

**NELLO L. TEER COMPANY**  
EXPLORATORY DRILL LOG

PROJECT CHATAM COUNTY QUARRY  
 LOCATION MONCURE  
 OWNER JUSTICE / OAK CITY RLY.  
 Date start 9-6-89 compl. 9-7-89  
 Geologist or Suptd. JAMES TZEEL  
 Driller LONGYEAR (CARL) Helper \_\_\_\_\_

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

Hole No. JTDOH 4

Strata Thick. ft.	Depth From To	Description	Run No.	Core Rec'y	RQD %
OVERBURDEN	30'	OVERBURDEN. CLAY AND SILT WITH METAVOLCANIC ROCK FRAGMENTS. TOP OF ROCK AT 30'			
		Box 1 30'-55.8' WEATHERED METAVOLCANIC			
WEATHERED ROCK	30'	30'-52': HIGHLY WEATHERED ON TOP BECOMING FRESHER WITH DEPTH. SILICIC SCHISTOSE METAVOLCANIC. FOLIATION DIPS 30°-40°. ROCK IS A HIGHLY STRAINED VOLCANICLASTIC, FELDSPARS ALTERED TO CLAY WITH HEAVY OXIDE STAINING. 30'-44': 50% RECOVERY, 44'-52': 70% RECOVERY, 52'-55.8': 90-100% RECOVERY, WEATHERED ZONES PROBABLY FOLLOW FOLIATION AS THERE ARE FRESH LAYERS IN BETWEEN WEATHERED ROCK.		5/4	0
		52'-55.8': SAME ROCK AS ABOVE - UNWEATHERED, SILICIC SCHISTOSE METAVOLCANIC. VOLCANICLASTIC ROCK WITH GREEN MATRIX PROBABLY CONSISTING OF CHLORITE, QUARTZ AND FELDSPAR. CLASTS ARE HIGHLY STRAINED, 1" TO MICROSCOPIC. LIGHT OXIDE COATINGS ON FRACTURES.	44'	36%	0
FRESH ROCK	55.8'	Box 2 55.8'-82.5' SILICIC SCHISTOSE METAVOLCANIC - VERY SIMILAR TO ABOVE, GREEN TO SLIGHTLY PURPLE-GREEN. FOLIATION DIPS 45°-60°. SILICIC CLASTS ARE HIGHLY STRAINED 1" TO MICROSCOPIC. SCHISTOSE MATRIX MOSTLY QUARTZ, FELDSPAR, EPIDOTE AND CHLORITE. THERE ARE SOME SMALL ZONES 6-8" THICK WHERE THERE ARE FEWER CLASTS AND THE ROCK SEEMS TO BE MORE OF A QUARTZITE. THIS MAY BE A RELICT ASH LAYER. THE ROCK GENERALLY BREAKS PARALLEL TO FOLIATION ALTHOUGH THERE ARE A FEW IRREGULAR FRACTURES OBLIQUE OR PERPENDICULAR TO FOLIATION. OVERALL THE ROCK IS HARD BUT BROKEN INTO 1"-6" PIECES.	49'	90%	1/5 20
		82.5'	52'	10%	0
			55.8'	85%	13% 13.7
				100'	1/2.1 33

# NELLO L. TEER COMPANY

## EXPLORATORY DRILL LOG

PROJECT CHATHAM COUNTY SITE  
 LOCATION MONLURE  
 OWNER \_\_\_\_\_  
 Date start 9-7-89 compl. \_\_\_\_\_  
 Geologist or Suptd. J. Izzell  
 Driller \_\_\_\_\_ Helper \_\_\_\_\_

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

Hole No. JST-00H #1

Strata Thick. ft.	Depth From To	Description	Run No.	Core Rec'y	RQD %
	82.6'	Boxes 4-5 82.6'-111.2' SILICIC METAVOLCANIC			
	Box 4	82.6'-88': SIMILAR TO ABOVE BUT SEEMS TO BE MORE HIGHLY STRAINED. CLASTS ARE SMALLER MATRIX BECOMES GREENISH PINK. SMALL FOLD IN FOLIATION AT 87'.		100'	73
	96.7'	88'-90': NOT CLASTIC - SLIGHTLY METAVOLCANIC, SEEMS TO BE MOSTLY QUARTZ, FELDSPAR, CHLORITE AND EPIDOTE. VERY HARD.			
		90'-97': BLACK QUARTZITE WITH ~5% PLAG(?) PHENOCRYSTS. PROBABLY A RECRYSTALLIZED META-BASALT. ACCORDING TO DRILLER, THE HARDEST ROCK YET. NOT FOLIATED OR STRAINED MACROSCOPICALLY. SEVERAL THIN EPIDOTE AND QUARTZ VEINS.		100'	45
	111.2'	97'-111.2': FOLIATED SILICIC VOLCANICLASTIC. VARIABLE IN TEXTURE AND APPEARANCE, BUT CONSISTANT IN ROCK TYPE. OCCASIONALLY CLEARLY CLASTIC, OCCASIONALLY "PORPHYRITIC". ALL HIGHLY STRAINED, QUARTZ-RICH WITH VARYING AMOUNTS OF EPIDOTE AND CHLORITE.		100'	59
	Box 6	Boxes 6-7 111.2'-139.3' SILICIC METAVOLCANIC			
	124'	111.2'-118': FOLIATED SILICIC METAVOLCANIC, SIMILAR TO ABOVE. GREEN, PINK AND GRAY; FOLIATION APPROXIMATELY HORIZONTAL. COMPOSITION VARIES BUT CONSISTANTLY HAS QUARTZ, FELDSPAR AND EPIDOTE. FRACTURES ARE GENERALLY HIGH ANGLE WITH LIGHT OXIDE COATING.		15.3' 7' 13.8'	91.8
	Box 7	118'-128.5': META-BASALT - BLACK, NOT FOLIATED. VERY FINE GRAINED WITH IRREGULAR "INCLUSIONS" OF A GREEN MINERAL, LIKELY EPIDOTE BUT POSSIBLY OLIVINE. OCCASIONAL SMALL WHITE PLAG(?) PHENOCRYSTS. OCCASIONAL QUARTZ AND EPIDOTE VEINS.		90'	65
	139.3'	UPPER AND LOWER CONTACT MARKED BY IRREGULAR QUARTZ VEINS, VERY HARD AND SOLID ROCK.			
		128.5'-139.3': FOLIATED SILICIC METAVOLCANIC, SIMILAR TO ABOVE. GREEN, GENERALLY CLASTIC, SOMEWHAT MORE CONSISTANT THAN ABOVE. FOLIATION DIPS 30°-40° WITH SMALL FOLDS. MOSTLY QUARTZ, FELDSPAR, AND CHLORITE. SLIGHTLY LESS FRACTURED THAN ABOVE. NO MINERALIZATION ON FRACTURE SURFACES. CORE LOSS 130'-131' MAY BE DUE TO DRILL			

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EXPLORATORY DRILL LOG

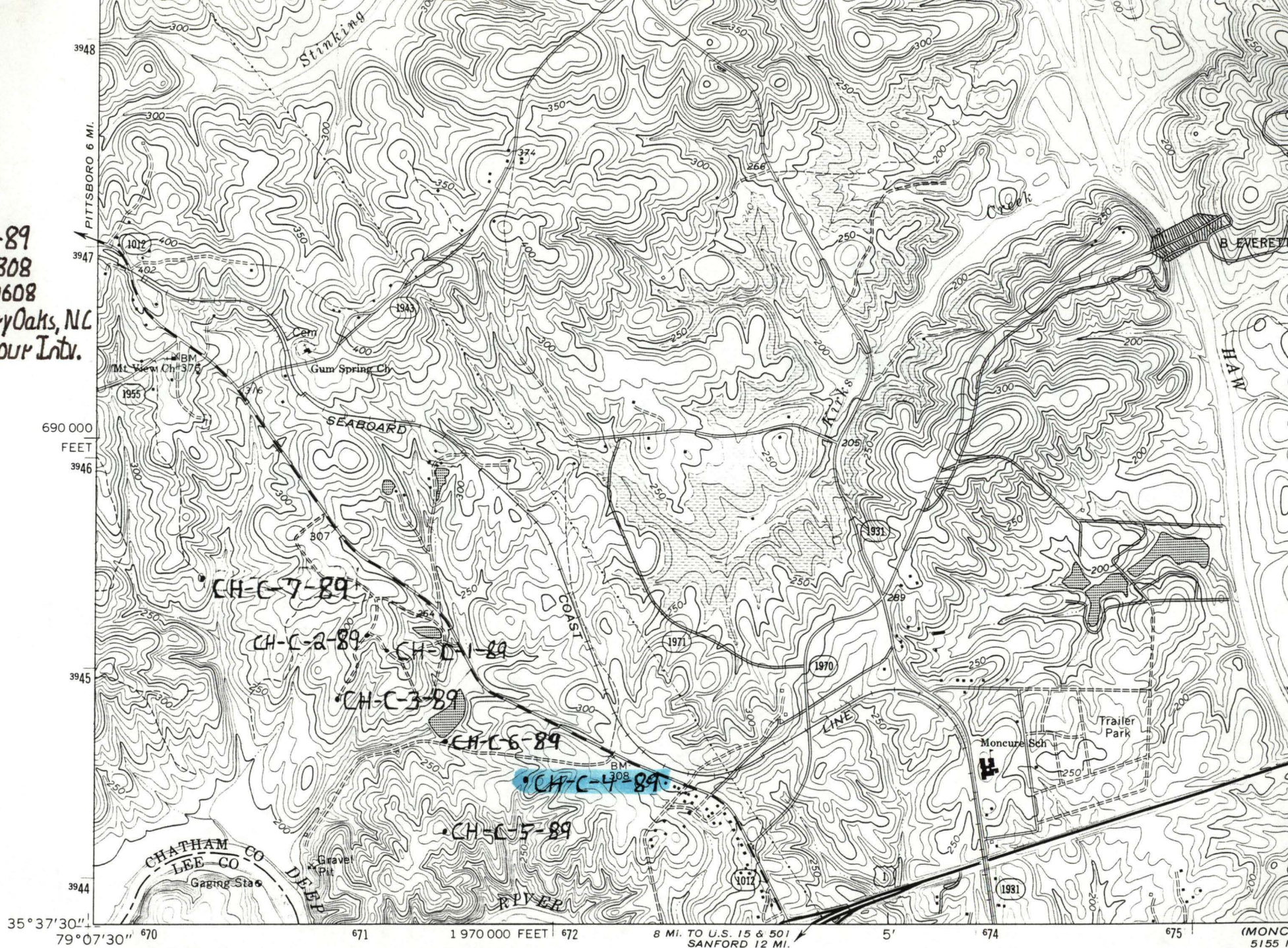
PROJECT CHATAM COUNTY QUARRY  
 LOCATION MORICURE  
 OWNER JUSTICE / OAK CITY REALTY  
 Date start \_\_\_\_\_ compl. \_\_\_\_\_  
 Geologist or Suptd. J. IZZEL  
 Driller LOUK TEER (CALL) Helper \_\_\_\_\_

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

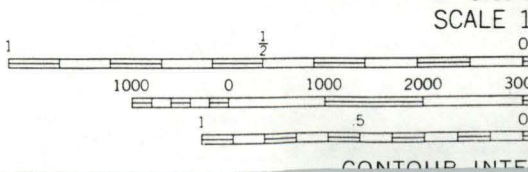
Hole No. 11TDDH 4

Strata Thick. ft.	Depth From To	Description	Run No.	Core Rec'y	RQD %
	139.3'	BOXES 8-9 139.3'-168.2' SILICIC METAVOLCANIC			
	Box 8	139.3'-153.8': VERY SIMILAR TO ABOVE GREEN FOLIATED, SCHISTOSE CLASTIC METAVOLCANIC, HIGHLY STRAINED WITH FOLIATION DIPPING 30°-45°. ROCK PROBABLY CONSISTS OF QUARTZ, CHLORITE, EPIDOTE AND FELDSPAR. FRACTURES GENERALLY PARALLEL TO FOLIATION. ONE-INCH-THICK SEAMS OF WEATHERED ROCK (CHLORITE → CLAY) AT 152'-153'. DOES NOT AFFECT SURROUNDING ROCK.		90'	38%
	154'	153.8'-168.2': SIMILAR TO ABOVE BUT ROCK TAKES ON A PURPLE-GREEN COLOR. I BELIEVE THE ROCK HAS A VERY SIMILAR COMPOSITION WITH A DIFFERENT TEXTURE AND APPEARANCE. CLASTS ARE SMALLER AND LESS FREQUENT. MORE DISTINCT QUARTZ, EPIDOTE AND CALCITE VEINS IN HIGHLY IRREGULAR PATTERNS. ROCK SEEMS TO BE HARDER AND DOES NOT BREAK AS EASILY ALONG FOLIATION		100'	85%
	Box 9				
	168.2'				
		BOXES 10-12 168.2'-205' SILICIC METAVOLCANIC			
	Box 10	SIMILAR TO ABOVE, GREEN TO PURPLE-GREEN CLASTIC METAVOLCANIC. FAINTLY TO DISTINCTLY FOLIATED. THERE SEEMS TO BE TWO BASIC ROCK TYPES IN THIS SECTION WITH VARIATIONS OR COMBINATIONS COMMON. ONE TYPE IS A HARD MICROCRYSTALLINE SLIGHTLY FOLIATED METAVOLCANIC WITH HIGHLY STRAINED CLASTS. THIS ROCK IS DARK PURPLE WITH VARYING AMOUNTS OF DARK GREEN STREAKS (CHLORITE). THERE ARE ORBICULAR EPIDOTE CONCENTRATIONS WHICH GIVE THE ROCK A POLKA-DOTTED APPEARANCE. ORBS RANGE FROM 1/8" TO 1". THE OTHER ROCK TYPE, WHICH IS LESS COMMON, IS A DARK GREEN CHLORITE RICH METAVOLCANIC SCHIST. THIS ROCK SEEMS TO BE FAIRLY SILICA-RICH AND HARD THOUGH NOT AS HARD AS THE OTHER ROCK TYPE. END OF HOLE AT 205'.		100'	67%
	181.6'				
	Box 11				
	194.4'				
	Box 12				
	205'				
	END OF HOLE				

CH-C-4-89  
 Lat: 353808  
 Long: 790608  
 7.5' Merry Oaks, NC  
 10' Contour Intv.



Mapped, edited, and published by the Geological Survey  
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 Topography by photogrammetric methods from aerial photographs  
 taken 1965. Field checked 1969  
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(COLON)  
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