

NELLO L. TEER COMPANY
EXPLORATORY DRILL LOG

PROJECT Moncure - Chatham Co. Quarry
 LOCATION Moncure
 OWNER JUSTICE/OAK CITY REALTY
 Date start 8-28-89 compl. 8-31-89
 Geologist or Suptd. JAMES WELLS
 Driller LONG YEHN (CARL) Helper

Type drill _____
 Bit size _____ Casing size _____
 Groundwater Depth _____ ft.
 Static Water Level _____ ft.
 after 48 hrs. _____ ft.
 Water Loss _____ ft.

Hole No. JT-DOH 1A
JT-DOH 1

Strata Thick. ft.	Depth From To	Description	Run No.	Core Rec'y	RQD %
OVERBURDEN 15'	15'	NOTE: FIRST HOLE ATTEMPTED, NO ROCK TO 62' LOCATION SHOWN ON MAP. MOVED TO NEXT SITE (JTDOH 1A)	15'		
SILTY SAPROPHITE		OVERBURDEN: SILT AND CLAY, SOME FINE SAND CASING SET AT 15' (RESET AT 50')	21'	15'	0'
WEATHERED ROCK		Box 1: 15'-51' : TOP OF ROCK HIGHLY WEATHERED GRAY TO TAN SCHISTOSE METAVOLCANIC, RESEMBLES HOLLY SPRINGS ROCK. VERY FINE GRAINED SILICIC, NOT MICACEOUS. STRONGLY FOLIATED, DIPPING 45°-60°. BROWN AND BLACK OXIDE STAINING PARALLEL TO FOLIATION AND AN OBLIQUE FRACTURES. ROCK GETS HARDER AND LESS WEATHERED WITH DEPTH.	30'	77'	15'
CLAYEY SAPROPHITE	Box 1	At 30', ROCK BECOMES MORE FRACTURED AND ACTED. ROCK IS PINK OR GREEN AND SOFT. 30'-50': ORRD. 25' RECOVERED. APPEARS TO BE MOSTLY CLAYEY SAPROPHITE WITH ABOUT 25% RECOVERABLE ROCK.	24'		0'
	51'	Box 2: 51'-71' : SILICIC SCHISTOSE METAVOLCANIC FRESH ROCK NOT WEATHERED, DARK GREEN, DISTINCTLY FOLIATED, DIPPING ~45°. 51'-63' : ROCK IS HARD BUT EASILY BROKEN; "SHATTERED" TEXTURE. SEEMS TO BE MOSTLY QUARTZ WITH OCCASIONAL HIGH CONCENTRATIONS OF CHLORITE AND EPIDOITE. OXIDE STAINING ON FRACTURES. CORE LOSS 53'-55' AND 60'-63', APPARENTLY DUE TO FRACTURED NATURE OF ROCK AS RECOVERED PIECE TENDS TO BE ROUNDED. RED-PURPLE MINERALIZATION ON FRACTURES, OCCASIONALLY VUGGY. 63'-71' : NO CORE LOSS MUCH HIGHER RQD. ROCK NO LONGER HAS SHATTERED APPEARANCE, HOWEVER CALCITE VENS FILL SMALL AREAS THAT APPEAR TO BE WELL HEALED BRECCIATED ZONES. FRACTURES HAVE LIGHT CALCITE COATINGS AND MAY BE PARALLEL TO FOLIATION OR OBLIQUE AND IRREGULAR.	51'		
FRESH ROCK			63'	50'	0'
			71'	100'	50'

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EXPLORATORY DRILL LOG

PROJECT CHATAM COUNTY SITE
 LOCATION MONICURE
 OWNER JUSTICE / OAK CT. REALTY
 Date start _____ compl. _____
 Geologist or Suptd. JAMES TEEK
 Driller _____ Helper _____

Type drill _____
 Bit size _____ Casing size _____
 Groundwater Depth _____ ft.
 Static Water Level _____ ft.
 after 48 hrs. _____ ft.
 Water Loss _____ ft.

Hole No. JT0011

Strata Thick. ft.	Depth From To	Description	Run No.	Core Rec'y	RQD %	
	71'	BOXES 3-4 71'-97.8' SILICIC SCHISTOSE METAVOLCANIC MOSTLY MICROCRYSTALLINE QUARTZ WITH SOME VEINS OR SCHISTOSE CHLORITE AND EPIDOTE. DARK GREEN TO GREEN-BROWN IN COLOR. RELICT VOLCANIC CLASTS COMMON FROM 1/16" - 1" IN SIZE, USUALLY HIGHLY STRAINED. STRAINED CLASTS GIVE ROCK A MYLONITIC TEXTURE IN SOME PLACES. ROCK IS HIGHLY FRACTURED AND IS EASILY BROKEN ON SMOOTH PLANES WITH FOLIATION OR JAGGED IRREGULAR SURFACES. SURFACES ARE COATED WITH CALCITE WITH OCCASIONAL CHLORITE. OCCASIONAL CALCITE VEINS. OCCASIONAL ALTERATION IN CHLORITE-RICH ZONES AROUND FRACTURES.				
	Box 3			100'	38%	
	83.2'					
	Box 4					
	97.8'	BOXES 5-6 97.8'-127' SILICIC SCHISTOSE METAVOLCANIC -VERY SIMILAR TO ABOVE- MOSTLY QUARTZ WITH VARYING AMOUNTS OF CHLORITE, EPIDOTE AND SERICITE. THIS ROCK LOOKS VERY SIMILAR TO HOLLY SPRINGS ROCK. STRONGLY FOLIATED WITH STRAINED RELICT CLASTS. MORE ALTERATION THAN ABOVE; NAMELY EPIDOTE AND CHLORITE → TALC AND SERICITE IN ZONES THAT ARE MORE FRACTURED AND HAVE MORE QUARTZ VEINS. TALC AND SERICITE MAINLY COAT FRACTURES AND DO NOT CONSTITUTE MATRIX OF ROCK EXCEPT WHERE ROCK HAS "SHATTERED" TEXTURE (<5% OF ROCK IN THIS ZONE). ROCK BREAKS EASILY IN JAGGED PATTERN IN 3 or 4 ORIENTATIONS, ONE BEING PARALLEL TO FOLIATION. DRILLERS REPORT THAT ROCK CONSISTANTLY CUTS HARD. MISS-LATCH OF CORE BARREL 126'-134'; 4' OF CORE LOST; NO CHANGE IN ROCK.				
	Box 5			100'	40%	
	111'	BOXES 3-4 71'-97.8' SILICIC SCHISTOSE METAVOLCANIC MOSTLY MICROCRYSTALLINE QUARTZ WITH SOME VEINS OR SCHISTOSE CHLORITE AND EPIDOTE. DARK GREEN TO GREEN-BROWN IN COLOR. RELICT VOLCANIC CLASTS COMMON FROM 1/16" - 1" IN SIZE, USUALLY HIGHLY STRAINED. STRAINED CLASTS GIVE ROCK A MYLONITIC TEXTURE IN SOME PLACES. ROCK IS HIGHLY FRACTURED AND IS EASILY BROKEN ON SMOOTH PLANES WITH FOLIATION OR JAGGED IRREGULAR SURFACES. SURFACES ARE COATED WITH CALCITE WITH OCCASIONAL CHLORITE. OCCASIONAL CALCITE VEINS. OCCASIONAL ALTERATION IN CHLORITE-RICH ZONES AROUND FRACTURES.				
	Box 6			100'	38%	
	127'					
MISS LATCH IN THIS ZONE				MISSLATCH CORE LOSS		

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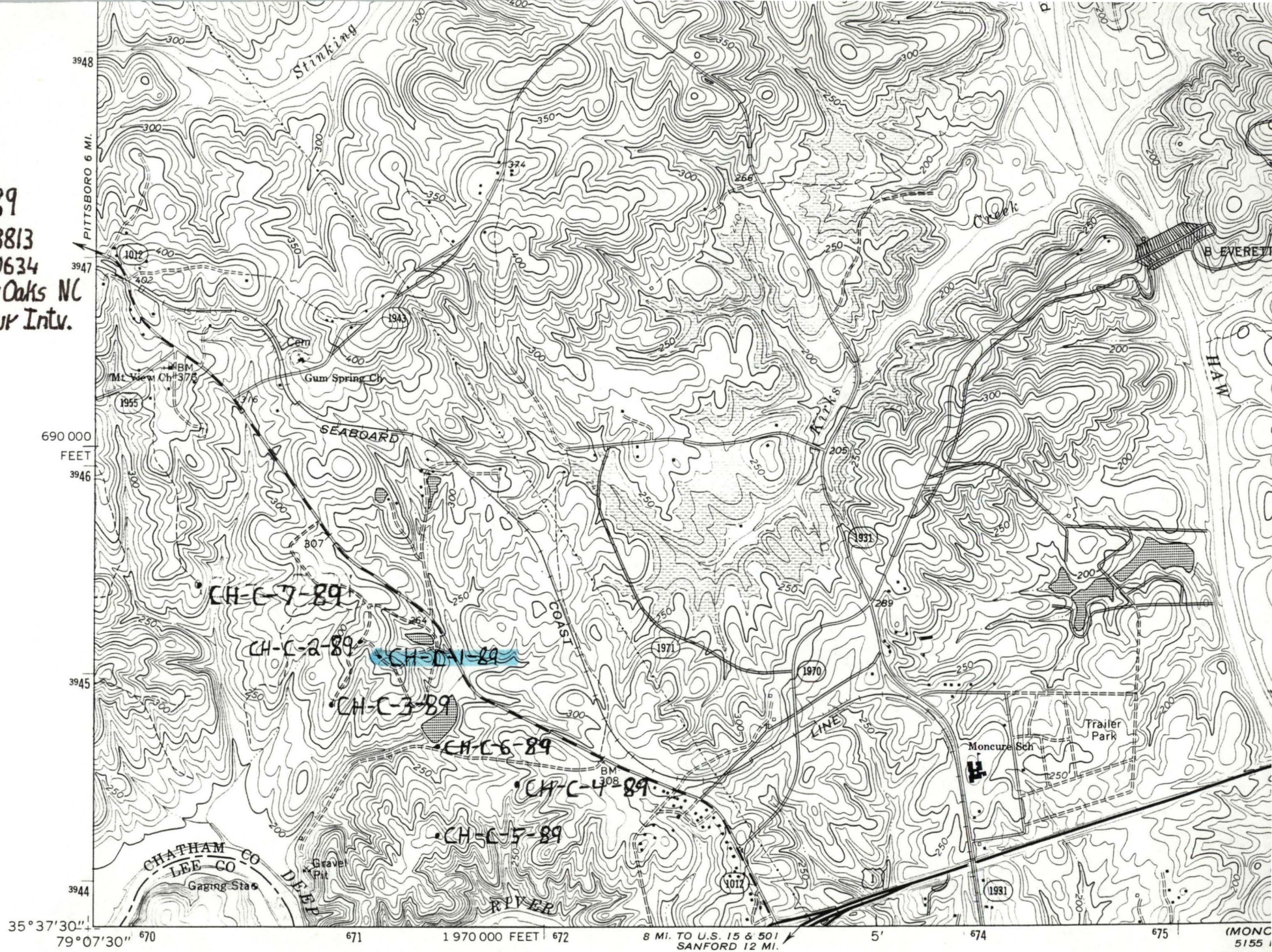
PROJECT CHATAM COUNTY QUARRY
 LOCATION MONCURE
 OWNER JUSTICE - CIVIL REALTY
 Date start 8-28-89 compl. 5-31-89
 Geologist or Suptd. J. IZZEL
 Driller LONGYEAR (CALL) Helper _____

Type drill _____
 Bit size _____ Casing size _____
 Groundwater Depth _____ ft.
 Static Water Level _____ ft.
 after 48 hrs. _____ ft.
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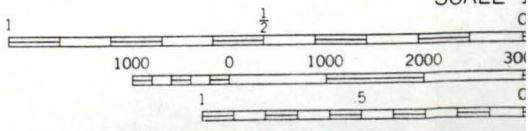
Hole No. WT-00H 1

Strata Thick. ft.	Depth From To	Description	Run No.	Core Rec'y	RQC %
	127	Boxes 7-8 127'-158.3' Schistose Silicic Metavolcanic - VERY SIMILAR TO ABOVE DARK GRAY GREEN, MOSTLY MICROCRYSTALLINE QUARTZ WITH VARYING AMOUNTS OF CHLORITE EPIDOTE CALCITE (IN VEINS) AND SERICITE. STRONGLY FOLIATED AND STRAINED, DIPPING ABOUT 50°. ROCK HAS A "SHATTERED" TEXTURE WITH 2 OR 3 ORIENTATIONS OF HEALED STRESS FRACTURES. CALCITE OCCASIONALLY FILLS FRACTURES AT IRREGULAR ORIENTATIONS. IT APPEARS THAT THE CLASTIC ROCK WAS METAMORPHOSED AND STRAINED - THEN LATER SUBJECTED TO OTHER STRESSES. BECAUSE OF THIS TEXTURE, THE ROCK TENDS TO BREAK IN A JAGGED IRREGULAR PATTERN. NOTE: CORE LOSS 27'-35' DUE TO MISSLATCH, DRILLER REPORTED HARD CONSISTANT ROCK.		100	22
	145.4'				
	Box 8 158.3'	Boxes 9-10 158.3'-189.2' Schistose Silicic Metavolcanic - SIMILAR TO ABOVE 158.3'-164': VERY SIMILAR TO ABOVE. GRAY GREEN SILICIC METAVOLCANIC, FOLIATED ~50° DIP, HEALED SHATTERED APPEARANCE.		100	47
	Box 9 172'	164'-172': MIXTURE OF METAMORPHOSED DIABASE (GREENSTONE) AND PORPHYRITIC ROCK. GREENSTONE IS VERY FAINTLY FOLIATED, DARK GREEN, VERY FINE GRAINED. PORPHYRITIC ROCK RESEMBLES A DACITE PORPHYRY WITH UP TO 25% PLAG. PHENOCRYSTS ~ 1/16". THE PHENOCRYSTS DO NOT APPEAR TO BE STRAINED OR ROTATED BUT THIN CHLORITE AND EPIDOTE VEINS PARALLEL FILIATION		100	45
	172'	172'-189.2': SILICIC METAVOLCANIC, AS DESCRIBED ABOVE. MOSTLY MICROCRYSTALLINE QUARTZ WITH "SHATTERED" APPEARANCE. SOME DARK RED OXIDE STAINING ON FRACTURES AND OCCASIONALLY PENETRATING ROCK AROUND CALCITE VEINS. SOME CORE LOSS 179'-185'		80	18
	Box 10 189.2'				
	Box 11 199'	Box 11 189.2'-199' METAVOLCANIC 189.2'-191': GREENSTONE META-DIABASE AS DESCRIBED ABOVE 191'-199': SILICIC METAVOLCANIC AS DESCRIBED ABOVE		100	30
	-END-				

CH-C-1-89
 Lat: 35 3813
 Long: 79 0634
 7.5' Merry Oaks NC
 10' Contour Intv.



Mapped, edited, and published by the Geological Survey
 Control by USGS, NOS/NOAA, and North Carolina Geodetic Survey
 Topography by photogrammetric methods from aerial photographs
 taken 1965. Field checked 1969
 Polyconic projection. 10,000-foot grid ticks based on North Carolina



(COLONY)
 5155 II SW

MN
 GN

6 1/2°
 1:50,000

CONTOUR INTV.