



FOCUS GROUP
Aerial Surveillance



Drone Services

All photos in this document are exclusively captured and owned by Focus Group Aerial Surveillance



About Us

Focus Group is a diversified, intelligence-driven risk management company. We advise on, execute, and deliver risk management solutions using a holistic and pro-active approach with the objective of assisting our clients to become more resilient in an increasingly complex, global, and digitised risk environment.

Focus Group has over two decades of hands-on experience dealing with complex risk and security situations. We provide risk mitigation solutions to multinational companies, financial institutions and private clients at strategic decision-making and operational levels to identify, understand and mitigate risk and to adequately respond to crisis situations. Our approach is based on a wide and well-established information network and a deep appreciation for the cultural complexities, diversity, and nuances of the countries we operate in.

Drone Aerial Surveillance Services

Unmanned aerial systems (UAVs) or drones have become an integral part of various industries across the world in recent years due to their adaptability and efficiency. As a result of their unmanned and dynamic nature, drones provide new opportunities for businesses and can assist with improving both operational efficacy and financial efficiency.

Focus Group Aerial Surveillance functions completely in-house, with no third-party involvement. We deploy drones as part of the information gathering effort to identify perpetrators and collect actionable intelligence.

Our drone services include:

- » Surveys
- » Inspections
- » Evidence Gathering for SAPS Cases
- » Rescue Missions
- » Professional Photography & Videography
- » Thermal Imaging
- » Vehicle & License Plate Identification
- » Aerial Surveying for Maps
- » Uses in Agricultural Surveys & Mapping
- » Wildlife Monitoring
- » Security & Safety
- » Environmental Monitoring
- » Blasting and Demolition Surveying (Pre & Post)
- » Explosive Remnants of War Surveying (ERW)



Completely In-House Service



Drone Ownership



Professional & Trained Pilots



Fully Licensed



Footage can be used as evidence
in collaboration with SAPS

In-house Focus Group Aerial Surveillance Service

At Focus Group Aerial Surveillance, all of our drone services are conducted in-house, ensuring complete control over quality and reliability. Equipped with advanced and fully operational drones, owned directly by us, we provide seamless operations without reliance on third-party equipment or personnel. Our team of skilled pilots is fully licensed and rigorously trained, ready to deploy whenever and wherever required. Utilising our extensive experience in risk management, we have collaborated with SAPS, using drone footage as crucial evidence in criminal investigations.

Focused Drone Operations

The operational framework outlined below delineates a systematic approach to combating illegal mining activities utilising Focus Group Aerial Surveillance drones.

Information Collection Phase:

- » Identify persons of interest, vehicles, and mining machines. (faces, vehicle registration numbers, notable scratches or marks on vehicles & mining machines).
- » Reveal illegal mining activities and place persons of interest, vehicles, and mining machines at the illegal mining site/s.
- » Map the entrance and exit routes used by illegal miners.
- » Determine routine – E.g. day of week, time of day, transport companies used, etc.

Operational Phase:

- » Present the information gathered during the Information Collection Phase in a presentation to SAPS.
- » During an operation, the drone provides early warning on groups of people that approach the SAPS/Ops team, allowing for premeditative action.
- » Provides video evidence to demonstrate that the SAPS/Ops team did not assault any suspects.
- » Places suspects at the scene of the crime.
- » Once suspects are arrested, SAPS will take a statement from the drone pilot.

Preparing for Court:

- » Operators take care to ensure that the footage can be used in court by confirming that it has the correct date and time stamp and has been downloaded from the data card and handed to the SAPS investigating officer on a flash drive, ready for presentation.

Drone Specs - Mavic 3 Terminal Enterprise (M3T)

The Mavic 3T features a 640 x 512 resolution thermal imaging camera for firefighting, search and rescue, inspections, as well as night operations. The Mavic 3T supports point and area temperature measurement, high-temperature alerts, colour palettes, and isotherms to identify targets.



Drone Specs - Mavic 3 Terminal Enterprise (M3T)



Features

- » Wide – Equivalent Focal Length: 24mm, 48MP.
- » Zoom – Equivalent Focal Length: 162mm, 12MP, 56x Hybrid Zoom.
- » Thermal [2] – DFOV: 61°, Equivalent Focal Length: 40mm, Resolution 640 x 512.

Operations

- » The M3T Forward Looking Infra Red (FLIR) cameras will easily identify liquid spillage.
- » Frequent flights will increase detection as the visual stimuli becomes second nature for the pilots.
- » Flight time of 30 minutes.
- » Stable in wind speeds up to 21 knots / 39km/h.
- » The drone support vehicle will be fitted with battery rechargers and monitors which will enable 24/7 operations.

Thermal Imaging

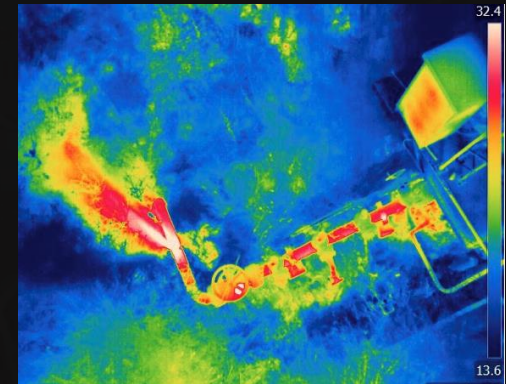


Thermal Imager: Uncooled
VOx Microbolometer

10-meter ALT



Visual Spectrum (RBG Image)

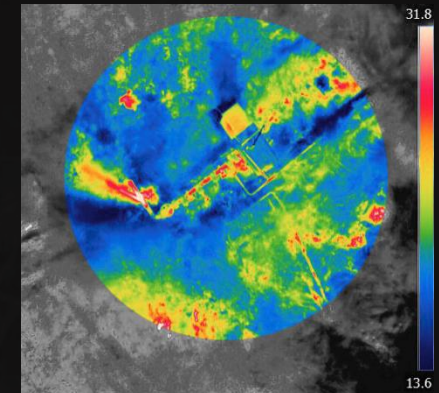


Infrared Spectrum (Thermal Image)

25-meter ALT



Visual Spectrum (RBG Image)



Infrared Spectrum (Thermal Image)

Thermal Imaging – 140m ALT



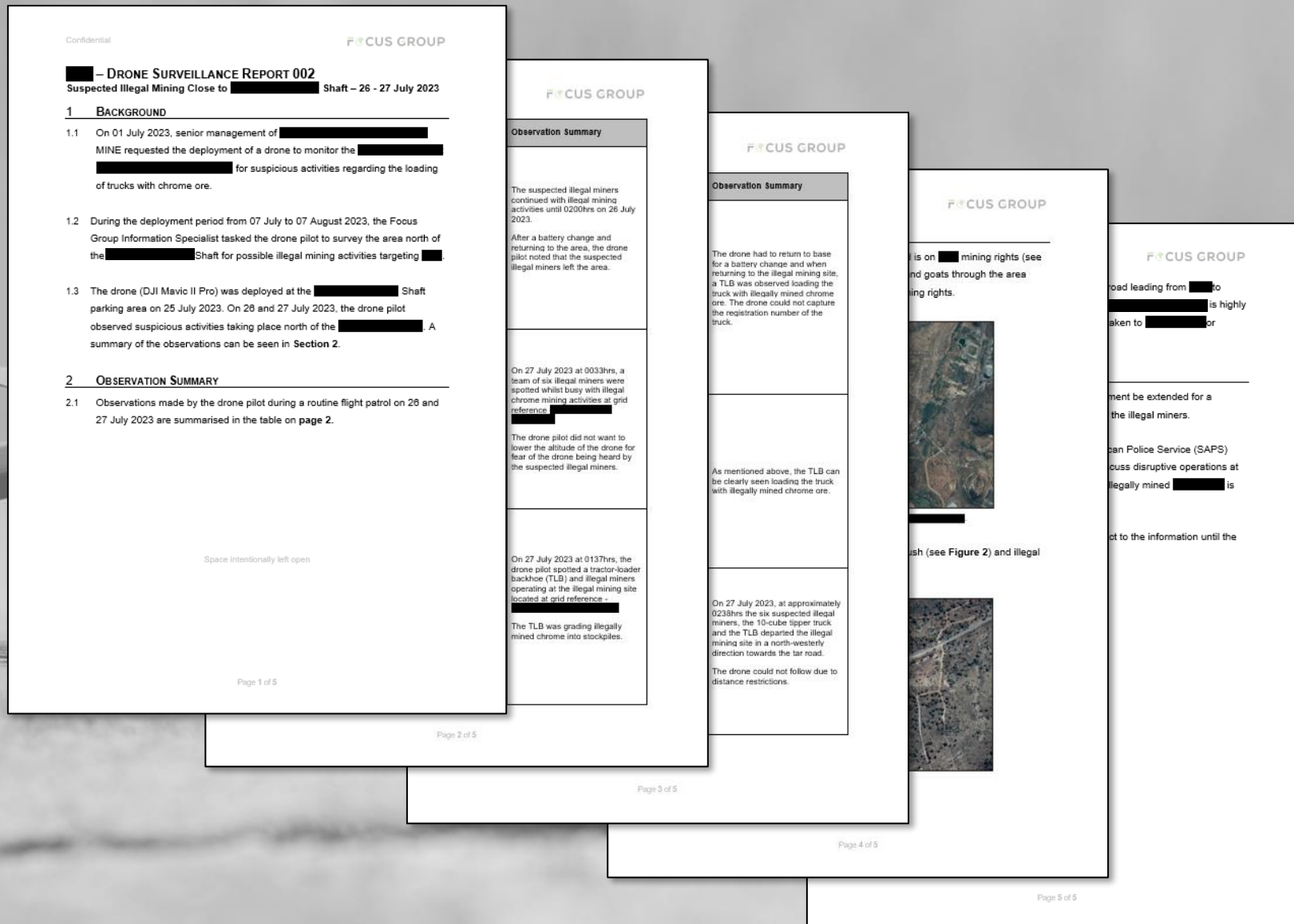
Thermal Imager: Uncooled VOx Microbolometer



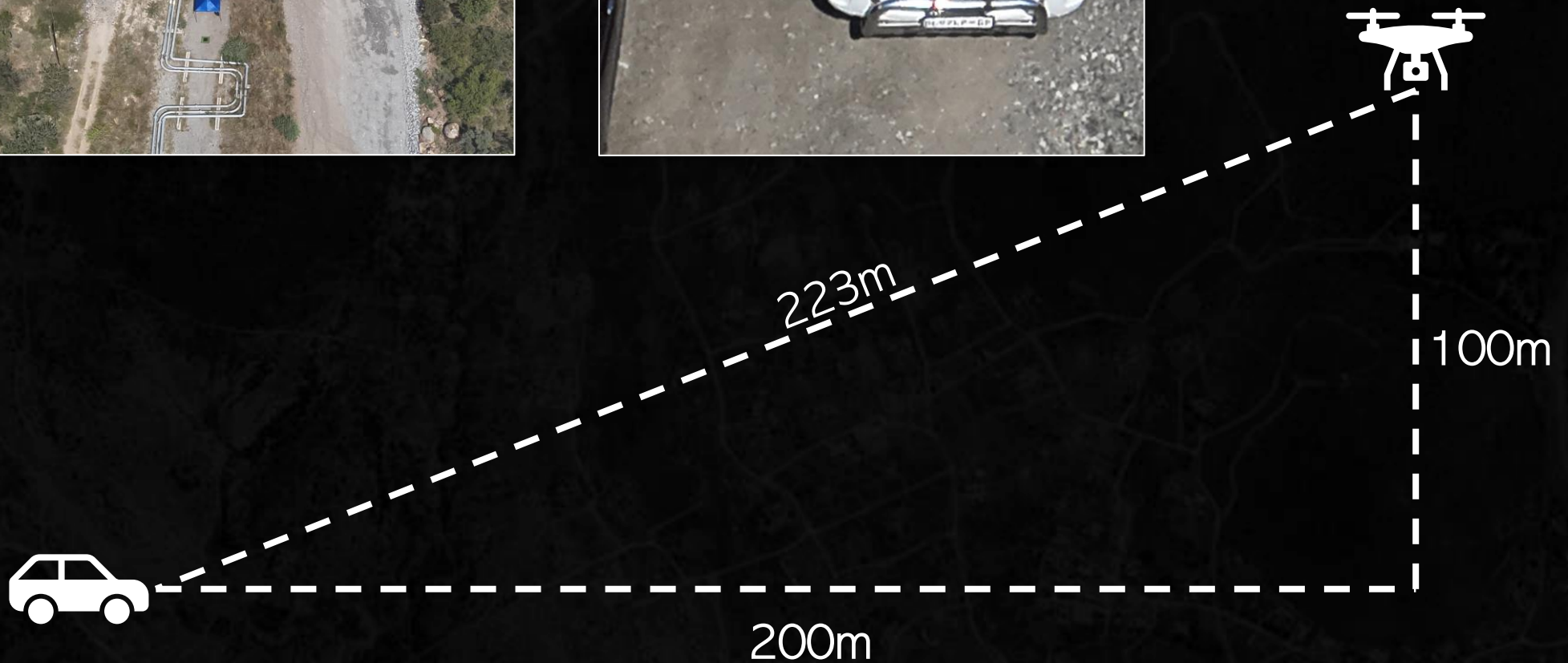
Surveying – Illegal Mining – 120m ALT



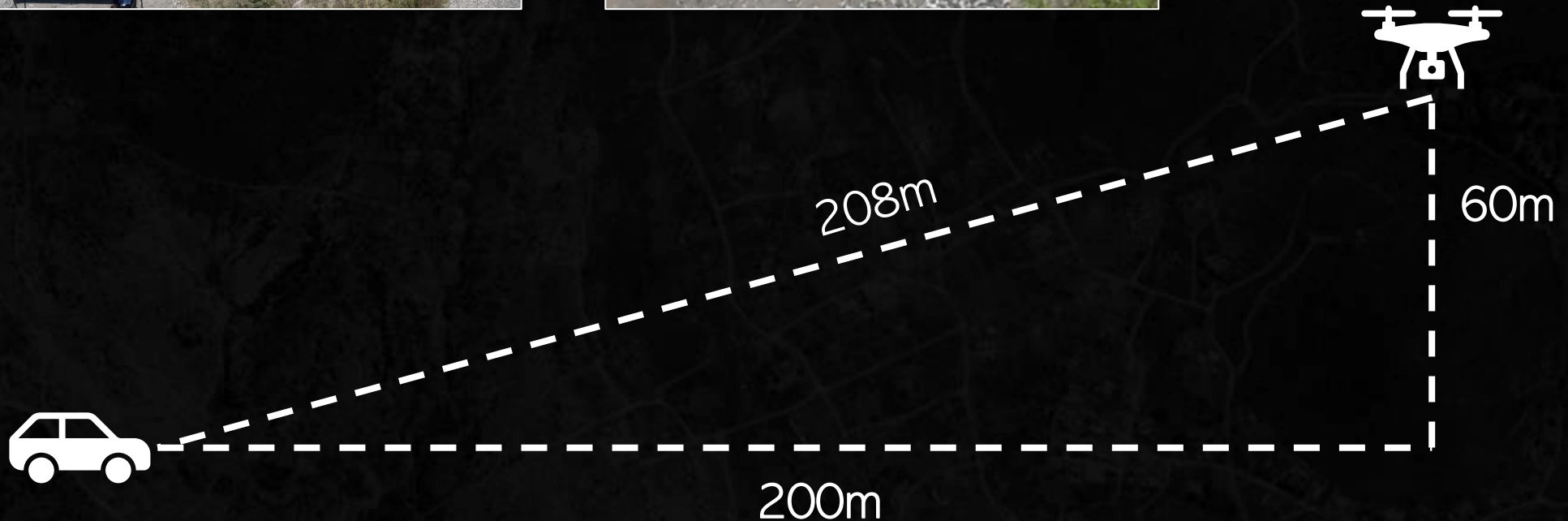
Detailed Surveillance Reports



Vehicle & License Plate Identification – 100m ALT



Vehicle & License Plate Identification – 60m ALT



Tailormade Daily Reporting

Drone Feedback Report – 135: 31 January 2024

Drone Flight Report Form Observations During Inspections and Surveillance							
#	Date	Flight Take-Off Time	Flying Time	Observation	Observation Location	Observation Time	Time reported on WhatsApp Gr
1231	31-Jan-24	09:42	00:18:00	No leak detected (See Image 1)	[REDACTED]	09:44	10:15
				Minor leak detected (See Image 3)		09:46	10:15
				No leak detected (See Image 5)		09:48	10:15
				No leak detected (See Image 7)		09:50	10:15
				No leak detected (See Image 9)		09:52	10:15
				Minor leak detected (See Image 11)		09:54	10:15
1232	31-Jan-24	10:41	00:17:00	No leak detected (See Image 13)	[REDACTED]	09:56	10:15
				Pipeline all normal		NA	NA
				Pipeline all normal		NA	NA
				Pipeline all normal		NA	NA
				Pipeline all normal		NA	NA
				Pipeline all normal		NA	NA
1238	31-Jan-24	16:40	00:18:00	No leak detected (See Image 2)	[REDACTED]	16:42	18:18
				Minor leak detected (See Image 4)		16:44	18:18
				No leak detected (See Image 6)		16:46	18:18
				No leak detected (See Image 8)		16:48	18:18
				No leak detected (See Image 10)		16:50	18:18
				No leak detected (See Image 12)		16:52	18:18

Scope of Work

[REDACTED] plant is running with a Tailings disposal pipeline of a total distance of [REDACTED]. The pipeline is constantly under pressure and is running with a pipeline pressure of [REDACTED] and a flow rate of [REDACTED] per Hour. For this pipeline to change from normal operation to a total pipeline failure takes 5 to 30 minutes. So, detecting a pipeline failure as soon as possible is extremely important to minimize soil pollution and, most importantly, prevent river and water contamination.

The **primary objective** is pipeline monitoring, and the **secondary objective** is to monitor the area for potential cable theft.

Weather Conditions:

UAV Forecast									
Unnamed Road [REDACTED]									
Last update: a minute ago									
Time	Winds (m/s) at 10m	Temp (°C)	Precip Prob	Cloud Cover	Visibility (km)	Visible Sats	Kp	Est. Sats Locked	Good To Fly?
Current Conditions 06:24 SAST									
06:24	5 v	18°C	4%	66%	16	10	1.7	10.0	no
Wednesday 2024-01-31: sunrise 05:34, sunset 18:50									
07:00	5 v	19°C	3%	57%	16	9	1.7	9.0	no
08:00	8 v	21°C	3%	55%	16	10	1.7	10.0	no
09:00	9 v	22°C	3%	51%	16	12	1.7	11.8	no
10:00	10 v	23°C	3%	50%	16	12	1.7	11.9	no
11:00	10 v	25°C	2%	48%	16	12	1.3	12.0	no
12:00	11 v	26°C	2%	58%	16	15	1.7	15.0	no
13:00	10 v	27°C	2%	62%	16	14	2.0	14.0	no
14:00	10 v	27°C	2%	65%	16	13	1.7	12.9	no
15:00	10 v	27°C	3%	83%	16	14	1.7	13.8	no
16:00	10 v	26°C	3%	77%	16	16	2.0	15.9	no
17:00	10 v	25°C	3%	80%	16	15	2.3	14.9	no
18:00	9 v	24°C	3%	73%	16	14	2.3	14.0	no
19:00	9 v	22°C	3%	61%	16	14	2.3	13.2	no
20:00	8 v	21°C	3%	40%	16	15	2.0	13.4	yes
21:00	7 v	20°C	3%	28%	16	14	2.0	12.8	yes

Daily Number of Flights: 08

Daily Flight Time: 02:19:00

Downtime Due To Weather: 04:00:00

Downtime due to Tech Issue: 00:00:00

Downtime due to Personal Issues: 00:00:00

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03377 and 30.13210

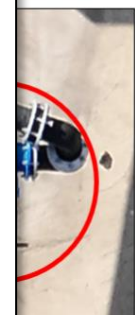
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30.108122

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30.0604

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inspection flight on 31 January 2024. The update was posted on the WhatsApp Group.

The insert is number 167 painted on the pipeline closest to the observed leak.

Blasting & Demolition Surveys

- » Blasting Surveys – For open-cast mining and road construction in mountainous areas.
- » Demolitions Surveys – For the demolition of tall buildings and structures.
- » Pre-Blast Surveys – The pre-inspection of the blasting area, ensuring that no individuals are in the blast radius (safety inspections) as well as its current state.
- » Post-Blast Surveys – Review of the state of the area after the blast (size of crater, impact, etc.) to determine if all explosives were detonated as well as a general safety inspection.



ERW Surveys

Conducting non-technical surveys in areas identified with Explosive Remnants of War (ERW) aims to assess the safety of the surroundings, ensuring that no individuals are within the potential blast radius. Additionally, these surveys aim to ascertain the physical visibility of ERW within the specified area.





Contact Us



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