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Mayflower Pipeline Incident Response

Mayflower, Arkansas

Post-Construction Sheen Monitoring Monthly Report #4: July 2015

Period: 07/01/2015 through 07/31/2015

Monitoring Days: 07/02/2015, 07/16/2015, and 07/30/2015

Observations in Inlet Channel:

- No sheen observed in the Inlet Channel.

Observations in Cove:

- No sheen observed in Open Water Area.
- July 2, 2015: One streamer of silver gray sheen observed in Heavily Vegetated Area. Sheen did not break when disturbed ("non-brittle")[1]. A sheen sample was collected for laboratory analysis.
- July 16, 2015: One patch/streamer of non-brittle[1] silver gray sheen with an oil spot (0.125-inch wide) observed in Heavily Vegetated Area. A sheen sample was collected for laboratory analysis.
- July 16, 2015: One cover (no particular structure) of silver gray sheen observed in Heavily Vegetated Area. Sheen broke apart when disturbed ("brittle")[2].
- July 30, 2015: One patch of brittle[2] silver gray sheen observed in Heavily Vegetated Area.

Mitigation: Non-brittle sheens were removed by sampling.

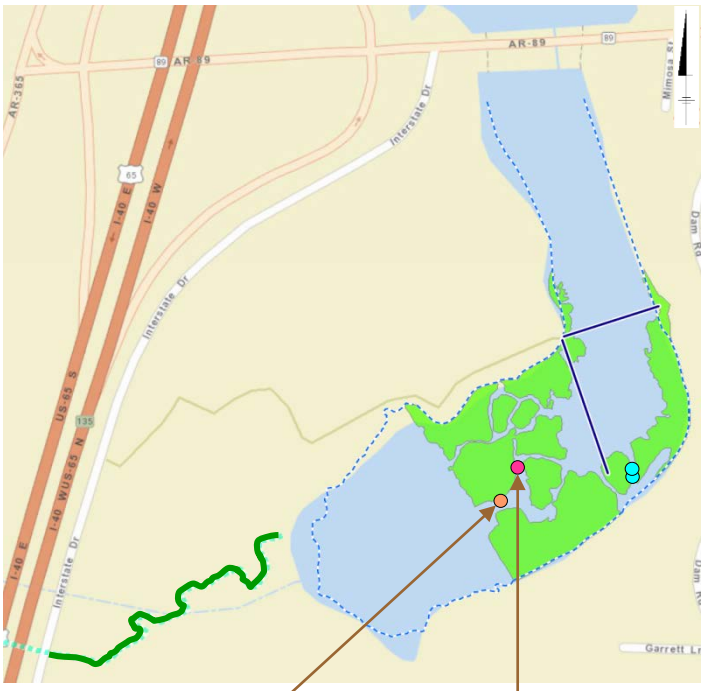
Sheen Sampling Results[3]:

- The laboratory analysis of sheen net samples collected from Heavily Vegetated Area on July 2 and 16, 2015 indicated that sheens resemble crude oil from the Pegasus Pipeline.

Path Forward for August 2015:

- Continue biweekly sheen monitoring in Cove.

Legend:
Green Line – No Sheen
Aqua Circle – Brittle Sheen Location
Pink Circle – Non-Brittle Sheen Location
Orange Circle – Non-Brittle Sheen with Oil Spot Location



Cove (Summary of Observations from July 2015)

Silver Gray Sheen Patch/Streamer Observation with an Oil Spot (0.125-inch Wide) on 07/16/2015

Silver Gray Sheen Streamer Observation on 07/02/2015

Notes:

1. Non-brittle sheens are often related to anthropogenic sources, including petrogenic sources (e.g., petroleum hydrocarbons).
2. Brittle sheens are often of natural biogenic origin.
3. Laboratory testing is required to distinguish sheen sources (e.g., crude oil, roadway runoff, natural biologic activity).
4. Sheen color (dark/metallic/rainbow/silver gray) and structure (patches/streamers/cover) terminology reference: NOAA 2007. NOAA Open Water Oil Identification Job Aid.