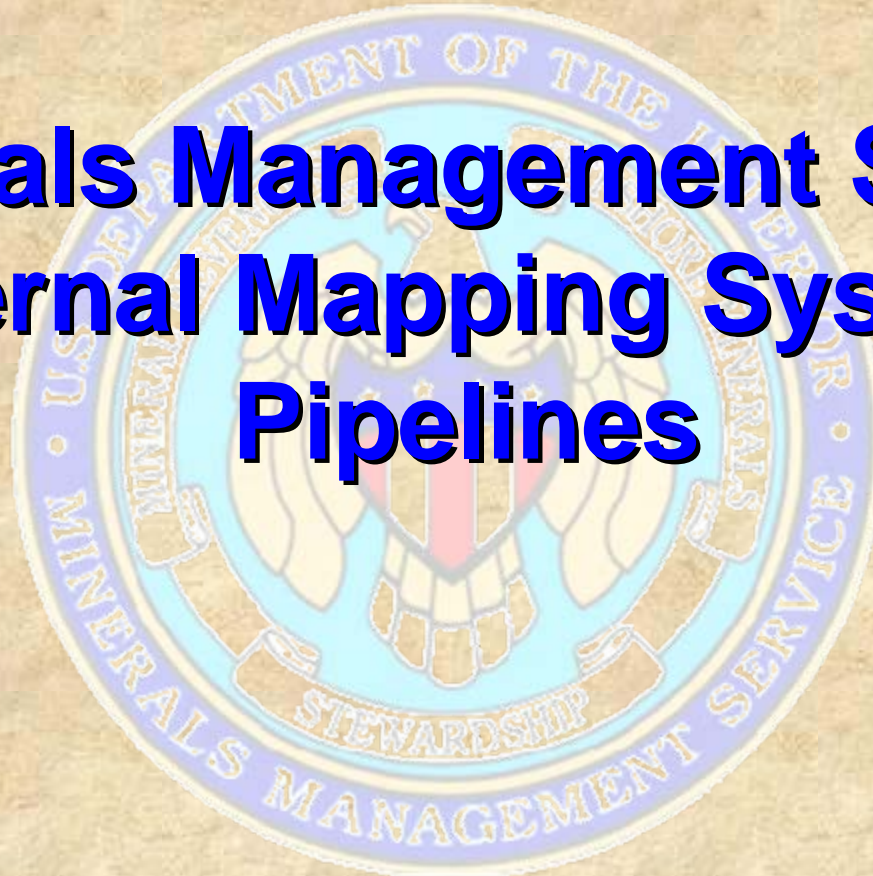


# Minerals Management Service Internal Mapping System- Pipelines



**NOSAC**

**April 8, 2010**

**Alex Alvarado**

***Minerals Management Service***



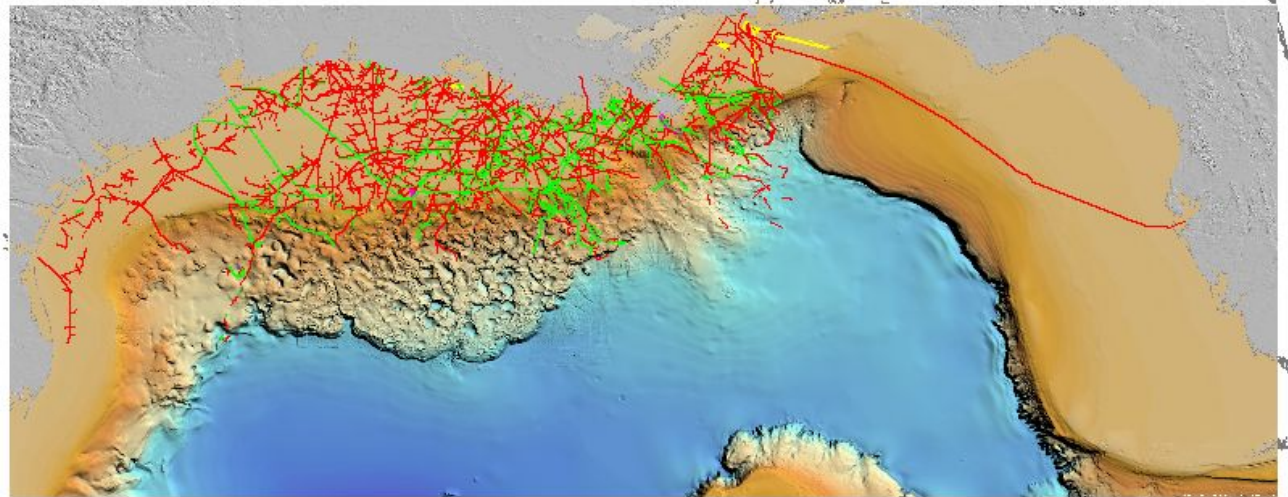
# Overview

- **Pipeline Identification-Gas Leaks**
- **Pipeline Identification –Oil Leaks**
- **Vessel Incidents- Mobile Drilling Units**
- **Vessel Incidents-Tankers**



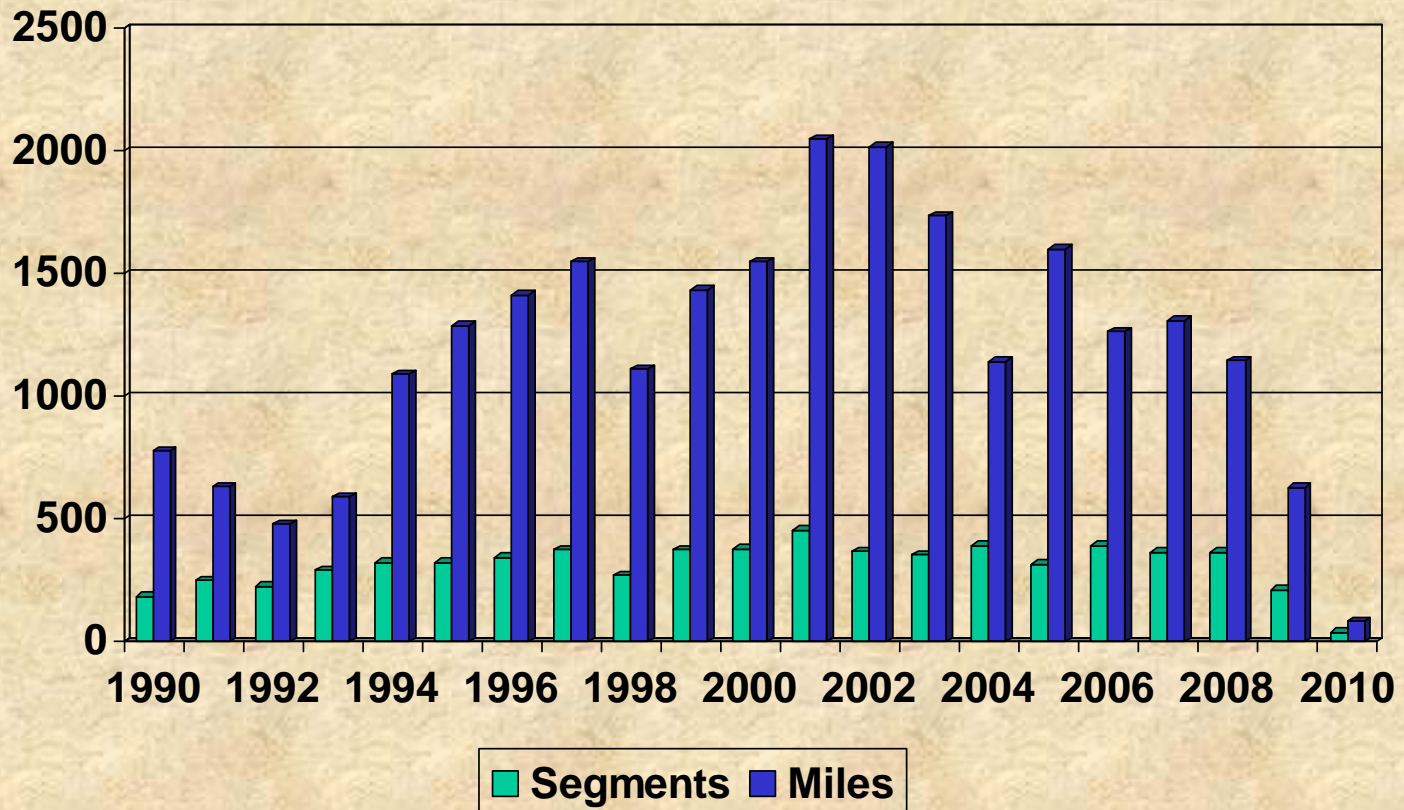
# GOM Pipeline Infrastructure

- 42,667 total miles of pipelines 4/5/10
- In 2001 and 2002 MMS approved 2,049 and 2,017 miles respectively- record years



# Pipelines Approved

(Updated April 5, 2010)



# Pipeline Permits

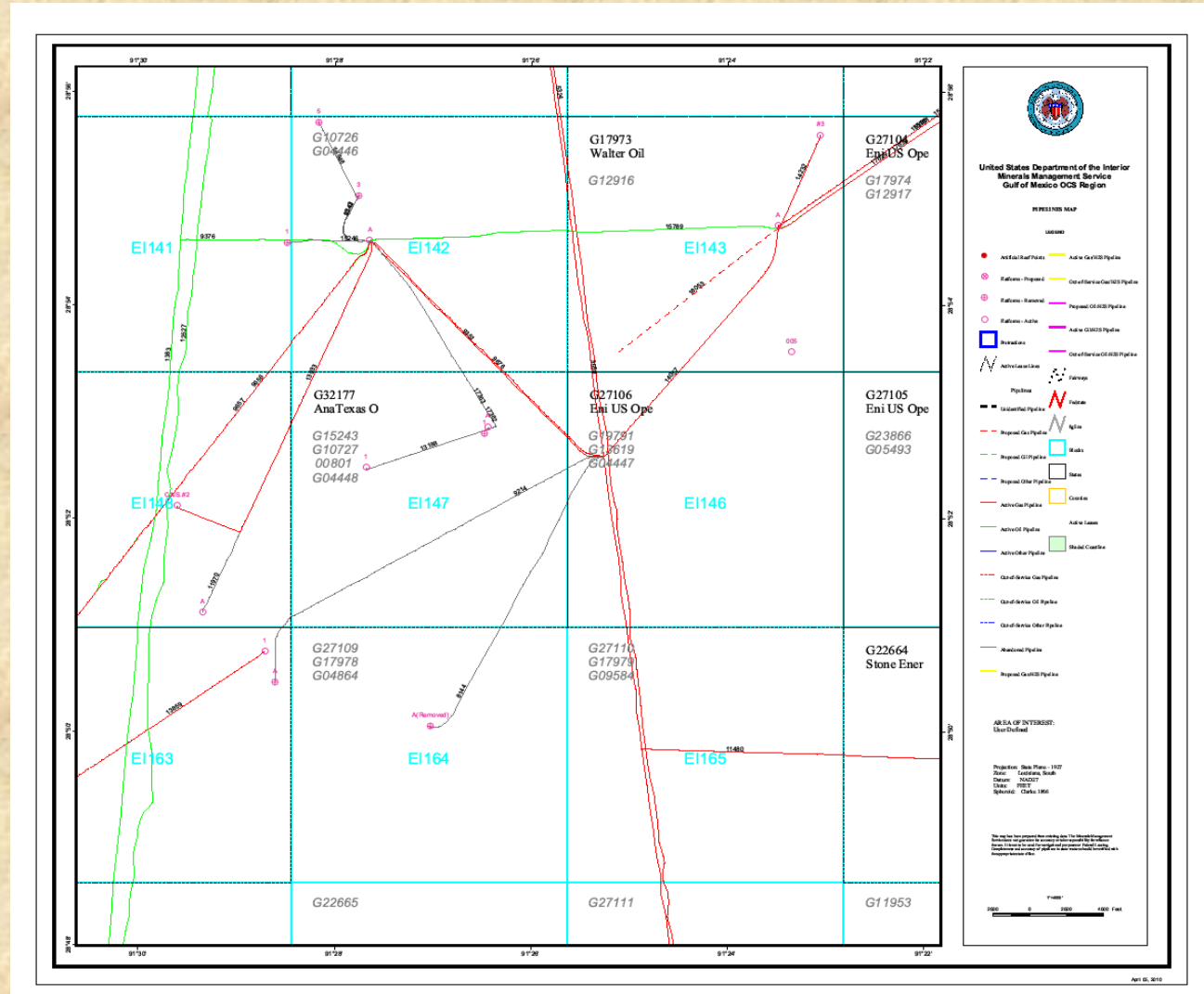
- MMS issues permits for all pipelines in OCS
  - Proposed route points added to mapping system
  - Updated with as-built points after constructed
- All data points available at MMS website
  - Provisions to have as-built data submitted to NOAA for appropriate inclusion in navigation charts
- MMS maintains database of all OCS pipelines
  - Including leaks/repair history



# MMS Mapping System

## ➤ Database linked to mapping system

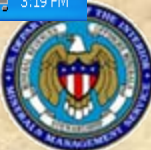
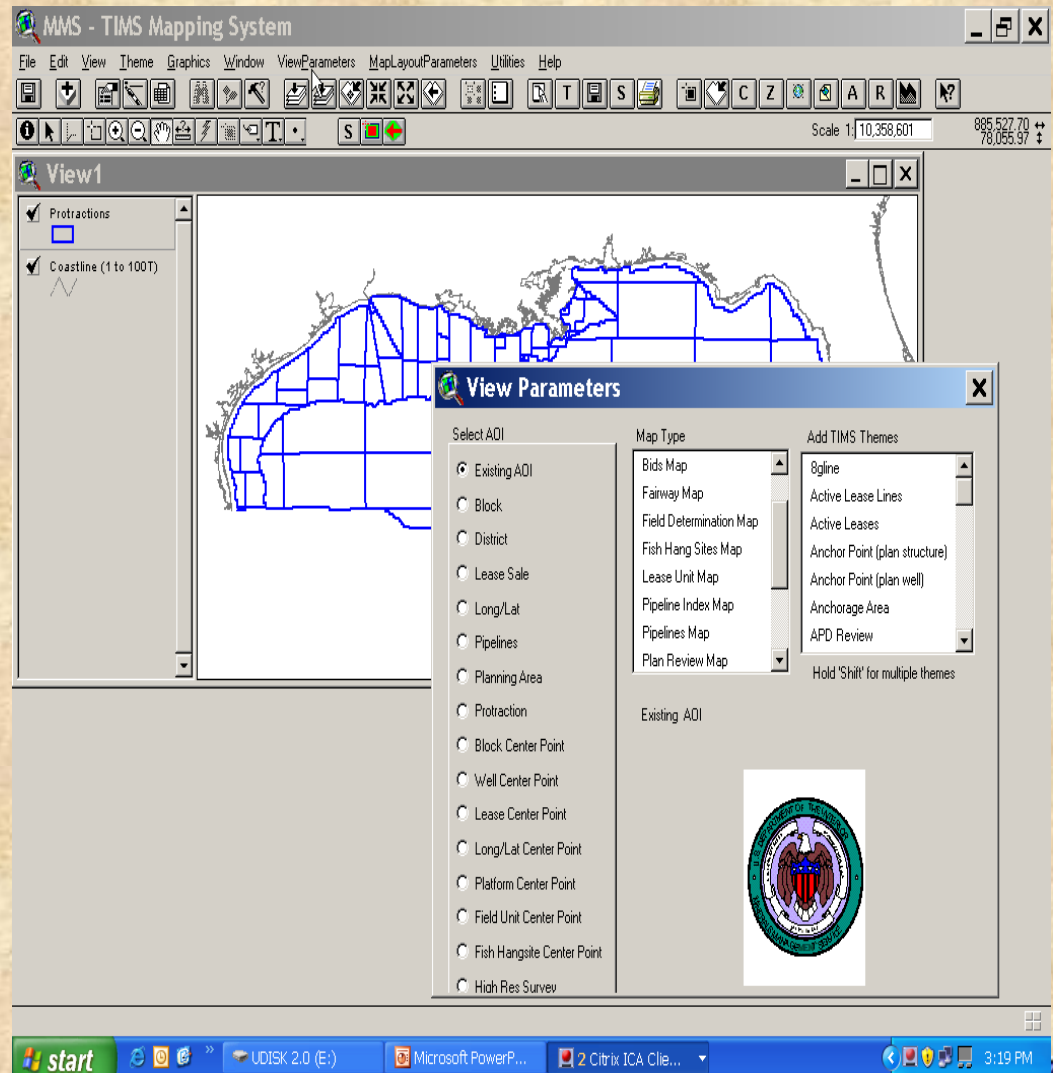
- Mapping system automatically updated when database changed
- Lines color and type customized to indicate pipeline service and status



# MMS Mapping System

➤ Mapping system has different components (layers)

- Pipelines
- Platforms
- Wells
- Fairways
- Anchorage Areas
- Artificial Reef Sites
- Biological Features
- Several Others



# Pipeline Leak Identification

## Notification to the MMS Pipeline Section

### ➤ How Section Notified

- Field sighting
  - General offshore traffic
  - Responsible party
  - MMS inspectors
- National Response Center (NRC) reports
  - And/or area CG offices

### ➤ CG coordination

- Work with CG in identifying discharge source
- MMS oversees the source control if OCS oil and gas related
- CG oversees discharge cleanup



# Identification of Gas Pipeline Leaks

- Gas boil location reported to MMS





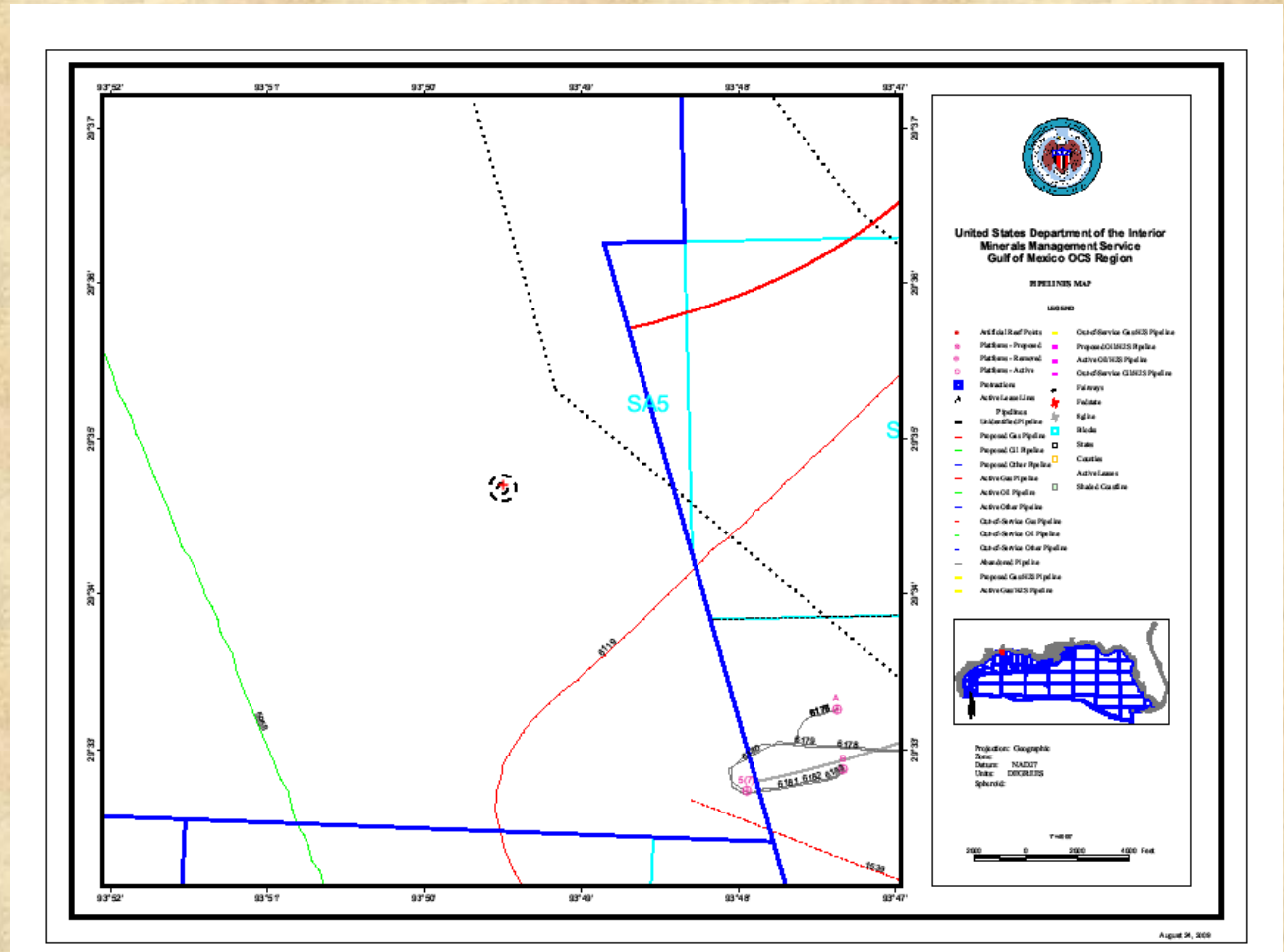
# Identification of Oil Pipeline Leaks

- Oil sheen location reported to MMS



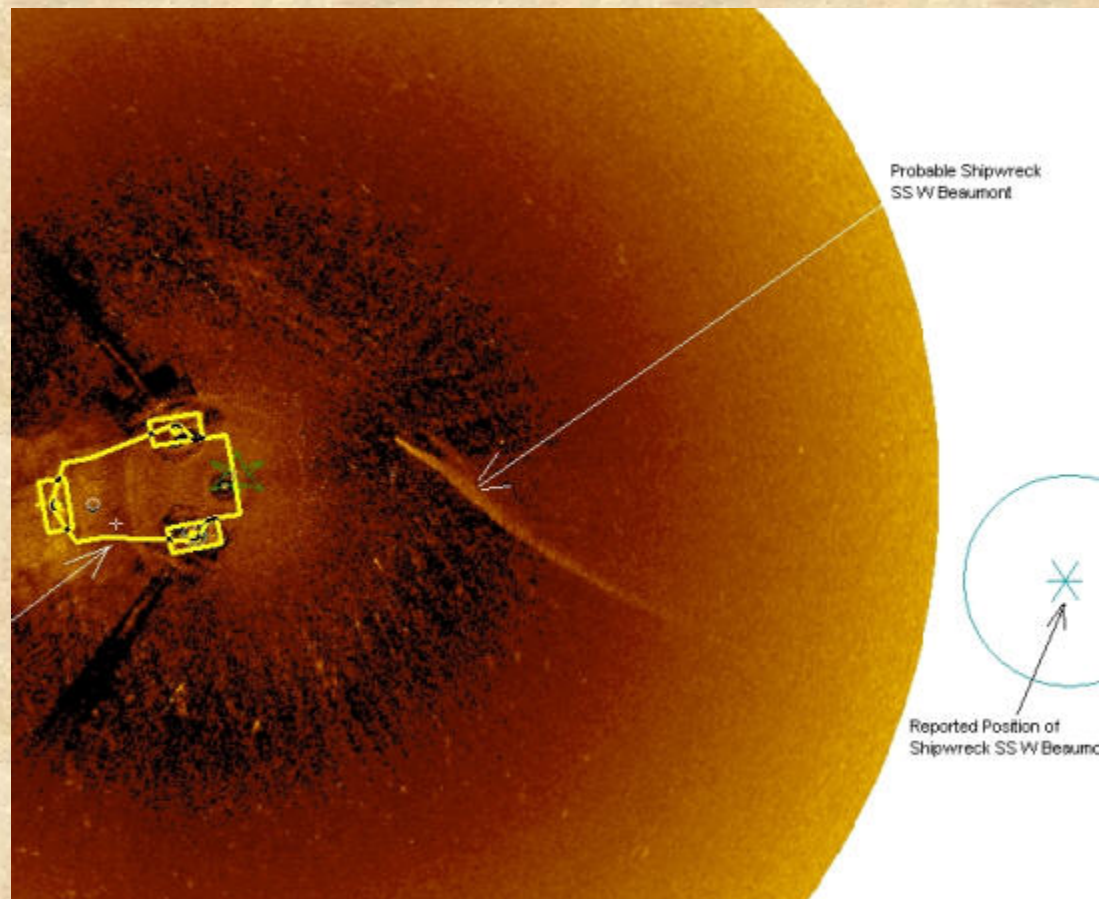
# Identification of Oil Pipeline Leaks

Mapping system helps to identify pipelines in area by plotting the leak location from coordinates provided by boat or helicopter



# Identification of Oil Pipeline Leaks

- Investigation determined that source of sheen was sunken vessel.



# Identification of Pipeline Leak

- Important information needed when reporting leaks
  - Location-lat/long preferred
  - Leak description-gas bubbles and/or sheen
  - Sheen description- size, coloration, direction of movement
  - Location of boat/helicopter in reference to leak location



# Identification of Pipeline Leak Contact Responsible Party

- Action MMS Pipeline Section Takes
  - Contacts possible responsible party
    - Day time office contact
    - Offshore platform
    - Company control center
  - Company takes action to confirm and control source
    - Helicopter oversight
    - Shut-in/reduce source pressure
    - Dive vessel/ROV mobilization
    - Repairs leak after MMS approval



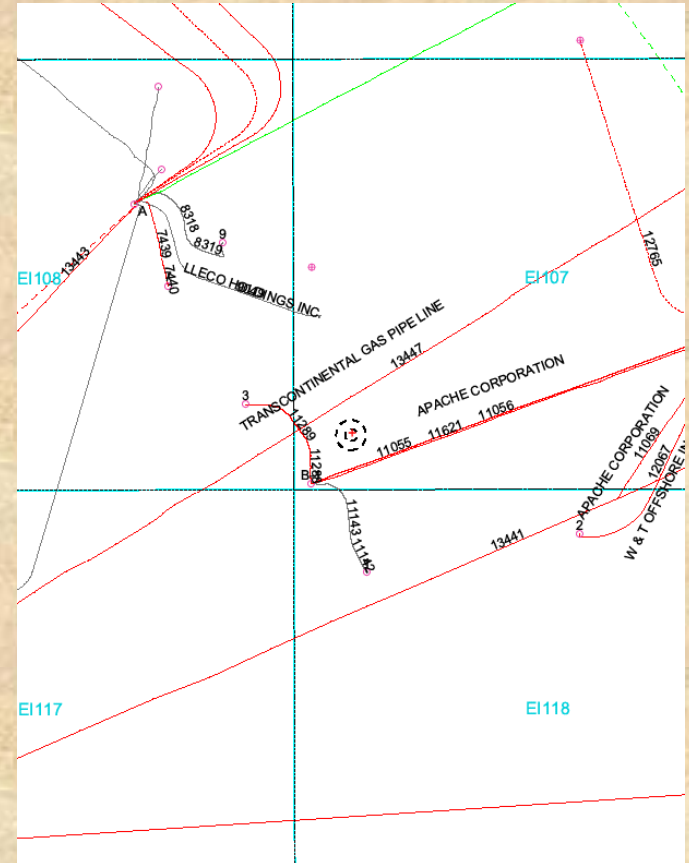
# Vessel Incidents

## MODU Incident-Gustav/Ike Pipeline Damage



EI 107 Pride Wyoming

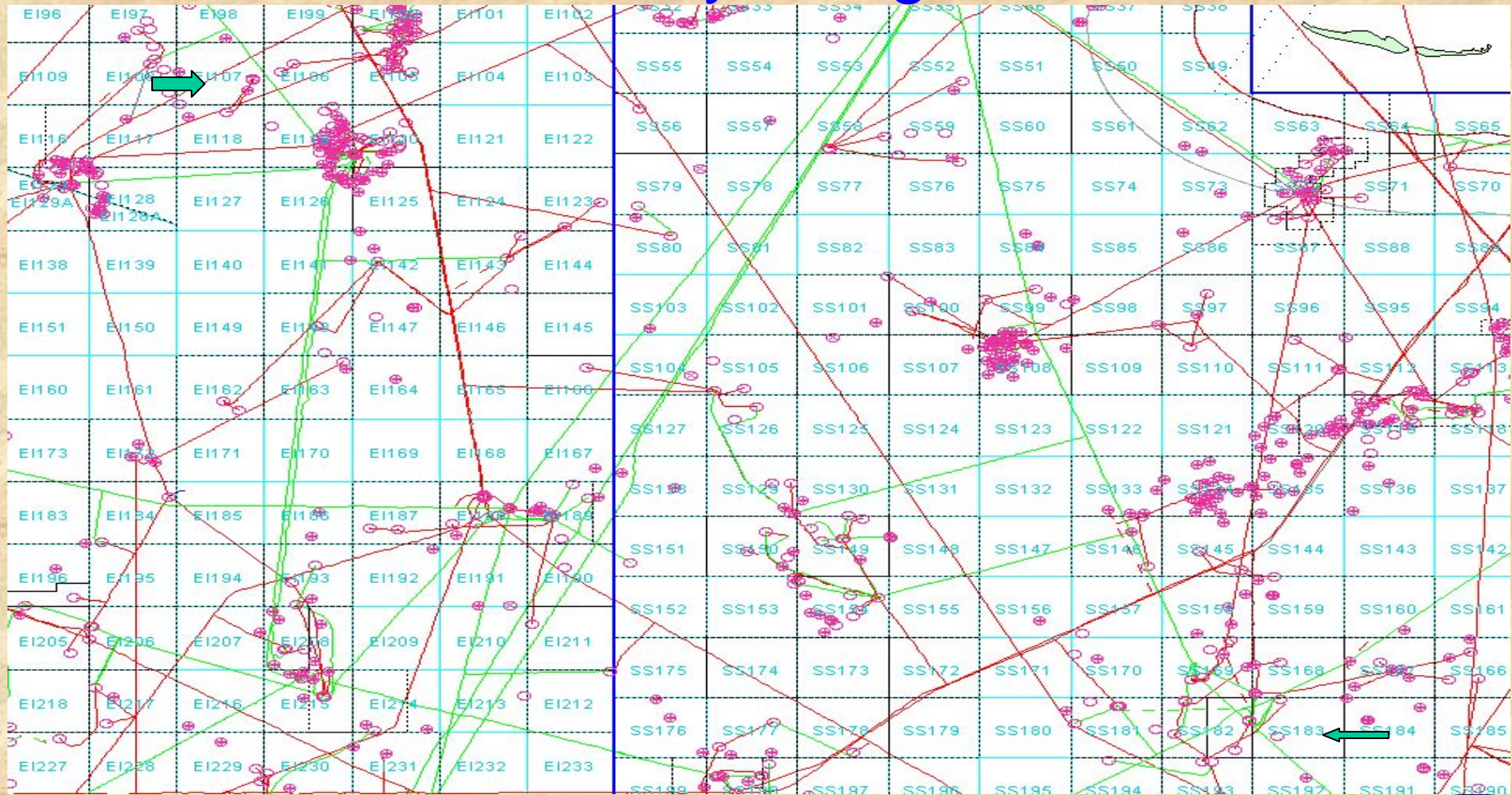
Rig was drilling in SS 283



# Vessel Incidents

## MODU Incident-Gustav/Ike Pipeline Damage

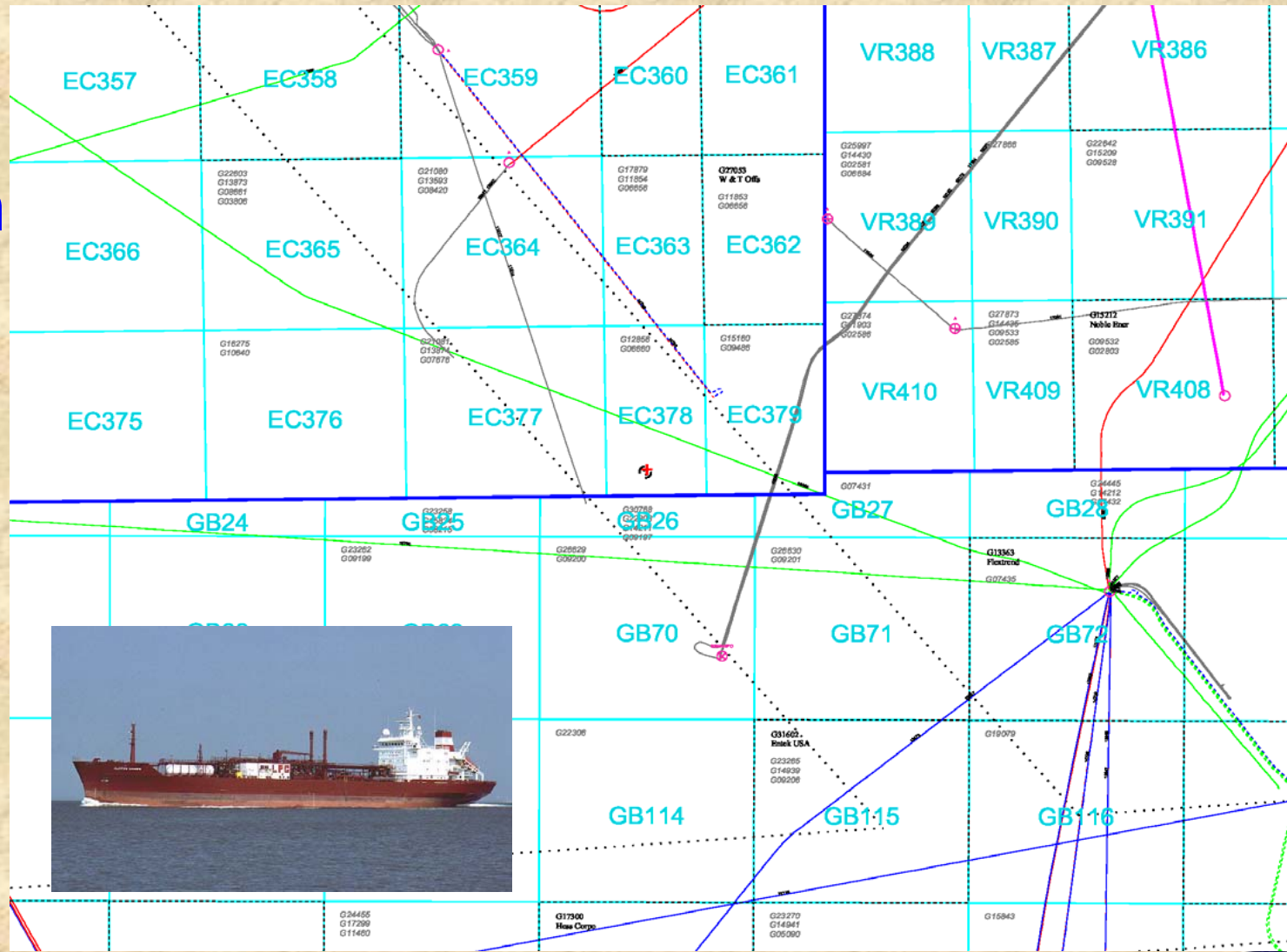
### ➤ Distance Pride Wyoming traveled



# Vessel Incidents

## Recent Tanker Incident

➤ Clipper Skagen adrift





# Summary

- Mapping system helps in response to leaks and emergencies including after hours with remote access.



# Questions?

