

Appendix 22: 2021 Blast Monitoring Report



AGNICO EAGLE

ANNUAL REPORT MEMORANDUM

Agnico Eagle Mines Ltd - Meliadine Division, Engineering Department

SUBJECT: 2021 Meliadine Blast Monitoring Report for the Protection of Nearby Fish Habitat

1- Introduction and Objectives

In accordance with Condition 11 of Project Certificate No.006 issued by the Nunavut Impact Review Board (NIRB), Agnico Eagle Mines Ltd (Agnico Eagle) - Meliadine Division developed a Blast Monitoring Program which complies with *The Guidelines for the Use of Explosives In or Near Canadian Fisheries Water* (Wright and Hopky, 1998) as modified by the Department of Fisheries and Oceans Canada (DFO) for use in the North and adhere to guidance provided in *Monitoring Explosive-Based Winter Seismic Exploration in Waterbodies* (Cott and Hanna, 2005). As a result, Agnico Eagle conducts monitoring to evaluate blast related peak particle velocity and overpressure to protect nearby fish bearing waters.

The detonation of explosives in or near water produces compressive shock waves that can cause significant impacts to the swim bladders of fish, rupture other internal organs and/or damage or kill fish eggs and larvae. In addition, the effects of the shock waves can be intensified in the presence of ice. Consequently, the Guidelines for the Use of Explosives In or Near Canadian Fisheries Water guidelines have been developed by DFO to protect fish and fish habitat from works or undertakings that involve explosives in or near fisheries waters. Guidance provided in *Monitoring Explosive-Based Winter Seismic Exploration in Waterbodies* (Cott and Hanna, 2005) was also followed. It includes the following requirements:

1. No explosive is to be detonated in or near fish habitat that produces an instantaneous pressure change (IPC) greater than 100 kPa in the swim bladder of a fish; representatives from DFO requested that Agnico Eagle use a value of 50 kPa instead of 100 kPa; and
2. No explosive is to be detonated that produces a peak particle velocity greater than 13 mm/s in a spawning bed during the period of egg incubation (for lakes near the Meliadine mine, it takes place between August 15 and June 30).

Peak particle velocity (PPV) and overpressure monitoring data were recorded throughout 2021 during blasting activities at Meliadine. During 2021, two surface locations were monitored: Tiriganiaq Open pit 1 (TIR01) and Tiriganiaq Open pit 2 (TIR02). The locations of the blast monitoring stations used in 2021 for each area are shown in figures 1 and 2 below.

To improve vibration monitoring practices and data accuracy, permanent monitoring installations were commissioned on August 20th 2020, allowing the seismograph to be directly anchored into the bedrock via attachment to a steel rod drilled through the tundra. These permanent stations thereafter replaced the temporary locations used previously. The Level 75 (L75) Electric Bay station has always been anchored in the bedrock as it is installed underground.

Table 1: Tiriganiaq Open pits 1 & 2 (TIR01 & TIR02) Surface blast monitoring station coordinates

LOCATION	EASTING	NORTHING	DESCRIPTION
Location #1	539427.536	6988596.942	Temporary location used for TIR02
Location #2	541938.477	6989017.942	Temporary location used for TIR02
Location #3	540262.772	6988922.029	Temporary location used for TIR02
L75 Electrical Bay	539839.028	6988534.308	Permanent location used for TIR01 & TIR02
Explo Camp	541927.162	6989073.053	Permanent location used for TIR01 & TIR02 (installed 2020-08-20)
Comm Tower P1	539803.785	6988836.212	Permanent location used for TIR01 & TIR02 (installed 2020-08-20)

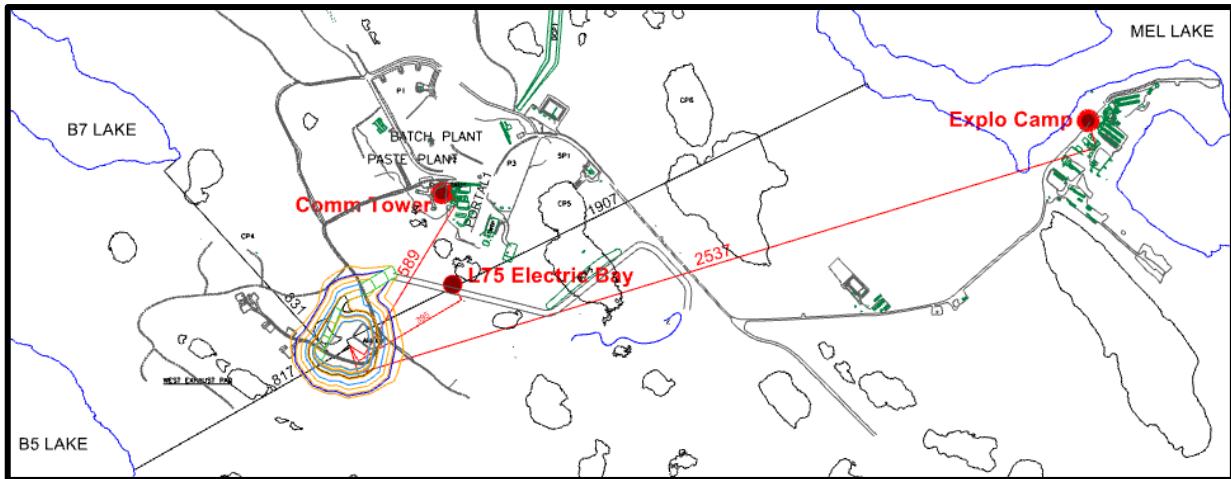


Figure 1: Surface blast monitoring station locations used for TIR01 blasts (distances in meters)

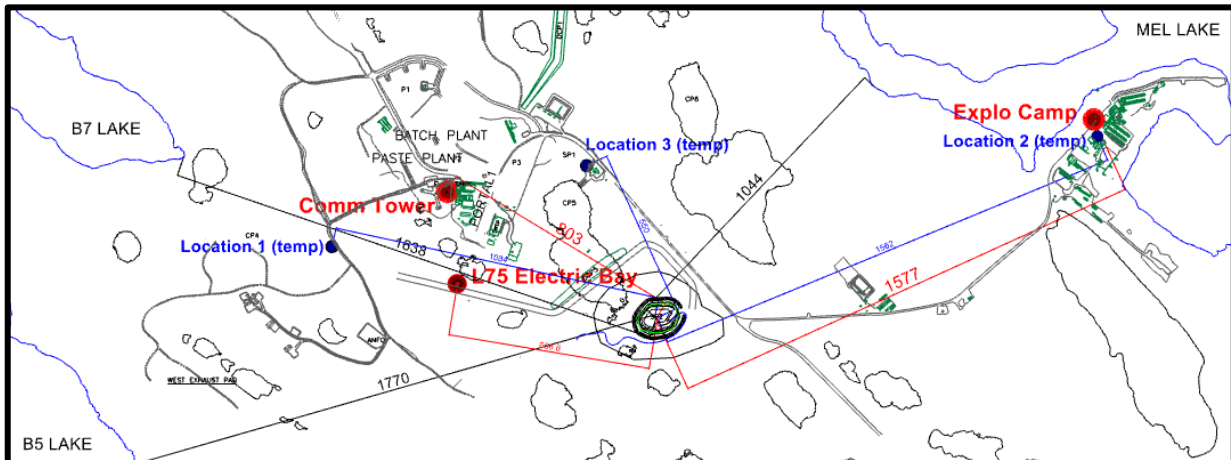


Figure 2: Surface blast monitoring station locations used for TIR02 blasts (distances in meters)

2- Methods

2.1- Blast Monitoring

Blasts were monitored using an InstanTel Minimate Blaster which is fully compliant with the international Society of Explosives and Engineers performance specifications for blasting seismographs (InstanTel, 2005). The transducer is installed as per the model specifications. For additional details on seismograph instrumentation and monitoring program detail, please refer to the Blast Monitoring Program; all monitoring protocols set forth in this program are followed by Agnico Eagle.

This instrument measures transverse, vertical and longitudinal ground vibrations. Transverse ground vibrations agitate particles in a side-to-side motion. Vertical ground vibrations agitate particles in an up and down motion. Longitudinal ground vibrations agitate particles in a back-and-forth motion progressing outward from the event site (InstanTel, 2005). The Minimate Blaster calculates the PPV for each geophone and calculates the vector sum of the three axes. The final result is the Peak Vector Sum (PVS) and is the resultant particle velocity magnitude of the event:

$$PVS = \sqrt{(T^2 + V^2 + L^2)}$$

Where:

T = particle velocity along the transverse plane

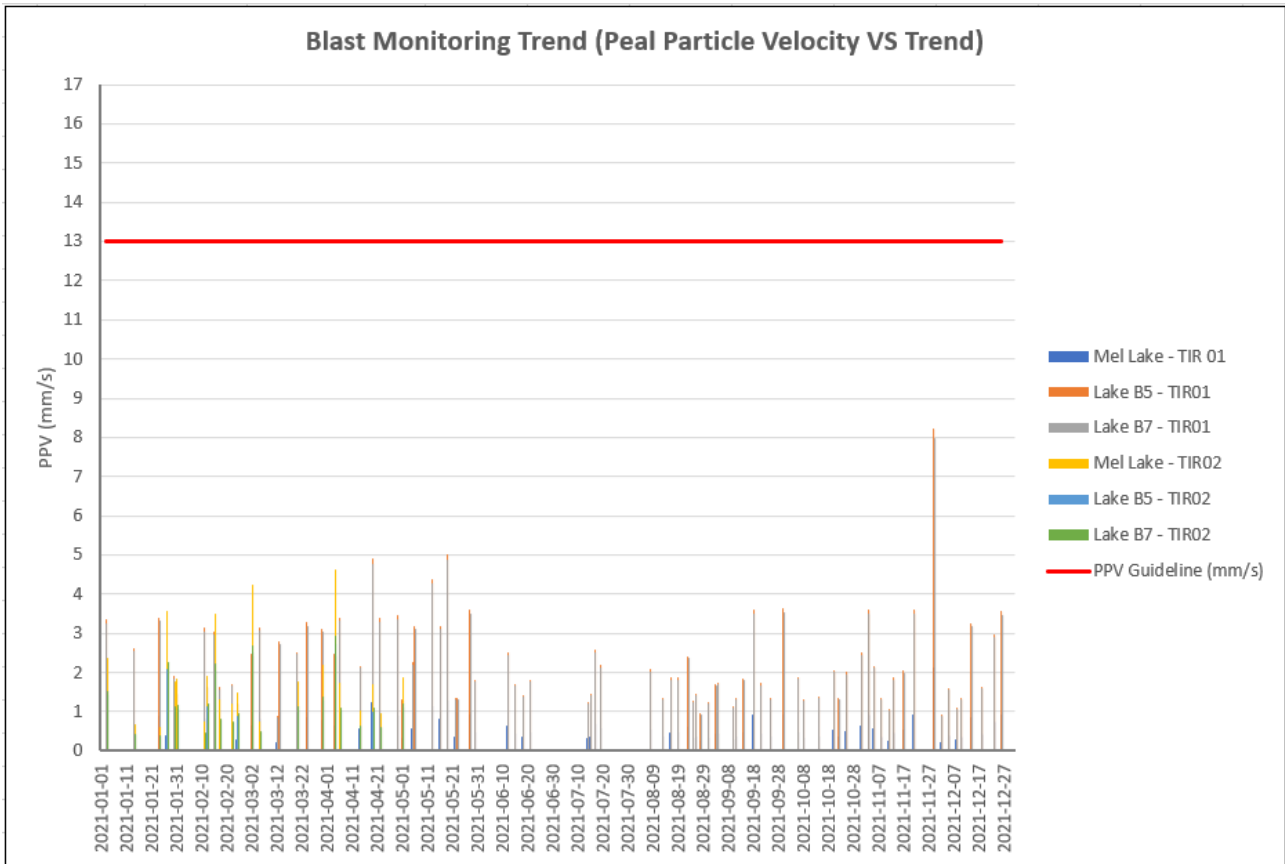
V = particle velocity along the vertical plane

L = particle velocity along the longitudinal plane

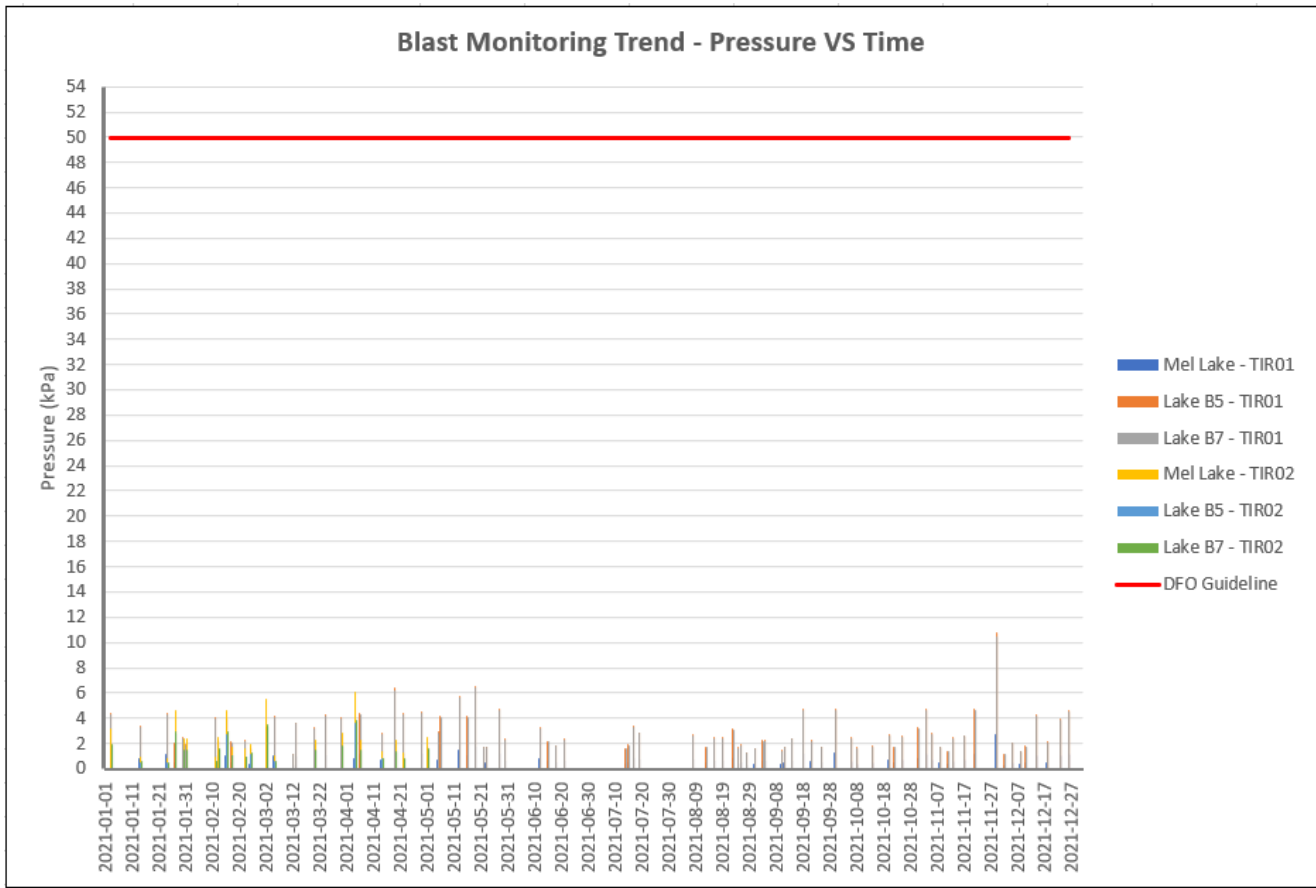
2.2- Data Compilation and Analysis

The blast monitoring data is screened to ensure blast PPV and IPC monitoring results corresponded to a single blast event. As per the Blast vibration monitoring plan, Mining Engineers & Technicians have thoroughly documented all blasting activities from design concept to final results – with include PPV and IPC measurements. If required, blasting procedure will be reviewed to ensure that the site remains within threshold limits and in continued compliance with regulations, as is part of the blast optimization process.

The following is a summary of the data collected for the two open pit operations with respect to Meliadine Lake, Lake B5 and Lake B7. These lakes were identified as the closest accessible fish bearing lakes to the blasting activities that would occur throughout 2021. Guidance may change as the footprint of the site evolves over time.



As seen in the previous chart, there are no PPV value close to the PPV threshold guideline of 13 mm/s. The average PPV value for 2021 was 1.66 mm/s, with a minimum of 0.23 mm/s and a maximum of 8.22 mm/s. The maximum value was logged during the first sinking cut blast in overburden for the phase 2 of the TIR01 pit. Without the open face and void available for blast movement, a higher value for vibration during a sinking cut is expected.



As seen in the previous chart, there are no kPa value close to the kPa DFO guideline of 50 kPa. The average kPa value for 2021 was 2.18 kPa, with a minimum of 0.3 kPa and a maximum of 10.79 kPa. The maximum value was logged during the first sinking cut blast in overburden for the phase 2 of the TIR01 pit (same blast as the maximum value for PPV). Without the open face and void available for blast movement, a higher value during a sinking cut is expected.

Table 2 - 2021 PPV and IPC Blast Monitoring Results – TIR01

DFO Limits: Peak Particle Velocity - PPV = 13, Peak Sound Pressure - kPa = 50

Date	Seismo Serial #	Location	PPV (mm/s)			Pressure Pw (kPa)		
			Mel Lake	Lake B5	Lake B7	Mel Lake	Lake B5	Lake B7
2021-01-03	MP14207	Comm tower P1	0.9	3.4	3.3	1.13	4.40	4.28
2021-01-03	MP14208	Explo camp	0.9	3.4	3.3	1.13	4.40	4.28
2021-01-14	MP14207	Comm tower P1	0.7	2.6	2.5	0.88	3.43	3.33
2021-01-14	MP14208	Explo camp	0.7	2.6	2.5	0.88	3.42	3.33
2021-01-24	MP14207	Comm tower P1	0.9	3.4	3.3	1.15	4.47	4.35
2021-01-24	MP14208	Explo camp	0.9	3.4	3.3	1.15	4.47	4.35
2021-01-27	MP14207	Comm tower P1	0.4	1.6	1.6	0.54	2.10	2.04

2021-01-27	MP14208	Comm tower P1	0.4	1.6	1.6	0.54	2.10	2.04
2021-01-30	MP14207	Comm tower P1	0.5	1.9	1.9	0.64	2.50	2.43
2021-01-30	MP14208	Explo camp	0.5	1.9	1.9	0.64	2.50	2.43
2021-01-31	MP14207	Comm tower P1	0.4	1.5	1.4	0.49	1.92	1.86
2021-01-31	MP14208	Explo camp	0.4	1.5	1.4	0.49	1.92	1.86
2021-02-11	MP14207	Comm tower P1	0.8	3.1	3.1	1.06	4.13	4.02
2021-02-11	MP14208	Explo camp	0.8	3.1	3.1	1.06	4.13	4.02
2021-02-12	MP14207	Comm tower P1	0.4	1.7	1.6	0.56	2.17	2.11
2021-02-12	MP14208	Explo camp	0.4	1.7	1.6	0.56	2.17	2.11
2021-02-15	MP14207	Comm tower P1	0.8	3.0	3.0	1.03	4.00	3.89
2021-02-15	MP14208	Explo camp	0.8	3.0	3.0	1.03	4.00	3.90
2021-02-17	MP14207	Comm tower P1	0.4	1.6	1.6	0.55	2.13	2.07
2021-02-17	MP14208	Explo camp	0.4	1.6	1.6	0.55	2.13	2.07
2021-02-22	MP14207	Comm tower P1	0.4	1.7	1.7	0.58	2.26	2.20
2021-02-22	MP14208	Explo camp	0.4	1.7	1.7	0.58	2.26	2.20
2021-02-24	MP14207	Comm tower P1	0.3	1.2	1.2	0.40	1.57	1.52
2021-02-24	MP14208	Explo camp	0.3	1.2	1.2	0.40	1.57	1.52
2021-03-02	MP14207	Comm tower P1	0.6	2.5	2.4	0.84	3.26	3.17
2021-03-02	MP14208	Explo camp	0.6	2.5	2.4	0.84	3.26	3.17
2021-03-05	MP14207	Comm tower P1	0.8	3.2	3.1	1.07	4.14	4.03
2021-03-05	MP14208	Explo camp	0.8	3.2	3.1	1.07	4.14	4.03
2021-03-12	MP14207	Comm tower P1	0.2	0.9	0.9	0.30	1.17	1.14
2021-03-12	MP14208	Explo camp	0.2	0.9	0.9	0.30	1.17	1.14
2021-03-13	MP14207	Comm tower P1	0.7	2.8	2.7	0.95	3.69	3.59
2021-03-13	MP14208	Explo camp	0.7	2.8	2.7	0.95	3.69	3.59
2021-03-20	MP14207	Comm tower P1	0.7	2.5	2.5	0.86	3.32	3.23
2021-03-20	MP14208	Explo camp	0.7	2.5	2.5	0.86	3.32	3.23
2021-03-24	MP14207	Comm tower P1	0.8	3.3	3.2	1.11	4.32	4.20
2021-03-24	MP14208	Explo camp	0.8	3.3	3.2	1.11	4.32	4.20
2021-03-30	MP14207	Comm tower P1	0.8	3.1	3.0	1.05	4.09	3.98
2021-03-30	MP14208	Explo camp	0.8	3.1	3.0	1.05	4.09	3.98
2021-04-04	MP14207	Comm tower P1	0.6	2.5	2.4	0.84	3.27	3.18
2021-04-04	MP14208	Explo camp	0.6	2.5	2.4	0.84	3.27	3.18
2021-04-06	MP14207	Comm tower P1	0.9	3.4	3.3	1.15	4.47	4.35
2021-04-06	MP14208	Explo camp	0.9	3.4	3.3	1.15	4.47	4.35
2021-04-14	MP14207	Comm tower P1	0.6	2.2	2.1	0.74	2.86	2.78
2021-04-14	MP14208	Explo camp	0.6	2.2	2.1	0.74	2.86	2.78
2021-04-19	MP14207	Comm tower P1	1.3	4.9	4.8	1.66	6.43	6.26
2021-04-19	MP14208	Explo camp	1.3	4.9	4.8	1.66	6.43	6.26

2021-04-22	MP14207	Comm tower P1	0.9	3.4	3.3	1.14	4.44	4.32
2021-04-22	MP14208	Explo camp	0.9	3.4	3.3	1.14	4.44	4.32
2021-04-29	MP14207	Comm tower P1	0.9	3.5	3.4	1.17	4.55	4.42
2021-04-29	MP14208	Explo camp	0.9	3.5	3.4	1.17	4.55	4.42
2021-05-01	MP14207	Comm tower P1	0.3	1.3	1.3	0.45	1.74	1.69
2021-05-01	MP14208	Explo camp	0.3	1.3	1.3	0.45	1.74	1.69
2021-05-05	MP14207	Comm tower P1	0.6	2.3	2.2	0.77	2.97	2.89
2021-05-05	MP14208	Explo camp	0.6	2.3	2.2	0.77	2.97	2.89
2021-05-06	MP14207	Comm tower P1	0.8	3.2	3.1	1.08	4.20	4.09
2021-05-06	MP14208	Explo camp	0.8	3.2	3.1	1.08	4.20	4.09
2021-05-13	MP14207	Comm tower P1	0.8	3.1	3.0	1.05	4.09	3.98
2021-05-13	MP14208	Explo camp	0.8	3.1	3.0	1.05	4.09	3.98
2021-05-13	MP14207	Comm tower P1	1.1	4.4	4.3	1.48	5.75	5.60
2021-05-13	MP14208	Explo camp	1.1	4.4	4.3	1.48	5.75	5.60
2021-05-16	MP13824	Comm tower P1	0.8	3.2	3.1	1.08	4.19	4.08
2021-05-16	MP14208	Explo camp	0.8	3.2	3.1	1.08	4.19	4.08
2021-05-19	MP13824	Comm tower P1	1.3	5.0	4.9	1.70	6.60	6.42
2021-05-19	MP14208	Explo camp	1.3	5.0	4.9	1.70	6.60	6.42
2021-05-22	MP13824	Comm tower P1	0.3	1.4	1.3	0.46	1.78	1.73
2021-05-22	MP14208	Explo camp	0.3	1.4	1.3	0.46	1.78	1.73
2021-05-23	MP13824	Comm tower P1	0.3	1.4	1.3	0.46	1.78	1.73
2021-05-23	MP14208	Explo camp	0.3	1.4	1.3	0.46	1.78	1.73
2021-05-28	MP13824	Comm tower P1	0.9	3.6	3.5	1.22	4.73	4.60
2021-05-28	MP14208	Explo camp	0.9	3.6	3.5	1.22	4.73	4.60
2021-05-30	MP13824	Comm tower P1	0.5	1.8	1.8	0.61	2.37	2.31
2021-05-30	MP14208	Explo camp	0.5	1.8	1.8	0.61	2.37	2.31
2021-06-12	MP13824	Comm tower P1	0.7	2.5	2.5	0.86	3.32	3.23
2021-06-12	MP14208	Explo camp	0.7	2.5	2.5	0.86	3.32	3.23
2021-06-15	MP13824	Comm tower P1	0.4	1.7	1.7	0.58	2.23	2.17
2021-06-15	MP14208	Explo camp	0.4	1.7	1.7	0.58	2.23	2.17
2021-06-18	MP13824	Comm tower P1	0.4	1.4	1.4	0.48	1.88	1.83
2021-06-18	MP14208	Explo camp	0.4	1.4	1.4	0.48	1.88	1.83
2021-06-21	MP13824	Comm tower P1	0.5	1.8	1.8	0.61	2.37	2.31
2021-06-21		Explo camp	0.5	1.8	1.8	0.61	2.37	2.31
2021-07-14	MP13824	Comm tower P1	0.3	1.3	1.2	0.42	1.64	1.60
2021-07-14		Explo camp	0.3	1.3	1.2	0.42	1.64	1.60
2021-07-15	MP13824	Comm tower P1	0.4	1.5	1.4	0.50	1.93	1.88
2021-07-15		Explo camp	0.4	1.5	1.4	0.50	1.93	1.88
2021-07-17	MP13824	Comm tower P1	0.7	2.6	2.5	0.88	3.41	3.32

2021-07-17		Explo camp	0.7	2.6	2.5	0.88	3.41	3.32
2021-07-19	MP13824	Comm tower P1	0.6	2.2	2.1	0.75	2.89	2.82
2021-07-19		Explo camp	0.6	2.2	2.1	0.75	2.89	2.82
2021-08-08	MP13824	Comm tower P1	0.5	2.1	2.0	0.71	2.74	2.67
2021-08-08		Explo camp	0.5	2.1	2.0	0.71	2.74	2.67
2021-08-13	MP14206	Comm tower P1	0.3	1.4	1.3	0.46	1.78	1.73
2021-08-13	MP14207	Explo camp	0.4	1.4	1.3	0.46	1.79	1.74
2021-08-16	MP14206	Comm tower P1	0.5	1.9	1.8	0.63	2.46	2.40
2021-08-16	MP14207	Explo camp	0.5	1.9	1.8	0.63	2.46	2.40
2021-08-19	MP14206	Comm tower P1	0.5	1.9	1.8	0.63	2.46	2.40
2021-08-19	MP14207	Explo camp	0.5	1.9	1.8	0.63	2.46	2.40
2021-08-23	MP14206	Comm tower P1	0.6	2.4	2.4	0.82	3.18	3.10
2021-08-23	MP14207	Explo camp	0.6	2.4	2.4	0.82	3.18	3.10
2021-08-25	MP14206	Comm tower P1	0.3	1.3	1.2	0.43	1.69	1.64
2021-08-25	MP14207	Explo camp	0.3	1.3	1.2	0.43	1.69	1.64
2021-08-26	MP14206	Comm tower P1	0.4	1.5	1.4	0.50	1.92	1.87
2021-08-26	MP14207	Explo camp	0.4	1.5	1.4	0.50	1.92	1.87
2021-08-28	MP14206	Comm tower P1	0.2	1.0	0.9	0.33	1.26	1.23
2021-08-28	MP14207	Explo camp	0.2	1.0	0.9	0.33	1.26	1.23
2021-08-31	MP14206	Comm tower P1	0.3	1.2	1.2	0.42	1.64	1.59
2021-08-31	MP14207	Explo camp	0.3	1.2	1.2	0.42	1.64	1.59
2021-09-03	MP14206	Comm tower P1	0.4	1.7	1.7	0.58	2.24	2.18
2021-09-03	MP14207	Explo camp	0.4	1.7	1.7	0.58	2.24	2.18
2021-09-04	MP14206	Comm tower P1	0.4	1.7	1.7	0.59	2.29	2.23
2021-09-04	MP14207	Explo camp	0.4	1.7	1.7	0.59	2.29	2.23
2021-09-10	MP14206	Comm tower P1	0.3	1.1	1.1	0.38	1.49	1.45
2021-09-10	MP14207	Explo camp	0.3	1.1	1.1	0.38	1.49	1.45
2021-09-11	MP14206	Comm tower P1	0.3	1.4	1.3	0.46	1.78	1.73
2021-09-11	MP14207	Explo camp	0.3	1.4	1.3	0.46	1.78	1.73
2021-09-14	MP14206	Comm tower P1	0.5	1.9	1.8	0.63	2.44	2.38
2021-09-14	MP14207	Explo camp	0.5	1.9	1.8	0.63	2.44	2.38
2021-09-18	MP14206	Comm tower P1	0.9	3.6	3.5	1.22	4.73	4.60
2021-09-18	MP14207	Explo camp	0.9	3.6	3.5	1.22	4.73	4.60
2021-09-21	MP14206	Comm tower P1	0.4	1.7	1.7	0.58	2.26	2.20
2021-09-21	MP14207	Explo camp	0.4	1.7	1.7	0.58	2.26	2.20
2021-09-25	MP14206	Comm tower P1	0.3	1.4	1.3	0.46	1.78	1.73
2021-09-25	MP14207	Explo camp	0.3	1.4	1.3	0.46	1.78	1.73
2021-09-30	MP14206	Comm tower P1	0.9	3.6	3.5	1.23	4.78	4.65
2021-09-30	MP14207	Explo camp	0.9	3.6	3.5	1.23	4.78	4.65

2021-10-06	MP14206	Comm tower P1	0.5	1.9	1.8	0.64	2.49	2.42
2021-10-06	MP14207	Explo camp	0.5	1.9	1.8	0.64	2.49	2.42
2021-10-08	MP14206	Comm tower P1	0.3	1.3	1.3	0.44	1.71	1.66
2021-10-08	MP14207	Explo camp	0.3	1.3	1.3	0.44	1.71	1.66
2021-10-14	MP14206	Comm tower P1	0.4	1.4	1.4	0.47	1.83	1.78
2021-10-14	MP14207	Explo camp	0.4	1.4	1.4	0.47	1.83	1.78
2021-10-20	MP14206	Comm tower P1	0.5	2.1	2.0	0.70	2.72	2.65
2021-10-20	MP14207	Explo camp	0.5	2.1	2.0	0.70	2.72	2.65
2021-10-22	MP14206	Comm tower P1	0.3	1.4	1.3	0.46	1.78	1.73
2021-10-22	MP14207	Explo camp	0.3	1.4	1.3	0.46	1.78	1.73
2021-10-25	MP14206	Comm tower P1	0.5	2.0	2.0	0.68	2.64	2.57
2021-10-25	MP14207	Explo camp	0.5	2.0	2.0	0.68	2.64	2.57
2021-10-31	MP14206	Comm tower P1	0.6	2.5	2.5	0.85	3.31	3.22
2021-10-31	MP14207	Explo camp	0.6	2.5	2.5	0.85	3.31	3.22
2021-11-03	MP14206	Comm tower P1	0.9	3.6	3.5	1.22	4.73	4.60
2021-11-03	MP14207	Explo camp	0.9	3.6	3.5	1.22	4.73	4.60
2021-11-05	MP14206	Comm tower P1	0.6	2.2	2.1	0.73	2.85	2.78
2021-11-05	MP14207	Explo camp	0.6	2.2	2.1	0.74	2.85	2.78
2021-11-08	MP14206	Comm tower P1	0.3	1.4	1.3	0.46	1.78	1.73
2021-11-08	MP14207	Explo camp	0.3	1.4	1.3	0.46	1.78	1.73
2021-11-11	MP14206	Comm tower P1	0.3	1.1	1.0	0.36	1.39	1.35
2021-11-11	MP14207	Explo camp	0.3	1.1	1.0	0.36	1.39	1.35
2021-11-13	MP14206	Comm tower P1	0.5	1.9	1.8	0.63	2.46	2.40
2021-11-13	MP14207	Explo camp	0.5	1.9	1.8	0.63	2.46	2.40
2021-11-17	MP14206	Comm tower P1	0.5	2.0	2.0	0.69	2.68	2.61
2021-11-17	MP14207	Explo camp	0.5	2.0	2.0	0.69	2.68	2.61
2021-11-21	MP14206	Comm tower P1	0.9	3.6	3.5	1.22	4.73	4.60
2021-11-21	MP14207	Explo camp	0.9	3.6	3.5	1.22	4.73	4.60
2021-11-29	MP14206	Comm tower P1	2.1	8.2	8.0	2.78	10.79	10.50
2021-11-29	MP14207	Explo camp	2.1	8.2	8.0	2.78	10.79	10.50
2021-12-02	MP14206	Comm tower P1	0.2	0.9	0.9	0.31	1.21	1.18
2021-12-02	MP14207	Explo camp	0.2	0.9	0.9	0.31	1.21	1.18
2021-12-05	MP14206	Comm tower P1	0.4	1.6	1.6	0.54	2.11	2.05
2021-12-05	MP14207	Explo camp	0.4	1.6	1.6	0.54	2.11	2.05
2021-12-08	MP14206	Comm tower P1	0.3	1.1	1.1	0.37	1.45	1.41
2021-12-08	MP14207	Explo camp	0.3	1.1	1.1	0.37	1.45	1.41
2021-12-10	MP14206	Comm tower P1	0.4	1.4	1.3	0.46	1.80	1.75
2021-12-10	MP14207	Explo camp	0.4	1.4	1.3	0.46	1.80	1.75
2021-12-14	MP14206	Comm tower P1	0.8	3.3	3.2	1.10	4.28	4.17

2021-12-14	MP14207	Explo camp	0.8	3.3	3.2	1.10	4.28	4.17
2021-12-18	MP14206	Comm tower P1	0.4	1.6	1.6	0.55	2.15	2.10
2021-12-18	MP14207	Explo camp	0.4	1.6	1.6	0.55	2.15	2.10
2021-12-23	MP14206	Comm tower P1	0.8	3.0	2.9	1.01	3.92	3.82
2021-12-23	MP14207	Explo camp	0.8	3.0	2.9	1.01	3.92	3.82
2021-12-26	MP14206	Comm tower P1	0.9	3.6	3.5	1.21	4.69	4.56
2021-12-26	MP14207	Explo camp	0.9	3.6	3.5	1.21	4.69	4.56

Note: Zero value occur when the blast levels are too low to trigger the seismograph.

Table 3 - 2021 PPV and IPC Blast Monitoring Results – TIR02

DFO Limits: Peak Particle Velocity - PPV = 13, Peak Sound Pressure - kPa = 50

Date	Seismo Serial #	Location	PPV (mm/s)			Pressure Pw (kPa)		
			Mel Lake	Lake B5	Lake B7	Mel Lake	Lake B5	Lake B7
2020-04-09	20235	Seismo Location #1	-	-	-	-	-	-
2021-01-03	MP14206	L75 Electrical Bay	1.9	1.1	1.2	2.45	1.44	1.56
2021-01-03	MP14207	Comm tower P1	2.4	1.4	1.5	3.14	1.85	2.00
2021-01-03	MP14208	Explo camp	0.0	0.0	0.0	-	-	-
2021-01-07	MP14207	Comm tower P1	0.7	0.4	0.4	0.90	0.53	0.57
2021-01-07	MP14208	Explo camp	0.0	0.0	0.0	-	-	-
2021-01-09	MP14207	Comm tower P1	0.6	0.4	0.4	0.82	0.48	0.52
2021-01-09	MP14208	Explo camp	0.0	0.0	0.0	-	-	-
2021-01-10	MP14207	Comm tower P1	3.6	2.1	2.3	4.69	2.77	2.99
2021-01-10	MP14208	Explo camp	0.0	0.0	0.0	-	-	-
2021-01-19	MP14207	Comm tower P1	1.8	1.1	1.1	2.35	1.39	1.50
2021-01-19	MP14208	Explo camp	1.3	0.8	0.8	1.72	1.01	1.10
2021-01-25	MP14207	Comm tower P1	1.8	1.1	1.2	2.41	1.42	1.54
2021-01-25	MP14208	Explo camp	0.0	0.0	0.0	-	-	-
2021-01-25	MP14206	L75 Electrical Bay	0.8	0.4	0.5	1.00	0.59	0.63
2021-02-08	MP14207	Comm tower P1	1.9	1.1	1.2	2.51	1.48	1.60
2021-02-08	MP14208	Explo camp	0.0	0.0	0.0	-	-	-
2021-02-08	MP14206	L75 Electrical Bay	0.8	0.4	0.5	1.00	0.59	0.64
2021-02-10	MP14207	Comm tower P1	3.5	2.1	2.2	4.60	2.71	2.93
2021-02-10	MP14208	Explo camp	0.0	0.0	0.0	-	-	-
2021-02-10	MP14206	L75 Electrical Bay	1.3	0.8	0.8	1.72	1.01	1.10
2021-02-18	MP14206	L75 Electrical Bay	0.5	0.3	0.3	0.62	0.37	0.40

2021-02-18	MP14207	Comm tower P1	1.2	0.7	0.8	1.57	0.93	1.00
2021-02-18	MP14208	Explo camp	0.0	0.0	0.0	-	-	-
2021-02-20	MP14206	L75 Electrical Bay	1.5	0.9	1.0	1.96	1.16	1.25
2021-02-20	MP14207	Comm tower P1	4.2	2.5	2.7	5.57	3.29	3.55
2021-02-20	MP14208	Explo camp	0.0	0.0	0.0	-	-	-
2021-02-28	MP14206	L75 Electrical Bay	0.0	0.0	0.0	-	-	-
2021-02-28	MP14207	Comm tower P1	0.8	0.5	0.5	1.01	0.60	0.64
2021-02-28	MP14208	Explo camp	0.0	0.0	0.0	-	-	-
2021-03-04	MP14206	L75 Electrical Bay	0.0	0.0	0.0	-	-	-
2021-03-04	MP14207	Comm tower P1	0.0	0.0	0.0	-	-	-
2021-03-04	MP14208	Explo camp	0.0	0.0	0.0	-	-	-
2021-03-08	MP14206	L75 Electrical Bay	0.0	0.0	0.0	-	-	-
2021-03-08	MP14207	Comm tower P1	1.8	1.0	1.1	2.33	1.37	1.49
2021-03-08	MP14208	Explo camp	0.0	0.0	0.0	-	-	-
2021-03-11	MP14206	L75 Electrical Bay	0.0	0.0	0.0	-	-	-
2021-03-11	MP14207	Comm tower P1	2.2	1.3	1.4	2.88	1.70	1.84
2021-03-11	MP14208	Explo camp	0.0	0.0	0.0	-	-	-
2021-04-01	MP14207	Comm tower P1	4.6	2.7	2.9	6.07	3.58	3.87
2021-04-01	MP14208	Explo camp	1.4	0.8	0.9	1.87	1.10	1.19
2021-04-22	MP14207	Comm tower P1	1.8	1.0	1.1	2.30	1.36	1.47
2021-04-22	MP14208	Explo camp	0.0	0.0	0.0	-	-	-
2021-05-02	MP14207	Comm tower P1	1.0	0.6	0.7	1.36	0.80	0.87
2021-05-02	MP14208	Explo camp	0.0	0.0	0.0	-	-	-
2021-05-05	MP14207	Comm tower P1	1.7	1.0	1.1	2.25	1.33	1.44
2021-05-05	MP14208	Explo camp	0.0	0.0	0.0	-	-	-
2021-05-16	MP13824	Comm tower P1	1.0	0.6	0.6	1.27	0.75	0.81
2021-05-16	MP14208	Explo camp	0.0	0.0	0.0	-	-	-
2021-05-31	MP13824	Comm tower P1	0.0	0.0	0.0	-	-	-
2021-05-31	MP14208	Explo camp	0.0	0.0	0.0	-	-	-
2021-06-07	MP13824	Comm tower P1	1.9	1.1	1.2	2.47	1.46	1.57
2021-06-07	MP14208	Explo camp	0.0	0.0	0.0	-	-	-

Note: Zero value occur when the blast levels are too low to trigger the seismograph.