

Sheen Monitoring Report #18

Mayflower Pipeline Incident Response

Mayflower, Arkansas

Monitoring Period: Daily from 02/17/2014 through 02/23/2014.

Mitigation: Suspected petrogenic sheens were removed using absorbent materials.

Observations in Drainage Ways:

- A-Main
 - Five covers (no particular structure); one cover/patch, and two patches of silver gray sheens; one cover, one patch, and two covers/patches of rainbow/silver gray sheens; one cover of metallic/ silver gray sheens; and one cover/patch of rainbow sheens observed. Sheens broke apart when disturbed (“brittle”)¹.
 - One patch and one patch/streamer/cover (no particular structure) of silver gray sheens observed. Sheens did not break when disturbed (“non-brittle”)².
 - One streamer/cover (no particular structure) of brittle¹ and non-brittle² metallic/silver gray sheens observed (shown as non-brittle² on figure).
- A-365W
 - Five covers (no particular structure), two patches/streamer, one patch, and one cover/patch of brittle¹ silver gray sheens; one streamer/patch of brittle¹ rainbow/silver gray sheens; one patch/cover of brittle¹ metallic/silver gray sheens; and one cover/patch of brittle¹ rainbow sheens observed.
 - One patch/streamer of brittle¹ and non-brittle² rainbow/silver gray sheens observed (shown as non-brittle² on figure).
- A-365E
 - Eleven covers (no particular structure) and two covers/patches of brittle¹ silver gray sheens; four covers, four covers/patches, and one cover/patch/streamer of brittle¹ rainbow/silver gray sheens; one cover of brittle¹ silver gray/metallic/rainbow sheens; one cover of brittle¹ silver gray/metallic sheens; two covers/patches of brittle¹ rainbow sheens; and one cover/patch of brittle¹ metallic/rainbow sheens observed.
 - One patch of non-brittle² metallic/silver gray sheens observed.
 - Two patches/streamers of brittle¹ and non-brittle² silver gray/rainbow sheens observed (shown as non-brittle² on figure).

Observations in Dawson Cove Inlet Channel:

- Seven covers (no particular structure) and three covers/patches of brittle¹ silver gray sheens; five covers, one cover/patch, and one patch of brittle¹ metallic/silver gray sheens; seven covers and three covers/patches of brittle¹ rainbow/silver gray sheens; three patches and two covers/patches of brittle¹ metallic/rainbow sheens; one patch and five covers/patches of brittle¹ rainbow sheens; and two covers/patches of brittle¹ metallic sheens observed.
- One patch of non-brittle² rainbow/silver gray sheens with 0.25-inch wide oil spots are observed.

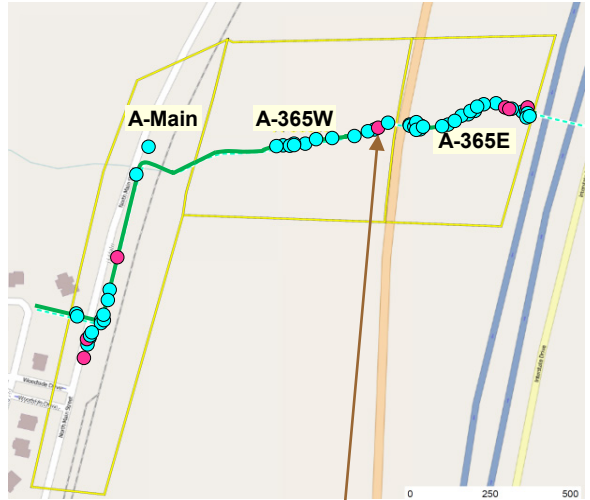
Legend:

Green Line – No Sheen

Aqua Circle – Brittle Sheen Location

Pink Circle – Non-Brittle Sheen Location

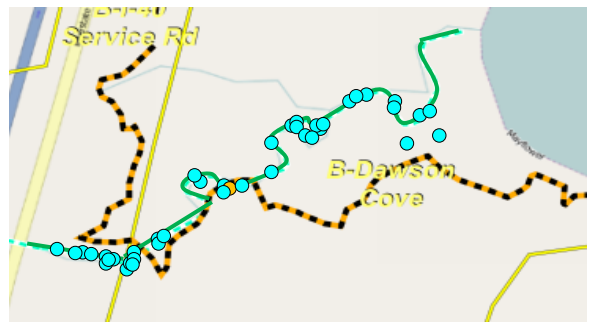
Orange Circle – Non-Brittle Sheen with Oil Spot Location



Drainage Ways (Summary of Observations from 02/17/2014 through 02/23/2014)



Rainbow/Silver Gray Sheen Patch/Streamer Observation on 02/19/2014



Dawson Cove Inlet Channel (Summary of Observations from 02/17/2014 through 02/23/2014)

Sheen Monitoring Report #18 (continued)

Mayflower, Arkansas

Monitoring Period: Daily from 02/17/2014 through 02/23/2014

Observations in Dawson Cove:

- Four patches, one cover (no particular structure), and two covers/patches of brittle¹ rainbow/silver gray sheens; five covers (no particular structure) and one patch of silver gray sheens; one cover of brittle¹ metallic sheens; one cover of brittle¹ silver gray/metallic/rainbow sheens; three covers/patches of brittle¹ metallic/rainbow sheens; and one cover/patch of brittle¹ rainbow sheens observed.
- One patch/streamer of silver gray sheens observed (shown as brittle¹ on figure).
- Four patches/streamers (two with 0.1- and 0.5-inch wide oil spots) and four streamers (one with 0.5-inch wide oil spots) of non-brittle² rainbow/silver gray sheens; two streamers (one with 0.05-inch wide oil spots) of non-brittle² silver gray sheens; one streamer and three patches/streamers of non-brittle² metallic/rainbow sheens; and one patch of non-brittle² dark/metallic/rainbow sheens observed.
- One patch/streamer (with 0.5-inch wide oil spots) and one patch of brittle¹ and non-brittle² rainbow/silver gray sheens; one patch/streamer of brittle¹ and non-brittle² silver gray sheens with 0.5-inch wide oil spots; and one patch/streamer/cover (no particular structure) of brittle¹ and non-brittle² rainbow sheens observed (shown as non-brittle² on figure).

Legend:

- Aqua Circle – Brittle Sheen Location
- Pink Circle – Non-Brittle Sheen Location
- Orange Circle – Non-Brittle Sheen with Oil Spot Location
- OW-1 – Shoreline Observation Location



Dawson Cove (Summary of Observations from 02/17/2014 through 02/23/2014)



Metallic Sheen Cover Observation on 02/20/2014

Path Forward for 02/24/2014 to 03/02/2014:

- Continue sheen monitoring in all areas.

Notes:

1. Brittle sheens are often of natural biogenic origin.
2. Non-brittle sheens are often related to anthropogenic sources, including petrogenic sources (e.g., petroleum hydrocarbons).
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.



Rainbow/Silver Gray Sheen Patch/Streamer with Oil Spots (0.5-inch Wide) Observation on 02/17/2014