

Drill Hole No. MH-35
 Bearing: N 35 E Inclination: 60 N 5(?)
 Coordinates: North 129,007.50 East 4450,002.00
 Elevation: 1114.86

Date: 2/13/78
 Drilled By: Boyles Bros.
 Logged By: Ferryl C. Gale
 Air rotary: 93'
 Total Depth: 419.0 Core: 326'

DEPTH		% RECOVERY	SAMPLE NUMBER	SAMPLE INTERVAL	ANALYSES			DESCRIPTION OF MATERIAL DRILLED
FROM	TO				Sp. Gr.	BaSO ₄		
0.0	5.0							Set casing, oxidized colluvium.
5.0	10.0	2%						5.0-93.0 was test to drill with mud; and
								recover samples from mud like in oil field.
								However, our settling sump was not deep enough
								to allow the cuttings to drop out of the
								mud, so in essence, all we were doing was
								recirculating the cuttings. The drill rods
								had 3/4 inch cuttings built up on the in-
								side, due to insufficient volume of drill-
								ing mud by the pump. (Colluvium)
10.0	15.0	5%						Sandstone, gray, interbedded w/ shales.
15.0	20.0	5%						" " " "
20.0	25.0	5%						" " " "
25.0	30.0	5%						" " " "
30.0	35.0	5%						" " " "
35.0	40.0	5%						" " " "
40.0	45.0	5%						" " " "
45.0	50.0	5%						" " " "
50.0	55.0	5%						" " " "
55.0	60.0	5%						" " " "

Drill Hole No. MH-35

Date: 2/13/78

Bearing: N 35 E Inclination: 60 N

Drilled By:

Coordinates: North East

Logged By:

Elevation:

Total Depth:

DEPTH		% RECOVERY	SAMPLE NUMBER	SAMPLE INTERVAL	ANALYSES		DESCRIPTION OF MATERIAL DRILLED
FROM	TO				Sp. Gr.	BaSO ₄	
60.0	65.0	5%					"
65.0	70.0	5%					"
70.0	75.0	5%					" Hole MH-34 should
75.0	80.0	5%					" have much the same
80.0	85.0	5%					" lithology.
85.0	90.0	5%					"
90.0	93.0	5%					"
93.0							Begin coring.
93.0	93.7						Gray fine grained sandstone, poorly cem-
							ented, carbon filled fractures, (93.7-94.0
93.7	94.0						possible fault gouge, brecciated)
94.0	102.0						Highly altered sandstone; gray; fault 93.7-
							102.2; gravelly appearance locally; graphitic,
							carbon filled fractures; 93.7-102.2 fault
							gouge & Brecciation.
102.2	115.4						Gray fine to medium grained sandstone.
							Moderately cemented, becoming finer grained
							down hole; carbon filled fractures abundant;
							(black shale lamina at 106.0-107.0).
115.4	118.4						Gray fine grained sandstone; abundant thread
							(116.0 fault gouge Dip 80 N.)

Drill Hole No. MH-35

Date: 2/13/78

Bearing: _____ Inclination: _____

Drilled By: _____

Coordinates: North _____ East _____

Logged By: _____

Elevation: _____

Total Depth: _____

DEPTH		%	SAMPLE	SAMPLE	ANALYSES			DESCRIPTION OF MATERIAL DRILLED
FROM	TO	RECOVERY	NUMBER	INTERVAL	Sp. Gr.	BaSO ₄		
								fracture filled with carbon; larger fractures carbon filled, graphitic.
118.4	126.2							Gray fine-grained sandstone; w/ carbon filled fractures; (125.1 small qtz filled fractures.)
126.2	136.8							Gray fine-grained sandstone; thread fractures carbon filled; occ. thin lamina of black shale. (129 - 131 Breccia zone)
136.8	147.8		Box 5					Dark gray fine-grained sandstone; mod. cemented; abundant thread fractures filled w/ carbon; graphitic (142.5 qtz filled fracture that is leached.)
147.8	154.8							Dark gray fine-grained sandstone; mod. cemented; abundant thread fractures filled w/ carbon, graphitic (broken 152.0-154.8)
154.8	158.4		Box 6					Lt. gray fine-grained sandstone abundant thread fractures filled w/ carbon; well cemented.
158.4	170.2		Box 7					Lt. gray fine grained sandstone, well cemented; locally dark gray due to thread fractures filled w/ carbon; occ qtz fracture.

Drill Hole No. MH-35

Date: 2/14/78

Bearing: _____ Inclination: _____

Drilled By: _____

Coordinates: North _____ East _____

Logged By: _____

Elevation: _____

Total Depth: _____

DEPTH		%	SAMPLE	SAMPLE	ANALYSES			DESCRIPTION OF MATERIAL DRILLED
FROM	TO	RECOVERY	NUMBER	INTERVAL	Sp. Gr.	BaSO ₄		
170.2	182.7		Box 8					Lt. gray fine-grained sandstone, well cemented; thread fractures filled w/ carbon; occ. qtz. filled fracture.
182.7	188.0							Lt. gray fine-grained sandstone; well cemented, thread fractures filled w/ carbon.
188.0	193.5		Box 9					Dark gray fine-grained silty sandstone, mod. cemented, poorly consolidated locally, graphitic; carbon filled fractures.
193.5	195.0							Interbedded lamina of black shales & gray sandstone; gnarled bedding.
195.0	202.5							Dark gray fine-grained sandstone. Mod. cemented, highly broken locally.
202.5	203.5							Fault; highly broken, brecciated, minor movement.
203.5	205.0							Interbedded black & gray shales; highly altered to clays. shear zone
205.0	218.6		Box 11					Dark gray fine-grained silty sandstone; mod. to poorly cemented, locally black lamina carbon rich; thread fractures carbon filled. (215.3-215.6 lt. gray sandstone

lamina). Bedding Dip 213 88°N
" " 216 82°N

Drill Hole No. MH-35

Date: 2/14/78

Bearing: _____ Inclination: _____

Drilled By: _____

Coordinates: North _____ East _____

Logged By: _____

Elevation: _____

Total Depth: _____

DEPTH		%	SAMPLE	SAMPLE	ANALYSES			DESCRIPTION OF MATERIAL DRILLED
FROM	TO	RECOVERY	NUMBER	INTERVAL	Sp. Gr.	BaSO ₄		
218.6	230.8							Dark gray fine-grained silty sandstone; mod. to poorly cemented, lenses of black sandstone w/ wisps of black shales. Bedding dip 90°.
				220.0 - 222.0	2.0' Core loss.	Brecciated		
230.8	238.0							Lt. gray fine-grained silty sandstone; poorly cemented, carbon filled fractures;
238.0	241.0							Black shales; carbon rich occ. wisps and lenses of lt. gray sandstone.
241.0	242.0							Lt. gray fine-grained sandstone mod. cemented, occ. wisps of black shale.
242.0	244.8							Lt. gray fine-grained silty sandstone mod. cemented; slightly altered.
244.8	245.9		2791	1.1'				Barite zone; scattered barite nodules approx. 10% Barite in lt. gray clay stone.
245.9	254.0							Lt. gray fine-grained claystone, gnarled bedding, bedding fractures filled w/ gypsum. (250.0-251.0 very altered to clays & carbon enriched. bedding 250.0 136°N)
254.0	254.9		2792	0.9'				Barite zone; occas. scattered barite nodules in gray fine-grained claystone. Bedding dip 88 N. true dip.

Drill Hole No. MH-35

Date: 2/14/78

Bearing: _____ Inclination: _____

Drilled By: _____

Coordinates: North _____ East _____

Logged By: _____

Elevation: _____

Total Depth: _____

DEPTH		%	SAMPLE	SAMPLE	ANALYSES			DESCRIPTION OF MATERIAL DRILLED
FROM	TO	RECOVERY	NUMBER	INTERVAL	Sp. Gr.	BaSO ₄		
254.9	256.0							Highly altered gray shales, enriched in carbon, very broken.
256.0	260.0		2793	4.0'				Barite zone, low grade, approx. 20% BaSO ₄ gypsum & Barite nodules elongated along bedding plane, host rock lt. gray claystone.
260.0	263.0		2794	3.0'				Barite zone; low-medium grade barite, app. 30% BaSO ₄ ; scattered modules along bedding plane, bedding dip 79° <i>W</i> true dip. (<i>Heavy gouge</i>)
263.0	267.0		2795	4.0'				Barite zone; low grade approx. 20%, some Barite nodules 1 cm. in dia. scattered along bedding plane, host lt. gray claystone.
267.0	271.0							Dark gray claystone, highly altered to clay, carbon rich nodules.
271.0	278.3							Lt. gray claystone; leached out nodules, locally dark gray presence of carbon.
278.3	288.8							Dark gray claystone, locally lt. gray claystone; altered, gouge locally, highly broken and fragmental; gypsum filling thread fractures.
288.8	301.5							Lt. gray claystone; locally darker gray; highly broken silty locally, gypsum filling thread fractures.

Drill Hole No. MH-35

Date: 2/29/78

Bearing: _____ Inclination: _____

Drilled By: _____

Coordinates: North _____ East _____

Logged By: _____

Elevation: _____

Total Depth: _____

DEPTH		% RECOVERY	SAMPLE NUMBER	SAMPLE INTERVAL	ANALYSES			DESCRIPTION OF MATERIAL DRILLED
FROM	TO				Sp. Gr.	BaSO ₄		
301.5	304.6		2796	3.1'				Barite Zone; high grade approx. 80% BaSO ₄ . <i>Bedding 88°N.</i>
								Massive barite w/ thin lamina of clays.
304.6	308.6		2797	4.0'				Barite zone; high grade: approx 70%. Lamina
								of barite w/ claystone thinly bedded to
								massive barite. Bedding Dip 77°N.
308.6	312.0		2798	4.6'				Barite zone; high grade approx. 70%. Lamina
								of barite interbedded w/ gray thinly bedded
								claystone. <i>312.0 Bedding 80°N.</i>
312.0	316.0		(Fault--the continuation					4 ft. loss of core; temporary loss of hole.
			of hole looks like repeat					After three day working w/ hole, put in the
			beds.)					hole BX Casing & continued w/ BX Core.
								The trouble was due to sanding in of hole.
316.0	320.0		2799	4.0'				Barite zone; high grade 70% BasO ₄ abundant
								elongated nodules along bedding, barite
								interbedded w/ very thin lamina of gray
								clays.
320.0	321.0		2800	1.0'				Barite zone; medium grade 60% BaSO ₄ , random
								oriented large nodular barite, w/ host of
								gray claystone.
321.0	338.0							Black shales, very gouge, (core rec. 50%)
<i>13.0 core loss in 17.0</i>								

Drill Hole No. MH-35

Date: 2/29/78

Bearing: Inclination:

Drilled By:

Coordinates: North East

Logged By:

Elevation:

Total Depth:

DEPTH		%	SAMPLE	SAMPLE	ANALYSES			DESCRIPTION OF MATERIAL DRILLED
FROM	TO	RECOVERY	NUMBER	INTERVAL	Sp. Gr.	BaSO ₄		
								gypsu ^l along fractures seams, weak dis-
								seminated pyrite.
338.0	342.0		2801	4.0'				*Barite zone; high grade 90% BaSO ₄ , Massive
								barite, bedding dip 79°N.
342.0	348.0		2802	6.0'				Barite zone; low grade, 30%, nodular barite
								along bedding plane, 75° N. True dip bedding;
								grading into large scattered barite.
348.0	370.0							Gray shales, rich in carbon locally, locally
								black, very soft, wisps of black shales in
								gray shales, locally gouge. Gypsum
								filling thread fractures.
370.0	392.0							Gray shales or claystone dark gray locally,
								slightly decomposed. (388.5-389.0 gouge)
392.0	411.0							Gray shales or claystone locally dark gray,
								(409.0 bedding slicks, minor movement)
411.0	418.0							Gray shales as before
418.0	419.0							Arkansas Novaculite, cherty, fractures filled
								w/ pyrite.
			T.D.	419.0	Novaculite			

Date: _____

Drilled By: _____

Logged By: _____

Total Depth: _____

Bottom hole corals	629,177.50	1,450,120.53	752.75
--------------------	------------	--------------	--------

Samples Sent to Houston

MH-35

<u>Sample</u>	<u>Footage</u>	<u>Specific Gravity</u>
MH-35-2791	244.8-245.9	
35-2714	245.9-254.0	
35-2792	254.0-254.9	
35-2793	256.0-260.0	
35-2794	260.0-263.0	
35-2795	263.0-267.0	
35-2796	301.5-304.6	
35-2797	304.6-308.6	
35-2798	308.6-312.0	
35-2799	316.0-320.0	
35-2800	320.0-321.0	
35-2801	338.0-342.0	
35-2802	342.0-348.0	

FANCY HILL - DIAMOND DRILL HOLES - PHASE I

INDIVIDUAL CORE ANALYSES BY INTERVALS

SAMPLE	LOG #	DEPTH	INTERVAL	A.P. SPECIFIC GRAVITY	CALCULATE % BaSO ₄
MDDH-35					
#2791	1000	244.8-245.9	1.1	2.90	12.51
2714	1001	245.9-254.0	8.1	3.12	30.07
2792	1002	254.0-254.9	0.9	3.46	52.82
-	-	254.9-256.0	1.1	2.761	0.00
2793	1003	256.0-260.0	4.0	3.23	37.96
2794	1004	260.0-263.0	3.0	3.01	21.61
2795	1005	263.0-267.0	4.0	2.98	19.19
2796	1006	301.5-304.6	3.1	3.94	78.26
2797	1007	304.6-308.6	4.0	3.95	78.72
2798	1008	308.6-312.0	3.4	3.67	64.77
-	-	312.0-316.0	4.0	2.761	0.00
2799	1009	316.0-320.0	4.0	3.35	45.97
2800	1010	320.0-321.0	1.0	3.27	40.69
2801	1011	338.0-342.0	4.0	3.84	73.49
2802	1012	342.0-348.0	<u>6.0</u>	3.02	22.40
TOTAL 51.7					
Weighted Average				3.292	42.14