNALTRD APPRNCE, OCC SPE-CKS OF BLU-GRN CHLOR; COM BLK BIOT; TR SUB-EUHED PYR, XTALS V FN; TR EPID W/ VIS VEINLETS; RR HEM STN; NON CALC; SCAT FELSIC DIKE FRAG W/ BLK SPECKS.

POOH @ 8861' FOR BIT CHANGE; STAGE IN HOLE TO COOL TOOL; MAX DOWN HOLE TEMP xxx DEG F; MAX UPHOLE TEMP 186 DEG F; DUMP MUD VOLUME AND ADD WATER IN ADD. TO MUD COOLER TO LOWER MUD TEMP IN.

QUARTZ DIORITE = LT GRY, CLR-TRANSLU; PEPPRD W/DRK MAFICS;COMLY UNIFROM; MOD HRD-FRIA; COM QTZ+PLAG; MICA RICH W/LOC MOD ALTRATN; FELSIC, PLAG+QTZ; HYPIDIOMORPHIC TEX; BLUISH-GRN HUE F/ALTRD MAFICS; TR EPI;>10% SMKY QTZ PHENO; SCT-COM WHT ALTRD MATRL; SCT-CHLOR STN;VIS UNALTRD FRAG+GRDS-GD.

INCRS LOSS RATE F/7BPH TO 18BPH FROM 8967' - To 8983'

QTZ DIORITE = DRK GRY-LT GRY; WHT-BLK TRANSLU-TRASPRT; CRS; MOD HRD TO FRIA; FNT GRNISH HUE; WKLY ALTRD; HYPIDIO TEX; CUBIC PYRITE SUSPND ON CTNG SURF; WKLY CALC; COM CHLORITZD MAFICS; TR THN QTZ VNG; POSS PRIM FRAC FILL; VRBL ALTRD-NONALTRD LITHICS.

SURVEY @ 8980', 26.6 DEG, 263.60 AZI TVD 8513.80', 116.49'N, 2037.70'W.

DIORITE = DRK BLK; VRY HRD; VRY FINE EQUIGRANLUR; HYPIDIO TEX; WK CALC; TR PYR; SUBHED EPI; SEC WHT ALTRTN MICA RICH; HEM STRKS; TR FELSIC DIKE FRAGS; COM CHLOR STN ALTRD MAT.

ALTERED ZONE MATERIAL = DOM WHT, LT BLU-GRN; FIRM-FIRM FRIABLE; COM MICRO XTALNE TEXTRE, GRAINY-SLI WAXY; COM VIS BLU GRN CHLOR SPLOTCHES/GRWTHS ASSOC W/ WHT MAT'L; DOM NON CALC, OCC WK-MOD RXN W/ HCL; MOD CHLOR OVERALL.

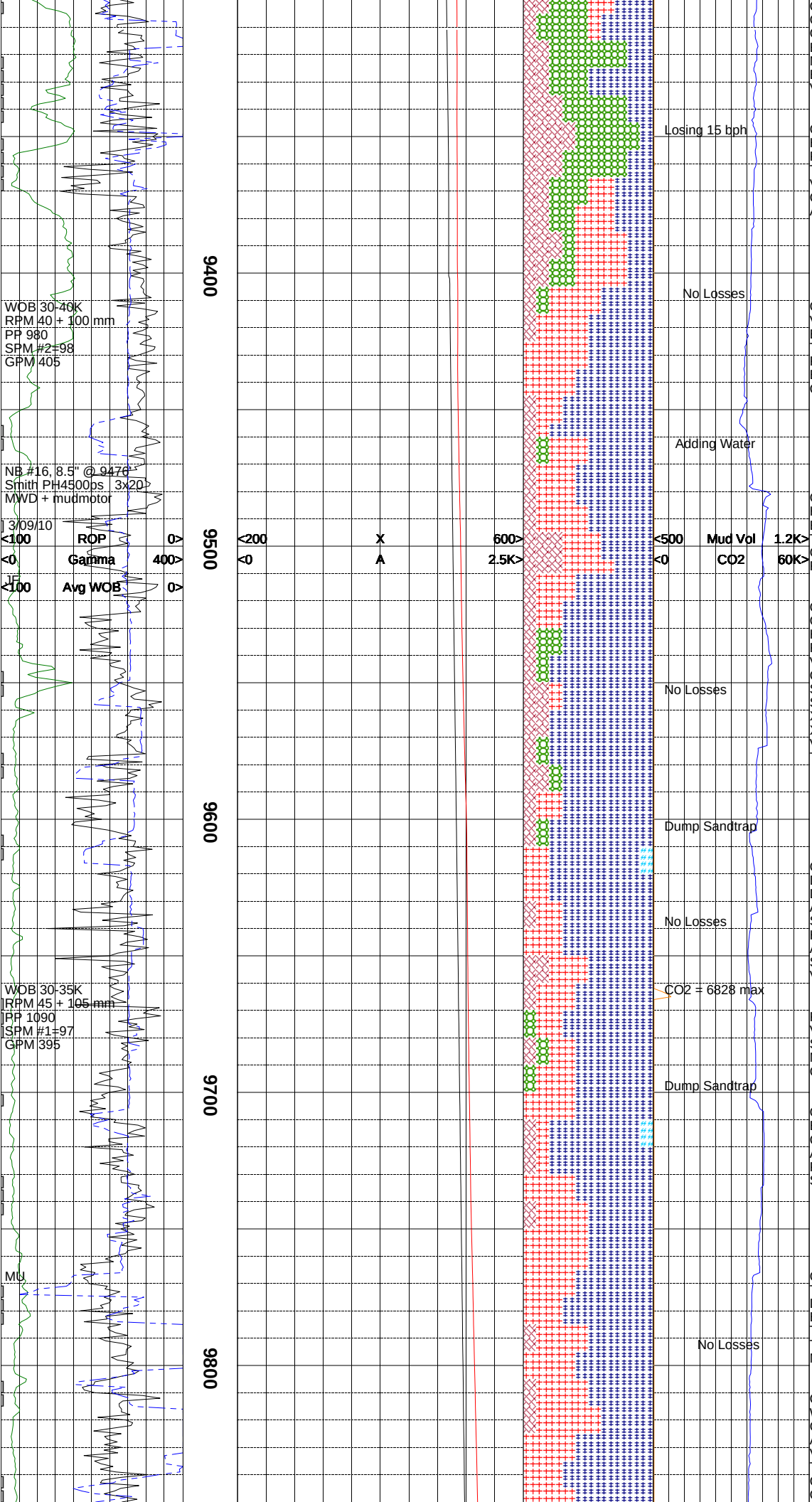
MW 8.8 VIS 39 PV10 YP 13 PH 11.4 CL3300 GEL 3/10 SOL 4.0 Snd 0.25 Ca 40 MBT17.5

QUARTZ DIORITE = DOM V DRK GRY-BLK, SMOKY TRNSL-VITRS, PREDOM LT BLU-GRN; V HRD-HRD, WHT/BLU-GRN ALTRD MAT'L FIRM FRIABLE; DOM MED-FN HYPID-IO TEXTRE, OCC FN EQUIGRNULR-MICRO-XTALNE; MOD-WK CHLOR ALTRN THRUOUT, W/ BLU-GRN CHLORTZN OF MICAS+BLU-GRN SPLOTCHES IN WHT ALTRD MAT'L; WK-V WK CALC W/ OCC VIS OPQE-TRNSL XTALS; TR-RR LOC SUBHED EPID, NO VIS VEINLETS; TR SUBHED PYR, V FN XTAL SIZE; OCC VIS V FNT DRK RED HEM STN; TR-RR VIS LT PINK PLAG.

NOTE: MUD LOSS RATES ~18 BPH; NO LCM; CONTINUE DRILLING, DUMPING SANDTRAP EVERY 3-5 CONNECTIONS; MUD COOLER MALFUNCTION, NOT RUNNING TO FULL CAP-ACITY; OCC ADD WATER TO PITS.

FELSIC DIKE = CLEAR TO GRAY; VITREOUS SHEEN, SUCROSIC TEXTRE; SCATTERED BALCK MAFICS; LINEATED CRYSTAL GRWTH; AJOINED QUARTZ DIORITE IS CHLORITIZED.

NOTE: ERRATIC ROP IS DUE TO SPORADIC PAUSES IN DRILLING DONE TO COOL OFF THE MUD SYSTEM.



QUARTZ DIORITE = GRAY TO DRK GRAY, OCC GRNISH HUE; MOD HARD TO HARD; FN EQUI-GRANULAR TO OCC PORPH TEXTRE; COM BIOTITE; TR DISSEM PYRITE; TR HEM STNING MOD TO STRG CHLOR/CLAY ALT; EUHED EPIDOTE; INSITU CALC DEPOSIT; NO VIS VEINING; TR-RR PINK LIGHT PINK PLAG.

GRANODIORITE = WHITISH TO LIGHT GRAY; HARD TO V HARD; HYPIDIO TEXTRE, OCC PORPH TEXTRE; RARE MICAS, OCC MAFICS; TR DISSEM PYRITE; MOD RXTION HCL; TR VIS HEM VEINING; TR EUHED EPIDOTE; LOW CHLORITE ALT; OCC OPAQUE WHITE CLAY ALT.

SURVEY @ 9392', 27.0 DEG, 281.80 AZI
TVD 8882.17', 117.27'N, 2221.41'W.

QUARTZ DIORITE = LIGHT TO DRK GRAY; V HRD TO HRD; HYPIDIO TEXTRE; RARE BIOTITE;MICAS ARE PARTIALLY CHLORITIZED; TR HEM; TR DISSEM PYRITE; MOD TO STRG RXTION W/ HCL; NO VIS VIENING; TR EUHED EPIDOTE; LOW TO MOD CLAY ALTERATIONL; OCC TR PINK PLAG.

NOTE: ADDING WATER TO BUILD VOLUME AND COOL MUD; POOH @ 9478' FOR BIT CHANGE; STAGE IN HOLE TO COOL TOOL.

GRANODIORITE = WHT TO LIGHT GRAY,OCC HUES OF GRN; MOD HRD TO HRD; FN GRND EQUIGRANULAR, OCC PORPH TEX; TR PYRT; TR EPIDOTE;TR SERICITE; STRNGLY ALTERD CLAY AND CHLORITE ALTERATION; STRNG RXTION W/ HCL; SCATTERED MAFICS.

QUARTZ DIORITE = DOM LT-DRK BLU-GRN, OCC LT GRY-BLK, TRNSL VITRS, OPQE;DOM HRD-FIRM FRIABLE, OCC SLI SOFT; DOM FN HYPIDIO, PREDOM APHANTIC TEXTRE; V STRNG-STRNG CHLOR ALTRN, ABUND CHLORTZD MICAS, BLU-GRN COLORTN, SECNDRY MINRL CHLORTZN; V STRNG-STRNG CALC, DOM IN SITU, TR VIS TRNSL XTALS; RR-TR SUBHED PYR, DOM V FN XTALS; TR HEM STN; TR-RR SUBHED EPID; V RR VIS LT TAN/BRWN SERIC IN CHLOR; TR LOC HBLNDE.

NOTE: DUMP SANDTRAP AT EVERY CONN-ECTION; APPROX 40 BBLS; ADD WATER TO MAINTAIN ~40 VIS.

GRANODIORITE = DOM TRNSL-VITRS, PRE-DOM LT-DRK BLU-GRN, OPQE; V HRD-HRD; DOM CRS-MED GRANOPHYR, OCC SLI APH-ANTIC; STRNG-MOD CHLOR ALTRN, COM VIS SECONDRY MINRLS CHLORTIZD; RR PYR, HEM STN, EPID; GRADING INTO SLI LESS ALTRD, INCRSNG ABUND BIOT,DRK MAFICS; STRNG-MOD CALC, DOM IN SITU W/ OCC VIS OPQE-TRNSL CALC XTALS.

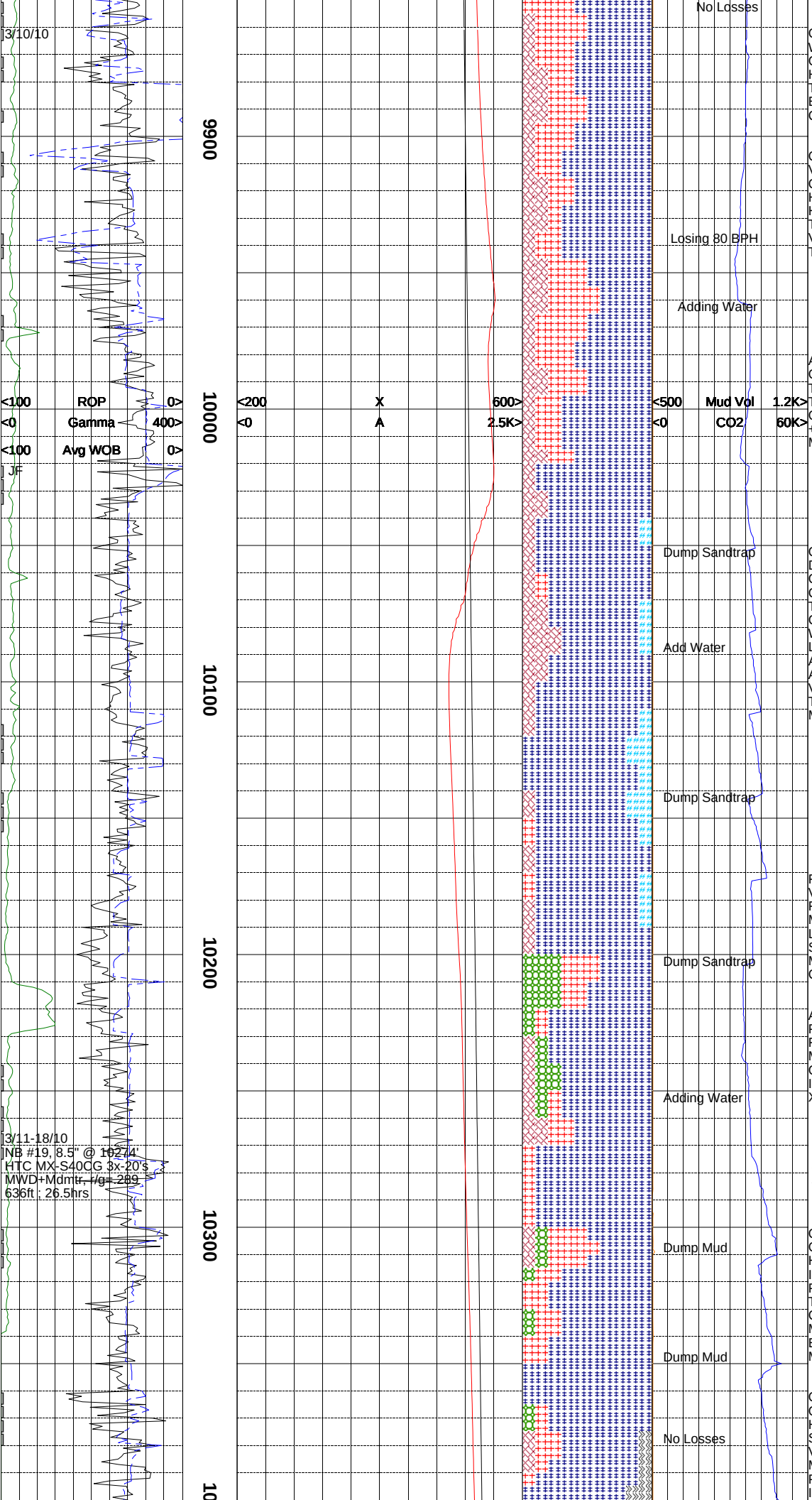
FELSIC DIKE = DOM OPQE-WHT, BLU-GRN; V HRD-HRD; MICROXTALLNE TEXTRE, SLI SUCROSIC; ABUND BRIGHT GRN MICRO-MAFIC SPECKS; MOD CALC; TR APPARNT CHLOR ALTRN.

QUARTZ DIORITE = DOM DRK GRY-BLK,DRK BLU-GRN, TRNSL-VITRS; V HRD-HRD; DOM CRS-MED HYPIDIO TEX; MOD CHOR ALTRN; ABUND BIOT; TR HBLNDE; RR-TR SUBHED PYR, VIS MICRO-GRWTHS; MOD CALC, W/ STRNG RXN ON CHLORTZD MAT'L.

MW 9.0 VIS 40 PV11 YP 10 PH 11.3 CL3900 GEL 2/9 SOL 4.0 Snd 0.50 Ca 60 MBT 17.5

GRANODIORITE = WHT TO LIGHT GRAY;OCC TRNSLCNT W/ HUES OF GRN; HRD TO V HRD; DOM CRS-MED GRANOPHYR TEXTRE; COM BIOTITE; MOD-LOW CHLORITE ALTERATION; TR CUBIC/SUBHED PYRITE; TR HEM STNING; TR/RR EPIDOTE, OCC EPIDOTE VEINING; MOD CALC RXTION, DOM IN SITU.

QUARTZ DIORITE = DOM GRY,OCC DRK GRY W/ GRNISH HUES; V HRD TO HRD; CRS-MED GRND HYPIDIO TEXTRE; MOD CHLOR ALTRN ABUNDANT BIOTITE; COM HRNBLND; MICAS VISIBLY CHLORITIZED; TR SUBHED PYRITE; TR HEM STNING; TR/RR EPIDOTE; MOD CALC CALC DOM IN SITU, OCC VIS AS CLEAR TO OPAQUE GRNS.



GRANODIORITE = WHITE TO CLR OCC GRY W/ HUES OF GRN; V HRD TO HRD; CRS-MED GRND HYPIDIO TEXTRE; COM BIOTITE; RR HORNBLNDE; MOD-LOW CHLORITE ALTRN; TR SUBHED PYRITE; TR HEM STNING; TR/RR EPIDOTE; MOD TO STRG RXTION W/ HCL; CALC IN SITU, OCC VIS CLEAR GRNS;

QUARTZ DIORITE = GRAY TO DRK GRAY, VITREOUS TRANSLUCENT GRNS, OCC HUE OF GRN; HRD TO V HRD; CRS-MED GR HYPIDIO TEXTRE; ABUNDANT BIOTITE; RR HORNBLNDE; MOD CHLORITE ALTERATION; TR SUBHED PYRITE; TR/RR EPIDOTE, OCC VEINING; DOM IN SITU CALC DEPOSIT; MOD TO STRNG RXTCION W/ HCL.

NOTE: ERRATIC ROP IS DUE TO SPORADIC PAUSES IN DRILLING DONE TO COOL OFF THE MUD SYSTEM.

ALTERED ZONE = DRK GRN TO LIGHT GRN TO OCC OPAQUE WHITE; CRS-MED GRANULAR TEXTRE; CHLORITIZED MICAS, TR EPIDOTE; TR CUBIC/SUBHED PYRITE; CLY ALTERATION; OCC TR HEM VEINING;OCC TR EUHED EPIDOTE +QUARTZ; IN SITU CALC DEPOSIT, STRG TO MOD RXTION W/ HCL.

NOTE: CONTINUE DUMPING SAND TRAP AT EVERY CONNECTION; ADD WATER TO MAIN-TAIN 34-36 VIS; NO LOSSES.

QUARTZ DIORITE = DOM DRK BLU-GRN, PRE-DOM BLK-V DRK GRY, WHT, TRNSL-VITRS, OPQE; V HRD-HRD, OCC FIRM FRIABLE; DOM CRS-MED HYPDIO, OCC FN EQUIGRNLR TEX-TRE; V STRONG-MOD CHLOR, VIS SECONDRY CHLORTZN OF MICAS, VIS DRK GRN FOLNS, WHT FRIABLE MINRL ASSOC W/ CHLORTZN; LOC STRNG CALC, MOD-WK OVERALL; LOC ABUND HBLNDE 10-20%; V ABUND BIOT, LOC ALTRD/NON ALTRD; TR SUB-EUHED PYR, OFT VIS F FN GRWTHS, LOC RHOMBOHED XTALS; TR SUB-EUHED EPID, VARIED XTAL SIZE FN-MED; RR DRK RED HEM STN; RR PINK PLAG.

SURVEY @ 10155', 30.9 DEG, 264.3 AZI TVD 9545.91', 131.74'N, 2598.56'W.

MW 8.8 VIS 37 PV10 YP 10 PH 11.3 CL3900 GEL 4/9 SOL 4.0 Snd 0.50 Ca 60 MBT 17.5

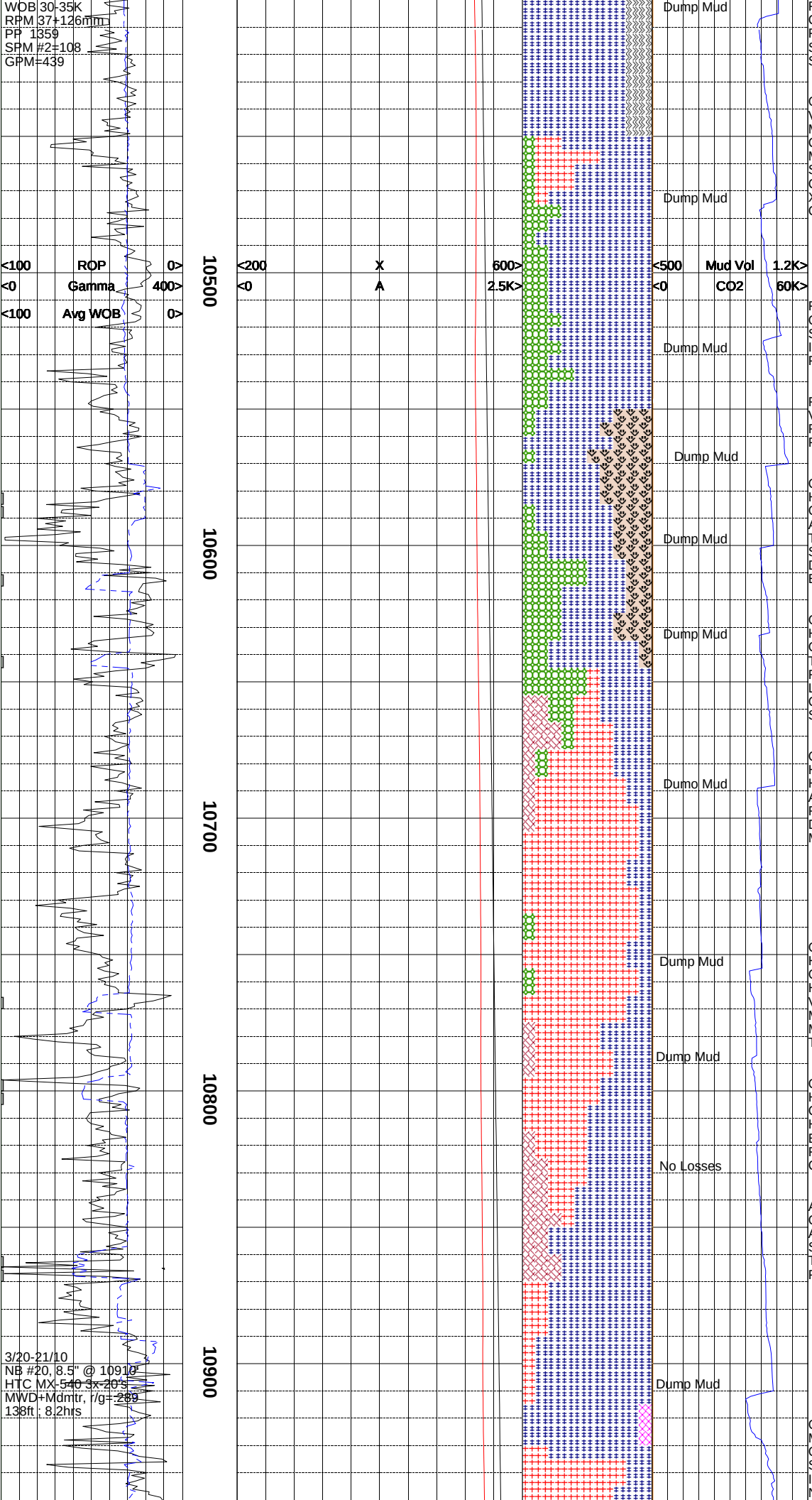
FELSIC DIKE = DOM WHT-OFF WHT, TRNSL-VITRS, PREDOM DRK GRN-BLK; V HRD-HRD FN MICROXTLNE TEXTRE; ABUND DRK GRN MICROMAFIC SPECKS, BLK FOLITN/FABRIC LOC MOD CALC, DOM WK-NON CALC OVERL; SPECKS RANGE LOC FROM BLK-DRK GRN; MOD-WK CHLOR ALTRN OVERALL; RR VIS CONTACT W/ CHLORTZD QTZ DIORITE.

ALTERED ZONE MATERIAL = DOM WHT-GRY, PREDOM DRK BLU-GRN; FIRM-SLI SOFT-FRIABLE; DOM MICROXTALNE TEX; STRNG-MOD CHLOR ALTRN, WAVY SPLOTCHES-GRWTHS OF CHLOR; MOD-STRNG CALC, DOM IN SITU; TR VIS ASSOC EUHED PYR, V FN XTAL SIZE.

POOH @ 10274' FOR BIT CHANGE; RIH,STUCK BHA @10060',RUN FREE PT,FISH STUCK PIPE JAR/FREED STUCK BHA; POOH; RIH W/STIFF ASSEMBLY+STAB, REAM OUT TIGHT SPOTS; POOH, RIH W/NEW BHA.

QUARTZ DIORITE = MED-LT GRY; OCC DRK GRY-GRNSH; CLR-BLK; FELSIC W/COM QTZ; HRD-MOD HRD; CRS; OCC FRIABLE F/ALTRD/ INSITU CALC; VRY REACTV TO HCL; TR EUHD PYRIT; TR HEM MINRL SPECKS;DOM HYPIDIO TEX; PORPHY MATX W/ASSOC, LOC ALTRTN COM MAFICS W/ABNDNT BIOT; TR PYRTZTD MIN; COM SCNDRY CHLORITZD STNG; TR EPID MIN; GRDS TO GRNODRT;WKLY TO MOD ALTRD.

QUARTZ DIORITE = DOM LT-DRK GRY-GRN, OCC LT GRY-BLK, TRNSLU WHT, OPQE; DOM HRD-FIRM FRIABLE, CRS; DOM HYPIDIO TEX; SCT GRDNG TO V-FN APHAN DIORITE FRAG; V STRNG-STRNG CHLOR ALTRN, ABUND MAFIC FRAGS/SUSPND MINRL INCASED IN PHANERITIC TEX; LGR MAFICS IN MATRIX+ INSITU PYR; EUHED-SUBHED EPI; TR HEM;



FELSIC ABUNDNT PLAG/COM QTZ; BIOT; COM INTRSTITL CALC MATRL; SCT OFF WHT FRIABLE/CRUMBLY MATRL; MOD TO MOD STRNG ALTRATN W/CONTIND CHLORITIZD SECONDARY MINERLIZATION.

GRANODIORITE = OPAQUE WHT,CLR-TRNSLU VARIABLE GRYSH HUES;GRDS TO QTZ DIORT; MOD HARD TO FRIABL; TR V HRD; MED CRS-CRS; HYPIODIO TEX; SPECKLD W/LRG INSITU MAFIC CLAST; HVLY CALC; TR EUHED PYR SUBHED EPI; DISSEM BLK BIOT SHTS W/FN-CRS, TR/PYRO,QTZ>10%+PLAG; FELSIC,CALCT XLS; MOD ALTRD; SCT FELSIC DIKE FRAGS; COM VRY FINE W/INSITU BLK MAFIC SPECKS;

SURVEY @ 10486', 25.4 DEG, 274.0 AZI
TVD 9835.62', 123.41'N, 2754.30'W.

FELSIC DIKE = LT GRY-OFF WHT; TRANSLU-OPAQ;V HRD; CRS;FN APHAN TEX;NO CHLOR STNS; PEPPRD MAFIC MICROSPECS; INCLU IN GRDMS; FD UNALTRD, W/COM MOD ALTRD PRIMRY QTZ DIORITE.

RHYOLITE = WHT, OPAQUE W/GRN HUE; VRY HRD-BRTL; SLI CHLOR STN; SUBTLE RNDLIKE PITTED SURFS;WHT GRANITE AP-PRNC; APHAN/PORPHY TEX; TR HEM.

QUARTZ DIORITE = GRAY TO DRK GRAY W/ HUES OF GRN; HRD TO V HRD; CRS TO FN GRND HYPIDIO TEXTRE; ABUNDANT CHLORITE ALTRN; TR SERICITE; TR CUBIC PYRITE; TR TO RR HEM STNING AND OCC VEINING; IN SITU CALC DEPOSIT; MOD RXTION W/ HCL; DISSEM BIOTITE SHTS; TR EUHED + SUBHED EPIDOTE.

GRANODIORITE = WHITE TO LIGHT GRAY W/ HUES OF GRN; OPAQUE TO TRANSLUCENT GRNS; HRD TO V HRD; MED GRND; HYPIDIO TEXTRE; SCATTERED MAFIC CLASTS; TR HEM RR CUBIC PYRITE + DISSEM; SUBHED EPIDOTE LOW RXTION INSITU CALC DEPOSIT; COM CHLORITE STNING; OCC K-SPAR >10%; SCATTERED FELSIC DIKE CTGS.

QUARTZ DIORITE = GRAY TO DARKISH GRAY HUES OF GRN AND BLUE; MED-CRS GRND; HYPIDIO TEXTRE; RR BIOTITE; RR CHLORITE ALTERATION; EUHED PYRITE + DISSEM PYRITE RR HEM STNING, TR VEINING; INSITU CALC DEPOSIT MOD REACTION TO HCL; SCATTERD MAFIC INCLUSIONS; SUBHED EPIDOTE.

NOTE: DUMPING MUD AROUND EVERY 50' IN ORDER TO ADD COLD WATER AND KEEP MUD SYSTEM COOL.

GRANODIORITE = WHITE TO LIGHT GRAY W/ HUES OF RED AND GRN; TRANSLCT TO OPAQUE GRNS; HRD TO V HRD; CRS TO MED GRND; HYPIDIO TEXTRE; TR-RR HEM STNING + OCC VEINING; TR RR CHLORITE STNING; SCATTRD MAFICS; TR-RR DISSEM + CUBIC PYRITE; MOD RXTION TO HCL; INSITU CALC DEPOSIT; TR SUBHED EPIDOTE; >10% QTZ, COM PLAG.

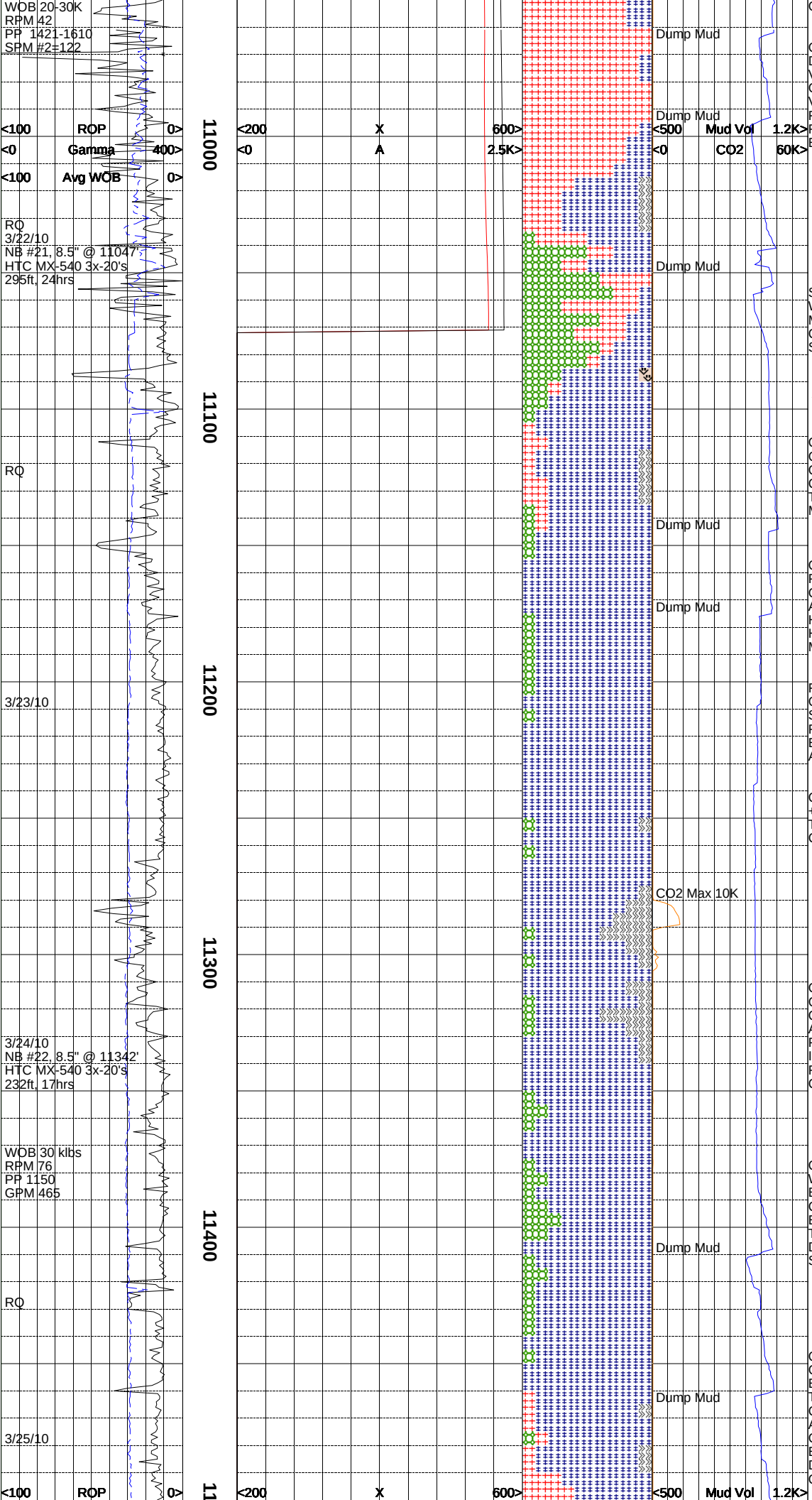
QUARTZ DIORITE = GRAY TO DRK GRAY W/ HUES OF PINK, RED AND GRN; HRD TO V HRD CRS TO MED GRND; HYPIDIO TEXTRE; RR-TR HEM STNING, TR HEM VEINING; SUBHED EPIDOTE; CHLORITE ALTERATION, ALTERED FELD; TR DISSEM PYRITE; MOD RXTION W/ CALC.

ALTERED ZONE = LIGHT GRN TO DARK GRN, OCC OPAQUE WHITE W/ HUES OF RED; ABUNDANT CHLORITE; RR HEM STNING; SUBHED EPIDOTE; ALTERED FELD; MOD HARD TO HARD; CRS GRANULAR TEXTRE; DISSEM PYRITE; MOD TO STRG RXTION W/ HCL.

SURVEY @ 10860', 25.7 DEG, 271.4 AZI
TVD 10174', 132.03'N, 2911.68'W.

POOH @ 10910', FOR NEW BIT, RIH, POOH FOR NEW MOTOR, RIH, DRILL.

GRANODIORITE = WHT, OPAQUE; TR DRK MAFIC SPECS; CRS; V HRD; HYPIDIO TEX; V GRANULR; OCC TRANSLU; PLAG+QTZ GRS; SCT CHLORITZD QTZ FRAGMENTS; TR INSITU EUHD PYR ON CRS SURFS; WK TO NONCALC; NO CHLOR STN; GRDS-WHT



GRANITE; DOM UNALTRD.

GRANODIORITE = WHT; CLR-TRANSLU; PRE-DOM PURE WHT; TR TRANSPRT EDG; OPAQUE; VRY HRD; COM INSITU MAFIC MICROSPECS; GENRLY HYPIDIO TEX; GRANULR, CRS FRAG; VRY WK INTRSTL CALC; ABUNDT SILIC DIKE FRAG; W/TR-SCT CHLORITZD PLAG/QTZ RICH DIORITE; POIKLTC APPRNC; TR SEC EPI DEPOS ON QD; GD VRY CLEAN/UNALTRD;

MW 8.7 VIS 38 PV10 YP 11 PH 11.4 CL4900 GEL 3/10 SOL 4.0 Snd0.24 Ca+40 MBT 17.5

POOH @ 11047', FOR NEW BIT, LAY DOWN DIRECTIONAL TOOLS+MUDMOTOR.

SILIC DIKE = WHT,OPAQUE,OCC PURE WHT; CRS; TR RMNANT CMNT CALC MAT; MAFIC INCLUSNS SUSPND IN GRNDMASS; CONT W/GRNODRT; SCT CHLORTZD FRAG SCT WKLY-NON ALTRD.

DRILLING BRK @ 11088', 6deg TEMP INCRS W/INCRS IN CHLORITZD QTZ DIORITE LITH.

QUARTZ DIORITE = TRNSL, BITRS, WHT, BLK, GRN; HD; CRS-MED HYPIDIO TEXT; PLAG + QTZ + BIOT + COMM HRNBLD; COM CHL ALTR; COM SLI WK CALC RXN W/ HCL; TRC FN SBHED TO EUHED EPID; NO HEMA; SPRS SCAT BLK MICRO MAFICS; POS IN SITU MICROVEINLETS.

QUARTZ DIORITE = LGHT-MED GRY, WHTSH GRY PLAG, BLK BIOT AND COM HRNBLND; COM GRN CHLOR ALT AND CHLOR STAINED CLAY ALT; OCC SBHED QTZ INTERGRWTHS; HRD TO V HRD; MED-CRS GRNS; HYPIDIO TXT COM HRNBLND, DISEM MAFICS AND RR EPID; WK-MOD HCL RXN.

FELSIC/SILIC DIKE = WHT, GRN TO SMKY GRY W/ FELSIC AND GRYSH TRANSLUC W/ SILIC; ABNDT FLOATNG BLK MICRO MAFICS; RR DISEM ORNG-PNK GARNETS AND SB HEDRAL EPID; V HD TO ALTR + MOD HRD; WK-SLI CAL AND CHL ALTR.

QUARTZ DIORITE = LT-DRK GRY W. GRY + BLK + GRN + TRNSL GRNS; HRD-VRY HRD; HYPIDIO TEXT; QTZ+FELD+BIOT+HRNBLND: MOD-WK CALC; RR TR PYR; COM TR EPIDOTE.

DRILLING BRKS ASSOC W/INCRS IN CO2 GAS +SUBTL GRDNG-DIORITE W/INTERSTITL SILIC DIKE FRAG+CALC/HEM MICROVNG.

SURVEY@11280', 24.7Deg, 252.5Azi, 320°F

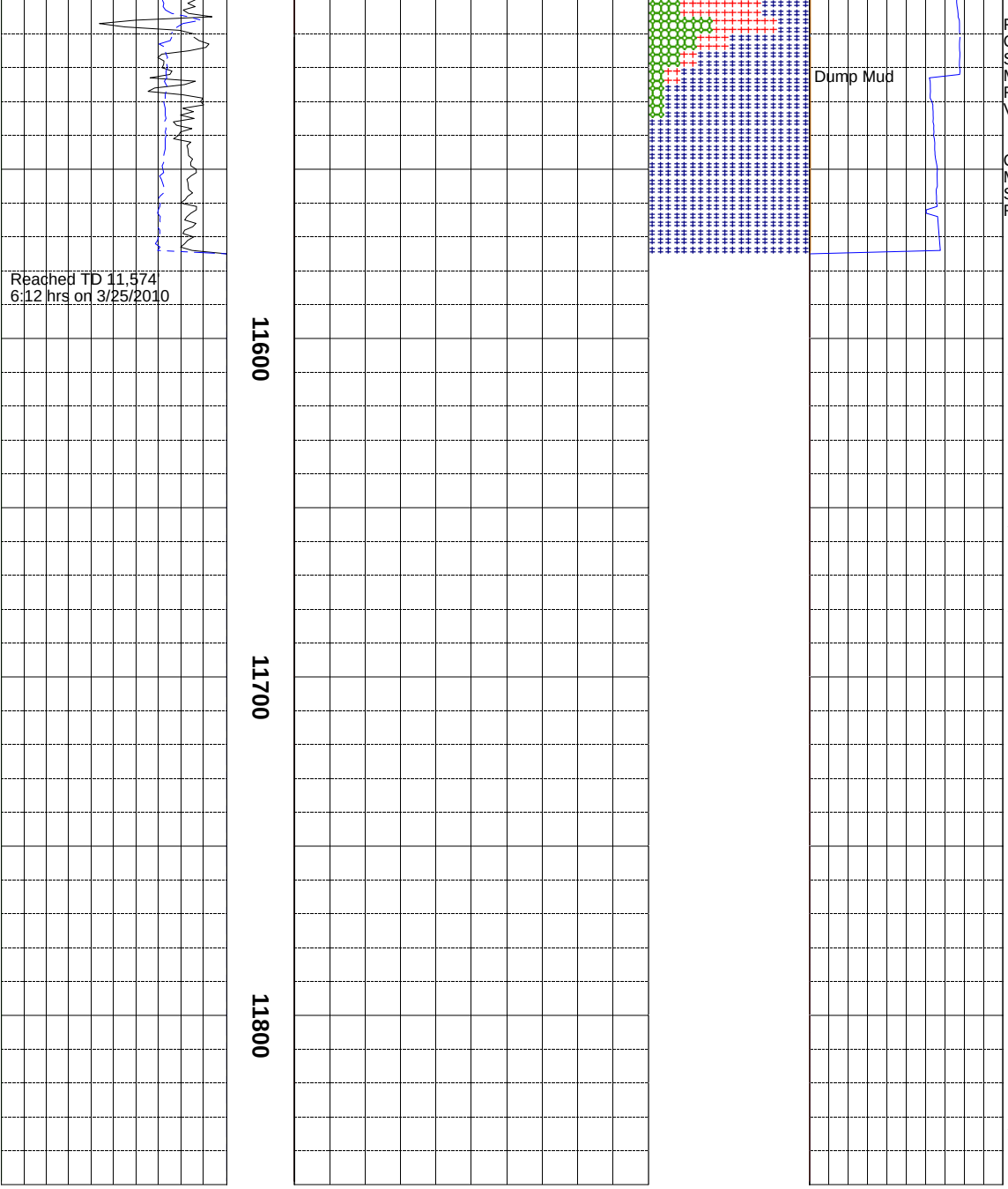
QUARTZ DIORITE = DRK BLK-DRK GRY; LT GRY-GRN, WHT; GRDS-DIORITE; COM QTZ/PLAG; VRY HRD; CRS; EQUIGRNULR APHAN TEX; ABND SILIC CLAST; TR SUBHED PYR; TR HEM STN;TR LSE CUBIC PYR CHIPS; INSITU QTZ;HEM VNG; RELIC BIOT/HRNBL; REMNT INSTRSTL CALC; CHLRITZD MAFICS; COM CHLOR STNG; MOD-STRNG ALTRD.

POOH @ 11342', FOR NEW BIT.

QUARTZ DIORITE = GRNISH GRY; DRK GRY W/UNIFORM GRN HUE; WHT-BLK; HRD TR BRITL; HYPIDIO W/ALTRD RELIC TEX; INCR CHLOR; CRS; QTZ/PLAG; MOD ALTRD; TR EUHED PYR; INTRSTL CALC; HVY CHLORI-TAZATN; COM ALTRD MAFICS; SCAT SILIC DIKE FRAGMENTS; OCC FUSED QTZ XLS SUSPND IN SILIC MAT+FLOATNG MAFICS.

MW 8.8 VIS 37 PV12 YP 16 PH 11.1 CL6200 GEL 8/18 SOL 4.0 Snd0.25 Ca+40 MBT 15

QUARTZ DIORITE = MED-DK GRY TO GRNSH GRY W/ COMM GRN HUES DUE TO CHLOR ALT; BLK-WHT W/ NOT ALT; HRD TO V HRD; HYPID TXT; CRS; CHLOR DECREASING; INTERSTL CALC COMM; COMM CHLORITE STAINED CLAY ALT; SCAT SILIC DIKE FRAGS; GRDING TO GRANODIORITE; RR TRC SBHED PYR,HEM AND EPID. RR GRAD TO HRNBLD RCH, CHLOR ALT, DIORITE; SCAT COLR VARIED DISAG SB-EUHED QTZ XTLS IN SMPL.



FELSIC DIKE = DOM OPQE TO WHTS GRY AND OCC TRNASLUCENT; SLI HYPIDIO TEXT; MICRO SPECKLED BLK MAFICS; OVERALL MOD CALC; MED TO CRS; HRD TO OCC BRIT; DOM FRSH W/ RR-OCC PINKSH ORNG GARNET; RR PYRITIC VEINLETS; AND RR EPID + CHLOR ALT.

QUARTZ DIORITE = LT GRY PEPPRD W/BLK MAFICS; HYPIDIO TEX; TR EPID; EUHD PYR SLI CHLOR STN; DOM CLN TR WK ALTRD; WK REMNT INTRSITL CALC.

RUN SURVEY, LOST DATA, Temp=400F+

REACHED TD 11,574', 6:12 hrs 3/25/10 LOST ROTARY TABLE FUNCTION; DISPLACE HOLE W/WATER, TRANSFER MUD FROM PITS-STORAGE TANKS, PULL TO SHOE; CON-TINUE TO CHANGE OVER PITS BY ADDING WATER; POOH AND LET HOLE HEAT UP+ REPAIR RIG;

RUN WIRELINE TEMPERATURE LOG TEMP REACHED 588 DEGREES AT BOTTOM

CLEAN OUT WELL; CIRC W/ AIR @ 600-650 PSI + H20 ON 4-1-2010; CONTINUE TO CLEAN WELL UNTILL 11086', WHERE SLOUGH WAS ENCOUNTERED; POOH TO THE SHOE; RIH AND TAG @11086.

UNLOAD WELL DURING CLEAN OUT RUNS ON 3/28/10; MAX TEMP OUT 188; MOD VENTURI EFFECT ON BLOOIE LINE TEMP SENSOR; PUMP AIR DOWN HOLE @ 200-550 PSI; MAX AIR PRES OUT 6 PSI, NOT CON-SISTENT; WELL NOT FLOWING; CSG PRES 1-6 PSI AVG.

UNLOAD WELL ON 3/31/10; BUILD AIR PRES TO 1000 PSI; BLOW DOWN WELL; INITIAL UNLOAD TEMP 195 f, 40 PSI CSG PR, 0 PSI BLOOIE PR; MAINTAIN AIR PRES IN @ 600 PSI, THEN BLEED OFF; MAX TEMP OUT 200 F, 122 PSI CSG PR, BRIEF MAX BL PR 34 PSI; BLEED OFF AIR PRES IN; CSG, BL PR DIMINSH TO ZERO; MAINTAIN TEMP 190-200 DEG F.

RAN INJECTION TEST ON 4-3-2010; FILL HOLE W/ 420 BBLS; PERFORM INJECTION INJECTION TEST; PIPE RAMS LEAKING; POOH FILL HOLE THROUGH KILL LINE; PREFORM INJECTION TEST; 100 PS1 @ 320 GPM; 250 PSI @ 360; 500 PSI @ 500 GPM; 950 PSI @ 800 GPM.

NOTE: RUN WIRELINE LOGS; PT/TEMP/STAR CIVIL FROM 4/2/10 - 4/6/10; DECISION MADE TO ABANDON WELL; SET INFLATABLE PACKER @ 7238'; PUMP 300 LINEAR FT CEMENT PLUG ON TOP OF PACKER; POOH; PREPARE TO DRILL THROUGH CEMENT AND NEW HOLE STARTING 4/8/10.