Gulf Pittsburg - Midway

Strat well PM-12

HOLE NO.

DEPARTMENT OF THE ARMY

DIVISION

INSTALLATION

DRILLING LOG

1. PROJECT

SHEET OF

2. LOCATION (Coordinates or Station) NW SW NE 19-32S-22E

3. DRILLING AGENCY P+M (Gulf Minerals)

4. HOLE NO. (As shown on drawing title and file No.) P+M # 12

5. NAME OF DRILLER

6. DIRECTION OF HOLE: ☐ VERTICAL ☐ INCLINED; DEGREES WITH VERTICAL

7. THICKNESS OF OVERBURDEN

8. DEPTH DRILLED INTO ROCK

9. TOTAL DEPTH OF HOLE

10. SIZE AND TYPE OF BIT

11. DATUM FOR ELEVATION SHOWN (TBM or MSL)

12. MANUFACTURER'S DESIGNATION OF DRILL

13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED; UNDISTURBED

14. TOTAL NO. CORE BOXES

15. ELEV. GROUND WATER

16. DATE HOLE: STARTED; COMPLETED

17. ELEV. TOP OF HOLE 830

18. TOTAL CORE RECOVERY FOR BORING (%)

19. SIGNATURE OF INSPECTOR

19-32-22e

ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
	20					(logged by John Harris)
	25				25'	
			Limestone - ltgy(N7) hard, fossiliferous grad. lower contact	0.5'	#1	Verdigris Limestone Core in box #1 in reverse order
		T	Clayshale - dkgy(N3), hard, brittle, parallel fracture, micaceous, thin horizontal laminae, few zones with brachiopods & other marine fossils, calcareous cement, abruptly gradational lower contact.	5.5'		
		T				
		T				
	30					

ENG FORM 1836 1 JUN 57 (TRANSMITTED) PREVIOUS EDITIONS ARE OBSOLETE

PROJECT

HOLE NO.

HOLE NO. _____

DEPARTMENT OF THE ARMY

DIVISION _____

INSTALLATION _____

DRILLING LOG

1. PROJECT		SHEET OF
2. LOCATION (Coordinates or Station)		
3. DRILLING AGENCY		
4. HOLE NO. (As shown on drawing title and file No.)	5. NAME OF DRILLER	
6. DIRECTION OF HOLE: ☐ VERTICAL ☐ INCLINED; DEGREES WITH VERTICAL	7. THICKNESS OF OVER-BURDEN	8. DEPTH DRILLED INTO ROCK / 9. TOTAL DEPTH OF HOLE
10. SIZE AND TYPE OF BIT	11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	12. MANUFACTURER'S DESIGNATION OF DRILL
13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED / UNDISTURBED	14. TOTAL NO. CORE BOXES	15. ELEV. GROUND WATER / 16. DATE HOLE: STARTED / COMPLETED
17. ELEV. TOP OF HOLE	18. TOTAL CORE RECOVERY FOR BORING (%)	19. SIGNATURE OF INSPECTOR

ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
	30		Clayshale - same unit as above	5.5'		Core in box #1 in reverse order.
			Clayshale - med lt gy(N6), mod. hard, parallel fracs, micaceous, thin horizontal laminae, non-fossiliferous, no apparent diagenetic features, sharp lower contact w/coal.	5.3'	# 1	
	35				35'	
					# 2	
			Coal, blk(N1), banded, mod. bright, sharp contacts	0.65		Crowsburg coal
			Mudstone - med Hgy (N6), soft, crumbled, blocky fracs, silty micaceous, massive, plant frags, brown Fe oxide stains, gradational lower contact.	2.0'		
	40		1.0' core loss 39'-40'. mudstone	1.0'		

EDG FORM 1836 (TRANSLUCENT) 1 JUN 57 PREVIOUS EDITIONS ARE OBSOLETE (EM 1110-2-1801)

PROJECT _____ HOLE NO. _____

HOLE NO. _____

DEPARTMENT OF THE ARMY

DIVISION _____

INSTALLATION _____

DRILLING LOG

1. PROJECT		SHEET OF
2. LOCATION (Coordinates or Station)		
3. DRILLING AGENCY		
4. HOLE NO. (As shown on drawing title and file No.)	5. NAME OF DRILLER	
6. DIRECTION OF HOLE: ☐ VERTICAL ☐ INCLINED; DEGREES WITH VERTICAL	7. THICKNESS OF OVERBURDEN	8. DEPTH DRILLED INTO ROCK / 9. TOTAL DEPTH OF HOLE
10. SIZE AND TYPE OF BIT	11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	12. MANUFACTURER'S DESIGNATION OF DRILL
13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED / UNDISTURBED	14. TOTAL NO. CORE BOXES	15. ELEV. GROUND WATER / 16. DATE HOLE: STARTED / COMPLETED
17. ELEV. TOP OF HOLE	18. TOTAL CORE RECOVERY FOR BORING (%)	19. SIGNATURE OF INSPECTOR

ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
	40		Mudstone - same unit as above.	2.5'	# 2	
	45	T T T T T	Clayshale - dkgy(N3) hard, parallel fracs, micaceous, thin horizontal laminae, abundant brachiopods & other marine fossil frags, calcareous cement, sharp lower contact w/ coal.	2.8'		
			Coal, blk(N1), hard, brittle, banded, mod. bright, sulfate bloom, sharp contacts.	1.1'	46' # 3	Fleming Coal
	50		Mudstone - med lt gy(N6), soft, blocky fracs, silty micaceous, plant frags, massive, brown Fe oxide stains, gradational lower contact.	3.5'		

HOLE NO. _____

DEPARTMENT OF THE ARMY

DIVISION _____

INSTALLATION _____

DRILLING LOG

1. PROJECT | SHEET OF

2. LOCATION (Coordinates or Station)

3. DRILLING AGENCY

4. HOLE NO. (As shown on drawing title and file No.)

5. NAME OF DRILLER

6. DIRECTION OF HOLE: ☐ VERTICAL ☐ INCLINED; DEGREES WITH VERTICAL

7. THICKNESS OF OVER-BURDEN

8. DEPTH DRILLED INTO ROCK

9. TOTAL DEPTH OF HOLE

10. SIZE AND TYPE OF BIT

11. DATUM FOR ELEVATION SHOWN (TBM or MSL)

12. MANUFACTURER'S DESIGNATION OF DRILL

13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED | UNDISTURBED

14. TOTAL NO. CORE BOXES

15. ELEV. GROUND WATER

16. DATE HOLE: STARTED | COMPLETED

17. ELEV. TOP OF HOLE

18. TOTAL CORE RECOVERY FOR BORING (%)

19. SIGNATURE OF INSPECTOR

ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (drilling time, water loss, depth of weathering, etc., if significant)
	50		mudshale – med ltgy (N6), mod. hard, parallel fracture, slightly silty, micaceous, thin horizontal laminae, no fossils found, brown Fe oxide stains near top, sharp lower contact w/ coal.	7.2'	#3	
	55				56'	
			Coal, blk(N1), banded, mod br. sulf. bloom, sharp contacts,	0.4'	#4	Unnamed coal
			mudstone – same unit as below.	0.5'		
			3.0' core loss 58' – 61' mudstone	3.0'		
	60					

ENG FORM 1836 1 JUN 57 (TEXT CONCENT) PREVIOUS EDITIONS ARE OBSOLETE (TM 5-330-2-1801)

PROJECT _____ HOLE NO. _____

HOLE NO. _____

DEPARTMENT OF THE ARMY

DIVISION _____

INSTALLATION _____

DRILLING LOG

1. PROJECT | SHEET OF

2. LOCATION (Coordinates or Station)

3. DRILLING AGENCY

4. HOLE NO. (As shown on drawing title and file No.)

5. NAME OF DRILLER

6. DIRECTION OF HOLE: ☐ VERTICAL ☐ INCLINED | DEGREES WITH VERTICAL

7. THICKNESS OF OVERBURDEN

8. DEPTH DRILLED INTO ROCK

9. TOTAL DEPTH OF HOLE

10. SIZE AND TYPE OF BIT

11. DATUM FOR ELEVATION SHOWN (TBM or MSL)

12. MANUFACTURER'S DESIGNATION OF DRILL

13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED | UNDISTURBED

14. TOTAL NO. CORE BOXES

15. ELEV. GROUND WATER

16. DATE HOLE: STARTED | COMPLETED

17. ELEV. TOP OF HOLE

18. TOTAL CORE RECOVERY FOR BORING (%)

19. SIGNATURE OF INSPECTOR

ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
	60	X	3.0' core loss 58'-61' mudstone	3.0'		
			Mudstone – med ltgy(N6) soft, blocky fracture, silty, micaceous, massive, plant frags, abundant irregular clay ironstone nodules to 0.1" dia, gradational lower contact.	2.0'	#4	
	65		Mudshale – med ltgy(N6) mod. hard, parallel fracs, silty, micaceous, thin horizontal laminae, abundant sticks & plant frags, no apparent diagenetic features, gradational lower contact.	4.0'		
		T	Fossiliferous shale – dk gy(N3), hard, parallel fracs, slightly silty, micaceous, thinly laminated, brachs & other marine fossil frags, calc. cement, sharp lower contact w/coal	2.7'	69'	
		T			#5	
	70		Coal, same as below	1.6'		Mineral coal

ENG FORM 1838 (TRANSMITTAL VT) 1 JUN 57 PREVIOUS EDITIONS ARE OBSOLETE

PROJECT _____ HOLE NO. _____

HOLE NO. _____

DEPARTMENT OF THE ARMY

DIVISION _____

INSTALLATION _____

DRILLING LOG

1. PROJECT | SHEET OF

2. LOCATION (Coordinates or Station)

3. DRILLING AGENCY

4. HOLE NO. (As shown on drawing title and file No.)

5. NAME OF DRILLER

6. DIRECTION OF HOLE: ☐ VERTICAL ☐ INCLINED | DEGREES WITH VERTICAL

7. THICKNESS OF OVERBURDEN

8. DEPTH DRILLED INTO ROCK

9. TOTAL DEPTH OF HOLE

10. SIZE AND TYPE OF BIT

11. DATUM FOR ELEVATION SHOWN (TBM or MSL)

12. MANUFACTURER'S DESIGNATION OF DRILL

13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED | UNDISTURBED

14. TOTAL NO. CORE BOXES

15. ELEV. GROUND WATER

16. DATE HOLE: STARTED | COMPLETED

17. ELEV. TOP OF HOLE

18. TOTAL CORE RECOVERY FOR BORING (%)

19. SIGNATURE OF INSPECTOR

ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
	70		Coal, black(N1), hard, brittle, banded, mdd. bright, sulfate bloom, sharp contacts,	1.6'		mineral coal
			mudstone - med ltgy(N6), soft, massive, plant frags, grad. lower cont.	0.7'	# 5	
			1.0' Core loss 72'-73' mudstone	1.0'		
			mudstone, same as above	0.5'		
	75		Siltstone - ltgy(N7), hard, blocky fracture, abundant mud matrix, qtz, micaceous, massive, plant frags, bioturbation, abundant dendritic clay ironstone veins cut across original bedding, brown Fe oxide stains, gradational lower contact.	4.4'		
			Mudshale - same unit as below.	12'		
	80				80'	

ENG FORM 1836 1 JUN 57 (TRANSLUCENT) (ER 1110-2-1301) PREVIOUS EDITIONS ARE OBSOLETE

PROJECT _____ HOLE NO. _____

HOLE NO. _____

DEPARTMENT OF THE ARMY

DIVISION _____

INSTALLATION _____

DRILLING LOG

1. PROJECT		SHEET OF
2. LOCATION (Coordinates or Station)		
3. DRILLING AGENCY		
4. HOLE NO. (As shown on drawing title and file No.)	5. NAME OF DRILLER	

6. DIRECTION OF HOLE			7. THICKNESS OF OVER-BURDEN	8. DEPTH DRILLED INTO ROCK	9. TOTAL DEPTH OF HOLE
☐ VERTICAL	☐ INCLINED	DEGREES WITH VERTICAL			

10. SIZE AND TYPE OF BIT	11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	12. MANUFACTURER'S DESIGNATION OF DRILL

13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN		14. TOTAL NO. CORE BOXES	15. ELEV. GROUND WATER	16. DATE HOLE	
DISTURBED	UNDISTURBED			STARTED	COMPLETED

17. ELEV. TOP OF HOLE	18. TOTAL CORE RECOVERY FOR BORING (%)	19. SIGNATURE OF INSPECTOR

ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
	80		Mudshale – med Hgy (N6), mod. hard, parallel fracs, silty, micaceous, thin horizontal laminae, few small plant fragments, clay ironstone bands to 0.2' thick, pyrite concretions to 0.1' dia., gradational lower contact.		80	
					#6	
	85			12'		
	90		clay shale – same as below	20'	90	

ENG FORM 1 JUN 57 1838 (TRANSIT) PREVIOUS EDITIONS ARE OBSOLETE PROJECT _____ HOLE NO. _____

HOLE NO. _____

DEPARTMENT OF THE ARMY

DIVISION _____

INSTALLATION _____

DRILLING LOG

1. PROJECT | SHEET OF

2. LOCATION (Coordinates or Station)

3. DRILLING AGENCY

4. HOLE NO. (As shown on drawing title and file No.)

5. NAME OF DRILLER

6. DIRECTION OF HOLE			7. THICKNESS OF OVER-BURDEN	8. DEPTH DRILLED INTO ROCK	9. TOTAL DEPTH OF HOLE
☐ VERTICAL	☐ INCLINED	DEGREES WITH VERTICAL			

10. SIZE AND TYPE OF BIT	11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	12. MANUFACTURER'S DESIGNATION OF DRILL

13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN		14. TOTAL NO. CORE BOXES	15. ELEV. GROUND WATER	16. DATE HOLE	
DISTURBED	UNDISTURBED			STARTED	COMPLETED

17. ELEV. TOP OF HOLE	18. TOTAL CORE RECOVERY FOR BORING (%)	19. SIGNATURE OF INSPECTOR

ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
	90		Clayshale - dk gy(N3), hard parallel fracs, micaceous, thin horizontal laminae, fossil frags at base, calcareous nodules to 1cm thick at base, abruptly gradational lower contact.	2.0'	90	
			Limestone - lt gy(N7), hard, massive, wackestone, abundant brachiopods & other marine fossils, calcareous cement, sharp lower contact w/ coal.	1.6'		
			Coal, blk(N1), hard, banded, mod. bright, sulfate bloom, sharp contacts.	0.6'	# 7	Scammon coal
	95		Mudstone - med lt gy (N6), soft, blocky frac, silty micaceous, massive, abundant plant fragments, irregular clay ironstone nodules to 0.1' thick, brown Fe oxide stains, gradational lower contact.	3.5'		
			Mudshale - lt gy(N7), mod. hard, parallel fracture, silty, micaceous, thin horizontal laminae, few small plant frags, abundant sand sized auth. siderite crystals	4.2'		
	100				100	

ENG FORM 1836 (TR ENT) 1 JUN 57 (EM 1110-1-1801) PREVIOUS EDITIONS ARE OBSOLETE

PROJECT _____ HOLE NO. _____

HOLE NO. _____

DEPARTMENT OF THE ARMY
DIVISION _____
INSTALLATION _____

DRILLING LOG

1. PROJECT		SHEET OF
2. LOCATION (Coordinates or Station)		
3. DRILLING AGENCY		
4. HOLE NO. (As shown on drawing title and file No.)	5. NAME OF DRILLER	
6. DIRECTION OF HOLE: ☐ VERTICAL ☐ INCLINED; DEGREES WITH VERTICAL	7. THICKNESS OF OVER-BURDEN	8. DEPTH DRILLED INTO ROCK / 9. TOTAL DEPTH OF HOLE
10. SIZE AND TYPE OF BIT	11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	12. MANUFACTURER'S DESIGNATION OF DRILL
13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED / UNDISTURBED	14. TOTAL NO. CORE BOXES	15. ELEV. GROUND WATER / 16. DATE HOLE: STARTED / COMPLETED
17. ELEV. TOP OF HOLE	18. TOTAL CORE RECOVERY FOR BORING (%)	19. SIGNATURE OF INSPECTOR

ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (drilling time, water loss, depth of weathering, etc., if significant)
	100		Mudshale - (cont) gradational lower contact.	4.2'	100	
	105		Siltstone - Hgy(N7) + Ltgy(N8) alternating laminae, hard, parallel fracs, micaceous, qtz, abundant mid matrix, wavy bedded, convolute bedding, few small plant frags, abundant sand sized authigenic siderite crystals, brown Fe oxide stains, gradational lower contact.	7.3'	#8	
	110		Interbedded sandstone & shale - alternating Ltgy(N8) & medgy(N5) laminae, hard, parallel fracs,	3.9'	110	

HOLE NO. _____

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9. TOTAL DEPTH OF HOLE
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13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED | UNDISTURBED
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15. ELEV. GROUND WATER
16. DATE HOLE: STARTED | COMPLETED
17. ELEV. TOP OF HOLE
18. TOTAL CORE RECOVERY FOR BORING (%)
19. SIGNATURE OF INSPECTOR

ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
	110		Interbedded sandstone & shale - (cont.) sand layers to 0.8' thick rippled & flaser bedded, very fine grained, abundant plant frags, sand sized authigenic siderite crystals, gradational lower contact.	3.9'	110 #9	
	115		Mudshale - med gy (N5) w/ ltgy (N8) silty laminae & brown mottling, hard, parallel fracture, silty, micaceous, thin horizontal laminae at base to lenticular bedded w/ very thin lenses at top, abundant pyritized plant fragments, clay ironstone bands to 0.1' thick & abundant brown Fe oxide stains, gradational lower contact.	10.6'	120'	
	120					

ENG FORM 1836 1 JUN 57 (TRANSLUCENT) (EM 1110-2-1801) PREVIOUS EDITIONS ARE OBSOLETE

PROJECT _____ HOLE NO. _____

HOLE NO. _____

DEPARTMENT OF THE ARMY

DIVISION _____

INSTALLATION _____

DRILLING LOG

1. PROJECT		SHEET OF
2. LOCATION (Coordinates or Station)		
3. DRILLING AGENCY		
4. HOLE NO. (As shown on drawing title and file No.)	5. NAME OF DRILLER	
6. DIRECTION OF HOLE: ☐ VERTICAL ☐ INCLINED; DEGREES WITH VERTICAL	7. THICKNESS OF OVER-BURDEN	8. DEPTH DRILLED INTO ROCK / 9. TOTAL DEPTH OF HOLE
10. SIZE AND TYPE OF BIT	11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	12. MANUFACTURER'S DESIGNATION OF DRILL
13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED / UNDISTURBED	14. TOTAL NO. CORE BOXES	15. ELEV. GROUND WATER / 16. DATE HOLE: STARTED / COMPLETED
17. ELEV. TOP OF HOLE	18. TOTAL CORE RECOVERY FOR BORING (%)	19. SIGNATURE OF INSPECTOR

ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (drilling time, water loss, depth of weathering, etc., if significant)
	120		Mudshale - same unit as above.	10.6'	120 #10	
	125		Clayshale - same unit as below.	17.2'	130	
	130					

EMC FORM 1 JUN 57 **1836** (TRANSLUCENT) (EM 1110-2-1801) PREVIOUS EDITIONS ARE OBSOLETE

PROJECT _____ HOLE NO. _____

17.8
10.6
6.6

HOLE NO. _____

DEPARTMENT OF THE ARMY
DIVISION _____
INSTALLATION _____

DRILLING LOG

1. PROJECT		SHEET OF
2. LOCATION (Coordinates or Station)		
3. DRILLING AGENCY		
4. HOLE NO. (As shown on drawing title and file No.)	5. NAME OF DRILLER	
6. DIRECTION OF HOLE: ☐ VERTICAL ☐ INCLINED; DEGREES WITH VERTICAL	7. THICKNESS OF OVER-BURDEN	8. DEPTH DRILLED INTO ROCK / 9. TOTAL DEPTH OF HOLE
10. SIZE AND TYPE OF BIT	11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	12. MANUFACTURER'S DESIGNATION OF DRILL
13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED / UNDISTURBED	14. TOTAL NO. CORE BOXES	15. ELEV. GROUND WATER / 16. DATE HOLE: STARTED / COMPLETED
17. ELEV. TOP OF HOLE	18. TOTAL CORE RECOVERY FOR BORING (%)	19. SIGNATURE OF INSPECTOR

ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
	130		Clay shale - dk gy (N3) at base to med gy (N5) at top w/ brown mottling. hard, brittle, parallel fracs, micaceous, abundant plant fragments near top, some pyritized, abundant irregular Clay ironstone nodules to 0.2' thick, brown Fe oxide stains, calcareous cement near base, sharp lower contact w/ coal,		130	
					# 11	
				17.2'		
	135					
		T				
		T				
	140				140	

ENG FORM 1 JUN 57 1838 (TRANSLUCENT) (EM 1110-2-1801) PREVIOUS EDITIONS ARE OBSOLETE

PROJECT _____ HOLE NO. _____

HOLE NO. _____

DEPARTMENT OF THE ARMY
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DRILLING LOG

1. PROJECT	SHEET OF
2. LOCATION (Coordinates or Station)	
3. DRILLING AGENCY	
4. HOLE NO. (As shown on drawing title and file No.)	5. NAME OF DRILLER

6. DIRECTION OF HOLE			7. THICKNESS OF OVER-BURDEN	8. DEPTH DRILLED INTO ROCK	9. TOTAL DEPTH OF HOLE
☐ VERTICAL	☐ INCLINED	DEGREES WITH VERTICAL			

10. SIZE AND TYPE OF BIT	11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	12. MANUFACTURER'S DESIGNATION OF DRILL

13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN		14. TOTAL NO. CORE BOXES	15. ELEV. GROUND WATER	16. DATE HOLE	
DISTURBED	UNDISTURBED			STARTED	COMPLETED

17. ELEV. TOP OF HOLE	18. TOTAL CORE RECOVERY FOR BORING (%)	19. SIGNATURE OF INSPECTOR

ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
	140		Clayshale - same unit as above	17.2'	140	Core in box #12 has been rearranged. Tebo coal
			Coal, blk(N1), hard, banded, mod. bright, sulfate bloom, lower 0.2 bony, sharp contacts,	1.1'		
			mudstone - medgy(N5) soft, blocky fracture, silty, micaceous, massive, plant frags, gradational lower contact.	0.6'	# 12	
	145		Siltstone - ltgy(N7), hard, blocky fracture, abundant mud matrix, micaceous, qtz, wavy bedded at base to massive at top, occasional thin sand layers interbedded up to 0.2' thick, (very fine sand), nonfossiliferous, abundant sand sized authigenic siderite crystals near base, gradational lower contact.	6.7'		
	160				150	

HOLE NO. _____

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DRILLING LOG

1. PROJECT | SHEET OF
2. LOCATION (Coordinates or Station)
3. DRILLING AGENCY
4. HOLE NO. (As shown on drawing title and file No.)
5. NAME OF DRILLER
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7. THICKNESS OF OVER-BURDEN
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16. DATE HOLE: STARTED | COMPLETED
17. ELEV. TOP OF HOLE
18. TOTAL CORE RECOVERY FOR BORING (%)
19. SIGNATURE OF INSPECTOR

ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
	150		3.5' core loss 150' - 153.5' probably siltstone.		150	
					# 13	Core in Box # 13 has been rearranged.
	155		Siltstone - same as above, few thin layers of very fine sand up to 0.2' thick, gradational lower contact.	1.9'		
			Mudshale - dk gy(N3) at base to med gy(N5) at top, hard, parallel fracture, silty, micaceous, lenticular bedded with very thin lenses, no fossils found, irregular clay ironstone concretions to 0.2' thick, gradational lower contact.	7.5'		
	160				160'	

HOLE NO. _____

DEPARTMENT OF THE ARMY
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INSTALLATION _____

DRILLING LOG

1. PROJECT		SHEET OF
2. LOCATION (Coordinates or Station)		
3. DRILLING AGENCY		
4. HOLE NO. (As shown on drawing title and file No.)	5. NAME OF DRILLER	
6. DIRECTION OF HOLE: ☐ VERTICAL ☐ INCLINED; DEGREES WITH VERTICAL	7. THICKNESS OF OVERBURDEN	8. DEPTH DRILLED INTO ROCK / 9. TOTAL DEPTH OF HOLE
10. SIZE AND TYPE OF BIT	11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	12. MANUFACTURER'S DESIGNATION OF DRILL
13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED / UNDISTURBED	14. TOTAL NO. CORE BOXES	15. ELEV. GROUND WATER / 16. DATE HOLE: STARTED / COMPLETED
17. ELEV. TOP OF HOLE	18. TOTAL CORE RECOVERY FOR BORING (%)	19. SIGNATURE OF INSPECTOR

ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
	160		mudshale - same unit as above.	7.5'	160	Core in box #14A has been rearranged.
		XXX	Clayshale - dkgy(N3), hard, brittle, parallel fracture, micaceous, thin horizontal laminae, no fossils found, clay ironstone bands to 0.2' thick near top, sharp lower contact w/coal.	4.0'	# 14A	
	165					
			Coal, blk(N1), banded mod. bright, sharp contacts	0.25		Weir - Pittsburg Coal
			mudstone - med lt gy (N6), soft, blocky fracs, silty, micaceous, massive, plant frags, gradational lower contact.	0.5'		
			Siltstone - lt greenish gy(5GY 7/1), hard, blocky fracs, abund. mud matrix, micaceous, massive, plant fragments, abundant sand sized (cont.) →	4.7'		
	170				170	

HOLE NO. _____

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INSTALLATION _____

DRILLING LOG

1. PROJECT | SHEET OF
2. LOCATION (Coordinates or Station)
3. DRILLING AGENCY
4. HOLE NO. (As shown on drawing title and file No.)
5. NAME OF DRILLER
6. DIRECTION OF HOLE: ☐ VERTICAL ☐ INCLINED | DEGREES WITH VERTICAL
7. THICKNESS OF OVER-BURDEN
8. DEPTH DRILLED INTO ROCK
9. TOTAL DEPTH OF HOLE
10. SIZE AND TYPE OF BIT
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)
12. MANUFACTURER'S DESIGNATION OF DRILL
13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED | UNDISTURBED
14. TOTAL NO. CORE BOXES
15. ELEV. GROUND WATER
16. DATE HOLE: STARTED | COMPLETED
17. ELEV. TOP OF HOLE
18. TOTAL CORE RECOVERY FOR BORING (%)
19. SIGNATURE OF INSPECTOR

ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
	170		Siltstone - (cont), authigenic siderite crystals, gradational lower contact.	4.7'	170'	Core in Box # 14B has been rearranged.
	175		Mudshale - med gy (N5) w/ brown mottling, hard, parallel fracs, silty, qtz, micaceous, wavy bedded at base to thin horizontal laminae at top, abundant plant fragments at base, silty zones bioturbated, clay ironstone bands less than 1cm thick at base, sand sized authigenic siderite crystals in upper portion, abruptly gradational lower contact.	9.7'	# 14B	
	180				180'	

ENG FORM 1836 1 JUN 57 (TRANSLUCENT) (EM 1110-2-1801) PREVIOUS EDITIONS ARE OBSOLETE

PROJECT _____ HOLE NO. _____

HOLE NO. 2.6

DEPARTMENT OF THE ARMY
DIVISION _____
INSTALLATION _____

DRILLING LOG

1. PROJECT		SHEET OF
2. LOCATION (Coordinates or Station)		
3. DRILLING AGENCY		
4. HOLE NO. (As shown on drawing title and file No.)	5. NAME OF DRILLER	
6. DIRECTION OF HOLE: ☐ VERTICAL ☐ INCLINED; DEGREES WITH VERTICAL	7. THICKNESS OF OVER-BURDEN	8. DEPTH DRILLED INTO ROCK / 9. TOTAL DEPTH OF HOLE
10. SIZE AND TYPE OF BIT	11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	12. MANUFACTURER'S DESIGNATION OF DRILL
13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED / UNDISTURBED	14. TOTAL NO. CORE BOXES	15. ELEV. GROUND WATER / 16. DATE HOLE: STARTED / COMPLETED
17. ELEV. TOP OF HOLE	18. TOTAL CORE RECOVERY FOR BORING (%)	19. SIGNATURE OF INSPECTOR

ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
	180		Mudshale - same unit as above.	9.7'	180	Core in box #15 has been rearranged. Weir-Pittsburg "B" coal
			Clayshale - dkgy(N3), hard, parallel fracs, micaceous, thin hor. laminae, non-fossiliferous, sharp lower contact w/coal.	1.0'		
			Coal - blk(N1), banded sharp cont.	0.2'		
	185		Mudstone - med ltgy(N6), soft, blocky fracs, slightly silty, micaceous, massive, abundant plant debris, few small irregular clay ironstone nodules up to 0.05 thick, gradational lower contact.	4.1'	# 15	
			Siltstone - same unit as below.	7.6'		
	190				190	

HOLE NO. _____

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DRILLING LOG

1. PROJECT | SHEET OF
2. LOCATION (Coordinates or Station)
3. DRILLING AGENCY
4. HOLE NO. (As shown on drawing title and file No.)
5. NAME OF DRILLER
6. DIRECTION OF HOLE: ☐ VERTICAL ☐ INCLINED; DEGREES WITH VERTICAL
7. THICKNESS OF OVER-BURDEN
8. DEPTH DRILLED INTO ROCK
9. TOTAL DEPTH OF HOLE
10. SIZE AND TYPE OF BIT
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)
12. MANUFACTURER'S DESIGNATION OF DRILL
13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED; UNDISTURBED
14. TOTAL NO. CORE BOXES
15. ELEV. GROUND WATER
16. DATE HOLE: STARTED; COMPLETED
17. ELEV. TOP OF HOLE
18. TOTAL CORE RECOVERY FOR BORING (%)
19. SIGNATURE OF INSPECTOR

ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
	190		Siltstone – lt gy (N7) to med lt gy (N6), hard, blocky fracs, abundant mud matrix, wavy bedded at bas to massive at top, nonfossiliferous, few sand sized authigenic siderite crystals, gradational lower contact.	7.6'	190'	Core in box #16 has been rearranged.
					# 16	
	195		Sandstone – v lt gy (N8) vf-fine gr, rippled, grad. lower contact,	1.0'		
			Siltstone – lt gy (N7) wavy bedded, sharp contact	0.6'		
			Argillaceous Limestone – med gy (N5), hard, abundant brachiopods, crinoids, etc, organic rich mud, sharp contacts,	0.8'		
			Coal, blk (N1), smut	0.1'		Bluejacket A coal
			Mudstone – med gy (N5) at base to lt gy (N7) at top, mod. hard, blocky fracs, massive slightly silty, micaceous plant frags, irregular clay ironstone cond. gradational lower cont.	2.0'		
	200		Clayshale – same unit as below.	5.2'	200'	

ENG FORM 1 JUN 57 1836 (TRANSLUCENT) (EM 1110-2-1801) PREVIOUS EDITIONS ARE OBSOLETE

PROJECT _____ HOLE NO. _____

HOLE NO. _____

DEPARTMENT OF THE ARMY
DIVISION _____
INSTALLATION _____

DRILLING LOG

1. PROJECT | SHEET OF

2. LOCATION (Coordinates or Station)

3. DRILLING AGENCY

4. HOLE NO. (As shown on drawing title and file No.)

5. NAME OF DRILLER

6. DIRECTION OF HOLE: ☐ VERTICAL ☐ INCLINED; DEGREES WITH VERTICAL

7. THICKNESS OF OVER-BURDEN

8. DEPTH DRILLED INTO ROCK

9. TOTAL DEPTH OF HOLE

10. SIZE AND TYPE OF BIT

11. DATUM FOR ELEVATION SHOWN (TBM or MSL)

12. MANUFACTURER'S DESIGNATION OF DRILL

13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED | UNDISTURBED

14. TOTAL NO. CORE BOXES

15. ELEV. GROUND WATER

16. DATE HOLE: STARTED | COMPLETED

17. ELEV. TOP OF HOLE

18. TOTAL CORE RECOVERY FOR BORING (%)

19. SIGNATURE OF INSPECTOR

ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
	200		Clay shale - dk gy(N3), hard, parallel fracs, micaceous, thin horizontal laminae, large crinoid stem and small brachiopod frags at base, calcareous cement near base, clay ironstone bands to 0.1' thick, sharp lower contact w/coal.	5.2'	200 # 17	Core in box #17 has been rearranged.
		T				
		T T T T	Coal, blk(N1), smut	0.1'		Bluejacket B coal
	205		Mudstone - ltgy(N7) to med gy(N5), soft, crumbled, blocky fracs, slightly silty, micaceous, massive, plant frags, brown Fe oxide stains, gradational lower contact.	2.8'		
			Siltstone - same unit as [redacted],	6.4'		
	210				210	

ENG FORM 1836 1 JUN 57 (TRANSLUCENT) (EM 1110-2-1801) PREVIOUS EDITIONS ARE OBSOLETE

PROJECT _____ HOLE NO. _____

HOLE NO. _____

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INSTALLATION _____

DRILLING LOG

1. PROJECT | SHEET OF

2. LOCATION (Coordinates or Station)

3. DRILLING AGENCY

4. HOLE NO. (As shown on drawing title and file No.)

5. NAME OF DRILLER

6. DIRECTION OF HOLE: ☐ VERTICAL ☐ INCLINED; DEGREES WITH VERTICAL

7. THICKNESS OF OVER-BURDEN

8. DEPTH DRILLED INTO ROCK

9. TOTAL DEPTH OF HOLE

10. SIZE AND TYPE OF BIT

11. DATUM FOR ELEVATION SHOWN (TBM or MSL)

12. MANUFACTURER'S DESIGNATION OF DRILL

13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED | UNDISTURBED

14. TOTAL NO. CORE BOXES

15. ELEV. GROUND WATER

16. DATE HOLE: STARTED | COMPLETED

17. ELEV. TOP OF HOLE

18. TOTAL CORE RECOVERY FOR BORING (%)

19. SIGNATURE OF INSPECTOR

ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (drilling time, water loss, depth of weathering, etc., if significant)
	210		Siltstone - med ltgy (N6) - ltgy (N7), hard, blocky fracture, silt & abundant mud matrix, some very fine sand, qtz, micaceous comp, wavy bedded, few small plant frags, bioturbation, sand sized authigenic siderite crystals, gradational lower contact.	6.4'	210	Core in box #18 has been rearranged.
	215		Sandstone - v ltgy (N8), hard, blocky fracs, very fine grained, qtz, micaceous comp, abundant mud matrix, rippled, flaser bedded w/ very thin muddy laminae, few very small plant fragments, sand sized authigenic siderite crystals, gradational lower contact.	4.0'	# 18	Upper Bluejacket Sandstone
			Siltstone - same unit as below.	5.5'		
	220				220	

ENG FORM 1 JUN 57 1836 (TRANSLUCENT) (EM 1110-2-1801) PREVIOUS EDITIONS ARE OBSOLETE

PROJECT _____ HOLE NO. _____

HOLE NO. _____

DEPARTMENT OF THE ARMY
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INSTALLATION _____

DRILLING LOG

1. PROJECT		SHEET OF
2. LOCATION (Coordinates or Station)		
3. DRILLING AGENCY		
4. HOLE NO. (As shown on drawing title and file No.)	5. NAME OF DRILLER	
6. DIRECTION OF HOLE: ☐ VERTICAL ☐ INCLINED; DEGREES WITH VERTICAL	7. THICKNESS OF OVERBURDEN	8. DEPTH DRILLED INTO ROCK / 9. TOTAL DEPTH OF HOLE
10. SIZE AND TYPE OF BIT	11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	12. MANUFACTURER'S DESIGNATION OF DRILL
13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED / UNDISTURBED	14. TOTAL NO. CORE BOXES	15. ELEV. GROUND WATER / 16. DATE HOLE: STARTED / COMPLETED
17. ELEV. TOP OF HOLE	18. TOTAL CORE RECOVERY FOR BORING (%)	19. SIGNATURE OF INSPECTOR

ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
	220		Siltstone – med Hgy (N6) and v ltgy (N8) alternating laminae, hard, parallel to blocky fracs, abund, mud matrix, wavy bedded at base to flaser bedded at top, finely divided plant debris, sand sized auth. siderite xtals, sharp lower contact.	5.5'	220 / #19	Core in box #19 has been rearranged.
	225		Mudshale – meddkgy (N4) at base to dkgy (N3) at top, hard, parallel fracs, silty, micaceous, few plant frags, sharp lower contact w/coal,	11.7'		
	230				230	

HOLE NO. _____

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DRILLING LOG

1. PROJECT		SHEET OF
2. LOCATION (Coordinates or Station)		
3. DRILLING AGENCY		
4. HOLE NO. (As shown on drawing title and file No.)	5. NAME OF DRILLER	
6. DIRECTION OF HOLE: ☐ VERTICAL ☐ INCLINED; DEGREES WITH VERTICAL	7. THICKNESS OF OVERBURDEN	8. DEPTH DRILLED INTO ROCK / 9. TOTAL DEPTH OF HOLE
10. SIZE AND TYPE OF BIT	11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	12. MANUFACTURER'S DESIGNATION OF DRILL
13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED / UNDISTURBED	14. TOTAL NO. CORE BOXES	15. ELEV. GROUND WATER / 16. DATE HOLE: STARTED / COMPLETED
17. ELEV. TOP OF HOLE	18. TOTAL CORE RECOVERY FOR BORING (%)	19. SIGNATURE OF INSPECTOR

ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
	230		Mudshale — same unit as above.		230'	Core in box #20 has been rearranged.
					#	
				11.7'	20	
	235		Coal, blk(N1), smut.	0.15'		Bluejacket C coal
			Mudstone — med lt gy(N6), mod. hard, blocky fracture, silty, micaceous, massive, plant frags, irregular clay ironstone concretions to 0.1' thick, Fe oxide stains, grodational lower contact.	2.7'		Underclay
			Mudshale — same unit as below.	12.8'		
	240				240	

HOLE NO. _____

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DRILLING LOG

1. PROJECT		SHEET OF
2. LOCATION (Coordinates or Station)		
3. DRILLING AGENCY		
4. HOLE NO. (As shown on drawing title and file No.)	5. NAME OF DRILLER	

6. DIRECTION OF HOLE			7. THICKNESS OF OVER-BURDEN	8. DEPTH DRILLED INTO ROCK	9. TOTAL DEPTH OF HOLE
☐ VERTICAL	☐ INCLINED	DEGREES WITH VERTICAL			
10. SIZE AND TYPE OF BIT	11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	12. MANUFACTURER'S DESIGNATION OF DRILL			

13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN		14. TOTAL NO. CORE BOXES	15. ELEV. GROUND WATER	16. DATE HOLE	
DISTURBED	UNDISTURBED			STARTED	COMPLETED
17. ELEV. TOP OF HOLE	18. TOTAL CORE RECOVERY FOR BORING (%)	19. SIGNATURE OF INSPECTOR			

ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
	240	S	Mudshale – med dk gy (N4) w/ v ltgy (N8) silty lenses, hard, parallel fracture, silty micaceous, lenticular bedded, with very thin lenses, abundant pyritized plant fragments, bioturbation, occasional small crinoid stems, brachiopods and other marine fossils, few clay ironstone bands less than 1 cm thick, brown Fe oxide stains, sharp lower contact with coal.	126'	240'	Core in box # 21 in reverse order.
	245	S			# 21	
	250				250'	

ENG FORM 1 JUN 57 1836 (TRANSLUCENT) (EM 1110-2-1801) PREVIOUS EDITIONS ARE OBSOLETE

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HOLE NO. _____

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INSTALLATION _____

DRILLING LOG

1. PROJECT | SHEET OF

2. LOCATION (Coordinates or Station)

3. DRILLING AGENCY

4. HOLE NO. (As shown on drawing title and file No.)

5. NAME OF DRILLER

6. DIRECTION OF HOLE			7. THICKNESS OF OVERBURDEN	8. DEPTH DRILLED INTO ROCK	9. TOTAL DEPTH OF HOLE
☐ VERTICAL	☐ INCLINED	DEGREES WITH VERTICAL			

10. SIZE AND TYPE OF BIT	11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	12. MANUFACTURER'S DESIGNATION OF DRILL

13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN		14. TOTAL NO. CORE BOXES	15. ELEV. GROUND WATER	16. DATE HOLE	
DISTURBED	UNDISTURBED			STARTED	COMPLETED

17. ELEV. TOP OF HOLE	18. TOTAL CORE RECOVERY FOR BORING (%)	19. SIGNATURE OF INSPECTOR

ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
	250		Mudshale - same as above	12.6'	250	Bluejacket D coal
			Coal, smut	0.1'		Seatrock
	255		Siltstone - medgy(N5), hard, blocky fracs, abundant mud matrix, wavy bedded, abundant plant fragments, bioturbation, abundant sand sized authigenic siderite crystals, gradational lower contact.	7.2'	# 22	Core in box #22 in reverse order
	260		Mudshale - Same as below.	14.8'	260'	

ENG FORM 1836 (TRANSLUCENT) 1 JUN 87 (EM 1110-3-1801) PREVIOUS EDITIONS ARE OBSOLETE

PROJECT _____ HOLE NO. _____

HOLE NO. _____

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INSTALLATION _____

DRILLING LOG

1. PROJECT		SHEET OF
2. LOCATION (Coordinates or Station)		
3. DRILLING AGENCY		
4. HOLE NO. (As shown on drawing title and file No.)	5. NAME OF DRILLER	

6. DIRECTION OF HOLE			7. THICKNESS OF OVER-BURDEN	8. DEPTH DRILLED INTO ROCK	9. TOTAL DEPTH OF HOLE
☐ VERTICAL	☐ INCLINED	DEGREES WITH VERTICAL			
10. SIZE AND TYPE OF BIT	11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	12. MANUFACTURER'S DESIGNATION OF DRILL			

13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN		14. TOTAL NO. CORE BOXES	15. ELEV. GROUND WATER	16. DATE HOLE	
DISTURBED	UNDISTURBED			STARTED	COMPLETED
17. ELEV. TOP OF HOLE	18. TOTAL CORE RECOVERY FOR BORING (%)	19. SIGNATURE OF INSPECTOR			

ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
	260'		Mudshale - med dk gy (N4) at base to med H gy (N6) at top, hard - mod. hard, parallel fracs, silty, micaceous, thin horizontal laminae, few very thin silty laminae, small finely divided plant frags, few burrows at base, clay ironstone bands to 0.2' thick, Fe oxide stains at base, sharp lower contact w/ coal.		260'	Core in box # 23 in reverse order.
	265			148'	# 23	
	270				270'	

ENG FORM 1 JUN 57 1836 (TRANSLUCENT) (EM 1110-2-1801) PREVIOUS EDITIONS ARE OBSOLETE

PROJECT _____ HOLE NO. _____

HOLE NO. _____

DEPARTMENT OF THE ARMY

DIVISION _____

INSTALLATION _____

DRILLING LOG

1. PROJECT		SHEET OF
2. LOCATION (Coordinates or Station)		
3. DRILLING AGENCY		
4. HOLE NO. (As shown on drawing title and file No.)	5. NAME OF DRILLER	

6. DIRECTION OF HOLE			7. THICKNESS OF OVER-BURDEN	8. DEPTH DRILLED INTO ROCK	9. TOTAL DEPTH OF HOLE
☐ VERTICAL	☐ INCLINED	DEGREES WITH VERTICAL			

10. SIZE AND TYPE OF BIT	11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	12. MANUFACTURER'S DESIGNATION OF DRILL

13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN		14. TOTAL NO. CORE BOXES	15. ELEV. GROUND WATER	16. DATE HOLE	
DISTURBED	UNDISTURBED			STARTED	COMPLETED

17. ELEV. TOP OF HOLE	18. TOTAL CORE RECOVERY FOR BORING (%)	19. SIGNATURE OF INSPECTOR

ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
	270		Mudshale - same unit as above.	14.8'	270' # 24	
			Coal, blk (N1), banded, mod. bright, sulfate bloom, sharp cont.	0.4'		Drywood coal
			Mudstone - med Hgy (N6) - (t gy (N7) with brown Fe oxide stn., soft - mod. hard, blocky fracture, massive, plant frags, slightly silty, micaceous, abundant brown Fe oxide staining, gradational lower contact.	2.8'		Box # 24 in reverse order.
	275					
			Clayshale - med dk gy (N4), hard, parallel fracs, micaceous, thin horizontal laminae, non-fossiliferous small amount of Fe oxide staining, sharp lower contact w/coal.	7.3'		
	280				280'	

ENG FORM 1 JUN 57 **1836** (TRANSLUCENT) PREVIOUS EDITIONS ARE OBSOLETE (EIA 1110-2-1801)

PROJECT _____ HOLE NO. _____

HOLE NO. _____

DEPARTMENT OF THE ARMY
DIVISION _____
INSTALLATION _____

DRILLING LOG

1. PROJECT | SHEET OF
2. LOCATION (Coordinates or Station)
3. DRILLING AGENCY
4. HOLE NO. (As shown on drawing title and file No.)
5. NAME OF DRILLER
6. DIRECTION OF HOLE: ☐ VERTICAL ☐ INCLINED | DEGREES WITH VERTICAL
7. THICKNESS OF OVER-BURDEN
8. DEPTH DRILLED INTO ROCK
9. TOTAL DEPTH OF HOLE
10. SIZE AND TYPE OF BIT
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)
12. MANUFACTURER'S DESIGNATION OF DRILL
13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED | UNDISTURBED
14. TOTAL NO. CORE BOXES
15. ELEV. GROUND WATER
16. DATE HOLE: STARTED | COMPLETED
17. ELEV. TOP OF HOLE
18. TOTAL CORE RECOVERY FOR BORING (%)
19. SIGNATURE OF INSPECTOR

ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
	280		Clay-shale - same unit as above.	7.3'	280'	
			Coal, blk, (N1), banded, mod. bright, sharp conts.	0.25'		Rowe coal
			Mudstone - med gy (N5) to H gy (N7), soft, blocky fracs, massive, silty, micaceous, abundant plant frags, irregular clay ironstone bands, Fe oxide stains, gradational lower contact.	2.5'	# 25	Box # 25 in reverse order.
	285		Mudshale - med H gy (N6) with v lt gy (N8) silty lenses, hard, parallel fracs, silty, micaceous lenticular bedded w/ very thin lenses, finely divided plant frags, few small burrows, gradational lower contact.	3.0'		
			Clay-shale - same as below	12.3'		
	290				290'	

HOLE NO. _____

DEPARTMENT OF THE ARMY
DIVISION _____
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DRILLING LOG

1. PROJECT		SHEET OF
2. LOCATION (Coordinates or Station)		
3. DRILLING AGENCY		
4. HOLE NO. (As shown on drawing title and file No.)	5. NAME OF DRILLER	

6. DIRECTION OF HOLE			7. THICKNESS OF OVER-BURDEN	8. DEPTH DRILLED INTO ROCK	9. TOTAL DEPTH OF HOLE
☐ VERTICAL	☐ INCLINED	DEGREES WITH VERTICAL			

10. SIZE AND TYPE OF BIT	11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	12. MANUFACTURER'S DESIGNATION OF DRILL

13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN		14. TOTAL NO. CORE BOXES	15. ELEV. GROUND WATER	16. DATE HOLE	
DISTURBED	UNDISTURBED			STARTED	COMPLETED

17. ELEV. TOP OF HOLE	18. TOTAL CORE RECOVERY FOR BORING (%)	19. SIGNATURE OF INSPECTOR

ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
	290		Clay shale – med dk gy (N4), hard, parallel fracture, micaceous, thin horizontal laminae, few brachiopods & other marine fossils enclosed by a 0.3' clay ironstone band at base, calc. cement at base, small pyrite nodules less than 1cm dia, sharp lower Contact.	12.3'	290'	Box 26A in reverse order.
					#26A	
	295					Two boxes numbered 26! 26A - 290' - 300' 26B - 300' - 309'
	300	T			300'	

ENG FORM 1836 (TRANSLUCENT) 1 JUN 57 PREVIOUS EDITIONS ARE OBSOLETE (AMSCO 2-1801)

PROJECT _____ HOLE NO. _____

HOLE NO. _____

DEPARTMENT OF THE ARMY
DIVISION _____
INSTALLATION _____

DRILLING LOG

1. PROJECT | SHEET OF
2. LOCATION (Coordinates or Station)
3. DRILLING AGENCY
4. HOLE NO. (As shown on drawing title and file No.)
5. NAME OF DRILLER
6. DIRECTION OF HOLE: ☐ VERTICAL ☐ INCLINED | DEGREES WITH VERTICAL
7. THICKNESS OF OVERBURDEN
8. DEPTH DRILLED INTO ROCK
9. TOTAL DEPTH OF HOLE
10. SIZE AND TYPE OF BIT
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)
12. MANUFACTURER'S DESIGNATION OF DRILL
13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED | UNDISTURBED
14. TOTAL NO. CORE BOXES
15. ELEV. GROUND WATER
16. DATE HOLE: STARTED | COMPLETED
17. ELEV. TOP OF HOLE
18. TOTAL CORE RECOVERY FOR BORING (%)
19. SIGNATURE OF INSPECTOR

ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
	300	—	Clayshale - same unit as above.		300'	
		T		12.3'	# 26B	relatively short lived or poorly developed coal forming conditions.
		XXX	Neutral horizon			
		T				
		≈≈≈	Mudstone - med ltgy(N6), mod. hard, blocky to parallel fracture, slightly silty, micaceous, few plant frags, thinly lam. at base to massive at top. authigenic siderite xtals, gradational lower contact.	2.2'		Two boxes numbered 26. 26A - 290' - 300' 26B - 300' - 309'
		—	Mudshale - med dk gy(N4) with v ltgy(N8) silty lenses, hard, brittle, parallel fracture, silty, up to 50% quartz, micaceous, lenticular bedded with thick & thin lenses, silt content decreases upwards. few small plant frags, small amount of burrowing, clay ironstone bands to 0.1' thick, gradational lower contact w/ sandst.	8.7'	309'	Box 26B in reverse order.
	305				# 27	
	310					

ENG FORM 1 JUN 87 1836 (TRANSLUCENT) (EM 1110-2-1801) PREVIOUS EDITIONS ARE OBSOLETE

PROJECT _____ HOLE NO. _____

HOLE NO. _____

DEPARTMENT OF THE ARMY
DIVISION _____
INSTALLATION _____

DRILLING LOG

1. PROJECT		SHEET OF
2. LOCATION (Coordinates or Station)		
3. DRILLING AGENCY		
4. HOLE NO. (As shown on drawing title and file No.)	5. NAME OF DRILLER	
6. DIRECTION OF HOLE: ☐ VERTICAL ☐ INCLINED; DEGREES WITH VERTICAL	7. THICKNESS OF OVER-BURDEN	8. DEPTH DRILLED INTO ROCK / 9. TOTAL DEPTH OF HOLE
10. SIZE AND TYPE OF BIT	11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	12. MANUFACTURER'S DESIGNATION OF DRILL
13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED / UNDISTURBED	14. TOTAL NO. CORE BOXES	15. ELEV. GROUND WATER / 16. DATE HOLE: STARTED / COMPLETED
17. ELEV. TOP OF HOLE	18. TOTAL CORE RECOVERY FOR BORING (%)	19. SIGNATURE OF INSPECTOR

ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
	310		Mudshale – same unit as above.	8.7'	# 27	
			Sandstone – med ltgy (N6) to med gy(N5) w/ brown mottling, very fine-fine grained, abundant mud matrix, quartzose, micaceous, rippled, no good directional indicators, contains two lenticular bedded shale partings, coal and clay ironstone clasts, shaly zones are burrowed, contains localized calcareous cement and clay ironstone nodules to 0.1' dia, gradational lower contact.	5.4'		Box # 27 in reverse order. Upper Warner Sandstone
	315					
			Mudshale – same unit as below.	11.6'	319' # 28	
	320					

HOLE NO. _____

DEPARTMENT OF THE ARMY
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DRILLING LOG

1. PROJECT | SHEET OF

2. LOCATION (Coordinates or Station)

3. DRILLING AGENCY

4. HOLE NO. (As shown on drawing title and file No.)

5. NAME OF DRILLER

6. DIRECTION OF HOLE: ☐ VERTICAL ☐ INCLINED | DEGREES WITH VERTICAL

7. THICKNESS OF OVERBURDEN

8. DEPTH DRILLED INTO ROCK

9. TOTAL DEPTH OF HOLE

10. SIZE AND TYPE OF BIT

11. DATUM FOR ELEVATION SHOWN (TBM or MSL)

12. MANUFACTURER'S DESIGNATION OF DRILL

13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED | UNDISTURBED

14. TOTAL NO. CORE BOXES

15. ELEV. GROUND WATER

16. DATE HOLE: STARTED | COMPLETED

17. ELEV. TOP OF HOLE

18. TOTAL CORE RECOVERY FOR BORING (%)

19. SIGNATURE OF INSPECTOR

ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
	320	S T S T S T S T	Mudshale – med dk gy (N4), hard, parallel fracs, silty, micaceous, thin horizontal laminae, few very thin silty lenses, few small plant frags, scattered small crinoid stems, brachiopods, bryozoan, and other marine fossil frags, localized calcareous cement, clay ironstone bands to 0.15' thick, sharp lower contact w/ coal.	11.6'	# 28	Box # 28 not in correct stratigraphic order. (Has been re-arranged & now should be close.)
	325	S T T S T S T				
			Coal, blk, (N1), banded, mod. bright, sharp contacts,	0.5'	329' # 29	"A" coal
	330		Mudstone, same as below.	2.4'		

ENG FORM 1836 (TRANSMITTAL) 1 JUN 87 (EM 1110-2-1801) PREVIOUS EDITIONS ARE OBSOLETE

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HOLE NO. _____

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DIVISION _____
INSTALLATION _____

DRILLING LOG

1. PROJECT	SHEET OF
2. LOCATION (Coordinates or Station)	
3. DRILLING AGENCY	
4. HOLE NO. (As shown on drawing title and file No.)	5. NAME OF DRILLER

6. DIRECTION OF HOLE			7. THICKNESS OF OVERBURDEN	8. DEPTH DRILLED INTO ROCK	9. TOTAL DEPTH OF HOLE
☐ VERTICAL	☐ INCLINED	DEGREES WITH VERTICAL			
10. SIZE AND TYPE OF BIT	11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	12. MANUFACTURER'S DESIGNATION OF DRILL			

13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN		14. TOTAL NO. CORE BOXES	15. ELEV. GROUND WATER	16. DATE HOLE	
DISTURBED	UNDISTURBED			STARTED	COMPLETED
17. ELEV. TOP OF HOLE	18. TOTAL CORE RECOVERY FOR BORING (%)	19. SIGNATURE OF INSPECTOR			

ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
	330		Mudstone - med dkgy (N4) at base to med Hgy (N6) at top, mod. hard - soft, blocky fracs, silty, micaceous, massive, plant frags, few authigenic siderite xtals & Fe oxide stains, gradational lower cont.	2.4	# 29	Underclay
		T	Mudshale - dkgy (N3) with v. lt. gy (N8) silty laminae, hard, parallel fracs, silty, micaceous, thin horizontal laminae and lenticular bedding w/ very thin lenses, few small plant frags, scattered small brachiopods & other marine fossil frags, few burrows, localized calcareous cement, irregular clay ironstone nodules to 0.15' thick, sharp lower contact with coal.			Box # 29 not in correct stratigraphic order. (Has been re-arranged and should be close.)
	335			6.6'		
			Coal - blk (N1), hard, brittle, banded, mod. bright, sulfate bloom, sharp contacts,	1.3'	339' # 30	"B" coal
	340					

ENG FORM 1836 (TRANSLUCENT) 1 JUN 87 (EM 1110-2-1801) PREVIOUS EDITIONS ARE OBSOLETE PROJECT _____ HOLE NO. _____

HOLE NO. _____

DEPARTMENT OF THE ARMY
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INSTALLATION _____

DRILLING LOG

1. PROJECT | SHEET OF

2. LOCATION (Coordinates or Station)

3. DRILLING AGENCY

4. HOLE NO. (As shown on drawing title and file No.)

5. NAME OF DRILLER

6. DIRECTION OF HOLE			7. THICKNESS OF OVER-BURDEN	8. DEPTH DRILLED INTO ROCK	9. TOTAL DEPTH OF HOLE
☐ VERTICAL	☐ INCLINED	DEGREES WITH VERTICAL			

10. SIZE AND TYPE OF BIT	11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	12. MANUFACTURER'S DESIGNATION OF DRILL

13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN		14. TOTAL NO. CORE BOXES	15. ELEV. GROUND WATER	16. DATE HOLE	
DISTURBED	UNDISTURBED			STARTED	COMPLETED

17. ELEV. TOP OF HOLE	18. TOTAL CORE RECOVERY FOR BORING (%)	19. SIGNATURE OF INSPECTOR

ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
	340		Mudstone - medgy(N5) to med ltgy (N6), mod. hard, blocky fracs, silty, micaceous, massive, plant fragments, no apparent diag. features, gradational lower contact.	2.2'	# 30	Underclay
			Mudshale - dkgy(N3) with ultgy(N8) silty laminae, hard, parallel to blocky fracture, silty, micaceous, lenticular bedded w/very thin lenses, few burrows, clay ironstone bands to 0.2' thick, sand sized authigenic siderite xtals, gradational lower contact.	2.8'		Box # 30 in reverse order.
	345		Clayshale - dkgy(N3), hard, brittle, parallel fracture, micaceous, no silt, thin horizontal laminae, non-fossiliferous, small pyrite nodules less than 1cm dia, localized calcareous cement, sharp lower contact w/coal,	6.7'	349' # 31	
	350					

ENG FORM 1 JUN 87 1836 (TRANSLUCENT) (EM 1110-2-1801) PREVIOUS EDITIONS ARE OBSOLETE

PROJECT _____ HOLE NO. _____

HOLE NO. _____

DEPARTMENT OF THE ARMY
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INSTALLATION _____

DRILLING LOG

1. PROJECT	SHEET OF
2. LOCATION (Coordinates or Station)	
3. DRILLING AGENCY	
4. HOLE NO. (As shown on drawing title and file No.)	5. NAME OF DRILLER

6. DIRECTION OF HOLE			7. THICKNESS OF OVER-BURDEN	8. DEPTH DRILLED INTO ROCK	9. TOTAL DEPTH OF HOLE
☐ VERTICAL	☐ INCLINED	DEGREES WITH VERTICAL			
10. SIZE AND TYPE OF BIT	11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	12. MANUFACTURER'S DESIGNATION OF DRILL			

13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN		14. TOTAL NO. CORE BOXES	15. ELEV. GROUND WATER	16. DATE HOLE	
DISTURBED	UNDISTURBED			STARTED	COMPLETED
17. ELEV. TOP OF HOLE	18. TOTAL CORE RECOVERY FOR BORING (%)	19. SIGNATURE OF INSPECTOR			

ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
	350	—	Clay shale — same as above.	6.7'		
		■	Coal, blk(N1), hard, banded, mod. bright sharp contacts.	0.25		Unnamed coal
		≷	Mud stone — Hgy(N7), soft to mod. hard, blocky to concoidal fracture, massive, abundant plant fragments, authigenic siderite crystals at base, abruptly gradational lower contact.	3.1'	# 31	Box #31 in reverse order
	355	—	Clayshale — dkgy(N3) hard, brittle, parallel fracture, micaceous, no silt, thin horizontal laminae, few small plant fragments along bedding planes, small horizontal burrows near base, calcareous cement, sharp lower contact.	6.8'	359'	
		T			# 32	
	360	—				

ENG FORM 1836 (TP CENT) 1 JUN 87 (EM 1110-2-1803) PREVIOUS EDITIONS ARE OBSOLETE

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HOLE NO. _____

DEPARTMENT OF THE ARMY
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INSTALLATION _____

DRILLING LOG

1. PROJECT | SHEET OF
2. LOCATION (Coordinates or Station)
3. DRILLING AGENCY
4. HOLE NO. (As shown on drawing title and file No.)
5. NAME OF DRILLER
6. DIRECTION OF HOLE: ☐ VERTICAL ☐ INCLINED; DEGREES WITH VERTICAL
7. THICKNESS OF OVER-BURDEN
8. DEPTH DRILLED INTO ROCK
9. TOTAL DEPTH OF HOLE
10. SIZE AND TYPE OF BIT
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)
12. MANUFACTURER'S DESIGNATION OF DRILL
13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED | UNDISTURBED
14. TOTAL NO. CORE BOXES
15. ELEV. GROUND WATER
16. DATE HOLE: STARTED | COMPLETED
17. ELEV. TOP OF HOLE
18. TOTAL CORE RECOVERY FOR BORING (%)
19. SIGNATURE OF INSPECTOR

ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
	360	T	Clay shale - same as above	6.8'	# 32	
		T				
			Coal, blk(N1), banded, mod. bright, sharp contacts	0.25		"C" coal
			Clay-stone - same as below except massive	0.3'		
		T	Clay shale - dk gy (N3) hard, brittle, parallel fracture, no silt, thin horizontal laminae, pyritized plant fragments along bedding planes, clay ironstone bands to 0.05' thick, sharp lower contact w/ underclay; small amounts of localized calcareous cement.	7.3'		Box # 32 in reverse order.
	365	T				
		T				
					369'	
					# 33	"D" coal horizon Underclay but no coal!
	370		Mudstone - same unit as below.	4.5'		

ENG FORM 1 JUN 87 1836 (TRANSLUCENT) (EM 1110-2-1801) PREVIOUS EDITIONS ARE OBSOLETE

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DRILLING LOG

1. PROJECT | SHEET OF
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3. DRILLING AGENCY
4. HOLE NO. (As shown on drawing title and file No.)
5. NAME OF DRILLER
6. DIRECTION OF HOLE: ☐ VERTICAL ☐ INCLINED | DEGREES WITH VERTICAL
7. THICKNESS OF OVERBURDEN
8. DEPTH DRILLED INTO ROCK
9. TOTAL DEPTH OF HOLE
10. SIZE AND TYPE OF BIT
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)
12. MANUFACTURER'S DESIGNATION OF DRILL
13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED | UNDISTURBED
14. TOTAL NO. CORE BOXES
15. ELEV. GROUND WATER
16. DATE HOLE: STARTED | COMPLETED
17. ELEV. TOP OF HOLE
18. TOTAL CORE RECOVERY FOR BORING (%)
19. SIGNATURE OF INSPECTOR

ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
	370		Mudstone – lt gy (N7), mod hard to soft, blocky & concoidal fracture, slightly silty, micaceous, massive, abundant root & plant frags, brown Fe oxide stains, abruptly gradational, irregular lower contact.	4.5'	# 33	Underclay but no coal!, "C" horizon?
	375		Silt-shale – med dk gy (N4), hard, parallel fracture, silty, micaceous, abundant organic rich mud, thinly laminated, wavy bedded, few small plant frags, abundant crinoid stems & other marine fossil frags, bioturbation, calcareous cement, sharp lower contact.	4.0'		Unnamed coal horizon Underclay but no coal!
	379		Mudstone – med lt gy (N6), mod. hard to soft, blocky to concoidal fracture, massive, abundant plant fragments, white & yellow sulfate bloom, gradational lower contact.	2.9'	# 34	
	380					

HOLE NO. _____

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4. HOLE NO. (As shown on drawing title and file No.)
5. NAME OF DRILLER

6. DIRECTION OF HOLE			7. THICKNESS OF OVER-BURDEN	8. DEPTH DRILLED INTO ROCK	9. TOTAL DEPTH OF HOLE
☐ VERTICAL	☐ INCLINED	DEGREES WITH VERTICAL			

10. SIZE AND TYPE OF BIT	11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	12. MANUFACTURER'S DESIGNATION OF DRILL

13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN		14. TOTAL NO. CORE BOXES	15. ELEV. GROUND WATER	16. DATE HOLE	
DISTURBED	UNDISTURBED			STARTED	COMPLETED

17. ELEV. TOP OF HOLE	18. TOTAL CORE RECOVERY FOR BORING (%)	19. SIGNATURE OF INSPECTOR

ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
	380		Mudstone - same unit as above.	2.9'		
			Mudshale - dkgy(N3) at base to med ltgy(N6) at top, with v ltgy(N8) silty lenses, hard, parallel to blocky fracture, up to 50% silt in some zones, lenticular bedded at base to wavy bedded at top, with both thick & thin lenses, abundant plant fragments, extensively bioturbated, clay ironstone bands to 0.4' thick, sharp lower contact with coal. few small brachiopods found near top.	28.1'	# 34	
	385					
					388	
					# 35	
	390					

ENG FORM 1836 (TR... CENT) 1 JUN 57 (EM ...-1801) PREVIOUS EDITIONS ARE OBSOLETE

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HOLE NO. _____

DEPARTMENT OF THE ARMY

DIVISION _____

INSTALLATION _____

DRILLING LOG

1. PROJECT		SHEET OF
2. LOCATION (Coordinates or Station)		
3. DRILLING AGENCY		
4. HOLE NO. (As shown on drawing title and file No.)	5. NAME OF DRILLER	
6. DIRECTION OF HOLE: ☐ VERTICAL ☐ INCLINED; DEGREES WITH VERTICAL	7. THICKNESS OF OVER-BURDEN	8. DEPTH DRILLED INTO ROCK / 9. TOTAL DEPTH OF HOLE
10. SIZE AND TYPE OF BIT	11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	12. MANUFACTURER'S DESIGNATION OF DRILL
13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED / UNDISTURBED	14. TOTAL NO. CORE BOXES	15. ELEV. GROUND WATER
16. DATE HOLE: STARTED / COMPLETED		
17. ELEV. TOP OF HOLE	18. TOTAL CORE RECOVERY FOR BORING (%)	19. SIGNATURE OF INSPECTOR

ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
	390		Mud shale - same unit as above.		# 35	
	395			28.1'		
					398'	
					# 36	Box #36 in reverse order!
	400					

HOLE NO. _____

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3. DRILLING AGENCY		
4. HOLE NO. (As shown on drawing title and file No.)	5. NAME OF DRILLER	
6. DIRECTION OF HOLE: ☐ VERTICAL ☐ INCLINED; DEGREES WITH VERTICAL	7. THICKNESS OF OVER-BURDEN	8. DEPTH DRILLED INTO ROCK / 9. TOTAL DEPTH OF HOLE
10. SIZE AND TYPE OF BIT	11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	12. MANUFACTURER'S DESIGNATION OF DRILL
13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED / UNDISTURBED	14. TOTAL NO. CORE BOXES	15. ELEV. GROUND WATER / 16. DATE HOLE: STARTED / COMPLETED
17. ELEV. TOP OF HOLE	18. TOTAL CORE RECOVERY FOR BORING (%)	19. SIGNATURE OF INSPECTOR

ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
	400		mudshale – same unit as above.		# 36	
				28.1'		
	405					
					408	
			Coal, blk(N1), hard, brittle, banded, mod. bright, white & yellow sulfate bloom, 0.2' clay parting 0.3' above base, sharp contacts,	1.7	# 37	0.2 clay parting 2.0' total thickness Riverton coal
				0.2		
	410			0.3		

ENG FORM 1836 1 JUN 57 (TRANSLUCENT) PREVIOUS EDITIONS ARE OBSOLETE (EM 1110-2-1801)

PROJECT _____ HOLE NO. _____

HOLE NO. _____

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INSTALLATION _____

DRILLING LOG

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7. THICKNESS OF OVER-BURDEN
8. DEPTH DRILLED INTO ROCK
9. TOTAL DEPTH OF HOLE
10. SIZE AND TYPE OF BIT
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)
12. MANUFACTURER'S DESIGNATION OF DRILL
13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED | UNDISTURBED
14. TOTAL NO. CORE BOXES
15. ELEV. GROUND WATER
16. DATE HOLE: STARTED | COMPLETED
17. ELEV. TOP OF HOLE
18. TOTAL CORE RECOVERY FOR BORING (%)
19. SIGNATURE OF INSPECTOR

ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
	410		Mudstone – medgy(N5) mod. hard, blocky frac, few silty lenses at base, silty, massive, plant frags, clay ironstone nodules, grad. lower cont.	1.4'	# 37	Underclay
			Mud-shale – dkgy(N3) w/ltgy(N8) silty lenses, hard, parallel fracture, silty, micaceous, thin horizontal laminae, lenticular bedded w/ very thin lenses, silty lenses increasing upwards, few pyritized plant frags along bedding planes, few small vertical & horizontal burrows, some brown Fe oxide stains, gradational lower contact.	6.6'		Box #37 is in reverse order!
	415				417'	
					# 38	
			Clay-shale – Same unit as below.	17.7'		
	420					

ENG FORM 1836 1 JUN 87 (TRANSLUCENT) (EM 1110-2-1801) PREVIOUS EDITIONS ARE OBSOLETE

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DIVISION _____

INSTALLATION _____

DRILLING LOG

1. PROJECT		SHEET OF
2. LOCATION (Coordinates or Station)		
3. DRILLING AGENCY		
4. HOLE NO. (As shown on drawing title and file No.)	5. NAME OF DRILLER	

6. DIRECTION OF HOLE			7. THICKNESS OF OVER-BURDEN	8. DEPTH DRILLED INTO ROCK	9. TOTAL DEPTH OF HOLE
☐ VERTICAL	☐ INCLINED	DEGREES WITH VERTICAL			
10. SIZE AND TYPE OF BIT	11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	12. MANUFACTURER'S DESIGNATION OF DRILL			

13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN		14. TOTAL NO. CORE BOXES	15. ELEV. GROUND WATER	16. DATE HOLE	
DISTURBED	UNDISTURBED			STARTED	COMPLETED
17. ELEV. TOP OF HOLE	18. TOTAL CORE RECOVERY FOR BORING (%)	19. SIGNATURE OF INSPECTOR			

ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
	420		Clay-shale — same unit as below.		# 38	Box # 38 in reversed order!
	425			17.7'		
					427'	
					# 39	
	430					

ENG FORM 1836 (TRANSLUCENT) 1 JUN 57 (EM 1110-2-1801) PREVIOUS EDITIONS ARE OBSOLETE

PROJECT _____ HOLE NO. _____

HOLE NO. _____

DEPARTMENT OF THE ARMY

DIVISION _____

INSTALLATION _____

DRILLING LOG

1. PROJECT		SHEET OF
2. LOCATION (Coordinates or Station)		
3. DRILLING AGENCY		
4. HOLE NO. (As shown on drawing title and file No.)	5. NAME OF DRILLER	
6. DIRECTION OF HOLE: ☐ VERTICAL ☐ INCLINED; DEGREES WITH VERTICAL	7. THICKNESS OF OVER-BURDEN	8. DEPTH DRILLED INTO ROCK / 9. TOTAL DEPTH OF HOLE
10. SIZE AND TYPE OF BIT	11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	12. MANUFACTURER'S DESIGNATION OF DRILL
13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED / UNDISTURBED	14. TOTAL NO. CORE BOXES	15. ELEV. GROUND WATER / 16. DATE HOLE: STARTED / COMPLETED
17. ELEV. TOP OF HOLE	18. TOTAL CORE RECOVERY FOR BORING (%)	19. SIGNATURE OF INSPECTOR

ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
	430		Clay-shale-gyblk (N2)-dk gy(N3), hard, parallel fracture, micaceous, no silt, few very small plant frags, abundant pyrite concretions to 0.2' thick and finely disseminated pyrite crystals, sharp lower contact w/coal.	17.7'	# 39	Core reversed in box.
	435		Coal, blk(N1), banded, mod. bright, crumbled, abundant sulfate bloom, sharp	1.6'	437' # 40	Unnamed Lower Coal
	440		Limestone - same unit as below.	9.7'		Mississippian Limestone

HOLE NO. _____

DEPARTMENT OF THE ARMY

DIVISION _____

INSTALLATION _____

DRILLING LOG

	1. PROJECT	SHEET OF
	2. LOCATION (Coordinates or Station)	
	3. DRILLING AGENCY	
a. HOLE NO. (As shown on drawing title and file No.)	5. NAME OF DRILLER	

6. DIRECTION OF HOLE			7. THICKNESS OF OVER-BURDEN	8. DEPTH DRILLED INTO ROCK	9. TOTAL DEPTH OF HOLE
☐ VERTICAL	☐ INCLINED	DEGREES WITH VERTICAL			

10. SIZE AND TYPE OF BIT	11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	12. MANUFACTURER'S DESIGNATION OF DRILL

13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN		14. TOTAL NO. CORE BOXES	15. ELEV. GROUND WATER	16. DATE HOLE	
DISTURBED	UNDISTURBED			STARTED	COMPLETED

17. ELEV. TOP OF HOLE	18. TOTAL CORE RECOVERY FOR BORING (%)	19. SIGNATURE OF INSPECTOR

ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	% CORE RECOVERY	BOX OR SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
	440		Limestone – v lt gy(N8) to white (N9), hard, blocky fracture, mudstone, calcareous & dolomitic, massive, extensively fractured, no fossils found, few brown & yellow Fe oxide stains, lower contact not observed.		# 40	Core in reversed stratigraphic order in box as marked.
				9.7'		Mississippian Limestone
	445					
			Bottom of core		447'	
	450					

ENG FORM 1836 (THIS SUPERSEDES PREVIOUS EDITIONS ARE OBSOLETE) 1 JUN 87 (EM 1110-2-1801)

PROJECT _____ HOLE NO. _____