



Hutchinson Gas Explosions - Unraveling a Geologic Mystery

**Kansas Geological Survey
University of Kansas**

Thanks to:

City of Hutchinson &
Hutchinson Fire

Department

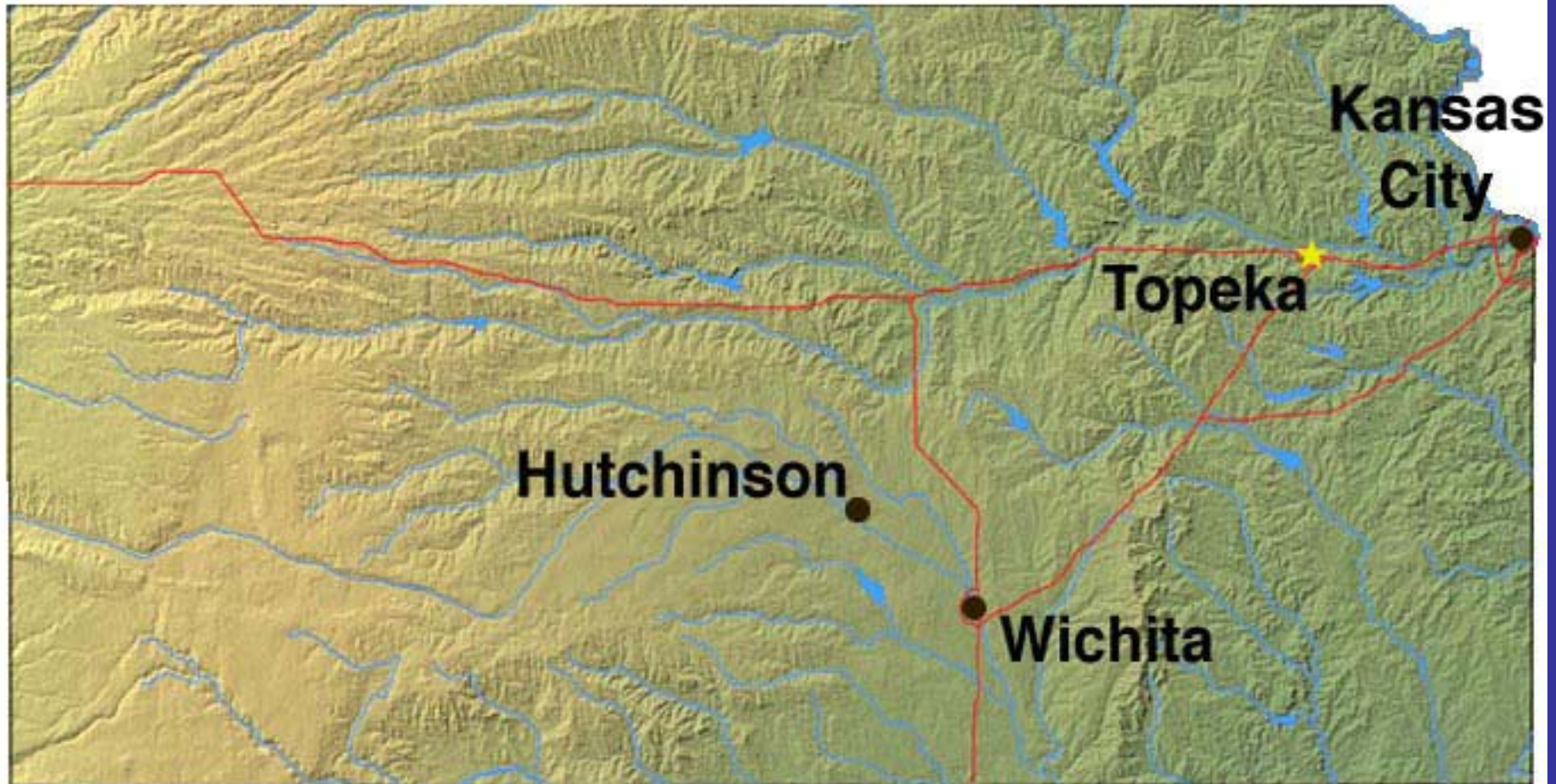
Hutchinson News

CUDD Drilling

KS Department of Health &
Environment

Kansas Geological Survey
staff









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WEDDING & PARTY SUPPLIES

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CAKE & CANDY SUPPLIES

LEASED
PARKING



















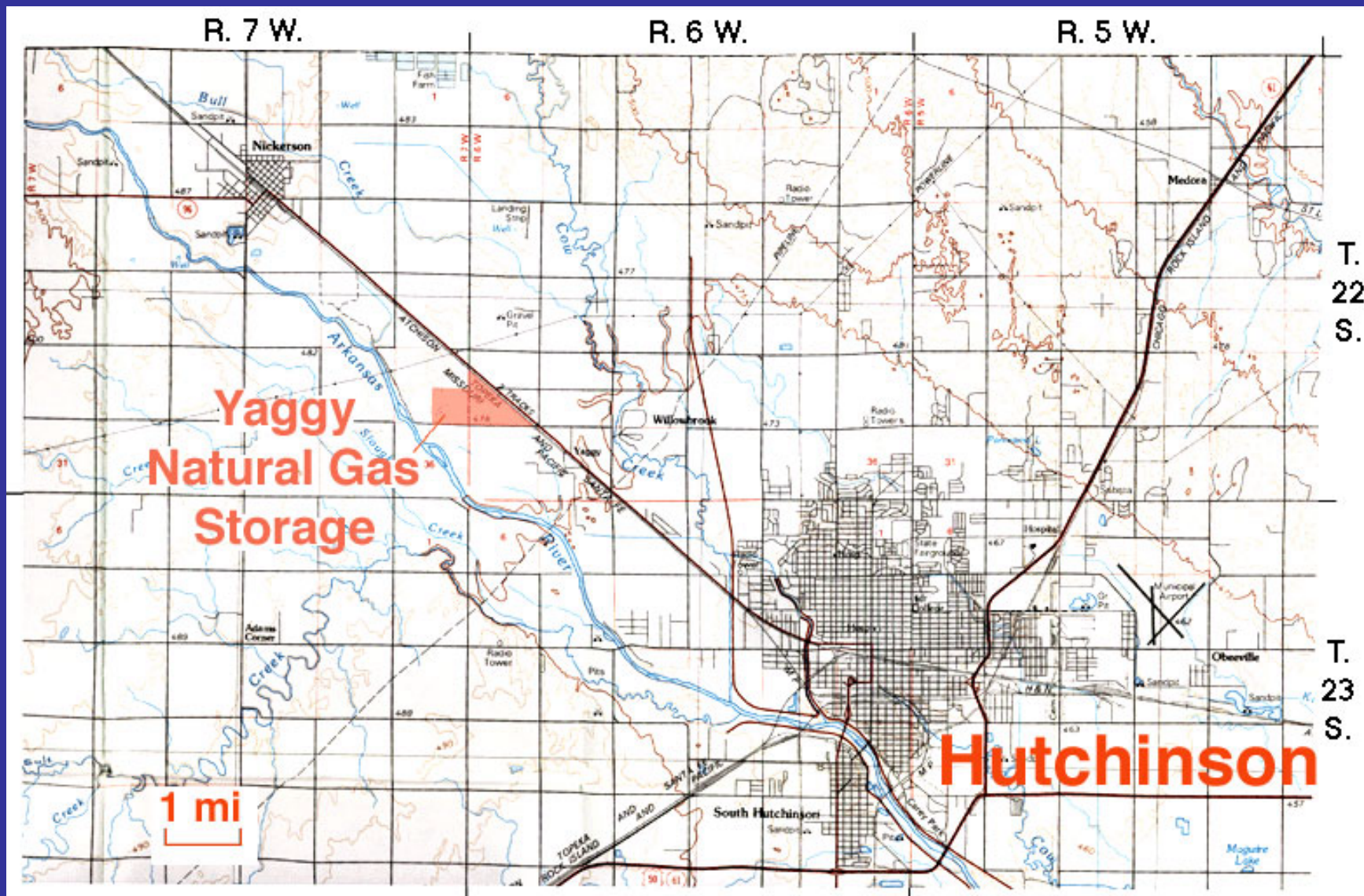
Unplugged Well at Mobile Home Explosion Site



Locations of explosion sites, geysers, and areas of known subsidence in Hutchinson, Kansas







Theory #1:



It can't be geological







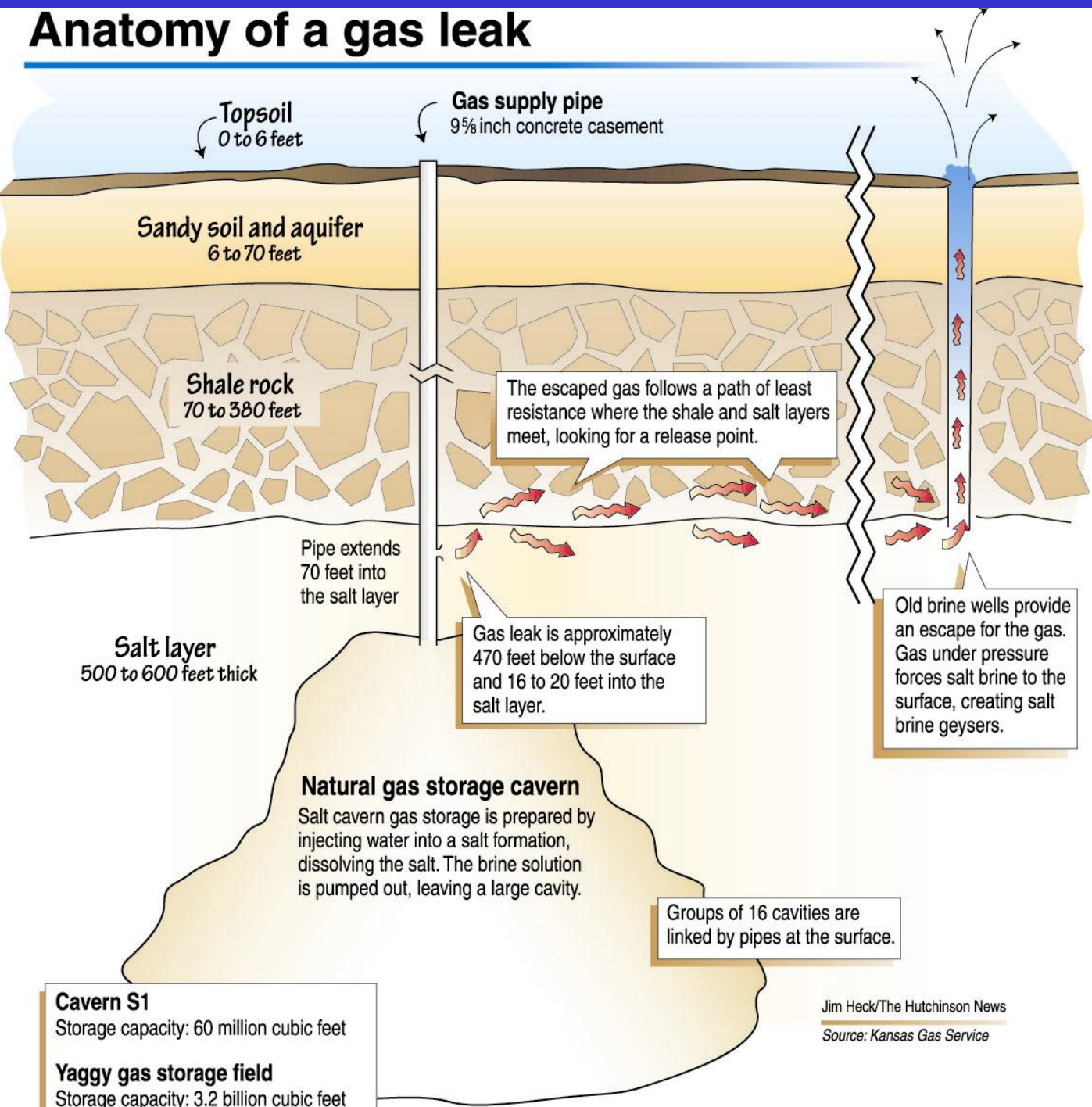
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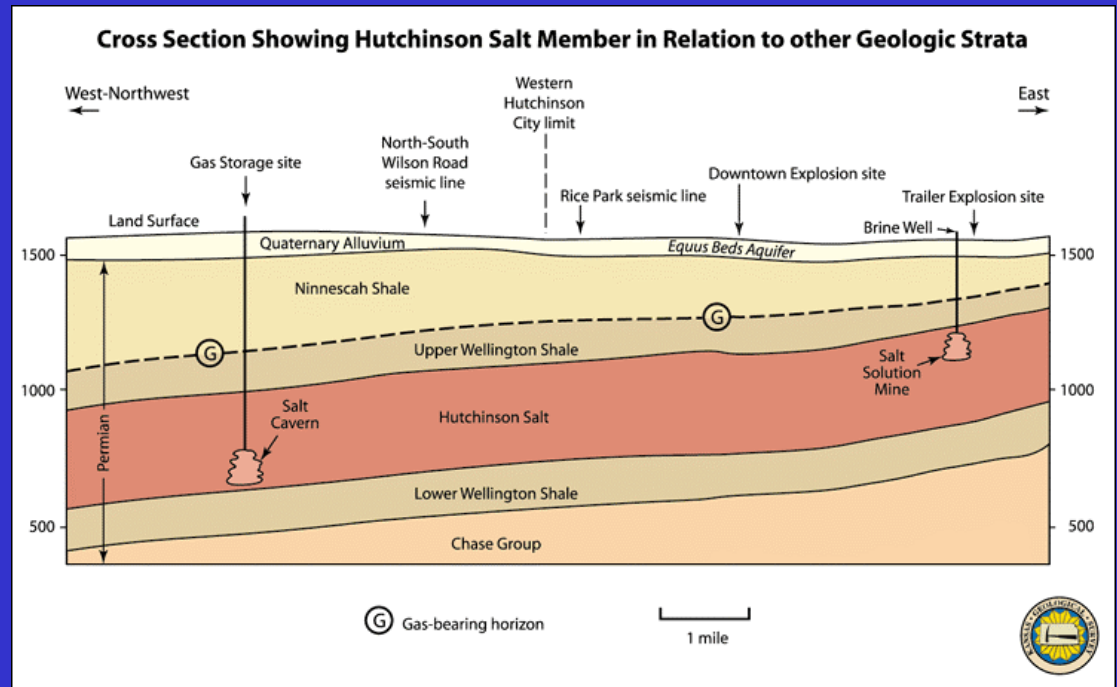
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Anatomy of a gas leak



Theory #2:



Gas is moving updip
through a blanket
sedimentary layer

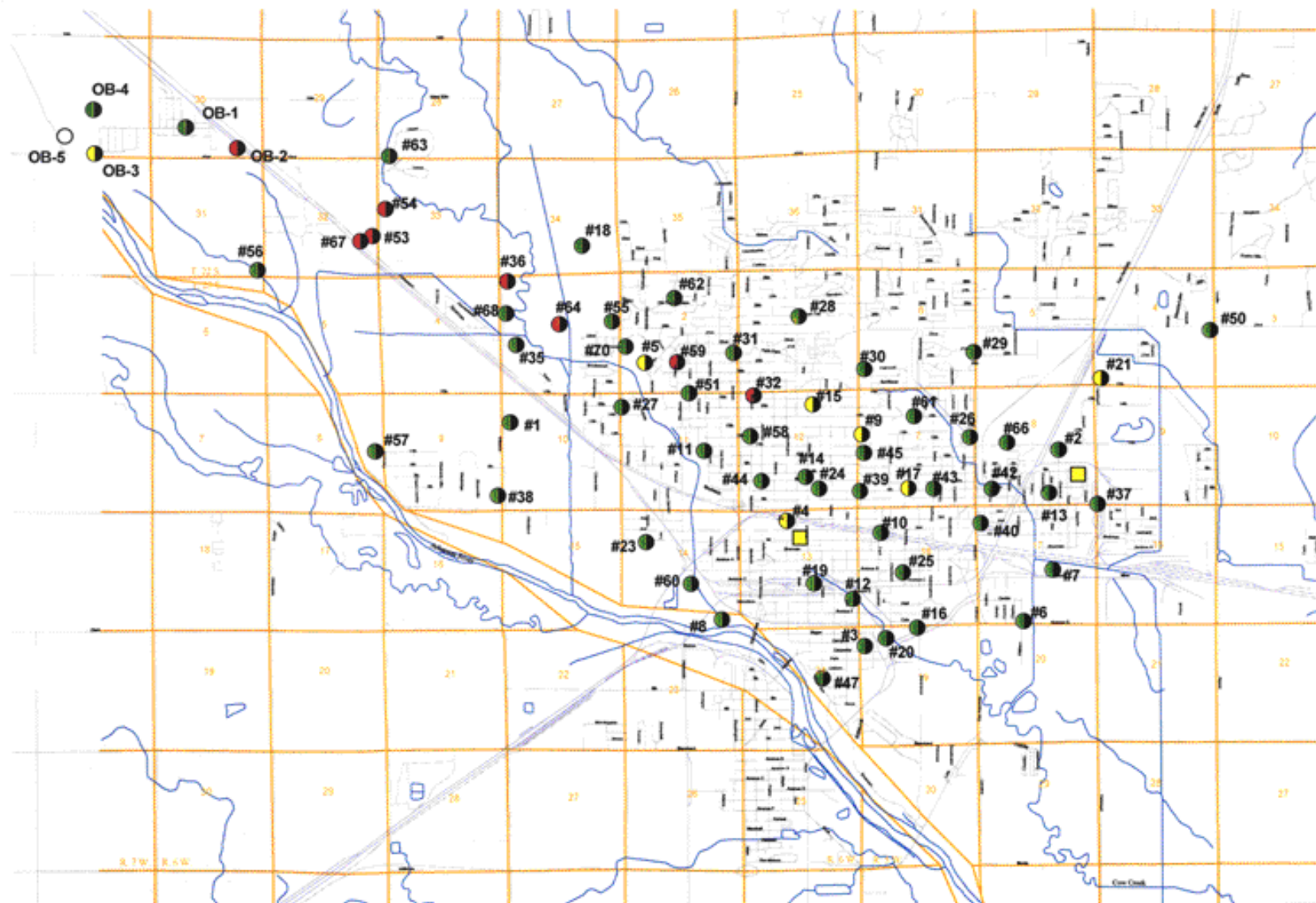


**The Survey's three
main goals:**

- 1) Make Hutchinson
safe from leaking gas
-- find the geologic
pathways for gas
movement**
- 2) Find abandoned
brine wells for proper
plugging**
- 3) Determine
geologic implications
for the Yaggy field and
Hutchinson**







2000 0 2000 Feet



LEGEND

● Deep Drilled Vent Well -
No Methane Gas Detected

● Deep Drilled Vent Well -
Methane Gas Venting

● Deep Drilled Vent Well -
Methane Gas No Longer Venting

○ Deep Drilled Vent Well -
Current/Proposed Drilling

■ Explosion Site -
No Longer Venting Gas

— Railroad

LOCATIONS OF METHANE GAS
INCIDENTS AND INVESTIGATION
AREAS - HUTCHINSON

Evolving Theories



#3. Gas is moving along sedimentary conduit (a channel?)

#4. Gas is moving along a dolomite facies change

#5. Gas is moving through fractured dolomite

#6. Gas is moving along a stress-induced fracture system

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