

Drill Hole No. MH-104
 Bearing: N 15 E Inclination: 30°N
 Coordinates: North 626,814.92 East 1,455,274.20
 Elevation: 1006.75

Date: 4.10.78
 Bob Kesty
 Drilled By: Boyles Bro. Quinton Barton
 Logged By: Ferryl C. Gale
 Rotary 0.0-40.0
 Total Depth: T.D. 276.0 Core 40.0-276.0

DEPTH		%	SAMPLE	SAMPLE	ANALYSES			DESCRIPTION OF MATERIAL DRILLED
FROM	TO	RECOVERY	NUMBER	INTERVAL	Sp. Gr.	BaSO ₄		
0.0	10.0							No sample recovery, set casing.
10.0	15.0							Alluvium, gray shales & gray sandstone, strong limonite staining.
15.0	20.0							" " " "
20.0	25.0							" " " "
25.0	30.0							" " hit water at 30.0 ft.
30.0	35.0							" " " "
35.0	40.0							" " " "
40.0	50.0			Began coring				First run had a 9.2' core loss, locally bleached than sandstone, very broken, fault zone, carbon rich fracture w/ slicken sides, qtz filling fracture locally.
50.0	57.0							Lt. gray sandstone fine-grained, well-cemented, broken & sheared, occasional veinlets of qtz. Bedding dip 81°N.
57.0	67.4							Sandstone as before, shear zone 57.0-61.0 Also shear zone 66.0-67.0. Bedding dip 82°S.
67.4	80.5							Sandstone as before, shear zone, carbon filled fractures w/ slicken sides, Bedding dip 89°N.
80.5	92.0							Loss of 1.0 core, sandstone as before,

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FROM	TO	RECOVERY	NUMBER	INTERVAL	Sp. Gr.	BaSO ₄		
								locally wisps of black shale, shear zone
								89.0-92.0 carbon filling w/ slicken sides.
								Bedding dip 83°N.
92.0	103.6							Sandstone as before, shear zone, broken,
								Bedding dip 83°N.
103.6	114.3							Sandstone as before, very sheared, highly
								broken, locally brecciated, locally vuggy
								or leached cavities.
114.3	123.0							Sandstone as before; locally strong stringers
								of qtz, numerous carbon filled fractures,
								shear zone highly broken, Bedding dip 84°N.
								Brecciated locally.
125.9	136.9							Sandstone as before, Brecciated locally,
								shear zone, highly broken, carbon filled
								fracture, strong qtz stringers.
136.9	147.9							Sandstone as before, occasional qtz. veinlets,
								shear zone, broken.
147.9	153.0							Sandstone as before, shear zone, 1.8' core
								loss, occasional qtz. stringers.
153.0	160.7							Sandstone as before, black shale lenses
								159.0-159.8 Bedding dip 70°N.

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FROM	TO				Sp. Gr.	BaSO ₄		
160.7	165.0							Sandstone as before, broken bedding dip 72°N.
165.0	170.0							Sandstone w/ interbedded black shales lenses, shale lenses being less competent are highly sheared & broken, 1.0' core loss.
170.0	172.8							Sandstone as before, moderately broken, Bedding dip 60°N.
172.8	184.5							Sandstone as before, out of shear zone, occasional lenses of black shale, Bedding dip 73°N.
184.5	194.0							Sandstone as before, lenses of black shale. 186.0-186.4, then veinlets of calcite & qtz.
194.0	197.2							Black shale lenses w/ interbedded gray sandstone, sheared shale has numerous slicken sides.
197.2	207.0							Lt. gray sandstone, well-cemented, wisps of black shale near contact, (brecciated zone 204.6-205.0) Bedding dip 68°N.
207.0	216.5							Sandstone as before, very competent, scattered qtz & calcite veinlets. (209.8-210.3 shale lens. bedding dip 75°N.
216.5	220.0							Fault, strong brecciation, gray sandstone

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FROM	TO	RECOVERY	NUMBER	INTERVAL	Sp. Gr.	BaSO ₄		
								fragments recemented by qtz & calcite; minor
								fragments honey colored mineral, possible
								(Siderite FeCO ₃ or Sphalerite ZNS). Removed
								a sample to study.
220.0	222.2		2746					Barite zone; low grade about 30% BaSO ₄ ,
								scattered barite nodules associated w/ brecciation, this is an interesting area showing
								nodular bedded barite perpendicular to fault
								shearing & brecciation. This tends to lead
								one to the idea that this deposit is of
								sedimentary origin rather than hydro-
								thermal deposit. Abundant calcite & qtz
								fracture fillings, also thin lamina of black
								shale. Bedding dip 88°N.
222.2	225.7		2747					Barite zone; med to low grade, approx 40%,
								nodular barite interbedded w/ black shale,
								occasional qtz & calcite veinlets cut per-
								pendicular to bedding. Bedding dip 87°N.
225.7	229.6		2748					Barite zone, low grade, approx 20% BaSO ₄ ,
								scattered large nodular barite interbedded

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FROM	TO				Sp. Gr.	BaSO ₄	
							with black shale. Bedding dip 83°N.
229.6	232.7		2749				Barite zone, low grade, approx 10% BaSO ₄ .
							Scattered barite nodules in black shale.
							occasional nodule of pyrite. Bed dip 86°N.
232.7	236.4		2750				Barite zone, low, low grade approx 5% BaSO ₄ ,
							very scattered nodules & possible barite
							cement. Host rock black shale w/ occasional
							calcite & qtz veinlets.
236.4	238.8		2751				Barite zone, low, low grade, possibly barite
							cement, approx 2% BaSO ₄ , mottled appearance
							occasional qtz & calcite veinlets in black
							or gray shales.
238.8	240.0						Lt. gray fine-grained sandstone, well-cem-
							ented, bedding dip 70°N.
240.0	251.7						Sandstone as before, dark gray locally due
							to influence of black shale. Bed dip 86°S.
251.7	253.6						Sandstone as before.
253.6	263.2						Black shales, silicously cemented, locally
							gray shales, wisps of gray sandstone, occ-
							asional veinlets of calcite & qtz.

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SAMPLE	LOG #	DEPTH	INTERVAL	A.P. SPECIFIC GRAVITY	CALCULATED % BaSO ₄
MH-104					
2746	3400	220-222	2.0	2.807	4.25
2747	3401	222-225.7	3.7	2.809	4.44
2748	3402	225.7-229.6	3.9	2.794	3.06
2749	3403	229.6-232.7	3.1	2.783	2.03
2750	3404	232.7-236.4	3.7	2.792	2.87
2751	3405	236.4-238.8	2.4	2.798	3.43
		Total	18.80		
		Weighted Average		2.80	3.30