

प्रेषक,

निदेशक,

भूतत्व एवं खनिकर्म निदेशालय, उ०प्र०,
"खनिज भवन," लखनऊ।

सेवा में,

कन्सल्टेन्ट ज्युडिशियल,

माननीय राष्ट्रीय हरित अधिकरण,

नई दिल्ली।

संख्या: 152/एम०-एन०जी०टी०-वाद मीरजापुर/2022

दिनांक 24 अप्रैल, 2024

विषय:—मा० राष्ट्रीय हरित अधिकरण, नई दिल्ली के समक्ष विचाराधीन ओ०ए० संख्या-521 वर्ष 2022 सम्पूर्णानन्द बनाम उ०प्र० राज्य व अन्य में पारित आदेश दिनांक 12.03.2024 का अनुपालन सुनिश्चित कराये जाने के सम्बन्ध में।

महोदय,

कृपया अवगत कराना है कि माननीय राष्ट्रीय हरित अधिकरण, नई दिल्ली में योजित ओ०ए० संख्या-521/2022 सम्पूर्णानन्द बनाम उ०प्र० राज्य व अन्य में पारित आदेश दिनांक 12.03.2024 के संगत प्रभावी अंश निम्नवत् है:—

7.....“Ms. Mala Srivastava, Director, Geology and Mining, Uttar Pradesh, Ms. Priyanka Niranjana, District Magistrate, Mirzapur seek time to look into the aspects and file action taken reports.

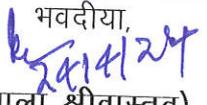
8. Action taken reports be filed by Ms. Mala Srivastava, Director, Geology and Mining, Uttar Pradesh and Ms. Priyanka Niranjana, District Magistrate, Mirzapur within one month by email at judicial-ngt@gov.in preferably in the form of searchable PDF/OCR Support PDF and not in the form of Image PDF”.....

.....“21. The Director Mining and Geology, Uttar Pradesh shall take remedial action for cancellation/modification of the leases which are found close to Jargo Dam and UPPCB shall take action regarding ordering of closure/revocation of closure in view of non-compliance/compliance with the EC and consent conditions. The SEIAA will be the nodal agency for coordination and compliance in this regard.”

मा० राष्ट्रीय हरित अधिकरण, नई दिल्ली द्वारा पारित उपरोक्त आदेश के अनुपालन में Response का आलेख तैयार कर इस पत्र के साथ संलग्न कर प्रेषित है।

अतः अनुरोध है कि संलग्न Response के आलेख में वर्णित तथ्यों से मा० राष्ट्रीय हरित अधिकरण, नई दिल्ली को अवगत कराने का कष्ट करें।

संलग्नक-यथोपरि।

भवदीया,

(माला श्रीवास्तव)
निदेशक।

संख्या: — /एम०-एन०जी०टी०-वाद मीरजापुर/2022 तद्दिनांक।

प्रतिलिपि:—श्री मुकेश वर्मा, स्थायी अधिकता, मा० राष्ट्रीय हरित अधिकरण, नई दिल्ली को इस आशय से प्रेषित की प्रकरण में नियत तिथि पर वर्णित स्थिति से मा० राष्ट्रीय हरित अधिकरण को अवगत कराने तथा वाद में प्रभावी पैरवी किया जाना सुनिश्चित करें।


(माला श्रीवास्तव)
निदेशक।

समक्ष माननीय राष्ट्रीय हरित अधिकरण,
प्रधान पीठ, नई दिल्ली।

औरिजिनल अप्लीकेशन नम्बर-521 वर्ष 2022

सम्पूर्णानन्द.....

.....वादी

बनाम

उ0प्र0 राज्य व अन्य.....

.....प्रतिवादी

निदेशक, भूतत्व एवं खनिकर्म निदेशालय, उ0प्र0, खनिज भवन, लखनऊ की ओर से
Response-

1. माननीय राष्ट्रीय हरित अधिकरण, नई दिल्ली में योजित ओ0ए0 संख्या-521/2022 सम्पूर्णानन्द बनाम उ0प्र0 राज्य व अन्य में पारित आदेश दिनांक 12.03.2024 के संगत प्रभावी अंश निम्नवत् है:-

7.....“Ms. Mala Srivastava, Director, Geology and Mining, Uttar Pradesh, Ms. Priyanka Niranjana, District Magistrate, Mirzapur seek time to look into the aspects and file action taken reports.

8. Action taken reports be filed by Ms. Mala Srivastava, Director, Geology and Mining, Uttar Pradesh and Ms. Priyanka Niranjana, District Magistrate, Mirzapur within one month by email at judicial-ngt@gov.in preferably in the form of searchable PDF/OCR Support PDF and not in the form of Image PDF”.....

.....”21. The Director Mining and Geology, Uttar Pradesh shall take remedial action for cancellation/modification of the leases which are found close to Jargo Dam and UPPCB shall take action regarding ordering of closure/revocation of closure in view of non-compliance/ compliance with the EC and consent conditions. The SEIAA will be the nodal agency for coordination and compliance in this regard.....”

2. मा0 राष्ट्रीय हरित अधिकरण, नई दिल्ली द्वारा पारित उपरोक्त आदेश के सम्बन्ध में आख्या निम्नवत् है:-

2.1 बिन्दु संख्या-7 के सम्बन्ध में अवगत कराना है कि मा0 राष्ट्रीय हरित अधिकरण, नई दिल्ली द्वारा गठित संयुक्त समिति के अनुशंसा के बिन्दु संख्या-“5.1 Out of 40 leases, few leases were found operational approx 500 to 600 meter, close to exiting jargo dam (constructed in 1958, hold 3 lakhs cusec water and only source to irrigate around 1000 acres' agricultural land), need to be re-evaluated in light of continuous blasting activity in area.” के संबंध में भूतत्व एवं खनिकर्म विभाग, उ0प्र0 शासन, लखनऊ के कार्यालय ज्ञाप सं0 86-01005 (099)/2/2023 दिनांक 06.02.2024 जिसके द्वारा Jargo Dam के आस-पास खनन एवं ब्लास्टिंग गतिविधियों के कारण Dam के स्थायित्व पर पड़ने वाले प्रभाव तथा उसके आधार पर Dam Buffer Zone निर्धारित किये जाने हेतु शासन स्तर से 06 सदस्यीय विशेषज्ञ समिति का गठन किया गया है। उक्त के क्रम में जिलाधिकारी कार्यालय, मीरजापुर के आदेश पत्र सं0-8039/एम0एम0सी0-30 दिनांक 12.02.2024 द्वारा जनपद स्तर पर विशेषज्ञ समिति का गठन किया गया है। जिलाधिकारी मीरजापुर से प्राप्त आख्या दिनांक 23.04.2024 (संलग्नक-1) के साथ संलग्न गठित विशेषज्ञ समिति की आख्या दिनांक 26.03.2024 प्रस्तुत की गयी, जिसमें उल्लिखित है कि “स्थलीय जॉच के दौरान Jargo Dam के आस-पास खनन एवं ब्लास्टिंग गतिविधियों के कारण Dam के स्थायित्व पर पड़ने वाले प्रभाव तथा उसके आधार पर Dam Buffer Zone निर्धारित किये जाने हेतु सीएमपीडीआई राँची, झारखण्ड को आर0बी0पी0 इण्डस्ट्रीज प्रा0लि0 निदेशक श्री राजेश भाई पटेल की खदान ग्राम भगौती देई आ0सं0 180/2 रकबा 2.023 हे0 क्षेत्र में 03 Round Blasting कर vibration की माप किये जाने की संस्तुति की गयी। समिति द्वारा की गयी संस्तुति के क्रम में जिलाधिकारी मीरजापुर के पत्र संख्या-40/एम0एम.सी0-30/डी0एम0एफ/2023-24 दिनांक 05.04.2024 द्वारा सी0एम0पी0डी0आई0 राँची से आर0बी0पी0 इण्डस्ट्रीज प्रा0लि0 के खदान पर ब्लास्टिंग के कारण वाइब्रेशन स्टडी हेतु आदेश निर्गत किया गया जिसके क्रम में गठित विशेषज्ञ समिति द्वारा संयुक्त आख्या दिनांक 20.04.2024 (संलग्नक-2) प्रस्तुत की गयी, जिसमें निष्कर्ष निम्नवत् है :-

As per briefing by Senior Manager, CMPDI (HQ), Ranchi, the following were deliberated in detail and decided in the Meeting:

1. All the licensed building/ sandstone mine is at more than 500m from the Jargo Dam.
2. From the study by CMPDI, it is clear that working can be safely extended beyond 300m from nearby Dam/villages/hutments or dwellings etc. by strictly following the recommended blast patterns as given in CMPDI Vibration Study report.
3. As per Metalliferous Mines Regulation, 1961 “The entire Area falling within a radius of 300m from the place of firing is called Danger Zone”. So, Jargo Dam is out of danger zone (ie. 300m) from all the licensed building/ sandstone mine. The advancement of Mine was in opposite direction of the Mine.
4. As per act 5.5.2.3. of Indian Standard, Inspection and Maintenance of Dam and Appurtenant structures guidelines (First Revision) IS 9296:2001, Any construction is prohibited within the area of 200m from Dam.

Additional District Manager said that all committee Members are agreed on the point:

The entire Area falling within a radius of 300m from the Jargo Dam will be “Dam Buffer Zone”

All the Committee Members have unanimously agreed on the above point and the same shall be incorporated in the committee Report.”

- 5.2 State mining department have to obtaine “No Objection Certificate” from state irrigation department before grant of lease near Jargo Dam. के सम्बन्ध में अवगत कराना है कि जनपद मीरजापुर में जार्गो डैम के निकट खनन पट्टों की स्वीकृति से पूर्व जनपद स्तर पर सिंचाई विभाग से अनापत्ति प्राप्त करने के उपरान्त स्वीकृति दी जा सकती है। इस सम्बन्ध में जिलाधिकारी, मीरजापुर को निदेशालय के पत्र संख्या-148/एम0-एन0जी0टी0-वाद/2022 दिनांक 24.04.2024 (संलग्नक-3) द्वारा सिंचाई विभाग से अनापत्ति प्रमाण पत्र प्राप्त कर आवश्यक कार्यवाही किये जाने हेतु निर्देशित किया गया है।
- 5.3 State Government shall constitute expert committee (Dam expert, Blasting expert etc) to assess the impact of mining and blasting activity (Blasting impact study) on the Jargo Dam and its stability, based on the finding state government may declare buffer zone, where mining etc will be completely prohibited. के सम्बन्ध में अवगत कराना है कि “भूतत्व एवं खनिकर्म विभाग, उ0प्र0 शासन, लखनऊ के कार्यालय ज्ञाप सं0 86-01005 (099)/2/2023 दिनांक 06.02.2024 जिसके द्वारा Jargo Dam के आस-पास खनन एवं ब्लास्टिंग गतिविधियों के कारण Dam के स्थायित्व पर पड़ने वाले प्रभाव तथा उसके आधार पर Dam Buffer Zone निर्धारित किये जाने हेतु शासन स्तर से 06 सदस्यीय विशेषज्ञ समिति का गठन किया गया है। उक्त गठित समिति की जाच आख्या दिनांक 20.04.2024 को प्रस्तुत की गयी है।
- 5.4 Strict monitoring system can be developed including uses of drone survey etc for better compliance. के सम्बन्ध में अवगत कराना है कि खनन पट्टों की जाँच हेतु drone survey कराये जाने की कार्यवाही प्रचलित है।
- 5.5 DGPS Survey agencies are not empaneled by UP-DGM, it is required to empaneled with UP-DGM. के सम्बन्ध में अवगत कराना है कि डी0जी0पी0एस0 सर्वे कराये जाने हेतु निदेशालय के पत्र संख्या-2480/एम0-एन0जी0टी0 वाद मीरजापुर/2023 दिनांक 14.03.2024 (संलग्नक-4), द्वारा निदेशक, आई0आई0टी0, बी0एच0यू0, निदेशक, आई0आई0टी0, कानपुर, निदेशक, आई0आई0टी0, रूड़की को पत्र प्रेषित कर अपनी संस्था द्वारा डी0जी0पी0एस0 सर्वे कराये जाने हेतु प्रस्ताव निदेशालय को उपलब्ध कराने का अनुरोध किया गया था। प्रोफेसर अनुराग ओहरी, आई0आई0टी0, बी0एच0यू0 के पत्र दिनांक 22.03.2024 द्वारा यह अवगत कराया गया है कि उनकी संस्था डी0जी0पी0एस0 सर्वे कराये जाने हेतु तकनीकी रूप से सक्षम है। श्री ओंकार दीक्षित, आई0आई0टी0 कानपुर के पत्र दिनांक 11.04.2024 द्वारा यह अवगत कराया गया है कि उनकी संस्था डी0जी0पी0एस0 के माध्यम से अनुसंधान एवं विकास कार्यो हेतु डाटा एकत्रीकरण एवं ट्रेनिंग उपलब्ध कराने का कार्य कराने में सक्षम है। प्राप्त प्रस्ताव विचाराधीन है।
- गठित संयुक्त समिति के अनुशंसा के बिन्दु संख्या-5.6 Capacity Building of the State DGM is required for approval of mining plan documents and subsequently its monitoring. के सम्बन्ध में अवगत कराना है कि निदेशालय स्तर पर Mining Plan (खनन योजना) का अनुमोदन ऑनलाइन माध्यम से Mine Mitra Portal द्वारा किया जाता है। इस सम्बन्ध में अधिकारियों की Capacity Building हेतु Indian Bureau of Mines से ट्रेनिंग कराये जाने का अनुरोध किया गया है।
- 5.7 Uttar Pradesh Pollution Control Board (UPPCB) can also review the process for granting of CTO to mining lease and its crusher plant, to avoid such

confusion, where mining lease operated mine without having valid CTO, whereas, associated crusher operated plant crusher with valid CTO. के सम्बन्ध में अवगत कराना है कि इस बिन्दु पर भूतत्व एवं खनिकर्म निदेशालय से आख्या अपेक्षित नहीं है।

5.8 Committee observed that the time of blasting for all mines are same i.e., around 2 PM, which may be rescheduled in light of local school timing, number of primary and middle schools are lies near the mining area. के सम्बन्ध में जिलाधिकारी, मीरजापुर द्वारा उपलब्ध करायी गयी आख्या दिनांक 24.04.2024 के अनुसार "स्थानीय विद्यालयों में छुट्टी के समय को दृष्टिगत रखते हुए ब्लास्टिंग कराये जाने के निर्देश सभी पट्टाधारकों को दिये गये है एवं इसका अनुपालन भी कराया जा रहा है।"

5.9 The amount collected with environmental compensation be recovered from the concerned lease holder may be used for construction of the Cemented internal road, which is used for mineral transportation, road side plantation, mist gun used for water spraying, establishment of continuous online ambient air quality monitoring station, setting of noise barrier in densely populated area, school, hospital in the area. के सम्बन्ध में जिलाधिकारी मीरजापुर की आख्या दिनांक 23.04.2024 के अनुसार "जिला खनिज फाउन्डेशन न्यास नियमावली 2017 के अन्तर्गत खनन क्षेत्रों का विकास एवं जनकल्याणकारी योजनाओं पर कार्य कराया जा रहा है, जिसका विवरण निम्नवत् है :-

- जमुई अहरौरा मुख्य मार्ग से ग्राम सभा भगवतीदेई तक सम्पर्क मार्ग के (सी0सी0 सड़क 01 कि0मी0) की स्वीकृति प्रदान की गयी। लागत रू0 2,63,57,000 /-
 - जमुई अहरौरा मुख्य मार्ग से ग्राम सभा भगवतीदेई स्थित शिवकुमार पटेल के स्कूल से रामपुर ढबही तक सम्पर्क मार्ग के निर्माण (सी0सी0 सड़क 01 कि0मी0) की स्वीकृति प्रदान की गयी है। लागत रू0 2,60,58,000 /-
 - जमुई से अहरौरा मुख्य मार्ग पर स्थित ग्राम भगौतीदेई से पीएनसी ताड़ बाबा तक मार्ग के निर्माण कार्य (सी0सी0 सड़क 01 कि0मी0) की स्वीकृति प्रदान की गयी है। लागत रू0 2,56,65,000 /-
 - उक्त तीनों मार्ग निर्माणाधीन है। निर्माणाधीन सड़कों के दोनो तरफ ग्रीन बेल्ट विकसित करने का कार्य भी प्रस्तावित है।
 - ग्राम भगौतीदेई में सिंचाई नहर से पंचायत भवन तक सी0सी0/इण्टरलाकिंग का कार्य। लागत रू0 22,54,000 /-
 - अहरौरा-भगौतीदेई खनन प्रभावित क्षेत्रों में पर्यावरण प्रदूषण नियन्त्रण हेतु स्टोन डस्ट से बचाव के लिए पानी छिड़काव की 03 (तीन) मशीन क्रय किये जाने की स्वीकृति प्रदान की गयी है।
 - प्राथमिक विधालय भगौती देई द्वितीय के बाउन्ड्रीवाल का निर्माण कार्य कराया गया। लागत रू0 8,74,000 /-
- सामुदायिक स्वास्थ्य केन्द्रों चुनार (चचेरीमोड़), जमालपुर, अहरौरा, मड़िहान, राजगढ़ में हेल्थ ए0टी0एम0 लगाये जाने का कार्य किया गया। लागत रू0 24,00,000 /-

5.10 Rate of financial assurance needs to enhanced for undertaking reclamation & rehabilitation activities against the area put to use for mining & allied activities



per hectare. के सम्बन्ध में अवगत कराना है कि वित्तीय आश्वासन उ०प्र० उपखनिज (परिहार) नियमावली-2021 के नियम-35(6) में प्राविधानित है।

- 5.11 The DMG office and Regional Office of UPPCB shall be strengthened with additional manpower & advanced infrastructure facilities for strict vigilance on mining activities के सम्बन्ध में अवगत कराना है कि निदेशालय के कार्यालय आदेश संख्या 149/एम०-एन०जी०टी०-वाद मीरजापुर/2022 दिनांक 24.04.2024 (संलग्नक-5) द्वारा सम्बन्धित अधिकारियों को बेहतर तकनीकी की जानकारी हेतु Geological Survey of India, Lucknow & Remote Sensing Application Center, Lucknow से ट्रेनिंग कराये जाने हेतु सम्बन्धित अधिकारियों को नामित किया गया है। उक्त के अतिरिक्त भूतत्व एवं खनिकर्म विभाग में विभागीय ढांचे के पुनर्गठन हेतु विचार किया जा रहा है।
- 5.12 Audit on the quantity permitted, quantity mined out, etc shall be conducted every year. के सम्बन्ध में अवगत कराना है कि विभागीय आन्तरिक सम्प्रेक्षण को और सुदृढ़ कराये जाने हेतु वित्त नियंत्रक को निर्देशित किया गया है।
- 5.13 There should be a better coordination between mining department, DGMC and State PCB and a monthly/quarterly/half yearly meeting should be organized to resolve the various issues of the mining leases. के सम्बन्ध में अवगत कराना है कि अन्तर्विभागीय समन्वय समिति के गठन हेतु निदेशालय के पत्र संख्या 150/एम०-एन०जी०टी० वाद मीरजापुर/2022 दिनांक 24.04.2024 (संलग्नक-6) द्वारा प्रस्ताव भूतत्व एवं खनिकर्म विभाग, उ०प्र० शासन को प्रेषित किया गया है।
- 5.14 Uttar Pradesh Mining Department may review the U.P. Mines and Minerals (Concession) Regulations, 1963, amended Rule 41-A regarding "no mining operation can be carried out within 50 meter of any dam" in light of mining where, intensive blasting is involve. के सम्बन्ध में अवगत कराना है कि गठित समिति की आख्या दिनांक 20.04.2024 को प्राप्त हुई है।
- 5.15 Controlling of dust emission is a challenge in the area in question, therefore, committee in view that a Joint Committee will constituted by local administration comprising of State PCB, Mining Department, concerned SDMs and Police to review the situation of dust arising from Stone Crushers operational in the areas and compliances of the CTO condition imposed by U.P. Pollution Control Board and if any violation is found by any of the Stone Crusher unit recommendation be sent to State PCB to revoke the CTO granted and take further necessary action as per provisions of Air (Prevention and Control of Pollution) Act, 1981 and Environmental compensation should be imposed against the violaters for the defaulting days." के सम्बन्ध में जिलाधिकारी, मीरजापुर की आख्या दिनांक 23.04.2024 को प्राप्त हुई।
- 2.2 बिन्दु संख्या-21 के सम्बन्ध में अवगत कराना है कि भूतत्व एवं खनिकर्म विभाग, उत्तर प्रदेश शासन के कार्यालय ज्ञाप दिनांक 06.02.2024 के क्रम में जिलाधिकारी, मीरजापुर द्वारा जनपद मीरजापुर के Jargo Dam के आस-पास खनन एवं ब्लास्टिंग गतिविधियों के कारण Jargo Dam के स्थायित्व पर पड़ने वाले प्रभाव के अध्ययन तथा उसके आधार पर Dam Buffer Zone निर्धारित किये जाने हेतु गठित संयुक्त समिति की जाँच आख्या दिनांक 26.03.2024 के अनुसार जनपद मीरजापुर के Jargo Dam के आस-पास खनन एवं ब्लास्टिंग गतिविधियों के कारण Dam स्थायित्व पर पड़ने वाले प्रभाव के अध्ययन तथा उसके आधार पर Dam Buffer

Zone निर्धारित किये जाने हेतु अपर जिलाधिकारी (वि०/रा०) की अध्यक्षता में अपर पुलिस अधीक्षक, ऑपरेशन चुनार, मीरजापुर, अधिशासी अभियन्ता, सिचाई, चुनार खण्ड, मीरजापुर, खान अधिकारी, मीरजापुर, खान सुरक्षा उपनिदेशक, खान सुरक्षा महानिदेशालय, क्षेत्रीय कार्यालय वाराणसी, वरिष्ठ प्रबन्धक (खनन) सीएमपीडीआई राँची, झारखण्ड की संयुक्त विशेषज्ञ समिति का गठन करते हुए स्थलीय जाँच करने एवं निरीक्षण आख्या प्रस्तुत करने के निर्देश दिये गये हैं।

उक्त के अनुपालन में दिनांक 22.03.2024 को विशेषज्ञ समिति द्वारा संयुक्त रूप से स्थलीय जाँच की गयी। जाँच आख्या निम्नवत् है :-

1. जनपद मीरजापुर के Jargo Dam से 500 मीटर परिधि से अधिक दूरी पर उपखनिज ईमारती पत्थर सैण्डस्टोन के खनन पट्टा स्वीकृत/निष्पादित है, जिसमें वर्तमान में खनन/परिवहन कार्य प्रतिबन्धित है।
2. जनपद मीरजापुर के Jargo Dam से 500 मीटर परिधि के अन्तर्गत मे० शिव शक्ति इण्टरप्राइजेज बुढ़ीपुर (डाढ़ीवाड़ी) प्रो० श्री सभाजीत यादव पुत्र श्री भोला यादव नि० ग्राम बुढ़ीपुर, तहसील सैदपुर जनपद गाजीपुर के पक्ष में तहसील चुनार स्थित ग्राम रामपुर ढबही के आराजी सं० 01 रकबा 1.01 हे० क्षेत्र पर दिनांक 20.12.2016 से 19.12.2026 तक 10 वर्ष की अवधि हेतु खनन पट्टा स्वीकृत/निष्पादित है। कार्यालय जिलाधिकारी मीरजापुर के आदेश दिनांक 11.08.2023 द्वारा उक्त खनन क्षेत्र में खनन/परिवहन कार्य प्रतिबन्धित किया गया है।
3. Metalliferous Mines Regulations, 1961 में उल्लिखित प्राविधानान्तर्गत किसी सार्वजनिक सम्पत्ति, रोड, रेलवे लाईन आदि से 300 मीटर की दूरी तक blasting danger zone है, जब कि वर्तमान में प्रतिबन्धित खदानों में से Jargo Dam के सबसे निकट लगभग 540 मीटर की दूरी पर मे० आर०बी०पी० इण्डस्ट्रीज प्रा०लि० निदेशक श्री राजेश भाई पटेल पुत्र स्व० जगदीश सिंह निवासी रामरसही, पो० पटिहटा, तहसील चुनार, जनपद मीरजापुर के पक्ष में तहसील चुनार स्थित ग्राम भगौतीदेई की आ०सं० 180/2 रकबा 2.023 हे० क्षेत्र पर खनन पट्टा स्वीकृत है।
4. Jargo Dam से 500 मीटर परिधि से अधिक दूरी पर स्वीकृत/निष्पादित ईमारती पत्थर सैण्डस्टोन के खनन पट्टों का advancement डैम के opposite direction में जा रहा है।
5. Indian Standard, Inspection and Maintenance of Dams and Appurtenant Structures- Guidelines (First Revision) IS 9296 : 2001 में उल्लिखित अधिनियम 5.5.2.3 अन्तर्गत डैम से अधिकतम 200 मीटर परिधि के अन्दर किसी भी प्रकार निर्माण निषेधित है।
6. Jargo Dam के आस-पास खनन एवं ब्लास्टिंग गतिविधियों के कारण Dam स्थायित्व पर पड़ने वाले प्रभाव तथा उसके आधार पर Dam Buffer Zone निर्धारित किये जाने हेतु विशेषज्ञ समिति द्वारा सीएमपीडीआई राँची, झारखण्ड को आर०बी०पी० इण्डस्ट्रीज प्रा०लि० निदेशक श्री राजेश भाई पटेल की खदान ग्राम भगौतीदेई आ०सं० 180/2 रकबा 2.023 हे० क्षेत्र में 03 Round Blasting कर vibration की माप के संस्तुति की गयी। समिति द्वारा की गयी संस्तुति के क्रम में जिलाधिकारी मीरजापुर के पत्र संख्या-40/एम० एम०सी०-30/डी०एम०एफ/2023-24 दिनांक 05.04.2024 द्वारा सी०एम०पी०डी०आई० राँची



से आर0वी0पी0 इन्डस्ट्रीज प्रा0लि0 के खदान पर ब्लास्टिंग के कारण वाइब्रेशन स्टडी हेतु आदेश निर्गत किया गया जिसके क्रम में गठित विशेषज्ञ समिति द्वारा संयुक्त आख्या दिनांक 20.04.2024 प्रस्तुत की गयी, जिसमें निष्कर्ष निम्नवत् है:-

As per briefing by Senior Manager, CMPDI (HQ), Ranchi, the following were deliberated in detail and decided in the Meeting:

1. All the licensed building/ sandstone mine is at more than 500m from the Jargo Dam.
2. From the study by CMPDI, it is clear that working can be safely extended beyond 300m from nearby Dam/villages/hutments or dwellings etc. by strictly following the recommended blast patterns as given in CMPDI Vibration Study report.
3. As per Metalliferous Mines Regulation, 1961 "The entire Area falling within a radius of 300m from the place of firing is called Danger Zone". So, Jargo Dam is out of danger zone (ie. 300m) from all the licensed building/ sandstone mine. The advancement of Mine was in opposite direction of the Mine.
4. As per act 5.5.2.3. of Indian Standard, Inspection and Maintenance of Dam and Appurtenant structures guidelines (First Revision) IS 9296:2001, Any construction is prohibited within the area of 200m from Dam.

Additional District Manager said that all committee Members are agreed on the point:

The entire Area falling within a radius of 300m from the Jargo Dam will be "Dam Buffer Zone"

All the Committee Members have unanimously agreed on the above point and the same shall be incorporated in the committee Report."

संलग्नक-उपरोक्तानुसार।

दिनांक:-


(माला श्रीवास्तव)
निदेशक।

पेषक:

जिलाधिकारी,
भीरजापुर

सेवा में

निदेशक,

भूतत्व एवं खनिकर्म निदेशालय, उ०प्र०

खनिज भवन, लखनऊ।

पत्र सं० 193/एम०एम०सी०-30खनिज/2024-25

दिनांक : 23/04/2024

विषय : मा० राष्ट्रीय हरित अधिकरण, नई दिल्ली द्वारा ओ०ए० सं० 521/2022 सम्पूर्णानन्द
बनाम उ०प्र० राज्य व अन्य के सम्बन्ध में।

महोदय,

कृपया अवगत कराना है मा० अधिकरण, नई दिल्ली द्वारा ओ०ए० सं० 521/2022 में दिनांक 01.09.2022 को आदेश पारित करते हुए समिति का गठन किया गया। मा० अधिकरण द्वारा पारित आदेश दिनांक 01.09.2022 के अनुपालन में गठित कमेटी द्वारा दिनांक 23.11.2022 एवं 24.11.2022 को स्थलीय जाँच की गयी तथा मा० अधिकरण के समक्ष संयुक्त रिपोर्ट दिनांक 03.02.2023 को प्रेषित की गयी, जिसके क्रम में मा० अधिकरण द्वारा दिनांक 27.04.2023 को आदेश पारित करते हुए गठित समिति की संस्तुति के क्रम में कार्यवाही करने के आदेश दिये गये हैं। अनुपालन आख्या निम्नवत् है :-

बिन्दु	विवरण	अनुपालन आख्या
5.1	Out of 40 leases, few leases were found operational approx 500 to 600 meter, close to exiting jargo dam (constructed in 1958, hold 3 lakhs cusec water and only source to irrigate around 1000 acres' agricultural land), need to be re-evaluated in light of continuous blasting activity in area.	<p>भूतत्व एवं खनिकर्म विभाग, उ०प्र० शासन, लखनऊ के कार्यालय ज्ञाप सं० 86-01005 (099)/2/2023 दिनांक 06.02.2024 जिसके द्वारा Jargo Dam के आस-पास खनन एवं ब्लास्टिंग गतिविधियों के कारण Dam के स्थायित्व पर पड़ने वाले प्रभाव तथा उसके आधार पर Dam Buffer Zone निर्धारित किये जाने हेतु शासन स्तर से 06 सदस्यीय विशेषज्ञ समिति का गठन किया गया है। उक्त के क्रम में कार्यालय आदेश सं०-8039/एम०एम०सी०-30 दिनांक 12.02.2024 द्वारा जनपद स्तर पर विशेषज्ञ समिति का गठन किया गया है। गठित विशेषज्ञ समिति ने दिनांक 22.03.2024 को स्थलीय जाँच के दौरान Jargo Dam के आस-पास खनन एवं ब्लास्टिंग गतिविधियों के कारण Dam के स्थायित्व पर पड़ने वाले प्रभाव तथा उसके आधार पर Dam Buffer Zone निर्धारित किये जाने हेतु सीएमपीडीआई राँची, झारखण्ड को आर०बी०पी० इण्डस्ट्रीज प्रा०लि० निदेशक श्री राजेश भाई पटेल की खदान, ग्राम भगौतीदेई आ०सं० 180/2 रकबा 2.023 हे० क्षेत्र में 03 Round Blasting कर vibration की माप किये जाने की संस्तुति की गयी। गठित विशेषज्ञ समिति द्वारा अपनी संयुक्त आख्या दिनांक 20.04.2024 प्रस्तुत की गयी है, जिसमें निष्कर्ष निम्नवत् है (संलग्नक-1) :-</p> <p>As per briefing by Senior Manager, CMPDI (HQ), Ranchi, the following were deliberated in detail and decided in the Meeting:</p> <ol style="list-style-type: none"> All the licensed building/ sandstone mine is at more than 500m from the Jargo Dam. From the study by CMPDI, it is clear that working can be safely extended beyond 300m from nearby Dam/villages/hutments or dwellings etc. by strictly following the recommended blast patterns as given in CMPDI Vibration Study report. As per Metalliferous Mines Regulation, 1961 "The entire Area falling within a radius of 300m from the place of firing is called Danger Zone". So, Jargo Dam is out of

m/s

		<p>danger zone (ie 300m) from all the licensed building/sandstone mine. The advancement of Mine was in opposite direction of the Mine.</p> <p>4. As per act 5.5.2.3. of Indian Standard, Inspection and Maintenance of Dam and Appurtenant structures guidelines (First Revision) IS 9296:2001, Any construction is prohibited within the area of 200m from Dam.</p> <p>Additional District Manager said that all committee Members are agreed on the point: The entire Area falling within a radius of 300m from the Jargo Dam will be "Dam Buffer Zone"</p> <p>All the Committee Members have unanimously agreed on the above point and the same shall be incorporated in the committee Report.</p>
5.2	State mining department have to obtained "No Objection Certificate" from state irrigation department before grant of lease near Jargo Dam.	जनपद स्तर से अनुपालन किया जाना अपेक्षित नहीं है।
5.3	State Government shall constitute expert committee (Dam expert, Blasting expert etc) to assess the impact of mining and blasting activity (Blasting impact study) on the Jargo Dam and its stability, based on the finding state government may declare buffer zone, where mining etc will be completely prohibited.	जनपद स्तर से अनुपालन किया जाना अपेक्षित नहीं है।
5.4	Strict monitoring system can be developed including uses of drone survey etc for better compliance.	जनपद स्तर से अनुपालन किया जाना अपेक्षित नहीं है।
5.5	DGPS Survey agencies are not empaneled by UP-DGM, it is required to empaneled with UP-DGM.	जनपद स्तर से अनुपालन किया जाना अपेक्षित नहीं है।
5.6	Capacity Building of the State DGM is required for approval of mining plan documents and subsequently its monitoring.	जनपद स्तर से अनुपालन किया जाना अपेक्षित नहीं है।
5.7	Uttar Pradesh Pollution Control Board (UPPCB) can also review the process for granting of CTO to mining lease and its crusher plant, to avoid such confusion, where mining lease operated mine without having valid CTO, whereas, associated crusher operated plant crusher with valid CTO.	उ०प्र० प्रदूषण नियंत्रण बोर्ड द्वारा अनुपालन अपेक्षित है।
5.8	Committee observed that the time of blasting for all mines are same i.e., around 2 PM, which may be rescheduled in light of local school timing, number of	स्थानीय विद्यालयों में छुट्टी के समय को दृष्टिगत रखते हुए ब्लारिस्टिंग कराये जाने के निर्देश सभी पट्टाधारकों को दिये गये हैं एवं इसका अनुपालन भी कराया जा रहा है।

mkh

	primary and middle schools are lies near the mining area.	
5.9	The amount collected with environmental compensation be recovered from the concerned lease holder may be used for construction of the Cemented internal road, which is used for mineral transportation, road side plantation, mist gun used for water spraying, establishment of continuous online ambient air quality monitoring station, setting of noise barrier in densely populated area, school, hospital in the area.	<p>जिला खनिज फाउन्डेशन न्यारा नियगावली 2017 के अन्तर्गत खनन क्षेत्रों का विकास एवं जनकल्याणकारी योजनाओं पर कार्य कराया जा रहा है, जिसका विवरण निम्नवत् है :-</p> <ul style="list-style-type: none"> • जमुई अहरौरा मुख्य मार्ग से ग्राम सभा भगवतीदेई तक सम्पर्क मार्ग के (सी0सी0 सड़क 01 कि0मी0) की स्वीकृति प्रदान की गयी। लागत रू0 2,63,57,000/- • जमुई अहरौरा मुख्य मार्ग से ग्राम सभा भगवतीदेई स्थित शिवकुमार पटेल के स्कूल से रामपुर ढवही तक सम्पर्क मार्ग के निर्माण (सी0सी0 सड़क 01 कि0मी0) की स्वीकृति प्रदान की गयी है। लागत रू0 2,60,58,000/- • जमुई से अहरौरा मुख्य मार्ग पर स्थित ग्राम भगौतीदेई से पीएनसी ताड़ वावा तक मार्ग के निर्माण कार्य (सी0सी0 सड़क 01 कि0मी0) की स्वीकृति प्रदान की गयी है। लागत रू0 2,56,65,000/- • उक्त तीनों मार्ग निर्माणधीन है। निर्माणाधीन सड़कों के दोनो तरफ ग्रीन बेल्ट विकसित करने का कार्य भी प्रस्तावित है। • ग्राम भगौतीदेई में सिंचाई नहर से पंचायत भवन तक सी0सी0/इण्टरलाकिंग का कार्य। लागत रू0 22,54,000/- • अहरौरा-भगौतीदेई खनन प्रभावित क्षेत्रों में पर्यावरण प्रदूषण नियन्त्रण हेतु स्टोन डस्ट से बचाव के लिए पानी छिड़काव की 03 (तीन) मशीन कय किये जाने की स्वीकृति प्रदान की गयी है। • प्राथमिक विधालय भगौती देई द्वितीय के बाउन्ड्रीवाल का निर्माण कार्य कराया गया। लागत रू0 8,74,000/- • सामुदायिक स्वास्थ्य केन्द्रों चुनार (चचेरीमोड़), जमालपुर, अहरौरा, मडिहान, राजगढ़ में हेल्थ ए0टी0एम0 लगाये जाने का कार्य किया गया। लागत रू0 24,00,000/-
5.10	Rate of financial assurance needs to enhanced for undertaking reclamation & rehabilitation activities against the area put to use for mining & allied activities per hectare.	जनपद स्तर से अनुपालन किया जाना अपेक्षित नहीं है।
5.11	The DMG office and Regional Office of UPPCB shall be strengthened with additional manpower & advanced infrastructure facilities for strict vigilance on mining activities.	जनपद स्तर से अनुपालन किया जाना अपेक्षित नहीं है।
5.12	Audit on the quantity permitted, quantity mined out, etc shall be conducted every year.	जनपद स्तर से अनुपालन किया जाना अपेक्षित नहीं है।

ms

5.13	There should be a better coordination between mining department, DGMC and State PCB and a monthly/quarterly/half yearly meeting should be organized to resolve the various issues of the mining leases.	जनपद स्तर से अनुपालन किया जाना अपेक्षित नहीं है।
5.14	Uttar Pradesh Mining Department may review the U.P. Mines and Minerals (Concession) Regulations, 1963, amended Rule 41-A regarding "no mining operation can be carried out within 50 meter of any dam" in light of mining where, intensive blasting is involve.	जनपद स्तर से अनुपालन किया जाना अपेक्षित नहीं है।
5.15	Controlling of dust emission is a challenge in the area in question, therefore, committee in view that a Joint Committee will constituted by local administration comprising of State PCB, Mining Department, concerned SDMs and Police to review the situation of dust arising from Stone Crushers operational in the areas and compliances of the CTO condition imposed by U.P. Pollution Control Board and if any violation is found by any of the Stone Crusher unit recommendation be sent to State PCB to revoke the CTO granted and take further necessary action as per provisions of Air (Prevention and Control of Pollution) Act, 1981 and Environmental compensation should be imposed against the violaters for the defaulting days."	<p>मा0 अधिकरण के उक्त आदेश दिनांक 27.04.2023 के अनुपालन में आच्छादित 26 स्टोन केशर उद्योगों की स्थलीय जाँच कर आख्या उपलब्ध कराये जाने के सम्बन्ध में जिलाधिकारी मीरजापुर द्वारा कार्यालय आदेश सं-G000420/O.A.No.521/2022 दि0 26.05.2023 द्वारा उपजिलाधिकारी चुनार, मीरजापुर, जिला खान अधिकारी, मीरजापुर, सहायक पर्यावरण अभियंता/ क्षेत्रीय अधिकारी, उ0प्र0 प्रदूषण नियंत्रण बोर्ड सोनभद्र (उ0प्र0) व क्षेत्राधिकारी (पुलिस) चुनार, मीरजापुर की संयुक्त समिति का गठन किया गया।</p> <p>जाँच समिति द्वारा सहायक पर्यावरण अभियंता व वैज्ञानिक सहायक, उ0प्र0 प्रदूषण नियंत्रण बोर्ड, क्षेत्रीय कार्यालय, सोनभद्र के साथ 26 स्टोन केशर संयंत्र की संयुक्त स्थलीय जाँच दिनांक 19.06.2023, 29.06.2023 एवं 01.07.2023 को की गयी।</p> <p>पत्र सं-G000539/OA No-521/2022/2023 दिनांक 13.07.2023 द्वारा रजिस्ट्रार, मा0 राष्ट्रीय हरित अधिकरण, नई दिल्ली के समक्ष 26 स्टोन केशर के सम्बन्ध में संयुक्त रिपोर्ट प्रेषित की गयी (संलग्नक-2)।</p>

तदनुसार आख्या आवश्यक कार्यवाही हेतु प्रेषित है।
संलग्नक:- यथोपरि।

भवदीय



(प्रियंका निरंजन)
जिलाधिकारी,
मीरजापुर



RECOMMENDATION OF THE
COMMITTEE CONSTITUTED
TO
“STUDY ON THE EFFECT OF DAM
STABILITY DUE TO BLASTING AND
MINING ACTIVITIES NEAR THE
JARGO DAM OF MIRZAPUR AND
DETERMINATION OF DAM BUFFER
ZONE”

TABLE OF CONTENTS

Sl. No.	Particulars
1.0	Table of Contents
2.0	Preamble
3.0	Committee Recommendation
4.0	Joint Inspection Report
5.0	Work order copy for Vibration Study
6.0	Report on " Vibration Study due to Blasting in the mines of M/s R.B.P. Industries Pvt. Ltd, Bhagautidei, Mirzapur, U.P

PREAMBLE

भूतत्व एवं खनिकर्म विभाग, उ०प्र० शासन, लखनऊ के कार्यालय ज्ञाप सं० 86-01005(099)/2/2023 दिनांक 06.02.2024 के क्रम में मा० राष्ट्रीय हरित अधिकरण, नई दिल्ली द्वारा ओ०ए० सं० 521/2022 सम्पूर्णानन्द बनाम उ०प्र० राज्य व अन्य में कार्यालय आदेश सं०- 8039/एम०एम०सी०-30 दिनांक 12.02.2024 द्वारा जनपद मीरजापुर के Jargo Dam के आस-पास खनन एवं ब्लास्टिंग गतिविधियों के कारण Dam स्थायित्व पर पड़ने वाले प्रभाव के अध्ययन तथा उसके आधार पर Dam Buffer Zone निर्धारित किये जाने हेतु वि० रज्ज (Expert) ; समिति का गठन करते हुए स्थलीय जाँच करने एवं निरीक्षण आख्या प्रस्तुत करने के निर्देश दिये गये हैं।

ओ०ए० संख्या-521/2022 सम्पूर्णानन्द बनाम उ०प्र० राज्य व अन्य में मा० राष्ट्रीय हरित अधिकरण, नई दिल्ली द्वारा दिनांक 12.03.2024 को पारित आदेश के कार्यकारी अंश निम्नवत् है :-

- In its report the Joint Committee had recommended re-evaluation of leases found operational approximately 500 to 600 meters close to Jargo dam and for constitution of Expert Committee and remedial action of declaring buffer zone and prohibiting mining within buffer zone. Ms. Mala Srivastava, Director, Geology and Mining, Uttar Pradesh, Ms. Priyanka Niranjana, District Magistrate, Mirzapur have submitted that committee has been constituted but its report is still awaited. Other recommendations of the Joint Committee are also yet to be carried out and Ms. Mala Srivastava, Director, Geology and Mining, Uttar Pradesh, Ms. Priyanka Niranjana, District Magistrate, Mirzapur seek time to look into the aspects and file action taken reports.
- Action taken reports be filed by Ms. Mala Srivastava, Director, Geology and Mining, Uttar Pradesh and Ms. Priyanka Niranjana, District Magistrate, Mirzapur within one month by email at judicial-ngt@gov.in preferably in the form of searchable PDF/OCR Support PDF and not in the form of Image PDF.

In this regard, as per letter no. 8416/M.M.C-30/Khanij/2023-24 dated 15/03/2024, a committee headed by Additional District Magistrate, Mirzapur was constituted having following Members

1. अपर जिलाधिकारी (वि०/सा०) मीरजापुर
2. अपर पुलिस अधीक्षक, ऑपरेशन चुनार, मीरजापुर,
3. अधिशासी अभियन्ता, सिचाई, चुनार खण्ड, मीरजापुर,
4. खान अधिकारी, मीरजापुर,
5. खान सुरक्षा उपनिदेशक, खान सुरक्षा महानिदेशालय, क्षेत्रीय कार्यालय वाराणसी
6. वरिष्ठ प्रबन्धक (खनन) सीएमपीडीआई राँची, झारखण्ड

642- / msk

D

Q

F

RECOMMENDATION OF THE COMMITTEE CONSTITUTED TO "STUDY ON THE EFFECT OF DAM STABILITY DUE TO BLASTING & MINING ACTIVITIES NEAR THE JARGO DAM OF MIRZAPUR AND DETERMINATION OF DAM BUFFER ZONE"

At the outset, a Committee Meeting was convened on 22/03/2024, 11:00 am at Dakbangla near Jargo Dam under the chairmanship of Additional Magistrate, Mirzapur. After the meeting, site inspection of Jargo dam and nearby Mines was carried out by the committee members.

जॉच आख्या निम्नवत् है (Copy Attached) :-

1. जनपद मीरजापुर के Jargo Dam से 500 मीटर परिधि से अधिक दूरी पर उपखनिज ईमारती पत्थर सैण्डस्टोन के खनन पट्टा स्वीकृत/निष्पादित है, जिसमें वर्तमान में खनन/परिवहन कार्य प्रतिबन्धित है।
2. जनपद मीरजापुर के Jargo Dam से 500 मीटर परिधि के अन्तर्गत मे० शिव शक्ति इण्टरप्राइजेज बुढीपुर (डाढीवाडी) प्रो० श्री सभाजीत यादव पुत्र श्री भोला यादव नि० ग्राम बुढीपुर, तहसील सैदपुर जनपद गाजीपुर के पक्ष में तहसील चुनार स्थित ग्राम रामपुर ढबही के आराजी सं० 01 रकबा 1.01 हे० क्षेत्र पर दिनांक 20.12.2016 से 19.12.2026 तक 10 वर्ष की अवधि हेतु खनन पट्टा स्वीकृत/निष्पादित है। कार्यालय जिलाधिकारी मीरजापुर के आदेश दिनांक 11.08.2023 द्वारा उक्त खनन क्षेत्र में खनन/परिवहन कार्य प्रतिबन्धित किया गया है।
3. Metalliferous Mines Regulations, 1961 में उल्लिखित प्राविधानान्तर्गत किसी सार्वजनिक सम्पत्ति, रोड, रेलवे लाईन आदि से 300 मीटर की दूरी तक blasting danger zone है, जब कि वर्तमान में प्रतिबन्धित खदानों में से Jargo Dam के सबसे निकट लगभग 540 मीटर की दूरी पर मे० आर०बी०पी० इण्डस्ट्रीज प्रा०लि० निदे 1क श्री राजे 1 भाई पटेल पुत्र स्व० जगदी 1 सिंह निवासी रामरसही, पो० पटिहटा, तहसील चुनार, जनपद मीरजापुर के पक्ष में तहसील चुनार स्थित ग्राम भगौतीदेई की आ०सं० 180/2 रकबा 2.023 हे० क्षेत्र पर खनन पट्टा स्वीकृत है।
4. Jargo Dam से 500 मीटर परिधि से अधिक दूरी पर स्वीकृत/निष्पादित ईमारती पत्थर सैण्डस्टोन के खनन पट्टों का advancement डैम के opposite direction में जा रहा है।
5. Indian Standard, Inspection and Maintenance of Dams and Appurtenant Structures- Guidelines (First Revision) IS 9296 : 2001 में उल्लिखित अधिनियम 5.5.2.3 अन्तर्गत डैम से अधिकतम 200 मीटर परिधि के अन्दर किसी भी प्रकार निर्माण निषेधित है।
6. Jargo Dam के आस-पास खनन एवं ब्लास्टिंग गतिविधियों के कारण Dam स्थायित्व पर पड़ने वाले प्रभाव तथा उसके आधार पर Dam Buffer Zone निर्धारित किये जाने हेतु विशेषज्ञ समिति द्वारा सीएमपीडीआई राँची, झारखण्ड को आर०बी०पी० इण्डस्ट्रीज प्रा०लि० निदे 1क श्री राजे 1 भाई पटेल की खदान ग्राम भगौतीदेई आ०सं० 180/2 रकबा 2.023 हे० क्षेत्र में 03 Round Blasting कर vibration की माप के लिए प्रस्तावित किया गया है।

Further, A work Order vide letter no. 40/M.M.C-30/D.M.F/2023-24 dated 05/04/2024 was issued by District Magistrate, Mirzapur to CMPDI (HQ), Ranchi regarding "Vibration study due to Blasting in the mines of M/s R.B.P. industries Pvt. Ltd., Bhagautidei, Mirzapur, U.P." (Copy Attached).

Job regarding Vibration study due to Blasting in the mines of M/s R.B.P. industries Pvt. Ltd., Bhagautidei, Mirzapur, U.P" has been completed by CMPDI and report was submitted on 18/04/2024 (Copy Attached).

[Handwritten signatures and initials]

2nd Committee Meeting was convened on 19/04/2024, 04:00 pm through V.C. under the chairmanship of Additional Magistrate, Mirzapur.

At the outset, Sr. Manager (M), CMPDI (HQ), Ranchi has presented the outcomes of the study. He has also explained the observation of the trial Blast which is given below:

- a) Total thirteen (06) blasts were conducted in the mines of M/s R.B.P. industries Pvt. Ltd., Bhagautidei, Mirzapur, U.P.
- b) The blast induced ground vibration as observed at various locations varies from 0.221 mm/sec at 245m distance & 5.733 mm/sec at 30m distance.
- c) The Event (Blast induced ground vibration) is not recorded by different vibration Monitor stationed beyond 300m.
- d) Maximum 43% of the frequency of ground vibrations were observed in the range <8 Hz and >25Hz as shown in Table 6.
- e) Jargo Dam nearby mines is considered as a sensitive structure. The Permissible peak particle velocity (PPV) at the foundation level of the Jargo Dam shall be less than 2 mm/sec as per DGMS Circular No.7 dated 29.08.1997.

Sr. Manager (M), CMPDI (HQ), Ranchi has also explained the recommendation given by CMPDI(HQ), Ranchi, which is given below:

- From the on-site measurements of Peak Particle Velocity (PPV) and analysis of results of trial blasts in the mines of M/s R.B.P. industries Pvt. Ltd., Bhagautidei, Mirzapur, U.P. under the prevailing geo-mining conditions, it may be recommended that the workings in the mines of M/s R.B.P. industries Pvt. Ltd., Bhagautidei, Mirzapur, U.P. can be safely extended beyond 300m from nearby Dam/villages/hutments or dwellings etc. not belonging to owner with a maximum explosive charge per delay per hole as shown in Table..
- The present workings of the mine can be safely advanced beyond 300m from nearby villages/hutments/dwellings or dam etc not belonging to owner by strictly following the recommended blast patterns as per given Table.

TABLE: RECOMMENDED SUGGESTED BLASTING PATTERNS DERIVED FROM THE TRIALS UNDER THE PREVAILING GEO-MINING CONDITIONS ARE GIVEN BELOW:

Sl. No.	Distance (m)	Dia. of holes (mm)	Pattern of holes			Initiation system	Max no of Holes per Blast	Maximum charge per hole per delay	Max Charge Per Round (kg)
			Depth (m)	Burden (m)	Spacing (m)				
1.*	≥ 300	25.4	1	0.9	1	None/ Electronic Detonator	50	0.125	6.25
2.	< 300	Scientific study for controlled Blasting will be required							

* None of different Delay should be used for minimal Ground Vibration

SEP- MAB

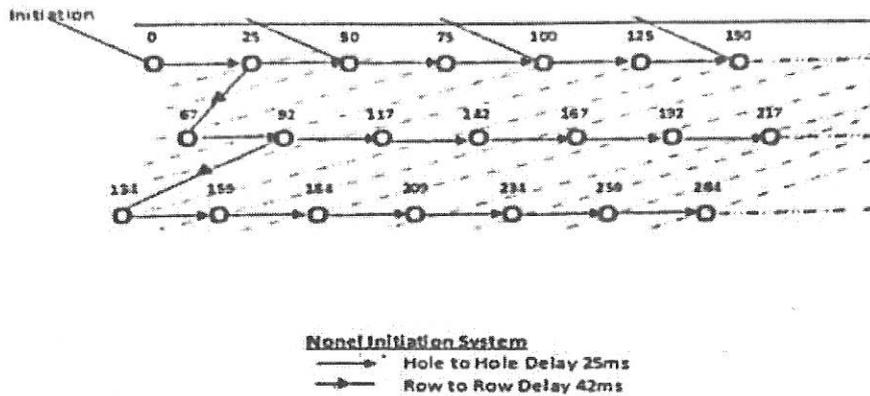
a) Sketch Showing the Pattern of Holes and Charge Distribution & Length of Stemming Column

MAXIMUM CHARGE PER HOLE: 0.125 KG

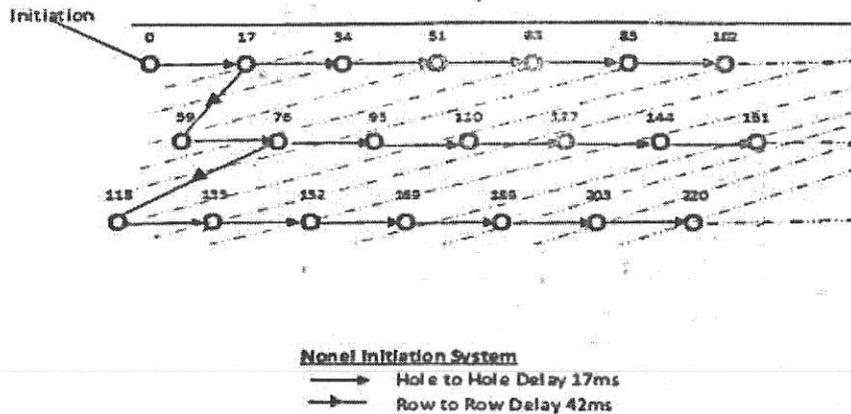
NUMBER OF HOLES: 50

CHARGE PER ROUND: 6.25 KG

Case I:



Case II:



As per briefing by Senior Manager, CMPDI (HQ), Ranchi, the following were deliberated in detail and decided in the Meeting:

1. All the licensed building/ sandstone mine is at more than 500m from the Jargo Dam.
2. From the study by CMPDI, it is clear that working can be safely extended beyond 300m from nearby Dam/villages/hutments or dwellings etc. by strictly following the recommended blast patterns as given in CMPDI Vibration Study report.
3. As per Metalliferous Mines Regulation, 1961 "The entire Area falling within a radius of 300m from the place of firing is called Danger Zone". So, Jargo Dam is out of danger zone

Sup. M. K. D.

[Handwritten signature]

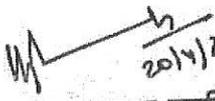
[Handwritten signature]

- (ie. 300m) from all the licensed building/ sandstone mine. The advancement of Mine was in opposite direction of the Mine.
4. As per act 5.5.2.3. of Indian Standard, Inspection and Maintenance of Dam and Appurtenant structures guidelines (First Revision) IS 9296:2001, Any construction is prohibited within the area of 200m from Dam.
 5. The entire Area falling within a radius of 300m from the Jargo Dam will be "Dam Buffer Zone"

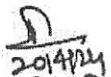
All the Committee Members have unanimously agreed on the above point and the same shall be incorporated in the committee Report.

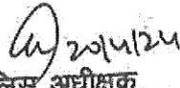
The Meeting ended with thanks to the Chairman of the committee.

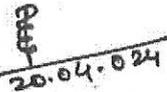

20/4/24
वरिष्ठ प्रबन्धक (खनन)
सीएमपीडीआई राँची, झारखण्ड


20/4/24
खान सुरक्षा उपनिदेशक,
खान सुरक्षा महानिदेशालय,
क्षेत्रीय कार्यालय वाराणसी,


20/4/24
खान अधिकारी,
मीरजापुर,


20/4/24
अधिसासी अभियन्ता,
सिचाई, चुनार खण्ड, मीरजापुर,


20/4/24
अपर पुलिस अधीक्षक,
ऑपरेशन चून्तर, मीरजापुर,


20.04.24
अपर जिलाधिकारी (वि०/रा०)
मीरजापुर

जिलाधिकारी,
मीरजापुर
महोदया,

कृपया अवगत कराना है कि भूतत्व एवं खनिकर्म विभाग, उ०प्र० शासन, लखनऊ के कार्यालय झाप सं० 86-01005(099)/2/2023 दिनांक 06.02.2024 के क्रम में मा० राष्ट्रीय हरित अधिकरण, नई दिल्ली द्वारा ओ०ए० सं० 521/2022 सामूहिक/नन्द वनाग उ०प्र० राज्य व अन्य में कार्यालय आदेश सं०-8039/एम०एम०सी०-30 दिनांक 12.02.2024 द्वारा जनपद मीरजापुर के Jargo Dam के आस-पास खनन एवं ब्लास्टिंग गतिविधियों के कारण Dam स्थायित्व पर पड़ने वाले प्रभाव के अध्ययन तथा उसके आधार पर Dam Buffer Zone निर्धारित किये जाने हेतु अपर जिलाधिकारी (वि०/सा०) की अध्यक्षता में अपर पुलिस अधीक्षक, ऑपरेशन चुनार, मीरजापुर, अधिशारी अभियन्ता, सिवाई, चुनार खण्ड, मीरजापुर, खान अधिकारी, मीरजापुर, खान सुरक्षा उपनिदेशक, खान सुरक्षा महानिदेशालय, क्षेत्रीय कार्यालय वाराणसी, गरिष्ठ प्रबन्धक (खनन) सीएमपीडीआई राँची, झारखण्ड की संयुक्त विशेषज्ञ समिति का गठन करते हुए स्थलीय जाँच करने एवं निरीक्षण आख्या प्रस्तुत करने के निर्देश दिये गये हैं।

उक्त के अनुपालन में दिनांक 22.03.2024 को विशेषज्ञ समिति द्वारा संयुक्त रूप से स्थलीय जाँच की गयी। जाँच आख्या निम्नवत् है :-

1. जनपद मीरजापुर के Jargo Dam से 500 मीटर परिधि से अधिक दूरी पर उपखनिज ईमारती पत्थर सैण्डस्टोन के खनन पट्टा स्वीकृत/निष्पादित है, जिसमें वर्तमान में खनन/परिवहन कार्य प्रतिबन्धित है।
2. जनपद मीरजापुर के Jargo Dam से 500 मीटर परिधि के अन्तर्गत मे० शिव शक्ति इण्टरप्राइजेज बुडीपुर (डाडीवाडी) प्रो० श्री सभाजीत यादव पुत्र श्री मोला यादव नि० ग्राम बुडीपुर, तहसील सैदपुर जनपद गाजीपुर के पक्ष में तहसील चुनार स्थित ग्राम रामपुर डबही के आराजी सं० 01 रकबा 1.01 हे० क्षेत्र पर दिनांक 20.12.2016 से 19.12.2026 तक 10 वर्ष की अवधि हेतु खनन पट्टा स्वीकृत/निष्पादित है। कार्यालय जिलाधिकारी मीरजापुर के आदेश दिनांक 11.08.2023 द्वारा उक्त खनन क्षेत्र में खनन/परिवहन कार्य प्रतिबन्धित किया गया है।
3. Metalliferous Mines Regulations, 1961 में उल्लिखित प्राविधानान्तर्गत किसी सार्वजनिक सम्पत्ति, रोड, रेलवे लाईन आदि से 300 मीटर की दूरी तक blasting danger zone है, जब कि वर्तमान में प्रतिबन्धित खदानों में से Jargo Dam के सबसे निकट लगभग 540 मीटर की दूरी पर मे० आर०बी०पी० इण्डस्ट्रीज प्रा०लि० निदेशक श्री राजेश भाई पटेल पुत्र स्व० जगदीश सिंह निवारी रामरसही, पा० पटिहटा, तहसील चुनार, जनपद मीरजापुर के पक्ष में तहसील चुनार स्थित ग्राम भगौतीदेई की आ०सं० 180/2 रकबा 2.023 हे० क्षेत्र पर खनन पट्टा स्वीकृत है।
4. Jargo Dam से 500 मीटर परिधि से अधिक दूरी पर स्वीकृत/निष्पादित ईमारती पत्थर सैण्डस्टोन के खनन पट्टों का advancement डैम के opposite direction में जा रहा है।
5. Indian Standard, Inspection and Maintenance of Dams and Appurtenant Structures-Guidelines (First Revision) IS 9296 : 2001 में उल्लिखित अधिनियम 5.5.2.3 अन्तर्गत डैम से अधिकतम 200 मीटर परिधि के अन्दर किसी भी प्रकार निर्माण निषेधित है।
6. Jargo Dam के आस-पास खनन एवं ब्लास्टिंग गतिविधियों के कारण Dam स्थायित्व पर पड़ने वाले प्रभाव तथा उसके आधार पर Dam Buffer Zone निर्धारित किये जाने हेतु विशेषज्ञ समिति द्वारा सीएमपीडीआई राँची, झारखण्ड को आर०बी०पी० इण्डस्ट्रीज प्रा०लि० निदेशक श्री राजेश भाई पटेल की खदान ग्राम भगौतीदेई आ०सं० 180/2 रकबा 2.023 हे० क्षेत्र में 03 Round Blasting कर vibration की माप के लिए प्रस्तावित किया गया है।

7. ओ0ए0 संख्या-521/2022 सम्पूर्णानन्द बनाम उ0प्र0 राज्य व अन्य में मा0 राष्ट्रीय हरित अधिकरण, नई दिल्ली द्वारा दिनांक 12.03.2024 को पारित आदेश के कार्यकारी अंग निम्नवत् है :-

7. In its report the Joint Committee had recommended re-evaluation of leases found operational approximately 500 to 600 meters close to Jargo dam and for constitution of Expert Committee and remedial action of declaring buffer zone and prohibiting mining within buffer zone. Ms. Mala Srivastava, Director, Geology and Mining, Uttar Pradesh, Ms. Priyanka Niranjani, District Magistrate, Mirzapur have submitted that committee has been constituted but its report is still awaited. Other recommendations of the Joint Committee are also yet to be carried out and Ms. Mala Srivastava, Director, Geology and Mining, Uttar Pradesh, Ms. Priyanka Niranjani, District Magistrate, Mirzapur seek time to look into the aspects and file action taken reports.

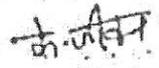
8. Action taken reports be filed by Ms. Mala Srivastava, Director, Geology and Mining, Uttar Pradesh and Ms. Priyanka Niranjani, District Magistrate, Mirzapur within one month by email at judicial-ngt@gov.in preferably in the form of searchable PDF/OCR Support PDF and not in the form of Image PDF.

मा0 राष्ट्रीय हरित अधिकरण, नई दिल्ली द्वारा 01 माह के अन्दर Action taken reports प्रेषित करने के आदेश दिये गये हैं।

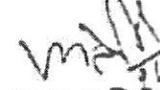
तदनुसार संस्तुति सहित आख्या आवश्यक कार्यवाही हेतु सेवा में सादर प्रेषित।


26/03/24

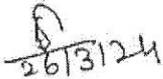
वरिष्ठ प्रबन्धक (खनन)
सीएमपीडीआई राँची, झारखण्ड


26/3/24

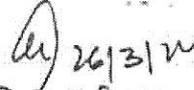
खान सुरक्षा उपनिदेशक,
खान सुरक्षा महानिदेशालय,
क्षेत्रीय कार्यालय वाराणसी


26/3/24

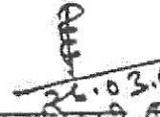
खान अधिकारी,
मीरजापुर.


26/3/24

अधिसासी अगियन्ता,
सिचाई, घुनार खण्ड, मीरजापुर.


26/3/24

अपर पुलिस अधीक्षक,
ऑपरेशन घुनार, मीरजापुर.


26.03.24

अपर जिलाधिकारी (वि0/रा0)
मीरजापुर

कार्यालय जिलाधिकारी, मीरजापुर।

(खनिज अनुभाग)

पत्रांक ५० / एम०एम०सी०-३० / डी०एम०एफ० / २०२३-२४

दिनांक ०५/५/२०२४

विषय:- ग्राम भगौतीदेई आ०सं० १८०/२ रकबा २.०२३ हे० क्षेत्र में Blasting कर vibration की माप किये जाने के सम्बन्ध में।

सेवा में,

महाप्रबन्धक (व्यवसाय विकास),

सी.एम.पी.डी.आई रॉंची,

झारखण्ड

कृपया उपरोक्त विषयक अपने पत्र सं०-सीएमपीडीआई/वीडी/ए/२०२४/ई१४४०४३३/११९००००५८३/१-२०२१८ दिनांक ०३.०४.२०२४ जिसके द्वारा vibration की माप के आधार पर Dam Buffer Zone निर्धारित किये जाने में व्यय लागत का प्राक्कलन इस्टीमेट रू० ५,५२,५९४.०० (मय जी०एस०टी०) प्रस्तुत करते हुए धनराशि अवमुक्त किये जाने का अनुरोध किया गया है।

तत्कम में प्राप्त प्रस्ताव से आर०वी०पी० इण्डस्ट्रीज प्रा०लि० निदेशक श्री राजेश भाई पटेल की खदान ग्राम भगौतीदेई आ०सं० १८०/२ रकबा २.०२३ हे० क्षेत्र में Blasting कर vibration की माप किये जाने के कार्य हेतु धनराशि रू० ५,५२,५९४.०० (मय जी०एस०टी०) CMPDI LTD के नाम से चेक संख्या-..... दिनांक /०४/२०२४ मूल रूप में संलग्न कर आपको निम्न शर्तों के साथ निर्गत किये जाते हैं कि :-

क्र० सं०	विवरण	कार्य का नाम	स्वीकृत/अवमुक्त धनराशि (रू० में)
१	CMPDI LTD रॉंची, झारखण्ड	खदान ग्राम भगौतीदेई आ०सं० १८०/२ रकबा २.०२३ हे० क्षेत्र में Blasting कर vibration की माप किये जाने का कार्य	५,५२,५९४.००
		योग	५,५२,५९४.००

- यह धनराशि उसी मद पर व्यय की जायेगी जिस मद के लिए स्वीकृत की गई है। इसका उपयोग अन्य किसी प्रयोजन के लिए नहीं किया जायेगा। कार्य समाप्ति के उपरान्त आख्या अविलम्ब प्रस्तुत की जायेगी, जिससे कि आख्या मा० राष्ट्रीय हरित अधिकरण के समक्ष ससमय प्रस्तुत की जा सकेंगी।
- प्रश्नगत कार्य पर होने वाला व्यय को स्वीकृत धनराशि तक सीमित रखा जायेगा।
- प्रश्नगत कार्य/व्यय शासन द्वारा यथा संशोधित/स्वीकृत आगणन के अनुसार किये जायेंगे।
- कार्य प्रारम्भ कराने से पूर्व यह भी सुनिश्चित किया जायेगा कि प्रश्नगत कार्य के लिए पूर्व किसी अन्य श्रोत/विभागीय वजट से धनराशि स्वीकृत नहीं की गयी है तथा न ही यह कार्य/योजना किसी विभाग की कार्य योजना में सम्मिलित है।

WPK

....2

5. स्वीकृत धनराशि के उपयोग प्रमाण पत्र बजट मैनुअल प्राविधानों के अनुसार अनिवार्य रूप से नियत समय पर महालेखाकार, उत्तर प्रदेश को प्रेषित किये जायेंगे।
6. कार्यदायी संस्था द्वारा स्वीकृत लागत के अन्तर्गत ही अनुमन्त्र जी0एस0टी0 का नियमानुसार भुगतान किया जायेगा।
7. यह आदेश जिला खनिज फाउन्डेशन न्यास नियमावली 2017 के अन्तर्गत प्रशासनिक या अधिष्ठान सम्बन्धी व्ययों की पूर्ति क्रम में जारी किये जा रहे हैं।

(प्रियंका निरंजन)
जिलाधिकारी
मीरजापुर।

पत्रांक व तददिनांक।

प्रतिलिपि-निम्नलिखित को सूचनार्थ एवं आवश्यक कार्यवाही हेतु प्रेषित।

1. कंसलटेन्ट (ज्यूडिशियल) मा0 राष्ट्रीय हरित अधिकरण, नई दिल्ली
2. प्रमुख सचिव, भूतत्व एवं खनिकर्म विभाग, उ0प्र0 शासन, लखनऊ।
3. निदेशक, भूतत्व एवं खनिकर्म निदेशालय, उ0प्र0 खनिज भवन, लखनऊ।
4. क्षेत्रीय अधिकारी, उ0प्र0 प्रदूषण नियंत्रण बोर्ड, क्षेत्रीय कार्यालय सोनभद्र।
5. प्रभारी अधिकारी, क्षेत्रीय कार्यालय भूतत्व एवं खनिकर्म विभाग, सोनभद्र।
6. गठित समिति को अनुपालनार्थ।
7. शारदा प्रबन्धक, इण्डियन बैंक, शिवाला मन्थ, मीरजापुर।

जिलाधिकारी,
मीरजापुर।

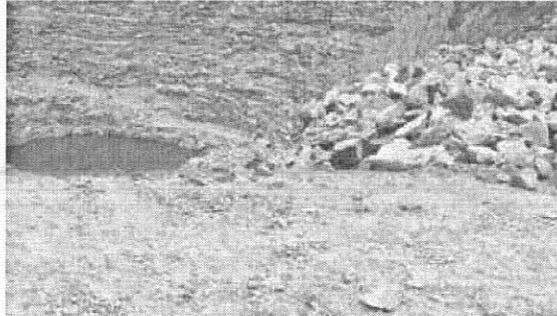
6800

STRICTLY RESTRICTED
FOR COMPANY USE ONLY

The information given in this report is not to be communicated either directly or indirectly to the press or to any person not holding an official position in the CIL/ Government.

**Report on Vibration Study due to
Blasting in the Mine of M/s R.B.P.
Industries Pvt. Ltd, Bhagautidei,
Mirzapur, U.P.**

[Job No: 281024003]



April 2024

BLASTING DIVISION

CENTRAL MINE PLANNING & DESIGN INSTITUTE LIMITED

(A Subsidiary of Coal India Limited)

**GONDWANA PLACE, KANKE ROAD, RANCHI – 834 031,
JHARKHAND, INDIA**

CONTENTS

Sl. No.	Particulars	Page No.
1.0	Introduction	1
2.0	Objectives	1
3.0	Scope of work	1
4.0	Details of Blasting site	1
5.0	Brief on Ground Vibration	2
6.0	Brief on Seismic Waves	4
7.0	Instrumentation	7
8.0	Determination of Induced Ground Vibration	8
9.0	Experimentation	9
10.0	Analysis of vibration data	9
11.0	Threshold value of ground vibration	10
12.0	Training of Mine Officials	10
13.0	Fly rock Control	11
14.0	Observations of Trial Blasts	11
15.0	Recommendations	11
	Records of Trial Blasts	17-23

LIST OF TABLES

Table No.	Particulars	Page no.
1	Details of Seismographs Used for Monitoring of Vibration	7
2	Details of Blast monitored	9
3	Permissible Peak Particle Velocity (PPV) at the foundation level	10
4	Recommended Suggested Blasting Patterns derived from the trials under the prevailing Geo- Mining Condition	12
5	Summarised statement showing Blast details in the mines of M/s R.B.P. Industries Pvt. Ltd., Bhagautidei, Mirzapur	15
6	Summarised statement showing distance, PPV and frequency for OB Bench in the mines of M/s R.B.P. Industries Pvt. Ltd., Bhagautidei, Mirzapur	16

LIST OF FIGURES

Fig. No.	Particulars	Page no.
1	Propagation of P Wave	5
2	Propagation of S Wave	5
3	Propagation of Love Wave	6
4	Propagation of Rayleigh	7
5	Instruments Installation Sites	9

APPENDIX

Sl. No.	Particulars
1.	Event Report and FFT Report

REPORT ON VIBRATION STUDY DUE TO BLASTING IN THE MINE OF M/s R.B.P INDUSTRIES PVT. LTD., BHAGAUTIDEI, MIRZAPUR, U.P.

1.0 INTRODUCTION

At the request of the District Magistrate, Mirzapur, vide work order no. 40/M.M.C-30/D.M.F/2023-24 dated 05/04/2024, a study was undertaken by the blasting team of Blasting Division of CMPDI (HQ) to conduct vibration study due to Blasting in the mines of M/s R.B.P. industries Pvt. Ltd., Bhagautidei, Mirzapur, U.P.

Blast induced ground vibration has the most detrimental effect on the surrounding areas and may cause some serious problems for the people residing nearby. The Directorate-General of Mines Safety Circular No. 7 dated 29.8.97 has specified permissible standards of peak particle velocity depending on the type of structure and the dominant frequency. The trial blast for study has been carried out by adhering to the specified permissible standards for PPV and dominant frequency.

2.0 OBJECTIVES

The objectives of the scientific study are:

- The aim of the study is to measure the blast induced ground vibrations generated due to Blasting in the mines of M/s R.B.P. industries Pvt. Ltd., Bhagautidei, Mirzapur, U.P.

3.0 SCOPE OF WORK

- Study of mine plans, mine site, geology, surface structures and their distances from the blasting point, fixing of stations and setting of geophones (in consultation with the mine management).
- Conducting field trials with existing & modified patterns and recording of ground vibration produced by those blasts.
- Recording of ground vibration by vibration monitor.
- Analysis of blast data and design of blast parameter for safe blasting.

4.0 DETAILS OF BLASTING SITE

The mine of M/s R.B.P. industries Pvt. Ltd is located in the village Bhagautidei, The- Chunar, District- Mirzapur, Uttar Pradesh. The owner of this mine is Sri Rajesh Bhai Patel, S/o Late Sri Jagdish Singh. This mine is to excavate the mineral of building stone (sandstone)

Latitude: 25°02'38.50" to 25°02'39.81" N and **longitude** 81°58'31.76" to 81°58' 33.57"E

5.0 A) BRIEF ON GROUND VIBRATION

A. Ground vibration Mechanism

Ground vibration induced by blasting is a serious environmental issue in Mining industry. When explosives are detonated in a blast hole much of the energy is used to break up and move the rock or mineral. As we move away from the blast hole, the effect of the explosion decreases to a level that causes no more shattering or displacement but the vibration continues to travel through the rock as an elastic ground vibration. The vibration through the air is generally known as air overpressure & the vibration through ground is known as blast induced Ground vibration.

The total energy of the ground motion wave generated in the rock around a blast varies directly with the quantity of explosives detonated. A ground motion wave produced by blasting is of two types, body waves and surface waves. Body waves travel through the earth material. The surface waves travel along the surfaces and interfaces of the earth materials. The surface waves are further subdivided into Rayleigh or R-waves, Love or Q-waves and coupled waves

The motion of the ground particle takes in three perpendicular directions viz. Vertical, longitudinal and transverse directions.

The three factors of ground vibrations that determine the degree of structural shaking are amplitude (peak particle velocity, PPV), its duration and its frequency. Generally, the parameters with the strongest influences on blast vibration amplitude are simple distance and the charge weight per delay.

Human beings notice and react to vibration at levels much lower than the levels established as structural damage thresholds. Distance affects the propagation, and geology changes the amplitude and frequency character of ground vibration as they travel from the blast region to measurement locations. The most important influence is dissipation or geometric spreading, where the finite amount of vibration fills an increasingly larger volume of earth as it travels outward in all directions away from the blast, the consequence is generally an exponential decrease in vibration amplitude with increasing distance from the source.

B) PEAK PARTICLE VELOCITY

At any location, peak particle velocity (PPV) depends on the distance from the blast and the maximum charge per delay. The DGMS Circular requires that square root scaling shall be used when blasting is carried out on the surface and vibrations are also monitored on the surface. The square root scaling to estimate PPV is given by (ISEE, 1998).

$$PPV = K (D/\sqrt{Q})^{-b}$$

Where PPV is the peak particle velocity (mm/s), D is the distance between the blast and the monitoring station (m), Q is the maximum charge per delay (kg), and K and 'b' are the site constants. Conventionally, (D/\sqrt{Q}) is called scaled distance.

Peak particle velocity is plotted against scaled distance on logarithmic scales. The site constants for a mine can be determined by regression analysis of the data sets. The site constants may vary from mine to mine. The constants K and 'b' vary for different mines.

C) THRESHOLD VALUES OF GROUND VIBRATION, EFFECTS & DAMAGE

All houses cracks/ deteriorate from environmental forces commonly known as normal ageing effects. These forces include temperature change, Moisture, humidity change, wind direction & its impact, settling, daily human activity etc. Other forces interacting with structures also cause damages. Blasting is one of them. Damage also depends upon the quality of construction.

The Peak Particle Velocity has so far been considered as the best criterion for evaluating blast vibration in terms of its potential to cause damage to a structure. It is expressed in mm/s. The extensive studies on the problems have established that the frequency of the waves is also equally important factor to consider the effect of damage. However, the Peak Particle Velocity at any point depends on: -

- Amount of explosive charge per delay.
- Distance & Direction from the site of blast to observation station.
- Geological, structural, & physical properties of the Intervening strata.
- Dominant frequency of ground vibration, etc.

It has been established that the extent of ground vibration is not only dependent on the maximum charge per delay in a particular round of blast but also on the total charge fired in a blast. This is due to the complex mixture of individual pulses emanating from separate delay sequence used in a blast.

The level of blast vibration that causes damage to structures has been extensively investigated over many years by researchers worldwide. All of this research has shown that very high levels of vibration are required before damage is likely to occur.

- **Threshold effects-** Refer to hairline cracks that may or may not be seen by the naked eye (75 microns or less). Threshold effects do not damage the structural integrity of the structure.
- **Minor damage-** Cracks that are visible to the naked eye but do not affect the structural integrity of the structure.
- **Major damage-** Damage from blasting usually does not reach these levels of vibrations.

D) PARAMETERS INFLUENCING PROPAGATION AND INTENSITY OF GROUND VIBRATIONS

The parameters, which exhibit control on the amplitude, frequency and duration of the ground vibration, are divided in two groups as follows:

A. NON-CONTROLLABLE PARAMETERS

The non-controllable parameters are those, over which the Blasting Engineer does not have any control. The local geology, rock characteristics and distances of the structures from blast site are non-controllable parameters. However, the control on the ground vibrations can be established with the help of controllable parameters as given below.

B. CONTROLLABLE PARAMETERS

- i. Explosive charge per delay.
- ii. Maximum charge per round.
- iii. Delay Interval & Delay sequence.
- iv. Direction of blast progression.
- v. Blast design.
- vi. Explosives & its parameters.
- vii. Quality of blasting accessories.
- viii. Type of face (Free face, Choked face etc.).
- ix. Confinement.

6.0 BRIEF ON SEISMIC WAVES

Seismic waves are the waves of energy caused by the sudden breaking of rock within the earth or an explosion. They are the energy that travels through the earth and is recorded on seismographs.

Types of Seismic Waves: The two main types of seismic waves are

- i. Body waves
- ii. Surface waves.

i. BODY WAVES

These waves travel through the interior of the earth, body waves arrive before the surface waves emitted by an explosion. These waves are of a higher frequency than surface waves. Body waves are mainly two types they are

- a) P wave or primary wave
- b) S wave or secondary wave

a) P WAVE OR PRIMARY WAVE

The first kind of body wave is the P wave or primary wave. This is the fastest kind of seismic wave, and, consequently, the first to 'arrive' at a station, hence the name "Primary". The P wave can move/travel through any kind of material like solid rock and fluids like water or the liquid layers of the earth. It can travel at nearly twice the speed of S waves. In air, they take the form of sound waves, hence they travel at the speed of sound.

P waves are pressure waves, as it is formed from alternating compressions and rarefactions or primary wave. It pushes and pulls the rock it moves through just like sound waves push and pull the air. The mode of propagation of a P-wave is always longitudinal. Subjected to a P wave, particles move/vibrate in the same direction that the wave is moving in, which is the

direction that the energy is traveling in, and is sometimes called the direction of wave propagation.

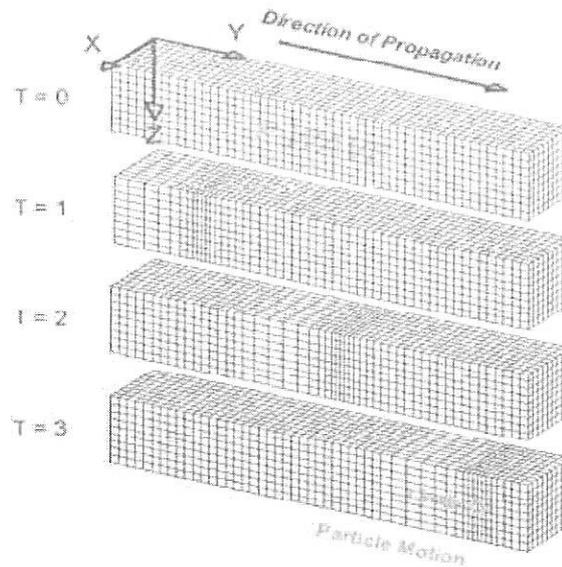


Figure 1: Propagation of P Wave

b) S WAVE OR SECONDARY WAVE

The second type of body wave is the S wave or secondary wave, which is the second wave you feel after P wave. Secondary waves (S-waves) are shear waves that are transverse in nature. The S-wave moves as a shear or transverse wave, so motion is perpendicular to the direction of wave propagation. The S-wave displace the ground perpendicular to the direction of wave propagation.

S-waves can only move through solid rock, not through any liquid medium as fluids (liquids and gases) do not support shear stresses

S-waves are slower than P-waves, and speeds are typically around 60% of that of P-waves in any given material.

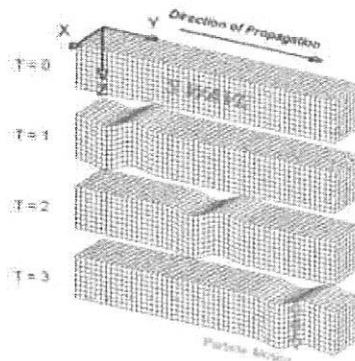


Figure 2: Propagation of S Wave

ii. SURFACE WAVES

Seismic surface waves travel along the Earth's surface (travelling only through the crust). They travel more slowly than seismic body waves (P and S). Surface waves are of a lower frequency than body waves. The particle motion of surface waves is larger than that of body waves, so the surface waves tend to cause more damage.

Though they arrive after body waves, it is surface waves that are almost entirely responsible for the damage and destruction associated with an explosion. This damage and the strength of the surface waves are reduced in deeper explosion.

The surface waves are mainly two types:

a) Love waves b) Rayleigh waves

a) LOVE WAVES

The first kind of surface wave is called a Love wave, named after A.E.H. Love (Augustus Edward Hough Love) a British mathematician who worked out the mathematical model for this kind of wave in 1911.

Love waves are horizontally polarized shear waves (SH waves) and moves the ground from side-to-side. It's the fastest surface wave. Love waves travel with a lower velocity than P- or S-waves. They usually travel slightly faster than Rayleigh waves, about 90% of the S wave velocity, and have the largest amplitude. Love waves Confined to the surface of the crust, Love waves produce entirely horizontal motion.

The Love wave is a result of the interference of many shear waves (S-waves) guided by an elastic layer. Love waves (also known as Q waves) are surface seismic waves that cause horizontal shifting of the Earth during an explosion. These waves are observed only when there is a low velocity layer overlying a high velocity layer/ sub-layers.

The particle motion of a Love wave forms a horizontal line perpendicular to the direction of propagation (i.e. are transverse waves). Since Love waves travel on the Earth's surface, the strength (or amplitude) or maximum particle motion of the waves often decrease exponentially with the depth of an explosion.

Surface waves decay more slowly with distance than do body waves, which travel in three dimensions. Since they decay so slowly, Love waves are the most destructive outside the immediate area of the focus or epicenter of an explosion. They are what most people feel directly during an explosion.

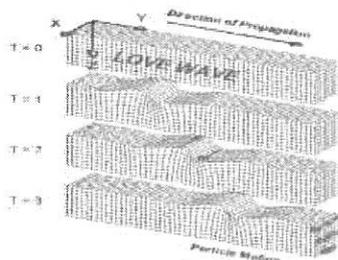


Figure 3- Propagation of Love Wave

b) RAYLEIGH WAVES

The other kind of surface wave is the Rayleigh wave, named for John William Strutt, Lord Rayleigh, who mathematically predicted the existence of this kind of wave in 1885.

In seismology longitudinal and shear waves are known as P-waves and S-waves, respectively, and are termed body waves. Rayleigh waves are generated by the interaction of P- and S-waves at the surface of the earth, and travel with a velocity that is lower than the P-, S-, and Love wave velocities.

A Rayleigh wave (also called ground roll) rolls along the ground just like a wave rolls across a lake or an ocean (travel as ripples with motions that are similar to those of waves on the surface of water). Because it rolls, it moves the ground up and down, and side-to-side in the same direction that the wave is moving. Most of the shaking felt from an explosion or earthquake is due to the Rayleigh wave.

Rayleigh waves are a type of surface wave that travel near the surface of solids. Rayleigh waves include both longitudinal and transverse motions that decrease exponentially in amplitude as distance from the surface increases. The amplitude of Rayleigh waves also generally decreases exponentially with the depth of the hypocenter.

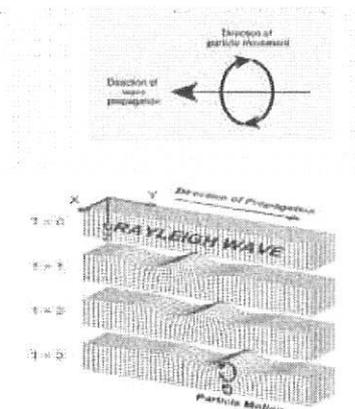


Figure 4 - Propagation of Rayleigh Wave

7.0 INSTRUMENTATION

Details of seismographs used for monitoring of Vibration and preparation of report is shown in Table - 1.

TABLE-1: DETAILS OF SEISMOGRAPHS USED FOR MONITORING OF VIBRATION

Sl. No.	Seismograph Name	Serial No of Instrument	Make
1.	Micromate	UM11220	Instantel Inc. Canada
2.	Blastmate III	BA 14611	Instantel Inc. Canada
3.	Minimate Plus	BE 18012	Instantel Inc. Canada
4.	Minimate Plus	BE 18270	Instantel Inc. Canada

Procedure for seismographs prior to use:

- Checking of Battery & charging status
- Checking of Proper functioning of Transducers
- Parameters setting
- Sensor checks.
- Procedure for setting up seismographs on site
- Fixing of monitoring stations in consultation with the mine management.
- Digging and installing the geophone inside a trench and tight packing of geophone & trench with soil prior to blasting.
- Connect the Geophones with the seismograph.
- Switch on the instrument and check whether the seismograph is sensing the connected geophones (transducers) or not.
- Press start monitoring button prior to blast, to record blast induced ground vibration

Procedure for handling and management of monitoring data & production of monitoring reports:

- Recording of vibration.
- Downloading of the data using Blastware-10 software.
- Generation of Event reports to know the recorded vibration.
- Regression Analysis of data for determining the site equation, if required.
- Establishing the frequency domain of the blasts.
- Evaluating the Charge/Delay vs Distance for the Maximum permissible PPV for the given frequency range, if required.
- Recommending safe charge /delay for different distances if required
- Recommending the blast pattern for the mine if required.

8.0 DETERMINATION OF INDUCED GROUND VIBRATION

Blast induced ground vibration was measured by One no. of Blastmate III, two nos. of Minimate Plus and one no. of Micromate vibration monitors. These instruments are microprocessor-based unit having tri-axial transducers. It measures Peak Particle Velocity (PPV) in three mutually perpendicular directions, i.e. longitudinal, transverse and vertical along with respective frequencies.



FIGURE 5: INSTRUMENT INSTALLATION SITES

9.0 EXPERIMENTATION

Details of the blast monitored are summarized in Table-2

TABLE-2: DETAILS OF BLAST MONITORED

Details of Blast	OB
No. of rounds	06
No. of observations	19
Depth of drill holes (m)	0.9-1.0
Burden (m)	0.9-1.0
Spacing (m)	1.0
Explosive charge/hole (kg)	0.125
Maximum charge/round (kg)	1.875- 6.250

Adequate care was taken in respect of blast design, proper use of explosives, length of stemming column for minimizing the level of ground vibration. Loose pieces of stones/ debris were removed from the blast site before commencing blasting operations. The initiation was done by non-electric detonators.

The instruments were fixed at a distance of 30 m to 385 m from the blast point where the levels of ground vibration were recorded. The details of each trial blast, blast geometry, explosive charge distribution, etc. are shown in the enclosed Annexures.

10.0 ANALYSIS OF VIBRATION DATA

The blast sites were fixed in consultation with the mine officials and mine officer, Mirzapur. However, the geophones were fixed at distances ranging from 30 m to 385 m from blasting faces to simulate the future conditions when blasting may be extended close to the nearby structures/ houses/ dwellings/ Jargo Dam etc. not belonging to owner of the mine. The data

obtained from these observations were recorded by four nos. of vibration monitors and subsequently data analysis was carried out by a computer software package for deriving the site-specific propagation equation. During trial period, 06 blasts were conducted with 19 observations at different distances from blast site.

11.0 THRESHOLD VALUE OF GROUND VIBRATION

The study has been conducted keeping in view the norms set for the threshold value of PPV by DGMS. As per DGMS Circular No.7 dated 29.08.1997, depending on the type of structures and the dominant excitation frequency, the peak particle velocity (PPV) on the ground adjacent to structures should not exceed the values given in the following table. Permissible peak particle velocity (PPV) at the foundation level of structures in mining area in mm/sec is shown in Table-3.

TABLE-3: PERMISSIBLE PEAK PARTICLE VELOCITY (PPV) AT FOUNDATION LEVEL

Type Of Structures		Dominant Excitation Frequency (Hz)		
		< 8 Hz	8-25 Hz	> 25 Hz
(A)	Building/structures not belonging to owner			
	(i) Domestic houses/structures (Kuchha, Brick in cement).	5	10	15
	(ii) Industrial building (RCC) framed structures.	10	20	25
	(iii) Object of historical importance and sensitive structures.	2	5	10
(B)	Building belonging to owner with limited span of life			
	(i) Domestic houses/structures (Kuchha, Brick in cement)	10	15	25
	(ii) Industrial building (RCC) framed structures	15	25	50

12.0 TRAINING OF MINE OFFICIALS

Requisite training was imparted to mine officials and workers who were continuously associated with blasting operations during the study period (i.e. from design of blast to the final observation of the blast). The concerned mine officials were made conversant to use of explosives and the technique of controlled blasting as applicable to prevailing condition in the mines of M/s R.B.P. Industries Pvt. Ltd, Bhagautidei, Mirzapur.



13.0 FLYROCK CONTROL

Fly-rock is an undesirable impact of surface blasting operations. It has been proved in studies that the explosive energy takes the path of least resistance in surface blasting. If the blast conditions are not proper than it can generate fly-rocks which can cause injury to person or damage nearby dwellings. Factors mainly responsible for fly-rock includes:

- Geological factors such as presence of joints, cracks, faults and slip Planes.
- High explosive concentration leading to explosive energy migration through least resistant region.
- Deviation of blast holes from the intended direction due to inappropriate initiating pattern or blast design causing a reduction in burden or spacing.
- Insufficient or improper stemming leading to stemming ejection and bench-top fly-rock.

14.0 OBSERVATIONS OF TRIAL BLASTS

- a) Total thirteen (06) blasts were conducted in the mines of M/s R.B.P. industries Pvt. Ltd., Bhagautidei, Mirzapur, U.P.
- b) The blast induced ground vibration as observed at various locations varies from 0.221 mm/sec at 245m distance & 5.733 mm/sec at 30m distance.
- c) The Event (Blast induced ground vibration) is not recorded by different vibration Monitor stationed beyond 300m.
- d) Maximum 43% of the frequency of ground vibrations were observed in the range <8 Hz and >25Hz as shown in Table 6.
- e) Jargo Dam nearby mines is considered as a sensitive structure. The Permissible peak particle velocity (PPV) at the foundation level of the Jargo Dam shall be less than 2 mm/sec as per DGMS Circular No.7 dated 29.08.1997.

15.0 RECOMMENDATIONS

Based on the data collected from field trial blasts and its analysis various blast patterns were designed to conduct safe blasting for various distances from surface structures. From the on-site measurements of Peak Particle Velocity (PPV) and analysis of results of trial blasts in the mines of M/s R.B.P. industries Pvt. Ltd., Bhagautidei, Mirzapur, U.P. under the prevailing geo-mining conditions, it may be recommended that the workings in the mines of M/s R.B.P. industries Pvt. Ltd., Bhagautidei, Mirzapur, U.P. can be safely extended beyond 300m from nearby Dam/villages/hutments or dwellings etc. not belonging to owner with a **maximum explosive charge per delay per hole as shown in Table: 4.**

The present workings of the mine can be safely advanced beyond 300m from nearby villages/hutments/dwellings or dam etc not belonging to owner by strictly following the recommended blast patterns as per Table No: 4 & 4(a).

The mine management can also design drilling parameters and blast patterns considering strictly the maximum explosive charge per delay as provided in table 4. The Drill Pattern, Charge Pattern, Delay Sequence, and Initiation etc. for all the recommendations are provided below. All other safety precautions as stated in the statute regarding drilling, charging and blasting operations shall be followed strictly.

TABLE 4: RECOMMENDED SUGGESTED BLASTING PATTERNS DERIVED FROM THE TRIALS UNDER THE PREVAILING GEO-MINING CONDITIONS ARE GIVEN BELOW:

Sl. No.	Distance (m)	Dia. of holes (mm)	Pattern of holes			Initiation system	Max no of Holes per Blast	Maximum charge per hole per delay	Max Charge Per Round (kg)
			Depth (m)	Burden (m)	Spacing (m)				
1.*	≥ 300	25.4	1	0.9	1	Nonel/ Electronic Detonator	50	0.125	6.25
2.	< 300	Scientific study for controlled Blasting will be required							

* Nonel of different Delay should be used for minimal Ground Vibration

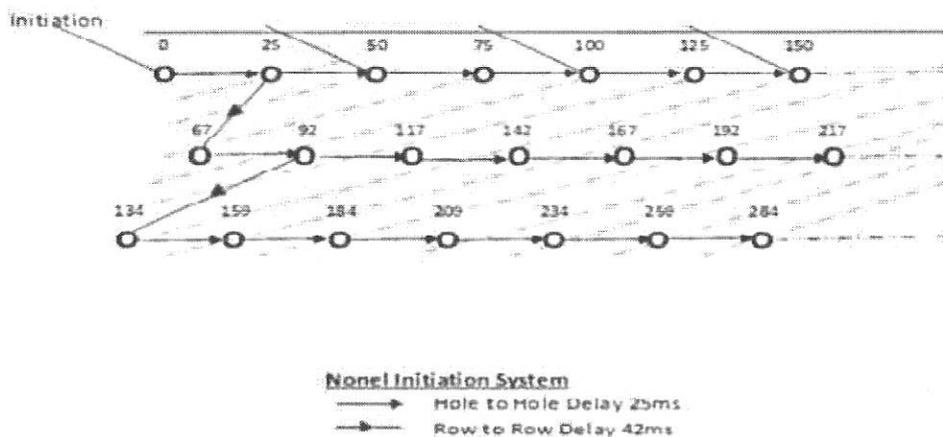
a) Sketch Showing the Pattern of Holes and Charge Distribution & Length of Stemming Column

MAXIMUM CHARGE PER HOLE: 0.125 KG

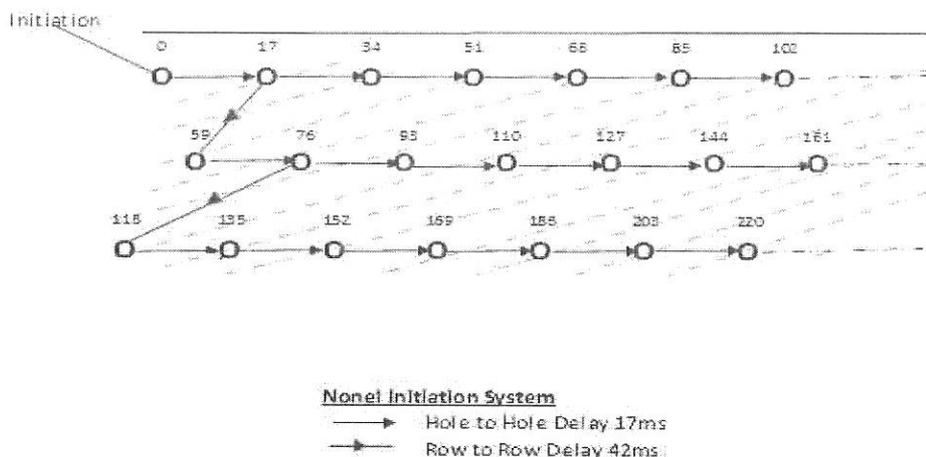
NUMBER OF HOLES: 50

CHARGE PER ROUND: 6.25 KG

Case I:



Case II:



- c) As demonstrated during the trials a proper initiation system to resist charge per delay as recommended should be followed in order to restrict ground vibration, control of fly rock and better fragmentation.
- d) For less than 300m from nearby villages/hutments/dwellings or dam etc. not belonging to owner, proper scientific study for controlled Blasting will be required.
- e) Free face should be maintained and blasted material should be cleared out before the commencement of subsequent blasting operation. All loose debris should be removed from the blast site.
- f) The code of blasting signals shall be strictly followed as framed by the mine manager and means of effective communication should be utilized gainfully in the mine. A siren must be used during blasting operation for warning the people before blasting and to give all clear signals after blasting.
- g) Where any part of the public road and/or railway line lies within the danger zone (as specified by DGMS), at least two persons must be deputed in either direction of the road/railway at the two extreme points (more than 100m in either direction) at the time of blasting with an efficient system of communication (i.e. telephone, wireless etc.) to prevent any person, vehicle etc. to approach within the said danger zone.
- h) Mobile telephone must be switched off in the blasting area at the time of handling, charging and blasting of explosives.
- i) The day to day blasting operations shall be recorded in a bound paged book showing the blast parameters, e.g. charge/delay, charge/round, PPV etc. and should be countersigned by the mine manager.
- j) The mine manager shall fix the blasting time and it should be circulated to all concerned officials and displayed on the notice board. Blasting should be done in day-light only. Blasting should be avoided under overcast sky.

- k) The above trial is based on the existing geo-mining conditions. The recommended charge per hole per delay may change with the changed geo-mining conditions. In such cases, fresh study is needed to be conducted to obtain the maximum charge per hole per delay.
- l) In the prevailing geo-mining conditions as observed during the trials blasts explosives should be used for regular production blasts.
- m) Only properly trained blasting personnel should be deployed for using explosives.
- n) Other precautions concerning handling, charging and blasting of explosives as laid down in the statute should be followed.
- o) Day to day blasting operations should be recorded in a bound paged book showing all the relevant blast parameters, e.g. number and depth of holes, burden, spacing, charge/delay, charge/round, initiation system, etc. duly signed by the Blasting Official and countersigned by the Manager for future reference.



Satyendra Narayan
Sr. Manager
Blasting Division, CMPDIL (HQ)

Vibration Study due to Blasting in the mines of M/s R.B.P. Industries Pvt. Ltd, Bhagauidel, Mirzapur, U.P.

TABLE 5: SUMMARISED STATEMENT SHOWING BLAST DETAILS IN THE MINES OF M/S R.B.P. INDUSTRIES PVT. LTD, BHAGAUIDEL, MIRZAPUR

Sl. No.	Date	Nature of formation	Location	No. of Holes	Parameters			Explosive charge (Kg)		
					Depth (m)	Burden (m)	Spacing (m)	Per hole	Max. charge/delay	Per round (Kg)
1.	11.04.2024	Medium to Hard	OB Bench	30	0.9-1.0	0.9- 1.0	1.0	0.125	0.125	3.75
2.	11.04.2024	Medium to Hard	OB Bench	15	0.9-1.0	0.9- 1.0	1.0	0.125	0.125	1.875
3.	11.04.2024	Medium to Hard	OB Bench	15	0.9-1.0	0.9- 1.0	1.0	0.125	0.125	1.875
4.	12.04.2024	Medium to Hard	OB Bench	50	0.9-1.0	0.9- 1.0	1.0	0.125	0.125	6.25
5.	12.04.2024	Medium to Hard	OB Bench	50	0.9-1.0	0.9- 1.0	1.0	0.125	0.125	6.25
6.	12.04.2024	Medium to Hard	OB Bench	50	0.9-1.0	0.9- 1.0	1.0	0.125	0.125	6.25

Vibration Study due to Blasting in the mines of M/s R.B.P. Industries Pvt. Ltd, Bhagautidei, Mirzapur, U.P.

TABLE 6: SUMMARISED STATEMENT SHOWING DISTANCE, PPV AND FREQUENCY FOR OB BENCH IN THE MINES OF M/S R.B.P. INDUSTRIES PVT. LTD, BHAGAUTIDEI, MIRZAPUR

Sl. No.	Date	Nature of formation	Maximum charge/round (kg)	Distance from blast site to monitoring station				Peak particle Velocity PPV				Frequency				% Frequency				
				Stn1	Stn2	Stn3	Stn.4	Stn1	Stn2	Stn3	Stn.4	Stn1	Stn2	Stn3	Stn.4	<8 Hz	8-25 Hz	>25Hz		
1.	11.04.2024	Medium to Hard	3.75	245	375	385		1.147	ENR*	ENR*			2.0	-	-					
2.	11.04.2024	Medium to Hard	1.875	345	380	150		ENR*	ENR*	0.290			-	-	117.0					
3.	11.04.2024	Medium to Hard	1.875	180	185	145		0.684	0.622	0.832			7.0	7.0	7.25					
4.	12.04.2024	Medium to Hard	6.25	30	125	130	145	5.733	0.803	0.730	0.410		63.0	8.25	8.25					
5.	12.04.2024	Medium to Hard	6.25	35	150			2.394	ENR*				72.25	-	-					
6.	12.04.2024	Medium to Hard	6.25	35	50	45	245	2.623	1.092	1.178	0.221		76.25	72.25	72.50			43	14	43

*ENR- Event not recorded

RECORDS OF TRIAL BLAST

**RECORDS OF VIBRATION STUDY IN THE MINES OF M/S R.B.P. INDUSTRIES PVT.
LTD, BHAGAUTIDEI, MIRZAPUR**

TRAIL BLAST – 1

Sl.No	Particulars				
1.	Date of Blast	:	11.04.2024		
2.	Bench	:	OB Bench		
3.	Nature of Strata	:	Medium Hard Sandstone		
4.	Pattern of Holes	:	Rectangular		
	a) Dia. of Holes (mm)	:	25.4		
	b) Depth of Holes (m)	:	0.9 – 1.0		
	c) Burden (m) (Average)	:	0.9		
	d) Spacing (m) (Average)	:	1.0		
	e) No. of Holes	:	30		
	f) No. of Rows	:	05		
5.	Type of Explosive Used	:	Cartridge Explosive		
6.	Charge Per Hole (Kg)	:	0.125		
7.	Total Explosive Used Per Round	:	3.75		
8.	Type of Initiating System	:	Nonel Initiation		
9.	Stemming Material Used	:	Drill cuttings		
10.	Distance from Observation Station to Blasting Site (m)	:	Stn.1	Stn.2	Stn.3
			245	375	385
11.	Vibration (In Terms of Peak Particle Velocity) (mm/sec)	:	Stn.1	Stn.2	Stn.3
			1.147	ENR*	ENR*
12.	Frequency (Hz)	:	Stn.1	Stn.2	Stn.3
			2.0	-	-
13.	Fly Rock	:	Within Limit		
14.	Fragmentation	:	Satisfactory		

ENR*- Event not recorded

**RECORDS OF VIBRATION STUDY IN THE MINES OF M/S R.B.P. INDUSTRIES PVT.
LTD, BHAGAUTIDEI, MIRZAPUR**

TRAIL BLAST – 2

Sl.No	Particulars				
1.	Date of Blast	:	11.04.2024		
2.	Bench	:	OB Bench		
3.	Nature of Strata	:	Medium Hard Sandstone		
4.	Pattern of Holes	:	Rectangular		
	a) Dia. of Holes (mm)	:	25.4		
	b) Depth of Holes (m)	:	0.9 – 1.0		
	c) Burden (m) (Average)	:	0.9		
	d) Spacing (m) (Average)	:	1.0		
	e) No. of Holes	:	15		
	f) No. of Rows	:	03		
5.	Type of Explosive Used	:	Cartridge Explosive		
6.	Charge Per Hole (Kg)	:	0.125		
7.	Total Explosive Used Per Round	:	1.875		
8.	Type of Initiating System	:	Nonel Initiation		
9.	Stemming Material Used	:	Drill cuttings		
10.	Distance from Observation Station to Blasting Site (m)	:	Stn.1	Stn.2	Stn.3
			345	380	150
11.	Vibration (In Terms of Peak Particle Velocity) (mm/sec)	:	Stn.1	Stn.2	Stn.3
			ENR*	ENR*	0.290
12.	Frequency (Hz)	:	Stn.1	Stn.2	Stn.3
			-	-	117.0
13.	Fly Rock	:	Within Limit		
14.	Fragmentation	:	Satisfactory		

ENR*- Event not recorded

**RECORDS OF VIBRATION STUDY IN THE MINES OF M/S R.B.P. INDUSTRIES PVT.
LTD, BHAGAUTIDEI, MIRZAPUR**

TRAIL BLAST – 3

Sl.No	Particulars				
1.	Date of Blast	:	11.04.2024		
2.	Bench	:	OB Bench		
3.	Nature of Strata	:	Medium Hard Sandstone		
4.	Pattern of Holes	:	Rectangular		
	a) Dia. of Holes (mm)	:	25.4		
	b) Depth of Holes (m)	:	1.0		
	c) Burden (m) (Average)	:	1.0		
	d) Spacing (m) (Average)	:	1.0		
	e) No. of Holes	:	15		
	f) No. of Rows	:	03		
5.	Type of Explosive Used	:	Cartridge Explosive		
6.	Charge Per Hole (Kg)	:	0.125		
7.	Total Explosive Used Per Round	:	1.875		
8.	Type of Initiating System	:	NoneI Initiation		
9.	Stemming Material Used	:	Drill cuttings		
10.	Distance from Observation Station to Blasting Site (m)	:	Stn.1	Stn.2	Stn.3
			180	185	145
11.	Vibration (In Terms of Peak Particle Velocity) (mm/sec)	:	Stn.1	Stn.2	Stn.3
			0.684	0.622	0.832
12.	Frequency (Hz)	:	Stn.1	Stn.2	Stn.3
			7.0	7.0	7.25
13.	Fly Rock	:	Within Limit		
14.	Fragmentation	:	Satisfactory		

RECORDS OF VIBRATION STUDY IN THE MINES OF M/S R.B.P. INDUSTRIES PVT.
LTD, BHAGAUTIDEI, MIRZAPUR

TRAIL BLAST – 4

Sl.No	Particulars					
1.	Date of Blast	:	12.04.2024			
2.	Bench	:	OB Bench			
3.	Nature of Strata	:	Medium Hard Sandstone			
4.	Pattern of Holes	:	Rectangular			
	a) Dia. of Holes (mm)	:	25.4			
	b) Depth of Holes (m)	:	0.9 – 1.0			
	c) Burden (m) (Average)	:	0.9			
	d) Spacing (m) (Average)	:	1.0			
	e) No. of Holes	:	50			
	f) No. of Rows	:	05			
5.	Type of Explosive Used	:	Cartridge Explosive			
6.	Charge Per Hole (Kg)	:	0.125			
7.	Total Explosive Used Per Round	:	6.25			
8.	Type of Initiating System	:	Nonel Initiation			
9.	Stemming Material Used	:	Drill cuttings			
10.	Distance from Observation Station to Blasting Site (m)	:	Stn.1	Stn.2	Stn.3	Stn.4
			30	125	130	145
11.	Vibration (In Terms of Peak Particle Velocity) (mm/sec)	:	Stn.1	Stn.2	Stn.3	Stn.4
			5.733	0.803	0.730	0.410
12.	Frequency (Hz)	:	Stn.1	Stn.2	Stn.3	Stn.4
			63.0	8.25	8.25	2.0
13.	Fly Rock	:	Within Limit			
14.	Fragmentation	:	Satisfactory			

**RECORDS OF VIBRATION STUDY IN THE MINES OF M/S R.B.P. INDUSTRIES PVT.
LTD, BHAGAUTIDEI, MIRZAPUR**

TRAIL BLAST – 5

Sl.No	Particulars		
1.	Date of Blast	: 12.04.2024	
2.	Bench	: OB Bench	
3.	Nature of Strata	: Medium Hard Sandstone	
4.	Pattern of Holes	: Rectangular	
	a) Dia. of Holes (mm)	: 25.4	
	b) Depth of Holes (m)	: 0.9 – 1.0	
	c) Burden (m) (Average)	: 0.9	
	d) Spacing (m) (Average)	: 1.0	
	e) No. of Holes	: 50	
	f) No. of Rows	: 05	
5.	Type of Explosive Used	: Cartridge Explosive	
6.	Charge Per Hole (Kg)	: 0.125	
7.	Total Explosive Used Per Round	: 6.25	
8.	Type of Initiating System	: Nonel Initiation	
9.	Stemming Material Used	: Drill cuttings	
10.	Distance from Observation Station to Blasting Site (m)	: Stn.1 35	Stn.2 150
11.	Vibration (In Terms of Peak Particle Velocity) (mm/sec)	: Stn.1 2.394	Stn.2 ENR*
12.	Frequency (Hz)	: Stn.1 72.25	Stn.2 -
13.	Fly Rock	: Within Limit	
14.	Fragmentation	: Satisfactory	

ENR*- Event not recorded

**RECORDS OF VIBRATION STUDY IN THE MINES OF M/S R.B.P. INDUSTRIES PVT.
LTD, BHAGAUTIDEI, MIRZAPUR**

TRAIL BLAST – 6

Sl.No	Particulars					
1.	Date of Blast	:	12.04.2024			
2.	Bench	:	OB Bench			
3.	Nature of Strata	:	Medium Hard Sandstone			
4.	Pattern of Holes	:	Rectangular			
	a) Dia. of Holes (mm)	:	25.4			
	b) Depth of Holes (m)	:	0.9 – 1.0			
	c) Burden (m) (Average)	:	0.9			
	d) Spacing (m) (Average)	:	1.0			
	e) No. of Holes	:	50			
	f) No. of Rows	:	05			
5.	Type of Explosive Used	:	Cartridge Explosive			
6.	Charge Per Hole (Kg)	:	0.125			
7.	Total Explosive Used Per Round	:	6.25			
8.	Type of Initiating System	:	Nonel Initiation			
9.	Stemming Material Used	:	Drill cuttings			
10.	Distance from Observation Station to Blasting Site (m)	:	Stn.1	Stn.2	Stn.3	Stn.4
			35	50	45	245
11.	Vibration (In Terms of Peak Particle Velocity) (mm/sec)	:	Stn.1	Stn.2	Stn.3	Stn.4
			2.623	1.092	1.178	0.221
12.	Frequency (Hz)	:	Stn.1	Stn.2	Stn.3	Stn.4
			76.25	72.25	72.50	2.0
13.	Fly Rock	:	Within Limit			
14.	Fragmentation	:	Satisfactory			

APPENDIX

Date/Time Tran at 13:19:06 April 11, 2024
 Trigger Source Geo: 0.800 mm/s
 Range Geo: 31.75 mm/s
 Record Time 2.0 sec at 1024 sps

Serial Number BA14611 V 10.72-8.17 BlastMate III/8
 Battery Level 6.2 Volts
 Unit Calibration March 23, 2022 by UES Now Delhi
 File Name PG11KIIXU BU0
 Scaled Distance 0.3 (0.1 m, 0.1 kg)

Notes

Location: JARGO DAM, MIRZAPUR, VARANASI
 Client: D.M. OFFICE, MIRZAPUR
 User Name: CMPDI BLASTING DIVISION
 General Monitoring: 0 VIBRATION STUDY

Extended Notes

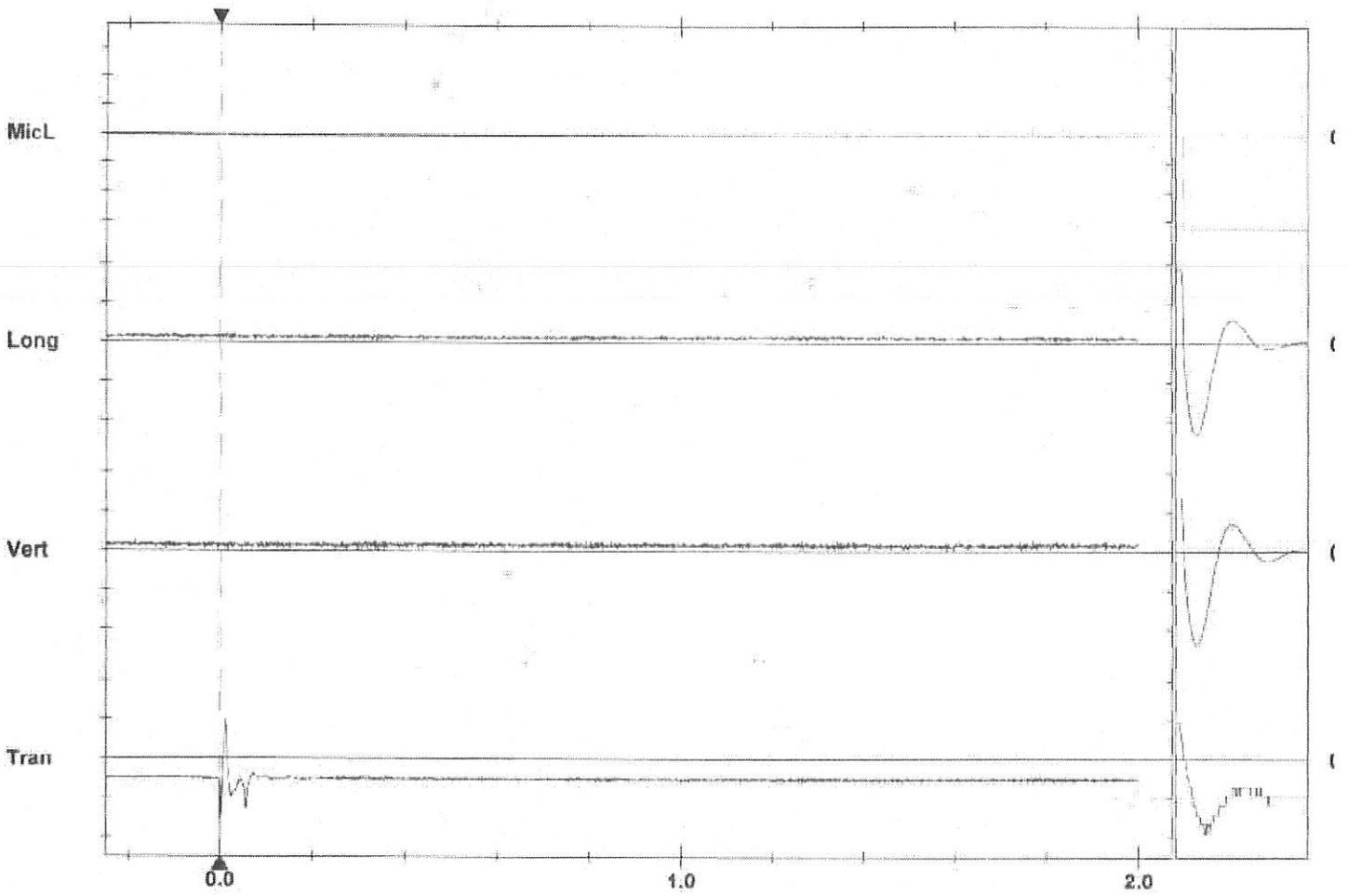
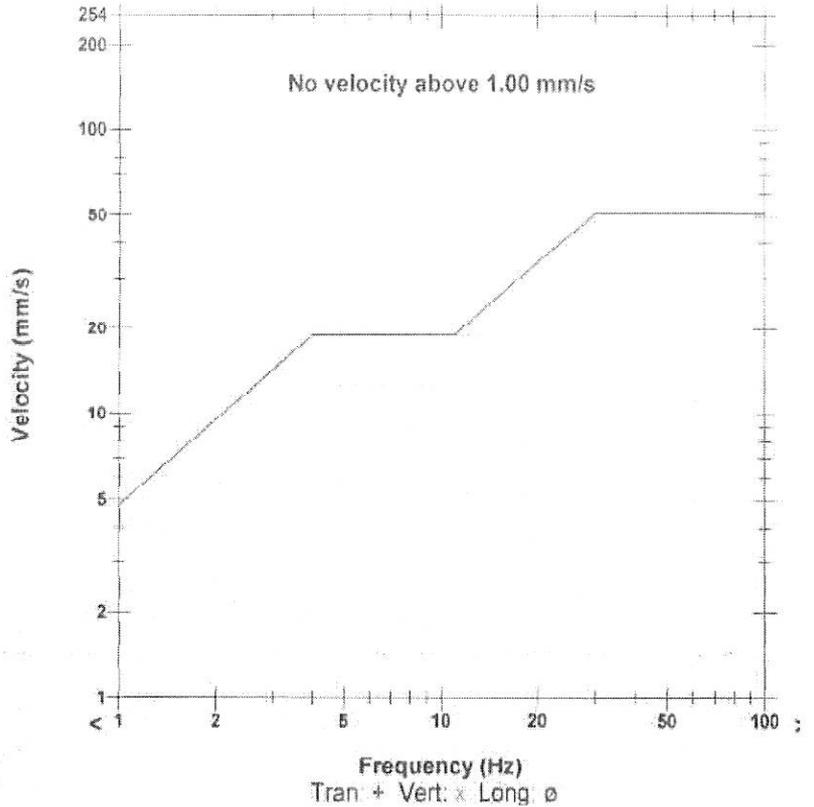
Job No 3

Microphone Linear Weighting
 PSPL 0.750 pa (L) at 0.347 sec
 ZC Freq >100 Hz
 Channel Test Check (Freq = 0.0 Hz Amp = 0 mv)

	Tran	Vert	Long	
PPV	1.143	0.143	0.095	mm/s
ZC Freq	2.0	N/A	N/A	Hz
Time (Rel. to Trig)	0.000	-0.187	-0.118	sec
Peak Acceleration	0.086	0.012	0.007	g
Peak Displacement	0.033	0.021	0.022	mm
Sensor Check	Check	Passed	Passed	
Frequency	2.2	7.6	7.5	Hz
Overwing Ratio	8.0	3.4	3.9	

Peak Vector Sum 1.147 mm/s at 0.000 sec
 N/A: Not Applicable

USRM R18507 And OSMRE



Time Scale: 0.20 sec/div Amplitude Scale: Geo: 0.500 mm/s/div Mic: 10.000 pa (L)/div
 Trigger = > <

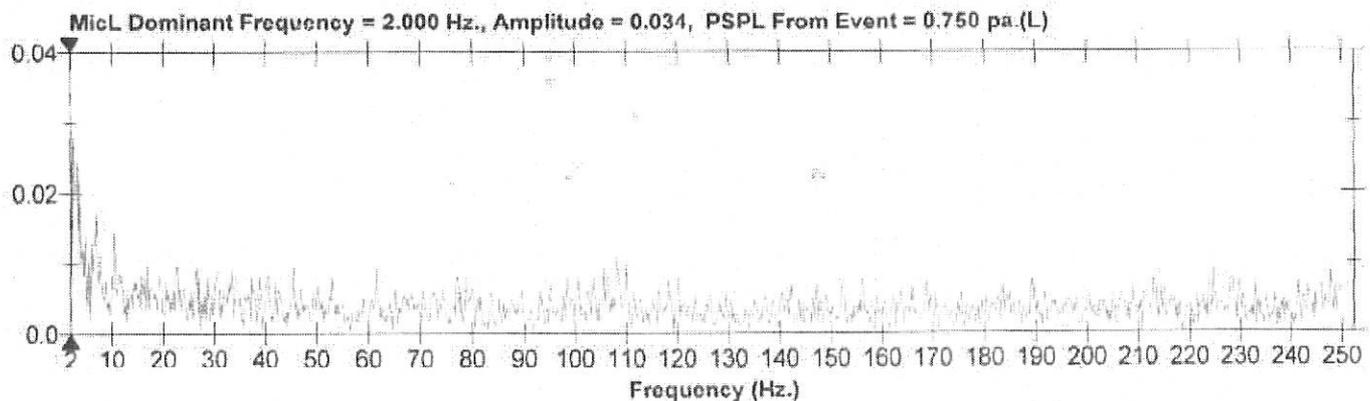
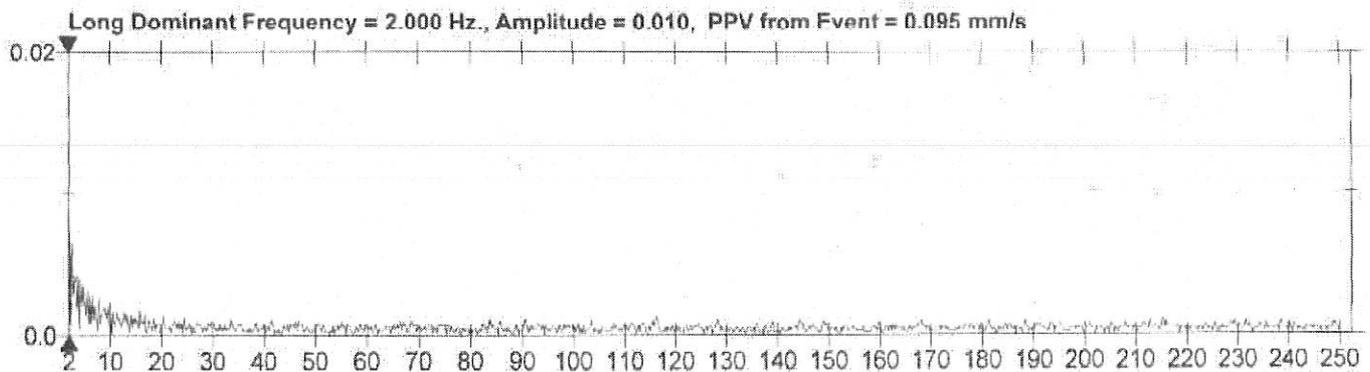
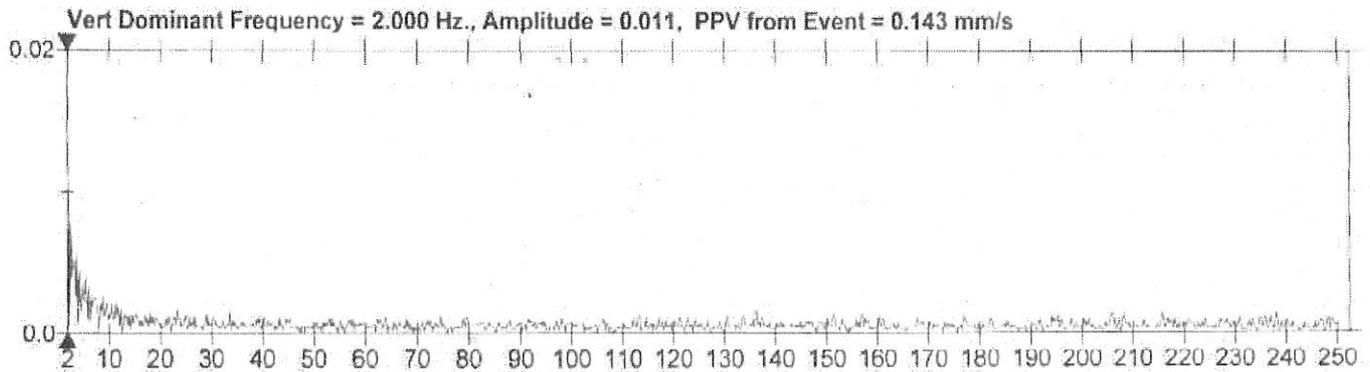
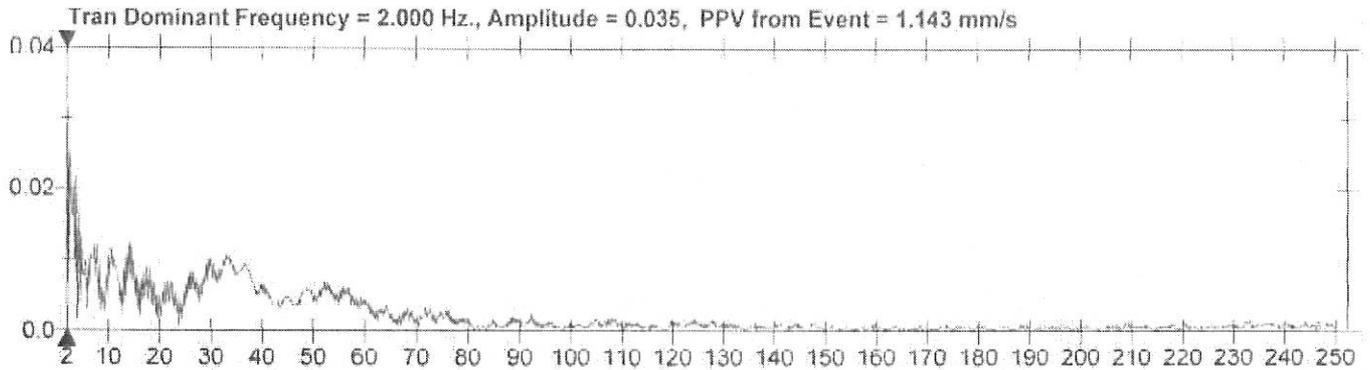
Sensor Check

Date/Time Tran at 13:19:06 April 11, 2024
Trigger Source Geo: 0.800 mm/s
Range Geo: 31.75 mm/s
Record Time 2.0 sec at 1024 sps

Serial Number BA14611 V 10.72-8.17 BlastMate III/8
Battery Level 6.2 Volts
Unit Calibration March 23, 2022 by UES New Delhi
File Name P611KHXU.BU0
Scaled Distance 0.3 (0.1 m, 0.1 kg)

Notes
Location JARGO DAM, MIRZAPUR, VARANASI
Client D.M. OFFICE, MIRZAPUR
User Name: CMPDI BLASTING DIVISION
General: Monitoring 0 VIBRATION STUDY

Extended Notes
Job No 3



Date/Time MicA at 13:33:19 April 11, 2024
 Trigger Source Geo: 0.800 mm/s Mic: 2.000 pa (L)
 Range Geo: 254.0 mm/s
 Record Time 3.0 sec at 1024 sps
 Operator/Setup: Operator/factory.mmb

Serial Number UM11220 V 10-90FB Micromate ISEE
 Battery Level 3.8 Volts
 Unit Calibration August 14, 2023 by UES New Delhi
 File Name UM11220_20240411133319.IDFW

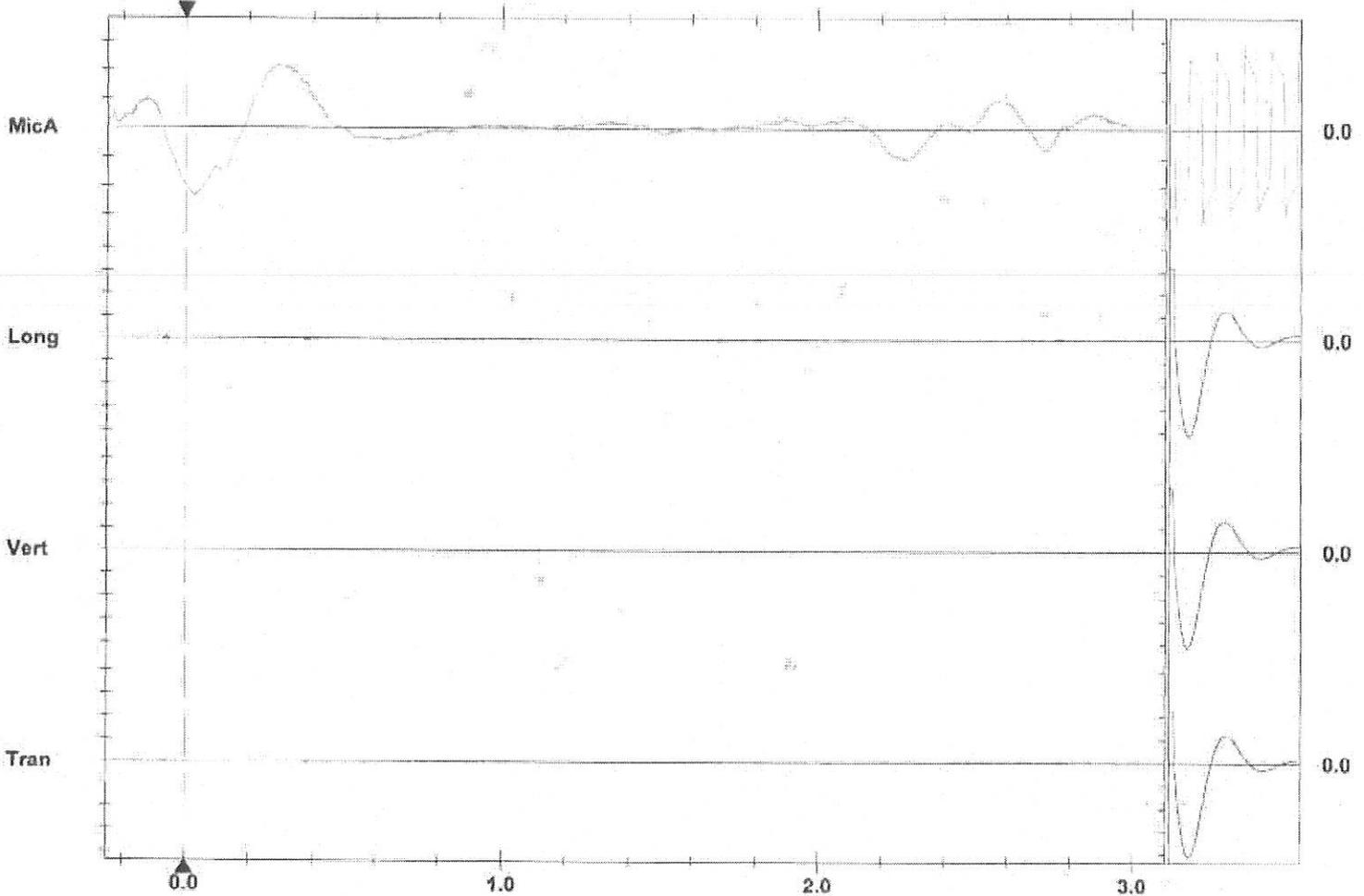
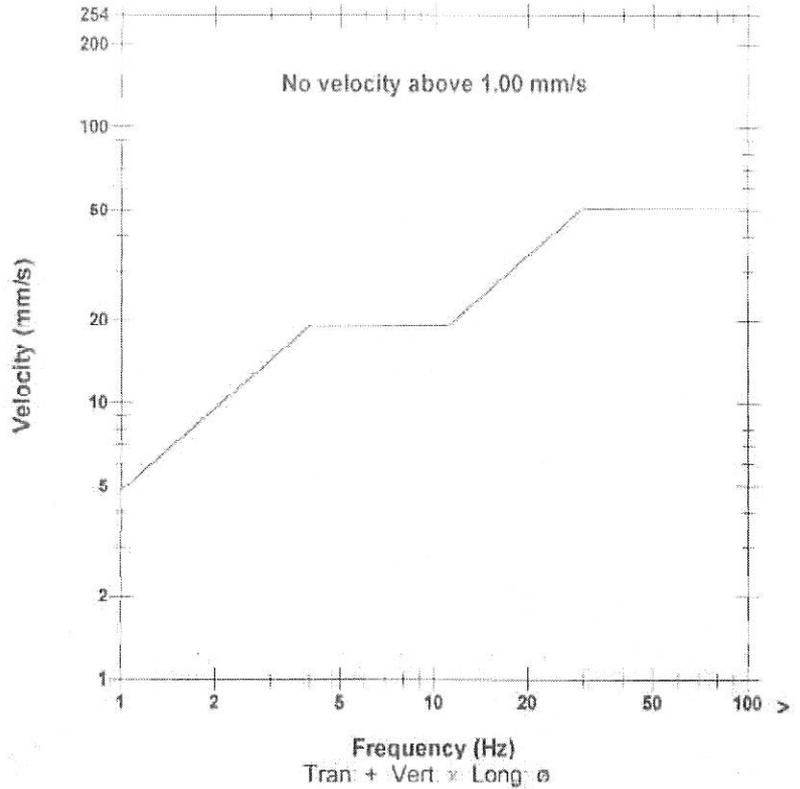
Notes
 Location: JARGO DAM MIRZPUR VARANASI
 Client: D M OFFICE MIRZAPUR
 User Name: CMPDI
 General

Microphone Linear Weighting
 PSPL 2.343 pa.(L) at 0.027 sec
 ZC Freq 2.0 Hz
 Channel Test Passed (Freq = 19.7 Hz Amp = 1105 mv)

	Tran	Vert	Long	
PPV	0.102	0.079	0.284	mm/s
ZC Freq	>100	>100	>100	Hz
Time (Rel. to Trig)	-0.064	0.377	-0.060	sec
Peak Acceleration	0.011	0.015	0.020	g
Peak Displacement	0.000	0.000	0.000	mm
Sensor Check	Passed	Passed	Passed	
Frequency	7.3	7.7	7.5	Hz
Overswing Ratio	3.3	3.0	3.1	

Peak Vector Sum 0.290 mm/s at -0.060 sec

USRM R18507 And OSMRE



Time Scale: 0.20 sec/div Amplitude Scale: Geo: 2.000 mm/s/div Mic: 1.000 pa (L)/div
 Trigger = ▶ ◀

Sensor Check

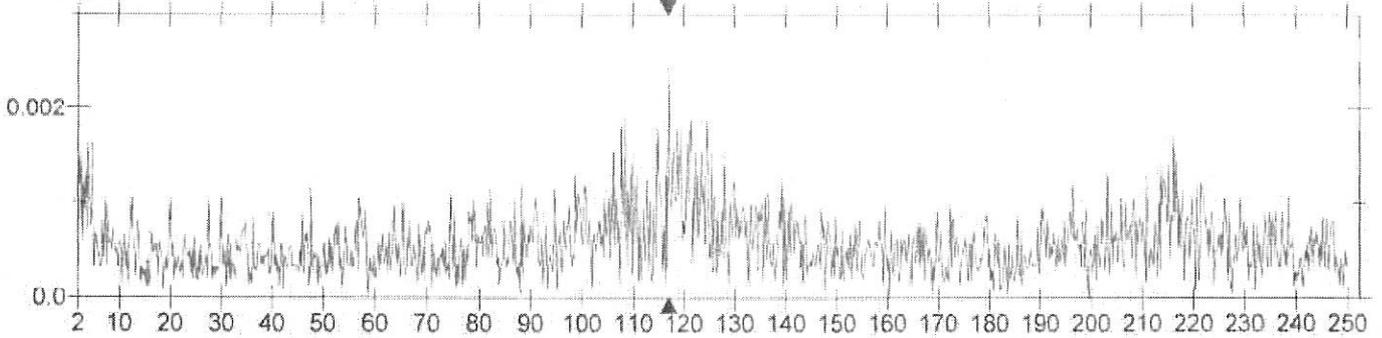
Date/Time MicA at 13:33:19 April 11, 2024
Trigger Source Geo: 0.800 mm/s, Mic: 2.000 pa (L)
Range Geo: 254.0 mm/s
Record Time 3.0 sec at 1024 sps
Operator/Setup: Operator/factory.mmb

Serial Number UM11220 V 10-90FB Micromate ISEE
Battery Level 3.8 Volts
Unit Calibration August 14, 2023 by UES New Delhi
File Name UM11220_20240411133319.IDFW

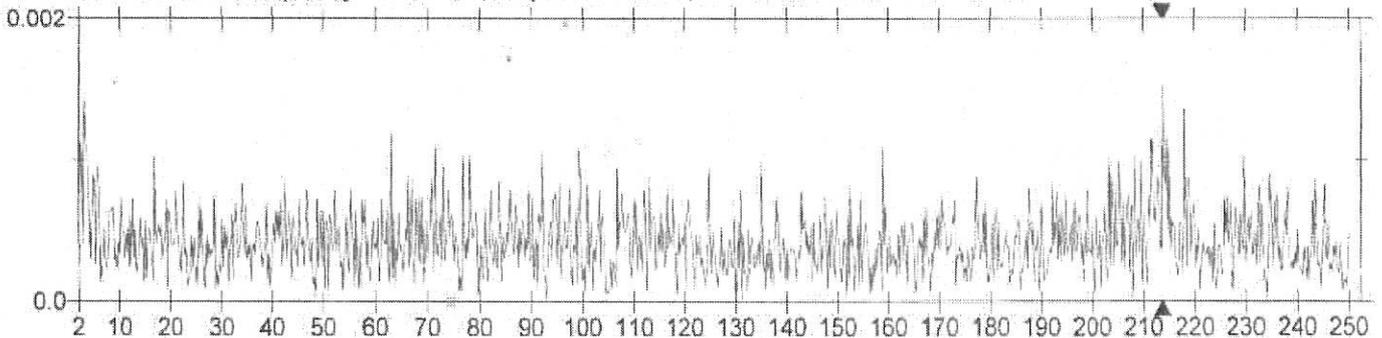
Notes

Location JARGO DAM MIRZAPUR VARANASI
Client D M OFFICE MIRZAPUR
User Name: CMPDI
General:

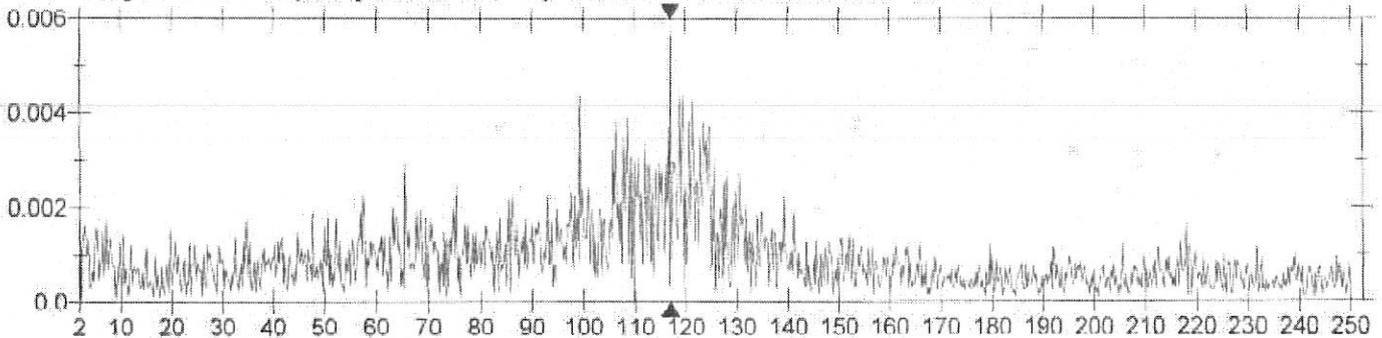
Tran Dominant Frequency = 117.0 Hz., Amplitude = 0.002, PPV from Event = 0.102 mm/s



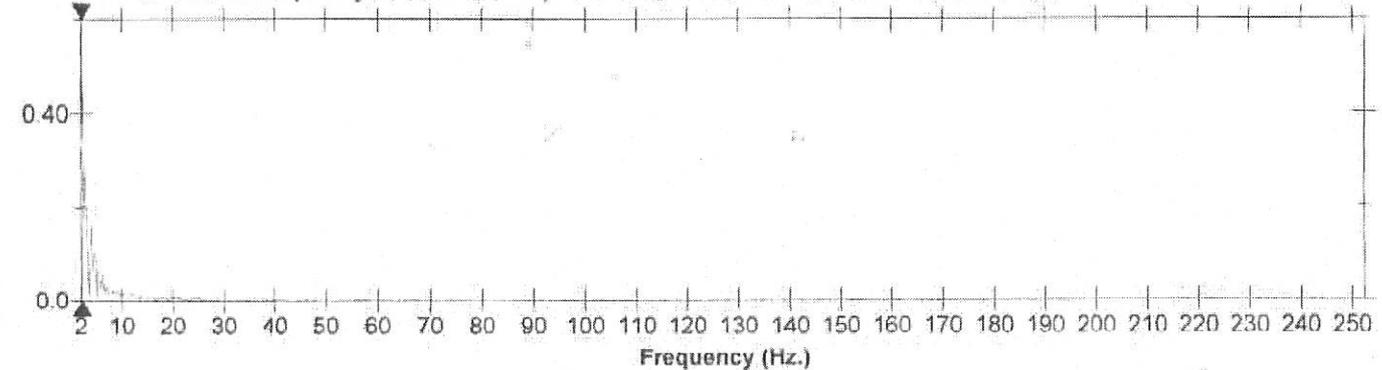
Vert Dominant Frequency = 213.8 Hz., Amplitude = 0.002, PPV from Event = 0.079 mm/s



Long Dominant Frequency = 117.0 Hz., Amplitude = 0.006, PPV from Event = 0.284 mm/s



MicA Dominant Frequency = 2.250 Hz., Amplitude = 0.468, PSPL From Event = 2.343 pa.(L)



Date/Time Long2 at 13:42:16 April 11, 2024
 Trigger Source Geo: 0.510 mm/s
 Range Geo: 254.0 mm/s
 Record Time 2.0 sec at 1024 sps

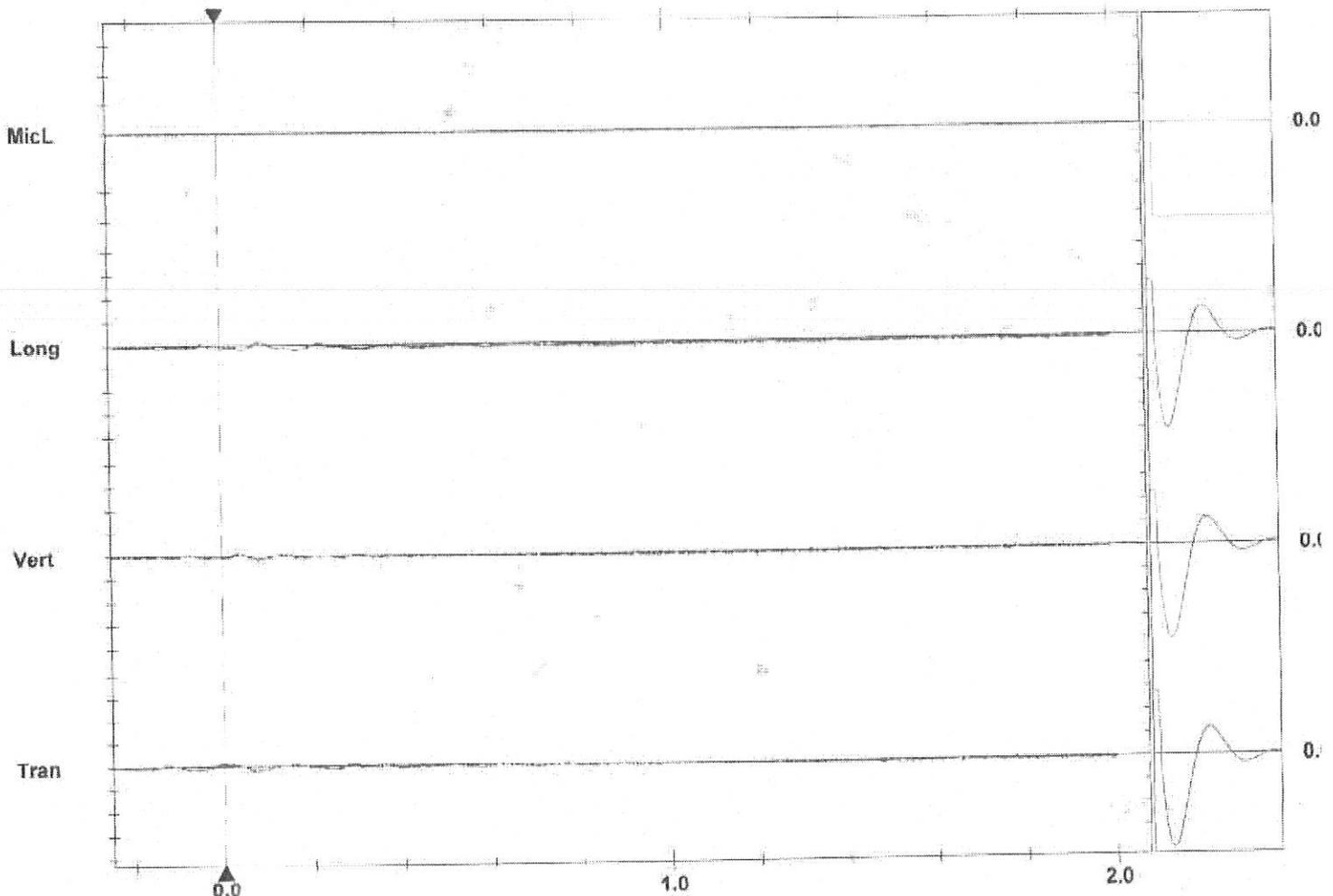
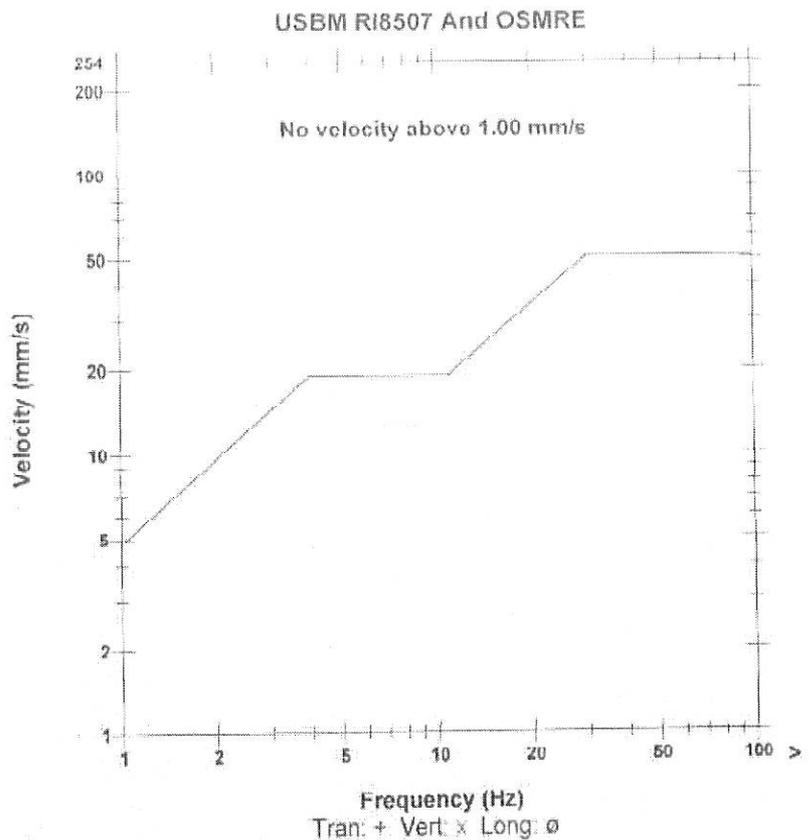
Serial Number BE18270 V 10.72-8.17 MiniMate Plus/8
 Battery Level 6.0 Volts
 Unit Calibration August 14, 2023 by UES New Delhi
 File Name T270KH XV. EG0

Notes
 Location: JARGO DAM, MIRZAPUR, VARANASI
 Client: D.M. OFFICE, MIRZAPUR
 User Name: CMPDIL, HQ, RANCHI
 General: VIBRATION STUDY

Microphone Linear Weighting
 PSPL 0.750 pa.(L) at 0.029 sec
 ZC Freq >100 Hz
 Channel Test Check (Freq = 0.0 Hz Amp = 0 mv)

	Tran	Vert	Long	
PPV	0.508	0.508	0.508	mm/s
ZC Freq	12	15	17	Hz
Time (Rel. to Trig)	0.063	0.081	0.004	sec
Peak Acceleration	0.027	0.040	0.040	g
Peak Displacement	0.006	0.005	0.000	mm
Sensor Check	Passed	Passed	Passed	
Frequency	7.4	7.4	7.6	Hz
Overswing Ratio	3.6	3.6	3.6	

Peak Vector Sum 0.684 mm/s at 0.081 sec



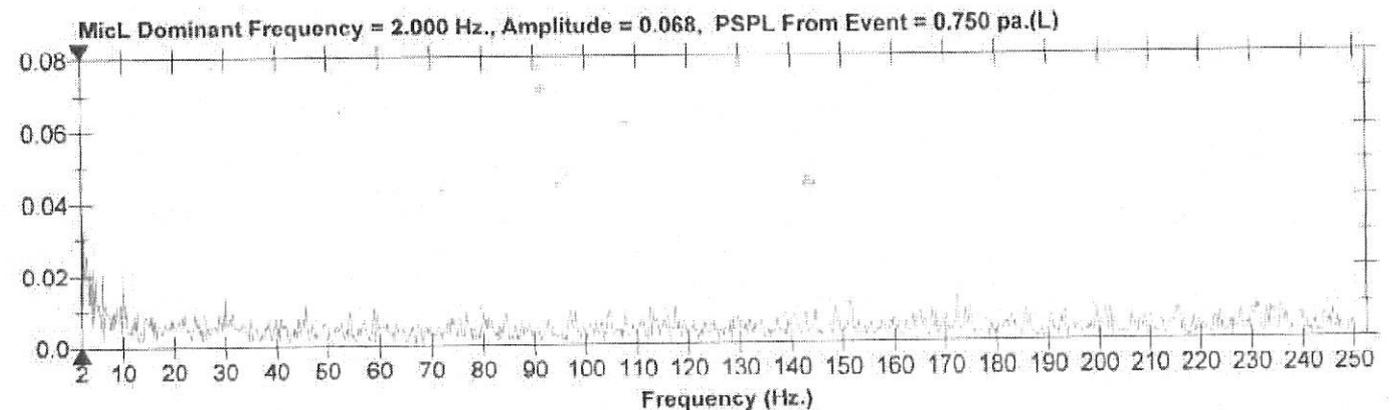
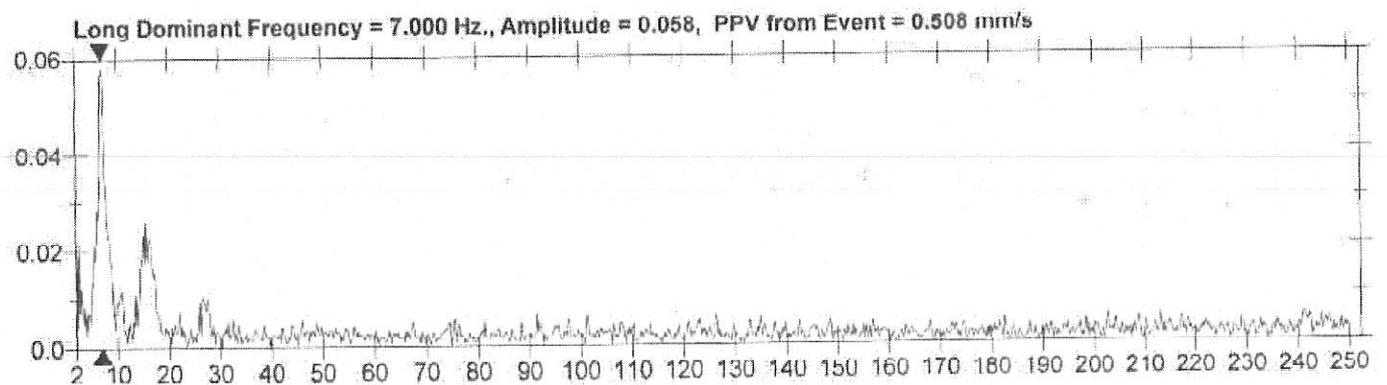
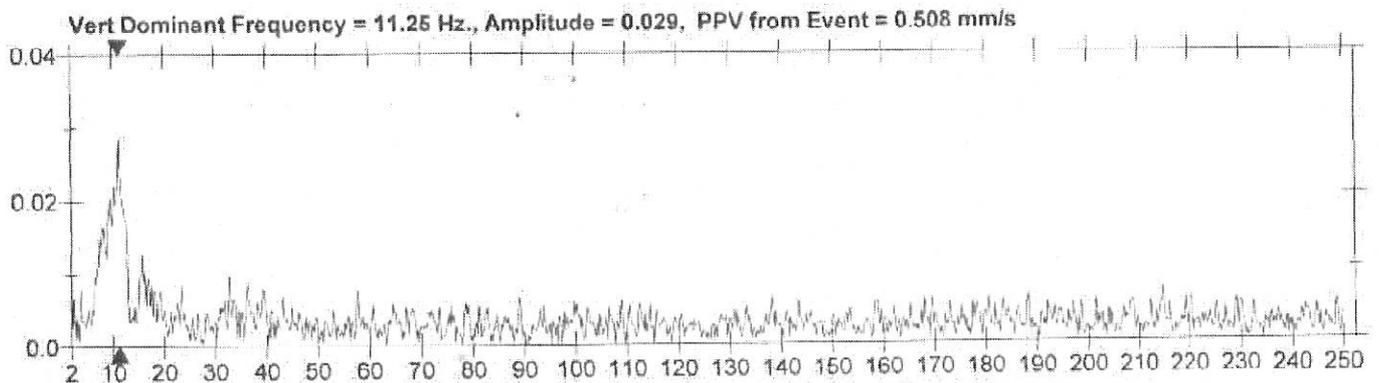
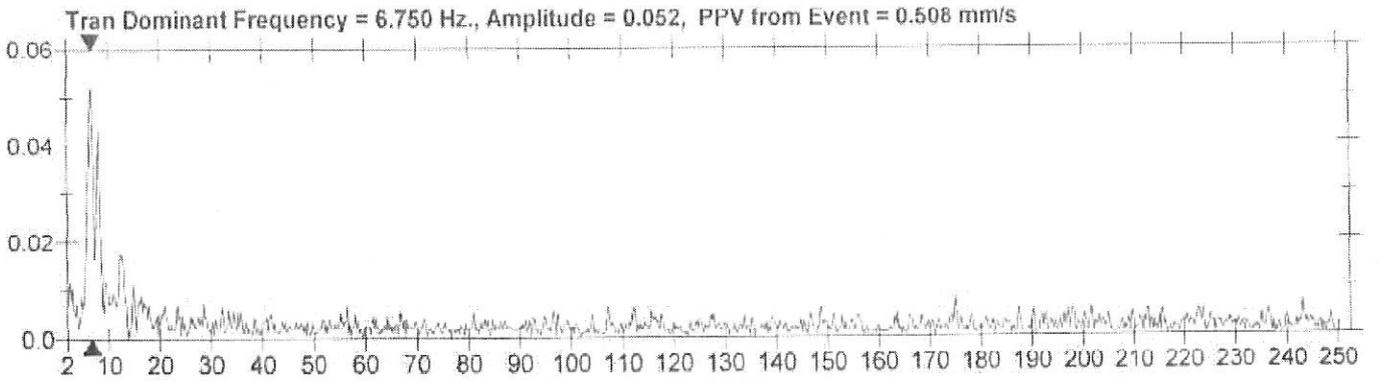
Time Scale: 0.20 sec/div Amplitude Scale: Geo: 2.000 mm/s/div Mic: 10.000 pa (1)/div
 Trigger = ▶ ◀

• Sensor Check

Date/Time Long2 at 13:42:16 April 11, 2024
Trigger Source Geo: 0.510 mm/s
Range Geo: 254.0 mm/s
Record Time 2.0 sec at 1024 sps

Serial Number BE18270 V 10 72-8.17 MiniMate Plus/8
Battery Level 6.0 Volts
Unit Calibration August 14, 2023 by UES New Delhi
File Name T270KH XV.EGO

Notes
Location: JARGO DAM, MIRZAPUR, VARANASI
Client: D.M. OFFICE, MIRZAPUR
User Name: CMPDIL, HQ,RANCHI
General: VIBRATION STUDY



Date/Time Long2 at 13:42:16 April 11, 2024
 Trigger Source Geo: 0.510 mm/s
 Range Geo: 254.0 mm/s
 Record Time 2.0 sec at 1024 sps

Serial Number BE16270 V 10.72-8.17 MiniMate Plus/0
 Battery Level 6.0 Volts
 Unit Calibration August 14, 2023 by UES New Delhi
 File Name T270KHV FG0

Notes

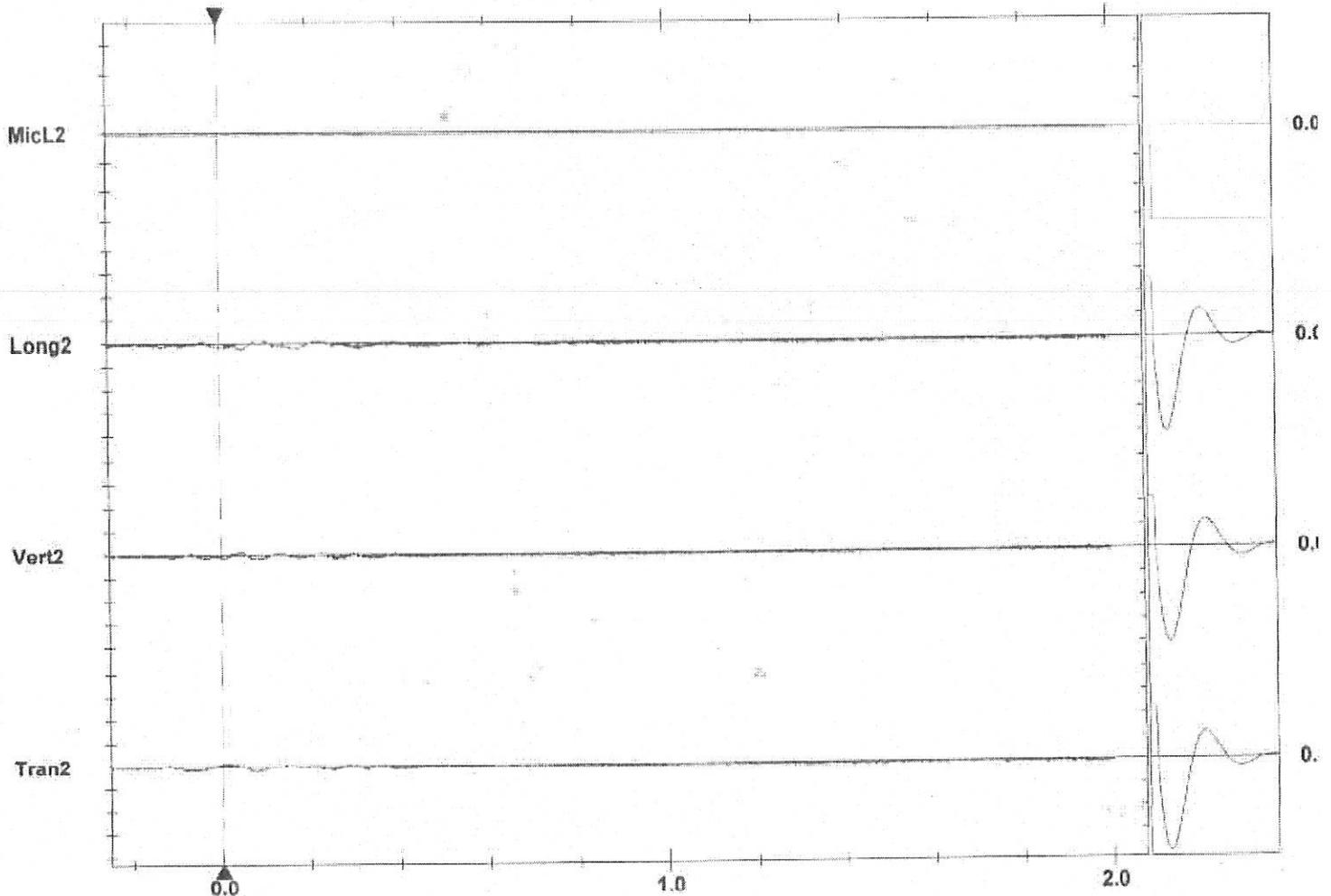
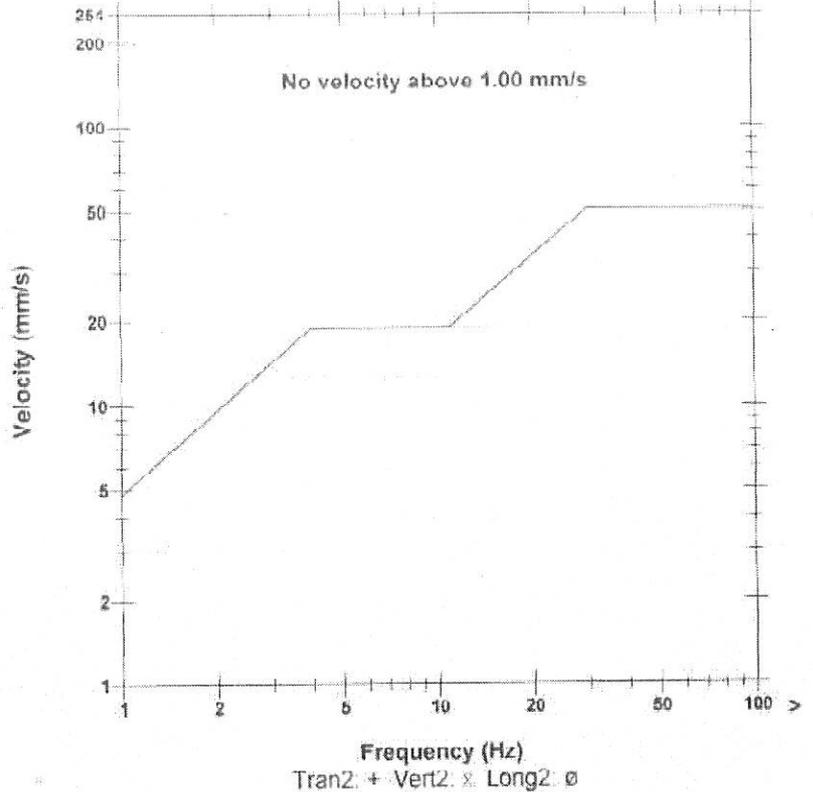
Location: JARGO DAM, MIRZAPUR, VARANASI
 Client: D.M. OFFICE, MIRZAPUR
 User Name: CMPDIL, HQ,RANCHI
 General: VIBRATION STUDY

Microphone Linear Weighting
 PSPL 1.000 pa.(L) at -0.223 sec
 ZC Freq N/A
 Channel Test Check (Freq = 0.0 Hz Amp = 0 mv)

	Tran2	Vert2	Long2	
PPV	0.508	0.381	0.508	mm/s
ZC Freq	12	73	16	Hz
Time (Rel. to Trig)	0.074	-0.115	0.000	sec
Peak Acceleration	0.040	0.040	0.040	g
Peak Displacement	0.007	0.005	0.008	mm
Sensor Check	Passed	Passed	Passed	
Frequency	7.5	7.2	7.8	Hz
Overswing Ratio	3.6	3.5	3.5	

Peak Vector Sum 0.622 mm/s at 0.083 sec
 N/A: Not Applicable

USBM R18507 And OSMRE



Time Scale: 0.20 sec/div Amplitude Scale: Geo: 2.000 mm/s/div Mic: 10.000 pa.(L)/div
 Trigger =

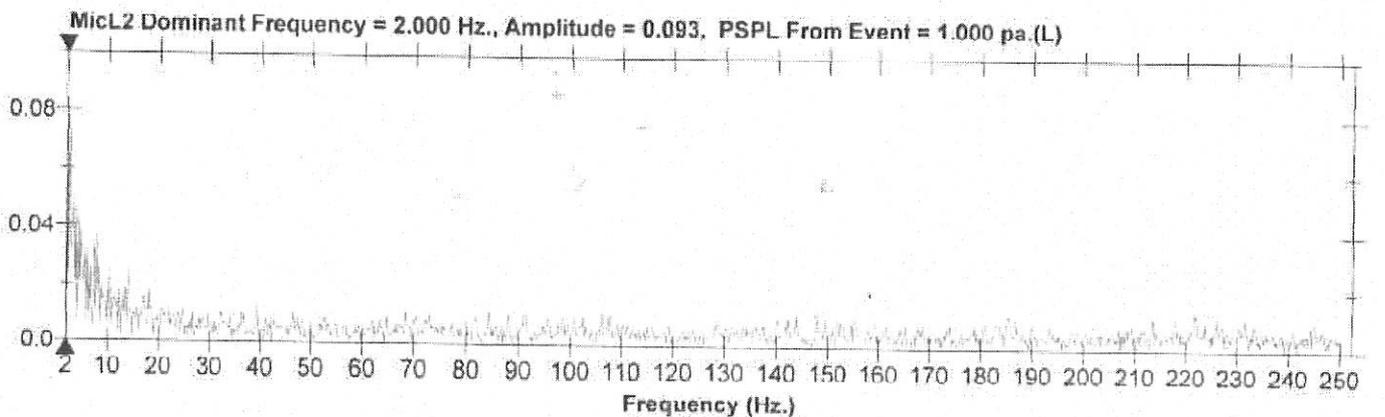
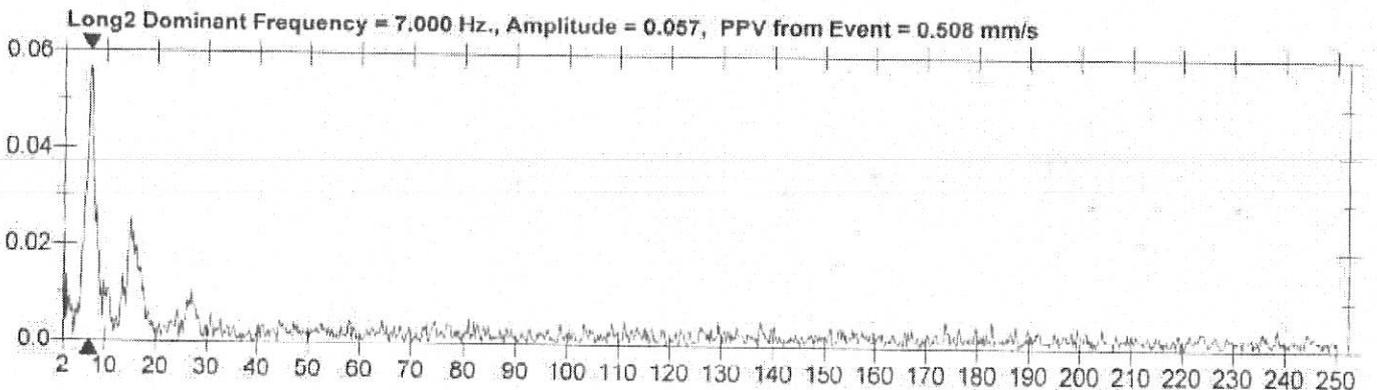
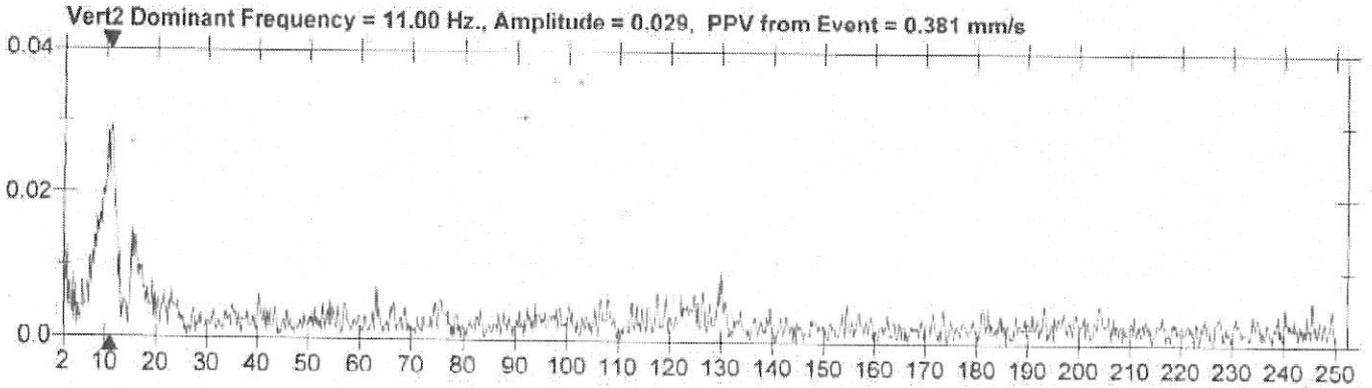
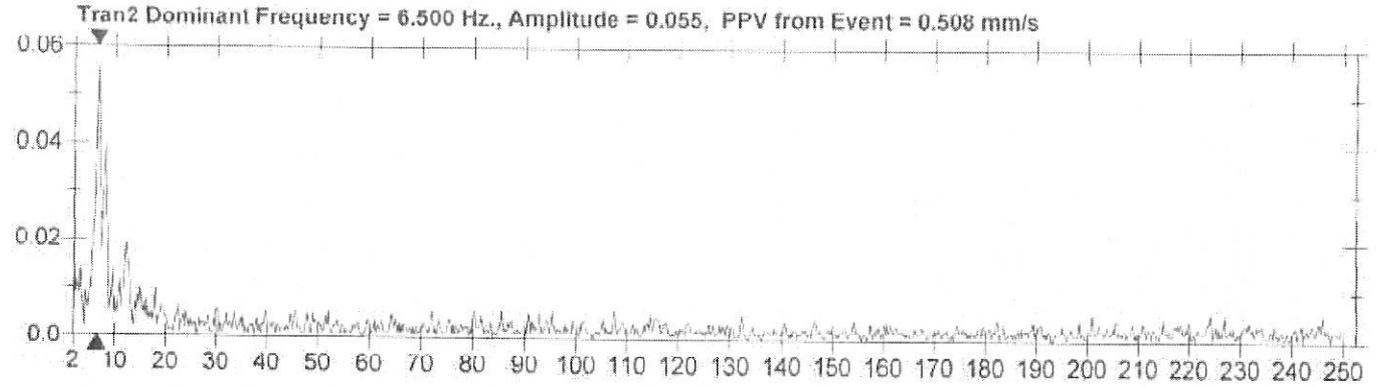
Sensor Check

Date/Time Long2 at 13.42.16 April 11, 2024
Trigger Source Geo: 0.510 mm/s
Range Geo: 254.0 mm/s
Record Time 2.0 sec at 1024 sps

Serial Number BE18270 V 10.72-8.17 MiniMate Plus/8
Battery Level 6.0 Volts
Unit Calibration August 14, 2023 by UES New Delhi
File Name T270KH XV.EG0

Notes

Location: JARGO DAM, MIRZAPUR, VARANASI
Client: D.M. OFFICE, MIRZAPUR
User Name: CMPDIL, HQ, RANCHI
General: VIBRATION STUDY



Date/Time Long at 13:43:15 April 11, 2024
 Trigger Source Geo: 0.800 mm/s, Mic: 2.000 pa (L)
 Range Geo: 254.0 mm/s
 Record Time 3.0 sec at 1024 sps
 Operator/Setup: Operator/factory.mmb

Serial Number UM11220 V 10-90FB Micromate ISEE
 Battery Level 3.8 Volts
 Unit Calibration August 14, 2023 by UES New Delhi
 File Name UM11220_20240411134315 IDFW

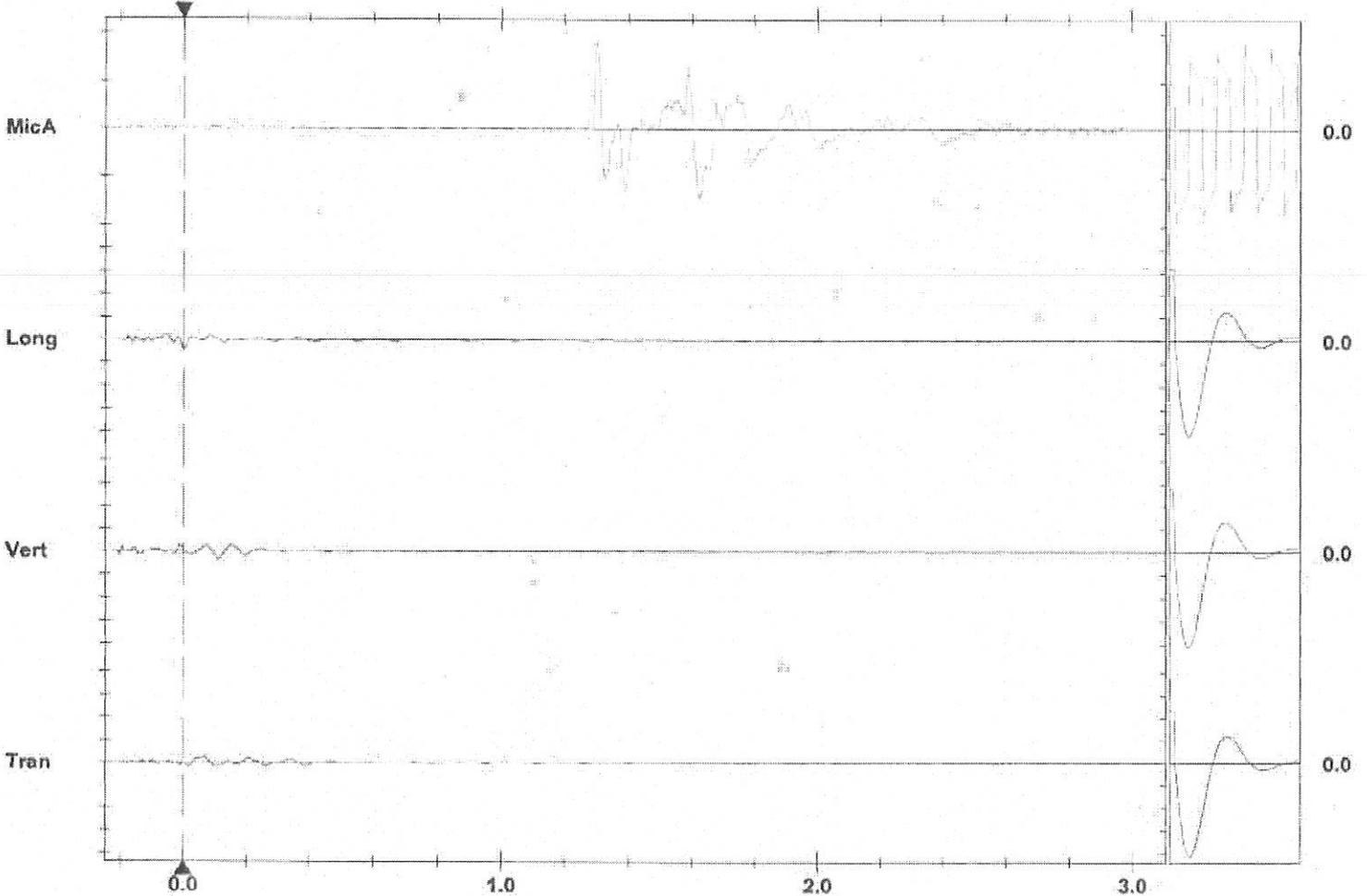
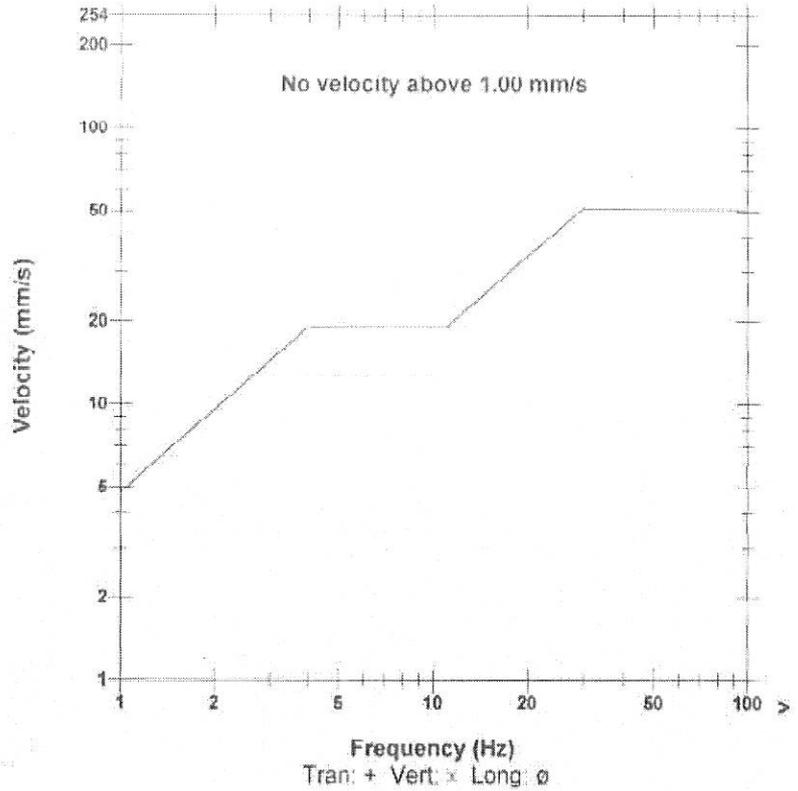
Notes
 Location: JARGO DAM MIRZAPUR VARANASI
 Client: D M OFFICE MIRZAPUR
 User Name: CMPDI
 General:

Microphone Linear Weighting
 PSPL 9.449 pa (L) at 1.300 sec
 ZC Freq 17 Hz
 Channel Test Passed (Freq = 19.7 Hz Amp = 1105 mv)

	Tran	Vert	Long	
PPV	0.567	0.670	0.820	mm/s
ZC Freq	8.8	13	19	Hz
Time (Rel. to Trig)	0.068	0.111	0.000	sec
Peak Acceleration	0.008	0.019	0.012	g
Peak Displacement	0.010	0.009	0.007	mm
Sensor Check	Passed	Passed	Passed	
Frequency	7.3	7.7	7.5	Hz
Overswing Ratio	3.3	3.0	3.1	

Peak Vector Sum: 0.832 mm/s at 0.000 sec

USBM R18507 And OSMRE



Time Scale: 0.20 sec/div Amplitude Scale: Geo: 2.000 mm/s/div Mic: 5.000 pa (L)/div
 Trigger = ▶ ◀

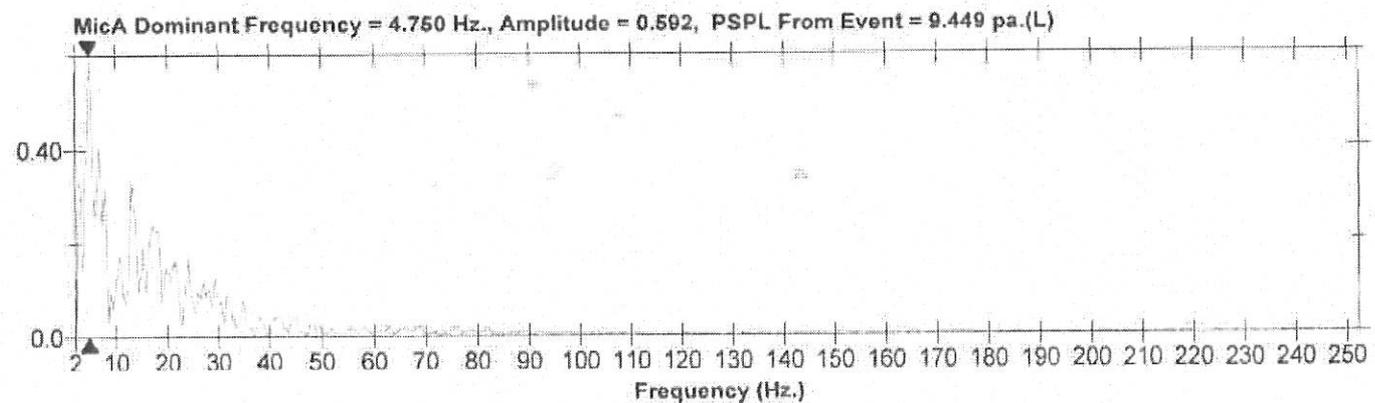
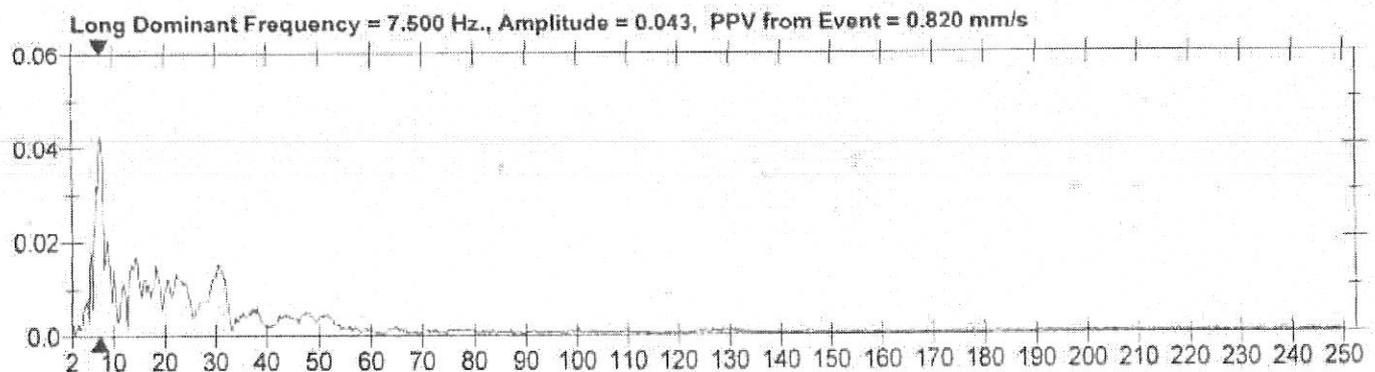
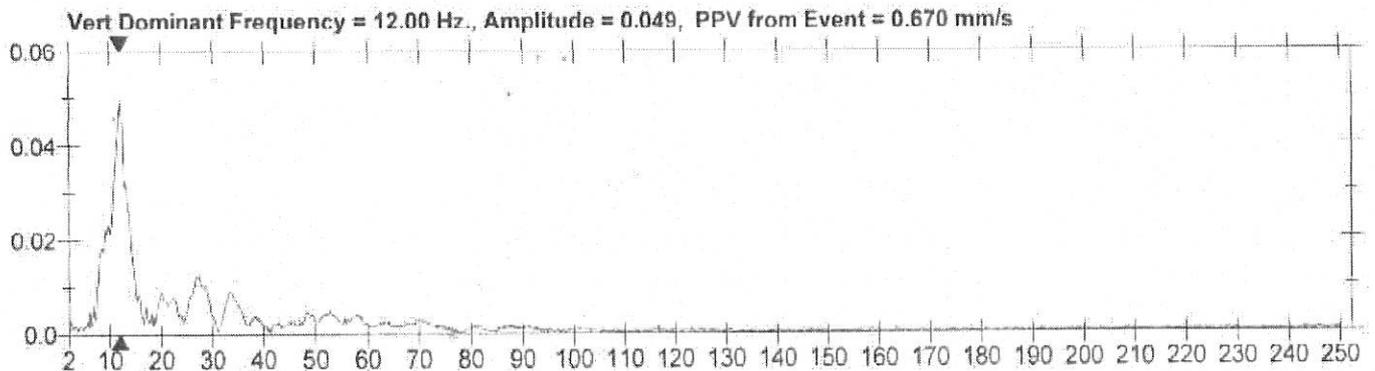
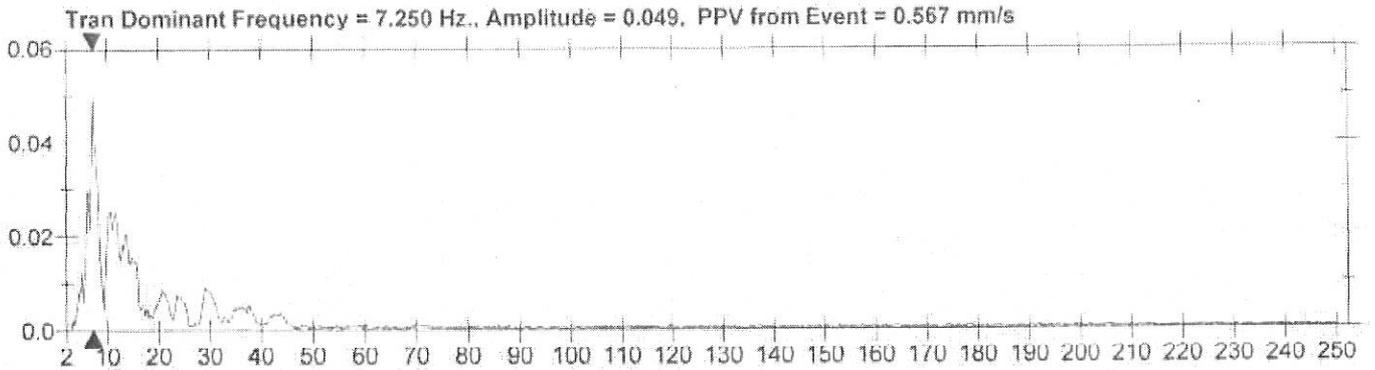
Sensor Check

Date/Time Long at 13:43:15 April 11, 2024
Trigger Source Geo: 0.800 mm/s, Mic: 2.000 pa.(L)
Range Geo: 254.0 mm/s
Record Time 3.0 sec at 1024 sps
Operator/Setup: Operator/factory.mimb

Serial Number UM11220 V 10-90FB Micromate ISEE
Battery Level 3.8 Volts
Unit Calibration August 14, 2023 by UFS New Delhi
File Name UM11220_20240411134315.IDFW

Notes

Location: JARGO DAM MIRZAPUR VARANASI
Client: D M OFFICE MIRZAPUR
User Name: CMPDI
General:



Date/Time Tran at 13:12:58 April 12, 2024
 Trigger Source Geo: 0.800 mm/s
 Range Geo: 31.75 mm/s
 Record Time 2.0 sec at 1024 sps

Serial Number BA14611 V 10.72-8.17 BlastMate III/8
 Battery Level 6.2 Volts
 Unit Calibration March 23, 2022 by UES New Delhi
 File Name P611KHZO.PM0
 Scaled Distance 0.3 (0.1 m, 0.1 kg)

Notes

Location: JARGO DAM, MIRZAPUR, VARANASI
 Client: D.M. OFFICE, MIRZAPUR
 User Name: CMPDI BLASTING DIVISION
 General Monitoring: 0 VIBRATION STUDY

Extended Notes

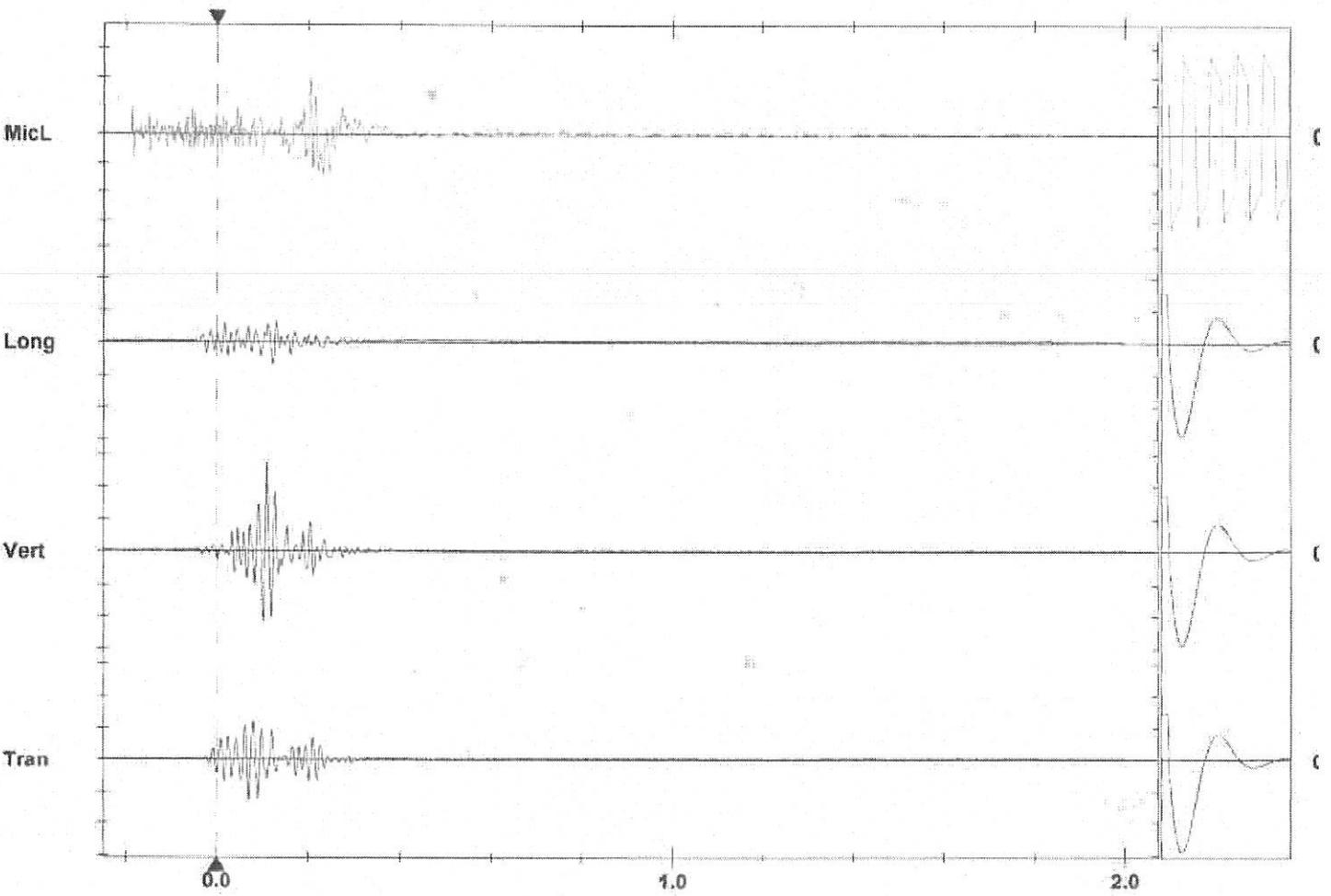
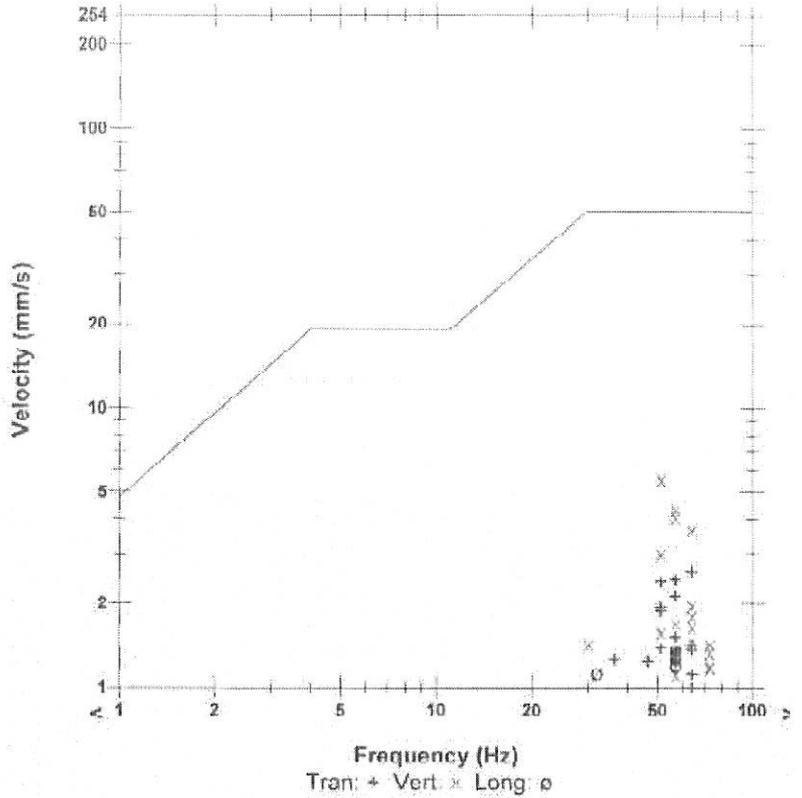
Job No 3

Microphone Linear Weighting
 PSPL 20.25 pa (L) at 0.204 sec
 ZC Freq 73 Hz
 Channel Test Passed (Freq = 19.7 Hz Amp = 379 mv)

	Tran	Vert	Long	
PPV	2.588	5.572	1.365	mm/s
ZC Freq	64	51	57	Hz
Time (Rel. to Trig)	0.071	0.110	0.123	sec
Peak Acceleration	0.114	0.192	0.080	g
Peak Displacement	0.026	0.014	0.010	mm
Sensor Check	Passed	Passed	Passed	
Frequency	7.4	7.5	7.6	Hz
Overwing Ratio	3.6	3.5	3.7	

Peak Vector Sum 5.733 mm/s at 0.110 sec

USBM RI8507 And OSMRE



Time Scale: 0.20 sec/div Amplitude Scale: Geo: 2.000 mm/s/div Mic: 10.000 pa.(L)/div
 Trigger = ▶ ◀

Sensor Check

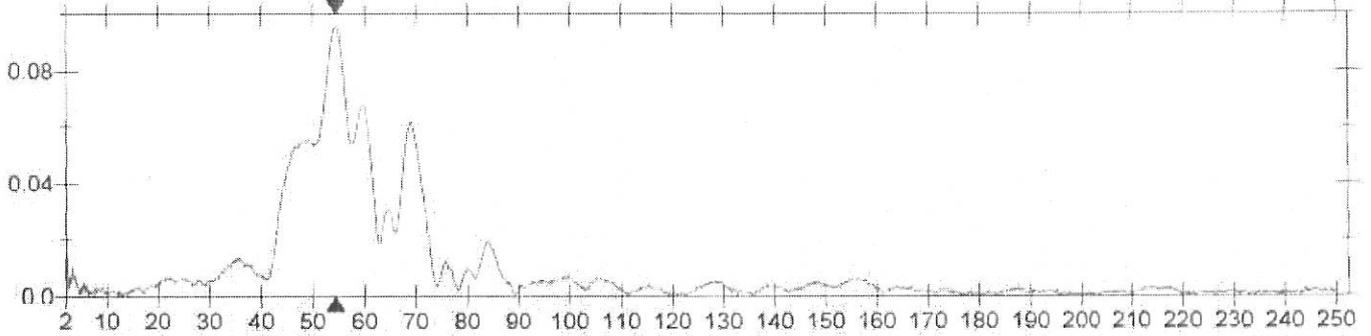
Date/Time Tran at 13:12:58 April 12, 2024
Trigger Source Geo: 0.000 mm/s
Range Geo: 31.75 mm/s
Record Time 2.0 sec at 1024 sps

Serial Number BA14611 V 10.72-8.17 BlastMate III/8
Battery Level 6.2 Volts
Unit Calibration March 23, 2022 by UES New Delhi
File Name P611KHZO.PM0
Scaled Distance 0.3 (0.1 m, 0.1 kg)

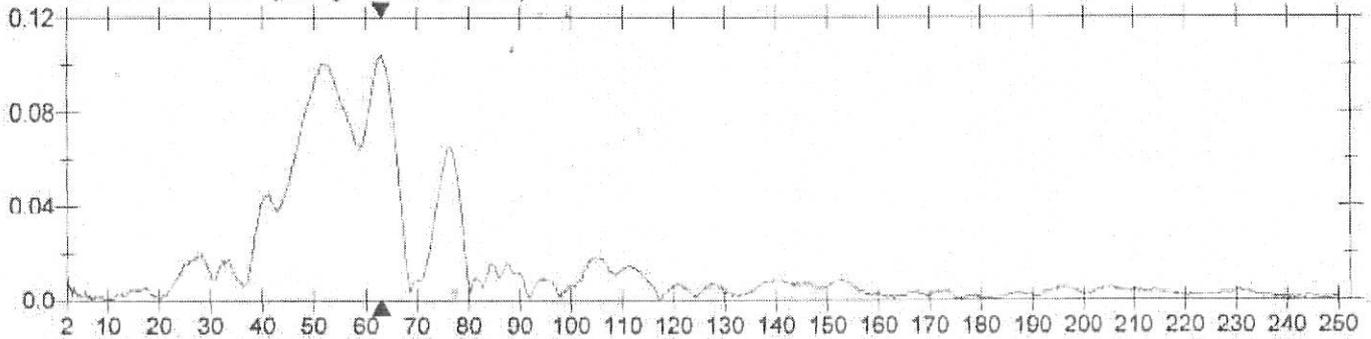
Notes
Location: JARGO DAM, MIRZAPUR, VARANASI
Client D.M. OFFICE, MIRZAPUR
User Name: CMPDI BLASTING DIVISION
General Monitoring 0 VIBRATION STUDY

Extended Notes
Job No 3

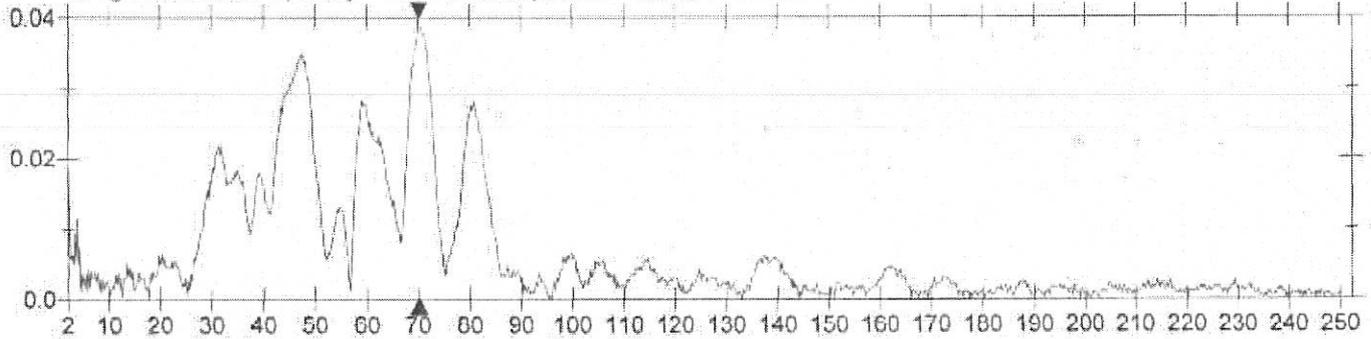
Tran Dominant Frequency = 54.50 Hz., Amplitude = 0.096, PPV from Event = 2.588 mm/s



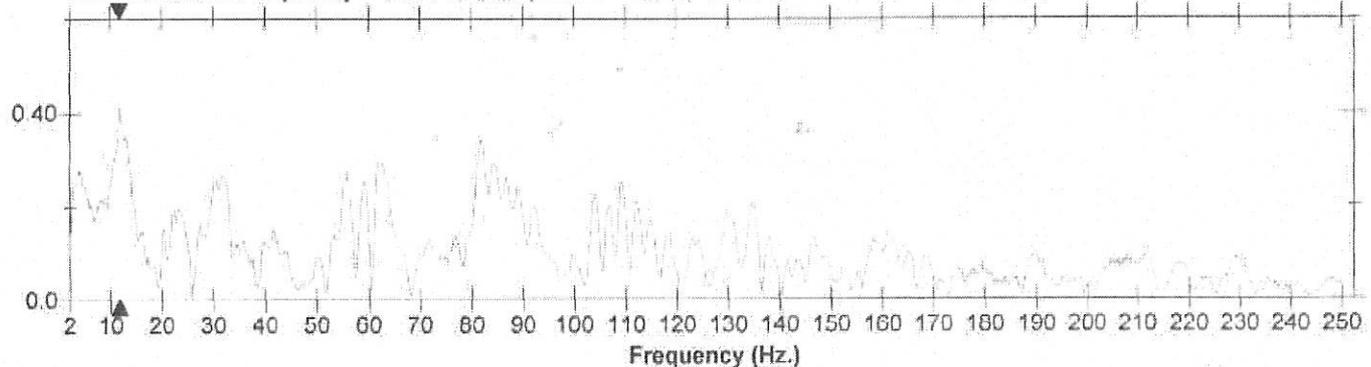
Vert Dominant Frequency = 63.00 Hz., Amplitude = 0.104, PPV from Event = 5.572 mm/s



Long Dominant Frequency = 70.25 Hz., Amplitude = 0.039, PPV from Event = 1.365 mm/s



MicL Dominant Frequency = 11.75 Hz., Amplitude = 0.411, PSPL From Event = 20.25 pa.(L)



Date/Time Long2 at 13:12:55 April 12, 2024
 Trigger Source Geo: 0.510 mm/s
 Range Geo: 254.0 mm/s
 Record Time 2.0 sec at 1024 sps

Serial Number BE18270 V 10.72-8.17 MiniMate Plus/8
 Battery Level 6.1 Volts
 Unit Calibration August 14, 2023 by UES New Delhi
 File Name T270KHZO.PJ0

Notes

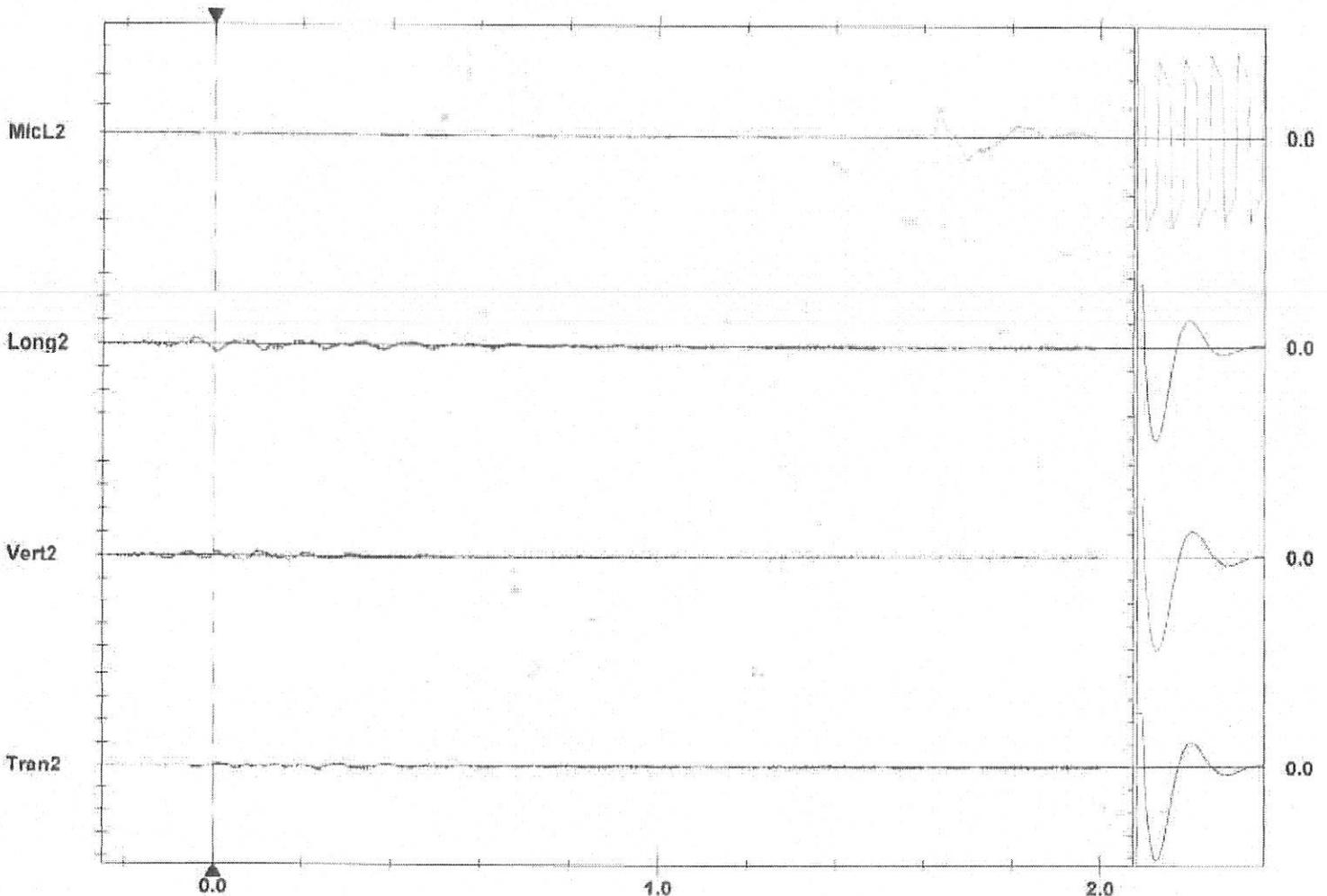
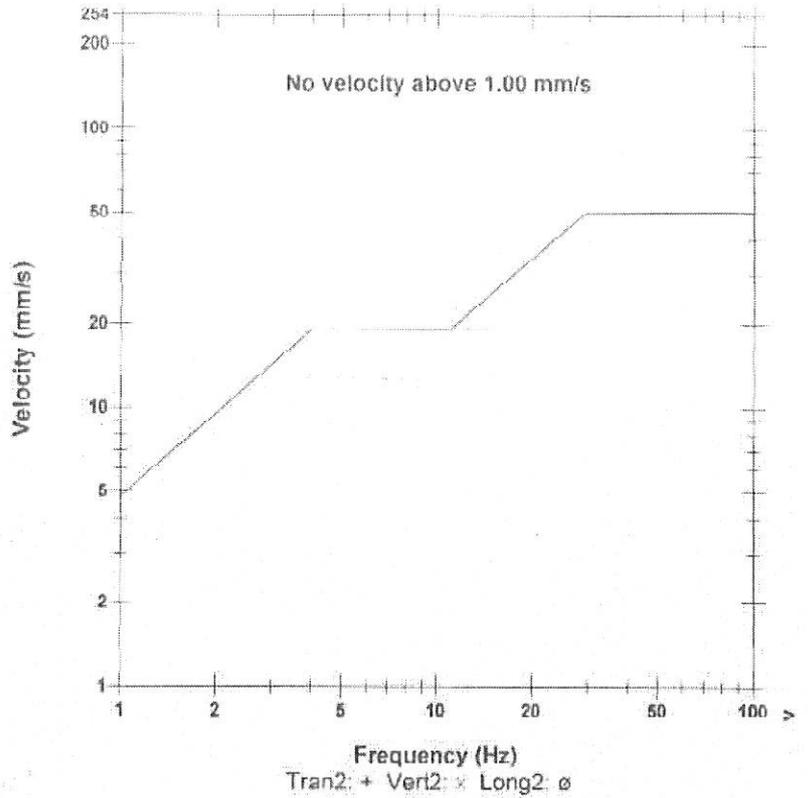
Location: JARGO DAM, MIRZAPUR, VARANASI
 Client: D.M. OFFICE, MIRZAPUR
 User Name: CMPDIL, HQ, RANCHI
 General: VIBRATION STUDY

Microphone Linear Weighting
 PSPL 9,750 pa.(L) at 1.636 sec
 ZC Freq 12 Hz
 Channel Test Passed (Freq = 19.7 Hz Amp = 418 mv)

	Tran2	Vert2	Long2	
PPV	0.508	0.508	0.762	mm/s
ZC Freq	23	14	14	Hz
Time (Rel. to Trig)	0.238	0.066	0.003	sec
Peak Acceleration	0.040	0.040	0.040	g
Peak Displacement	0.003	0.006	0.007	mm
Sensor Check	Passed	Passed	Passed	
Frequency	7.5	7.4	7.8	Hz
Overswing Ratio	3.8	3.6	3.6	

Peak Vector Sum 0.803 mm/s at 0.003 sec

USBM R18507 And OSMRE



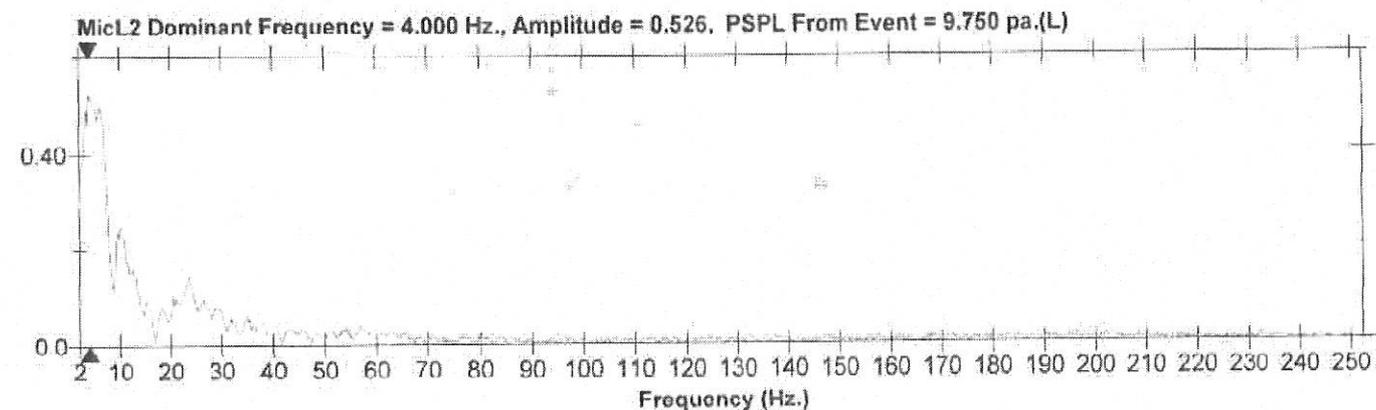
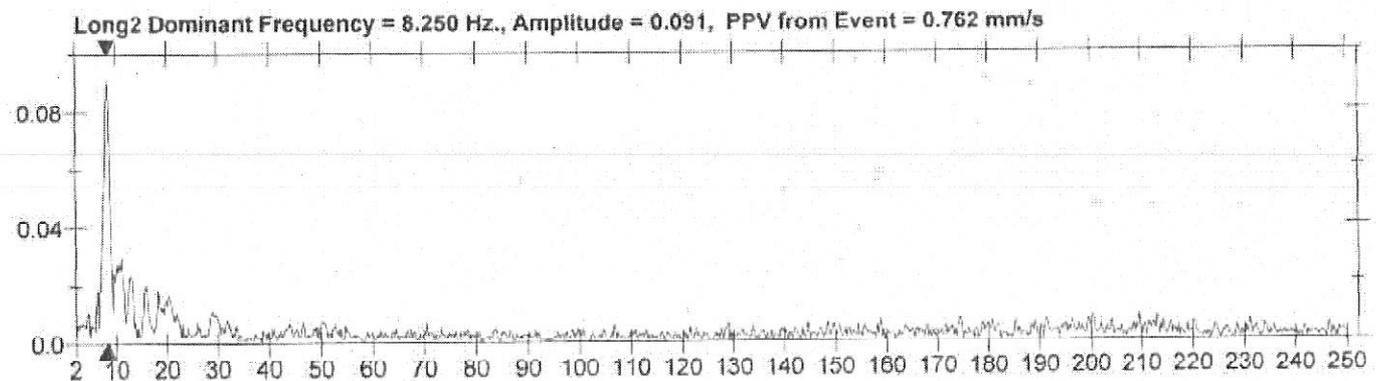
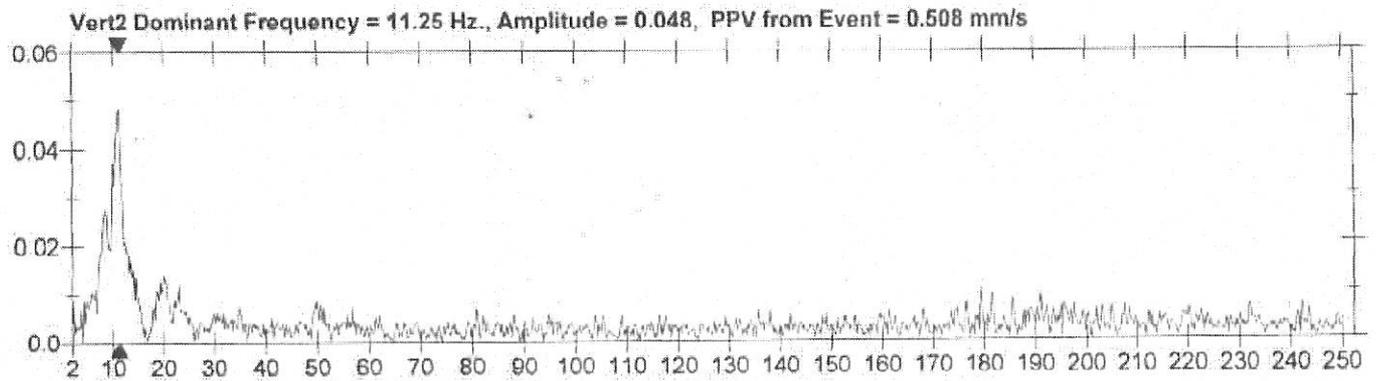
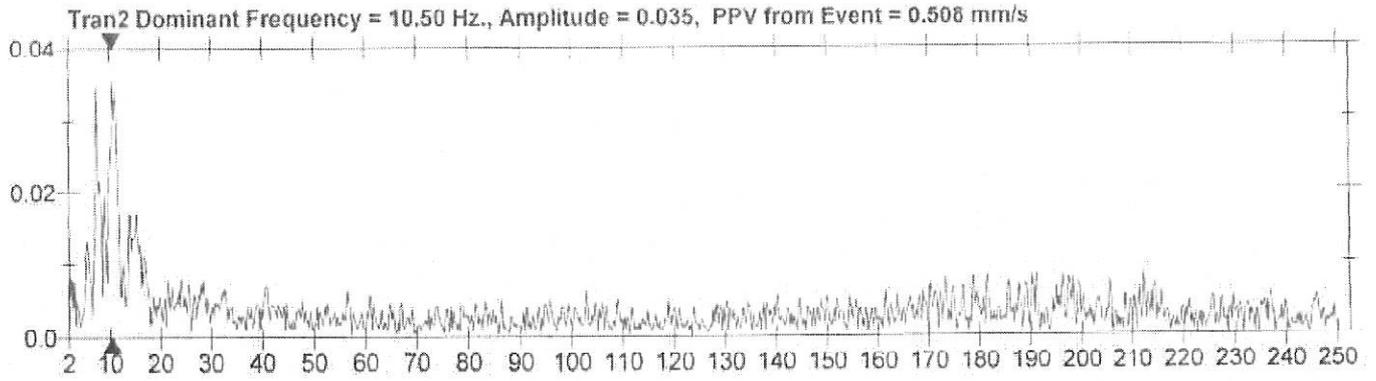
Time Scale: 0.20 sec/div Amplitude Scale: Geo: 2.000 mm/s/div Mic: 10.000 pa.(L)/div
 Trigger = \rightarrow

Sensor Check

Date/Time Long2 at 13:12:55 April 12, 2024
Trigger Source Geo: 0.510 mm/s
Range Geo: 254.0 mm/s
Record Time 2.0 sec at 1024 sps

Serial Number BE18270 V 10.72-8.17 MiniMate Plus/0
Battery Level 6.1 Volts
Unit Calibration August 14, 2023 by UES New Delhi
File Name T270KHZO.PJ0

Notes
Location: JARGO DAM, MIRZAPUR, VARANASI
Client: D.M. OFFICE, MIRZAPUR
User Name: CMPDIL, HQ, RANCHI
General: VIBRATION STUDY



Date/Time Long2 at 13:12:55 April 12, 2024
 Trigger Source Geo: 0.510 mm/s
 Range Geo: 254.0 mm/s
 Record Time 2.0 sec at 1024 sps

Serial Number BE18270 V 10.72-8.17 MiniMate Plus/8
 Battery Level 6.1 Volts
 Unit Calibration August 14, 2023 by UES New Delhi
 File Name T270KHZO PJ0

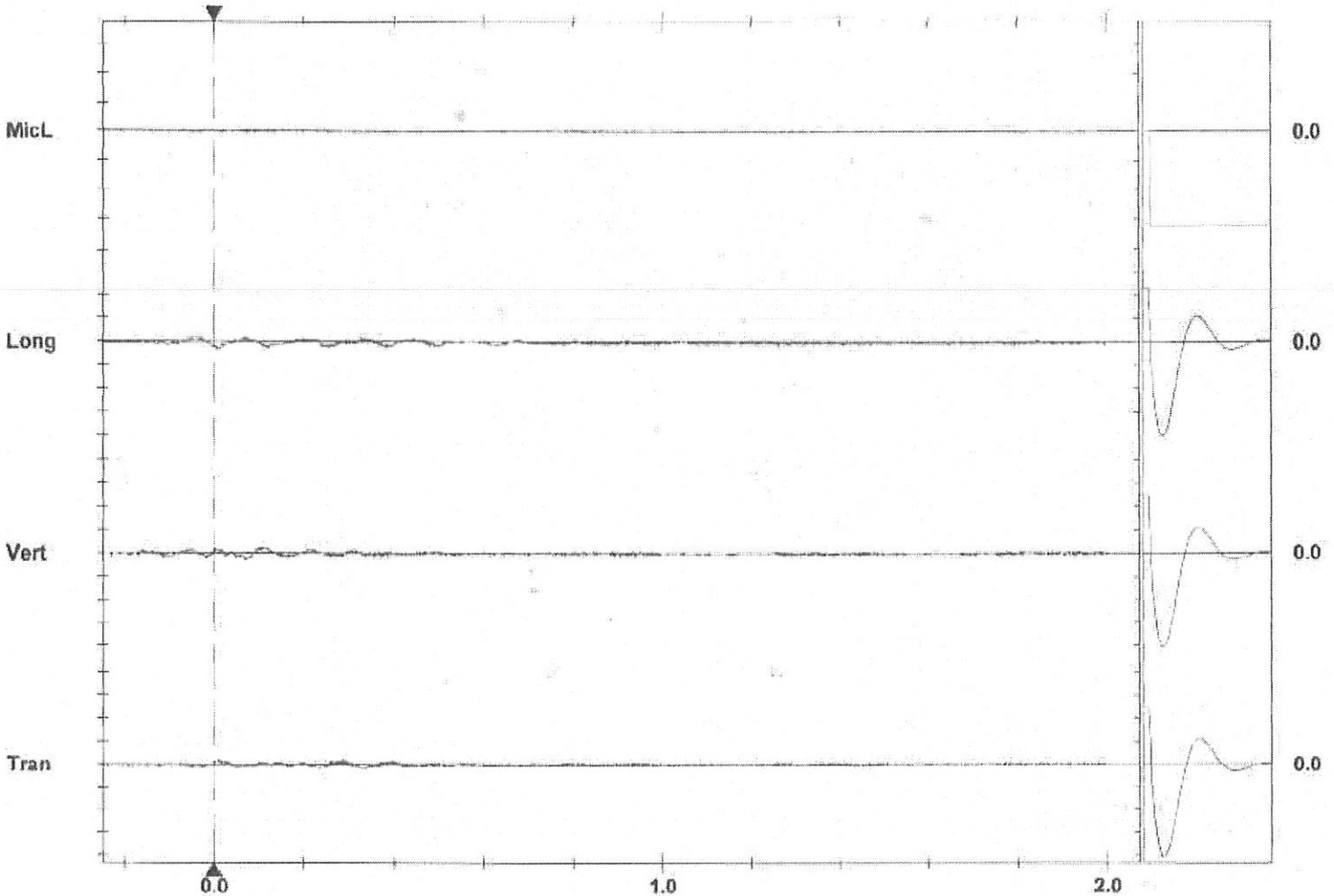
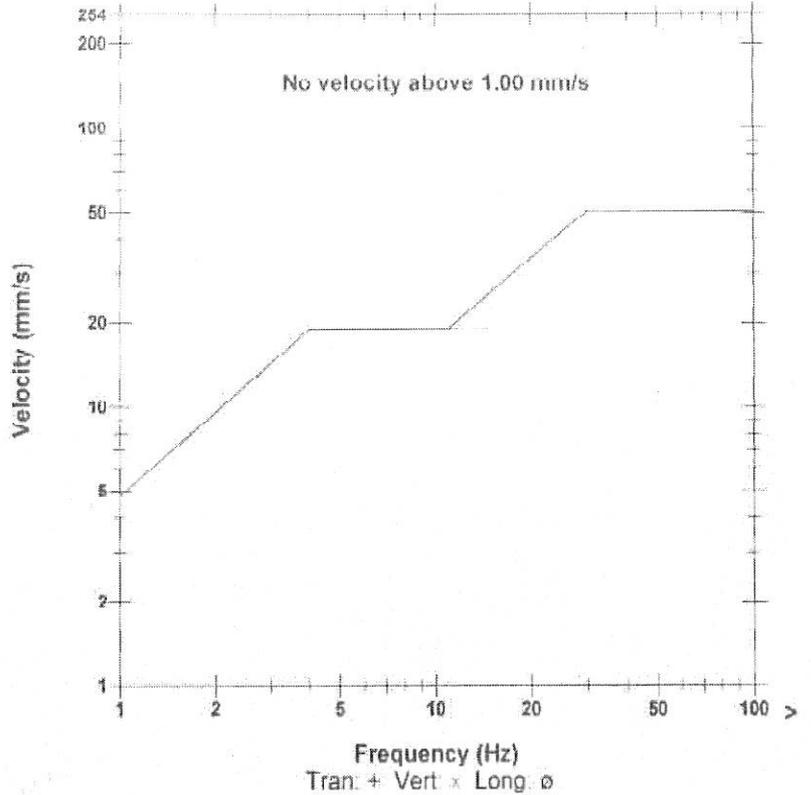
Notes
 Location: JARGO DAM, MIRZAPUR, VARANASI
 Client: D.M. OFFICE, MIRZAPUR
 User Name: CMPDIL, HQ,RANCHI
 General: VIBRATION STUDY

Microphone Linear Weighting
 PSPL 0.750 pa.(L) at 0.042 sec
 ZC Freq >100 Hz
 Channel Test Check (Freq = 0.0 Hz Amp = 0 mv)

	Tran	Vert	Long	
PPV	0.381	0.500	0.635	mm/s
ZC Freq	37	20	13	Hz
Time (Rel. to Trig)	0.010	0.069	0.007	sec
Peak Acceleration	0.040	0.040	0.040	g
Peak Displacement	0.003	0.005	0.008	mm
Sensor Check	Passed	Passed	Passed	
Frequency	7.3	7.5	7.6	Hz
Overswing Ratio	3.8	3.7	3.7	

Peak Vector Sum 0.730 mm/s at 0.007 sec

USBM RI8507 And OSMRE



Time Scale: 0.20 sec/div Amplitude Scale: Geo: 2.000 mm/s/div Mic: 10.000 pa.(L)/div
 Trigger = \blacktriangleleft \blacktriangleright

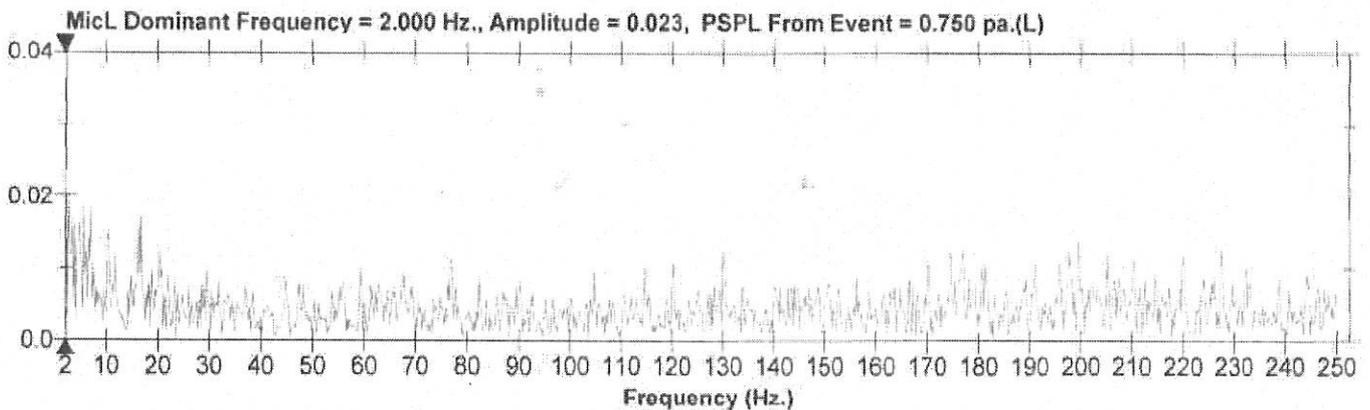
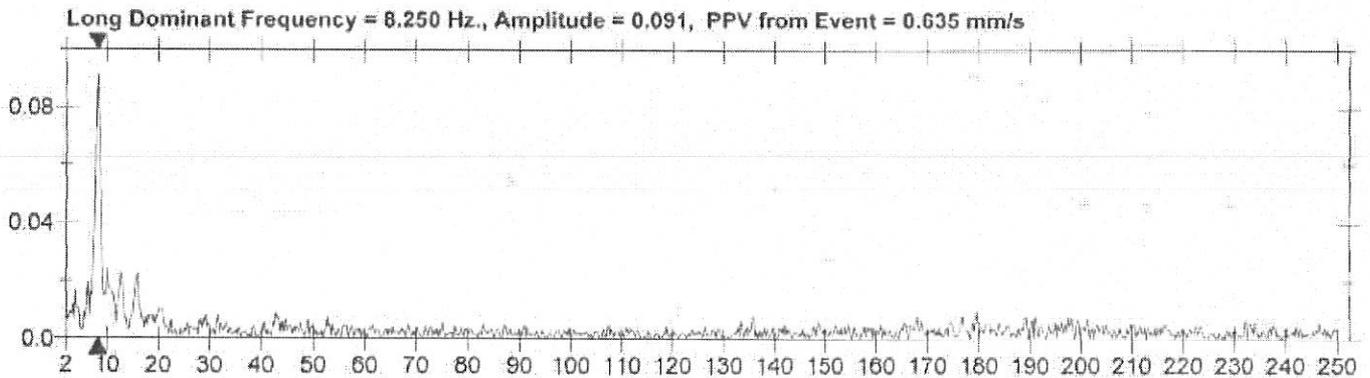
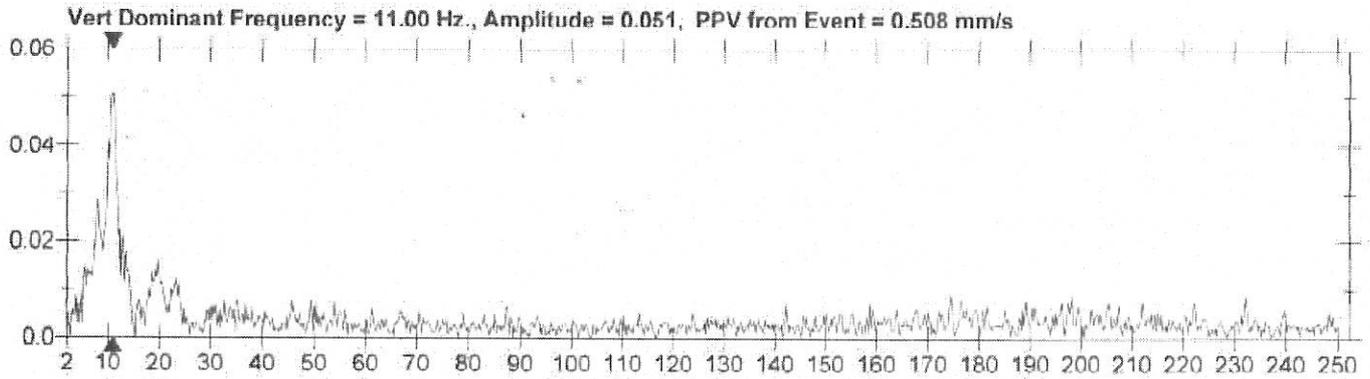
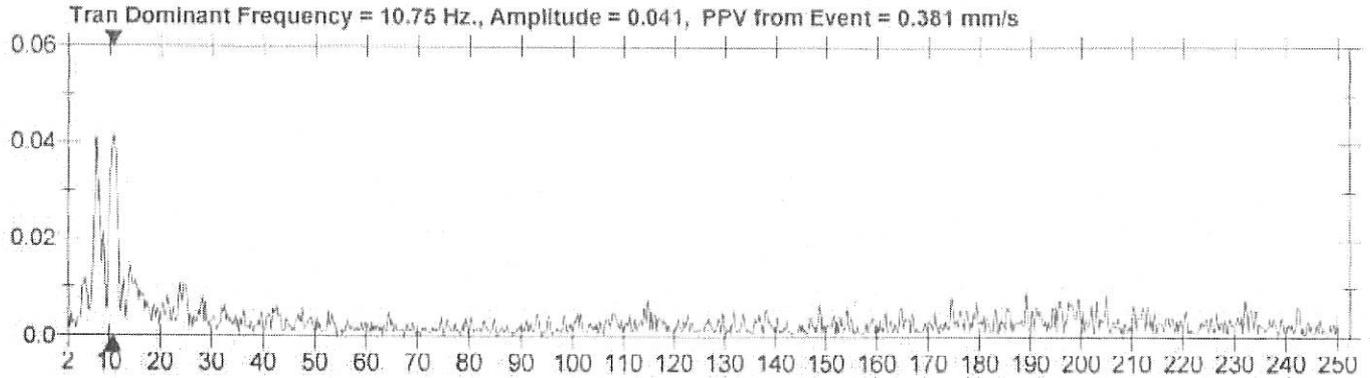
Sensor Check

Date/Time Long2 at 13:12:55 April 12, 2024
Trigger Source Geo: 0.510 mm/s
Range Geo: 254.0 mm/s
Record Time 2.0 sec at 1024 sps

Serial Number BE18270 V 10.72-8.17 MiniMate Plus/6
Battery Level 6.1 Volts
Unit Calibration August 14, 2023 by UES New Delhi
File Name T270KHZO.PJO

Notes

Location: JARGO DAM, MIRZAPUR, VARANASI
Client: D.M. OFFICE, MIRZAPUR
User Name: CMPDIL, HQ, RANCHI
General: VIBRATION STUDY



Date/Time MicA at 13:14:00 April 12, 2024
 Trigger Source Geo: 0.800 mm/s, Mic: 2.000 pa.(L)
 Range Geo: 254.0 mm/s
 Record Time 3.0 sec at 1024 sps
 Operator/Setup: Operator/factory.mmb

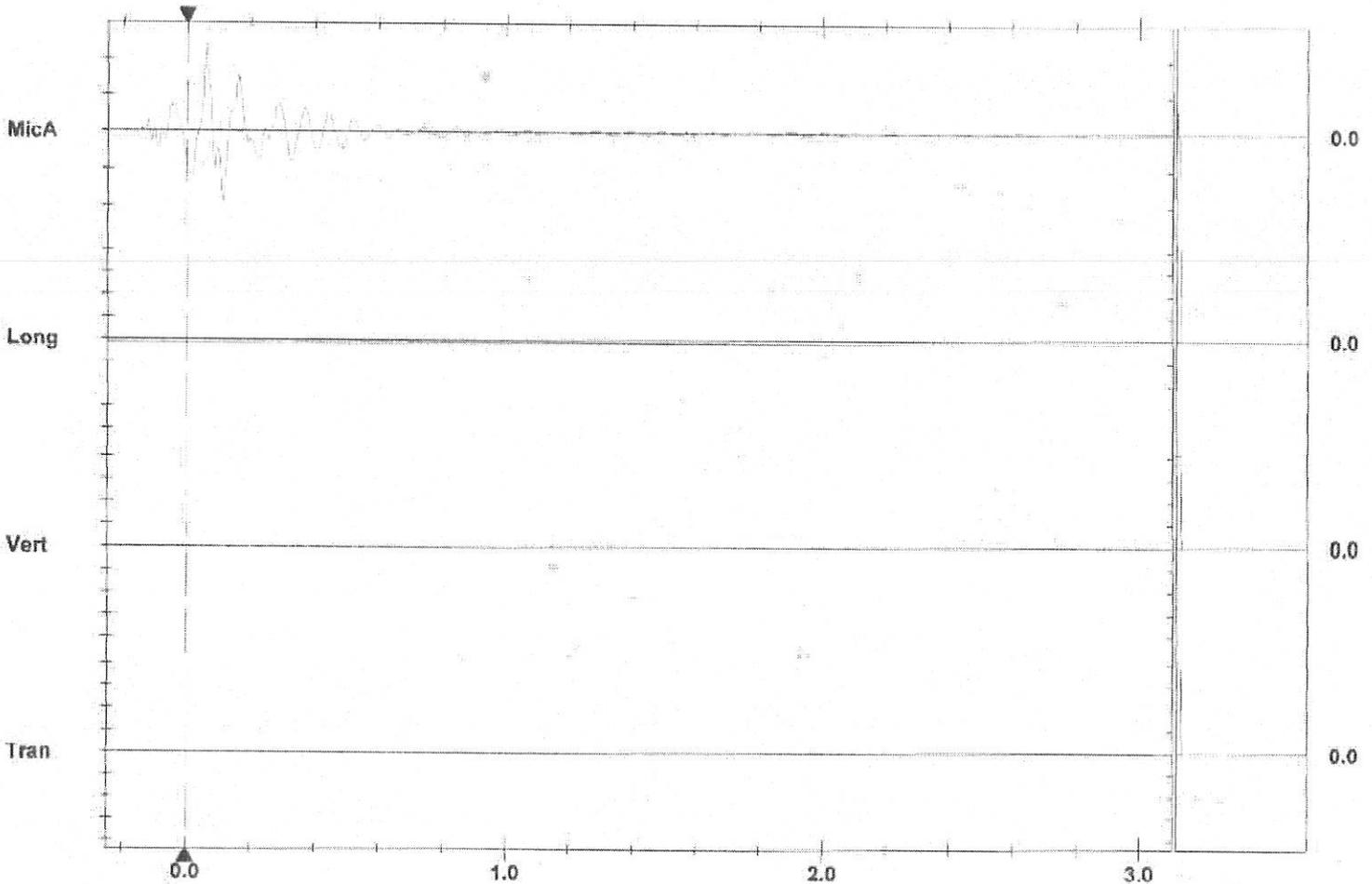
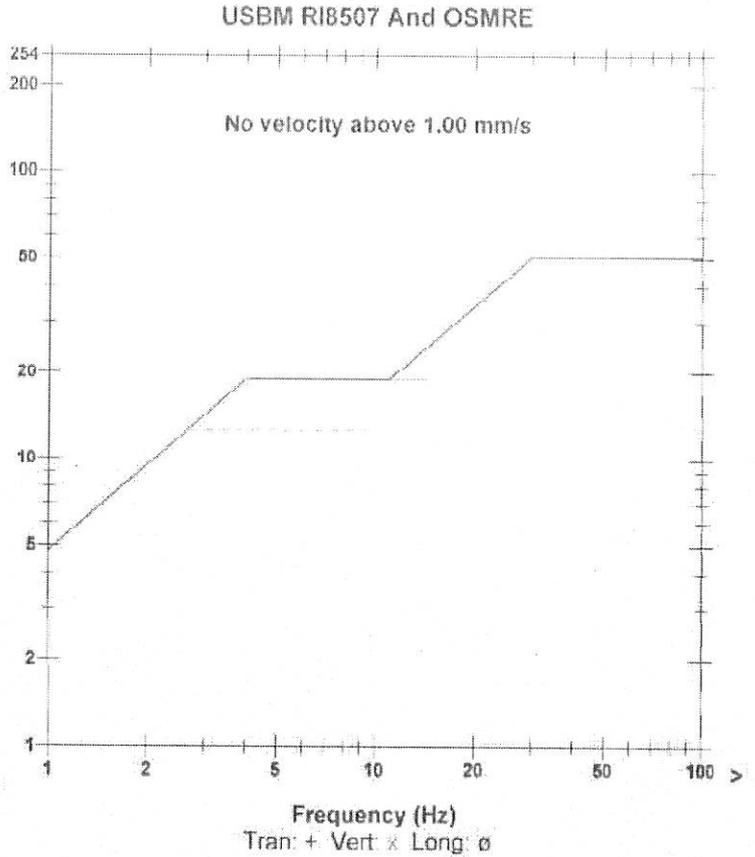
Serial Number UM11220 V 10-90FB Micromate ISEE
 Battery Level 3.8 Volts
 Unit Calibration August 14, 2023 by UES New Delhi
 File Name UM11220_20240412131400.IDFW

Notes
 Location: JARGO DAM MIRZAPUR VARANASI
 Client: D M OFFICE MIRZAPUR
 User Name: CMPDI
 General:

Microphone Linear Weighting
 PSPL 4.887 pa.(L) at 0.051 sec
 ZC Freq 12 Hz
 Channel Test Check (Freq = 0.0 Hz Amp = 0 mv)

	Tran	Vert	Long	
PPV	0.039	0.039	0.410	mm/s
ZC Freq	85	>100	N/A	Hz
Time (Rel. to Trig)	0.117	1.145	-0.144	sec
Peak Acceleration	0.006	0.004	0.005	g
Peak Displacement	0.000	0.000	0.000	mm
Sensor Check	Check	Check	Check	
Frequency	1024.0	1024.0	1024.0	Hz
Overswing Ratio	0.0	0.0	0.0	

Peak Vector Sum 0.410 mm/s at 0.404 sec
 N/A: Not Applicable

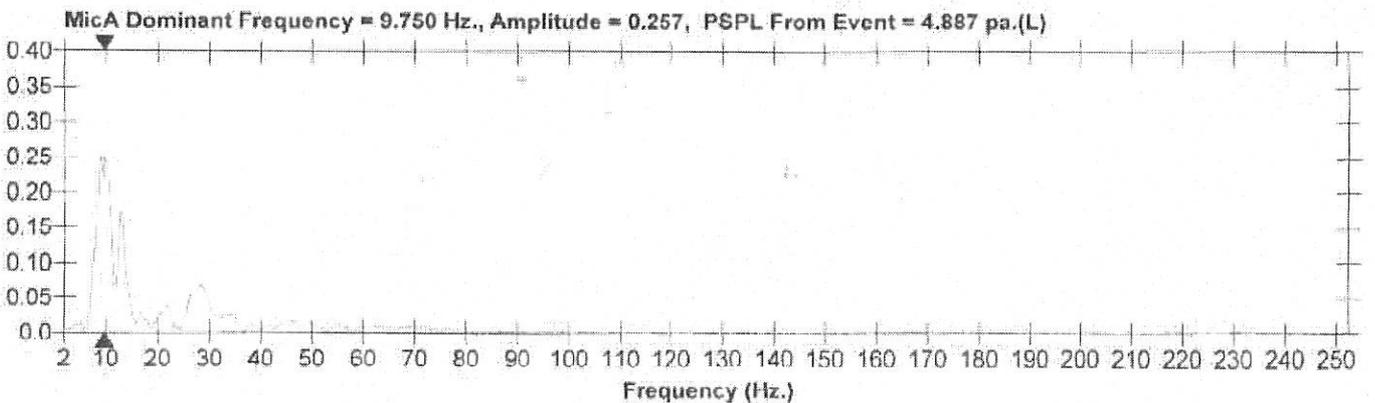
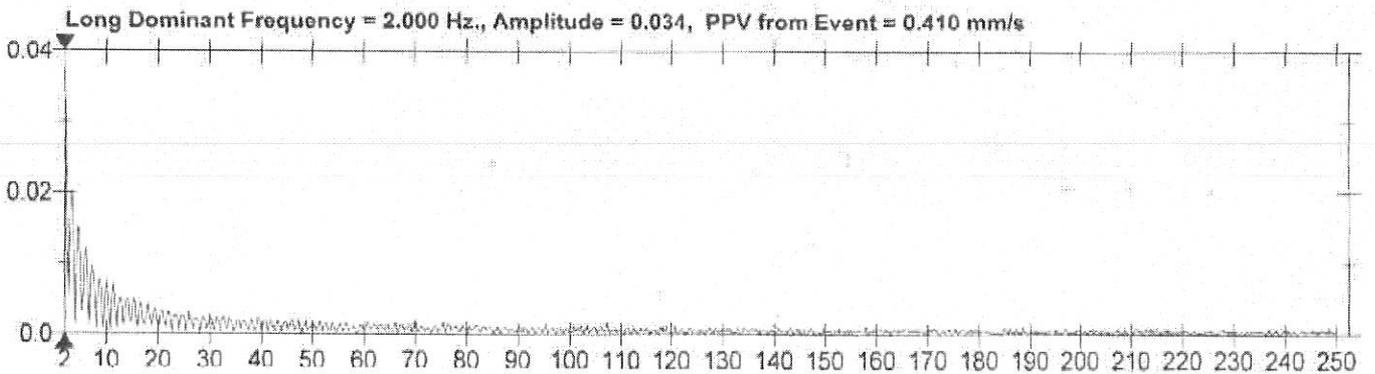
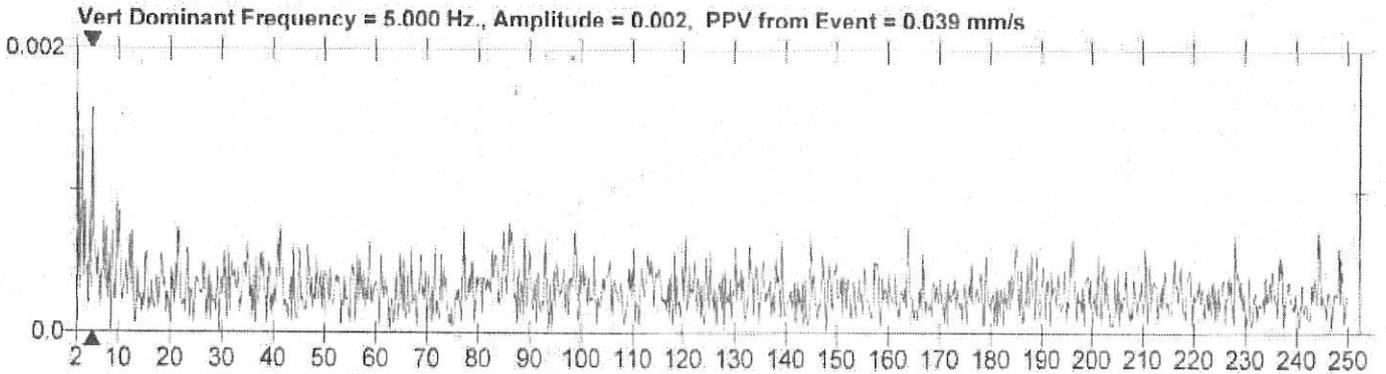
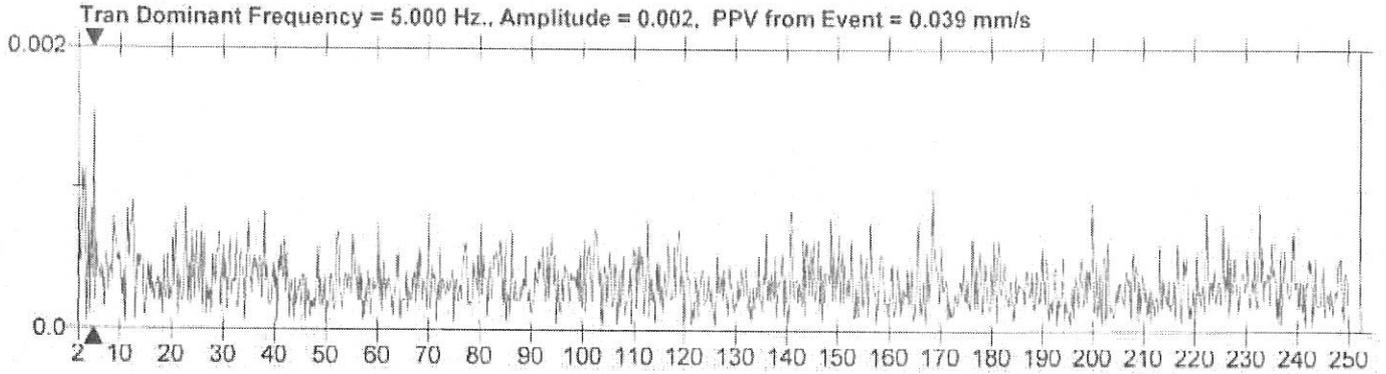


Date/Time MicA at 13:14:00 April 12, 2024
Trigger Source Geo: 0.800 mm/s, Mic: 2.000 pa (L)
Range Geo: 254.0 mm/s
Record Time 3.0 sec at 1024 sps
Operator/Setup: Operator/factory.mmb

Serial Number UM11220 V 10-90FB Micromate ISEE
Battery Level 3.8 Volts
Unit Calibration August 14, 2023 by UES New Delhi
File Name UM11220_20240412131400 IDFW

Notes

Location: JARGO DAM MIRZAPUR VARANASI
Client: D M OFFICE MIRZAPUR
User Name: CMPDI
General:



Date/Time Vert at 13:47:04 April 12, 2024
 Trigger Source Geo: 0.800 mm/s
 Range Geo: 31.75 mm/s
 Record Time 2.0 sec at 1024 sps

Serial Number BA14611 V 10.72-8.17 BlastMate III/8
 Battery Level 6.2 Volts
 Unit Calibration March 23, 2022 by UES New Delhi
 File Name P611KHZQ.AG0
 Scaled Distance 0.3 (0.1 m, 0.1 kg)

Notes
 Location: JARGO DAM, MIRZAPUR, VARANASI
 Client: D M OFFICE, MIRZAPUR
 User Name: CMPDI BLASTING DIVISION
 General Monitoring 0 VIBRATION STUDY

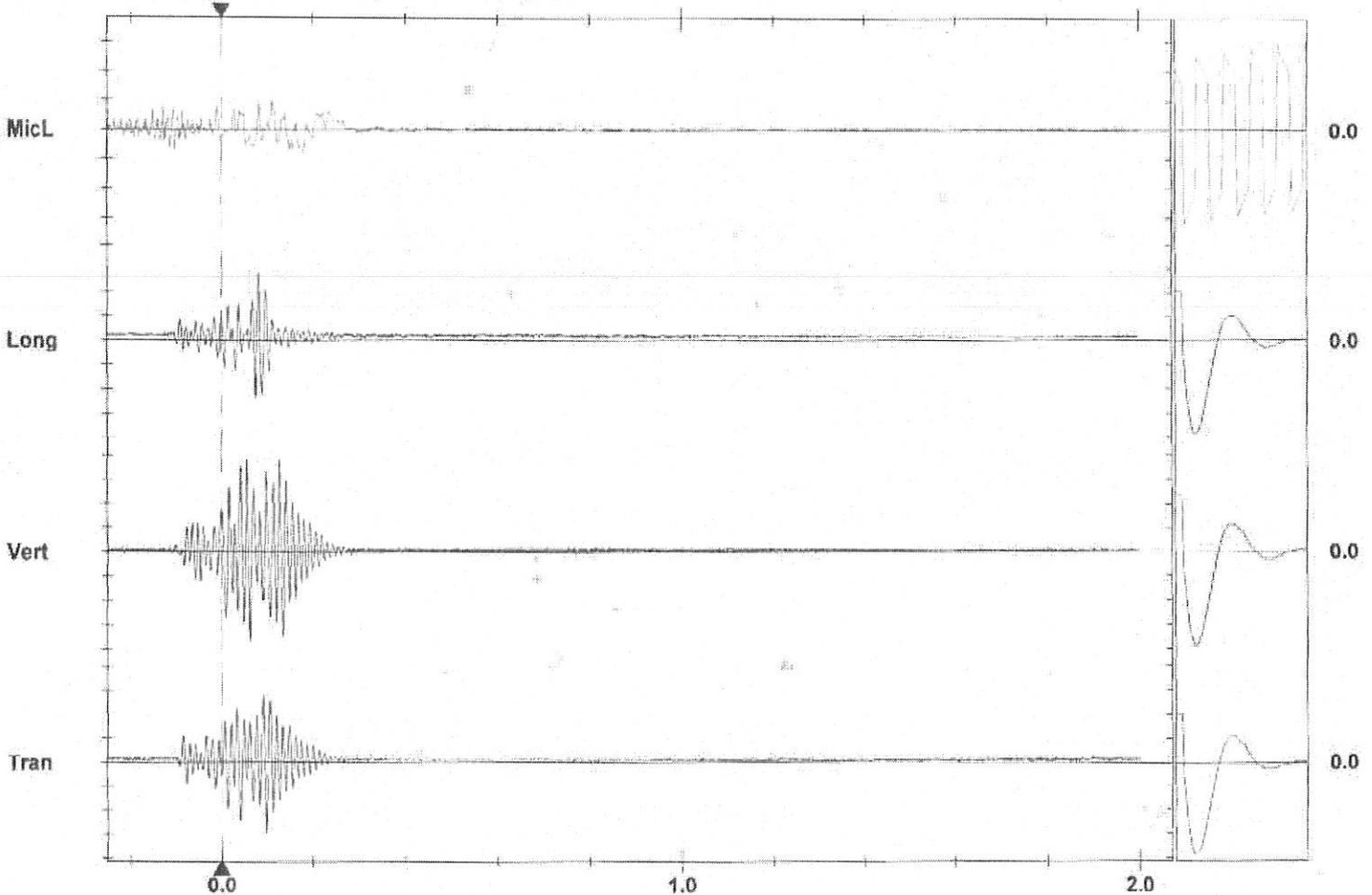
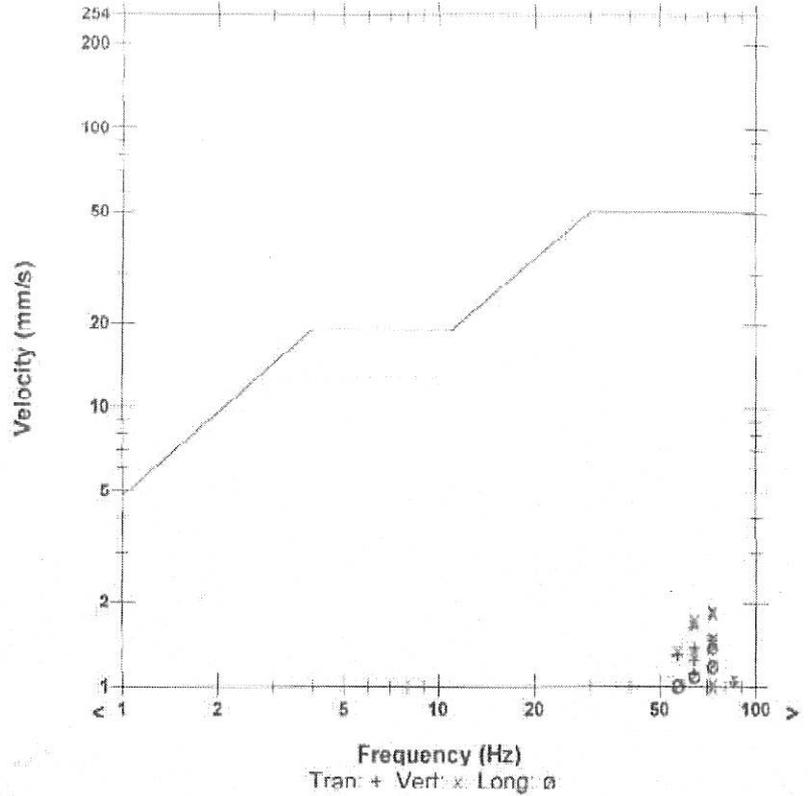
Extended Notes
 Job No 3

Microphone Linear Weighting
 PSPL 9.750 pa (L) at 0.111 sec
 ZC Freq 30 Hz
 Channel Test Passed (Freq = 19.7 Hz Amp = 419 mv)

	Tran	Vert	Long	
PPV	1.460	1.889	1.381	mm/s
ZC Freq	73	73	73	Hz
Time (Rel. to Trig)	0.098	0.056	0.081	sec
Peak Acceleration	0.065	0.085	0.066	g
Peak Displacement	0.020	0.004	0.008	mm
Sensor Check	Passed	Passed	Passed	
Frequency	7.5	7.5	7.6	Hz
Overswing Ratio	3.6	3.4	3.7	

Peak Vector Sum 2.394 mm/s at 0.098 sec

USBM RI8507 And OSMRE



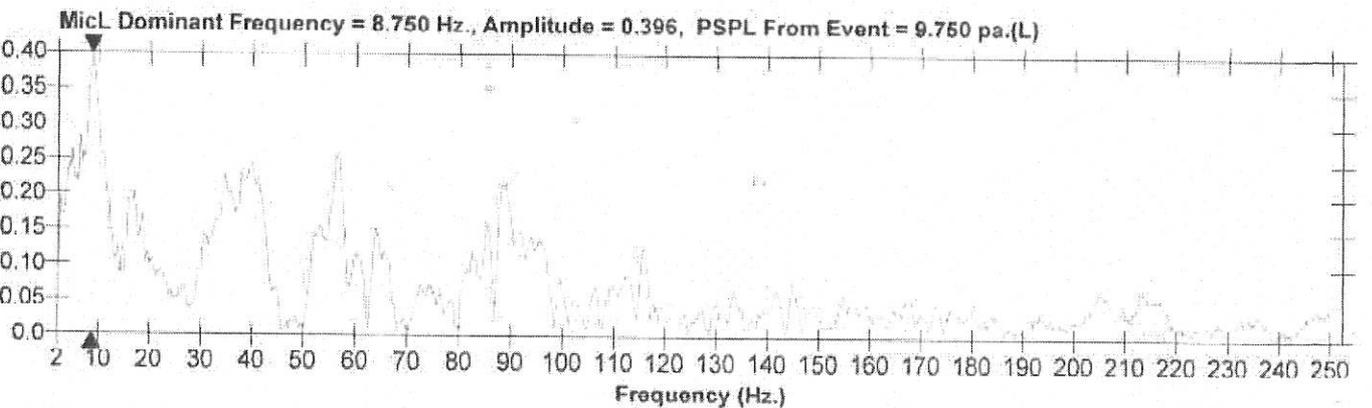
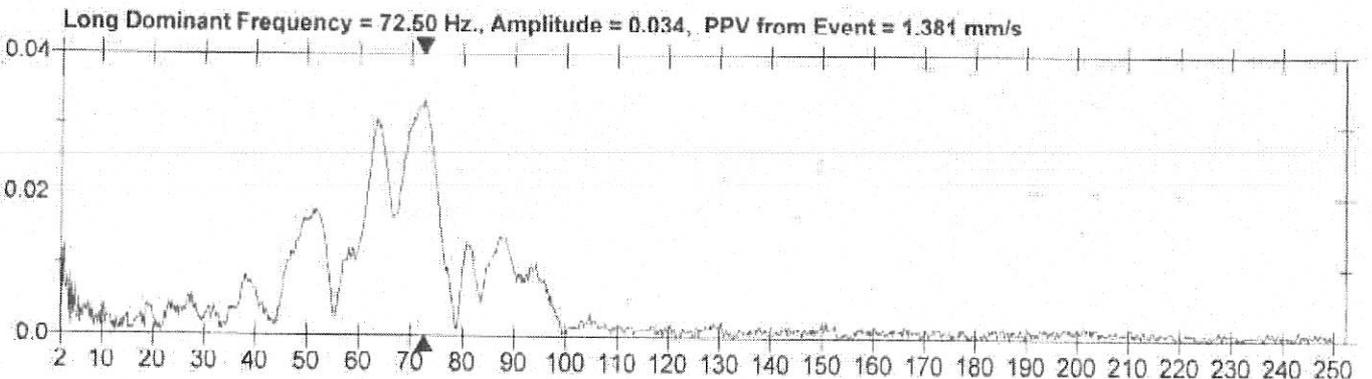
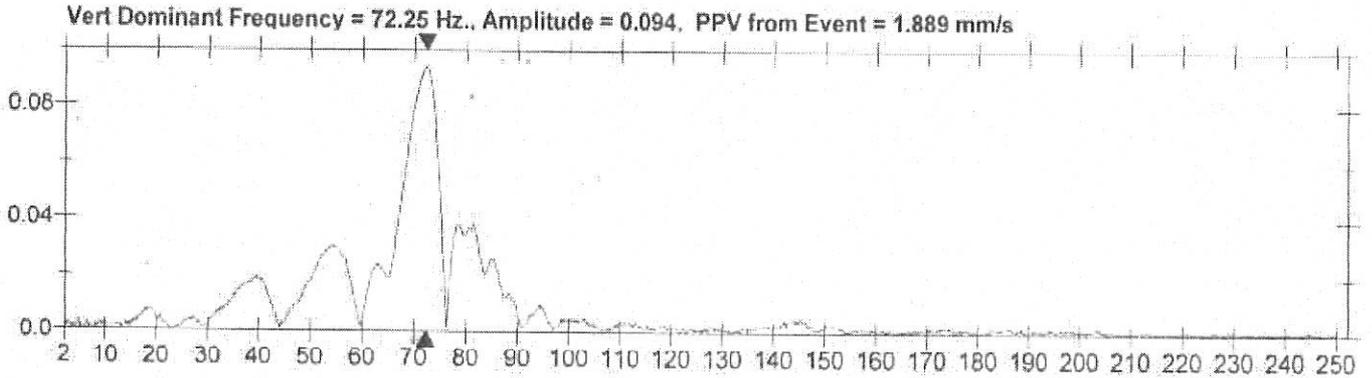
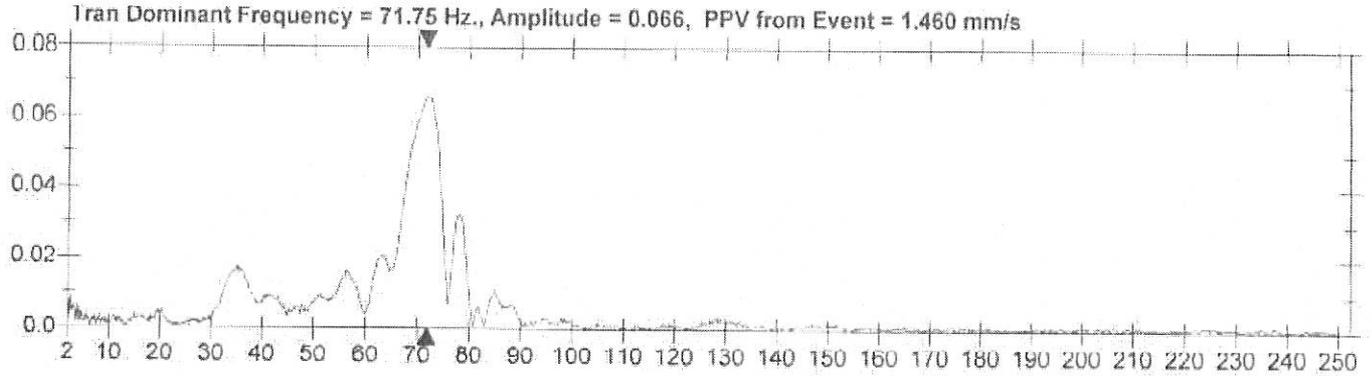
Date/Time Vert at 13:47:04 April 12, 2024
Trigger Source Geo: 0.800 mm/s
Range Geo: 31.75 mm/s
Record Time 2.0 sec at 1024 sps

Serial Number BA14611 V 10.72-8 17 BlastMate III/8
Battery Level 6.2 Volts
Unit Calibration March 23, 2022 by UES New Delhi
File Name P611KHZQ.A00
Scaled Distance 0.3 (0.1 m, 0.1 kg)

Notes

Location JARGO DAM, MIRZAPUR, VARANASI
Client D.M. OFFICE, MIRZAPUR
User Name: CMPDI BLASTING DIVISION
General: Monitoring 0 VIBRATION STUDY

Extended Notes
Job No 3



Date/Time Long at 14:09:33 April 12, 2024
 Trigger Source Geo: 0.800 mm/s
 Range Geo: 31.75 mm/s
 Record Time 2.0 sec at 1024 sps

Serial Number BA14611 V 10.72-8.17 BlastMate III/8
 Battery Level 6.2 Volts
 Unit Calibration March 23, 2022 by UES New Delhi
 File Name P611KHZR.BX0
 Scaled Distance 0.3 (0.1 m, 0.1 kg)

Notes
 Location: JARGO DAM, MIRZAPUR, VARANASI
 Client D.M. OFFICE, MIRZAPUR
 User Name: CMPDI BLASTING DIVISION
 General: Monitoring 0 VIBRATION STUDY

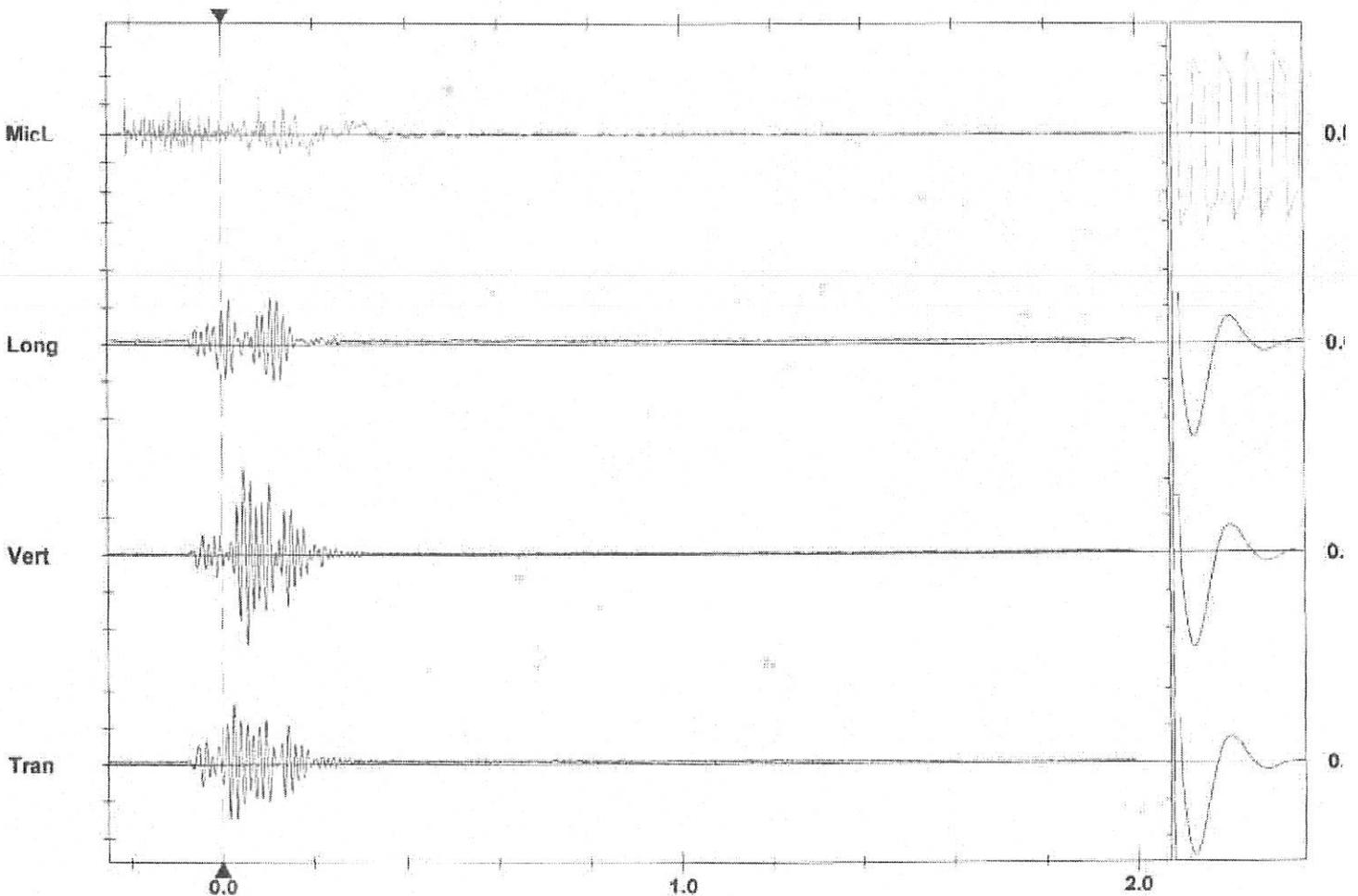
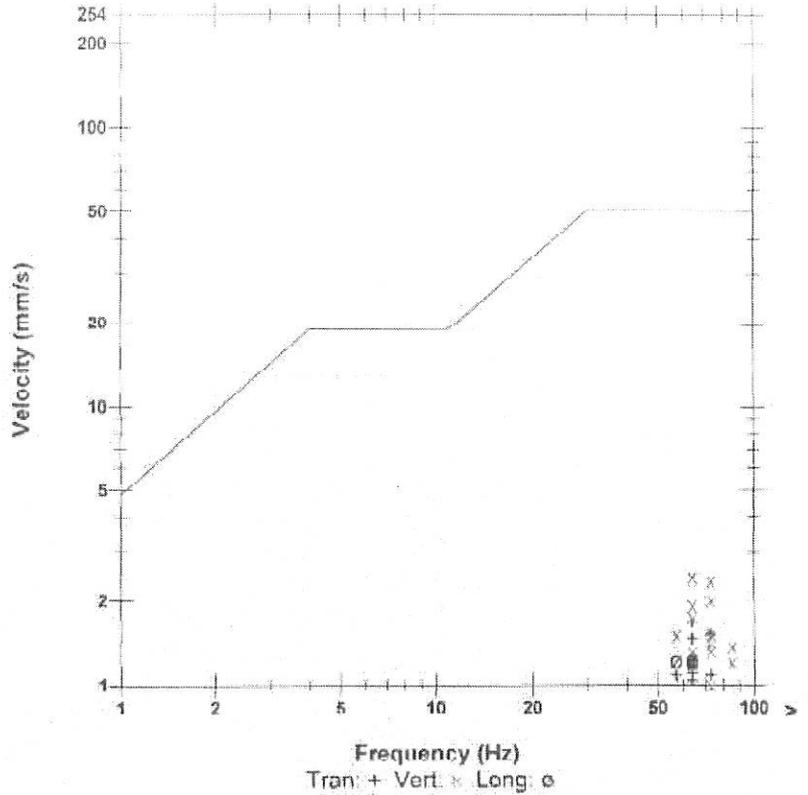
Extended Notes
 Job No 3

Microphone Linear Weighting
 PSPL 12.75 pa.(L) at 0.084 sec
 ZC Freq 47 Hz
 Channel Test Passed (Freq = 20.1 Hz Amp = 377 mv)

	Tran	Vert	Long	
PPV	1.667	2.445	1.238	mm/s
ZC Freq	64	64	64	Hz
Time (Rel. to Trig)	0.025	0.056	0.017	sec
Peak Acceleration	0.070	0.106	0.053	g
Peak Displacement	0.011	0.006	0.008	mm
Sensor Check	Passed	Passed	Passed	
Frequency	7.5	7.5	7.5	Hz
Overswing Ratio	3.6	3.4	3.6	

Peak Vector Sum 2.623 mm/s at 0.056 sec

USBM RI8507 And OSMRE



Time Scale: 0.20 sec/div Amplitude Scale: Geo: 1.000 mm/s/div Mic: 10,000 pa.(L)/div
 Trigger = \blacktriangleright \blacktriangleleft

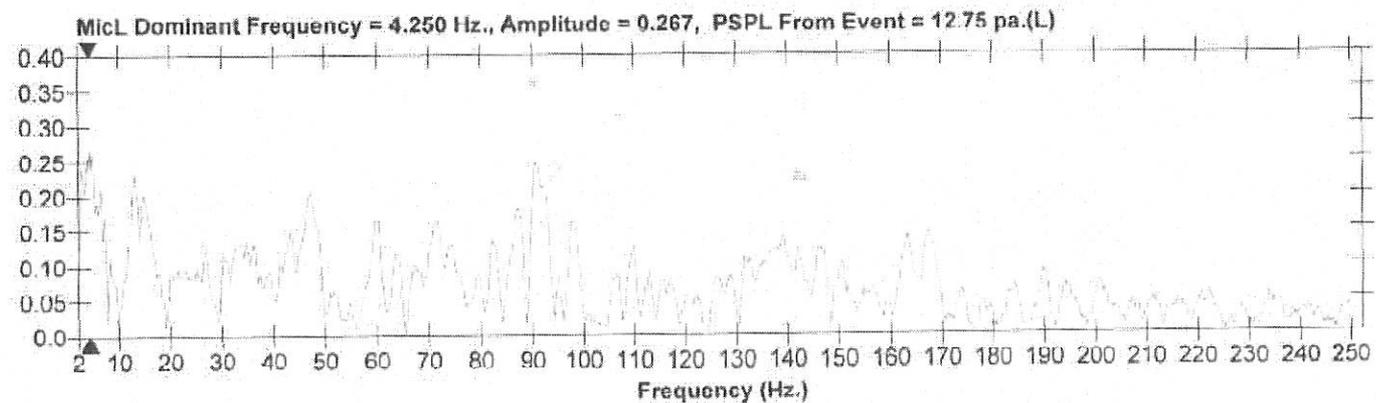
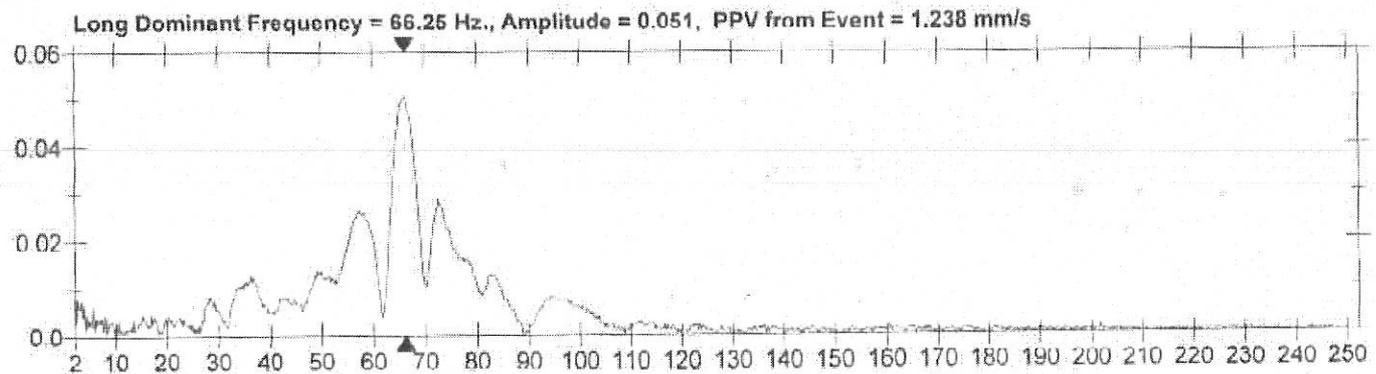
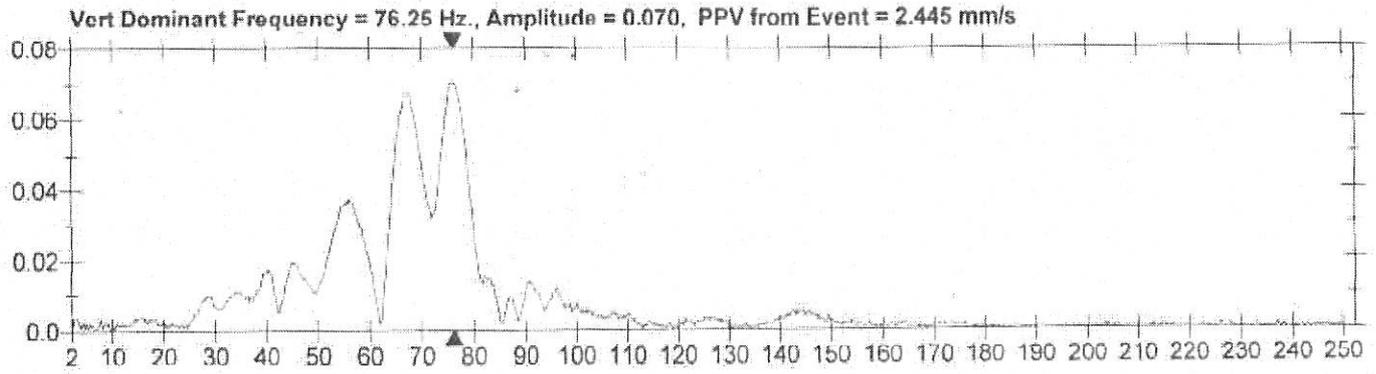
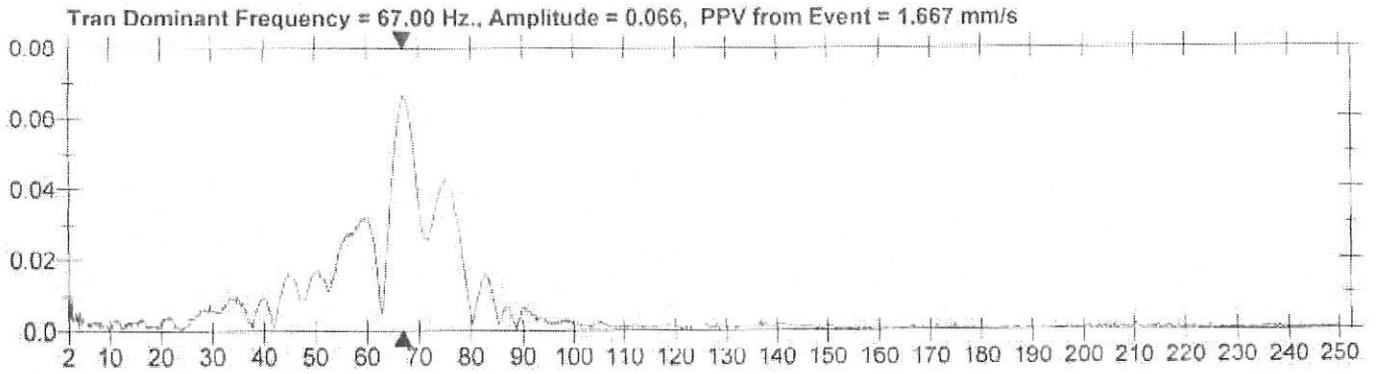
Sensor Check

Date/Time Long at 14:09:33 April 12, 2024
Trigger Source Geo: 0.800 mm/s
Range Geo: 31.75 mm/s
Record Time 2.0 sec at 1024 sps

Serial Number BA14611 V 10.72-8.17 BlastMate III/0
Battery Level 6.2 Volts
Unit Calibration March 23, 2022 by UES New Delhi
File Name P611KHZR.BX0
Scaled Distance 0.3 (0.1 m, 0.1 kg)

Notes
Location: JARGO DAM, MIRZAPUR, VARANASI
Client D.M. OFFICE, MIRZAPUR
User Name: CMPDI BLASTING DIVISION
General Monitoring 0 VIBRATION STUDY

Extended Notes
Job No 3



Date/Time Vert at 14:09:17 April 12, 2024
 Trigger Source Geo: 1.000 mm/s
 Range Geo: 254.0 mm/s
 Record Time 5.0 sec at 2048 sps

Serial Number BE18012 V 10.72-8.17 MiniMate Plus/8
 Battery Level 6.1 Volts
 Unit Calibration August 14, 2023 by UES New Delhi
 File Name T012KHZR BH0

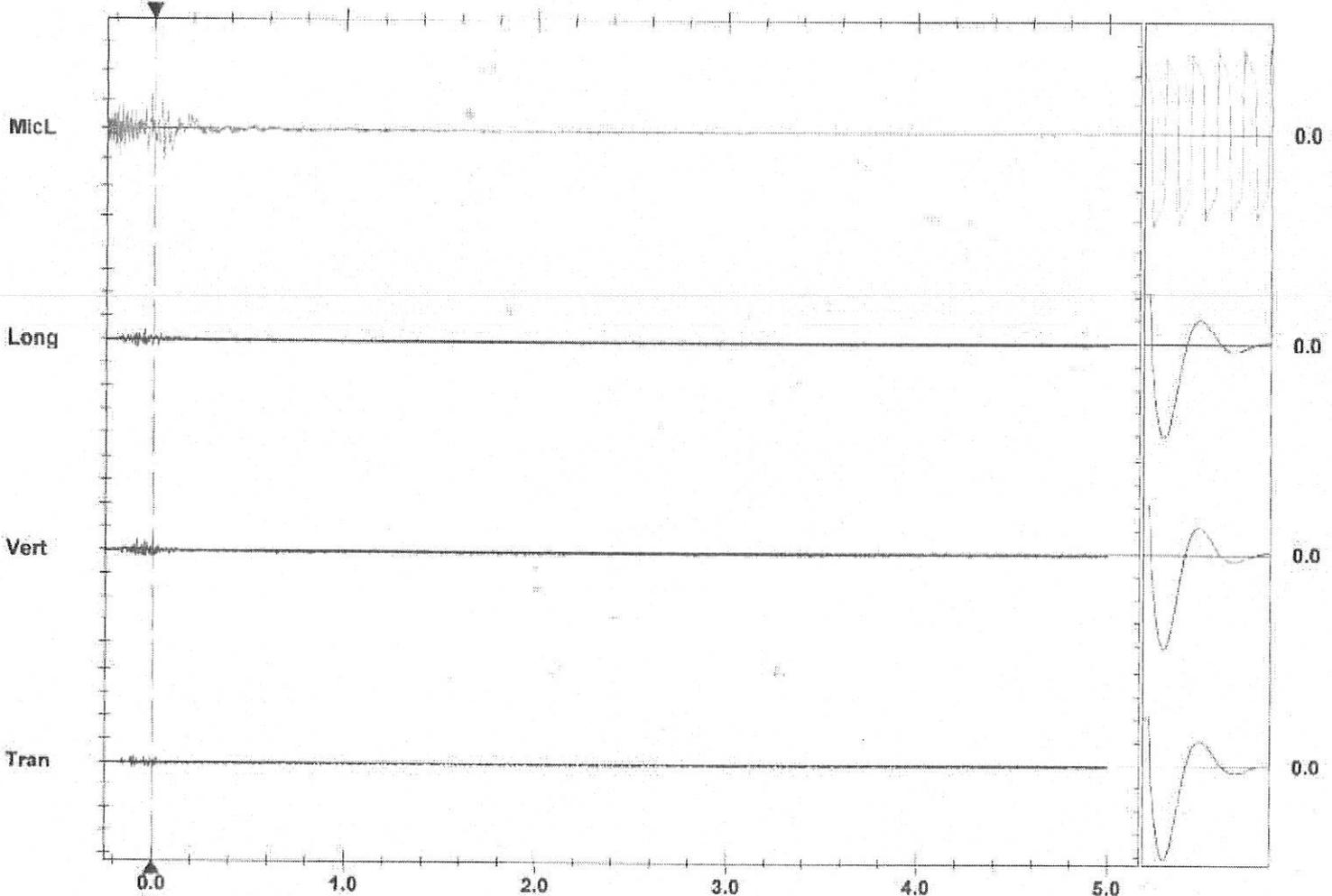
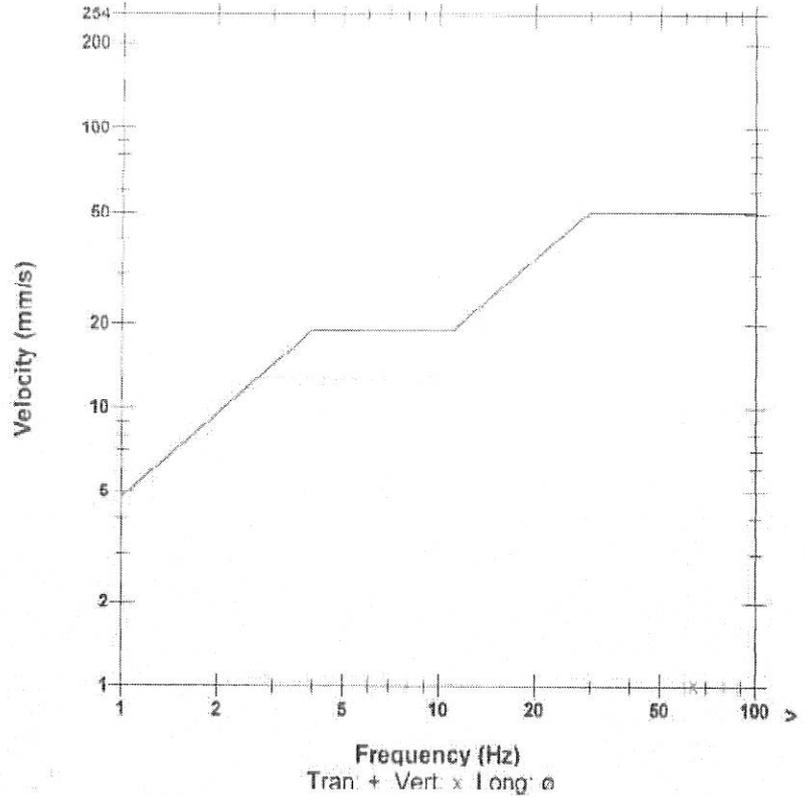
Notes
 Location: JARGO DAM, MIRZAPUR, VARANASI
 Client: D.M.OFFICE, MIRZAPUR
 User Name: BLASTING DIVISION CMPDI HQ
 General: VIBRATION STUDY

Microphone Linear Weighting
 PSPL 11.75 pa.(L) at -0.016 sec
 ZC Freq 43 Hz
 Channel Test Passed (Freq = 19.7 Hz Amp = 367 mv)

	Tran	Vert	Long	
PPV	0.035	1.016	0.762	mm/s
ZC Freq	68	64	73	Hz
Time (Rel. to Trig)	0.000	0.000	-0.048	sec
Peak Acceleration	0.080	0.053	0.053	g
Peak Displacement	0.001	0.002	0.001	mm
Sensor Check	Passed	Passed	Passed	
Frequency	7.2	7.4	7.3	Hz
Overswing Ratio	3.7	3.5	4.0	

Peak Vector Sum 1.092 mm/s at 0.000 sec

USBM RI8507 And OSMRE



Time Scale: 0.20 sec/div Amplitude Scale: Geo: 2.000 mm/s/div Mic: 10.000 pa.(L)/div
 Trigger = ▶ ◀

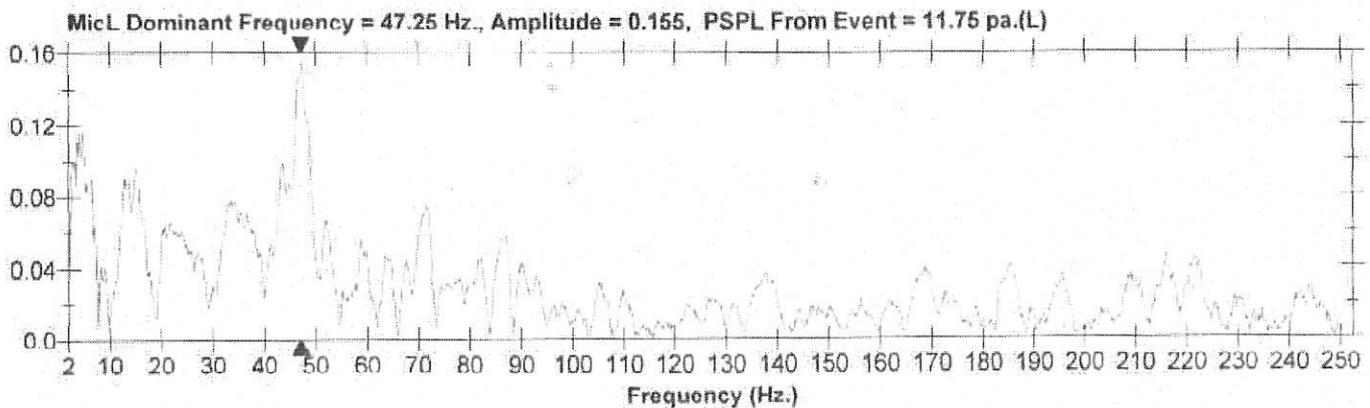
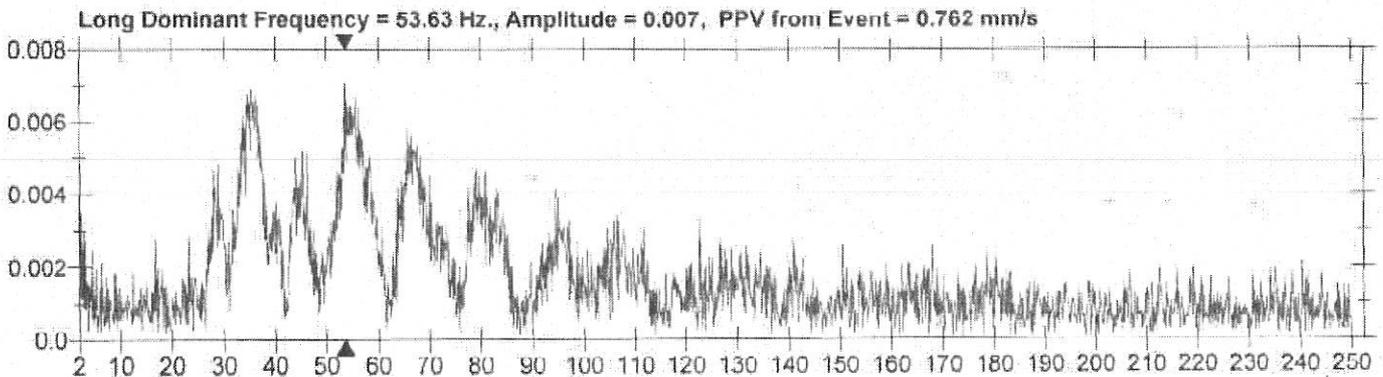
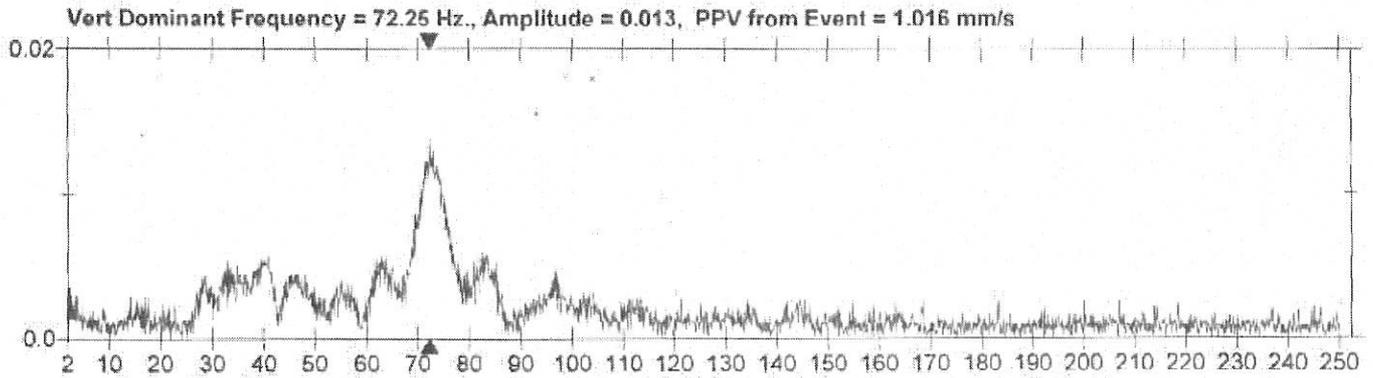
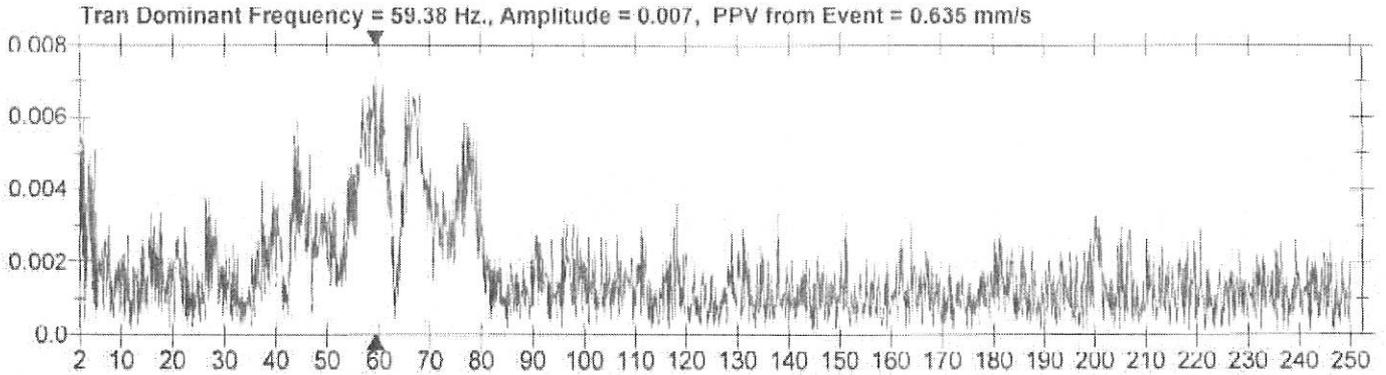
Sensor Check

Date/Time Vert at 14:09:17 April 12, 2024
Trigger Source Geo: 1.000 mm/s
Range Geo: 254.0 mm/s
Record Time 5.0 sec at 2048 sps

Serial Number BE18012 V 10 72-8.17 MiniMate Plus/8
Battery Level 6.1 Volts
Unit Calibration August 14, 2023 by UES New Delhi
File Name T012KHZR BH0

Notes

Location: JARGO DAM, MIRZAPUR, VARANASI
Client: D M OFFICE, MIRZAPUR
User Name: BLASTING DIVISION CMPDI HQ
General: VIBRATION STUDY



Date/Time Vert at 14:09:17 April 12, 2024
 Trigger Source Geo: 1.000 mm/s
 Range Geo: 254.0 mm/s
 Record Time 5.0 sec at 2048 sps

Serial Number BE18012 V 10.72-8.17 MiniMate Plus/8
 Battery Level 6.1 Volts
 Unit Calibration August 14, 2023 by UFS New Delhi
 File Name T012KHZR BH0

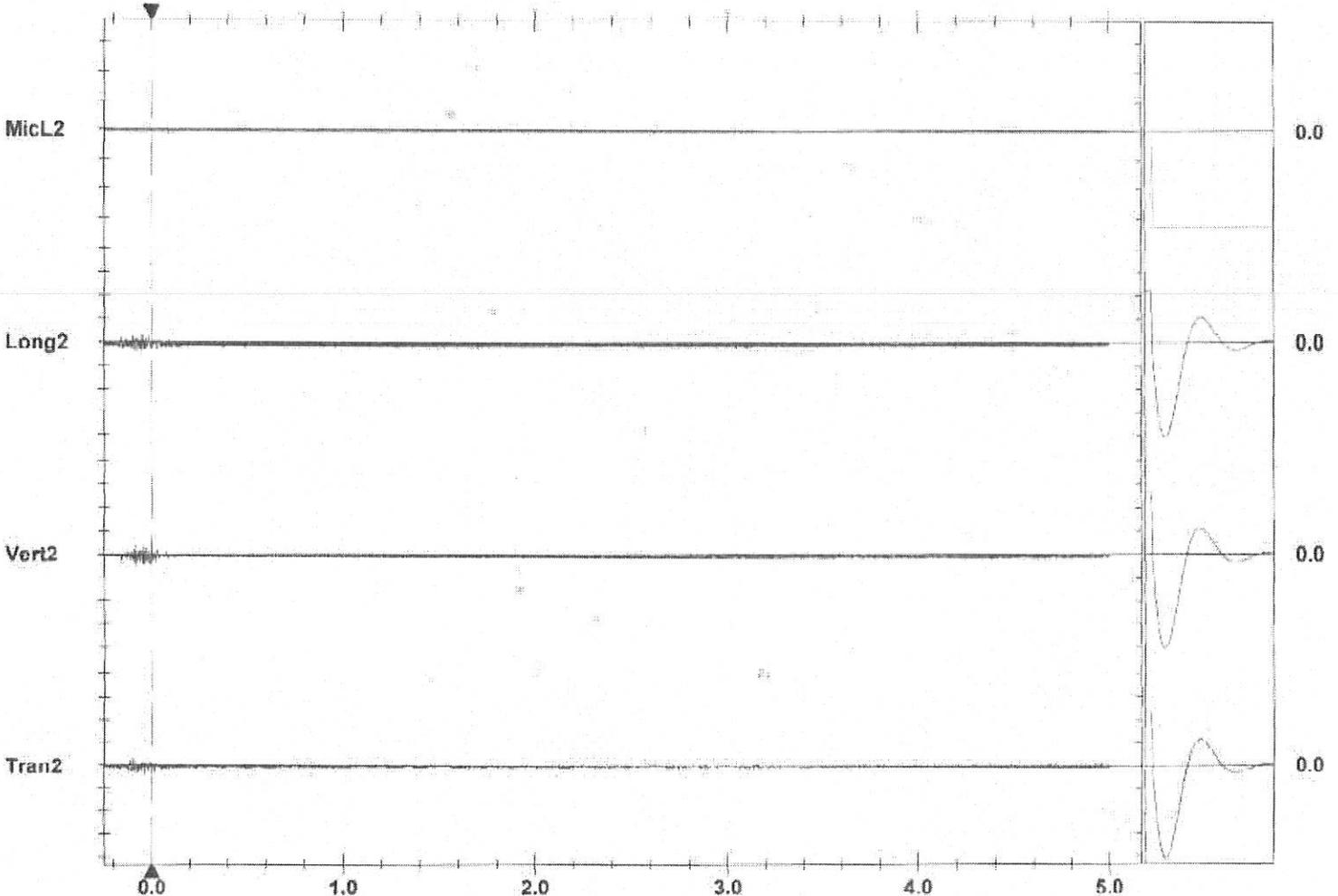
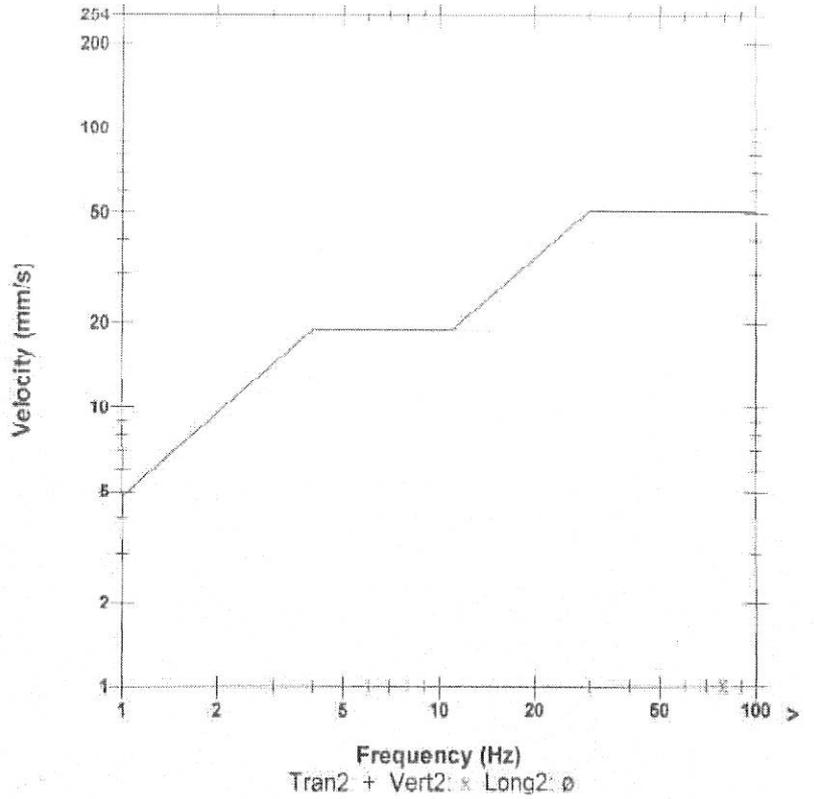
Notes
 Location: JARGO DAM, MIRZAPUR, VARANASI
 Client: D.M.OFFICE, MIRZAPUR
 User Name: BLASTING DIVISION CMPDI HQ
 General: VIBRATION STUDY

Microphone Linear Weighting
 PSPL 0.750 pa.(L) at -0.183 sec
 ZC Freq >200 Hz
 Channel Test Check (Freq = 0.0 Hz Amp = 0 mv)

	Tran2	Vert2	Long2	
PPV	0.762	1.016	0.889	mm/s
ZC Freq	93	79	85	Hz
Time (Rel. to Trig)	-0.037	0.000	-0.081	sec
Peak Acceleration	0.080	0.080	0.080	g
Peak Displacement	0.002	0.003	0.002	mm
Sensor Check	Passed	Passed	Passed	
Frequency	7.5	7.6	7.4	Hz
Overswing Ratio	3.6	3.7	3.9	

Peak Vector Sum 1.178 mm/s at -0.037 sec

USBM RI8507 And OSMRE



Time Scale: 0.20 sec/div Amplitude Scale: Geo: 2.000 mm/s/div Mic: 10.000 pa.(L)/div
 Trigger = ▶ ◀

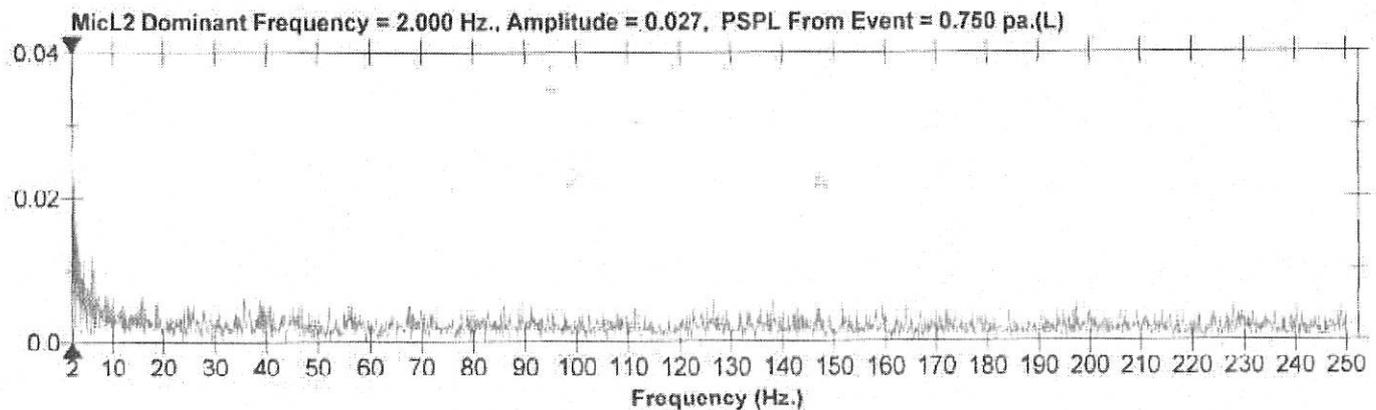
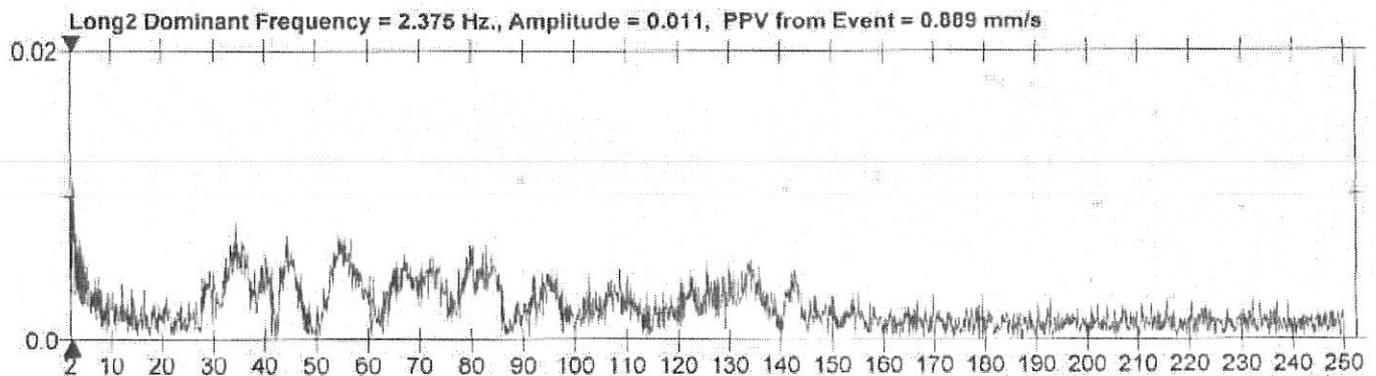
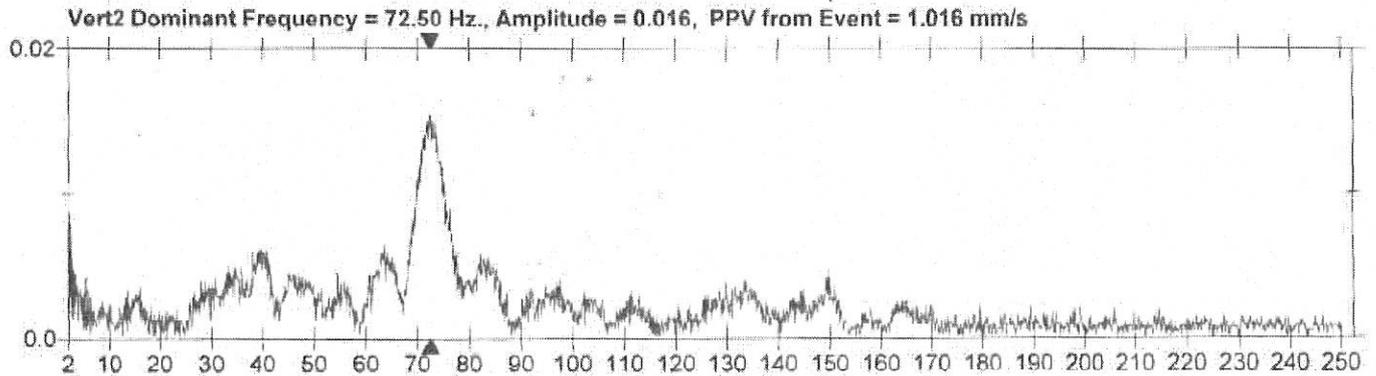
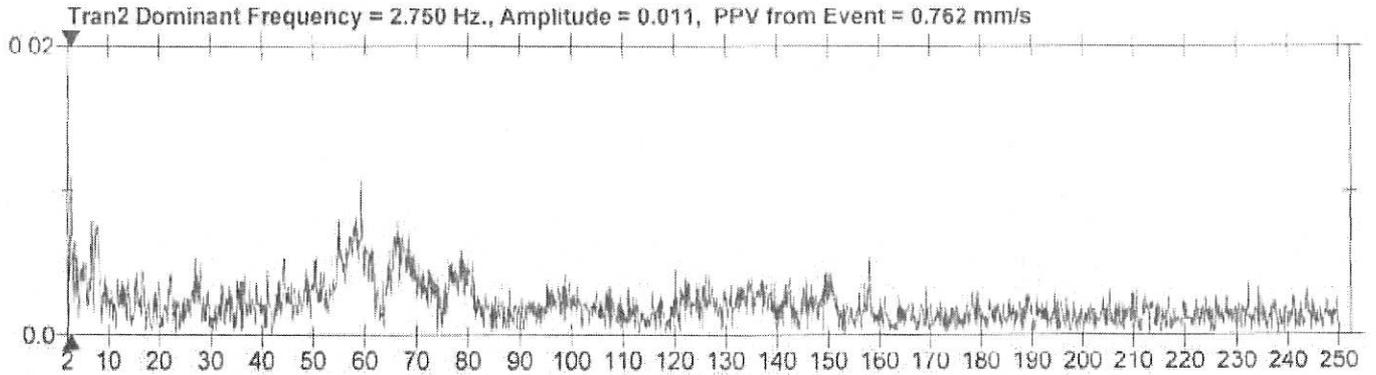
• Sensor Check

Date/Time Vert at 14:09:17 April 12, 2024
Trigger Source Geo: 1.000 mm/s
Range Geo: 254.0 mm/s
Record Time 5.0 sec at 2048 sps

Serial Number BE18012 V 10.72-8.17 MiniMate Plus/8
Battery Level 6.1 Volts
Unit Calibration August 14, 2023 by UES New Delhi
File Name T012KHZR.BH0

Notes

Location: JARGO DAM, MIRZAPUR, VARANASI
Client: D M OFFICE, MIRZAPUR
User Name: BLASTING DIVISION CMPDI HQ
General: VIBRATION STUDY



Date/Time MicA at 14:10:06 April 12, 2024
 Trigger Source Geo: 0.800 mm/s, Mic: 2.000 pa.(L)
 Range Geo: 254.0 mm/s
 Record Time 3.0 sec at 1024 sps
 Operator/Setup: Operator/factory.mmb

Serial Number UM11220 V 10-90FB Micromate ISEE
 Battery Level 3.8 Volts
 Unit Calibration August 14, 2023 by UES New Delhi
 File Name UM11220_20240412141006.IDFW

Notes

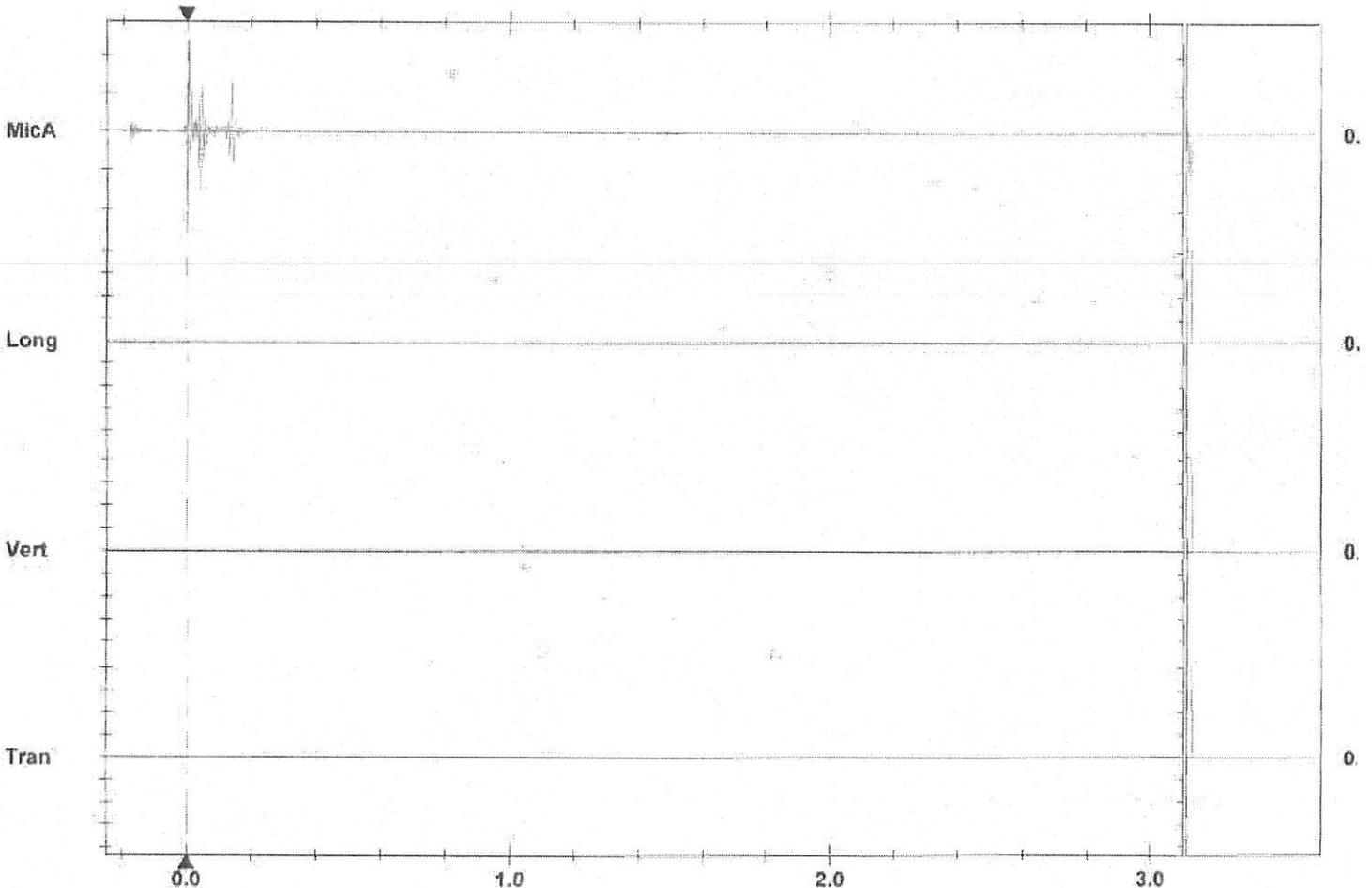
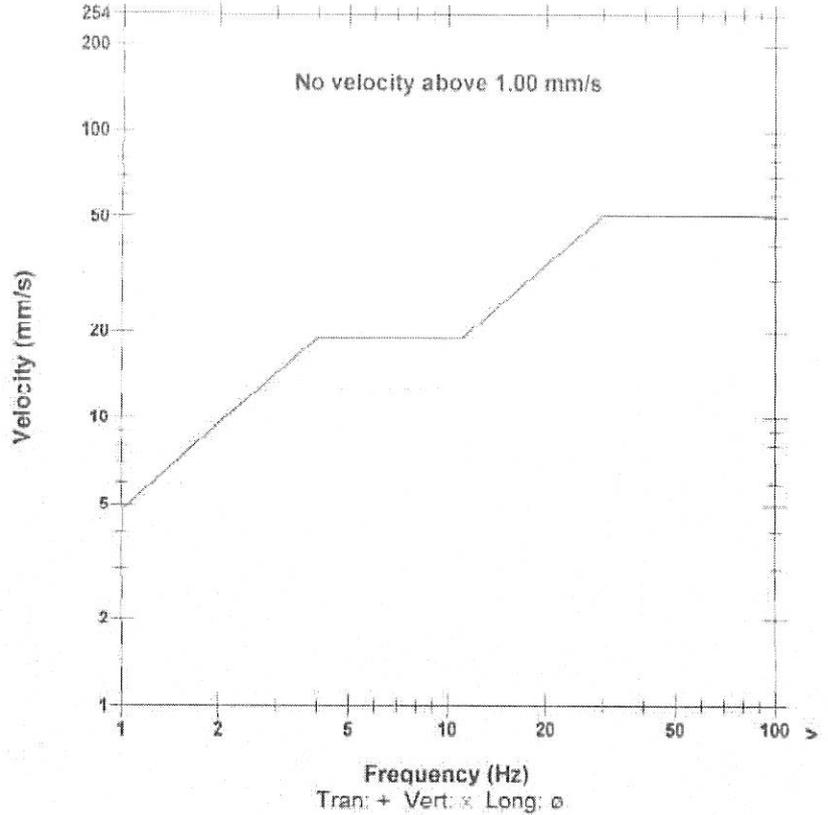
Location: JARGO DAM MIRZPUR VARANASI
 Client: D M OFFICE MIRZAPUR
 User Name: CMPDI
 General:

Microphone Linear Weighting
 PSPL 4.686 pa.(L) at 0.005 sec
 ZC Freq >100 Hz
 Channel Test Check (Freq = 0.0 Hz Amp = 0 mv)

	Tran	Vert	Long	
PPV	0.047	0.047	0.221	mm/s
ZC Freq	>100	57	N/A	Hz
Time (Rel. to Trig)	1.923	-0.010	1.410	sec
Peak Acceleration	0.005	0.004	0.005	g
Peak Displacement	0.000	0.001	0.000	mm
Sensor Check	Check	Check	Check	
Frequency	1024.0	1024.0	1024.0	Hz
Overswing Ratio	0.0	0.0	0.0	

Peak Vector Sum 0.221 mm/s at 1.410 sec
 N/A: Not Applicable

USBM RIR507 And OSMRE



Time Scale: 0.20 sec/div Amplitude Scale: Geo: 2.000 mm/s/div Mic: 2.000 pa.(L)/div
 Trigger = \blacktriangleleft \blacktriangleright

Sensor Check

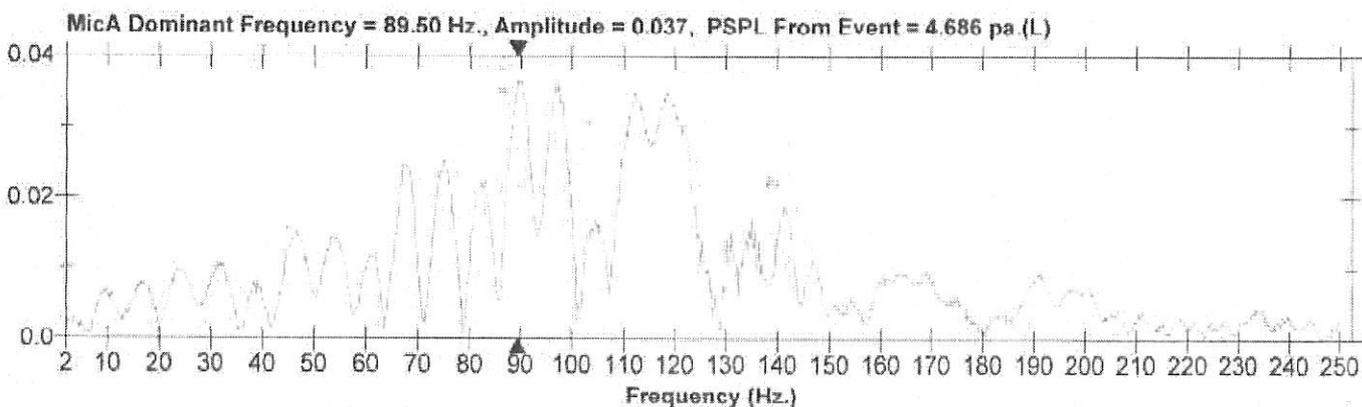
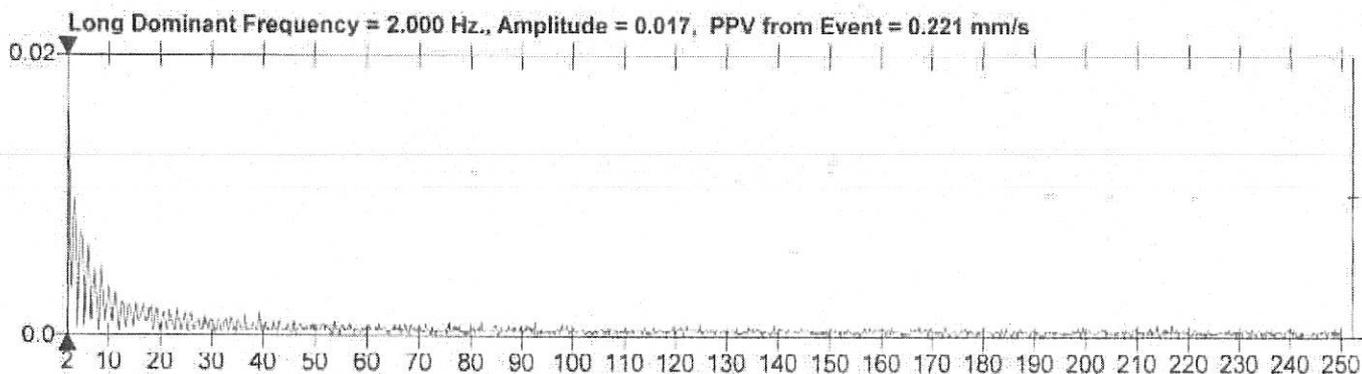
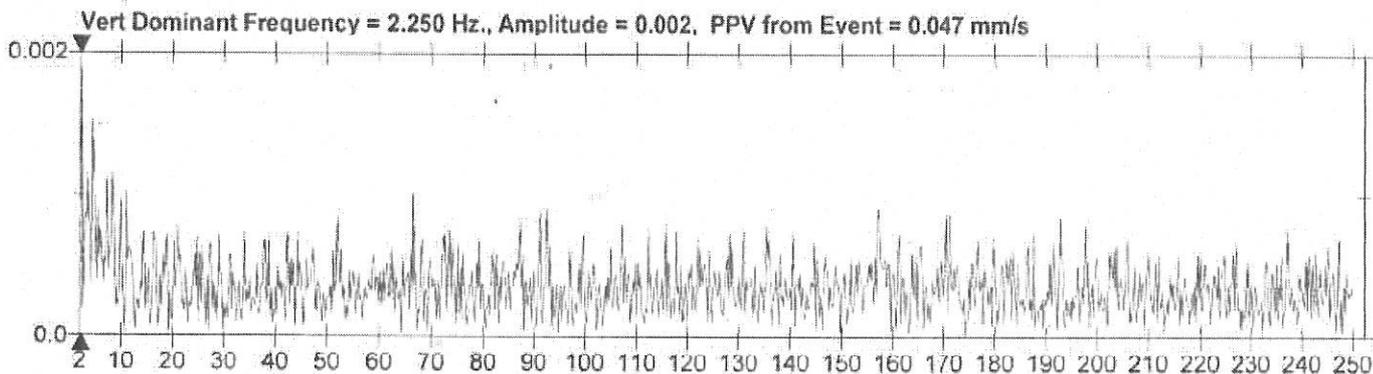
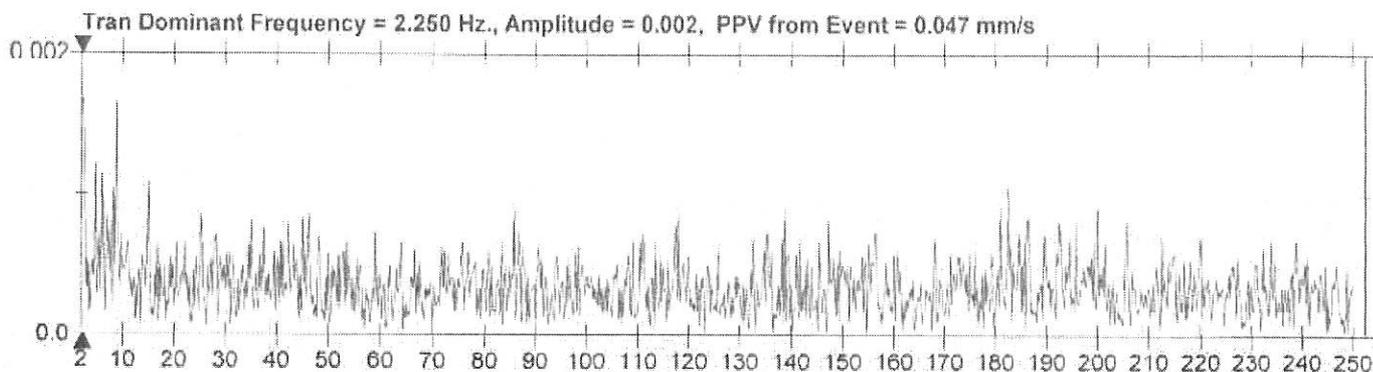
6854

Date/Time: MicA at 14:10:06 April 12, 2024
Trigger Source: Geo: 0.800 mm/s, Mic: 2.000 pa.(L)
Range: Geo: 254.0 mm/s
Record Time: 3.0 sec at 1024 sps
Operator/Setup: Operator/factory.mmb

Serial Number: UM11220 V 10-90FB Micromate ISEE
Battery Level: 3.8 Volts
Unit Calibration: August 14, 2023 by UES New Delhi
File Name: UM11220_20240412141006.IDFW

Notes

Location: JARGO DAM MIRZPUR VARANASI
Client: D M OFFICE MIRZAPUR
User Name: CMPDI
General:



प्रेषक,

निदेशक,

भूतत्व एवं खनिकर्म निदेशालय, उ०प्र०,
खनिज भवन, लखनऊ।

सेवा में,

जिलाधिकारी,

मीरजापुर।

संख्या- 148 / एम०-एन०जी०टी०-वाद/2022

दिनांक 24 अप्रैल, 2024

विषय:-मा० राष्ट्रीय हरित अधिकरण, नई दिल्ली द्वारा पारित आदेश दिनांक 27.04.2023 के अनुपालन के सम्बन्ध में।

महोदय,

कृपया उपर्युक्त विषय के सम्बन्ध में अवगत कराना है कि ओ०ए० संख्या-521/2022 सम्पूर्णानन्द बनाम उ०प्र० राज्य व अन्य में मा० राष्ट्रीय हरित अधिकरण, नई दिल्ली द्वारा संयुक्त समिति का गठन किया गया था। संयुक्त समिति द्वारा अनुसंधान प्रेषित की गयी, जिसका उल्लेख मा० राष्ट्रीय हरित अधिकरण द्वारा पारित आदेश दिनांक 27.04.2023 में किया गया है। उपरोक्त संयुक्त समिति द्वारा दी गयी अनुशंसा के बिन्दु संख्या-5.2 निम्नवत् है:- State mining department have to obtained "No Objection Certificate" from state irrigation department before grant of lease near Jargo Dam.

अतः अपेक्षा है कि उपरोक्त अनुशंसा के सम्बन्ध में खनन पट्टा क्षेत्रों के व्यवस्थापन से पूर्व सिंचाई विभाग, मीरजापुर से अनापत्ति प्राप्त कर नियमानुसार जनपद स्तर से आवश्यक कार्यवाही करने का कष्ट करें।

भवदीया,
24/4/24
(माला श्रीवास्तव)
निदेशक।
o/c
Amir

प्रेषक,

निदेशक,

भूतत्व एवं खनिकर्म निदेशालय, उ०प्र०,
"खनिज भवन," लखनऊ।

1. सेवा में,

निदेशक,
आई०आई०टी,
बी०एच०यू०
वाराणसी।

2. सेवा में,

निदेशक,
आई०आई०टी,
कानपुर।

3. सेवा में,

निदेशक,
आई०आई०टी,
रूड़की।

संख्या: 2480/एम०-एन०जी०टी० वाद मीरजापुर/2023 दिनांक: 14 मार्च, 2024
विषय:-मा० राष्ट्रीय हरित अधिकरण, नई दिल्ली में विचाराधीन ओ०ए०
संख्या-521/2022 सम्पूर्णानन्द बनाम उ०प्र० राज्य व अन्य में पारित
आदेश दिनांक 27.04.2023 के अनुपालन में DGPS Survey agency को
भूतत्व एवं खनिकर्म निदेशालय, उ०प्र०, लखनऊ के साथ Empanel
किये जाने के सम्बन्ध में।

महोदय,

कृपया विषयांकित मामले में मा० राष्ट्रीय हरित अधिकरण, नई दिल्ली द्वारा
पारित आदेश दिनांक 27.04.2023 (छायाप्रति-संलग्न) का सन्दर्भ ग्रहण करने का कष्ट
करें, जिसके पृष्ठ संख्या-02 व 03 पर मा० राष्ट्रीय हरित अधिकरण, नई दिल्ली द्वारा
गठित संयुक्त समिति द्वारा दी गयी अनुशंसाओं का बिन्दु संख्या 5.5 निम्नवत् है:-

5.5 DGPS Survey agencies are not empaneled by UP-DGM, it is required to
empaneled with UP-DGM."

उपरिलिखित अनुशंसा के अनुक्रम में DGPS Survey agency को भूतत्व एवं
खनिकर्म निदेशालय, उ०प्र०, लखनऊ के साथ आबद्ध किया जाना है।

अतः अनुरोध है कि अपनी संस्था द्वारा DGPS Survey कराये जाने हेतु उक्त
के संबंध में प्रस्ताव निदेशालय को उपलब्ध कराने का कष्ट करें।

संलग्नक-यथोपरि।

भवदीय,
(माला श्रीवास्तव)
निदेशक।
o/c
Anil

भूतत्व एवं खनिकर्म निदेशालय, उ०प्र०,
खनिज भवन, लखनऊ।

संख्या: 149 / एम०-एन०जी०टी० वाद मीरजापुर / 2022

दिनांक 24 अप्रैल, 2024

कार्यालय आदेश

मा० राष्ट्रीय हरित अधिकरण, नई दिल्ली में विचाराधीन ओ०ए० संख्या-521/2022 सम्पूर्णानन्द बनाम उ०प्र० राज्य अन्य में पारित आदेश दिनांक 27.04.2023 में संयुक्त समिति द्वारा दी गयी अनुशंसाओं (Recommendations) का उल्लेख किया गया है, जिसके बिन्दु संख्या-5.11 निम्नवत् है:-

“The DMG office and Regional Office of UPPCB shall be strengthened with additional manpower & advanced infrastructure facilities for strict vigilance on mining activities.”

संयुक्त समिति द्वारा की गयी उक्त अनुशंसा के अनुक्रम में व Geological Survey of India & Remote Sensing Application Center, Lucknow से समय-समय पर हुये विचार विमर्श के क्रम में अवैध खनन को रोके जाने हेतु कड़ी निगरानी रखने के विषय में बेहतर तकनीक अपनाने के सम्बन्ध में Geological Survey of India, Lucknow & Remote Sensing Application Center, Lucknow से ट्रेनिंग प्राप्त करने के लिए निदेशालय के निम्न अधिकारियों को नामित किया जाता है:-

1. श्री सुभाष रंजन, खान अधिकारी, मुख्यालय, लखनऊ।
2. सुश्री कामिनी सिंह, सहा० भूवैज्ञानिक, मुख्यालय, लखनऊ।
3. डा० दीपक, सहा० भूवैज्ञानिक, मुख्यालय, लखनऊ।
4. श्री सौरभ चतुर्वेदी, खान अधिकारी, मुख्यालय, लखनऊ।


(माला श्रीवास्तव)
निदेशक।

संख्या: 149 / एम०-एन०जी०टी० वाद मीरजापुर / 2022 तद्दिनांक।
प्रतिलिपि:-निम्नलिखित को सूचनार्थ एवं आश्यक कार्यवाही हेतु प्रेषित।

1. प्रमुख सचिव, भूतत्व एवं खनिकर्म विभाग, उ०प्र० शासन, लखनऊ।
2. Deputy Director, Geological Survey of India, Sector-E, Aliganj, Lucknow.
3. निदेशक, रिमोट सेन्सिंग, अप्लीकेशन सेण्टर, कुर्सी मार्ग, सेक्टर-जी, जानकीपुरम, लखनऊ।
4. समबन्धित अधिकारियों को उपरोक्तानुसार अनुपालनार्थ।


(माला श्रीवास्तव)
निदेशक।

प्रेषक,

निदेशक,

भूतत्व एवं खनिकर्म निदेशालय, उ०प्र०,
खनिज भवन, लखनऊ।

सेवा में,

प्रमुख सचिव,

भूतत्व एवं खनिकर्म विभाग,
उत्तर प्रदेश शासन,
लखनऊ।

संख्या— 150 / एम०-एन०जी०टी०-वाद मीरजापुर / 2022 दिनांक 24 अप्रैल, 2024
विषय—ओ०ए० संख्या-521 / 2022 सम्पूर्णानन्द बनाम उत्तर प्रदेश राज्य व अन्य के सम्बन्ध में।

महोदय,

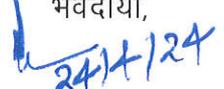
कृपया उपर्युक्त विषयक के सम्बन्ध में अवगत कराना है कि मा० राष्ट्रीय हरित अधिकरण, नई दिल्ली द्वारा ओ०ए० संख्या-521 / 2022 सम्पूर्णानन्द बनाम उत्तर प्रदेश राज्य व अन्य में दिनांक 27.04.2023 (**छायाप्रति-संलग्न**) को पारित आदेश में संयुक्त समिति की अनुशंसाओं का उल्लेख किया गया है, जिसका बिन्दु संख्या-5.13 निम्नवत् है:— “There should be a better coordination between mining department, DGMC and State PCB and a monthly/quarterly/half yearly meeting should be organized to resolve the various issues of the mining leases.”, का सन्दर्भ ग्रहण करने का कष्ट करें।

उपरोक्त के अनुपालन में अन्तर्विभागीय समन्वय समिति का गठन किया जाना आवश्यक है। अन्तर्विभागीय समन्वय समिति में निम्न सदस्यों को नामित किया जाना प्रस्तावित है :-

1. निदेशक, खान सुरक्षा महानिदेशालय, वाराणसी, भारत सरकार द्वारा नामित सदस्य।
2. निदेशक, भूतत्व एवं खनिकर्म निदेशालय, उ०प्र०, द्वारा नामित सदस्य-सदस्य सचिव होंगे।
3. सदस्य सचिव, उ०प्र० प्रदूषण नियंत्रण बोर्ड द्वारा नामित सदस्य।

अतः कृपया उपरोक्त समन्वय समिति के गठन हेतु शासन स्तर पर विचार कर आवश्यक कार्यवाही कराने का कष्ट करें।

संलग्नक-यथोपरि।

भवदीया,

(माला श्रीवास्तव)
निदेशक।

प्रेषक,

निदेशक,

भूतत्व एवं खनिकर्म निदेशालय, उ०प्र०,
खनिज भवन, लखनऊ।

सेवा में,

महानियंत्रक,

भारतीय खान ब्यूरो,

नागपुर।

संख्या- 151 / एम०-एन०जी०टी०-वाद मीरजापुर / 2022 दिनांक 24 अप्रैल, 2024
विषय:- मा० राष्ट्रीय हरित अधिकरण, नई दिल्ली में विचाराधीन ओ०ए०
संख्या-521/2022 सम्पूर्णानन्द बनाम उत्तर प्रदेश राज्य व अन्य में
पारित आदेश दिनांक 27.04.2023 के सम्बन्ध में।

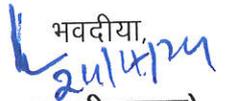
महोदय,

कृपया उपरोक्त विषय के सम्बन्ध में अवगत कराना है कि मा० राष्ट्रीय हरित
अधिकरण, नई दिल्ली में विचाराधीन ओ०ए० संख्या-521/2022 सम्पूर्णानन्द बनाम उ०प्र०
राज्य अन्य में पारित आदेश दिनांक 27.04.2023 (छायाप्रति-संलग्न) में संयुक्त समिति द्वारा
दी गयी अनुशंसाओं (Recommendations) का उल्लेख किया गया है, जिसका बिन्दु
संख्या-5.6 निम्नवत् है:-

“Capacity Building of the State DGM is required for approval of
mining plan documents and subsequently its monitoring.”

इस सम्बन्ध में अनुरोध है कि उ०प्र० राज्य में उपखनिजों के खनन योजनाओं के
अनुमोदन एवं उनके क्रियान्वयन के अनुश्रवण हेतु निदेशालय के नामित अधिकारियों को ट्रेनिंग
प्रदान करने हेतु समय नियत करने का कष्ट करें, ताकि तदनुसार अग्रेतर कार्यवाही
सुनिश्चित की जा सके।

संलग्नक-यथोपरि।

भवदीया,

(माला श्रीवास्तव)
निदेशक।