

**PHLSA Study Final Report  
Appendix III**

**SPL Lab Reports**

This appendix includes the SPL analytical results for all samples collected during the PHLSA study. These data in the files listed in Table 1. Table 2 lists spreadsheets that include lab results from the Winter three-pressure testing, the Summer three-pressure testing, and the sample handling perturbation studies and sample collection perturbation studies conducted in January 2016.

**Table 1. SPL Analytical Results Lab Reports**

File Name	Description
16040041-002A GPA21086 - Updated 5.17.17.pdf	Updated analytical report.
Initial Analysis.pdf	Initial analyses used to determine the composition for the CRM; 18 samples were collected, with 12 analyzed (1 in triplicate by each method), using 3 analytical methods with 2 methods using modifications
Interlab Validation Review.pdf	SPL part of Inter Lab Study, 6 CRM samples analyzed by 3 methods
Development of Certified Reference Material (CRM).pdf	Method Evaluation Study, 10 CRM samples analyzed by 4 methods
Sample Handling Perturbations.pdf	Sample Handling Perturbation Study, with analyses by 1 method for 4 perturbations at 5 incremental values for 2 cylinder types
Sampling Perturbations - 1_Part1.pdf	Sample Collection Perturbation Study, 28 sample analyzed by 2 methods, paired CP/CV cylinders collected simultaneously, for Collection Time after Well Cycle and Sample Collection Rate
Sampling Perturbations - 1_Part2.pdf	
Sampling Perturbations - 1_Part3.pdf	
Summer Phase -1_Part1.pdf	Summer Phase PHLSA Study, All sample analyses for pressurized liquids, storage tank liquids (collected in triplicate and analyzed by two methods each), flash gas and sales gas for 3 high pressure cycles, 3 low pressure cycles and 5 medium pressure well cycles , (2 of the medium pressure well cycles were part of the Sample Collection Study)
Summer Phase -1_Part2.pdf	
Summer Phase -1_Part3.pdf	
Summer Phase -1_Part4.pdf	
Summer Phase -1_Part5.pdf	
Summer Phase -1_Part6.pdf	
Winter Phase_Part1.pdf	Winter Phase PHLSA Study, All sample analyses for pressurized liquids, storage tank liquids (collected in duplicate and analyzed by two methods each), flash gas and sales gas for 3 high pressure cycles, 3 low pressure cycles and 3 medium pressure well cycles
Winter Phase_Part2.pdf	
Winter Phase_Part3.pdf	
Winter Phase_Part4.pdf	
Winter Phase_Part4 - Updated 5.17.17 NS.pdf	
Winter Phase_Part5.pdf	

**Table 2. SPL Analytical Results Spreadsheets**

File Name	Description
Sample_Handling_Perturbations_Spreadsheet_02.27.17_10.21_1_DLR_Edited_6.8.17.xls	Sample Handling Perturbation Study lab results
Final_Sampling_Perturbations_04.07.17db_DLR_Edited_6.8.17.xlsm	Sample Collection Perturbation Study lab results
Winter_Phase_Testing_HP__1_16040041_4.27.17_DLR_Edited_6.8.17.xlsm	Winter 3-pressure testing lab results
Winter_Phase_Testing_HP__3_16040115_4.27.17_DLR_Edited_6.8.17.xlsm	
Winter_Phase_Testing_HP__4_16030982_Tin_Can_Tanks_16031044_4.27.17_DLR_Edited_6.8.17.xlsm	
Winter_Phase_Testing_MP__1_16040116_4.25.17_DLR_Edited_6.8.17.xlsm	
Winter_Phase_Testing_MP__2_16040117_4.25.17_DLR_Edited_6.8.17.xlsm	
Winter_Phase_Testing_MP__3_16040118_4.25.17_DLR_Edited_6.8.17.xlsm	
Winter_Phase_Testing_LP_1_16040119_Revised_4.20.17_DLR_Edited_6.8.17.xlsm	
Winter_Phase_Testing_LP_2_16040120_Revised_4.21.17_DLR_Edited_6.8.17.xlsm	
Winter_Phase_Testing_LP_3_16040121_Revised_4.21.17_DLR_Edited_6.8.17.xlsm	
Summer_MASTER_1.12.17_as_of_4.27.17_DLR_Edited_6.8.17.xls	
Summer_MASTER_1.12.17_as_of_04.12.17_003_db_ies.xlsx*	

\*This is an earlier version of "Summer\_MASTER\_1.12.17\_as\_of\_4.27.17\_DLR\_Edited\_6.8.17.xls ". The key data in this spreadsheet are the "EOS Bubble Point @ Tsep" which are bubble point pressures calculated at the sample collection temperature and used to calculate PBP/PSC ratios for the study.