Plains Line 901
What Happened and Status Update

September 28, 2016
Dave Mulligan (Community Liaison)
Agenda

• Pipeline status
• Conclusion of Failure Investigation
• CAO Amendment No. 3
• PHMSA Advisory Bulletin
• Transition Plan from Interstate to Intrastate
• Next Steps
Pipeline Status
Line 901 and 903 Status

- Line 901 remains shutdown
- Line 903 purge complete as of April 2016
- Line 903 is shutdown between Gaviota and Pentland Stations

<table>
<thead>
<tr>
<th>Movement</th>
<th>Start Date</th>
<th>Completion Date</th>
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<tbody>
<tr>
<td>Freeport-McMoRan Oil Movement</td>
<td>12/1/2015</td>
<td>12/10/2015</td>
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<tr>
<td>Phase 1 Gaviota - Sisquoc</td>
<td>12/14/2015</td>
<td>12/18/2015</td>
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<tr>
<td>Phase 2 Mile Post 75.4 – San Andreas Main Line Valve</td>
<td>04/02/2016</td>
<td>04/05/2016</td>
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<tr>
<td>Phase 3 Sisquoc - Pentland</td>
<td>04/12/2016</td>
<td>04/18/2016</td>
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Pipeline Purge Internal

Pipeline purging, or the act of removing the content of a pipe or container and replacing it with another gas or liquid, is a standard industry technique that reduces the chance of corrosion while the pipeline sits idle.
Oil Production Impacted

The following offshore platforms are shut down:

• Freeport-McMoRan related platforms:
  – Hildago, Harvest, Hermosa

• ExxonMobil related platforms:
  – Heritage, Harmony, Hondo

• Venoco
  – Platform Holly
Plains Pipeline, L.P.
Lines 901 & 903
Conclusion of Failure Investigation

• Operational events that morning did not cause release
• Direct cause was external corrosion
• Contributing causes:
  – Ineffective protection against external corrosion
  – Failure to detect and mitigate corrosion
  – Lack of timely detection of the failure
Pipe Failure Pictures

This is one of the first pictures of the release location after removal from the ditch.
Line 901 Remedial Work Plan

- Investigation and remediation of anomalies
- Analysis of field measurements from anomaly investigations
- Re-grade of prior ILI data using expanded set of interaction criteria
- Circumferential MFL ILI tool run and data integration
- Additional anomaly investigations, if necessary
- Emergency flow-restriction device (EFRD) evaluation and surge studies

- Completion of the Remedial Work Plan is required prior to restart.
- Approval of a Restart Plan by PHMSA is required.
Remedial Work Plan in Progress

- Implementation started in May 2016
- Ongoing investigation & remediation of eight (8) anomaly locations
  - Three (3) 180-day conditions per 195.452(h)
  - Five (5) “like and similar” to the failure site
- PHMSA representatives on-site during field activity
- Stakeholders that visited the field site in May:
  - CA State Fire Marshal, BSEE, County of Santa Barbara, CA State Lands
- 4 of 8 anomaly dig sites excavated and permanent repairs complete
- Schedule delays due to landowners and pipeline right-of-way access, Sherpa Fire in Refugio Canyon
CAO Amendment #3
&
PHMSA Advisory Bulletin
CAO Amendment #3

• Additional requirements for Line 901 Restart Plan, including:
  – Improvements to Plains’ Integrity Management Program (IMP)
  – Midland Control Room enhancements, including leak detection capabilities
  – Installation of additional safety valves and pressure sensors
  – Revise Facility Response Plan, address drainage, culverts, lessons learned, etc.
  – Ultrasonic (UT) ILI tool run after start-up (within 7 days)

• Long-term plan for corrosion prevention, options include:
  – Replacing the buried and insulated pipeline,
  – Repairing or re-coating compromised portions of the coating, or
  – Submit a Special Permit to PHMSA
    • Accelerated reassessments
    • Complementary ILI tools used on alternating schedule
    • Address corrosion under insulation (CUI)
CAO Amendment #3

• Remedial Work Plan, Restart Plan and Removal of Pressure Restriction for Line 903 Gaviota to Pentland
  – Align requirements to be similar to Line 901 mandates from prior CAO amendments
  – Similar components from Line 901 plans expected for 903

• Clarify provisions for removal of pressure restriction for Line 903 Pentland to Emidio segment:
  – Currently operating at low pressure
  – Complete all integrity activities as a result of the recent UT tool run.
  – Approval by PHMSA needed
PHMSA Advisory Bulletin

• “Ineffective Protection, Detection, and Mitigation of Corrosion Resulting from Insulated Coatings on Buried Pipelines “
• Review operations, procedures to ensure buried and insulated pipelines have effective coating and corrosion-control systems
• Protect against CP shielding and moisture under coatings
  – Actions similar to Amendment No. 3 Item 2 preventive methods
• Ensure ILI tool findings are accurate, verified, and the ILI tools used are appropriate for the identified pipeline threats
  – Advanced ILI data analysis techniques
  – Sharing field data with ILI vendor
  – API Standard 1163 “In-Line Inspection Systems Qualification Standard”
  – Additional or more frequent reassessments

To Protect People and the Environment From the Risks of Hazardous Materials Transportation
INTERstate to INTRAstate Pipeline Transition Plan

Line 901 and Line 903
PHMSA\CASFM Transfer Plan

PHMSA Responsibilities:

• Completing and finalizing the root-cause investigation of the Failure

• Issuing and finalizing any enforcement actions - Notice of Probable Violation, Proposed Civil Penalty, Proposed Compliance Order, and/or Corrective Action Order (CAO), etc.;

• Completing the CAO issued to Plains on May 21, 2015, and any amendments thereto, and issuing any future CAOs related to the Failure;

• Collaborating with CASFM on any additional or modified safety requirements

• Transitioning full regulatory authority from PHMSA to CASFM once all PHMSA investigations and enforcement actions have been completed and closed.

U.S. Department of Transportation
Pipeline and Hazardous Materials Safety Administration
To Protect People and the Environment From the Risks of Hazardous Materials Transportation
PHMSA\CASFM Transfer Plan

CASFM Responsibilities:
• Include Lines 901 and 903 in CASFM’s Annual Inspection Program (SB 295);
• Include Lines 901 and 903 in CASFM’s Leak Detection Program (AB 864);
• Include Line 901 in the CASFM Higher Risk pipeline program, due to the release and absence of effective Cathodic Protection. This will require the pipeline to be tested annually for 5 years; and
• Exercising authority over Lines 901 and 903 under existing and future regulations established by CASFM.

** If either pipeline is replaced rather than repaired, such work will be considered new construction, and the design, construction, operation, and maintenance would fall under the regulatory authority of the CASFM.
Continued Collaboration

- Continue meeting and providing updates to Santa Barbara County, and other community stakeholders
- Continue participation in multi-agency pipeline conference calls: PHMSA, BSEE, CA State Lands, Santa Barbara County, CA Coastal Commission, and CA State Fire Marshal
- Circulation of finalized PHMSA documents
  - Future CAO Amendments, enforcement cases
- Offer opportunities to visit field sites with PHMSA:
  - Anomaly digs and other pipeline activity
Next Steps

All options are being considered:

• Replace Line 901 and 903 with uninsulated steel pipe

• Insert a smaller diameter of plastic Smart Pipe (HDPE) into existing steel pipe (need PHMSA steel Waiver)

• Repair existing steel pipeline and inspect with alternating technology ILI tools on a more frequent basis. (Need PHMSA CP Waiver)