

**U.S. DEPARTMENT OF ENERGY
OFFICE OF CIVILIAN RADIOACTIVE WASTE MANAGEMENT**

**PRESENTATION TO
THE NUCLEAR WASTE TECHNICAL REVIEW BOARD**

**SUBJECT: INTRODUCTION -
CONSEQUENCES AND
PROBABILITY**

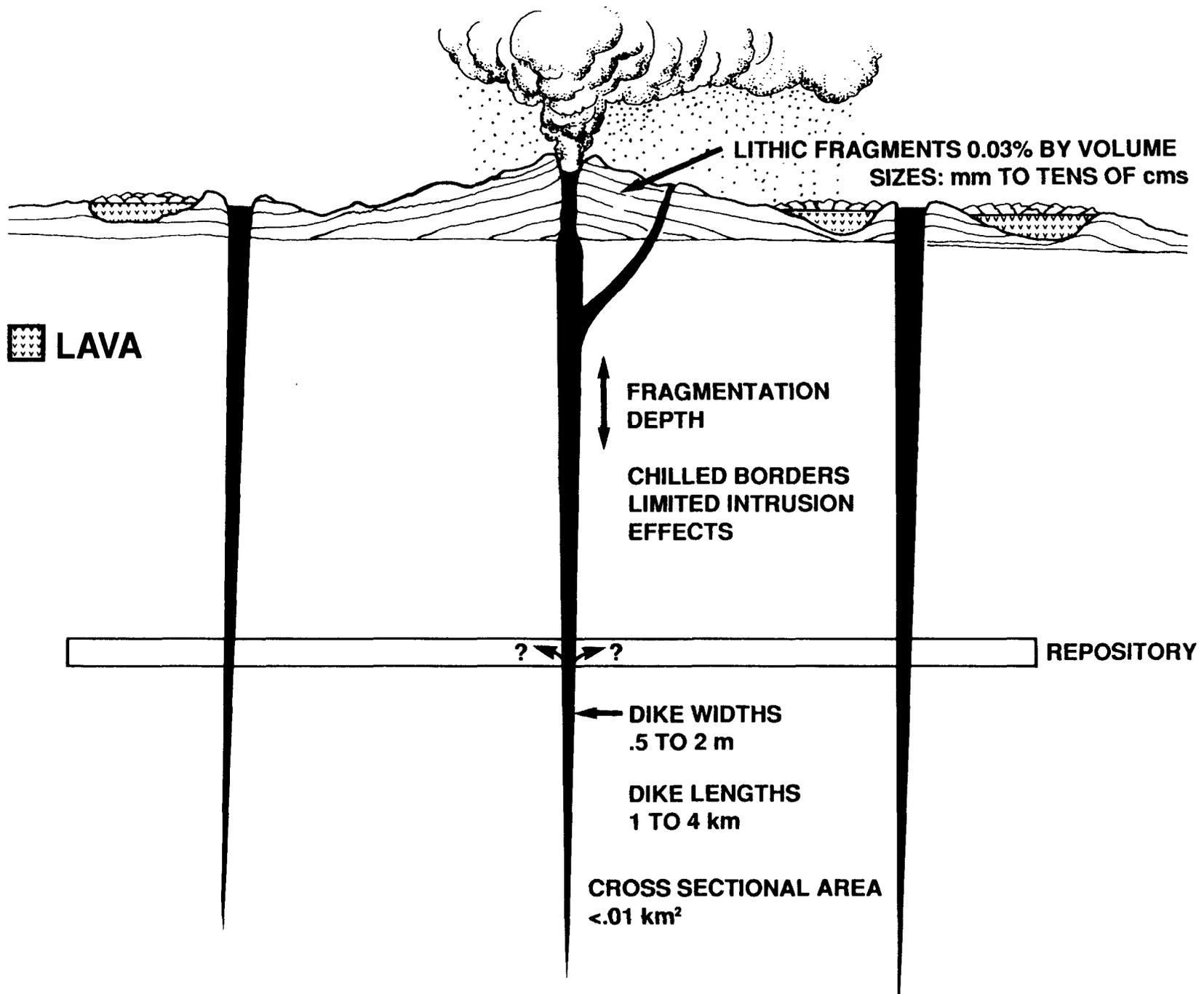
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**PRESENTER'S TITLE
AND ORGANIZATION: VOLCANOLOGIST
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**PRESENTER'S
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CONTROLLING PARAMETERS: MAGMATIC DISRUPTION



VOLCANISM STUDIES YUCCA MOUNTAIN PROJECT

FUTURE DIRECTIONS: VOLCANISM STUDIES

1. RESOLVE CHRONOLOGY STUDIES
-- TRENCHING
2. IMPACT OF POLYCYCLIC MODEL
3. REFINE EVENT VOLUMES FOR PROBABILITY CALCULATIONS

POSSIBLE ELIMINATION OF VOLCANISM AS AN ISSUE FOR YUCCA MOUNTAIN

1. PROBABILITY DISTRIBUTION: E1 AND E2
-- MODEL SENSITIVITY
-- EXPERT OPINION
2. CONSEQUENCE ANALYSIS
-- CONTROLS ON THE INCORPORATION OF WASTE
0.03% LITHIC FRAGMENTS
DEPTH OF INCORPORATION OF LITHIC FRAGMENTS

-- EXPERT OPINION
PROBABILITY OF EXCEEDING REGULATORY RELEASES
10⁻² TO 10⁻⁴ ESTIMATE
10⁻¹: Pd_{dq} << 10⁻⁸