

Blade Energy Partner's Root Cause Analysis (RCA) – Updated Schedule (9/5/18)

Re: Southern California Gas Company's Aliso Canyon Underground Storage Facility SS-25 Failure

The remaining work for the Blade Energy Partner's RCA of the Aliso Canyon SS-25 failure is described below:

- Complete the work, including testing and analyzing data as previously determined for Phases 3, 4, and 5 related to well SS-25
- Perform additional investigations on wells P 34, P35, P 45, and SS44A for further metallurgical and comparative analyses based on information obtained during Phase 2

| Major Milestone | Status |
|---|---------------------------------|
| Phases 1 and 2 ¹ | Completed |
| Phase 3A: Tubing Extraction and Logging | Completed |
| Log Analyses, Plugging up to 4650' and Plan for Phase 3B | Completed |
| Phase 3-A Contingency: Recover 7" and Logging | Completed - December 2017 |
| Phase 3-A: 7" Log Analyses and Identification of need for anymore 7" | Completed - February 1st, 2018 |
| Phase 3 - Collect annulus fluid and casing samples on the well SS25 11 ¾ casing - Well P35 Casing Extraction and Outside Diameter (OD) sample collection - SS25B annulus sampling/logging | Estimated Completion 10/31/2018 |
| Phase 4 - NDE inspection nearly completed. Analyses ongoing - Connection testing has just started - Liquid and Solids analyses ongoing to include samples yet to be collected - Metallurgical analyses of casing samples from well SS25 including the additional two joints just extracted. Similar metallurgical assessment of casing samples from wells P34, P35 and P45. Detail assessment of the well SS44A axial fracture | Estimated Completion 12/31/2018 |
| Phase 5: Integration and Interpretation - Compile / Integrate/Interpret all data and models into conclusions - Finalize RCA Report | Estimated Completion 3/31/2019 |

¹ Work during Phase 1 and 2 included: documentation, well-pad preparation, coordination of logistics, extraction of casing, tubing, and logistics for chain of custody and transportation.