

DRILL HOLE RECORD

Drill Hole No.: MDDH-8 Inclination: 64° N20E

Date: Started 3/20/1977, completed 3/31/1977

Property: Fancy Hill

Drilled By: Sprague & Henwood - Sam Grathler

Co-ordinates: North 629,542.55 East 1,448,765.76 (7/13)

Logged By: Les Farrington

Elevation: _____

Total Depth: 345'

DEPTH		SAMPLE RECOVERY	SAMPLE NUMBER	ANALYSES			DESCRIPTION OF MATERIAL DRILLED
FROM	TO			Sp. Gr.	BaSO4	Cond.	
0.0	6.5	3%		.1'			Alluvium; chert - EST ALLUVIUM 1' DEPTH.
				.1'			Orange clays
6.5	13.5	31%		2.0'			Med. gray, very sandy shale with lenses and clasts (ama .05' wide) dark gray shale.
							Very closely spaced, mostly sealed, heavily iron stained, barite filled fractures.
				.2'			Dk. gray shale.
13.5	15.5	100%		.4'			Dk. gray shale.
				1.6'			Med. gray, very sandy shale, gradational locally to sandstone, with lenses and clasts (ama .06' wide) dk. gray shale.
							Very closely spaced, mostly sealed, iron oxide stained fractures.
15.5	16.5	100%		1.0'			Med. gray sandstone, bleached white and heavily iron stained last .5', with clasts (ama .05' wide) gray shale. Very friable last .5'.

NOTE: 5/12/77 MINERAL REFERRED TO AS SCORODITE IS CHLORITE.
BLACK COLOR TERMED "CARBON" IS INCLUSIONS IN OR DISCOLORATION OF XTALLINE MATERIALS

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DEPTH		SAMPLE RECOVERY	SAMPLE NUMBER	ANALYSES			DESCRIPTION OF MATERIAL DRILLED
FROM	TO			Sp. Gr.	BaSO ₄	Cond.	
16.5	20.0	94%		3.3'			Interbedded bleached sandstone, stained dk. orange by iron oxides, and dk. gray, very sandy shales with lenses and clasts (ama .06' wide) dk. gray shale.
							Very closely spaced, sealed and open, heavily iron oxide stained fractures.
20.0	24.0	93%		2.0'			Interbedded sandstone, locally stained dk. orange by iron oxides, and dk. gray, very sandy shales, with clasts and lenses (ama .03' wide) dk. gray shale.
							Very closely spaced, sealed and open, heavily iron oxide stained fractures.
				1.7'			Sandstone, very friable and locally stained dk. orange by iron oxides, with lenses and clasts (ama .03' wide) dk. gray and black shale.
							Iron and manganese oxide stained fractures.
24.0	34.5	87%		9.0'			Med. to dk. gray sandstone with clasts (ama .03' wide) lt. gray sandstone; with clasts and lenses

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FROM	TO			Sp. Gr.	BaSO4	Cond.	
24.0	34.5						(ama .16' wide) dk. gray and black shale. Very closely spaced, mostly sealed, heavily iron and manganese oxide stained fractures (ama .01' wide).
34.5	44.5	100%		2.2'			Med. to dk. gray sandstone with clasts lt. gray sandstone and clasts and lenses dk. gray and black shale. Very closely spaced, sealed and open, some heav- ily iron stained, barite/carbon filled fractures.
				7.8'			Dk. gray, very sandy shale, locally gradational to sandstone, with lenses and clasts (ama .1' wide) dk. gray and black shale and clasts (ama .03' wide) lt. and med. gray sandstone. Locally ama 3-5% pyrite, disseminated/along bedding planes. Closely to very closely spaced, sealed and open, heavily iron/manganese oxide stained barite/ carbon filled fractures.

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DEPTH		SAMPLE RECOVERY	SAMPLE NUMBER	ANALYSES			DESCRIPTION OF MATERIAL DRILLED
FROM	TO			Sp. Gr.	BaSO ₄	Cond.	
44.5	54.5	100%		10.0			Med. to dk. gray, very sandy shale, gradational to sandstone 49.2 - 54.5, with lenses and clasts (ama .09' wide) dk. gray and black shale and scattered lenses and clasts (ama .03' wide) med. gray sandstone. Locally ama 3-6% pyrite, disseminated/along bedding planes/isolated nodules (ama .01' diam.).
							Closely to very closely spaced, mostly sealed, iron stained, barite filled fractures. Barite and pyrite coated slickensides along bedding at 50.4.
54.5	64.5	96%		5.5'			Med. to dk. gray, very sandy shale, gradational locally to sandstone, with lenses and clasts (ama .07' wide) med. and dk. gray and black shale and scattered clasts (ama .03' wide) lt. to med. gray sandstone. Locally ama 2-3% pyrite along bedding planes.
							Closely to very closely spaced, mostly sealed, barite/barite and pyrite filled fractures.

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DEPTH		SAMPLE RECOVERY	SAMPLE NUMBER	ANALYSES			DESCRIPTION OF MATERIAL DRILLED
FROM	TO			Sp. Gr.	Ba504	Cond.	
223.0	230.5						1-3% disseminated pyrite. Very closely spaced, open and sealed, carbon/ barite and pyrite/carbon, barite and pyrite filled fractures.
				.8'			Dk. gray sandy shale with lenses (ama .09' wide) black shale and med. gray, very sandy shale.
230.5	237.0	100%		2.1'			Dk. gray sandy shale with lenses (ama .08' wide) black shale and dk. gray very sandy shale. Loc- ally ama 2-4% pyrite, disseminated/along bedding planes/between contacts.
				1.8'			Med. gray, very sandy shale, mottled by lt. gray lenses, with scattered clasts (ama .03' wide) dk. gray and black shale.
							Very closely spaced, open and sealed, carbon/ carbon and barite filled fractures.
				2.6'			Med. to dk. gray sandy shale with lenses and clasts (ama .16' wide) dk. gray and black shale and clasts (ama .04' wide) lt. gray, very sandy shale. Locally ama 2-8% pyrite, disseminated/

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DEPTH		SAMPLE RECOVERY	SAMPLE NUMBER	ANALYSES			DESCRIPTION OF MATERIAL DRILLED
FROM	TO			Sp. Gr.	Ba504	Cond.	
230.5	237.0						between contacts/along bedding planes.
237.0	243.0	92%		5.5'			Med. to dk. gray sandy shale with lenses and clasts (ama .12' wide) dk. gray and black shale and scattered clasts (ama .06' wide) lt. gray sandy shale. Locally ama 2-10% pyrite, disseminated/between contacts/along bedding. Closely to very closely spaced, mostly sealed, barite and pyrite/calcite filled fractures (subparallel to bedding 240.2 - 243.0. Offset in bedding along fracture at 240.8 of .03'.
243.0	250.0	100%		2.5"			Med. to dk. gray sandy shale with lenses and clasts (ama .12' wide) dk. gray and black shale and scattered clasts (ama .06' wide) lt. gray sandy shale. Locally ama 2-8% pyrite, disseminated/between contacts/along bedding planes. Very closely spaced, mostly sealed, barite and pyrite/carbon and barite/calcite filled fractures, some subparallel to bedding.

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FROM	TO			Sp. Gr.	BaSO4	Cond.	
54.5	64.5						Change in dip of bedding at 60.0.
				4.1'			Lt. to med. gray sandstone, mottled by lt. gray lenses, with lenses and clasts (ama .06' wide) dk. gray shale. Locally ama 2-3% pyrite, disseminated/along bedding/isolated nodules (ama .02' diam.).
							Very closely spaced, sealed and open, barite/carbon/carbon and barite filled fractures.
64.5	74.5	96%		8.9'			Med. gray sandstone, mottled by lt. gray lenses, with scattered lenses and clasts (ama .05' wide) med., dk. gray, and black shale. Locally ama 1-3% pyrite, disseminated/along bedding planes. Closely to very closely spaced, sealed and open, carbon/barite/barite crystal/carbon and barite filled fractures.
				.7'			Med. and dk. gray very sandy shale.
							Very closely spaced, sealed, carbon filled fractures.

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FROM	TO			Sp. Gr.	BaSO4	Cond.	
74.5	84.5	95%		6.5'			Interbedded med. and dk. gray sandy shale, gradational locally to very sandy shale, with lenses and clasts (ama .07' wide) dk. gray and black shale and scattered clasts (ama .04' wide) lt. to med. gray sandstone. Locally ama 3-6% pyrite, disseminated/nodules (ama .02' diam.)/surrounding shale clasts.
							Moderately closely to closely spaced, mostly sealed, carbon/carbon and barite filled fracture
				2.6'			Med. gray sandstone, mottled by lt. gray lenses, locally very friable, with scattered clasts (ama .03' wide) black shale.
							Very closely spaced, open and sealed, carbon/carbon and quartz (ama .01' wide)/carbon and barite filled fractures.
				.4'			Dk. gray clayey shale with lenses dk. gray very sandy shale.
84.5	90.5	83%		5.0'			Interbedded dk. gray and black shales and dk.

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FROM	TO			Sp. Gr.	BaSO4	Cond.	
84.5	90.5						dk. gray very sandy shale, locally gradational to sandstone. Locally am 1-3% pyrite, disseminated/along bedding/between contacts/isolated nodules (am .01' diam.).
							Very closely spaced, sealed and open, carbon/barite and carbon/barite filled fractures.
90.5	100.5	100%		10.0'			Interbedded med. and dk. gray sandy shales with lenses and clasts (am .12' wide) med., dk. gray, and black shale. Locally am 5-10% pyrite, disseminated/nodules (am .06' diam, mostly confined to med. gray very sandy shales)/along bedding planes.
							Closely to very closely spaced, sealed and open, barite/carbon/carbon and barite/quartz and carbon filled fractures. Displacement in bedding along fracture at 101.5, amt. undetermined.
100.5	110.5	90%		5.4'			Interbedded med. and dk. gray sandy shales, locally gradational to sandstone, with lenses and

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FROM	TO			Sp. Gr.	BaSO4	Cond.	
100.5	110.5						clasts (ama .06' wide) dk. gray and black shale and isolated clasts and lenses (ama .03' wide) lt. gray sandstone. Locally ama 5-8% pyrite, disseminated/nodules ama .02' diam./along bedding planes.
							Closely spaced, open and sealed, carbon filled fractures.
				3.6'			Dk. gray and black shales with lenses (ama .22' wide) dk. gray and black sandy shale and sandstone and isolated lenses (ama .01' wide) lt. gray sandstone. Locally ama 3-6% pyrite, lenses (ama .01' wide)/disseminated/along bedding. 3-8% nodules (ama .02' diam.) partially replaced by barite 106.8 - 107.8. Core loss 108.5 (?) in dk. gray sandy clay.
							Closely to very closely spaced, sealed and open, carbon filled fractures.
110.5	120.5	96%		3.3'			Dk. gray and black shales with lenses (ama .2' wide) dk. gray and black sandy shale and sand-

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FROM	TO			Sp. Gr.	BaSO ₄	Cond.	
110.5	120.5						stone and isolated lenses lt. gray sandstone. Locally ama 3-5% pyrite, disseminated/along bedding/nodules (ama .01' diam.). Closely to very closely spaced, open and sealed, carbon filled fractures. Locally offsets in bedding along fractures and .04'.
				6.3'			Interbedded med., dk. gray, and black shales containing locally ama 5-25% nodules (ama .03' diam.) partially replaced by barite. Locally ama 3-8% pyrite, disseminated/along bedding planes/rimming nodules. Locally very closely spaced, sealed, discontinuous barite/barite and pyrite/carbon filled fractures.
120.5	127.5	99%		6.2'			Interbedded dk. gray and black shales with lenses (ama .08' wide) dk. gray and black, very sandy and very sandy shale. Locally ama 5-20% nodules (ama .02' diam.) partially replaced by barite. Locally ama 2-5% pyrite, disseminated/between contacts/along bedding planes.

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FROM	TO			Sp. Gr.	BaSO ₄	Cond.	
142.0	148.0			1.4'			Interbedded dk. gray very sandy shale and med. gray sandstone with lenses (ama .01' wide) black, graphitic shale. Locally ama 3-5% pyrite disseminated/along bedding. Core very broken. Quartz filled fracture (.02-.04' wide) at 146.5. Very closely spaced, sealed, carbon/barite and pyrite filled fractures.
148.0	152.5	100%		2.0'			Med. gray sandstone with clasts (ama .05' wide) dk. gray and black shale. Locally ama 3-5% pyrite, disseminated/along bedding. Core very broken. Very closely spaced, open and sealed, carbon/barite and pyrite filled fractures.
				2.5'			Med. gray sandstone. Friable. Core very broken. Locally ama 1-2% disseminated pyrite. Very closely spaced, sealed and open, carbon/barite and pyrite filled fractures.
152.5	160.5	100%		8.0'			Med. gray sandstone, mottled by lt. gray lenses.

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FROM	TO			Sp. Gr.	BaSO4	Cond.	
120.5	127.5						Closely to very closely spaced, sealed and open, carbon/carbon and barite filled fractures. Core very broken last 1'.
				.7'			Dk. gray sandstone, very friable and broken.
127.5	136.5	64%		5.8'			Med. gray sandstone. Very friable and broken. Very closely spaced, mostly sealed, carbon/carbon and barite/barite filled fractures.
136.5	142.0	100%		5.5'			Med. gray sandstone with isolated dk. gray and black shale clasts. Core very friable and broken.
							Very closely spaced, open and sealed, barite (ama .02' wide)/carbon/barite and carbon filled fractures.
142.0	148.0	98%		4.5'			Med. gray sandstone. Friable. Ama 5-10% disseminated pyrite.
							Very closely spaced, open and sealed, barite/carbon/barite and pyrite filled fractures.

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FROM	TO			Sp. Gr.	BaSO ₄	Cond.	
152.5	160.5						Locally ama 1-2% disseminated pyrite. Very closely spaced, open and sealed, carbon/ barite and pyrite/carbon, barite, and quartz/ barite filled fractures.
160.5	164.5	100%		3.7'			Med. gray sandstone, mottled bb lt. gray lenses. Locally ama 1-2% disseminated pyrite. Very closely spaced, sealed and open, carbon/ carbon and pyrite (pyrite has good xtal. faces)/ pyrite and quartz (.03' wide at 162.0 showing open space filling textures) filled fractures.
				.3'			Interbedded med. and dk. gray sandy shales and dk. gray and black shales with lenses (.01' wide) lt. gray sandy shale. Locally ama 1-3% pyrite along bedding planes.
164.5	173.0	100%		8.5'			Dk. and med. gray sandy shale with lenses and clasts (ama .48' wide) dk. gray and black shale and scattered clasts (ama .05' wide) lt. gray sandstone. Locally ama 1-5% pyrite, disseminated

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FROM	TO			Sp. Gr.	BaSO ₄	Coal	
164.5	173.0						/along bedding planes. Closely to very closely spaced, mostly sealed, barite/barite and pyrite/carbon, barite, and pyrite filled fractures.
173.0	183.0	100%		10.0'			Dk., med., and lt. (very sandy) gray sandy shale with lenses and clasts (ama .1' wide) dk. gray and black shale. Locally ama 2-5% pyrite, dis- seminated/along bedding planes. Closely to very closely spaced, sealed and open, barite and pyrite filled fractures.
183.0	191.0	100%		3.0'			Dk., med., and lt. (very sandy) gray sandy shale with lenses and clasts (ama .18' wide) dk. gray and black shale. Locally ama 2-8% pyrite, dis- seminated/along bedding planes. Closely spaced, open and sealed, barite and pyrite filled fractures.
				4.5'			Med. gray, very sandy shale, mottled by lt. gray lenses, with scattered clasts (ama .05' wide)

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FROM	TO			Sp. Gr.	BaSO ₄	Cond.	
183.0	191.0						dk. gray and black shale. Locally ama 1-3% pyrite, disseminated/along bedding planes. Very closely spaced, open and sealed, barite and pyrite/carbon/carbon, barite, and pyrite filled fractures.
				.5'			Interbedded dk. gray sandy shale and dk. gray and black shales. Locally ama 2-3% pyrite, disseminated/along bedding planes.
191.0	198.5	100%		7.5'			Dk. gray sandy shale with lenses and clasts (ama .14' wide) black shale. Locally ama 2-8% pyrite disseminated/along bedding planes. Closely to very closely spaced, mostly sealed, barite and pyrite filled fractures.
198.5	206.5	100%		3.9'			Dk. gray sandy shale with lenses and clasts (ama .12' wide) black shale. Locally ama 2-8% pyrite disseminated/along bedding planes. Closely to very closely spaced, mostly sealed, barite and pyrite filled fractures.

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FROM	TO			Sp. Gr.	BaSO4	Cond.	
198.5	206.5			4.1'			Interbedded med. and lt. gray, very sandy shales with scattered clasts (ama .02' wide) dk. gray and black shales and dk. gray sandy shale. Locally ama 2-5% disseminated pyrite.
							Closely to very closely spaced, mostly sealed, barite and pyrite/carbon filled fractures.
206.5	213.5	100%		4.8'			Med. gray, very sandy shale, mottled by lt. gray lenses, with scattered clasts (ama .02' wide) dk. gray and black shale. Locally ama 1-3% disseminated pyrite.
							Very closely spaced, mostly open, barite and pyrite coated fractures.
				2.2'			Interbedded dk. and med. gray sandy shales with lenses and clasts (ama .06' wide) dk. gray and black shale and lt. gray very sandy shale. Locally ama 2-5% pyrite, disseminated/along bedding planes/nodules (ama .01' diam.).
213.5	223.0	100%		7.8'			Interbedded med. and dk. gray sandy shales with

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FROM	TO			Sp. Gr.	BeSO ₄	Concl.	
213.5	223.0						lenses and clasts (ama .15' wide) dk. gray and black shale and lt. gray, very sandy shale. Locally ama 2-4% pyrite, disseminated/along bedding planes/nodules (ama .02' diam.). Very closely spaced, sealed, barite filled fractures 217.7 - 218.3.
				1.7'			Med. gray sandstone, gradational to very sandy shale, with lenses and clasts (ama .1' wide) dk. gray and black shale. Locally ama 2-3% pyrite, between contacts/disseminated/along bedding planes. Very closely spaced, sealed and open, barite and pyrite/carbon/carbon, barite, and pyrite filled fractures.
223.0	230.5	100%		6.5'			Med. gray sandstone, locally gradational to very sandy shale, mottled by lt. gray lenses, with lenses lt. gray sandstone (ama .13' wide 224.5 - 230.0) and isolated clasts (ama .03' wide) dk. gray and black shales. Locally ama

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FROM	TO			Sp. Gr.	BaSO ₄	Cond.	
243.0	250.0			4.5'			Interbedded med., dk. gray, and black shales with lenses (ama .13' wide) dk. gray and black sandy shale. Locally lenses contain lt. gray calcareous nodules and carbon rich nodules (ama .02' diam.) partially replaced by barite (<2%). Locally ama 5-10% pyrite, disseminated/lenses (ama .02' wide)/between contacts/nodules (ama .02' diam.). Closely to very closely spaced, sealed and open, barite and pyrite/calcite filled fractures.
250.0	256.5	100%		6.5'			Interbedded med., dk. gray, and black shales with scattered lenses (ama .18' wide) dk. gray sandy shale. Locally lenses contain calcareous nodules (ama .04' diam.) partially to completely replaced by barite. Locally ama 5-10% pyrite, between contacts/lenses (ama .01' wide)/disseminated/along bedding planes/rimming nodules.
							249.6 - 250.1 1-2%
							250.1 - 250.5 3-5%, 5-15% nodules

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FROM	TO			Sp. Gr.	Ba504	Cond.	
250.0	256.5						250.5 - 250.8 1-2%
							250.8 - 251.5
							251.5 - 251.6 3-5%, 15-25% nodules
							251.6 - 252.3
							252.3 - 252.6 2-4%, 5-10% nodules
							252.6 - 253.6
							253.6 - 254.0 1-3%, 3-8% nodules
							254.0 - 254.4 5-10%, 15-25% nodules
							254.4 - 254.8
							254.8 - 254.9 3-5%
							254.9 - 255.1 <1%
							255.1 - 255.2 5-10%, 15-25% nodules
							255.2 - 255.7 1-3%, 5-15% nodules
							255.7 - 255.9 15-25%, 30-40% nodules
							255.9 - 256.2 5-10%, 25-35% nodules
							Closely to very closely spaced, mostly sealed,
							barite/barite and pyrite/calcite and pyrite
							filled fractures. Displacement in bedding along
							fracture at 254.5 of .02'.

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DEPTH		SAMPLE RECOVERY	SAMPLE NUMBER	ANALYSES			DESCRIPTION OF MATERIAL DRILLED
FROM	TO			Sp. Gr.	BaSO4	Concl.	
256.5	262.5	97%		5.8'			Interbedded med., dk. gray, and black shales with lenses (ama .15' wide) dk. gray and black sandy shale. Locally lenses contain ama 5-30% lt. to dk. gray (some calcareous) nodules (ama .03' diam.) partially replaced by barite (< 2% locally). Locally ama 5-10% pyrite, disseminated /between contacts/rimming nodules. Closely to very closely spaced, open, carbon/ carbon and barite filled fractures.
262.5	268.5	97%		5.8'			Interbedded med., dk. gray, and black shales with lenses (ama .18' wide) dk. gray and black sandy shale. Locally lenses contain ama 5-10% lt. to dk. gray (some calcareous) nodules (ama .03' diam.) partially replaced by barite (< 2% locally). Locally ama 3-4% pyrite, disseminated/ between contacts/lenses (<.01' wide)/along bedding planes. Core banded in appearance 259.0 - 265.0. Locally core very broken. Closely spaced, open, barite filled fractures.

DRILL HOLE RECORD

Drill Hole No. MDDH-8 Inclination: _____

Date: _____

Property: _____

Drilled By: _____

Co-ordinates: North _____ East _____

Logged By: _____

Elevation: _____

Total Depth: _____

DEPTH		SAMPLE RECOVERY	SAMPLE NUMBER	ANALYSES			DESCRIPTION OF MATERIAL DRILLED
FROM	TO			Sp. Gr.	BaSO ₄	Cond.	
268.5	276.5	100%		1.0'			Interbedded med., dk. gray, and black shales with lenses (ama .18' wide) dk. gray and black sandy shale. ^{AND SCATTERED LT. GRAY SANDSTONE LENSES (AMA .1' WIDE)} Locally lenses contain ama 5-10% lt. to dk. gray (some calcareous) nodules (ama .03' diam.) partially replaced by barite (<2% locally).
				7.0'			Med. to dk. gray sandstone, mottled by lt. gray lenses, with dk. gray and black shale lenses and clasts (ama .07' wide). Locally ama 2-3% pyrite along bedding/between contacts. Core very friable and broken. Very closely spaced, sealed and open, barite filled fractures.
276.5	282.0	90%		4.8'			Med. to dk. gray, very sandy shale, gradational locally to sandstone, with lenses and clasts (ama .1' wide) med. and dk. gray shale. Locally ama 1-2% pyrite, along bedding planes/disseminated. Core locally very friable and broken. Very closely spaced, sealed and open, carbon/

DRILL HOLE RECORD

Drill Hole No.: MDDH-8 Inclination: _____

Date: _____

Property: _____

Drilled By: _____

Co-ordinates: North _____ East _____

Logged By: _____

Elevation: _____

Total Depth: _____

DEPTH		SAMPLE RECOVERY	SAMPLE NUMBER	ANALYSES			DESCRIPTION OF MATERIAL DRILLED
FROM	TO			Sp. Gr.	BaSO ₄	Cond.	
276.5	282.0						carbon and barite/barite and pyrite filled fractures.
282.0	292.0	100%		10.0'			Interbedded med., dk. gray, and black shales and dk. gray and black sandy and very sandy shales with lenses (ama .06' wide) lt. gray sandy shale. Banded appearance 284.5 - 290.0. Locally ama 2-3% pyrite, disseminated/along bedding planes. Core locally very friable and broken.
							Very closely spaced, open and sealed, barite/carbon and barite/carbon, barite, and pyrite filled fractures. Locally offsets in bedding along fractures of .01 - .05'.
292.0	302.0	96%		1.5'			Interbedded dk. gray and black shales and dk. gray and black sandy shales. Locally ama 5-10% pyrite, disseminated/along bedding/between contacts. Core very broken.
				8.1'			Nodular lenses (ama .12' wide) of barite in

DRILL HOLE RECORD

Drill Hole No.: MDDH-8 Inclination: _____

Date: _____

Property: _____

Drilled By: _____

Co-ordinates: North _____ East _____

Logged By: _____

Elevation: _____

Total Depth: _____

DEPTH		SAMPLE RECOVERY	SAMPLE NUMBER	ANALYSES			DESCRIPTION OF MATERIAL DRILLED
FROM	TO			Sp. Gr.	BaSO ₄	Cond.	
292.0	302.0						interbedded med. and dk. gray sandy shales with lenses (ama .8'+ wide) lt. and med. gray calcareous (?) sandstone and dk. gray and black shales (ama .08' wide). Locally ama 1-4% pyrite disseminated/along bedding planes.
							293.7 - 293.9 5-10%
							293.9 - 294.2 45-55%
							294.2 - 294.9 3-10%
							294.9 - 295.4 60-70%
							295.4 - 295.9 10-20%
							295.9 - 296.2 50-60%
							296.2 - 296.4 75-85%
							296.4 - 296.8 50-60%
							296.8 - 296.9 2-3%
							296.9 - 297.0 40-50%
							297.0 - 297.1 shale
							297.1 - 297.2 40-50%
							297.2 - 297.3 2-3%
							297.3 - 297.5 55-65%
							297.5 - 297.9 5-10%

DRILL HOLE RECORD

Drill Hole No.: MDDH-8 Inclination: _____

Date: _____

Property: _____

Drilled By: _____

Co-ordinates: North _____ East _____

Logged By: _____

Elevation: _____

Total Depth: _____

DEPTH		SAMPLE RECOVERY	SAMPLE NUMBER	ANALYSES			DESCRIPTION OF MATERIAL DRILLED
FROM	TO			Sp. Gr.	BaSO4	Cond.	
292.0	302.0						297.9 - 298.4 60-70%
							298.4 - 299.8 55-65%
							299.8 - 299.9 15-25%
							299.9 - 300.1 60-70%
							300.1 - 300.5 70-80%
							300.5 - 300.7 20-30%
							300.7 - 300.8 55-65%
							300.8 - 301.4 75-85%
							301.4 - 301.6 35-45%
							301.6 - 301.7 10-20%
							301.7 - 301.8 40-50%
							Very closely spaced, open and sealed, barite filled fractures. Fractures locally stained peacock colors by iron oxides 299.9 - 301.3.
302.0	310.0	96%		7.7'			Barite nodules (ama .02' diam.) and nodular len- ses (ama .03' wide) in interbedded med., dk. gray, and black shales and med. and dk. gray sandy shales. Locally ama 1-3% pyrite, dissem- inated/along bedding planes/rimming nodules.

DRILL HOLE RECORD

Drill Hole No.: MDDH-8 Inclination: _____

Date: _____

Property: _____

Drilled By: _____

Co-ordinates: North _____ East _____

Logged By: _____

Elevation: _____

Total Depth: _____

DEPTH		SAMPLE RECOVERY	SAMPLE NUMBER	ANALYSES			DESCRIPTION OF MATERIAL DRILLED
FROM	TO			Sp. Gr.	BaSO ₄	Cond.	
302.0	310.0						301.8 - 302.0 10-15%
							302.0 - 302.2 70-80%
							302.2 - 302.5 40-50%
							302.5 - 302.7 35-40%
							302.7 - 302.9 35-45%
							302.9 - 303.1 20-30%
							303.1 - 303.6 35-45%
							303.6 - 303.8 15-25%
							303.8 - 304.3 2-5%
							304.3 - 304.7 35-45%
							304.7 - 304.8 10-15%
							304.8 - 305.0 40-50%
							305.0 - 305.1 5-10%
							305.1 - 305.4 40-50%
							305.4 - 305.5 5-10%
							305.5 - 305.8 60-70%
							305.8 - 306.0 45-55%
							306.0 - 306.1 5-10%
							306.1 - 306.3 45-55%
							306.3 - 306.5 10-20%

DRILL HOLE RECORD

Drill Hole No.: MDDH-8 Inclination: _____

Date: _____

Property: _____

Drilled By: _____

Co-ordinates: North _____ East _____

Logged By: _____

Elevation: _____

Total Depth: _____

DEPTH		SAMPLE RECOVERY	SAMPLE NUMBER	ANALYSES			DESCRIPTION OF MATERIAL DRILLED
FROM	TO			Sp. Gr.	BaSO ₄	Cond.	
302.0	310.0						306.5 - 306.6 30-35%
							306.6 - 306.9 5-10%
							306.9 - 307.0 35-45%
							307.0 - 307.2 3-8%
							307.2 - 307.3 30-35%
							307.3 - 307.4 10-20%
							307.4 - 307.6 30-35%
							307.6 - 307.8 25-35%
							307.8 - 308.1 15-25%
							308.1 - 308.2 25-35%
							308.2 - 308.4 shale
							308.4 - 308.6 10-20%
							308.6 - 308.8 15-25%
							308.8 - 309.1 5-10%
							309.1 - 309.3 10-20%
							309.3 - 309.5 5-10%
							Closely to very closely spaced, barite crystal
							lined fractures. Peacock colored iron oxide
							stains at 305.6.

DRILL HOLE RECORD

Drill Hole No.: MDDH-8 Inclination: _____

Date: _____

Property: _____

Drilled By: _____

Co-ordinates: North _____ East _____

Logged By: _____

Elevation: _____

Total Depth: _____

DEPTH		SAMPLE RECOVERY	SAMPLE NUMBER	ANALYSES			DESCRIPTION OF MATERIAL DRILLED
FROM	TO			Sp. Gr.	BaSO ₄	Cond.	
310.0	316.5	61%		3.0'			Interbedded med., dk. gray and black shales with lenses (ama .04' wide) lt., med., and dk. gray sandy shale. Lenses contain barite nodules (ama .02' diam.). Locally ama 2-5% pyrite, disseminated/between contacts/along bedding.
							309.5 - 312.5
				.8'			Dk. gray and black friable sandy claystone, sandy shales, and shales. Core loss interval.
				.2'			Dk. gray and black shale containing barite nodules (ama .01' diam.).
							316.3 - 316.5 5-10%
316.5	323.0	23%		.3'			Dk. gray and black shale containing barite nodules (ama .01' diam.).
							316.5 - 316.8 5-10%
				1.2'			Med. gray clays
323.0	327.0	75%		.7'			Med. gray clays. Core loss interval.
				2.2'			Interbedded med., dk. gray, and black shales and sandy shales. Lenses locally contain barite

DRILL HOLE RECORD

Drill Hole No.: MDDH-8 Inclination: _____

Date: _____

Property: _____

Drilled By: _____

Co-ordinates: North _____ East _____

Logged By: _____

Elevation: _____

Total Depth: _____

DEPTH		SAMPLE RECOVERY	SAMPLE NUMBER	ANALYSES			DESCRIPTION OF MATERIAL DRILLED
FROM	TO			Sp. Gr.	BaSO ₄	Cond.	
323.0	327.0						nodules (ama .02' diam.). Locally ama 2-4% pyrite, disseminated/along bedding planes. Core locally friable and broken.
							325.5 - 325.7 5-10%
				.1'			Nodular lenses of barite in dk. gray sandy shale.
							326.9 - 327.0 45-55%
327.0	330.0	100%		2.7'			Barite nodules (ama .02' diam.) and nodular lenses (ama .2' wide) in med. and dk. gray sandy shales with dk. gray and black shale lenses (ama .45' wide). Locally ama 2-3% pyrite, disseminated/along bedding planes/between contacts.
							327.0 - 327.1 55-65%
							327.1 - 327.2 70-80%
							327.2 - 327.3 < 2%
							327.3 - 327.5 65-75%
							327.5 - 327.8 60-70%
							327.8 - 327.9 50-60%
							327.9 - 328.3 70-80%
							328.3 - 328.4 10-20%

DRILL HOLE RECORD

Drill Hole No.: MDDH-8 Inclination: _____

Date: _____

Property: _____

Drilled By: _____

Co-ordinates: North _____ East _____

Logged By: _____

Elevation: _____

Total Depth: _____

DEPTH		SAMPLE RECOVERY	SAMPLE NUMBER	ANALYSES			DESCRIPTION OF MATERIAL DRILLED
FROM	TO			Sp. Gr.	Ba504	Cond.	
327.0	330.0						328.4 - 328.9 75-85%
							328.9 - 329.1 50-60%
							329.1 - 329.3 40-45%
							329.3 - 329.6 25-35%
							329.6 - 329.7 5-10%
							Very closely spaced, sealed and open, barite crystal lined fractures.
				.3'			Interbedded med., dk. gray, and black shales (slightly sandy). Locally ama 2-4% pyrite along bedding planes.
330.0	336.0	100%		.5'			Interbedded med., dk. gray, and black shales (slightly sandy). Locally ama 2-4% pyrite along bedding planes.
				3.9'			Nodular lenses (ama .02' wide) and nodules (ama .01' diam.) of barite in interbedded med. and dk. gray sandy shales and dk. gray and black shales. Locally ama 2-4% pyrite, disseminated/ along bedding planes/between contacts.
							330.5 - 331.2 55-65%

DRILL HOLE RECORD

Drill Hole No.: MDDH-8 Inclination: _____

Date: _____

Property: _____

Drilled By: _____

Co-ordinates: North _____ East _____

Logged By: _____

Elevation: _____

Total Depth: _____

DEPTH		SAMPLE RECOVERY	SAMPLE NUMBER	ANALYSES			DESCRIPTION OF MATERIAL DRILLED
FROM	TO			Sp. Gr.	BaSO4	Cond.	
330.0	336.0						331.2 - 332.0 50-55%
							332.0 - 332.6 35-45%
							332.6 - 332.7 50-60%
							332.7 - 332.9 20-30%
							332.9 - 333.0 <2%
							333.0 - 333.4 35-45%
							333.4 - 333.6 45-55%
							333.6 - 333.8 35-45%
							333.8 - 333.9 25-35%
							333.9 - 334.0 5-10%
							334.0 - 334.1 shale
							334.1 - 334.4 30-40%
							Closely spaced, mostly sealed, barite filled fractures.
				.6'			Interbedded dk. gray and black sandy shales and dk. gray and black shales. Locally lenses contain barite nodules (ama .02' diam.). Locally ama 5-10% pyrite, lenses (<.01' wide)/disseminated/along bedding planes.

DRILL HOLE RECORD

Drill Hole No.: MDDH-8 Inclination: _____

Date: _____

Property: _____

Drilled By: _____

Co-ordinates: North _____ East _____

Logged By: _____

Elevation: _____

Total Depth: _____

DEPTH		SAMPLE RECOVERY	SAMPLE NUMBER	ANALYSES			DESCRIPTION OF MATERIAL DRILLED
FROM	TO			Sp. Gr.	BaSO4	Cond.	
336.0	340.5	93%		3.7'			Interbedded med., dk. gray, and black shales with lenses (ama .08' wide) dk. gray and black sandy to very sandy shales. Locally ama 5-8% pyrite, disseminated/along bedding planes. Very closely spaced, mostly open, unmineralized fractures.
340.5	345.0	100%		4.5'			Interbedded dk. gray and black shales containing nodular lenses (ama .02' wide) and nodules (ama .04' diam.) med. to dk. gray sandy shales (few partially replaced by barite, (<1%)). Locally ama 5-10% pyrite, lenses (<.01' wide)/disseminated/along bedding planes. Core broken. Closely spaced, open, unmineralized fractures.
Explanation : fractures							
Very closely spaced				< 1'			
Closely spaced				1' - 3'			
Moderately closely spaced				> 3'			

SAMPLE	LOG #	DEPTH	INTERVAL	CALCULATED SPECIFIC GRAVITY	X-RAY % BaSO ₄
MDDH-8					
#1A		*249.6-255.1	5.50	2.882	10.98
#2A		*255.1-256.2	1.10	3.088	27.64
#3A		*256.2-261.7	5.50	2.888	11.44
#4A		*261.7-262.5	.80	2.983	19.47
#5A		*262.5-266.5	4.00	2.821	5.57
#6A		*266.5-276.5	10.00	2.782	1.94
#1		293.9-298.7	4.80	3.824	72.7
#2		298.7-303.5	4.80	3.753	69.1
#3		303.5-308.2	4.70	3.508	55.7
#4		308.2-313.0	4.80	3.149	32.2
#5		313.0-317.8	4.80	2.869	9.8
#6		317.8-322.5	4.70	2.80	3.6
#7		322.5-327.3	4.80	3.079	27.0
#8		327.3-332.1	4.80	3.669	64.7
#9		332.1-334.4	2.30	3.802	71.6
		TOTAL	67.40		
COMPOSITE		MEASURED		3.58	59.8
COMPOSITE		CALCULATED		3.16	32.65
*Not included in composite measured.					