

FEDERAL FORENSIC CHEMISTRY LABORATORY

Molecular Structure Analysis Report

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| SUBJECT: | Confiscated Compound 'REVERB' |
| CASE #: | N/A |
| METHOD: | X-ray Crystallography |
| DATE: | N/A |
| EXAMINER: | SA Samantha Cliff, M.D. |

OBSERVATIONS:

- Crystals diffract light in non-Euclidean patterns. Unit cell geometry appears unstable and shifts depending on observation angle.
- Reported chain length varies between 32–44 carbon units, contingent on whether the analysis was conducted under dark-field or illuminated conditions.
- Side groups include apparent halogen substitutions not stable under known chemical conditions (chlorine-bromine hybridizations noted, vanished on repeat scan).

ANALYSIS NOTES:

- Electron density maps are inconsistent. Areas of high density display self-similar recursive geometries resembling fractal structures.
- Software refinement failed to converge on a stable solution; results alternate between polycyclic heteroaromatic chains and closed-loop feedback structures.
- Experienced auditory phenomena ("low-frequency hum" or "reverberation") while analyzing diffraction data.

ALKALOID SCREENING:

- Preliminary alkaloid tests (Dragendorff, Mayer) produced inconsistent positives, suggesting trace resemblance to natural alkaloid structures. Gas chromatography indicated possible indole-like substructures (similar to tryptamines), but results collapsed into background noise upon repeat trials. Data implies either a novel synthetic alkaloid analogue or a pseudo-alkaloid framework not documented in biosynthesis.

CONCLUSION:

The molecular chain of 'Reverb' cannot be fully resolved using standard crystallographic methods. The substance exhibits properties inconsistent with organic chemistry, suggesting advanced synthetic engineering. Further analysis is strongly discouraged outside of BSL-4 containment protocols.

APPENDIX A: Electron Density Map

APPENDIX A: XRAY DIFFRACTION ELECTRON DENSITY MAP – 'REVERB'

