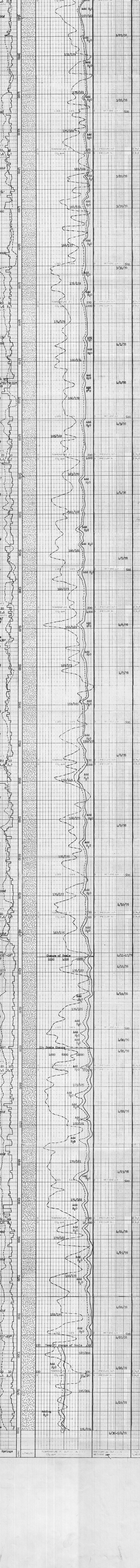


102° 1722' DRILL RATE
 1.0 30 20 10
 2.4 2.5 2.6 2.7
 BULK DENSITY
 WOB 30-39,000#
 RPM 50-60
 PP 1000#
 SPM 66
 102° 1818'
 103° 3999'
 WOB 30-35,000#
 RPM 50-60
 PP 1000#
 SPM 66
 11° 1211'
 DRILL RATE
 1.0 30 20 10
 2.4 2.5 2.6 2.7
 BULK DENSITY
 WOB 35-39,000#
 RPM 50-60
 PP 1000#
 SPM 66
 11° 1211'
 6631/86 hrs
 NB #21 @ 1234'
 Hughes J-77
 WOB 30-39,000#
 RPM 50-60
 PP 1000#
 SPM 66
 11° 1392'
 WOB 36-38,000#
 RPM 60
 PP 1000#
 SPM 61
 112° 1512'
 DRILL RATE
 1.0 30 20 10
 2.4 2.5 2.6 2.7
 BULK DENSITY
 WOB 35-39,000#
 RPM 50-60
 PP 900#
 SPM 55
 117° 166 3/4 hrs
 NB #15 @ 1751' - 11.0
 Hughes J-77
 WOB 36,000#
 RPM 60
 PP 1500#
 SPM 60
 11° 1877'
 WOB 36,000#
 RPM 60
 PP 1500#
 SPM 60
 112° 5002'
 WOB 36,000#
 RPM 60
 PP 1500#
 SPM 60
 122° 5121'
 WOB 36,000#
 RPM 60
 PP 1500#
 SPM 60
 124° 5216'
 DRILL RATE
 1.0 30 20 10
 2.4 2.5 2.6 2.7
 BULK DENSITY
 WOB 36,000#/
 39,000#
 RPM 60
 PP 1000#
 SPM 61
 679/186 hrs
 NB #16 @ 3130'
 Smith J-9
 123° 5130'
 WOB 39,000#
 RPM 60
 PP 1000#
 SPM 61
 14° 5676'
 DRILL RATE
 1.0 30 20 10
 2.4 2.5 2.6 2.7
 BULK DENSITY
 WOB 35,000#/
 39,000#
 RPM 60-90
 PP 1000#
 SPM 61
 WOB 30-39,000#
 DRILL RATE
 1.0 30 20 10
 2.4 2.5 2.6 2.7
 BULK DENSITY
 11° 6197'
 WOB 30-39,000#
 RPM 40-55
 PP 1000#
 SPM 61
 189° 6238'
 NB #21 @ 6252' - 18°
 Hughes J-99
 107° 6257'
 117° 6287'
 NB #18 @ 6287'
 WOB 35,000#
 RPM 60
 PP 1500#
 SPM 51
 WOB 36,000#
 RPM 60
 PP 1200#
 SPM 66
 2051/113 hrs
 NB #21 @ 6192'
 Hughes J-99
 WOB 35-40,000#
 RPM 40-60
 PP 1100#
 SPM 62
 WOB 35-40,000#
 RPM 40-60
 PP 1100#
 SPM 62
 DRILL RATE
 1.0 30 20 10
 2.4 2.5 2.6 2.7
 BULK DENSITY
 179° 713 hrs
 NB #20 @ 6900'
 Hughes J-99
 21° 6980'
 WOB 35-40,000#
 RPM 40-60
 PP 1100#
 SPM 61
 273/149 hrs
 NB #21 @ 7253' - 23°
 Hughes J-99
 DRILL RATE
 1.0 30 20 10
 2.4 2.5 2.6 2.7
 BULK DENSITY
 WOB 35,000#
 RPM 40-60
 PP 1200#
 SPM 61
 247/160 hrs
 NB #20 @ 7500'



Lossing approx. 6 bbl/hr fluid to hole.
 W 64.1pof V 30 PV 3 YP 4 ph 8 F 200 Ca 1300 Ca 80 Sd 1 Slides 1
 Qtz Monzonite: cont'd as above, but w/occ blk chlor w/ biot, grn & red frac fill mat, tr lt grn-gry fgr granitics.
 Qtz Monzonite: wht to clr, m gr, decrease in mafic % at 3850', clr qtz, clr & wht felds w/ f incl's of blk biot, tr mag, tr hald, poss gneissic texture.
 W 64.1pof V 33
 Lossing approx 2-3bbl/hr fluid to hole.
 Qtz Monzonite: wht-lt grn, wht & clr felds/w biot incl's, mnr qtz, chlor, & kao, tr pyr.
 W 64.1pof V 33
 Qtz Monzonite: lt gry, abund wht & clr felds, num biot incl's, grading to granodiorite in pts, felds alt to kao, biot, alt to chlor, grn & red alt of mafic rich amp, mnr qtz & chlor, tr pyr & sphene.
 Qtz Monzonite: lt gry-wht, wht & clr felds, w/ mnr biot incl's, mnr qtz, kao, & chlor in pts, tr pyr, hem, & sphene @ 1120'-1141' pred wht w/tr-mnr biot.
 W 64.1pof V 33 PV 6 YP 8 ph 8 F 18 FC 2 CI 1200 Ca 100 Sd 1 Slides 2
 Granodiorite: wht, clr, mnr blk, S & P, wht & clr felds w/ f-m gr blk biot incl's, mnr chlor & kao, tr py, tr mag
 Granodiorite: lt gry, wht & clr felds, alt to kao, abund biot incl's (10-20%), mnr qtz, tr chlor, mnr qtz, tr pyr, sphene & hald.
 W 64.1pof V 33
 Granodiorite: lt-dk gry, wht, m gr, wht & clr felds w/ biot incl's, mafic (15-20%), mnr qtz, kao, chlor, tr pyr & sphene, mnr grn & red alter's, tr calc & hem frac fill.
 W 64.1pof V 35
 Qtz Monzonite: wht-clr m gr, biot & decr incl's, mafic (15-20%), w/tr alt, clr qtz (15%), tr chlor.
 W 64.1pof V 35
 Granodiorite: lt-dk gry, occ wht, pred ora-gr, fgr in pts, wht & clr felds w/ biot & hald incl's, mafic (15-20%), mnr qtz, kao, chlor, tr pyr & sphene, mnr grn & red alter's, tr calc & hem frac fill.
 Qtz Monzonite: wht, clr w/ lt grn cast, m gr, w/ felds alt'd in pts, mnr clr qtz, mnr biot, tr pyr, genly mnr alterations w/ abund chlrite @ 4700', tr hem, poss fracs @ 4745'.
 W 64.1pof V 32 PV 4 YP 8 ph 7.5 F 10.4 FC 3 CI 1000 Ca 25 Sd 1/4 Slides 2
 Qtz Monzonite: cont'd as above, but w/ tr yel grn, biot 5%.
 Granodiorite: pred lt-dk gry, blk in pts, w-med fgr, clr & wht felds, biot & hald 20%, mnr chlor & qtz, tr sphene, tr calc & red hem frac fill mat.
 W 64.1pof V 32
 Granodiorite: lt to dk gry, m gr, wht & clr felds w/ biot incl's, mnr qtz, chlor & kao, tr sphene, grading to qtz monzonite @ 4820'-4850'.
 W 63.1pof V 28 PV 3 YP 3 ph 7 F 20.4 FC 1 CI 900 Ca 80 Sd 1 Slides 1
 Granodiorite: lt-dk gry, wht, wht & clr felds w/ biot (10%) incl's, mnr qtz & kao, tr-mnr chlor, tr sphene & pyr, mnr red & yel grn alter'd mat, tr lt grn-gry fgr granitic(?) w/ long'd lt grn-gry xtals.
 Granodiorite: lt-dk gry, m gr, clr qtz, wht & clr felds, biot abund in pts, red & grn alt in pts, mnr kao, tr pyr mag & sphene, grading to qtz monzonite in pts.
 W 64.1pof V 30
 Granodiorite: dk gry, blk, mnr qtz, felds w/ biot incl's w/ abund free dk brn biot flakes app 5180', mnr kao, tr pyr mag & sphene, grading to qtz monzonite in pts.
 W 64.1pof V 29
 Qtz Monzonite: wht-clr occ lt gry, wht & clr felds w/ biot (5%) incl's mnr qtz, tr chlor, mag & kao.
 Granodiorite: lt-dk gry, occ blk m gr, wht & clr felds w/ biot (10-15%) incl's, mnr qtz, chlor, & kao, tr pyr & sphene, mnr red & grn alt'd mat in pts, abund fr biot in pts.
 W 64.1pof V 29 PV 2 YP 4 ph 7 F 55 FC 2 CI 1200 Ca 80 Sd 2 Slides 2
 Granodiorite: blk, lt-dk gry, mgr, finer gr in pts, wht & clr felds w/ biot (10%) incl's, mnr qtz, kao, chlor, tr sphene & pyr, abund fr biot & chlor files in pts, mnr alter's.
 Granodiorite: lt-dk gry qtz & felds as above, continued abund free bies (15-20%), tr pyr, mnr chlor, sphene & kao.
 Granodiorite: lt gry, m gr, wht & clr felds, w/ biot incl's pred alt to chlor, mnr qtz, tr sphene & pyr, grading to qtz monzonite in pts.
 W 64.1pof V 32 PV 2 YP 4 ph 7 F 55 FC 3 CI 1200 Ca 85 Sd 2 Slides 2
 Granodiorite: lt-dk gry blk in pts, mgr, wht & clr felds w/ biot (10-15%) incl's, mnr qtz, kao, chlor, tr sphene & pyr, mnr red & grn alter mat, poss hem, tr grn-gry fgr granitics(?) w/ long'd wht-grn xtals.
 W 64.1pof V 29
 Granodiorite: lt gry, m gr, clr & wht felds, incl's, mnr qtz, chlor, & kao, tr pyr, sphene, mag, & hem red stain.
 W 64.8 V 29
 Granodiorite: cont'd as above, but dk gry-blk in pts, biot 10-15%, tr calc frac fill grading to clr-wht qtz monzonite @ 5880'.
 Granodiorite: lt gry, m gr, wht & clr felds, biot incl's & free biot mnr qtz, mnr chlor & kao, tr pyr, grading to wht qtz monzonite from 5910'-5920'.
 Granodiorite: lt gry, wht & clr felds w/ biot incl's, mnr qtz, chlor & kao, tr pyr.
 W 63.7pof V 31 PV 3 YP 5 ph 7 F 52 FC 2 CI 1200 Ca 60 Sd 1 Slides 1
 Qtz Monzonite: wht-clr, clr & wht felds w/ biot (5%) incl's, mnr qtz, kao, & chlor, tr hald & hem, tr calc frac fill mat, grading to granodiorite in pts, mnr grn cast in pts.
 Granodiorite: lt gry, m gr, clr & wht felds, biot incl's (10-20%), mnr kao, qtz, & chlor, tr mag, sphene & pyr.
 W 63.7 V 31
 Granodiorite: cont'd as above, but grading to wht-clr qtz monzonite in pts.
 Ban Schlumberger Logs & Pressure Log
 W 65 V 30
 Granodiorite: lt gry, m gr, clr & wht felds, biot incl's (10-20%), mnr kao, qtz, & chlor, tr pyr & red hem stain.
 Qtz Monzonite: lt gry, m gr, wht-clr felds, mnr biot incl's (5%), wht-clr qtz, mnr chlor & hem.
 Added white-gold mica and diesel fuel to mud system @ 6320', maintained diesel @ 1%.
 Qtz Monzonite: cont'd as above, but w/ pyr % grading to lt gry granodiorite in pts.
 W 63.7pof V 29 PV 2 YP 3 ph 7 F 42 FC 1 CI 1500 Ca 120 Sd 2 Slides 2
 Granodiorite: lt gry, S & P, m gr, wht-clr felds, biot incl's (10%), mnr qtz, chlor & kao, tr-mnr mag & pyr, mod alt 2/6570'-6590' w/ poss zeolite mineralization, mnr calc-filling qtz & calcite in pts.
 Added diesel fuel @ 6210' and adding 10 sds mica/day to mud system, maintained diesel @ 1%.
 Qtz Monzonite: wht-lt gry, m gr, clr-wht felds w/ biot (~5%) incl's, mnr chlor, tr mag w/ hem stain, tr pyrite & sphene, grading to lt gry granodiorite in pts.
 W 63.7 V 30
 Qtz Monzonite: wht-lt gry, occ clr, mgr, clr-wht felds w/ biot (5%) incl's, mnr qtz, kao, & chlor, tr mag & pyr, grading to lt gry granodiorite in pts.
 W 63.7pof V 30
 Qtz Monzonite: lt gry, m gr, clr & wht felds w/ biot incl's (15%), mnr kao, chlor & tr-mnr mag, tr sphene, mnr qtz, tr pyr, grading to lt gry granodiorite in pts.
 Stopped adding diesel fuel system @ 6320'.
 W 64.1pof V 32 PV 6 YP 6 ph 7 F 16 FC 1 CI 1500 Ca 50 Sd 2 Slides 2
 Granodiorite: lt-dk gry, m gr, wht felds alt in pts to kao, mnr clr qtz, biot as incl's, mnr hem & green frac fill mat, mod alt in pts.
 Added diesel fuel @ 6210' and adding 10 sds mica/day to mud system, maintained diesel @ 1%.
 Qtz Monzonite: wht-lt gry, m gr, clr-wht felds w/ biot (~5%) incl's, mnr chlor, tr mag w/ hem stain, tr pyrite & sphene, grading to lt gry granodiorite in pts.
 W 63.7 V 30
 Qtz Monzonite: wht-lt gry, occ clr, mgr, clr-wht felds w/ biot (5%) incl's, mnr qtz, kao, & chlor, tr mag & pyr, grading to lt gry granodiorite in pts.
 W 64.1pof V 34
 Granodiorite: wht-clr gry, c-mgr, lt & clr felds w/ biot (15-20%) incl's, mnr qtz, kao, & chlor, tr mag & pyr, grading to lt gry-wht qtz monzonite in pts.
 W 64.1pof V 34 PV 6 YP 7 ph 7 F 55 FC 2 CI 1200 Ca 100 Sd 2 Slides 2
 Granodiorite: lt-med gry, mgr, wht & clr felds w/ biot incl's (10%), mnr qtz, kao, & chlor, tr mag & calc, grading to qtz monzonite w/ mnr biot & inere'g amts of chlor, calc, & grn alter's.
 Granodiorite: lt-dk gry, mgr, clr & wht felds w/ biot (15-20%) incl's, mnr kao & chlor, tr mag & calc. 10/25/78 @ 7500' on 10/25/78 - Ban Schlumberger Logs & Pressure Log & Sweet Temp Log. Purged well w/ nitrogen, attempted to flow well.
 Roosevelt Hot Springs KGRA 52-21