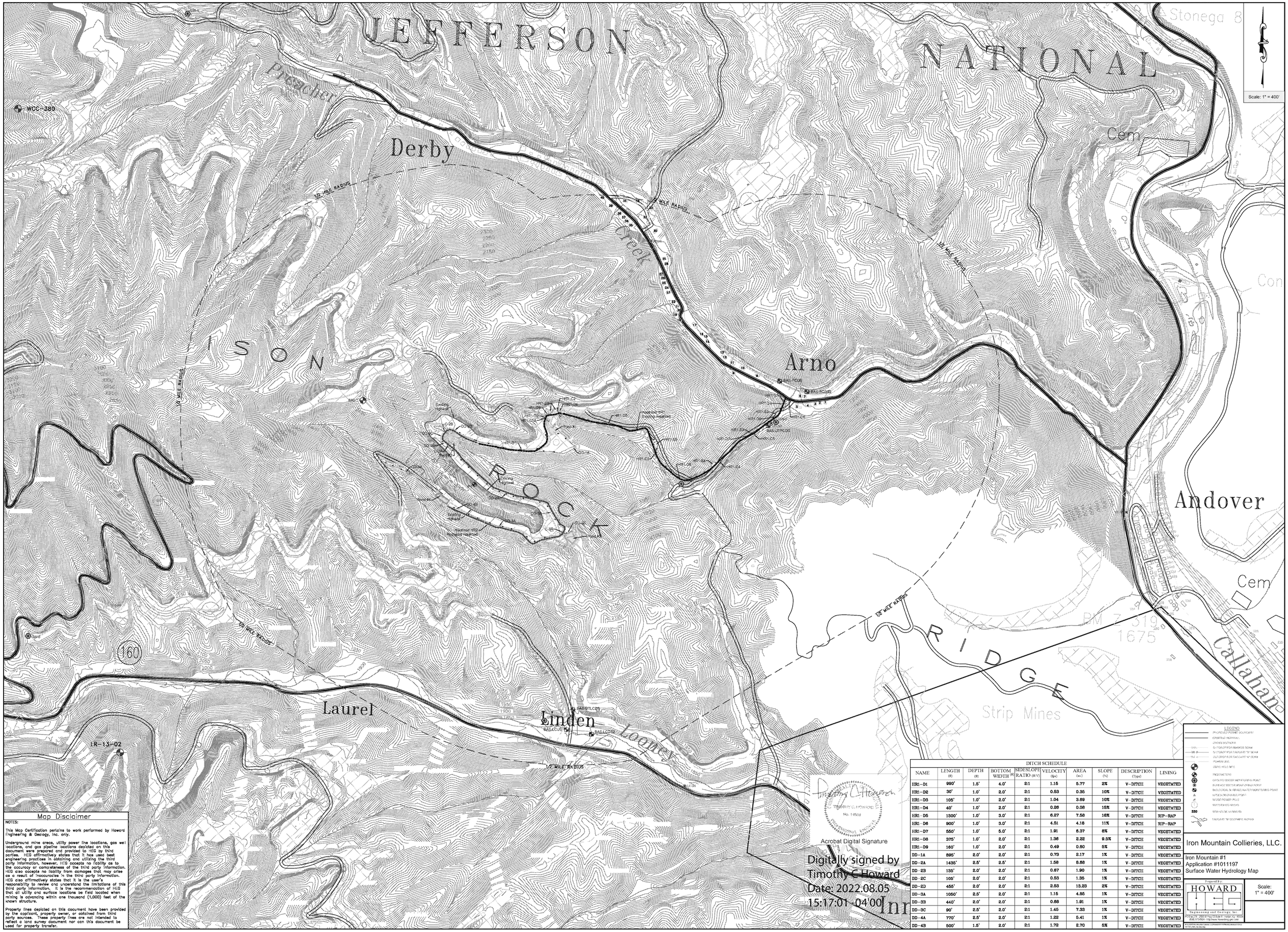

Map Disclaimer

NOTES:

This Map Certification pertains to work performed by Howard Engineering & Geology, Inc. only.

Underground mine areas, utility power line locations, gas well locations, and gas pipeline locations depicted on this document were prepared and provided to HEG by third parties. HEG affirmatively states that it has used best engineering practices in obtaining and utilizing the third party information, however, HEG accepts no liability as to the accuracy or completeness of the third party information. HEG also accepts no liability from damages that may arise as a result of inaccuracies in the third party information. HEG also affirmatively states that it is the user's responsibility to review and understand the limitations of this third party information. It is the recommendation of HEG that all utility and surface locations be field located when mining is advancing within one thousand (1,000) feet of the known structure.

Property lines depicted on this document have been provided by the applicant, property owner, or obtained from third party sources. These property lines are not intended to reflect a land survey document nor can this document be used for property transfer.

DITCH SCHEDULE

NAME	LENGTH (ft)	DEPTH (ft)	BOTTOM WIDTH (ft)	SIDESLOPE RATIO (H:V)	VELOCITY (fps)	AREA (sq)	SLOPE (%)	DESCRIPTION (Type)	LINING
HR1-D1	990'	1.5'	4.0'	2:1	1.15	5.77	2%	V-DITCH	VEGETATED
HR1-D2	30'	1.0'	2.0'	2:1	0.53	0.35	10%	V-DITCH	VEGETATED
HR1-D3	105'	1.0'	2.0'	2:1	1.04	3.69	10%	V-DITCH	VEGETATED
HR1-D4	40'	1.0'	2.0'	2:1	0.26	0.08	15%	V-DITCH	VEGETATED
HR1-D5	1300'	1.0'	3.0'	2:1	6.27	7.58	16%	V-DITCH	RIP-RAP
HR1-D6	900'	1.0'	3.0'	2:1	4.51	4.16	11%	V-DITCH	RIP-RAP
HR1-D7	550'	1.0'	5.0'	2:1	1.91	6.37	6%	V-DITCH	VEGETATED
HR1-D8	375'	1.0'	2.0'	2:1	1.36	2.22	9.5%	V-DITCH	VEGETATED
HR1-D9	160'	1.0'	2.0'	2:1	0.49	0.60	5%	V-DITCH	VEGETATED
DD-1A	895'	2.0'	2.0'	2:1	0.73	2.17	1%	V-DITCH	VEGETATED
DD-2A	1435'	2.5'	2.5'	2:1	1.58	8.88	1%	V-DITCH	VEGETATED
DD-2B	135'	2.0'	2.0'	2:1	0.67	1.90	1%	V-DITCH	VEGETATED
DD-2C	105'	2.0'	2.0'	2:1	0.53	1.35	1%	V-DITCH	VEGETATED
DD-2D	455'	2.0'	2.0'	2:1	2.53	13.23	2%	V-DITCH	VEGETATED
DD-3A	1050'	2.5'	2.0'	2:1	1.15	4.85	1%	V-DITCH	VEGETATED
DD-3B	440'	2.0'	2.0'	2:1	0.88	1.91	1%	V-DITCH	VEGETATED
DD-3C	90'	2.5'	2.0'	2:1	1.45	7.33	1%	V-DITCH	VEGETATED
DD-4A	770'	2.5'	2.0'	2:1	1.22	5.41	1%	V-DITCH	VEGETATED
DD-4B	500'	1.5'	2.0'	2:1	1.72	2.70	5%	V-DITCH	VEGETATED

LEGEND

- PROPOSED PERMIT BOUNDARY
- EXISTING HIGHWAYS
- CROSS SECTIONS
- OUTCROP FOR HAMMER SEAM
- OUTCROP FOR TAGGART SEAM
- SUBCROP FOR TAGGART SEAM
- POWER LINE
- DRILL HOLES INFO
- PIEZOMETERS
- GROUND WATER MONITORING POINT
- SURFACE WATER MONITORING POINT
- BIOLOGICAL SURFACE WATER MONITORING POINT
- NPDES DISCHARGE POINT
- WOOD POWER POLE
- WATERSHED AREAS
- 330 WSH HOUSE SERIES
- TAGGART TIP DISPOSAL WATER

Iron Mountain Collieries, LLC.

Iron Mountain #1
Application #1011197
Surface Water Hydrology Map

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Scale: 1" = 400'