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A REAL-TIME TRACER GAS ANALYZER - AN INVESTIGATIONAL TOOL FOR MINE VENTILATION STUDIES

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Table 1 - Derived results from continuous and pulse injections into stope 8260.

Test	Open Area of Regulator m ²	Type of Injection & Volume, v or \dot{v}	Steady-State Concentration C ppb	Area Under Injection Curve, C τ ppb.s	Airflow Q m ³ /s	Average Residence Time, t ₅₀ min	Stope Volume m ³	Maximum Longitudinal Velocity m/s	Minimum Longitudinal Velocity m/s	Single Air Exchange Time, T ₁₀₀ min	Anemometer Airflow m ³ /s
1.1	0.525	Continuous A.59 cc/min	10.6	N/A	7.22	61	26425	0.13	N/A**	N/A**	
1.2*	0.525	Continuous A.59 cc/min	9.2	N/A	8.32	55	27456	N/A**	N/A**	N/A**	
B	0.525	Pulse 150 cc	N/A	17863	8.40	53	26703	0.17	0.08	83	6.39
F	0.394	Pulse 160 cc	N/A	19544	7.68	56	25788	0.16	0.06	101	5.41
D	0.262	Pulse 150 cc	N/A	23004	5.37	82	26353	0.12	0.06	140	3.02
CC	0.132	Pulse 100 cc	N/A	32218	4.66	92	25700	0.10	0.04	152	1.57
E	0.034	Pulse 150 cc	N/A	46554	3.22	143	27651	0.07	0.03	237	0.45
Average							26582				

* Two distinct flow rates were present during the continuous injection.

** The results did not allow accurate determination of these values.

