

## DRILL HOLE LOG

Drill Hole No. MH-109

Bearing: N 11½ E Inclination: 50°N

Coordinates: North 627,081.47 East 1,454,539.68

Elevation: 1043.0

Date: 6/7/78

Drilled By: Boyles Bro. Bob Kesty

Logged By: Ferryl C. Gale

Total Depth: T.D.: 349.6

*Very Poor Barite is only at 211*

DEPTH		%	SAMPLE	SAMPLE	ANALYSES			DESCRIPTION OF MATERIAL DRILLED
FROM	TO	RECOVERY	NUMBER	INTERVAL	Sp. Gr.	BaSO <sub>4</sub>		
0.0	20.0							No sample recovery, Casing hole.
20.0	32.0							Gray sandstone weathers to buff color.
								Relic fragments of sandstone gray in color
								un-weathered. Bedding dip 70°S. Highly
								fractured, heavy limonite staining along
								fractures.
32.0	44.8							Weathered sandstone as above.
44.8	56.5							Weathered sandstone as above.
56.5	65.0							Lt. gray sandstone, fine-grained well
								cemented, wisps of black shale occasionally,
								fractures are filled w/ limonite staining
								locally bleached to buff due to ground
								water leaching.
65.0	69.9							Lt. gray sandstone as before, wisps of black
								shale occasionally.
69.9	82.1							Lt. gray sandstone, fine-grained wisps of
								black shale, well cemented w/ silica.
82.1	97.0							Sandstone as above, 85.0-85.5, qtz veinlets,
								locally black sandstone due to carbon rich
								shales.

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Logged By: \_\_\_\_\_

Elevation: \_\_\_\_\_

Total Depth: \_\_\_\_\_

DEPTH		% RECOVERY	SAMPLE NUMBER	SAMPLE INTERVAL	ANALYSES			DESCRIPTION OF MATERIAL DRILLED
FROM	TO				Sp. Gr.	BaSO <sub>4</sub>		
97.0	103.0							Interbedded black shales & gray sandstone w/ occasional veinlet of qtz & calcite.
103.0	110.0							Gray sandstone, w/ strong calcite qtz. veinlets, stringers & blebs. Occasional lamina of black shale.
110.0	119.0							Gray sandstone, scattered black shale lamina, some qtz. veinlets.
119.0	131.0							Gray sandstone w/ interbedded black shale lamina. Fractured 119.0-120.0 & 128.0-129.0; Bedding dip 78°S.
131.0	143.0							Gray sandstone as above. Occasional lamina of black shale & wisps of black shale, scattered qtz veinlets.
143.0	149.0							Gray sandstone, highly broken. Recemented w/ qtz. Strong qtz & calcite veinlets stringers & blebs. Graphitic locally.
149.0	153.2							Gray sandstone as before.
153.2	163.0							Gray sandstone as before. Bedding dip 74°S. 160'.
163.0	164.2							Black shale, sheared, carbon rich slicken sides.

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Logged By: \_\_\_\_\_

Elevation: \_\_\_\_\_

Total Depth: \_\_\_\_\_

DEPTH		% RECOVERY	SAMPLE NUMBER	SAMPLE INTERVAL	ANALYSES			DESCRIPTION OF MATERIAL DRILLED
FROM	TO				Sp. Gr.	BaSO <sub>4</sub>		
164.2	174.8							Gray sandstone, numerous qtz & calcite veinlets.
174.8	184.6							Gray & dark gray sandstone locally lamina of black & gray shales. Highly broken & sheared. Brecciated 176.0-177.2 Breccia recemented w/ qtz. Bedding dip 60°S.
184.6	194.6							Gray sandstone as before, interbedded black shale. W/ numerous qtz veinlets, locally sheared.
194.6	205.0							Sandstone as before, brecciated, angular fragments of sandstone recemented together w/ qtz. Locally lenses of black shale. (sheared 200.0-203.0 highly broken, slicken sides) numerous qtz veinlets & stringers.
205.0	215.0							Gray sandstone w/ small micro fractures filled w/ carbon, numerous qtz veinlets.
215.0	226.5							Sandstone as above, numerous qtz veinlets. (216.2-220.1 heavy qtz stringers also highly sheared.) Bedding dip 89°S.
226.5	238.2							Sandstone as before, occasionally black shale

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Logged By: \_\_\_\_\_

Elevation: \_\_\_\_\_

Total Depth: \_\_\_\_\_

DEPTH		%	SAMPLE	SAMPLE	ANALYSES			DESCRIPTION OF MATERIAL DRILLED
FROM	TO	RECOVERY	NUMBER	INTERVAL	Sp. Gr.	BaSO <sub>4</sub>		
								lenses. Numerous qtz & calcite veinlets & stringers.
238.2	249.2							Gray sandstone as before, locally black shale lamina & numerous qtz veinlets. Bedding dip 80°S. at 240.6'.
249.2	260.3							Interbedded gray sandstone & black shales. (sheared 251.0-253.0) scattered qtz veinlets bedding dip 74°S.
260.3	271.6							Gray sandstone, very uniform, well cemented. Bedding dip 76°S.
271.6	282.0							Sandstone as above (273.0-274.0 slicken sides & qtz stringer) scattered qtz veinlets.
282.0	292.0							Sandstone as above. Occasional lamina of black shale. Bedding dip 64°S.
292.0	303.0							Sandstone as before, (black shale lens 296.0-298.0) fractures filled w/ gypsum & marcasite. Bedding dip 85°N.
303.0	313.7							Dark gray sandstone, as above, occasional qtz & calcite veinlets (307.1-307.6 brecciated & recemented w/ qtz.

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Total Depth: \_\_\_\_\_

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FROM	TO	RECOVERY	NUMBER	INTERVAL	Sp. Gr.	BaSO <sub>4</sub>		
313.7	315.0		2888	1.3'	Study	sample		Contorted bedding. <u>Possible</u> some low grade barite?? Bedding dip 83°S.
315.0	317.0							Sandstone, contorted bedding.
317.0	322.0		2889	5.0'	Study	sample		Sandstone w/ numerous squeeze structures & contorted bedding. <u>Possible</u> very low grade barite.
322.0	325.0		2890	3.0'	Study	sample.		Same as above. Bedding dip 86°S.
325.0	337.0							Black shale, siliciously cemented, locally gray shales. Bedding dip 84°S.
337.0	348.0							Interbedded black & gray shales scattered calcite veinlets & marcasite filling fractures. Bedding dip 89°S.
348.0	348.9							Black shale as before.
348.9	349.0							Arkansas Novaculite, Cherty, carbon filled fractures. At contact abundant marcasite filling fractures. Novaculite contact dipping 86°N. somewhat weathered & leached.
349.0	Bottom			on Novaculite.				

Total Depth: \_\_\_\_\_

Bottom Hole costs	627,297.12	1,454,593.37	776.47
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FANCY HILL - DIAMOND DRILL HOLES  
INDIVIDUAL CORE ANALYSES BY INTERVALS

SAMPLE	LOG #	DEPTH	INTERVAL	A.P. SPECIFIC GRAVITY	CALCULATED % BaSO <sub>4</sub>
MDDH 109					
2888	3800	313.7-315	1.3	2.774	1.19
-	-	315-317	2.0	2.761	0.00
2889	3801	317-322	5.0	2.852	8.31
2890	3802	322-325	3.0	2.840	7.24
		Total	11.3		
		Weighted Average		2.824	5.78