

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF ALASKA

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)	
UNITED STATES OF AMERICA,)	
)	
Plaintiff,)	Civil No. 3:09-cv-00064-JWS
)	
v.)	
)	<u>CONSENT DECREE</u>
BP EXPLORATION (ALASKA) INC.,)	
)	
Defendant.)	
)	
)	
)	

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Plaintiff United States of America, on behalf of the United States Environmental Protection Agency (EPA) and the United States Department of Transportation (DOT), has filed a complaint in this action on March 31, 2009, alleging that Defendant BP Exploration (Alaska), Inc. (BPXA), violated the Clean Water Act, 33 U.S.C. §§ 1311, 1319, 1321, as amended by the Oil Pollution Act of 1990, 33 U.S.C. § 2701 et seq.; the Clean Air Act, 42 U.S.C. §§ 7401-7671q; and the Federal Pipeline Safety Laws, 49 U.S.C. § 60101 et seq. The Clean Water Act claims alleged in the Complaint arise from two unauthorized discharges of crude oil into navigable waters of the United States from BPXA's pipelines of the Prudhoe Bay Unit (PBU) on the North Slope of Alaska in the spring and summer of 2006, as well as violations of the Spill Prevention Control and Countermeasure (SPCC) regulations promulgated pursuant to the Clean Water Act. The Clean Air Act claims in the Complaint arise from the alleged improper removal of asbestos-containing materials from its pipelines in the spring and summer of 2006, in violation of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for asbestos, promulgated by EPA under 42 U.S.C. § 7412, and codified at 40 C.F.R. §§ 61.140-61.157. The Pipeline Safety Law claims arise from BPXA's alleged failure to comply with an order issued by the Pipeline and Hazardous Materials Safety Administration (PHMSA) of DOT pursuant to 49 U.S.C. § 60112, requiring BPXA to perform certain corrective actions on its pipelines.

Defendant does not admit any liability to the United States arising out of the transactions or occurrences or any of the facts alleged in the Complaint, and, other than for purposes of this Consent Decree, Defendant does not admit the United States' jurisdiction under the Clean Water Act, the Clean Air Act, or the Pipeline Safety Laws.

Defendant has started implementation and operation of some corrective measures, including replacement of the Prudhoe Bay oil transit lines, improved leak detection on the oil transit lines, and improved operation and maintenance of the Pipeline System;

The Parties recognize, and the Court by entering this Consent Decree finds, that this Consent Decree has been negotiated by the Parties in good faith and will avoid litigation between the Parties and that this Consent Decree is fair, reasonable, and in the public interest.

NOW, THEREFORE, before the taking of any testimony, without the adjudication or admission of any issue of fact or law, and with the consent of the Parties, IT IS HEREBY ADJUDGED, ORDERED, AND DECREED as follows:

I. JURISDICTION AND VENUE

1. Plaintiff and, solely for purposes of this Consent Decree, Defendant, agree that this Court has jurisdiction over the subject matter of this action, pursuant to 33 U.S.C. §§ 1319(b) and 1321(b)(7)(E) and (n), 42 U.S.C. § 7413(b), 49 U.S.C. § 60120(a)(1), and 28 U.S.C. §§ 1331, 1345, and 1355, and over the Parties. Venue lies in this District pursuant 33 U.S.C. § 1321(b)(7)(E), 42 U.S.C. § 7413(b), and 28 U.S.C. §§ 1391 and 1395 because the violations that are the subject of this action occurred in this District, and Defendant is located in, does business in, and is found in this District. Solely for purposes of this Decree or any action to enforce this Decree, Defendant consents to the Court's jurisdiction over this Decree and any such action and over Defendant and consents to venue in this judicial district.
2. Solely for purposes of this Consent Decree, Defendant agrees that the Complaint states claims upon which relief may be granted.

II. APPLICABILITY

3. The obligations of this Consent Decree apply to and are binding upon the United States and upon Defendant and any successors, assigns, or other entities or persons otherwise bound by law.

4. No transfer of ownership or operation of the PBU or of the Pipeline System, whether in compliance with the procedures of this Paragraph or otherwise, shall relieve Defendant of its obligation to ensure that the terms of the Decree are implemented. At least 30 Days prior to such transfer, Defendant shall provide a copy of this Consent Decree to the proposed transferee and shall simultaneously provide written notice of the prospective transfer, together with a copy of the proposed written agreement, to EPA Region 10, DOT-PHMSA, the United States Attorney for the District of Alaska, and the United States Department of Justice, in accordance with Section XIII of this Decree (Notices). Any attempt to transfer ownership or operation of the PBU or of the Pipeline System without complying with this Paragraph constitutes a violation of this Decree.

5. Defendant shall provide a copy of this Consent Decree to all officers, employees, and agents whose duties might reasonably include compliance with any provision of this Decree, as well as to any contractor retained to perform work required under this Consent Decree. Alternatively, Defendant may fulfill the obligation in the preceding sentence by providing the foregoing persons with instruction and briefing concerning portions of this Consent Decree for which they have implementation responsibilities, along with the

relevant portions of the Consent Decree. Defendant shall condition any such contract upon performance of the work in conformity with the terms of this Consent Decree.

6. In any action to enforce this Consent Decree, Defendant shall not raise as a defense the failure by any of its officers, directors, employees, agents, or contractors to take any actions necessary to comply with the provisions of this Consent Decree.

III. DEFINITIONS

7. Terms used in this Consent Decree that are defined in the Federal Pipeline Safety Laws, the Clean Water Act, the Clean Air Act, or in regulations promulgated pursuant to Federal Pipeline Safety Laws, the Clean Water Act, or the Clean Air Act shall have the meanings assigned to them in such laws or regulations, unless otherwise provided in this Decree. Whenever the terms set forth below are used in this Consent Decree, the following definitions shall apply:

- a. “Actionable Anomaly” shall have the meaning provided in Appendix C;
- b. “ASME B31.4” shall mean the document titled Pipeline Transportation Systems for Liquid Hydrocarbons and other Liquids, 2006, or any updated version of this document that becomes effective during the duration of this Consent Decree.
- c. “BPXA” and “the Company” shall mean Defendant BP Exploration (Alaska), Inc.;
- d. “CAO” shall mean the Corrective Action Order issued by the Associate Administrator, Pipeline and Hazardous Materials Safety

Administration, to BPXA on March 15, 2006, and amended on July 20, 2006 (Amendment No. 1 to Corrective Action Order); August 10, 2006 (Amendment No. 2 to Corrective Action Order); and April 27, 2007 (Amendment No. 3 to Corrective Action Order);

e. “Complaint” shall mean the complaint filed by the United States in this action;

f. “Consent Decree” or “Decree” shall mean this Decree and all appendices attached hereto (listed in Section XXII);

g. “Day” shall mean a calendar day unless expressly stated to be a business day. In computing any period of time under this Decree, where the last day would fall on a Saturday, Sunday, or federal holiday, the period shall run until the close of business of the next business day.

h. “Defendant” shall mean BP Exploration (Alaska), Inc. (BPXA);

i. “DOT” shall mean the United States Department of Transportation and includes the Pipeline and Hazardous Materials Safety Administration (PHMSA) and any of their successor departments or agencies;

j. “EPA” shall mean the United States Environmental Protection Agency and any of its successor departments or agencies;

k. “Effective Date” shall have the definition provided in Section XIV;

- l. “Federal Pipeline Safety Laws” shall mean the laws set forth in 49 U.S.C. § 60101 et seq., and the implementing regulations at 49 C.F.R. Parts 190 - 199;
- m. “ILI Piggable Flow Lines” shall mean those flow lines in the Pipeline System listed on Appendix A that have permanent launchers and receivers or which are currently configured to use a temporary launcher and receiver for in-line-inspection (“ILI”) pigging, and any additional flow lines in the Pipeline System that are made ILI piggable during the period of this Decree;
- n. “Maintenance Piggable Flow Lines” shall mean those flow lines in the Pipeline System which are listed on Appendix A that have permanent launchers and receivers, and any additional flow lines in the Pipeline System that are made maintenance piggable, with the addition of permanent launchers and receivers, during the period of this Decree;
- o. “OTLs” shall mean the Eastern Operating Area (EOA) and Western Operating Area (WOA) hazardous liquid pipelines that transport processed crude oil from the EOA flow stations and WOA gathering centers to the Prudhoe Bay Unit (PBU) Skid 50 facility. For purposes of Paragraph 13, OTLs shall also include the Lisburne hazardous liquid pipeline that transports processed crude oil from the Lisburne Production Center to Pump Station 1 of the Trans Alaska Pipeline System. The OTLs are depicted on the map attached to this Decree as Appendix A;

- p. "Paragraph" shall mean a portion of this Decree identified by an Arabic numeral;
- q. "Parties" shall mean the United States and BPXA;
- r. "Pipeline System" or "BPXA's Pipeline System" shall mean well lines, flow lines, and produced water lines operated by BPXA that are used to move liquid hydrocarbons between the well pads and the PBU EOA flow stations and WOA gathering centers in the Prudhoe Bay Unit oil field on the North Slope of Alaska. The Pipeline System consists of those well lines, flow lines, and produced water lines set forth in the lists and maps attached to this Decree as Appendix A;
- s. "PBU" shall mean the Prudhoe Bay Unit.
- t. "RSTRENG" shall mean AGA Pipeline Research Committee Project PR-3-805 "A Modified Criterion for Evaluating the Remaining Strength of Corroded Pipe" (December 1989), or any updated version of this criterion for the duration of this Consent Decree that is no less stringent than the referenced version.
- u. "Section" shall mean the portion of this Decree identified by a Roman numeral;
- v. "United States" shall mean the United States of America, acting on behalf of the U.S. Department of Transportation and the U.S. Environmental Protection Agency.

IV. CIVIL PENALTY

8. Within thirty (30) Days after the Effective Date of this Consent Decree, Defendant shall pay the sum of \$25 million as a civil penalty, together with interest accruing from the date on which the Consent Decree is lodged or January 31, 2011, whichever date is earlier, at the rate specified in 28 U.S.C. § 1961.

9. Defendant shall pay the civil penalty due by FedWire Electronic Funds Transfer (EFT) to the U.S. Department of Justice in accordance with written instructions to be provided to Defendant, following lodging of the Consent Decree, by the Financial Litigation Unit of the U.S. Attorney's Office for the District of Alaska. At the time of payment, Defendant shall send a copy of the EFT authorization form and the EFT transaction record, together with a transmittal letter, which shall state that the payment is for the civil penalty owed pursuant to the Consent Decree in *United States v. BPXA*, and shall reference the civil action number 3:09-cv-00064-JWS and DOJ case number 90-5-1-1-08808 and to the United States in accordance with Section XIII of this Decree (Notices); by email to acctsreceivable.CINWD@epa.gov; and by mail to:

EPA Cincinnati Finance Office
26 Martin Luther King Drive
Cincinnati, Ohio 45268

10. Defendant shall not deduct any penalties paid under this Decree pursuant to this Section or Section VII (Stipulated Penalties) in calculating its federal income tax.

V. COMPLIANCE REQUIREMENTS

General Requirements

11. Compliance with Applicable Laws. This Consent Decree is not a permit, or a modification of any permit, under any federal, State, or local laws or regulations.

Defendant is responsible for achieving and maintaining complete compliance with all applicable federal, State, and local laws, regulations, and permits; and Defendant's compliance with this Consent Decree shall be no defense to any action commenced pursuant to any such laws, regulations, or permits, except as set forth herein. The United States does not, by its consent to the entry of this Consent Decree, warrant or aver in any manner that Defendant's compliance with any aspect of this Consent Decree will result in compliance with provisions of the Federal Pipeline Safety Laws, the Clean Water Act, or the Clean Air Act, or with any other provisions of federal, State, or local laws, regulations, or permits.

12. OTL Replacement Certification. BPXA hereby certifies, in accordance with Paragraph 41, that it has replaced the EOA and WOA OTLs that were the subject of the CAO and has dismantled and removed, or abandoned, each OTL segment that was removed from operation.

13. Applicability of 49 C.F.R. Parts 195 and 199 to OTLs. The OTLs are currently low stress hazardous liquid pipelines regulated under 49 C.F.R. Part 195. However, as of the Effective Date, BPXA shall operate the OTLs in compliance with all requirements of 49 C.F.R. Parts 195 and 199, sooner than is otherwise required by regulation. For the purposes of determining what parts of the regulations shall apply, and when they shall

apply to the OTLs, the OTLs shall be treated as though they are operated above twenty percent (20%) of the specified minimum yield strength of the line pipe. The OTLs shall be deemed “could affect a High Consequence Area” pipelines according to 49 C.F.R. § 195.452(a). PHMSA may inspect for compliance with and enforce all of the requirements of 49 C.F.R. Parts 195 and 199 on the OTLs, by all means set forth in the Pipeline Safety Laws, 49 U.S.C. § 60101 et seq., and the implementing regulations at 49 C.F.R. Parts 190-199.

14. Complying with the requirements of Paragraph 13 does not relieve Defendant of any obligations under the Clean Water Act or implementing regulations or any other federal, state or local law, regulation, permit or other requirement.

15. Emergency Repair Equipment and Materials. Within ninety (90) Days of the Effective Date, BPXA shall obtain or place orders for and maintain for the duration of this Consent Decree the emergency repair equipment and materials set forth in Appendix B.

Spill Prevention Countermeasure and Control Requirements

16. BPXA hereby certifies, in accordance with Paragraph 41, that it has prepared and implemented an SPCC Plan at the Greater Prudhoe Bay facility, the Milne Point facility, and the Badami facility in accordance with good engineering practices and the regulations at 40 C.F.R. Part 112, issued under CWA Section 311(j), 33 U.S.C. § 1321(j).

Asbestos Requirements

17. BPXA shall amend its mandatory employee and contractor safety training course content and materials to include asbestos awareness information. This information shall

include descriptions of materials known and suspected to contain asbestos, and shall include photos of the material to enable employees to visually identify potentially asbestos-containing materials. Furthermore, the training shall reference BPXA's Asbestos Management Program, which details requirements for sampling and handling of asbestos by trained personnel and for alerting BPXA about the presence of possible or suspect asbestos containing materials.

18. BPXA shall provide a copy of the training materials to EPA for review and approval within three (3) months of the Effective Date. BPXA shall not modify that portion of its safety training during the term of this Consent Decree without prior approval from EPA.

Pipeline System-Wide Integrity Management Program Requirements

19. Elements of the Pipeline System-Wide Integrity Management Program. BPXA shall develop and implement a written Pipeline System-Wide Integrity Management Program ("IM Program"). The purpose of the IM Program is to reduce the likelihood and magnitude of unpermitted discharges from the Pipeline System. The Pipeline System-Wide IM Program shall have the following seven (7) elements (Elements):

20. Element 1 – Data and Information Collection.

a. Within ninety (90) Days of the Effective Date, BPXA shall develop and submit to the United States for approval, pursuant to Paragraphs 45-49, a procedure ("Data and Information Collection Procedure") to identify, collect, and document, the following data and information, where available, for each pipeline in the Pipeline System:

- i. Pipeline inventory information
 - (1) Pipeline name
 - (2) Pipeline boundary limit description
 - (3) Pipeline service
- ii. Existing pipeline engineering and design data
 - (1) Nominal pipe size
 - (2) Nominal wall thickness
 - (3) Material specifications, including: pipe manufacturing method and date, construction method, pipe grade, and other relevant material data;
 - (4) Design code
 - (5) Design maximum operating pressure (MOP)
 - (6) History of all permanent changes to MOP
 - (7) External coating type if applicable
 - (8) General insulation type
 - (9) Installation date
 - (10) Information related to hydrostatic testing
 - (11) Piggability (whether the pipeline is capable of accommodating maintenance pigs and/or ILI tools)
 - (12) Wind induced vibration (WIV) dampeners
- iii. Pipeline physical inspection data, including historic data

- (1) Inspection results, including, but not limited to: indications of corrosion, dents, gouges, grooves and the location, type, nature and severity of each indication.
 - (2) Inspection type and the types and sizes of defect that the inspection method can detect
 - (3) Inspection locations
 - (4) Inspection dates
- iv. Corrosion monitoring devices
- (1) Type
 - (2) Location
 - (3) Orientation
- v. Fluid Composition Data
- (1) Composition of the fluids and materials
 - (2) The corrosive characteristics and integrity threats presented by such fluids and materials
 - (3) Historical water cuts, CO₂, and H₂S levels
 - (4) Compositional analyses, bioassays and data analyzing potential biological, chemical and physical interactions among the components of the fluids and materials
 - (5) Sediment accumulations that are either known or suspected on the basis of any available information.
- vi. Corrosion inhibitor type and effectiveness

vii. Pipeline repairs (dates, locations, type of repair, type of defect repaired)

viii. Pipeline leaks (dates and locations)

ix. Pipeline structural supports

(1) Type – (vertical support members (VSM) or horizontal support members (HSM))

(2) Location

(3) Movement, subsidence, and jacking

x. Geographical data

(1) Pipeline profile

(2) Rivers and flood plains

(3) Topography

(4) Potential pipeline release volumes

(5) Distances between isolation points

xi. Operational data

(1) Annual average volumetric flow rate

(2) Annual average operating temperature

(3) Annual average operating pressure

xii. Any other data or information BPXA believes is relevant to Pipeline System safety and integrity.

b. BPXA's Data and Information Collection Procedure shall describe how the information is used as part of its Risk Based Assessment Procedure

required in Element 3 below to characterize, integrate and analyze the data and information to determine the threats on each pipeline in the Pipeline System.

c. BPXA shall make this pipeline integrity management data and information readily available to BPXA personnel and contractors responsible for Pipeline System operations, integrity, and maintenance, and for performing the work required by this Decree.

d. This element shall be integrated with all other elements of the Pipeline System-Wide Integrity Management Program, meaning that BPXA's operations and maintenance decisions and the work required by this Decree shall be based on all available information about pipeline threats and risks.

e. BPXA's Risk Based Assessment Procedure shall include a process for identifying, collecting, documenting and incorporating new data and information as it becomes available. However, BPXA shall incorporate data and information from any pipeline inspection no later than 180 Days after the inspection. If BPXA can demonstrate that a 180 Day period is impracticable for any given inspection, the Parties may agree in writing to a longer period.

f. BPXA shall begin implementation of its Data and Information Collection Procedure upon approval by the United States in accordance with Paragraphs 45-49 of this Decree. BPXA shall certify in accordance with Paragraph 41 that it has collected, documented, characterized, integrated and incorporated all required data and information listed in Paragraph 20(a) into this Data and Information Collection Element by the latest to occur of December 31,

2011, or 90 days after the approval of the Data and Information Collection Procedure submitted for approval under Paragraph 20(a), for all well lines, flow lines and produced water lines in the Pipeline System.

g. BPXA shall promptly provide any data and information contained within the Data and Information Collection Element to the United States upon request.

21. Element 2 – Pipeline Inspection.

a. In-Line Inspection: BPXA shall assess its ILI Piggable Flow Lines with ILI tools and retain all data and documentation of the results. For all ILI inspections, BPXA shall use calibrated, instrumented ILI tools capable of identifying and characterizing the location, percentage metal loss, geometry and areal dimensions of corrosion anomalies. Such tools shall also be capable of identifying deformation anomalies including dents, gouges and grooves. BPXA shall validate and document ILI tool performance to confirm identification thresholds, probability of detection, probability of proper identification, and the accuracy of sizing, linear and orientation measurements, and other characteristics. BPXA shall use high resolution magnetic flux leakage tools or ultrasonic tools for the detection of internal and external corrosion. BPXA shall use high resolution magnetic flux leakage tools or ultrasonic tools for the detection of deformation anomalies, followed by physical examination for sizing, or caliper tools for detection and sizing. If BPXA selects other ILI tool types, BPXA shall explain and document the basis for selection of those tools. BPXA shall:

- i. within two years of the Effective Date, certify in accordance with Paragraph 41 that it has used ILI tools to inspect each ILI Piggable Flow Line that has not been inspected with ILI tools in the previous five (5) years;
- ii. certify in accordance with Paragraph 41 that it has reinspected each ILI Piggable Flow Line by conducting ILI runs no greater than every five (5) years from the date of the previous ILI run. BPXA shall reinspect such lines with ILI tools more frequently if the Risk Ranking required by Paragraph 22 indicates the need to do so to ensure pipeline integrity; and
- iii. schedule ILI inspections taking into consideration its most current Risk Ranking required by Paragraph 22.
- iv. In the Report required by Paragraph 37, BPXA shall submit the schedule of all ILI inspections and the basis for scheduling such inspections. BPXA shall provide access to all final ILI reports via the Portal required by Paragraph 36.

b. Electric Resistance Probes and Coupons: For each line in the Pipeline System, BPXA shall use, at a minimum, one of the following methods to monitor the internal rate of corrosion on each line: (1) electric resistance probes (ER Probes), or (2) corrosion weight loss coupons (Coupons). When installing or relocating Coupons and ER Probes, BPXA shall locate them in the corrosive phase. For example, if internal corrosion is expected to occur at the bottom of a horizontal line, such ER Probes and Coupons shall be located in that position.

When installing or relocating Coupons and ER Probes, BPXA shall document such work and comply with Appendix E, Location of Corrosion Monitoring Devices. BPXA shall:

- i. certify in accordance with Paragraph 41 that ER Probes and/or Coupons are present on all flow lines in the Pipeline System within one (1) year of the Effective Date;
- ii. certify in accordance with Paragraph 41 that ER Probes and/or Coupons are present on all well lines and produced water lines in the Pipeline System within two (2) years of the Effective Date;
- iii. certify at least yearly in accordance with Paragraph 41 that it has monitored and inspected all ER Probes and Coupons in accordance with the frequencies set out in Appendix D, Requirements of BPXA Inspection Frequency, but Coupon monitoring frequency shall be long enough such that any corrosion can be detected;
- iv. certify in accordance with Paragraph 41 that it has reviewed and documented all of its active Coupon and ER Probe locations to ensure they are in locations which provide the required corrosion rate data within two (2) years of the Effective Date. BPXA shall perform such review in accordance with Appendix E, Corrosion Monitoring Device Requirements. Within three years of the Effective Date, BPXA shall relocate Coupons and ER Probes which are not located in the corrosive

phase or are otherwise not located in accordance with Appendix E, and shall document such work.

v. If BPXA can demonstrate that installation or relocation of Coupons or ER Probes in accordance with Appendix E is impracticable for a particular pipeline and that corrosion rates can be reliably monitored by other means, the Parties may agree in writing to a substitute method of determining corrosion rates.

vi. In the Reports required by Paragraph 37, BPXA shall state which Pipeline System pipelines showed an increase in internal corrosion rates as shown by Coupon, ER Probe or other data and explain BPXA's actions in response to such information. Only in the first Report required by Paragraph 37, BPXA shall provide a pipeline-by-pipeline list of all Coupons and ER Probes, the type, o'clock position, monitoring frequency (for Coupons), and location of each Coupon or Probe.

c. Additional Inspections: In addition to the inspections and use of Coupons and ER Probes described in the previous Paragraphs, BPXA shall perform and document the inspections of each Pipeline System pipeline set out in Appendix D Pipeline Inspection Frequency Chart, and shall perform such inspections within the timeframes set out therein. However, BPXA shall assess and inspect pipelines in the Pipeline System more frequently if the most current Risk Ranking required by Paragraph 22 indicates the need to do so to ensure pipeline integrity. BPXA shall schedule all additional inspections and

reinspections on the basis of its most current Risk Ranking required by Paragraph 22.

d. For information purposes, BPXA shall provide the most current inspection schedule for each Pipeline System pipeline in the Reports required pursuant to Paragraph 37. The inspections described in such schedule shall not be limited to those required by this Decree.

22. Element 3 – Risk Based Assessment and Ranking.

a. Within ninety (90) days of the Effective Date, BPXA shall develop and submit to the United States for approval a Risk Based Assessment Procedure according to Paragraphs 45-49 of this Decree. The Risk Based Assessment Procedure shall provide a mechanism for BPXA to perform a relative risk-ranking of all pipelines within the Pipeline System (Risk Ranking). The Risk Ranking shall be based upon and account for all applicable data and information contained in the Data and Information Program Element required pursuant to Paragraph 20. When data of suspect quality or consistency is encountered, such data shall be clearly identified and appropriate consideration given to such concerns during the analysis process. If data is compromised or incomplete, BPXA shall document and apply conservative assumptions and explain in the Risk Ranking Report required in Paragraph 22 how any such conservative assumptions were determined and used. BPXA's Risk Based Assessment Procedure shall describe how all threats and risks to each pipeline are evaluated and assigned values in the Risk Ranking; describe what models or algorithms were used to assign risk-

ranking values and how they were used; and describe the extent of, and basis for, any assumptions about threats or risks.

b. BPXA shall implement the Risk Based Assessment Procedure upon its approval. Within ninety (90) days of approval of the Risk Based Assessment Procedure, BPXA shall submit to the United States a Risk Ranking Report for all flow lines in the Pipeline System and by March 31, 2012, BPXA shall submit to the United States a Risk Ranking Report for all flow lines, well lines, and produced water lines in the Pipeline System. The Risk Ranking Report, as applicable to each category of lines for each year's report, shall include: (1) a ranking of all pipelines in the Pipeline System ordered from highest to lowest risk lines; (2) a description of the principal threats that drive the risk ranking for each pipeline, the relative probability of occurrence of those threats; the assumptions that were used to generate each threat or assessed risk; and the severity of consequences from the threats that drive the risk; and (3) a list of the length, diameter, material(s) carried, and average daily throughput of each pipeline.

c. BPXA shall annually revise its Risk Ranking Report based on new or changed data or information about its Pipeline System pipelines. BPXA shall include the most current Risk Ranking Report in the Report required pursuant to Paragraph 22.

23. Element 4 – Geographic Information System. BPXA has initiated development of a Geographic Information System (GIS) to organize and display information about the conditions and characteristics of its Pipeline System and the OTLs. BPXA's GIS shall

include a database of high-resolution digital photography and mapping data for the Pipeline System and the OTLs which, through the use of software tools, can display or link to the data and information about the Pipeline System contained in the Data and Information Collection Element described in Paragraph 20, as well as data and information on the OTLs, to produce reports and displays of such layered data and information. Within sixty (60) Days of the Effective Date, BPXA shall provide access to the United States, in accordance with Section VI , its functional GIS for the Pipeline System and the OTLs. Within one (1) year of the Effective Date, BPXA shall certify in accordance with Paragraph 41 that it has trained BPXA employees and contractors in the use of the GIS. This training may be limited to those BPXA employees and contractors whose responsibilities include or are related to the operations, integrity and maintenance of the Pipeline System and the OTLs and performing the work required by this Decree. Each Pipeline System pipeline shall be named consistently throughout the Pipeline System-Wide Integrity Management Program, to allow for accurate cross referencing among system attributes, inspection data and other data and information. Defendant may assert that information made available to the United States is protected as Confidential Business Information (CBI) as set out in Paragraph 81 below.

24. Element 5 – Risk Prevention and Mitigation.

- a. Within one (1) year of the Effective Date, BPXA shall develop, implement and submit to the United States one or more procedures to prevent and mitigate corrosion and other threats to the integrity of the Pipeline System. The purpose of these procedures is to enable BPXA to: (1) determine the corrosion

mechanism(s) on each pipeline; (2) optimize corrosion control (e.g. test corrosion inhibitors, adjust dosage, etc.); and (3) evaluate the effect of changing operational conditions including, but not limited to, flow velocities and changing fluid characteristics.

b. Beginning on the Effective Date and continuing until termination of this Decree, BPXA shall take the following measures to prevent and mitigate threats to pipeline integrity including, but not limited to, the regular use of maintenance pigs and corrosion inhibitors, fluid and materials sampling, projects to make unpiggable pipelines capable of accommodating maintenance pigs and ILI tools, damage prevention efforts, and more frequent inspections with ILI and/or other tools. BPXA shall use the Data and Information Collection Element required by Paragraph 20 and its most current Risk Ranking Report as the basis for the selection of prevention and mitigation measures for a particular pipeline or group of pipelines in the Pipeline System.

i. BPXA shall run maintenance pigs on each Maintenance Piggable Flow Line at least twice a year, at intervals not to exceed 7 ½ months.

ii. BPXA shall document the date and type(s) of pig used, and any sediment, water or other materials recovered from each pig run.

c. Within three (3) years of the Effective Date, BPXA shall, in addition to the other work required by this Decree, perform certain work on the ten (10) currently non ILI-piggable flow lines in the Pipeline System which present the highest risk in the Pipeline System, as indicated by the Risk Ranking

Report required pursuant to Paragraph 7b. For each of the ten (10) highest risk non ILI-piggable flow lines BPXA shall either:

- (1) make the pipeline ILI Piggable;
- (2) remove the pipeline from service;
- (3) remove the pipeline from service and replace the pipeline;

or

- (4) inspect 100 percent of the length and circumference of the pipeline at the following locations: inside casings, at water crossings, where external insulation may be compromised such that water may be trapped inside the insulation, and where there are known or suspected accumulations of sediments or water. For such inspections, BPXA shall use a technology or combinations of technologies capable of identifying and characterizing the location, percentage metal loss, geometry and areal dimensions, internal and external metal loss anomalies. BPXA shall repair any anomalous conditions pursuant to the Pipeline System Repair provisions in Paragraph 25. BPXA's Risk Prevention and Mitigation Procedure shall provide for an annual review, and update as needed, of each of its risk prevention and mitigation measures based on new or changed data and information about the Pipeline System. This annual review and any updates shall include an assessment of the effectiveness of previous prevention and mitigation measures.

d. In the Report required by Paragraph 37, BPXA shall state the prevention and mitigation measures that have been implemented on each Pipeline System pipeline and the basis for selection of such measures (to the extent that a group of well lines or produced water lines carries similar materials, such pipelines may be grouped together for the purposes of reporting). BPXA shall also explain any changes that have been made to the prevention and mitigation measures on each Pipeline System pipeline or group of pipelines and the basis for such changes. BPXA shall also report on the status of making certain lines ILI Piggable.

25. Element 6 – Pipeline System Repair. BPXA shall promptly act on all anomalous conditions BPXA discovers by any means on the Pipeline System.

a. BPXA shall evaluate all anomalous conditions BPXA discovers by any means on the Pipeline System and either: (1) repair those Actionable Anomalies that could reduce a pipeline’s integrity as defined in Appendix C; (2) derate the Maximum Operating Pressure of the pipeline; or (3) remove the pipeline from operational service. The time frame for investigation and subsequent repair, when required, shall be in accordance with the schedules in Appendix D. If a pipeline with an Actionable Anomaly is to remain in service, BPXA must demonstrate that the anomalous condition is unlikely to pose a threat to the long-term integrity of the pipeline.

b. BPXA shall be deemed to have “discovered” a condition when it has enough information about the condition to determine that the condition

presents a potential threat to the integrity of the pipeline. BPXA must promptly, but no later than 180 Days after any inspection or assessment, obtain enough information about a condition to make that determination, unless BPXA can demonstrate that the 180-Day period is impracticable for such inspection or assessment, in which case the Parties may agree to a different time period

c. When evaluating anomalous conditions, BPXA shall perform B31G Modified or RSTRENG methods to determine if the pipeline can withhold the pipeline's Maximum Operating Pressure while still retaining the pipeline's design safety factor when corrosion has caused pipe wall loss.

d. When repairs are required, BPXA shall make such repairs in accordance with ASME B31.4, "Pipeline Transportation Systems for Liquid Hydrocarbons and other Liquids."

e. BPXA shall document all investigations and evaluations of anomalous conditions and repairs and provide a pipeline-by-pipeline list of the investigations and repairs completed in the Reports required pursuant to Paragraph 37 of this Decree. If BPXA permanently derates the MOP of any pipeline or removes any pipeline from service, BPXA shall explain the basis for such action in the Reports. BPXA shall also describe the known or suspected corrosion mechanism on each Pipeline System pipeline or group of pipelines (to the extent that a group of well lines or produced water lines carries similar materials, such pipelines may be grouped together for the purposes of reporting).

26. Element 7 – Continual Program Improvement. Within one (1) year of the Effective Date, BPXA shall develop, submit, and implement a procedure for continual improvement of its System-Wide IM Program. BPXA shall submit a detailed explanation of its System-Wide IM Program improvement activities in the Reports required pursuant to Paragraph 37 of this Decree.

Leak Detection

27. Evaluation of LEOS Pilot Project. Within one hundred eighty (180) Days of the Effective Date, BPXA shall provide a report detailing the results of its LEOS external leak detection system pilot test and whether and how the LEOS system can improve leak sensitivity and response times. The report shall include an analysis of the results of the LEOS system pilot test according to each of the Leak Detection Assessment Criteria attached to this Decree as Appendix F. In particular, the report shall describe whether and how the LEOS system can improve leak sensitivity and response times.

28. Evaluation of ATMOS Pilot. Within one hundred eighty (180) Days of the Effective Date, BPXA shall provide a report detailing the results of its ATMOS leak detection software pilot, and the results of any additional leak detection system software pilots. The report shall include an analysis of the results of the ATMOS system pilot test according to each of the Leak Detection Assessment Criteria attached to this Decree as Appendix F. In particular, the report shall describe whether and how the ATMOS system can improve leak sensitivity and response times.

29. Leak Detection Technology Evaluation. BPXA shall comprehensively research leak detection technologies or systems, which could include a comparison of those

technologies or systems to ATMOS and LEOS, that have the potential to improve leak detection sensitivity and response time. Within ninety (90) Days of the submittal of the LEOS and ATMOS pilot reports, BPXA shall provide a report detailing the review of such other leak detection technologies or systems and shall address, at a minimum the following criteria: the ability to detect leaks, the ability to detect the size of a leak, the smallest leak that the technology can detect, the ability to determine leak location, the ability to determine release volume, effectiveness on shut-in pipelines, retrofit feasibility, instrument accuracy, personnel training and qualifications, and maintenance requirements. In the report, BPXA shall provide its assessment of the feasibility of applying each reviewed technology to the OTLs and other transmission lines, and upstream pipelines in the Pipeline System. BPXA shall assess the potential benefits of using each technology.

Independent Monitoring Contractor

30. In accordance with the procedure in Paragraph 31, BPXA shall hire an Independent Monitoring Contractor (IMC) to perform the duties in Paragraph 33. BPXA's contract with the IMC shall require the IMC to perform, at a minimum, all of the duties in Paragraph 33, to provide reports to the United States pursuant to Paragraph 33, and to be fully available to consult with the United States. BPXA shall bear all costs associated with the IMC, cooperate fully with the IMC, and provide the IMC with access to all data, information, records, employees, contractors, and facilities within the Pipeline System that the IMC deems necessary to effectively perform the duties described in Paragraph 33.

31. Hiring Process. Within thirty (30) Days of the Effective Date of this Consent Decree, BPXA shall submit to the United States a list of two or more proposed consultants to serve as the IMC along with their qualifications and descriptions of any previous work or contracts with BPXA. Each proposed consultant must employ one or more registered professional engineers experienced in:

- a. the principles and use of ILI technology, and the interpretation of ILI data;
- b. pipeline repair and maintenance, including, but not limited to, assessment and repair of internal and external defects, and aboveground pipeline repairs;
- c. the analysis and selection of measures to prevent and mitigate threats to pipeline facilities, including but not limited to, the use of cleaning pigs, the selection of corrosion inhibitors and inhibitor injection locations, methods of assessing the effectiveness of inhibitors in liquid hydrocarbon pipelines in general and in Arctic environments;
- d. the development and implementation of risk models, the use of risk modeling software, and the assessment of the effectiveness of such models and software;
- e. the principles and use of non-ILI assessment methods and tools for pipelines including, at a minimum, guided wave, real time radiography, and ultrasound techniques; and

f. the operation of liquid hydrocarbon pipeline systems including injection of water and gas for enhanced recovery, well and flow lines and gathering systems, and analysis of products, e.g., to ensure contract limits are not exceeded.

32. No proposed consultant shall be a present or former BPXA employee or contractor or the present employee of any contractor of BPXA. Within thirty (30) Days of receiving the list of proposed consultants, the United States shall approve or disapprove each member of the list, and approval shall not be unreasonably withheld. If the United States disapproves of all of the proposed consultants on BPXA's list, then BPXA shall submit another list of proposed contractors to the United States within thirty (30) Days of receipt of written notice disapproving of the contractors on the previous list. Within thirty (30) Days of United States' ultimate approval of one or more proposed consultants, BPXA shall select a proposed consultant from those approved by the United States and shall enter into the contract described in Paragraphs 30 and 31, above. If the consultant(s) approved by the United States are no longer available or willing to accept the work described in Paragraph 33 when notified of their selection by BPXA, then BPXA shall select another consultant approved by the United States and enter into the contract described in Paragraphs 30 and 31 within thirty (30) Days.

33. Duties of the Independent Monitoring Contractor. BPXA's contract with the IMC shall require the IMC to perform the following duties:

a. Review and analyze all information submitted (via the Electronic Portal or by other means) and work performed by BPXA, and any other data,

information or other materials requested of BPXA, pursuant to the requirements of this Decree, and assess whether such information and work is complete and whether BPXA is complying with the requirements of this Decree.

b. Conduct and present to the United States all analyses and recommendations independently of any suggestions or conclusions of BPXA.

c. Notify the United States and BPXA in writing within ten (10) Days of discovery of any potential non-compliance with the requirements of this Decree.

d. Notify the United States and BPXA orally or by electronic or facsimile transmission within twenty four (24) hours of any immediate conditions that BPXA has not investigated or repaired within the timeframes set out in Appendix C, Actionable Anomaly Criteria, Investigation and Mitigation Time Frames.

e. Prepare and submit to the United States and BPXA a quarterly report that, at a minimum, contains the information, and is organized, as provided in the Sample quarterly IMC Report attached as Appendix G to this Decree. The first quarterly report is due no later than three months after the Effective Date, and each quarterly report shall be submitted every three (3) months thereafter until termination of this Decree pursuant to Section XVII.

f. BPXA's contract with the IMC shall require the IMC not to seek work from BPXA while it performs duties pursuant to the Consent Decree.

34. Replacement Procedure. If the IMC becomes unable or unwilling to perform or complete the duties described in Paragraph 33, BPXA and the United States shall confer in good faith on whether BPXA and the United States need to select a replacement IMC. If BPXA and the United States agree on the need to replace the IMC, BPXA and the United States shall select the replacement IMC in accordance with the selection procedures in Paragraph 31 of this Decree. If BPXA and the United States do not agree on the need to replace the IMC, any party may invoke the dispute resolution procedures in Section IX of this Decree.

35. Neither Defendant nor the United States shall be bound by the statements, conclusions, or opinions of the IMC. However, if Defendant violates any requirement of this Decree, Defendant shall be liable for stipulated penalties to the United States, pursuant to Section VII (Stipulated Penalties), regardless of the statements, conclusions or opinions of the IMC.

VI. REPORTING, RECORDKEEPING, AND ELECTRONIC PORTAL REQUIREMENTS

36. Electronic Portal. Within sixty (60) Days of the Effective Date, BPXA shall provide the United States access via an Electronic Portal (Portal) to assist the United States in monitoring compliance with this Decree. All documents, certifications, plans, reports, updates, notices, procedures or other information (Materials) that are required pursuant to this Decree shall be made available to the United States and the IMC via a secure, web-based Portal. The Portal shall: be easily navigable, include links to all Materials in electronic format, allow users to save and print Materials, be clearly organized and indexed according to the Sections and Paragraphs of this Decree, and

accessible 24 hours per day. The Portal shall also provide access to BPXA's GIS, including all data overlay functions and defect locations. All Materials shall remain available through the Portal until termination of this Decree in accordance with Section XVII (Termination). Defendant may assert that information made available to the United States via the portal is protected as Confidential Business Information (CBI) as set out in Paragraph 81 below.

37. Regular Reporting. BPXA shall report to the United States on the status of all actions required under Section V (Compliance Requirements) of this Consent Decree. The first report shall be due six months from the Effective Date. Subsequent reports shall be provided to the United States on or before March 31st of each year for the previous calendar year and continuing through Termination of this Consent Decree.

Each report shall include a progress report regarding:

- a. the Data and Information Collection Element plans and procedures that have been developed, submitted for approval, and implemented and all other specified information submitted and tasks conducted, as required by Paragraph 20 in Section V of this Decree;
- b. the requirement that Pipeline System pipelines are inspected and required documentation is prepared, and provide the most current inspection schedule and all other information as required by Paragraph 21 in Section V of this Decree;
- c. the requirement that the Risk Ranking Procedure be prepared, submitted for approval, and implemented; the Risk Ranking be conducted and revised annually, and provide the most current Risk Ranking Report as required by

Paragraph 22 in Section V of this Decree;

d. the requirement that a functional GIS be completed, demonstrated to the United States, made accessible to the United States and the IMC, and that GIS training be provided to BPXA employees and agents, as required by Paragraph 23 in Section V of this Decree;

e. the requirement that a Risk Prevention and Mitigation procedure be developed and implemented, prevention and mitigation measures be reviewed, their effectiveness assessed and changes made as necessary, and all other specified information be provided and tasks be conducted, as required by Paragraph 24 in Section V of this Decree;

f. the requirement that repairs be conducted, and provide the most current repair schedule, a list of repairs made to date, and all other specific information be provided and tasks be conducted as required by Paragraph 25 in Section V of this Decree;

g. the requirement that a procedure for continual program improvement be developed and implemented, and a list of BPXA personnel responsible for implementing this element and a detailed explanation of program improvement activities be provided, as required by Paragraph 26 in Section V of this Decree;

h. the leak detection activities, as required by Paragraphs 27-29 in Section V of this Decree; and

i. a list of all spills from the Pipeline System that are reportable under the Clean Water Act. This portion of the report shall be in a form approved by the United States, including the following information:

- i. spill date;
- ii. National Response Center identification number;
- iii. narrative description of spill location;
- iv. from what piece of equipment the spill occurred;
- v. spill material and quantity spilled;
- vi. quantity recovered;
- vii. cause of spill, if known;
- viii. description of actions taken or planned to address spill cause and help prevent future spills from similar causes; and
- ix. description of any environmental impacts from the spill.

38. All reports shall be posted on the Electronic Portal and submitted to the IMC and the persons designated in Section XIII of this Decree (Notices).

39. Notification Requirements. If Defendant violates, or has reason to believe that it may violate, any requirement of this Consent Decree, Defendant shall notify the United States of such violation and its likely duration, in writing, within ten (10) working Days of the Day Defendant first becomes aware of the violation, with an explanation of the violation's likely cause and of the remedial steps taken, or to be taken, to prevent or minimize such violation. If the cause of a violation cannot be fully explained at the time of the notification, Defendant shall so state in the report. Defendant shall investigate the

cause of the violation and submit an explanation of the cause of the violation, within thirty (30) Days of the Day Defendant becomes aware of the cause of the violation.

Nothing in this Paragraph or the following Paragraph relieves Defendant of its obligation to provide the notice required by Section VIII of this Consent Decree (*Force Majeure*).

40. Whenever any violation of this Consent Decree or any other event affecting Defendant's performance under this Decree may pose an immediate threat to the public health or welfare or the environment, Defendant shall notify the United States orally or by electronic or facsimile transmission as soon as possible, but no later than 48 hours after Defendant first knew of the violation or event. This procedure is in addition to the requirements set forth in the preceding Paragraph.

41. Each written report and Notification of Noncompliance submitted by Defendant under this Section shall be signed by an official of the submitting party and include the following certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

This certification requirement does not apply to emergency or similar notifications where compliance would be impractical.

42. BPXA shall provide to the United States certification that all remedial measures required by Section V have been completed no later than August 31, 2015.

43. The reporting requirements of this Consent Decree do not relieve Defendant of any reporting obligations required by the Clean Water Act, Clean Air Act, Federal Pipeline Safety Laws, or implementing regulations, or by any other federal, state, or local law, regulation, permit, or other requirement.

44. Subject to the Confidentiality provisions of Paragraph 81 set out below, information provided to the United States pursuant to this Consent Decree may be used by the United States in any proceeding to enforce the provisions of this Consent Decree and as otherwise permitted by law.

45. Approval of Deliverables. After review of any plan, report, or other item that is required to be submitted for approval pursuant to this Consent Decree, the United States shall, in writing: (a) approve the submission; (b) approve the submission upon specified conditions; (c) approve part of the submission and disapprove the remainder; or (d) disapprove the submission. A disapproval under (c) or (d) of this Paragraph shall set forth the reasons for the deficiency in sufficient detail to allow Defendant to correct the deficiencies.

46. If the submission is approved pursuant to Paragraph 45(a), Defendant shall take all actions required by the plan, report, or other document, in accordance with the schedules and requirements of the plan, report, or other document, as approved. If the submission is conditionally approved or approved only in part, pursuant to Paragraph 45(b) or 45(c), Defendant shall, upon written direction from the United States, take all

actions required by the approved plan, report, or other item that the United States determines is technically severable from any disapproved portions, subject to Defendant's right to dispute only the specified conditions or the disapproved portions, under Section IX of this Decree (Dispute Resolution).

47. If the submission is disapproved in whole or in part pursuant to Paragraph 45(c) or 45(d), Defendant shall, within 30 Days or such other time as the Parties agree to in writing, correct all deficiencies and resubmit the plan, report, or other item, or disapproved portion thereof, for approval, in accordance with the preceding Paragraphs. If the resubmission is approved in whole or in part, Defendant shall proceed in accordance with the preceding Paragraph.

48. Any stipulated penalties applicable to the original submission, as provided in Section VII of this Decree, shall accrue during the 30-Day period or other specified period, but shall not be payable unless the resubmission is untimely or is disapproved in whole or in part; provided that, if the original submission was so deficient as to constitute a material breach of Defendant's obligations under this Decree, the stipulated penalties applicable to the original submission shall be due and payable notwithstanding any subsequent resubmission.

49. If a resubmitted plan, report, or other item, or portion thereof, is disapproved in whole or in part, the United States may again require Defendant to correct any deficiencies, in accordance with the preceding Paragraphs, or may itself correct any deficiencies, subject to Defendant's right to invoke Dispute Resolution and the right of the United States to seek stipulated penalties as provided in the preceding Paragraphs.

50. Permits. Where any compliance obligation under this Section requires Defendant to obtain a federal, state, or local permit or approval, Defendant shall submit timely and complete applications and take all other actions necessary to obtain all such permits or approvals. Defendant may seek relief under the provisions of Section VIII of this Consent Decree (*Force Majeure*) for any delay in the performance of any such obligation resulting from a failure to obtain, or a delay in obtaining, any permit or approval required to fulfill such obligation, if Defendant has submitted timely and complete applications and has taken all other actions necessary to obtain all such permits or approvals.

VII. STIPULATED PENALTIES

51. Defendant shall be liable for stipulated penalties to the United States for violations of this Consent Decree as specified below, unless excused under Section VIII (*Force Majeure*). A violation includes failing to perform any obligation required by the terms of this Decree, including any work plan or schedule approved under this Decree, according to all applicable requirements of this Decree and within the specified time schedules established by or approved under this Decree.

52. Late Payment of Civil Penalty. If Defendant fails to pay the civil penalty required to be paid under Section IV (Civil Penalty) when due, Defendant shall pay a stipulated penalty of \$2,500 per Day for each Day that the payment is late.

53. Compliance Milestones

a. The following stipulated penalties shall accrue per violation per Day for each violation of the requirements (both substantive requirements and scheduling requirements) identified in subparagraph b, below:

<u>Penalty Per Violation Per Day</u>	<u>Period of Noncompliance</u>
\$750	1st through 14th Day
\$1000	15th through 30th Day
\$1500	31st Day and beyond

b. Failure to comply with the requirements in this Consent Decree other than the reporting requirements specified in Paragraph 54 below. These requirements include but are not limited to the following obligations under this Decree:

- i. Failing to obtain and maintain emergency repair materials in compliance with Paragraph 15;
- ii. Failing to amend its asbestos training course and materials in compliance with Paragraphs 17 and 18;
- iii. Failing to implement each and every Element of the Pipeline System-Wide Integrity Management Program in compliance with Paragraphs 20-26;
- iv. Failing to evaluate the LEOS and ATMOS Pilot Projects in comparison to new leak detection technologies in compliance with Paragraphs 27-29; and
- v. Failing to hire or replace an IMC in compliance with Paragraphs 30 through 34.

54. Reporting Requirements. The following stipulated penalties shall accrue per violation per Day for each violation of the reporting requirements of Section VI of this Consent Decree:

<u>Penalty Per Violation Per Day</u>	<u>Period of Noncompliance</u>
\$1000	1st through 14th Day
\$1750	15th through 30th Day
\$2500	31st Day and beyond

55. Stipulated penalties under this Section shall begin to accrue on the Day after performance is due or on the Day a violation occurs, whichever is applicable, and shall continue to accrue until performance is satisfactorily completed or until the violation ceases. Stipulated penalties shall accrue simultaneously for separate violations of this Consent Decree.

56. Defendant shall pay any stipulated penalty within thirty (30) Days of receiving the United States' written demand.

57. The United States may, in the unreviewable exercise of its discretion, reduce or waive stipulated penalties otherwise due it under this Consent Decree.

58. Stipulated penalties shall continue to accrue as provided in Paragraph 55 during any Dispute Resolution, but need not be paid until the following:

- a. If the dispute is resolved by agreement or by a decision of the United States that is not appealed to the Court, Defendant shall pay accrued penalties determined to be owing, together with interest, to the United States within 30

Days of the Effective Date of the agreement or the receipt of the United States' decision or order.

b. If the dispute is appealed to the Court, stipulated penalties shall cease to accrue on the 31st Day after the Court's receipt of the final submission regarding the dispute until the date that the Court issues a final decision regarding such dispute. If the United States prevails, Defendant shall pay all accrued penalties determined by the Court to be owing, together with interest, within 60 Days of receiving the Court's decision or order, except as provided in subparagraph (c), below. If the Defendant prevails, no accrued penalties, interest, or stipulated penalties associated with the subject of the dispute shall be due.

c. If any Party appeals the District Court's decision, Defendant shall pay all accrued penalties determined by the appellate court to be owing, together with interest, within fifteen (15) Days of receiving the final appellate court decision.

59. Defendant shall pay stipulated penalties owing to the United States in the manner set forth and with the confirmation notices required by Paragraph 9, except that the transmittal letter shall state that the payment is for stipulated penalties and shall state for which violation(s) the penalties are being paid.

60. If Defendant fails to pay stipulated penalties according to the terms of this Consent Decree, Defendant shall be liable for interest on such penalties, as provided for in 28 U.S.C.1961, accruing as of the date payment became due. Nothing in this Paragraph shall be construed to limit the United States from seeking any remedy otherwise provided by law for Defendant's failure to pay any stipulated penalties.

61. Subject to the provisions of Section XI of this Consent Decree (Effect of Settlement/Reservation of Rights), the stipulated penalties provided for in this Consent Decree shall be in addition to any other rights, remedies, or sanctions available to the United States for Defendant's violation of this Consent Decree or applicable law. Where a violation of this Consent Decree is also a violation of the Clean Water Act, Clean Air Act, Federal Pipeline Safety Laws, or implementing regulations, Defendant shall be allowed a credit, for any stipulated penalties paid, against any statutory penalties imposed for such violation.

VIII. FORCE MAJEURE

62. "*Force majeure*" for purposes of this Consent Decree, is defined as any event arising from causes beyond the control of Defendant, of any entity controlled by Defendant, or of Defendant's contractors, that delays or prevents the performance of any obligation under this Consent Decree despite Defendant's reasonable efforts to fulfill the obligation. The requirement that Defendant exercise reasonable efforts to fulfill the obligation includes using reasonable efforts to anticipate any potential *Force Majeure* event and reasonable efforts to address the effects of any such event (a) as it is occurring and (b) after it has occurred to prevent or minimize any resulting delay to the greatest extent possible. A "*Force Majeure*" event does not include Defendant's financial inability to perform any obligation under this Consent Decree.

63. If any event occurs or has occurred that may delay the performance of any obligation under this Consent Decree, whether or not caused by a *force majeure* event, Defendant shall provide notice orally or by electronic or facsimile transmission to the

United States, within 72 hours of when Defendant first knew that the event might cause a delay. Within seven Days thereafter, Defendant shall provide in writing to the United States an explanation and description of the reasons for the delay; the anticipated duration of the delay; all actions taken or to be taken to prevent or minimize the delay; a schedule for implementation of any measures to be taken to prevent or mitigate the delay or the effect of the delay; Defendant's rationale for attributing such delay to a *force majeure* event if it intends to assert such a claim; and a statement as to whether, in the opinion of Defendant, such event may cause or contribute to an endangerment to public health, welfare or the environment. Defendant shall include with any notice all available documentation supporting the claim that the delay was attributable to a *force majeure*. Failure to comply with the above requirements shall preclude Defendant from asserting any claim of *force majeure* for that event for the period of time of such failure to comply, and for any additional delay caused by such failure. Defendant shall be deemed to know of any circumstance of which Defendant, any entity controlled by Defendant, or Defendant's contractors knew or should have known.

64. In response to Defendant's written notice in paragraph 63, the United States shall make a determination whether it agrees or disagrees that a *force majeure* event has occurred, and, pursuant to Section XIII (Notices) of this Consent Decree, provide written notice to Defendant of its determination and the reasoning for that decision.

65. If the United States agrees that the delay or anticipated delay is attributable to a *force majeure* event, the time for performance of the obligations under this Consent Decree that are affected by the *force majeure* event will be extended by the United States

for such time as is necessary to complete those obligations. An extension of the time for performance of the obligations affected by the *force majeure* event shall not, of itself, extend the time for performance of any other obligation unless the United States, or the Court, determines that dependant activities will be delayed by the *force majeure* and that the time period should be extended for performance of such activities. The United States will notify Defendant in writing of the length of the extension, if any, for performance of the obligations affected by the *force majeure* event.

66. If the United States does not agree that the delay or anticipated delay has been or will be caused by a *force majeure* event, the United States will notify Defendant in writing of its decision, as soon as is reasonably practicable.

67. If Defendant elects to invoke the dispute resolution procedures set forth in Section IX (Dispute Resolution), it shall do so no later than 15 Days after receipt of the United States' notice. In any such proceeding, Defendant shall have the burden of demonstrating by a preponderance of the evidence that the delay or anticipated delay has been or will be caused by a *force majeure* event, that the duration of the delay or the extension sought was or will be warranted under the circumstances, that best efforts were exercised to avoid and mitigate the effects of the delay, and that Defendant complied with the requirements of Paragraphs 62 and 63, above.

IX. DISPUTE RESOLUTION

68. Unless otherwise expressly provided for in this Consent Decree, the dispute resolution procedures of this Section shall be the exclusive mechanism to resolve disputes arising under or with respect to this Consent Decree. Defendant's failure to seek

resolution of a dispute under this Section shall preclude Defendant from raising any such issue as a defense to an action by the United States to enforce any obligation of Defendant arising under this Decree.

69. Informal Dispute Resolution. Any dispute subject to Dispute Resolution under this Consent Decree shall first be the subject of informal negotiations. The dispute shall be considered to have arisen when Defendant sends the United States a written Notice of Dispute. Such Notice of Dispute shall state clearly the matter in dispute. The period of informal negotiations shall not exceed 30 Days from the date the dispute arises, unless that period is modified by written agreement. For informal disputes, the Branch Chief of the relevant program office within EPA Region 10 shall, on the record, make the final determination for issues involving EPA and the Regional Director, PHMSA Western Region shall, on the record, make the final determination for issues involving DOT. If the Parties cannot resolve a dispute by informal negotiations, then the position advanced by the United States shall be considered binding unless, within thirty (30) Days after the conclusion of the informal negotiation period, Defendant invokes formal dispute resolution procedures as set forth below.

70. Formal Dispute Resolution. Defendant shall invoke formal dispute resolution procedures, within the time period provided in the preceding Paragraph, by serving on the United States a written Statement of Position regarding the matter in dispute. The Statement of Position shall include, but need not be limited to, any factual data, analysis, or opinion supporting Defendant's position and any supporting documentation relied upon by Defendant.

71. The United States shall serve its Statement of Position within forty-five (45) Days of receipt of Defendant's Statement of Position. The United States' Statement of Position shall include, but need not be limited to, any factual data, analysis, or opinion supporting that position and any supporting documentation relied upon by the United States. The United States' Statement of Position shall be binding on Defendant, unless Defendant files a motion for judicial review of the dispute in accordance with the following Paragraph.

72. Defendant may seek judicial review of the dispute by filing with the Court and serving on the United States, in accordance with Section XIII of this Consent Decree (Notices), a motion requesting judicial resolution of the dispute. The motion must be filed within 10 Days of receipt of the United States' Statement of Position pursuant to the preceding Paragraph. The motion shall contain a written statement of Defendant's position on the matter in dispute, including any supporting factual data, analysis, opinion, or documentation, and shall set forth the relief requested and any schedule within which the dispute must be resolved for orderly implementation of the Consent Decree.

73. The United States shall respond to Defendant's motion within the time period allowed by the Local Rules of this Court. Defendant may file a reply memorandum, to the extent permitted by the Local Rules.

74. Standard of Review. In any dispute brought under Paragraph 70, Defendant shall bear the burden of demonstrating that its position complies with this Consent Decree and that Defendant is entitled to relief under applicable principles of law.

75. The invocation of dispute resolution procedures under this Section shall not, by itself, extend, postpone, or affect in any way any obligation of Defendant under this Consent Decree, unless and until final resolution of the dispute so provides. Except as otherwise provided in this Consent decree, stipulated penalties with respect to the disputed matter shall continue to accrue from the first Day of noncompliance, but payment shall be stayed pending resolution of the dispute as provided in Paragraph 58. If Defendant does not prevail on the disputed issue, stipulated penalties shall be assessed and paid as provided in Section VII (Stipulated Penalties).

X. INFORMATION COLLECTION AND RETENTION

76. The United States and its representatives, including attorneys, contractors, and consultants, shall have the right of entry into any facility covered by this Consent Decree, at all reasonable times, upon presentation of credentials, to:

- a. monitor the progress of activities required under this Consent Decree;
- b. verify any data or information submitted to the United States in accordance with the terms of this Consent Decree;
- c. obtain samples and, upon request, splits of any samples taken by Defendant or its representatives, contractors, or consultants;
- d. obtain documentary evidence, including photographs and similar data; and
- e. assess Defendant's compliance with this Consent Decree.

77. The right to entry does not replace the United States' existing access, entry, and information gathering authority.

78. Upon request, Defendant shall provide the United States or its authorized representatives splits of any samples taken by Defendant. Defendant shall bear any costs. Upon request, the United States shall provide Defendant splits of any samples taken by the United States. Defendant shall provide appropriate containers for the samples upon request.

79. Until five years after the termination of this Consent Decree, Defendant shall retain, and shall instruct its contractors and agents to preserve, all non-identical copies of all documents, records, or other information (including documents, records, or other information in electronic form) in its or its contractors' or agents' possession or control, or that come into its or its contractors' or agents' possession or control, and that relate in any manner to Defendant's performance of its obligations under this Consent Decree. This information-retention requirement shall apply regardless of any contrary corporate or institutional policies or procedures. At any time during this information-retention period, upon request by the United States, Defendant shall provide copies of any documents, records, or other information required to be maintained under this Paragraph.

80. At the conclusion of the information-retention period provided in the preceding Paragraph, Defendant shall notify the United States at least 90 Days prior to the destruction of any documents, records, or other information subject to the requirements of the preceding Paragraph and, upon request by the United States, Defendant shall deliver any such documents, records, or other information to the requested U.S. agency.

Defendant may assert that certain documents, records, or other information is privileged under the attorney-client privilege or any other privilege recognized by federal law. If Defendant asserts such a privilege, it shall provide the following: (1) the title of the document, record, or information; (2) the date of the document, record, or information; (3) the name and title of each author of the document, record, or information; (4) the name and title of each addressee and recipient; (5) a description of the subject of the document, record, or information; and (6) the privilege asserted by Defendant. However, no documents, records, or other information created or generated pursuant to the requirements of this Consent Decree shall be withheld on grounds of privilege.

81. Defendant may also assert that information required to be provided to the United States under this Consent Decree, including via the electronic portal, is protected as Confidential Business Information (CBI) under 40 C.F.R. Part 2 or 49 C.F.R. Part 7. As to any information that Defendant seeks to protect as CBI, Defendant shall follow the procedures set forth in 40 C.F.R. Part 2 and 49 C.F.R. Part 7.

82. This Consent Decree in no way limits or affects any right of entry and inspection, or any right to obtain information, held by the United States pursuant to applicable laws, regulations, or permits, nor does it limit or affect any duty or obligation of Defendant to maintain documents, records, or other information imposed by applicable federal or state laws, regulations, or permits.

XI. EFFECT OF SETTLEMENT/RESERVATION OF RIGHTS

83. This Consent Decree resolves the civil claims of the United States against Defendant for the violations alleged in the Complaint filed in this action through the date of lodging.

84. The United States reserves all legal and equitable remedies available to enforce the provisions of this Consent Decree, except as expressly stated in Paragraph 83. This Consent Decree shall not be construed to limit the rights of the United States to obtain penalties or injunctive relief under Clean Water Act, Clean Air Act, Federal Pipeline Safety Laws, or implementing regulations, or under other federal laws, regulations, or permit conditions, except as expressly specified in Paragraph 83.

85. In any subsequent administrative or judicial proceeding initiated by the United States for injunctive relief, civil penalties, other appropriate relief relating to the Defendant's violations, Defendant shall not assert, and may not maintain, any defense or claim based upon the principles of waiver, res judicata, collateral estoppel, issue preclusion, claim preclusion, claim-splitting, or other defenses based upon any contention that the claims raised by the United States in the subsequent proceeding were or should have been brought in the instant case, except with respect to claims that have been specifically resolved pursuant to Paragraph 83 of this Section.

86. This Consent Decree does not limit or affect the rights of Defendant or of the United States against anyone who is not a party to this Consent Decree, nor does it limit the rights of anyone who is not a party to this Consent Decree, against Defendant, except as otherwise provided by law.

87. This Consent Decree shall not be construed to create rights in, or grant any cause of action to, any third party not party to this Consent Decree.

88. Defendant hereby covenants not to sue and agrees not to assert any claim against the United States pursuant to the Clean Water Act or any other federal law, state law, or regulation, including, but not limited to, any direct or indirect claim for reimbursement from the Oil Spill Liability Trust Fund for any matter related to the violations alleged in the Complaint filed in this action, or related to response activities.

89. This Consent Decree is without prejudice to the rights of the United States against Defendant with respect to all matters other than those expressly specified in Paragraph 83 above, including, but not limited to, the following:

- a. claims based on a failure of Defendants to meet a requirement of this Consent Decree;
- b. criminal liability;
- c. liability for past, present, or future discharges of oil other than those expressly resolved herein;
- d. reimbursement to the federal Oil Spill Liability Trust Fund for any disbursements arising from the spills alleged in the Complaint or any other related incident, including claims for subrogated claims pursuant to Section 1015 of the Oil Pollution Act, 33 U.S.C. § 2715; and
- e. liability for damages for injury to, or loss of natural resources, and for the cost of any natural resource damage assessments.

XII. COSTS

90. The Parties shall bear their own costs of this action, including attorneys' fees, except that the United States shall be entitled to collect the costs (including attorneys' fees) incurred in any action necessary to collect any portion of the civil penalty or any stipulated penalties due but not paid by Defendant.

XIII. NOTICES

91. Unless otherwise specified herein, whenever notifications, submissions, or communications are required by this Consent Decree, they shall be made in writing and addressed as follows:

To the United States:

Chief, Environmental Enforcement Section
Environment and Natural Resources Division
U.S. Department of Justice
Box 7611 Ben Franklin Station
Washington, D.C. 20044-7611
Re: DOJ No. 90-5-1-1-08808

and

Director of Enforcement
U.S. Environmental Protection Agency
Region 10
1200 Sixth Avenue
Seattle, WA 98101

and

Regional Counsel
U.S. Environmental Protection Agency
Region 10
1200 Sixth Avenue
Seattle, WA 98101

and

Office of the Chief Counsel
Pipeline and Hazardous Materials Safety Administration
Department of Transportation
East Building, 2nd Floor
1200 New Jersey Avenue SE
Washington, DC 20590

and

Director, Western Region
Office of Pipeline Safety
Pipeline and Hazardous Materials Safety Administration
12300 W. Dakota Ave
Suite 110
Lakewood, CO 80228

and

Deputy Region Director, Western Region
Office of Pipeline Safety
Pipeline and Hazardous Materials Safety Administration
188 West Northern Lights Blvd., Suite 520
Anchorage, AK 99503

To Defendant:

Vice President of Operations
BP Exploration (Alaska) Inc.
PO Box 196612
900 East Benson Blvd
Anchorage, AK 99519-6612

and

Managing Attorney
BP Exploration (Alaska) Inc.
PO Box 196612
900 East Benson Blvd
Anchorage, AK 99519-6612

92. Any Party may, by written notice to the other Parties, change its designated notice recipient or notice address provided above.

93. Notices submitted pursuant to this Section shall be deemed submitted upon mailing, unless otherwise provided in this Consent Decree or by mutual agreement of the Parties in writing.

XIV. EFFECTIVE DATE

94. The Effective Date of this Consent Decree shall be the date upon which this Consent Decree is entered by the Court or a motion to enter the Consent Decree is granted, whichever occurs first, as recorded on the Court's docket.

XV. RETENTION OF JURISDICTION

95. The Court shall retain jurisdiction over this case until termination of this Consent Decree, for the purpose of resolving disputes arising under this Decree or entering orders modifying this Decree, pursuant to Sections IX and XVI, or effectuating or enforcing compliance with the terms of this Decree.

XVI. MODIFICATION

96. The terms of this Consent Decree, including any attached appendices, may be modified only by a subsequent written agreement signed by all the Parties. Where the modification constitutes a material change to this Decree, it shall be effective only upon approval by the Court.

97. Any disputes concerning modification of this Decree shall be resolved pursuant to Section IX of this Decree (Dispute Resolution), provided, however, that, instead of the burden of proof provided by Paragraph 74, the Party seeking the modification bears the

burden of demonstrating that it is entitled to the requested modification in accordance with Federal Rule of Civil Procedure 60(b).

XVII. TERMINATION

98. After Defendant has completed the requirements of Section V (Compliance Requirements) of this Decree, has paid the civil penalty and any accrued stipulated penalties as required by this Consent Decree, and no sooner than three (3) years after the Effective Date, Defendant may serve upon the United States a Request for Termination, stating that Defendant has satisfied those requirements, together with all necessary supporting documentation.

99. Following receipt by the United States of Defendant's Request for Termination, the Parties shall confer informally concerning the Request and any disagreement that the Parties may have as to whether Defendant has satisfactorily complied with the requirements for termination of this Consent Decree. If the United States agrees that the Decree may be terminated, the Parties shall submit, for the Court's approval, a joint stipulation terminating the Decree.

100. If the United States does not agree that the Decree may be terminated, Defendant may invoke Dispute Resolution under Section IX of this Decree. However, Defendant shall not seek Dispute Resolution of any dispute regarding termination, under Paragraph 70 of Section IX, until sixty (60) days after service of its Request for Termination.

101. Nothing in this Consent Decree prevents Defendant from completing any of the obligations earlier than the deadlines provided for herein.

XVIII. PUBLIC PARTICIPATION

102. This Consent Decree shall be lodged with the Court for a period of not less than 30 Days for public notice and comment in accordance with 28 C.F.R. 50.7. The United States reserves the right to withdraw or withhold its consent if the comments regarding the Consent Decree disclose facts or considerations indicating that the Consent Decree is inappropriate, improper, or inadequate. Defendant consents to entry of this Consent Decree without further notice and agrees not to withdraw from or oppose entry of this Consent Decree by the Court or to challenge any provision of the Decree, unless the United States has notified Defendant in writing that it no longer supports entry of the Decree.

XIX. SIGNATORIES/SERVICE

103. Each undersigned representative of Defendant and the Assistant Attorney General for the Environment and Natural Resources Division of the Department of Justice certifies that he or she is fully authorized to enter into the terms and conditions of this Consent Decree and to execute and legally bind the Party he or she represents to this document.

104. This Consent Decree may be signed in counterparts, and its validity shall not be challenged on that basis. Defendant agrees to accept service of process by mail with respect to all matters arising under or relating to this Consent Decree and to waive the formal service requirements set forth in Rules 4 and 5 of the Federal Rules of Civil Procedure and any applicable Local Rules of this Court including, but not limited to, service of a summons.

XX. INTEGRATION

105. This Consent Decree constitutes the final, complete, and exclusive agreement and understanding among the Parties with respect to the settlement embodied in the Decree and supersedes all prior agreements and understandings, whether oral or written, concerning the settlement embodied herein. Other than deliverables that are subsequently submitted and approved pursuant to this Decree, no other document, nor any representation, inducement, agreement, understanding, or promise, constitutes any part of this Decree or the settlement it represents, nor shall it be used in construing the terms of this Decree.

XXI. FINAL JUDGMENT

106. Upon approval and entry of this Consent Decree by the Court, this Consent Decree shall constitute a final judgment of the Court as to the United States and Defendant.

XXII. APPENDICES

107. The following appendices are attached to and part of this Consent Decree:

- Appendix A is the Pipeline System Maps and Lists of Flow Lines, Well Lines, and Produced Water Lines;
- Appendix B is the List of Emergency Repair Equipment and Materials;
- Appendix C is the Actionable Anomaly Criteria, Investigation and Mitigation Time Frames;
- Appendix D is the Pipeline Inspection Frequency Chart;
- Appendix E is the Corrosion Monitoring Device Requirements;
- Appendix F is the Leak Detection Technology Assessment Criteria; and

Appendix G is the Quarterly IMC Report Template.

Dated and entered this _____ day of _____, 2011.

HONORABLE JOHN W. SEDWICK
UNITED STATES DISTRICT JUDGE

FOR THE UNITED STATES OF AMERICA, in *U.S. v. BPXA, Inc.*, Civil No. 3:09-cv-00064-JWS (D. Alaska):

Date

IGNACIA S. MORENO
Assistant Attorney General
Environment and Natural Resources Division
U.S. Department of Justice

KATHERINE A. LOYD
Trial Attorney
Environmental Enforcement Section
Environment and Natural Resources Division
U.S. Department of Justice
999 18th Street
South Terrace – Suite 370
Denver, CO 80202

FOR THE U.S. ENVIRONMENTAL PROTECTION AGENCY in *U.S. v. BPXA, Inc.*, Civil No. 3:09-cv-00064-JWS (D. Alaska):

Date: _____

CYNTHIA GILES
Assistant Administrator
Office of Enforcement and Compliance Assurance
U.S. Environmental Protection Agency

Date: _____

ADAM M. KUSHNER, Director
Office of Civil Enforcement
Office of Enforcement and Compliance Assurance
U.S. Environmental Protection Agency
1200 Pennsylvania Ave., N.W.
Washington, D.C. 20460

Date: _____

MARK POLLINS, Director
Water Enforcement Division
Office of Civil Enforcement
Office of Enforcement and Compliance Assurance
U.S. Environmental Protection Agency
1200 Pennsylvania Ave., N.W.
Washington, D.C. 20460

Date: _____

GINNY PHILLIPS, Attorney
Water Enforcement Division
Office of Civil Enforcement
Office of Enforcement and Compliance Assurance
U.S. Environmental Protection Agency
1200 Pennsylvania Ave., N.W.
Washington, D.C. 20460

FOR THE U.S. ENVIRONMENTAL PROTECTION AGENCY in *U.S. v. BPXA, Inc.*, Civil
No. 3:09-cv-00064-JWS (D. Alaska):

Date: _____

ALLYN L. STERN
Regional Counsel
U.S. Environmental Protection Agency
Region 10
1200 Sixth Ave, Suite 900
Seattle, WA 98101

Date: _____

STEPHANIE MAIRS
Assistant Regional Counsel
U.S. Environmental Protection Agency
Region 10
1200 Sixth Ave, Suite 900
Seattle, WA 98101

Date: _____

SHIRIN VENUS
Assistant Regional Counsel
U.S. Environmental Protection Agency
Region 10
1200 Sixth Ave, Suite 900
Seattle, WA 98101

**FOR THE U.S. DEPARTMENT OF TRANSPORTATION PIPELINE AND
HAZARDOUS MATERIALS SAFETY ADMINISTRATION** in *U.S. v. BPXA, Inc.*, Civil
No. 3:09-cv-00064-JWS (D. Alaska):

Date

CYNTHIA QUARTERMAN
Administrator
Pipeline and Hazardous Materials Safety
Administration
U.S. Department of Transportation
1200 New Jersey Avenue, SE
Washington, DC 20590

Date

JAMES M. PATES
Assistant Chief Counsel for Pipeline Safety
Office of Chief Counsel
Pipeline and Hazardous Materials Safety
Administration
U.S. Department of Transportation
1200 New Jersey Avenue, SE
Washington, DC 20590

FOR BP EXPLORATION (ALASKA) INC. in *U.S. v. BPXA, Inc.*, Civil No. 3:09-cv-00064-JWS (D. Alaska):

Date: _____

BRUCE J. WILLIAMS
Vice President, Operations
BP Exploration (Alaska) Inc.
900 East Benson Blvd
Anchorage, AK 99519

Date: _____

RANDAL G. BUCKENDORF
Chief Counsel
BP Exploration (AK) Inc.
900 East Benson Blvd
Seattle, WA 99519

Date: _____

CAROL E. DINKINS
Vinson & Elkins LLP
First City Tower
1001 Fannin Street, Suite 2500
Houston, TX 77002

APPENDIX A

Pipeline System Maps and Lists of Flow Lines, Well Lines, and Produced Water Lines



APPENDIX A: Prudhoe Bay Unit - Pipeline System Maps

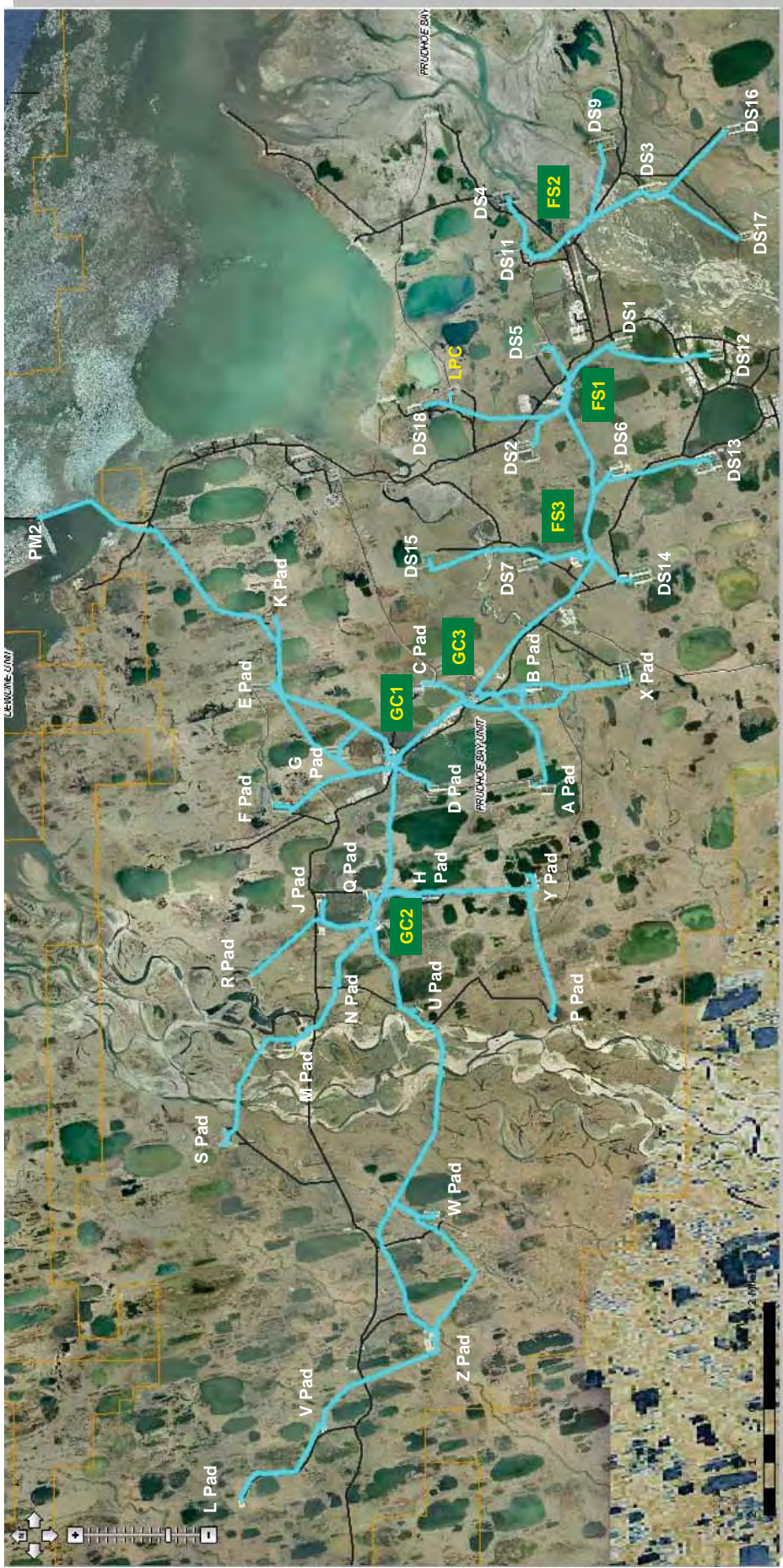
Overview





APPENDIX A: Prudhoe Bay Unit - Pipeline System Maps

Overview



BPXA Consent Decree: 7 April 2011



APPENDIX A: Prudhoe Bay Unit - Pipeline System Maps

Flow Station 1 (FS1) Area



- FS1 Drill Sites**
- DS1
 - DS2
 - DS5
 - DS12
 - DS18

Flow Lines:

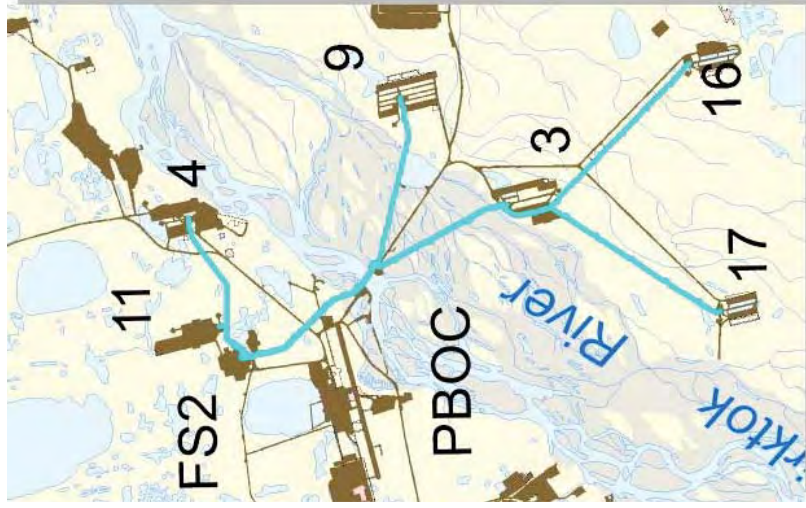
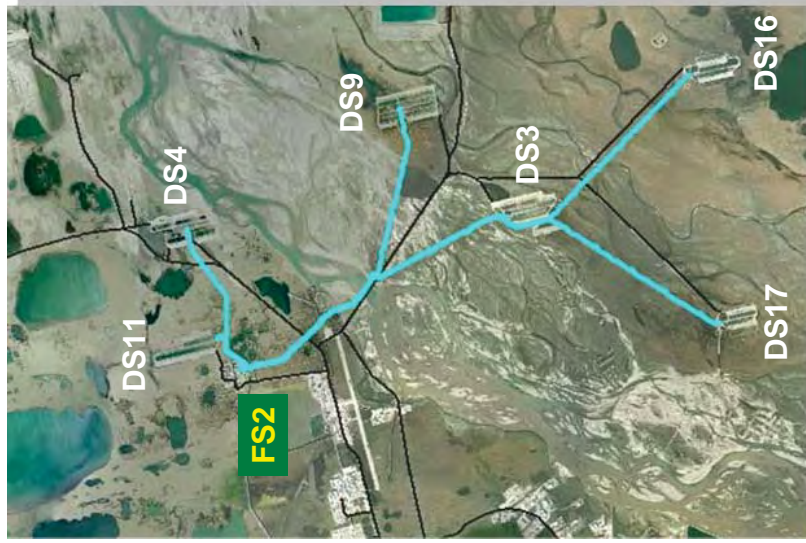
Equipment ID
01B
01C
01D
02B
02C
02D
02D/05E
02E
05B
05D
05E
12B
12C
18B
18D
LPC-SWI

Comment:
Produced Water Flow Line LPC-SWI to Lisburne Processing Center (LPC)



APPENDIX A: Prudhoe Bay Unit - Pipeline System Maps

Flow Station 2 (FS2) Area



- FS2 Drill Sites**
- DS3
 - DS4
 - DS9
 - DS11
 - DS16
 - DS17

Flow Lines:

Equipment ID
03C
03D
03-SWI
04B
04C
04D
04-SWI
09A
09B
09E
09-SWI
11A
11D
16D
16-SWI
17D
17-SWI



APPENDIX A: Prudhoe Bay Unit - Pipeline System Maps

Flow Station 3 (FS3) Area



FS3

Drill Sites

- DS6
- DS7
- DS13
- DS14
- DS15

Flow Lines:

Equipment ID
06B
06C
06C/13B
06D
06E
07B
07C
07C/15C
07D
13B
13D
13-PWI
14B/14C
14D
14-PWI/SWI
15B
15C
15D
TLFS1/FS3

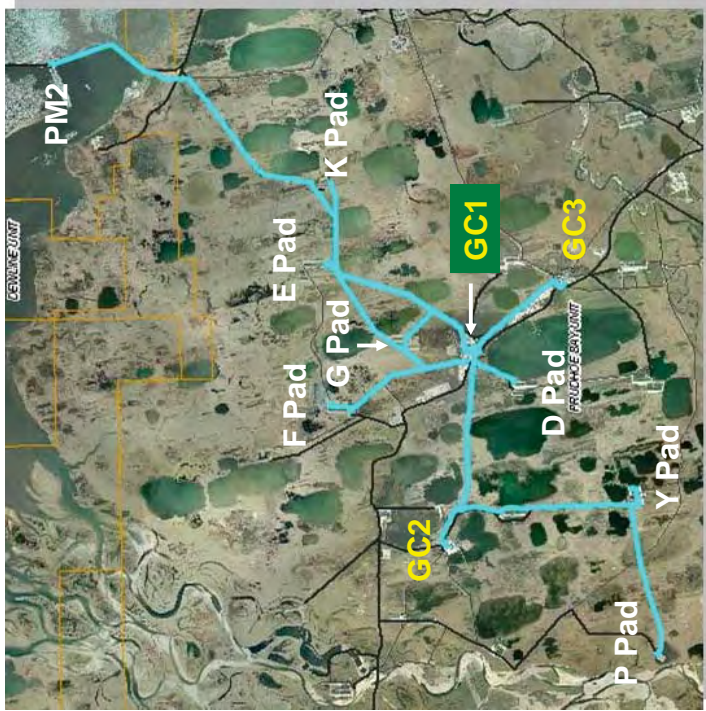
Comment:

Line TLFS1/FS3 carries production between FS3 & FS1

APPENDIX A: Prudhoe Bay Unit - Pipeline System Maps



Gathering Center 1 (GC1) Area



Flow Lines:

Equipment ID
D-36
D-81
D-82
D-86
D-87
D-93
D-94
D-95
D-97
E-36
E-41
E-42
E-43
E-44
E-45
E-46
E-47
F-42
F-43
F-44
F-45
F-46
F-47
F-48
F-49
F-74
G-42
G-43
G-44
G-45
G-47
G-74
GHX-E
GHX-G
K-36
K-74
P-36
STP-36
WSW-2
XF-31
Y-36

GC1 Well Pads

- D Pad
- E Pad
- F Pad
- G Pad
- K Pad
- P Pad
- Y Pad
- PM2*

Comments:

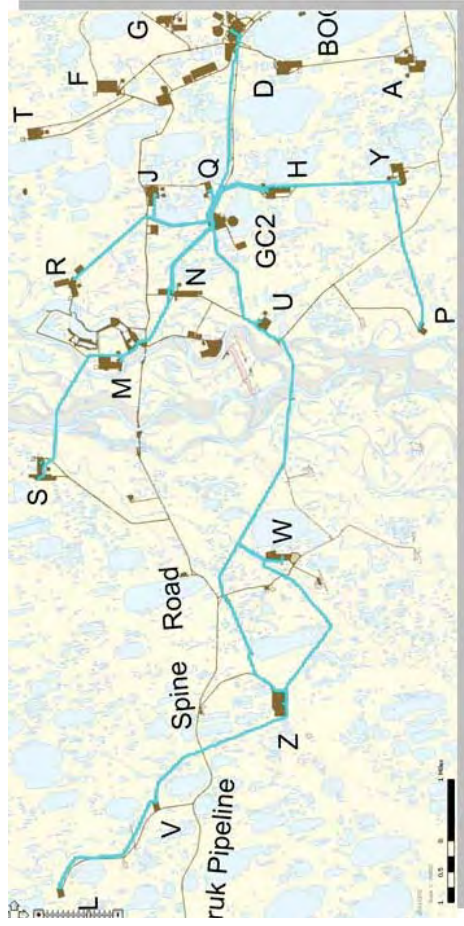
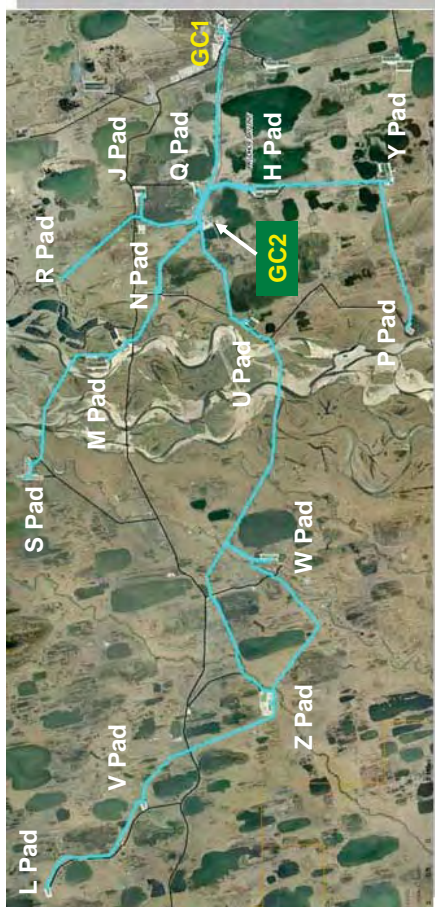
- *Point McIntyre 2 (PM2) Pad: Some production from this pad comes to GC1 through Flow Line STP-36
- Pipeline XF-31 carries production between GC1 and GC3
- Pipeline WSW-2 transports Produced Water between GC1 and GC2
- P Pad and Y Pad production goes to GC1, but Produced Water Injection for these pads comes from GC2 (see GC2 map)

BPXA Consent Decree: 7 April 2011



APPENDIX A: Prudhoe Bay Unit - Pipeline System Maps

Gathering Center 2 (GC2) Area



GC2

Well Pads

- H Pad
- J Pad
- L Pad
- M Pad
- N Pad
- P Pad (PWI only)
- Q Pad
- R Pad
- S Pad
- U Pad
- V Pad
- W Pad
- Y Pad (PWI only)
- Z Pad

Comments:

- P Pad and Y Pad production goes to GC1, but Produced Water Injection for these pads comes from GC2 (see GC1 map)
- XF-21 carries production between GC2 and GC1

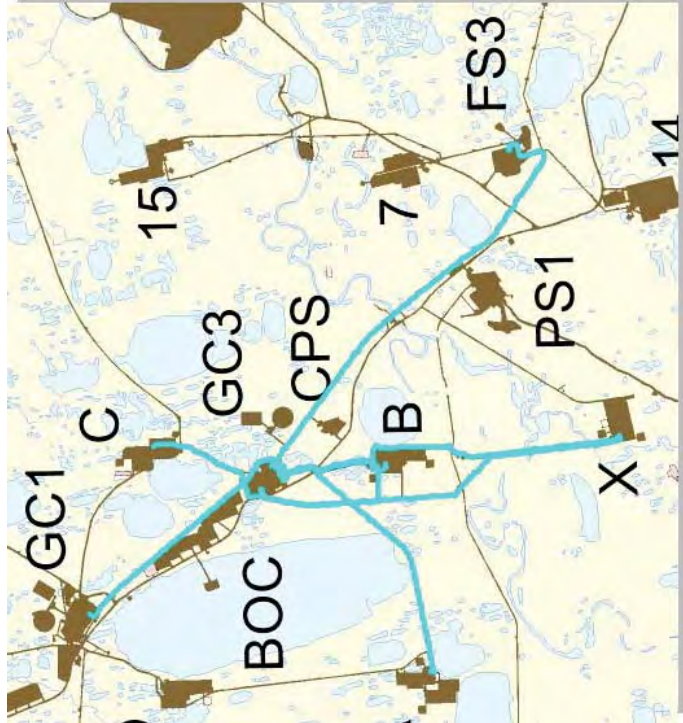
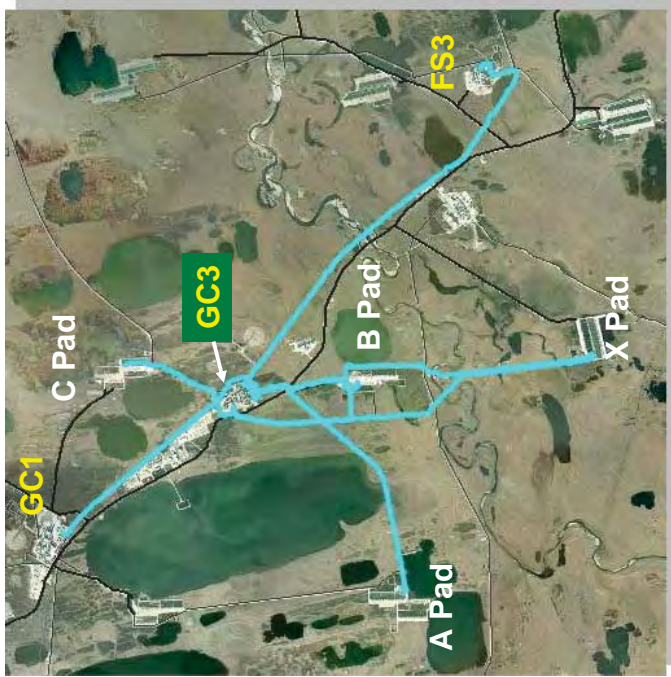
Flow Lines:

Equipment ID
GHK-J
H-42
H-43
H-44
H-45
H-46
H-47
H-69
H-74
J-41
J-42
J-44
J-45
J-46
J-47
J-48
J-74
EME-69
L-74
LV-LDF
M-69
M-74
N-42
N-44
N-69
N-74
P-69
O-01
O-02
O-03
O-04
O-05
O-06
O-07
R-46
R-36
S-36
S-69
U-69
U-384
V-69
V-74
W-69
W-74
WZ-LDF
XF-21
Y-42
Y-43
Y-46
Y-69
Z-69
Z-74

APPENDIX A: Prudhoe Bay Unit - Pipeline System Maps



Gathering Center 3 (GC3) Area



- GC3 Well Pads**
- A Pad
 - B Pad
 - C Pad
 - X Pad

Flow Lines:

Equipment ID
A-41
A-42
A-43
A-44
A-45
A-49
A-74
B-36
B-81
B-82
B-83
B-84
B-86
B-87
B-91
B-96
B-97
C-36
C-81
C-82
C-83
C-84
C-85
C-86
C-87
C-88
C-89
C-90
C-91
C-92
C-94
C-95
C-96
C-97
TLGC3/FS3
WSW-3
X-42
X-45
X-74

Comments:

- TLGC3/FS3 carries production between GC3 and FS3
- WSW-3 carries Produced Water between GC3 and GC1

APPENDIX A: Prudhoe Bay Unit - Pipeline System

Item	Facility	Location	Type	Service	Equipment ID / Well	ILI Piggable	Maint. Piggable
1	FS1	DS01	Well Line	Oil	01-01	No	No
2	FS1	DS01	Well Line	Oil	01-02	No	No
3	FS1	DS01	Well Line	Oil	01-03	No	No
4	FS1	DS01	Well Line	Oil	01-04	No	No
5	FS1	DS01	Well Line	Oil	01-05	No	No
6	FS1	DS01	Well Line	Oil	01-06	No	No
7	FS1	DS01	Well Line	Oil	01-07	No	No
8	FS1	DS01	Well Line	Oil	01-10	No	No
9	FS1	DS01	Well Line	Oil	01-12	No	No
10	FS1	DS01	Well Line	Oil	01-13	No	No
11	FS1	DS01	Well Line	Oil	01-14	No	No
12	FS1	DS01	Well Line	Oil	01-15	No	No
13	FS1	DS01	Well Line	Oil	01-16	No	No
14	FS1	DS01	Well Line	Oil	01-17	No	No
15	FS1	DS01	Well Line	Oil	01-18	No	No
16	FS1	DS01	Well Line	Oil	01-19	No	No
17	FS1	DS01	Well Line	Oil	01-20	No	No
18	FS1	DS01	Well Line	Oil	01-21	No	No
19	FS1	DS01	Well Line	Oil	01-22	No	No
20	FS1	DS01	Well Line	Oil	01-23	No	No
21	FS1	DS01	Well Line	Oil	01-24	No	No
22	FS1	DS01	Well Line	Oil	01-25	No	No
23	FS1	DS01	Well Line	Oil	01-26	No	No
24	FS1	DS01	Well Line	Oil	01-28	No	No
25	FS1	DS01	Well Line	Oil	01-29	No	No
26	FS1	DS01	Well Line	Oil	01-30	No	No
27	FS1	DS01	Well Line	Oil	01-31	No	No
28	FS1	DS01	Well Line	Oil	01-32	No	No
29	FS1	DS01	Well Line	Oil	01-33	No	No
30	FS1	DS01	Well Line	Oil	01-34	No	No
31	FS1	DS01	Flow Line	Oil	01B	No	No
32	FS1	DS01	Flow Line	Oil	01C	No	No
33	FS1	DS01	Flow Line	Oil	01D	No	No
34	FS1	DS02	Well Line	Oil	02-01	No	No
35	FS1	DS02	Well Line	Oil	02-02	No	No
36	FS1	DS02	Well Line	Oil	02-03	No	No
37	FS1	DS02	Well Line	Oil	02-04	No	No
38	FS1	DS02	Well Line	Oil	02-05	No	No

APPENDIX A: Prudhoe Bay Unit - Pipeline System

Item	Facility	Location	Type	Service	Equipment ID / Well	ILI Piggable	Maint. Piggable
39	FS1	DS02	Well Line	Oil	02-06	No	No
40	FS1	DS02	Well Line	Oil	02-07	No	No
41	FS1	DS02	Well Line	Oil	02-08	No	No
42	FS1	DS02	Well Line	Oil	02-09	No	No
43	FS1	DS02	Well Line	Oil	02-10	No	No
44	FS1	DS02	Well Line	Oil	02-11	No	No
45	FS1	DS02	Well Line	Oil	02-12	No	No
46	FS1	DS02	Well Line	Oil	02-13	No	No
47	FS1	DS02	Well Line	Oil	02-14	No	No
48	FS1	DS02	Well Line	Oil	02-15	No	No
49	FS1	DS02	Well Line	Oil	02-16	No	No
50	FS1	DS02	Well Line	Oil	02-17	No	No
51	FS1	DS02	Well Line	Oil	02-18	No	No
52	FS1	DS02	Well Line	Oil	02-19	No	No
53	FS1	DS02	Well Line	Oil	02-20	No	No
54	FS1	DS02	Well Line	Oil	02-21	No	No
55	FS1	DS02	Well Line	Oil	02-22	No	No
56	FS1	DS02	Well Line	Oil	02-23	No	No
57	FS1	DS02	Well Line	Oil	02-24	No	No
58	FS1	DS02	Well Line	Oil	02-25	No	No
59	FS1	DS02	Well Line	Oil	02-26	No	No
60	FS1	DS02	Well Line	Oil	02-27	No	No
61	FS1	DS02	Well Line	Oil	02-28	No	No
62	FS1	DS02	Well Line	Oil	02-29	No	No
63	FS1	DS02	Well Line	Oil	02-30	No	No
64	FS1	DS02	Well Line	Oil	02-31	No	No
65	FS1	DS02	Well Line	Oil	02-32	No	No
66	FS1	DS02	Well Line	Oil	02-33	No	No
67	FS1	DS02	Well Line	Oil	02-34	No	No
68	FS1	DS02	Well Line	Oil	02-35	No	No
69	FS1	DS02	Well Line	Oil	02-36	No	No
70	FS1	DS02	Well Line	Oil	02-37	No	No
71	FS1	DS02	Well Line	Oil	02-38	No	No
72	FS1	DS02	Well Line	Oil	02-39	No	No
73	FS1	DS02	Well Line	Oil	02-40	No	No
74	FS1	DS02	Flow Line	Oil	02B	No	No
75	FS1	DS02	Flow Line	Oil	02C	No	No
76	FS1	DS02	Flow Line	Oil	02D	No	No

APPENDIX A: Prudhoe Bay Unit - Pipeline System

Item	Facility	Location	Type	Service	Equipment ID / Well	ILI Piggable	Maint. Piggable
77	FS1	DS02	Flow Line	Oil	02D/05E	No	No
78	FS1	DS02	Flow Line	Oil	02E	No	No
79	FS2	DS03	Well Line	Oil	03-01	No	No
80	FS2	DS03	Well Line	Oil	03-02	No	No
81	FS2	DS03	Well Line	Oil	03-03	No	No
82	FS2	DS03	Well Line	Produced Water	03-04	No	No
83	FS2	DS03	Well Line	Produced Water	03-06	No	No
84	FS2	DS03	Well Line	Produced Water	03-07	No	No
85	FS2	DS03	Well Line	Oil	03-08	No	No
86	FS2	DS03	Well Line	Oil	03-09	No	No
87	FS2	DS03	Well Line	Produced Water	03-10	No	No
88	FS2	DS03	Well Line	Produced Water	03-11	No	No
89	FS2	DS03	Well Line	Produced Water	03-12	No	No
90	FS2	DS03	Well Line	Produced Water	03-13	No	No
91	FS2	DS03	Well Line	Oil	03-14	No	No
92	FS2	DS03	Well Line	Oil	03-15	No	No
93	FS2	DS03	Well Line	Produced Water	03-16	No	No
94	FS2	DS03	Well Line	Produced Water	03-17	No	No
95	FS2	DS03	Well Line	Produced Water	03-18	No	No
96	FS2	DS03	Well Line	Oil	03-19	No	No
97	FS2	DS03	Well Line	Oil	03-20	No	No
98	FS2	DS03	Well Line	Oil	03-21	No	No
99	FS2	DS03	Well Line	Oil	03-22	No	No
100	FS2	DS03	Well Line	Oil	03-23	No	No
101	FS2	DS03	Well Line	Oil	03-24	No	No
102	FS2	DS03	Well Line	Oil	03-25	No	No
103	FS2	DS03	Well Line	Oil	03-26	No	No
104	FS2	DS03	Well Line	Oil	03-27	No	No
105	FS2	DS03	Well Line	Oil	03-28	No	No
106	FS2	DS03	Well Line	Oil	03-29	No	No
107	FS2	DS03	Well Line	Oil	03-30	No	No
108	FS2	DS03	Well Line	Oil	03-31	No	No
109	FS2	DS03	Well Line	Oil	03-32	No	No
110	FS2	DS03	Well Line	Produced Water	03-33	No	No
111	FS2	DS03	Well Line	Oil	03-34	No	No
112	FS2	DS03	Well Line	Oil	03-35	No	No
113	FS2	DS03	Well Line	Produced Water	03-36	No	No
114	FS2	DS03	Well Line	Produced Water	03-37	No	No

APPENDIX A: Prudhoe Bay Unit - Pipeline System

Item	Facility	Location	Type	Service	Equipment ID / Well	ILI Piggable	Maint. Piggable
115	FS2	DS03	Flow Line	Oil	03C	No	No
116	FS2	DS03	Flow Line	Oil	03D	Yes	No
117	FS2	DS03	Flow Line	Produced Water	03-SWI	Yes	Yes
118	FS2	DS04	Well Line	Oil	04-01	No	No
119	FS2	DS04	Well Line	Oil	04-02	No	No
120	FS2	DS04	Well Line	Oil	04-03	No	No
121	FS2	DS04	Well Line	Oil	04-04	No	No
122	FS2	DS04	Well Line	Oil	04-05	No	No
123	FS2	DS04	Well Line	Produced Water	04-06	No	No
124	FS2	DS04	Well Line	Oil	04-07	No	No
125	FS2	DS04	Well Line	Produced Water	04-08	No	No
126	FS2	DS04	Well Line	Produced Water	04-09	No	No
127	FS2	DS04	Well Line	Produced Water	04-10	No	No
128	FS2	DS04	Well Line	Produced Water	04-14	No	No
129	FS2	DS04	Well Line	Produced Water	04-15	No	No
130	FS2	DS04	Well Line	Oil	04-16	No	No
131	FS2	DS04	Well Line	Produced Water	04-17	No	No
132	FS2	DS04	Well Line	Oil	04-18	No	No
133	FS2	DS04	Well Line	Produced Water	04-19	No	No
134	FS2	DS04	Well Line	Produced Water	04-20	No	No
135	FS2	DS04	Well Line	Oil	04-21	No	No
136	FS2	DS04	Well Line	Oil	04-22	No	No
137	FS2	DS04	Well Line	Oil	04-23	No	No
138	FS2	DS04	Well Line	Oil	04-24	No	No
139	FS2	DS04	Well Line	Produced Water	04-25	No	No
140	FS2	DS04	Well Line	Oil	04-26	No	No
141	FS2	DS04	Well Line	Produced Water	04-27	No	No
142	FS2	DS04	Well Line	Produced Water	04-28	No	No
143	FS2	DS04	Well Line	Oil	04-29	No	No
144	FS2	DS04	Well Line	Oil	04-30	No	No
145	FS2	DS04	Well Line	Oil	04-31	No	No
146	FS2	DS04	Well Line	Oil	04-32	No	No
147	FS2	DS04	Well Line	Oil	04-33	No	No
148	FS2	DS04	Well Line	Oil	04-34	No	No
149	FS2	DS04	Well Line	Oil	04-35	No	No
150	FS2	DS04	Well Line	Oil	04-36	No	No
151	FS2	DS04	Well Line	Oil	04-37	No	No
152	FS2	DS04	Well Line	Oil	04-38	No	No

APPENDIX A: Prudhoe Bay Unit - Pipeline System

Item	Facility	Location	Type	Service	Equipment ID / Well	ILI Piggable	Maint. Piggable
153	FS2	DS04	Well Line	Oil	04-40	No	No
154	FS2	DS04	Well Line	Oil	04-41	No	No
155	FS2	DS04	Well Line	Produced Water	04-42	No	No
156	FS2	DS04	Well Line	Produced Water	04-43	No	No
157	FS2	DS04	Well Line	Produced Water	04-44	No	No
158	FS2	DS04	Well Line	Produced Water	04-45	No	No
159	FS2	DS04	Well Line	Oil	04-46	No	No
160	FS2	DS04	Well Line	Oil	04-47	No	No
161	FS2	DS04	Well Line	Oil	04-48	No	No
162	FS2	DS04	Flow Line	Oil	04B	No	No
163	FS2	DS04	Flow Line	Oil	04C	Yes	No
164	FS2	DS04	Flow Line	Oil	04D	No	No
165	FS2	DS04	Flow Line	Produced Water	04-SWI	Yes	Yes
166	FS1	DS05	Well Line	Oil	05-01	No	No
167	FS1	DS05	Well Line	Oil	05-02	No	No
168	FS1	DS05	Well Line	Oil	05-03	No	No
169	FS1	DS05	Well Line	Oil	05-04	No	No
170	FS1	DS05	Well Line	Oil	05-05	No	No
171	FS1	DS05	Well Line	Oil	05-06	No	No
172	FS1	DS05	Well Line	Oil	05-07	No	No
173	FS1	DS05	Well Line	Oil	05-08	No	No
174	FS1	DS05	Well Line	Oil	05-09	No	No
175	FS1	DS05	Well Line	Oil	05-10	No	No
176	FS1	DS05	Well Line	Oil	05-11	No	No
177	FS1	DS05	Well Line	Oil	05-12	No	No
178	FS1	DS05	Well Line	Oil	05-13	No	No
179	FS1	DS05	Well Line	Oil	05-14	No	No
180	FS1	DS05	Well Line	Oil	05-15	No	No
181	FS1	DS05	Well Line	Oil	05-16	No	No
182	FS1	DS05	Well Line	Oil	05-17	No	No
183	FS1	DS05	Well Line	Oil	05-18	No	No
184	FS1	DS05	Well Line	Oil	05-19	No	No
185	FS1	DS05	Well Line	Oil	05-20	No	No
186	FS1	DS05	Well Line	Oil	05-21	No	No
187	FS1	DS05	Well Line	Oil	05-22	No	No
188	FS1	DS05	Well Line	Oil	05-23	No	No
189	FS1	DS05	Well Line	Oil	05-24	No	No
190	FS1	DS05	Well Line	Oil	05-25	No	No

APPENDIX A: Prudhoe Bay Unit - Pipeline System

Item	Facility	Location	Type	Service	Equipment ID / Well	ILI Piggable	Maint. Piggable
191	FS1	DS05	Well Line	Oil	05-26	No	No
192	FS1	DS05	Well Line	Oil	05-27	No	No
193	FS1	DS05	Well Line	Oil	05-28	No	No
194	FS1	DS05	Well Line	Oil	05-30	No	No
195	FS1	DS05	Well Line	Oil	05-31	No	No
196	FS1	DS05	Well Line	Oil	05-32	No	No
197	FS1	DS05	Well Line	Oil	05-33	No	No
198	FS1	DS05	Well Line	Oil	05-34	No	No
199	FS1	DS05	Well Line	Oil	05-35	No	No
200	FS1	DS05	Well Line	Oil	05-36	No	No
201	FS1	DS05	Well Line	Oil	05-38	No	No
202	FS1	DS05	Well Line	Oil	05-39	No	No
203	FS1	DS05	Well Line	Oil	05-40	No	No
204	FS1	DS05	Well Line	Oil	05-41	No	No
205	FS1	DS05	Flow Line	Oil	05B	No	No
206	FS1	DS05	Flow Line	Oil	05D	No	No
207	FS1	DS05	Flow Line	Oil	05E	No	No
208	FS3	DS06	Well Line	Oil	06-01	No	No
209	FS3	DS06	Well Line	Oil	06-02	No	No
210	FS3	DS06	Well Line	Oil	06-03	No	No
211	FS3	DS06	Well Line	Oil	06-04	No	No
212	FS3	DS06	Well Line	Oil	06-05	No	No
213	FS3	DS06	Well Line	Oil	06-06	No	No
214	FS3	DS06	Well Line	Oil	06-07	No	No
215	FS3	DS06	Well Line	Oil	06-08	No	No
216	FS3	DS06	Well Line	Oil	06-09	No	No
217	FS3	DS06	Well Line	Oil	06-10	No	No
218	FS3	DS06	Well Line	Oil	06-11	No	No
219	FS3	DS06	Well Line	Oil	06-12	No	No
220	FS3	DS06	Well Line	Oil	06-13	No	No
221	FS3	DS06	Well Line	Oil	06-14	No	No
222	FS3	DS06	Well Line	Oil	06-15	No	No
223	FS3	DS06	Well Line	Oil	06-16	No	No
224	FS3	DS06	Well Line	Oil	06-17	No	No
225	FS3	DS06	Well Line	Oil	06-18	No	No
226	FS3	DS06	Well Line	Oil	06-19	No	No
227	FS3	DS06	Well Line	Oil	06-20	No	No
228	FS3	DS06	Well Line	Oil	06-21	No	No

APPENDIX A: Prudhoe Bay Unit - Pipeline System

Item	Facility	Location	Type	Service	Equipment ID / Well	ILI Piggable	Maint. Piggable
229	FS3	DS06	Well Line	Oil	06-22	No	No
230	FS3	DS06	Well Line	Oil	06-23	No	No
231	FS3	DS06	Well Line	Oil	06-24	No	No
232	FS3	DS06	Flow Line	Oil	06B	No	No
233	FS3	DS06	Flow Line	Oil	06C	No	No
234	FS3	DS06	Flow Line	Oil	06C/13B	Yes	No
235	FS3	DS06	Flow Line	Oil	06D	No	No
236	FS3	DS06	Flow Line	Oil	06E	No	No
237	FS3	DS07	Well Line	Oil	07-01	No	No
238	FS3	DS07	Well Line	Oil	07-02	No	No
239	FS3	DS07	Well Line	Oil	07-03	No	No
240	FS3	DS07	Well Line	Oil	07-04	No	No
241	FS3	DS07	Well Line	Oil	07-05	No	No
242	FS3	DS07	Well Line	Oil	07-06	No	No
243	FS3	DS07	Well Line	Oil	07-07	No	No
244	FS3	DS07	Well Line	Oil	07-08	No	No
245	FS3	DS07	Well Line	Oil	07-09	No	No
246	FS3	DS07	Well Line	Oil	07-10	No	No
247	FS3	DS07	Well Line	Oil	07-11	No	No
248	FS3	DS07	Well Line	Oil	07-12	No	No
249	FS3	DS07	Well Line	Oil	07-13	No	No
250	FS3	DS07	Well Line	Oil	07-14	No	No
251	FS3	DS07	Well Line	Oil	07-15	No	No
252	FS3	DS07	Well Line	Oil	07-16	No	No
253	FS3	DS07	Well Line	Oil	07-17	No	No
254	FS3	DS07	Well Line	Oil	07-18	No	No
255	FS3	DS07	Well Line	Oil	07-19	No	No
256	FS3	DS07	Well Line	Oil	07-20	No	No
257	FS3	DS07	Well Line	Oil	07-21	No	No
258	FS3	DS07	Well Line	Oil	07-22	No	No
259	FS3	DS07	Well Line	Oil	07-23	No	No
260	FS3	DS07	Well Line	Oil	07-24	No	No
261	FS3	DS07	Well Line	Oil	07-25	No	No
262	FS3	DS07	Well Line	Oil	07-26	No	No
263	FS3	DS07	Well Line	Oil	07-28	No	No
264	FS3	DS07	Well Line	Oil	07-29	No	No
265	FS3	DS07	Well Line	Oil	07-30	No	No
266	FS3	DS07	Well Line	Oil	07-32	No	No

APPENDIX A: Prudhoe Bay Unit - Pipeline System

Item	Facility	Location	Type	Service	Equipment ID / Well	ILI Piggable	Maint. Piggable
267	FS3	DS07	Well Line	Oil	07-33	No	No
268	FS3	DS07	Well Line	Oil	07-34	No	No
269	FS3	DS07	Well Line	Oil	07-35	No	No
270	FS3	DS07	Well Line	Oil	07-36	No	No
271	FS3	DS07	Well Line	Oil	07-37	No	No
272	FS3	DS07	Flow Line	Oil	07B	No	No
273	FS3	DS07	Flow Line	Oil	07C	No	No
274	FS3	DS07	Flow Line	Oil	07C/15C	No	No
275	FS3	DS07	Flow Line	Oil	07D	No	No
276	FS2	DS09	Well Line	Oil	09-01	No	No
277	FS2	DS09	Well Line	Oil	09-02	No	No
278	FS2	DS09	Well Line	Oil	09-03	No	No
279	FS2	DS09	Well Line	Oil	09-04	No	No
280	FS2	DS09	Well Line	Oil	09-05	No	No
281	FS2	DS09	Well Line	Oil	09-06	No	No
282	FS2	DS09	Well Line	Oil	09-07	No	No
283	FS2	DS09	Well Line	Produced Water	09-08	No	No
284	FS2	DS09	Well Line	Oil	09-09	No	No
285	FS2	DS09	Well Line	Produced Water	09-10	No	No
286	FS2	DS09	Well Line	Oil	09-11	No	No
287	FS2	DS09	Well Line	Produced Water	09-12	No	No
288	FS2	DS09	Well Line	Oil	09-13	No	No
289	FS2	DS09	Well Line	Produced Water	09-14	No	No
290	FS2	DS09	Well Line	Produced Water	09-15	No	No
291	FS2	DS09	Well Line	Produced Water	09-16	No	No
292	FS2	DS09	Well Line	Produced Water	09-17	No	No
293	FS2	DS09	Well Line	Produced Water	09-18	No	No
294	FS2	DS09	Well Line	Produced Water	09-19	No	No
295	FS2	DS09	Well Line	Produced Water	09-20	No	No
296	FS2	DS09	Well Line	Oil	09-21	No	No
297	FS2	DS09	Well Line	Produced Water	09-22	No	No
298	FS2	DS09	Well Line	Oil	09-23	No	No
299	FS2	DS09	Well Line	Oil	09-24	No	No
300	FS2	DS09	Well Line	Produced Water	09-25	No	No
301	FS2	DS09	Well Line	Oil	09-26	No	No
302	FS2	DS09	Well Line	Oil	09-27	No	No
303	FS2	DS09	Well Line	Oil	09-28	No	No
304	FS2	DS09	Well Line	Oil	09-29	No	No

APPENDIX A: Prudhoe Bay Unit - Pipeline System

Item	Facility	Location	Type	Service	Equipment ID / Well	ILI Piggable	Maint. Piggable
305	FS2	DS09	Well Line	Oil	09-30	No	No
306	FS2	DS09	Well Line	Produced Water	09-31	No	No
307	FS2	DS09	Well Line	Produced Water	09-32	No	No
308	FS2	DS09	Well Line	Oil	09-33	No	No
309	FS2	DS09	Well Line	Oil	09-34	No	No
310	FS2	DS09	Well Line	Oil	09-35	No	No
311	FS2	DS09	Well Line	Produced Water	09-36	No	No
312	FS2	DS09	Well Line	Produced Water	09-37	No	No
313	FS2	DS09	Well Line	Produced Water	09-38	No	No
314	FS2	DS09	Well Line	Produced Water	09-39	No	No
315	FS2	DS09	Well Line	Produced Water	09-40	No	No
316	FS2	DS09	Well Line	Oil	09-41	No	No
317	FS2	DS09	Well Line	Oil	09-42	No	No
318	FS2	DS09	Well Line	Oil	09-43	No	No
319	FS2	DS09	Well Line	Oil	09-44	No	No
320	FS2	DS09	Well Line	Oil	09-45	No	No
321	FS2	DS09	Well Line	Oil	09-46	No	No
322	FS2	DS09	Well Line	Oil	09-47	No	No
323	FS2	DS09	Well Line	Oil	09-48	No	No
324	FS2	DS09	Well Line	Oil	09-49	No	No
325	FS2	DS09	Well Line	Oil	09-50	No	No
326	FS2	DS09	Well Line	Produced Water	09-51	No	No
327	FS2	DS09	Flow Line	Oil	09A	Yes	No
328	FS2	DS09	Flow Line	Oil	09B	Yes	No
329	FS2	DS09	Flow Line	Oil	09E	Yes	No
330	FS2	DS09	Flow Line	Produced Water	09-SWI	Yes	Yes
331	FS2	DS11	Well Line	Oil	11-01	No	No
332	FS2	DS11	Well Line	Oil	11-03	No	No
333	FS2	DS11	Well Line	Oil	11-04	No	No
334	FS2	DS11	Well Line	Oil	11-05	No	No
335	FS2	DS11	Well Line	Oil	11-06	No	No
336	FS2	DS11	Well Line	Oil	11-09	No	No
337	FS2	DS11	Well Line	Oil	11-11	No	No
338	FS2	DS11	Well Line	Oil	11-12	No	No
339	FS2	DS11	Well Line	Oil	11-13	No	No
340	FS2	DS11	Well Line	Oil	11-16	No	No
341	FS2	DS11	Well Line	Oil	11-17	No	No
342	FS2	DS11	Well Line	Oil	11-18	No	No

APPENDIX A: Prudhoe Bay Unit - Pipeline System

Item	Facility	Location	Type	Service	Equipment ID / Well	ILI Piggable	Maint. Piggable
343	FS2	DS11	Well Line	Oil	11-22	No	No
344	FS2	DS11	Well Line	Oil	11-23	No	No
345	FS2	DS11	Well Line	Oil	11-24	No	No
346	FS2	DS11	Well Line	Oil	11-25	No	No
347	FS2	DS11	Well Line	Oil	11-27	No	No
348	FS2	DS11	Well Line	Oil	11-28	No	No
349	FS2	DS11	Well Line	Oil	11-30	No	No
350	FS2	DS11	Well Line	Oil	11-31	No	No
351	FS2	DS11	Well Line	Oil	11-32	No	No
352	FS2	DS11	Well Line	Oil	11-33	No	No
353	FS2	DS11	Well Line	Oil	11-34	No	No
354	FS2	DS11	Well Line	Oil	11-36	No	No
355	FS2	DS11	Well Line	Oil	11-37	No	No
356	FS2	DS11	Well Line	Oil	11-38	No	No
357	FS2	DS11	Flow Line	Oil	11A	No	No
358	FS2	DS11	Flow Line	Oil	11D	Yes	No
359	FS1	DS12	Well Line	Oil	12-01	No	No
360	FS1	DS12	Well Line	Oil	12-03	No	No
361	FS1	DS12	Well Line	Oil	12-04	No	No
362	FS1	DS12	Well Line	Oil	12-05	No	No
363	FS1	DS12	Well Line	Oil	12-06	No	No
364	FS1	DS12	Well Line	Oil	12-07	No	No
365	FS1	DS12	Well Line	Oil	12-08	No	No
366	FS1	DS12	Well Line	Oil	12-09	No	No
367	FS1	DS12	Well Line	Oil	12-10	No	No
368	FS1	DS12	Well Line	Oil	12-11	No	No
369	FS1	DS12	Well Line	Oil	12-12	No	No
370	FS1	DS12	Well Line	Oil	12-13	No	No
371	FS1	DS12	Well Line	Oil	12-14	No	No
372	FS1	DS12	Well Line	Oil	12-15	No	No
373	FS1	DS12	Well Line	Oil	12-16	No	No
374	FS1	DS12	Well Line	Oil	12-17	No	No
375	FS1	DS12	Well Line	Oil	12-18	No	No
376	FS1	DS12	Well Line	Oil	12-22	No	No
377	FS1	DS12	Well Line	Oil	12-26	No	No
378	FS1	DS12	Well Line	Oil	12-28	No	No
379	FS1	DS12	Well Line	Oil	12-29	No	No
380	FS1	DS12	Well Line	Oil	12-32	No	No

APPENDIX A: Prudhoe Bay Unit - Pipeline System

Item	Facility	Location	Type	Service	Equipment ID / Well	ILI Piggable	Maint. Piggable
381	FS1	DS12	Well Line	Oil	12-35	No	No
382	FS1	DS12	Well Line	Oil	12-36	No	No
383	FS1	DS12	Well Line	Oil	12-37	No	No
384	FS1	DS12	Flow Line	Oil	12B	Yes	No
385	FS1	DS12	Flow Line	Oil	12C	Yes	No
386	FS3	DS13	Well Line	Oil	13-01	No	No
387	FS3	DS13	Well Line	Oil	13-02	No	No
388	FS3	DS13	Well Line	Oil	13-03	No	No
389	FS3	DS13	Well Line	Oil	13-04	No	No
390	FS3	DS13	Well Line	Oil	13-05	No	No
391	FS3	DS13	Well Line	Produced Water	13-06	No	No
392	FS3	DS13	Well Line	Oil	13-07	No	No
393	FS3	DS13	Well Line	Oil	13-08	No	No
394	FS3	DS13	Well Line	Produced Water	13-09	No	No
395	FS3	DS13	Well Line	Oil	13-10	No	No
396	FS3	DS13	Well Line	Oil	13-11	No	No
397	FS3	DS13	Well Line	Oil	13-12	No	No
398	FS3	DS13	Well Line	Oil	13-13	No	No
399	FS3	DS13	Well Line	Oil	13-14	No	No
400	FS3	DS13	Well Line	Produced Water	13-15	No	No
401	FS3	DS13	Well Line	Produced Water	13-16	No	No
402	FS3	DS13	Well Line	Produced Water	13-17	No	No
403	FS3	DS13	Well Line	Produced Water	13-18	No	No
404	FS3	DS13	Well Line	Produced Water	13-19	No	No
405	FS3	DS13	Well Line	Produced Water	13-20	No	No
406	FS3	DS13	Well Line	Produced Water	13-21	No	No
407	FS3	DS13	Well Line	Produced Water	13-22	No	No
408	FS3	DS13	Well Line	Produced Water	13-23	No	No
409	FS3	DS13	Well Line	Produced Water	13-24	No	No
410	FS3	DS13	Well Line	Produced Water	13-25	No	No
411	FS3	DS13	Well Line	Oil	13-26	No	No
412	FS3	DS13	Well Line	Oil	13-27	No	No
413	FS3	DS13	Well Line	Oil	13-28	No	No
414	FS3	DS13	Well Line	Oil	13-29	No	No
415	FS3	DS13	Well Line	Oil	13-30	No	No
416	FS3	DS13	Well Line	Produced Water	13-31	No	No
417	FS3	DS13	Well Line	Produced Water	13-32	No	No
418	FS3	DS13	Well Line	Oil	13-33	No	No

APPENDIX A: Prudhoe Bay Unit - Pipeline System

Item	Facility	Location	Type	Service	Equipment ID / Well	ILI Piggable	Maint. Piggable
419	FS3	DS13	Well Line	Oil	13-34	No	No
420	FS3	DS13	Well Line	Produced Water	13-35	No	No
421	FS3	DS13	Well Line	Produced Water	13-36	No	No
422	FS3	DS13	Well Line	Oil	13-37	No	No
423	FS3	DS13	Flow Line	Oil	13B	Yes	No
424	FS3	DS13	Flow Line	Oil	13D	No	No
425	FS3	DS13	Flow Line	Produced Water	13-PWI	No	Yes
426	FS3	DS14	Well Line	Produced Water	14-01	No	No
427	FS3	DS14	Well Line	Oil	14-02	No	No
428	FS3	DS14	Well Line	Oil	14-03	No	No
429	FS3	DS14	Well Line	Oil	14-04	No	No
430	FS3	DS14	Well Line	Oil	14-05	No	No
431	FS3	DS14	Well Line	Oil	14-06	No	No
432	FS3	DS14	Well Line	Oil	14-07	No	No
433	FS3	DS14	Well Line	Oil	14-08	No	No
434	FS3	DS14	Well Line	Oil	14-09	No	No
435	FS3	DS14	Well Line	Oil	14-10	No	No
436	FS3	DS14	Well Line	Oil	14-11	No	No
437	FS3	DS14	Well Line	Oil	14-12	No	No
438	FS3	DS14	Well Line	Produced Water	14-13	No	No
439	FS3	DS14	Well Line	Produced Water	14-14	No	No
440	FS3	DS14	Well Line	Oil	14-15	No	No
441	FS3	DS14	Well Line	Oil	14-16	No	No
442	FS3	DS14	Well Line	Produced Water	14-17	No	No
443	FS3	DS14	Well Line	Oil	14-18	No	No
444	FS3	DS14	Well Line	Oil	14-19	No	No
445	FS3	DS14	Well Line	Oil	14-20	No	No
446	FS3	DS14	Well Line	Produced Water	14-21	No	No
447	FS3	DS14	Well Line	Oil	14-22	No	No
448	FS3	DS14	Well Line	Oil	14-23	No	No
449	FS3	DS14	Well Line	Oil	14-24	No	No
450	FS3	DS14	Well Line	Produced Water	14-25	No	No
451	FS3	DS14	Well Line	Oil	14-26	No	No
452	FS3	DS14	Well Line	Produced Water	14-27	No	No
453	FS3	DS14	Well Line	Oil	14-28	No	No
454	FS3	DS14	Well Line	Oil	14-29	No	No
455	FS3	DS14	Well Line	Oil	14-30	No	No
456	FS3	DS14	Well Line	Oil	14-31	No	No

APPENDIX A: Prudhoe Bay Unit - Pipeline System

Item	Facility	Location	Type	Service	Equipment ID / Well	ILI Piggable	Maint. Piggable
457	FS3	DS14	Well Line	Oil	14-32	No	No
458	FS3	DS14	Well Line	Oil	14-33	No	No
459	FS3	DS14	Well Line	Oil	14-34	No	No
460	FS3	DS14	Well Line	Produced Water	14-35	No	No
461	FS3	DS14	Well Line	Produced Water	14-36	No	No
462	FS3	DS14	Well Line	Oil	14-37	No	No
463	FS3	DS14	Well Line	Oil	14-38	No	No
464	FS3	DS14	Well Line	Oil	14-39	No	No
465	FS3	DS14	Well Line	Oil	14-40	No	No
466	FS3	DS14	Well Line	Oil	14-41	No	No
467	FS3	DS14	Well Line	Oil	14-43	No	No
468	FS3	DS14	Well Line	Oil	14-44	No	No
469	FS3	DS14	Flow Line	Oil	14B/14C	Yes	No
470	FS3	DS14	Flow Line	Oil	14D	Yes	No
471	FS3	DS14	Flow Line	Produced Water	14-PWI/SWI	Yes	Yes
472	FS3	DS15	Well Line	Oil	15-01	No	No
473	FS3	DS15	Well Line	Oil	15-02	No	No
474	FS3	DS15	Well Line	Oil	15-03	No	No
475	FS3	DS15	Well Line	Oil	15-04	No	No
476	FS3	DS15	Well Line	Oil	15-05	No	No
477	FS3	DS15	Well Line	Oil	15-06	No	No
478	FS3	DS15	Well Line	Oil	15-07	No	No
479	FS3	DS15	Well Line	Oil	15-08	No	No
480	FS3	DS15	Well Line	Oil	15-09	No	No
481	FS3	DS15	Well Line	Oil	15-10	No	No
482	FS3	DS15	Well Line	Oil	15-11	No	No
483	FS3	DS15	Well Line	Oil	15-12	No	No
484	FS3	DS15	Well Line	Oil	15-13	No	No
485	FS3	DS15	Well Line	Oil	15-14	No	No
486	FS3	DS15	Well Line	Oil	15-15	No	No
487	FS3	DS15	Well Line	Oil	15-16	No	No
488	FS3	DS15	Well Line	Oil	15-17	No	No
489	FS3	DS15	Well Line	Oil	15-18	No	No
490	FS3	DS15	Well Line	Oil	15-19	No	No
491	FS3	DS15	Well Line	Oil	15-20	No	No
492	FS3	DS15	Well Line	Oil	15-21	No	No
493	FS3	DS15	Well Line	Oil	15-22	No	No
494	FS3	DS15	Well Line	Oil	15-23	No	No

APPENDIX A: Prudhoe Bay Unit - Pipeline System

Item	Facility	Location	Type	Service	Equipment ID / Well	ILI Piggable	Maint. Piggable
495	FS3	DS15	Well Line	Oil	15-24	No	No
496	FS3	DS15	Well Line	Oil	15-25	No	No
497	FS3	DS15	Well Line	Oil	15-26	No	No
498	FS3	DS15	Well Line	Oil	15-27	No	No
499	FS3	DS15	Well Line	Oil	15-28	No	No
500	FS3	DS15	Well Line	Oil	15-29	No	No
501	FS3	DS15	Well Line	Oil	15-30	No	No
502	FS3	DS15	Well Line	Oil	15-31	No	No
503	FS3	DS15	Well Line	Oil	15-32	No	No
504	FS3	DS15	Well Line	Oil	15-33	No	No
505	FS3	DS15	Well Line	Oil	15-34	No	No
506	FS3	DS15	Well Line	Oil	15-35	No	No
507	FS3	DS15	Well Line	Oil	15-36	No	No
508	FS3	DS15	Well Line	Oil	15-37	No	No
509	FS3	DS15	Well Line	Oil	15-38	No	No
510	FS3	DS15	Well Line	Oil	15-39	No	No
511	FS3	DS15	Well Line	Oil	15-40	No	No
512	FS3	DS15	Well Line	Oil	15-41	No	No
513	FS3	DS15	Well Line	Oil	15-42	No	No
514	FS3	DS15	Well Line	Oil	15-43	No	No
515	FS3	DS15	Well Line	Oil	15-44	No	No
516	FS3	DS15	Well Line	Oil	15-45	No	No
517	FS3	DS15	Well Line	Oil	15-46	No	No
518	FS3	DS15	Well Line	Oil	15-47	No	No
519	FS3	DS15	Well Line	Oil	15-48	No	No
520	FS3	DS15	Well Line	Oil	15-49	No	No
521	FS3	DS15	Flow Line	Oil	15B	No	No
522	FS3	DS15	Flow Line	Oil	15C	Yes	No
523	FS3	DS15	Flow Line	Oil	15D	No	No
524	FS2	DS16	Well Line	Produced Water	16-01	No	No
525	FS2	DS16	Well Line	Produced Water	16-02	No	No
526	FS2	DS16	Well Line	Produced Water	16-03	No	No
527	FS2	DS16	Well Line	Oil	16-04	No	No
528	FS2	DS16	Well Line	Produced Water	16-05	No	No
529	FS2	DS16	Well Line	Oil	16-06	No	No
530	FS2	DS16	Well Line	Oil	16-07	No	No
531	FS2	DS16	Well Line	Oil	16-08	No	No
532	FS2	DS16	Well Line	Oil	16-09	No	No

APPENDIX A: Prudhoe Bay Unit - Pipeline System

Item	Facility	Location	Type	Service	Equipment ID / Well	ILI Piggable	Maint. Piggable
533	FS2	DS16	Well Line	Produced Water	16-10	No	No
534	FS2	DS16	Well Line	Produced Water	16-11	No	No
535	FS2	DS16	Well Line	Oil	16-12	No	No
536	FS2	DS16	Well Line	Oil	16-13	No	No
537	FS2	DS16	Well Line	Produced Water	16-14	No	No
538	FS2	DS16	Well Line	Oil	16-15	No	No
539	FS2	DS16	Well Line	Produced Water	16-16	No	No
540	FS2	DS16	Well Line	Oil	16-17	No	No
541	FS2	DS16	Well Line	Oil	16-18	No	No
542	FS2	DS16	Well Line	Oil	16-19	No	No
543	FS2	DS16	Well Line	Oil	16-20	No	No
544	FS2	DS16	Well Line	Oil	16-21	No	No
545	FS2	DS16	Well Line	Oil	16-22	No	No
546	FS2	DS16	Well Line	Oil	16-23	No	No
547	FS2	DS16	Well Line	Oil	16-24	No	No
548	FS2	DS16	Well Line	Oil	16-25	No	No
549	FS2	DS16	Well Line	Oil	16-26	No	No
550	FS2	DS16	Well Line	Oil	16-27	No	No
551	FS2	DS16	Well Line	Oil	16-28	No	No
552	FS2	DS16	Well Line	Oil	16-29	No	No
553	FS2	DS16	Well Line	Oil	16-30	No	No
554	FS2	DS16	Well Line	Oil	16-31	No	No
555	FS2	DS16	Flow Line	Oil	16D	Yes	No
556	FS2	DS16	Flow Line	Produced Water	16-SWI	Yes	Yes
557	FS2	DS17	Well Line	Oil	17-01	No	No
558	FS2	DS17	Well Line	Oil	17-02	No	No
559	FS2	DS17	Well Line	Oil	17-03	No	No
560	FS2	DS17	Well Line	Oil	17-04	No	No
561	FS2	DS17	Well Line	Oil	17-05	No	No
562	FS2	DS17	Well Line	Produced Water	17-06	No	No
563	FS2	DS17	Well Line	Oil	17-07	No	No
564	FS2	DS17	Well Line	Produced Water	17-08	No	No
565	FS2	DS17	Well Line	Oil	17-09	No	No
566	FS2	DS17	Well Line	Produced Water	17-10	No	No
567	FS2	DS17	Well Line	Oil	17-11	No	No
568	FS2	DS17	Well Line	Oil	17-12	No	No
569	FS2	DS17	Well Line	Oil	17-14	No	No
570	FS2	DS17	Well Line	Produced Water	17-15	No	No

APPENDIX A: Prudhoe Bay Unit - Pipeline System

Item	Facility	Location	Type	Service	Equipment ID / Well	ILI Piggable	Maint. Piggable
571	FS2	DS17	Well Line	Oil	17-16	No	No
572	FS2	DS17	Well Line	Oil	17-19	No	No
573	FS2	DS17	Well Line	Oil	17-20	No	No
574	FS2	DS17	Well Line	Oil	17-21	No	No
575	FS2	DS17	Well Line	Oil	17-22	No	No
576	FS2	DS17	Flow Line	Oil	17D	Yes	No
577	FS2	DS17	Flow Line	Produced Water	17-SWI	Yes	Yes
578	FS1	DS18	Well Line	Oil	18-01	No	No
579	FS1	DS18	Well Line	Oil	18-02	No	No
580	FS1	DS18	Well Line	Oil	18-03	No	No
581	FS1	DS18	Well Line	Oil	18-04	No	No
582	FS1	DS18	Well Line	Oil	18-05	No	No
583	FS1	DS18	Well Line	Oil	18-06	No	No
584	FS1	DS18	Well Line	Oil	18-07	No	No
585	FS1	DS18	Well Line	Oil	18-08	No	No
586	FS1	DS18	Well Line	Oil	18-09	No	No
587	FS1	DS18	Well Line	Oil	18-10	No	No
588	FS1	DS18	Well Line	Oil	18-11	No	No
589	FS1	DS18	Well Line	Oil	18-12	No	No
590	FS1	DS18	Well Line	Oil	18-13	No	No
591	FS1	DS18	Well Line	Oil	18-14	No	No
592	FS1	DS18	Well Line	Oil	18-15	No	No
593	FS1	DS18	Well Line	Oil	18-16	No	No
594	FS1	DS18	Well Line	Oil	18-17	No	No
595	FS1	DS18	Well Line	Oil	18-18	No	No
596	FS1	DS18	Well Line	Oil	18-19	No	No
597	FS1	DS18	Well Line	Oil	18-20	No	No
598	FS1	DS18	Well Line	Oil	18-21	No	No
599	FS1	DS18	Well Line	Oil	18-22	No	No
600	FS1	DS18	Well Line	Oil	18-23	No	No
601	FS1	DS18	Well Line	Oil	18-24	No	No
602	FS1	DS18	Well Line	Oil	18-25	No	No
603	FS1	DS18	Well Line	Oil	18-26	No	No
604	FS1	DS18	Well Line	Oil	18-27	No	No
605	FS1	DS18	Well Line	Oil	18-28	No	No
606	FS1	DS18	Well Line	Oil	18-29	No	No
607	FS1	DS18	Well Line	Oil	18-30	No	No
608	FS1	DS18	Well Line	Oil	18-31	No	No

APPENDIX A: Prudhoe Bay Unit - Pipeline System

Item	Facility	Location	Type	Service	Equipment ID / Well	ILI Piggable	Maint. Piggable
609	FS1	DS18	Well Line	Oil	18-32	No	No
610	FS1	DS18	Well Line	Oil	18-33	No	No
611	FS1	DS18	Well Line	Oil	18-34	No	No
612	FS1	DS18	Flow Line	Oil	18B	No	No
613	FS1	DS18	Flow Line	Oil	18D	No	No
614	GC3	A Pad	Well Line	Oil	A-01	No	No
615	GC3	A Pad	Well Line	Oil	A-02	No	No
616	GC3	A Pad	Well Line	Produced Water	A-03	No	No
617	GC3	A Pad	Well Line	Oil	A-04	No	No
618	GC3	A Pad	Well Line	Produced Water	A-05	No	No
619	GC3	A Pad	Well Line	Oil	A-06	No	No
620	GC3	A Pad	Well Line	Oil	A-07	No	No
621	GC3	A Pad	Well Line	Produced Water	A-08	No	No
622	GC3	A Pad	Well Line	Oil	A-09	No	No
623	GC3	A Pad	Well Line	Oil	A-10	No	No
624	GC3	A Pad	Well Line	Produced Water	A-11	No	No
625	GC3	A Pad	Well Line	Oil	A-12	No	No
626	GC3	A Pad	Well Line	Oil	A-13	No	No
627	GC3	A Pad	Well Line	Oil	A-14	No	No
628	GC3	A Pad	Well Line	Oil	A-15	No	No
629	GC3	A Pad	Well Line	Produced Water	A-16	No	No
630	GC3	A Pad	Well Line	Produced Water	A-17	No	No
631	GC3	A Pad	Well Line	Oil	A-18	No	No
632	GC3	A Pad	Well Line	Oil	A-19	No	No
633	GC3	A Pad	Well Line	Oil	A-20	No	No
634	GC3	A Pad	Well Line	Produced Water	A-21	No	No
635	GC3	A Pad	Well Line	Oil	A-22	No	No
636	GC3	A Pad	Well Line	Oil	A-23	No	No
637	GC3	A Pad	Well Line	Oil	A-24	No	No
638	GC3	A Pad	Well Line	Oil	A-25	No	No
639	GC3	A Pad	Well Line	Oil	A-26	No	No
640	GC3	A Pad	Well Line	Produced Water	A-27	No	No
641	GC3	A Pad	Well Line	Oil	A-28	No	No
642	GC3	A Pad	Well Line	Oil	A-29	No	No
643	GC3	A Pad	Well Line	Oil	A-30	No	No
644	GC3	A Pad	Well Line	Produced Water	A-31	No	No
645	GC3	A Pad	Well Line	Oil	A-32	No	No
646	GC3	A Pad	Well Line	Oil	A-33	No	No

APPENDIX A: Prudhoe Bay Unit - Pipeline System

Item	Facility	Location	Type	Service	Equipment ID / Well	ILI Piggable	Maint. Piggable
647	GC3	A Pad	Well Line	Oil	A-34	No	No
648	GC3	A Pad	Well Line	Produced Water	A-35	No	No
649	GC3	A Pad	Well Line	Oil	A-37	No	No
650	GC3	A Pad	Well Line	Oil	A-38	No	No
651	GC3	A Pad	Well Line	Oil	A-39	No	No
652	GC3	A Pad	Well Line	Oil	A-40	No	No
653	GC3	A Pad	Well Line	Oil	A-41	No	No
654	GC3	A Pad	Well Line	Oil	A-42	No	No
655	GC3	A Pad	Well Line	Oil	A-43	No	No
656	GC3	A Pad	Well Line	Produced Water	A-44	No	No
657	GC3	A Pad	Flow Line	Produced Water	A-41	Yes	Yes
658	GC3	A Pad	Flow Line	Produced Water	A-42	Yes	Yes
659	GC3	A Pad	Flow Line	Produced Water	A-43	Yes	Yes
660	GC3	A Pad	Flow Line	Produced Water	A-44	Yes	Yes
661	GC3	A Pad	Flow Line	Oil	A-45	No	No
662	GC3	A Pad	Flow Line	Oil	A-49	No	No
663	GC3	A Pad	Flow Line	Oil	A-74	Yes	Yes
664	GC3	B Pad	Well Line	Oil	B-01	No	No
665	GC3	B Pad	Well Line	Oil	B-02	No	No
666	GC3	B Pad	Well Line	Oil	B-03	No	No
667	GC3	B Pad	Well Line	Oil	B-04	No	No
668	GC3	B Pad	Well Line	Oil	B-05	No	No
669	GC3	B Pad	Well Line	Oil	B-06	No	No
670	GC3	B Pad	Well Line	Oil	B-07	No	No
671	GC3	B Pad	Well Line	Oil	B-08	No	No
672	GC3	B Pad	Well Line	Produced Water	B-09	No	No
673	GC3	B Pad	Well Line	Oil	B-10	No	No
674	GC3	B Pad	Well Line	Oil	B-11	No	No
675	GC3	B Pad	Well Line	Oil	B-12	No	No
676	GC3	B Pad	Well Line	Produced Water	B-13	No	No
677	GC3	B Pad	Well Line	Oil	B-14	No	No
678	GC3	B Pad	Well Line	Produced Water	B-15	No	No
679	GC3	B Pad	Well Line	Oil	B-16	No	No
680	GC3	B Pad	Well Line	Produced Water	B-17	No	No
681	GC3	B Pad	Well Line	Oil	B-18	No	No
682	GC3	B Pad	Well Line	Oil	B-19	No	No
683	GC3	B Pad	Well Line	Oil	B-20	No	No
684	GC3	B Pad	Well Line	Oil	B-21	No	No

APPENDIX A: Prudhoe Bay Unit - Pipeline System

Item	Facility	Location	Type	Service	Equipment ID / Well	ILI Piggable	Maint. Piggable
685	GC3	B Pad	Well Line	Produced Water	B-22	No	No
686	GC3	B Pad	Well Line	Oil	B-23	No	No
687	GC3	B Pad	Well Line	Oil	B-24	No	No
688	GC3	B Pad	Well Line	Oil	B-25	No	No
689	GC3	B Pad	Well Line	Oil	B-26	No	No
690	GC3	B Pad	Well Line	Oil	B-27	No	No
691	GC3	B Pad	Well Line	Produced Water	B-28	No	No
692	GC3	B Pad	Well Line	Oil	B-29	No	No
693	GC3	B Pad	Well Line	Oil	B-30	No	No
694	GC3	B Pad	Well Line	Produced Water	B-31	No	No
695	GC3	B Pad	Well Line	Produced Water	B-32	No	No
696	GC3	B Pad	Well Line	Oil	B-33	No	No
697	GC3	B Pad	Well Line	Produced Water	B-34	No	No
698	GC3	B Pad	Well Line	Oil	B-35	No	No
699	GC3	B Pad	Well Line	Oil	B-36	No	No
700	GC3	B Pad	Well Line	Oil	B-37	No	No
701	GC3	B Pad	Flow Line	Oil	B-36	Yes	Yes
702	GC3	B Pad	Flow Line	Oil	B-81	No	No
703	GC3	B Pad	Flow Line	Oil	B-82	No	No
704	GC3	B Pad	Flow Line	Oil	B-83	No	No
705	GC3	B Pad	Flow Line	Oil	B-84	No	No
706	GC3	B Pad	Flow Line	Oil	B-86	No	No
707	GC3	B Pad	Flow Line	Oil	B-87	No	No
708	GC3	B Pad	Flow Line	Produced Water	B-91	Yes	Yes
709	GC3	B Pad	Flow Line	Oil	B-95	No	No
710	GC3	B Pad	Flow Line	Oil	B-96	No	No
711	GC3	B Pad	Flow Line	Produced Water	B-97	Yes	Yes
712	GC3	C Pad	Well Line	Oil	C-01	No	No
713	GC3	C Pad	Well Line	Oil	C-02	No	No
714	GC3	C Pad	Well Line	Oil	C-03	No	No
715	GC3	C Pad	Well Line	Oil	C-04	No	No
716	GC3	C Pad	Well Line	Oil	C-05	No	No
717	GC3	C Pad	Well Line	Oil	C-06	No	No
718	GC3	C Pad	Well Line	Oil	C-07	No	No
719	GC3	C Pad	Well Line	Oil	C-08	No	No
720	GC3	C Pad	Well Line	Oil	C-09	No	No
721	GC3	C Pad	Well Line	Oil	C-10	No	No
722	GC3	C Pad	Well Line	Oil	C-11	No	No

APPENDIX A: Prudhoe Bay Unit - Pipeline System

Item	Facility	Location	Type	Service	Equipment ID / Well	ILI Piggable	Maint. Piggable
723	GC3	C Pad	Well Line	Oil	C-12	No	No
724	GC3	C Pad	Well Line	Oil	C-13	No	No
725	GC3	C Pad	Well Line	Oil	C-15	No	No
726	GC3	C Pad	Well Line	Oil	C-16	No	No
727	GC3	C Pad	Well Line	Oil	C-17	No	No
728	GC3	C Pad	Well Line	Oil	C-18	No	No
729	GC3	C Pad	Well Line	Oil	C-19	No	No
730	GC3	C Pad	Well Line	Oil	C-20	No	No
731	GC3	C Pad	Well Line	Oil	C-21	No	No
732	GC3	C Pad	Well Line	Oil	C-22	No	No
733	GC3	C Pad	Well Line	Oil	C-23	No	No
734	GC3	C Pad	Well Line	Oil	C-24	No	No
735	GC3	C Pad	Well Line	Oil	C-25	No	No
736	GC3	C Pad	Well Line	Oil	C-26	No	No
737	GC3	C Pad	Well Line	Oil	C-27	No	No
738	GC3	C Pad	Well Line	Oil	C-28	No	No
739	GC3	C Pad	Well Line	Oil	C-29	No	No
740	GC3	C Pad	Well Line	Oil	C-30	No	No
741	GC3	C Pad	Well Line	Oil	C-31	No	No
742	GC3	C Pad	Well Line	Oil	C-32	No	No
743	GC3	C Pad	Well Line	Oil	C-33	No	No
744	GC3	C Pad	Well Line	Oil	C-34	No	No
745	GC3	C Pad	Well Line	Oil	C-35	No	No
746	GC3	C Pad	Well Line	Oil	C-36	No	No
747	GC3	C Pad	Well Line	Oil	C-37	No	No
748	GC3	C Pad	Well Line	Oil	C-38	No	No
749	GC3	C Pad	Well Line	Oil	C-39	No	No
750	GC3	C Pad	Well Line	Oil	C-41	No	No
751	GC3	C Pad	Well Line	Oil	C-42	No	No
752	GC3	C Pad	Flow Line	Oil	C-36	No	No
753	GC3	C Pad	Flow Line	Oil	C-81	No	No
754	GC3	C Pad	Flow Line	Oil	C-82	No	No
755	GC3	C Pad	Flow Line	Oil	C-83	No	No
756	GC3	C Pad	Flow Line	Oil	C-84	No	No
757	GC3	C Pad	Flow Line	Oil	C-85	No	No
758	GC3	C Pad	Flow Line	Oil	C-86	No	No
759	GC3	C Pad	Flow Line	Oil	C-87	No	No
760	GC3	C Pad	Flow Line	Oil	C-88	No	No

APPENDIX A: Prudhoe Bay Unit - Pipeline System

Item	Facility	Location	Type	Service	Equipment ID / Well	ILI Piggable	Maint. Piggable
761	GC3	C Pad	Flow Line	Oil	C-89	No	No
762	GC3	C Pad	Flow Line	Oil	C-90	No	No
763	GC3	C Pad	Flow Line	Oil	C-91	No	No
764	GC3	C Pad	Flow Line	Oil	C-92	No	No
765	GC3	C Pad	Flow Line	Oil	C-94	No	No
766	GC3	C Pad	Flow Line	Oil	C-95	No	No
767	GC3	C Pad	Flow Line	Oil	C-96	No	No
768	GC3	C Pad	Flow Line	Oil	C-97	No	No
769	GC1	D Pad	Well Line	Oil	D-01	No	No
770	GC1	D Pad	Well Line	Oil	D-03	No	No
771	GC1	D Pad	Well Line	Oil	D-04	No	No
772	GC1	D Pad	Well Line	Oil	D-05	No	No
773	GC1	D Pad	Well Line	Oil	D-06	No	No
774	GC1	D Pad	Well Line	Oil	D-07	No	No
775	GC1	D Pad	Well Line	Oil	D-08	No	No
776	GC1	D Pad	Well Line	Oil	D-09	No	No
777	GC1	D Pad	Well Line	Oil	D-10	No	No
778	GC1	D Pad	Well Line	Oil	D-11	No	No
779	GC1	D Pad	Well Line	Oil	D-12	No	No
780	GC1	D Pad	Well Line	Oil	D-13	No	No
781	GC1	D Pad	Well Line	Oil	D-14	No	No
782	GC1	D Pad	Well Line	Oil	D-15	No	No
783	GC1	D Pad	Well Line	Oil	D-16	No	No
784	GC1	D Pad	Well Line	Oil	D-17	No	No
785	GC1	D Pad	Well Line	Oil	D-18	No	No
786	GC1	D Pad	Well Line	Oil	D-19	No	No
787	GC1	D Pad	Well Line	Oil	D-20	No	No
788	GC1	D Pad	Well Line	Oil	D-21	No	No
789	GC1	D Pad	Well Line	Oil	D-22	No	No
790	GC1	D Pad	Well Line	Oil	D-23	No	No
791	GC1	D Pad	Well Line	Oil	D-24	No	No
792	GC1	D Pad	Well Line	Oil	D-25	No	No
793	GC1	D Pad	Well Line	Oil	D-26	No	No
794	GC1	D Pad	Well Line	Oil	D-27	No	No
795	GC1	D Pad	Well Line	Oil	D-28	No	No
796	GC1	D Pad	Well Line	Oil	D-29	No	No
797	GC1	D Pad	Well Line	Oil	D-30	No	No
798	GC1	D Pad	Well Line	Oil	D-31	No	No

APPENDIX A: Prudhoe Bay Unit - Pipeline System

Item	Facility	Location	Type	Service	Equipment ID / Well	ILI Piggable	Maint. Piggable
799	GC1	D Pad	Well Line	Oil	D-33	No	No
800	GC1	D Pad	Flow Line	Oil	D-36	Yes	Yes
801	GC1	D Pad	Flow Line	Oil	D-81	No	No
802	GC1	D Pad	Flow Line	Oil	D-82	No	No
803	GC1	D Pad	Flow Line	Oil	D-86	No	No
804	GC1	D Pad	Flow Line	Oil	D-87	No	No
805	GC1	D Pad	Flow Line	Oil	D-93	No	No
806	GC1	D Pad	Flow Line	Oil	D-94	No	No
807	GC1	D Pad	Flow Line	Oil	D-95	No	No
808	GC1	D Pad	Flow Line	Oil	D-97	No	No
809	GC1	E Pad	Well Line	Oil	E-01	No	No
810	GC1	E Pad	Well Line	Oil	E-02	No	No
811	GC1	E Pad	Well Line	Oil	E-03	No	No
812	GC1	E Pad	Well Line	Oil	E-04	No	No
813	GC1	E Pad	Well Line	Oil	E-05	No	No
814	GC1	E Pad	Well Line	Oil	E-06	No	No
815	GC1	E Pad	Well Line	Oil	E-07	No	No
816	GC1	E Pad	Well Line	Oil	E-08	No	No
817	GC1	E Pad	Well Line	Oil	E-09	No	No
818	GC1	E Pad	Well Line	Oil	E-10	No	No
819	GC1	E Pad	Well Line	Oil	E-11	No	No
820	GC1	E Pad	Well Line	Oil	E-12	No	No
821	GC1	E Pad	Well Line	Oil	E-13	No	No
822	GC1	E Pad	Well Line	Oil	E-14	No	No
823	GC1	E Pad	Well Line	Oil	E-15	No	No
824	GC1	E Pad	Well Line	Oil	E-16	No	No
825	GC1	E Pad	Well Line	Oil	E-17	No	No
826	GC1	E Pad	Well Line	Oil	E-19	No	No
827	GC1	E Pad	Well Line	Oil	E-20	No	No
828	GC1	E Pad	Well Line	Oil	E-21	No	No
829	GC1	E Pad	Well Line	Oil	E-23	No	No
830	GC1	E Pad	Well Line	Oil	E-24	No	No
831	GC1	E Pad	Well Line	Oil	E-25	No	No
832	GC1	E Pad	Well Line	Oil	E-26	No	No
833	GC1	E Pad	Well Line	Oil	E-27	No	No
834	GC1	E Pad	Well Line	Oil	E-28	No	No
835	GC1	E Pad	Well Line	Oil	E-29	No	No
836	GC1	E Pad	Well Line	Oil	E-31	No	No

APPENDIX A: Prudhoe Bay Unit - Pipeline System

Item	Facility	Location	Type	Service	Equipment ID / Well	ILI Piggable	Maint. Piggable
837	GC1	E Pad	Well Line	Oil	E-32	No	No
838	GC1	E Pad	Well Line	Oil	E-33	No	No
839	GC1	E Pad	Well Line	Oil	E-34	No	No
840	GC1	E Pad	Well Line	Oil	E-35	No	No
841	GC1	E Pad	Well Line	Oil	E-36	No	No
842	GC1	E Pad	Well Line	Oil	E-37	No	No
843	GC1	E Pad	Well Line	Oil	E-38	No	No
844	GC1	E Pad	Well Line	Oil	E-39	No	No
845	GC1	E Pad	Well Line	Produced Water	E-100	No	No
846	GC1	E Pad	Well Line	Oil	E-101	No	No
847	GC1	E Pad	Well Line	Oil	E-102	No	No
848	GC1	E Pad	Well Line	Produced Water	E-103	No	No
849	GC1	E Pad	Well Line	Produced Water	E-104	No	No
850	GC1	E Pad	Flow Line	Oil	E-36	Yes	Yes
851	GC1	E Pad	Flow Line	Oil	E-41	No	No
852	GC1	E Pad	Flow Line	Oil	E-42	No	No
853	GC1	E Pad	Flow Line	Produced Water	E-43	Yes	Yes
854	GC1	E Pad	Flow Line	Oil	E-44	No	No
855	GC1	E Pad	Flow Line	Oil	E-45	No	No
856	GC1	E Pad	Flow Line	Oil	E-46	No	No
857	GC1	E Pad	Flow Line	Oil	E-47	No	No
858	GC1	F Pad	Well Line	Oil	F-01	No	No
859	GC1	F Pad	Well Line	Oil	F-02	No	No
860	GC1	F Pad	Well Line	Oil	F-03	No	No
861	GC1	F Pad	Well Line	Oil	F-04	No	No
862	GC1	F Pad	Well Line	Oil	F-05	No	No
863	GC1	F Pad	Well Line	Oil	F-06	No	No
864	GC1	F Pad	Well Line	Oil	F-07	No	No
865	GC1	F Pad	Well Line	Oil	F-08	No	No
866	GC1	F Pad	Well Line	Oil	F-09	No	No
867	GC1	F Pad	Well Line	Oil	F-10	No	No
868	GC1	F Pad	Well Line	Oil	F-11	No	No
869	GC1	F Pad	Well Line	Oil	F-12	No	No
870	GC1	F Pad	Well Line	Oil	F-13	No	No
871	GC1	F Pad	Well Line	Oil	F-14	No	No
872	GC1	F Pad	Well Line	Oil	F-15	No	No
873	GC1	F Pad	Well Line	Oil	F-16	No	No
874	GC1	F Pad	Well Line	Oil	F-17	No	No

APPENDIX A: Prudhoe Bay Unit - Pipeline System

Item	Facility	Location	Type	Service	Equipment ID / Well	ILI Piggable	Maint. Piggable
875	GC1	F Pad	Well Line	Oil	F-18	No	No
876	GC1	F Pad	Well Line	Oil	F-19	No	No
877	GC1	F Pad	Well Line	Oil	F-21	No	No
878	GC1	F Pad	Well Line	Oil	F-22	No	No
879	GC1	F Pad	Well Line	Oil	F-23	No	No
880	GC1	F Pad	Well Line	Oil	F-24	No	No
881	GC1	F Pad	Well Line	Oil	F-26	No	No
882	GC1	F Pad	Well Line	Oil	F-27	No	No
883	GC1	F Pad	Well Line	Oil	F-28	No	No
884	GC1	F Pad	Well Line	Oil	F-29	No	No
885	GC1	F Pad	Well Line	Oil	F-30	No	No
886	GC1	F Pad	Well Line	Oil	F-31	No	No
887	GC1	F Pad	Well Line	Oil	F-32	No	No
888	GC1	F Pad	Well Line	Oil	F-33	No	No
889	GC1	F Pad	Well Line	Oil	F-34	No	No
890	GC1	F Pad	Well Line	Oil	F-35	No	No
891	GC1	F Pad	Well Line	Oil	F-36	No	No
892	GC1	F Pad	Well Line	Oil	F-37	No	No
893	GC1	F Pad	Well Line	Oil	F-38	No	No
894	GC1	F Pad	Well Line	Oil	F-39	No	No
895	GC1	F Pad	Well Line	Oil	F-40	No	No
896	GC1	F Pad	Well Line	Oil	F-41	No	No
897	GC1	F Pad	Well Line	Oil	F-42	No	No
898	GC1	F Pad	Well Line	Oil	F-43	No	No
899	GC1	F Pad	Well Line	Oil	F-44	No	No
900	GC1	F Pad	Well Line	Oil	F-45	No	No
901	GC1	F Pad	Well Line	Oil	F-46	No	No
902	GC1	F Pad	Well Line	Oil	F-47	No	No
903	GC1	F Pad	Well Line	Oil	F-48	No	No
904	GC1	F Pad	Flow Line	Oil	F-42	No	No
905	GC1	F Pad	Flow Line	Oil	F-43	No	No
906	GC1	F Pad	Flow Line	Oil	F-44	No	No
907	GC1	F Pad	Flow Line	Oil	F-45	No	No
908	GC1	F Pad	Flow Line	Oil	F-46	No	No
909	GC1	F Pad	Flow Line	Oil	F-47	No	No
910	GC1	F Pad	Flow Line	Oil	F-48	No	No
911	GC1	F Pad	Flow Line	Oil	F-49	Yes	No
912	GC1	F Pad	Flow Line	Oil	F-74	Yes	Yes

APPENDIX A: Prudhoe Bay Unit - Pipeline System

Item	Facility	Location	Type	Service	Equipment ID / Well	ILI Piggable	Maint. Piggable
913	GC1	G Pad	Well Line	Oil	G-01	No	No
914	GC1	G Pad	Well Line	Oil	G-02	No	No
915	GC1	G Pad	Well Line	Oil	G-03	No	No
916	GC1	G Pad	Well Line	Oil	G-04	No	No
917	GC1	G Pad	Well Line	Oil	G-05	No	No
918	GC1	G Pad	Well Line	Oil	G-06	No	No
919	GC1	G Pad	Well Line	Oil	G-07	No	No
920	GC1	G Pad	Well Line	Oil	G-08	No	No
921	GC1	G Pad	Well Line	Oil	G-09	No	No
922	GC1	G Pad	Well Line	Oil	G-10	No	No
923	GC1	G Pad	Well Line	Oil	G-11	No	No
924	GC1	G Pad	Well Line	Oil	G-12	No	No
925	GC1	G Pad	Well Line	Oil	G-13	No	No
926	GC1	G Pad	Well Line	Oil	G-14	No	No
927	GC1	G Pad	Well Line	Oil	G-15	No	No
928	GC1	G Pad	Well Line	Oil	G-16	No	No
929	GC1	G Pad	Well Line	Oil	G-17	No	No
930	GC1	G Pad	Well Line	Oil	G-18	No	No
931	GC1	G Pad	Well Line	Oil	G-19	No	No
932	GC1	G Pad	Well Line	Oil	G-21	No	No
933	GC1	G Pad	Well Line	Oil	G-23	No	No
934	GC1	G Pad	Well Line	Oil	G-24	No	No
935	GC1	G Pad	Well Line	Oil	G-25	No	No
936	GC1	G Pad	Well Line	Oil	G-26	No	No
937	GC1	G Pad	Well Line	Oil	G-27	No	No
938	GC1	G Pad	Well Line	Oil	G-29	No	No
939	GC1	G Pad	Well Line	Oil	G-30	No	No
940	GC1	G Pad	Well Line	Oil	G-31	No	No
941	GC1	G Pad	Well Line	Oil	G-32	No	No
942	GC1	G Pad	Flow Line	Oil	G-42	No	No
943	GC1	G Pad	Flow Line	Oil	G-43	No	No
944	GC1	G Pad	Flow Line	Oil	G-44	No	No
945	GC1	G Pad	Flow Line	Oil	G-45	No	No
946	GC1	G Pad	Flow Line	Oil	G-47	No	No
947	GC1	G Pad	Flow Line	Oil	G-74	No	No
948	GC1	E Pad	Flow Line	Oil	GHX-E	No	No
949	GC1	G Pad	Flow Line	Oil	GHX-G	No	No
950	GC2	J Pad	Flow Line	Oil	GHX-J	No	No

APPENDIX A: Prudhoe Bay Unit - Pipeline System

Item	Facility	Location	Type	Service	Equipment ID / Well	ILI Piggable	Maint. Piggable
951	GC2	H Pad	Well Line	Oil	H-01	No	No
952	GC2	H Pad	Well Line	Oil	H-02	No	No
953	GC2	H Pad	Well Line	Produced Water	H-03	No	No
954	GC2	H Pad	Well Line	Oil	H-04	No	No
955	GC2	H Pad	Well Line	Oil	H-05	No	No
956	GC2	H Pad	Well Line	Oil	H-06	No	No
957	GC2	H Pad	Well Line	Oil	H-07	No	No
958	GC2	H Pad	Well Line	Oil	H-08	No	No
959	GC2	H Pad	Well Line	Produced Water	H-09	No	No
960	GC2	H Pad	Well Line	Oil	H-10	No	No
961	GC2	H Pad	Well Line	Oil	H-11	No	No
962	GC2	H Pad	Well Line	Oil	H-12	No	No
963	GC2	H Pad	Well Line	Oil	H-13	No	No
964	GC2	H Pad	Well Line	Oil	H-14	No	No
965	GC2	H Pad	Well Line	Oil	H-15	No	No
966	GC2	H Pad	Well Line	Oil	H-16	No	No
967	GC2	H Pad	Well Line	Oil	H-17	No	No
968	GC2	H Pad	Well Line	Oil	H-18	No	No
969	GC2	H Pad	Well Line	Oil	H-19	No	No
970	GC2	H Pad	Well Line	Oil	H-20	No	No
971	GC2	H Pad	Well Line	Oil	H-21	No	No
972	GC2	H Pad	Well Line	Oil	H-22	No	No
973	GC2	H Pad	Well Line	Oil	H-23	No	No
974	GC2	H Pad	Well Line	Oil	H-24	No	No
975	GC2	H Pad	Well Line	Oil	H-25	No	No
976	GC2	H Pad	Well Line	Oil	H-26	No	No
977	GC2	H Pad	Well Line	Oil	H-27	No	No
978	GC2	H Pad	Well Line	Oil	H-28	No	No
979	GC2	H Pad	Well Line	Oil	H-29	No	No
980	GC2	H Pad	Well Line	Oil	H-30	No	No
981	GC2	H Pad	Well Line	Produced Water	H-31	No	No
982	GC2	H Pad	Well Line	Oil	H-32	No	No
983	GC2	H Pad	Well Line	Oil	H-33	No	No
984	GC2	H Pad	Well Line	Oil	H-34	No	No
985	GC2	H Pad	Well Line	Oil	H-35	No	No
986	GC2	H Pad	Well Line	Oil	H-36	No	No
987	GC2	H Pad	Well Line	Oil	H-37	No	No
988	GC2	H Pad	Well Line	Oil	H-38	No	No

APPENDIX A: Prudhoe Bay Unit - Pipeline System

Item	Facility	Location	Type	Service	Equipment ID / Well	ILI Piggable	Maint. Piggable
989	GC2	H Pad	Flow Line	Oil	H-42	No	No
990	GC2	H Pad	Flow Line	Oil	H-43	No	No
991	GC2	H Pad	Flow Line	Oil	H-44	No	No
992	GC2	H Pad	Flow Line	Oil	H-45	No	No
993	GC2	H Pad	Flow Line	Oil	H-46	No	No
994	GC2	H Pad	Flow Line	Oil	H-47	No	No
995	GC2	H Pad	Flow Line	Produced Water	H-69	No	No
996	GC2	H Pad	Flow Line	Oil	H-74	Yes	Yes
997	GC2	J Pad	Well Line	Oil	J-01	No	No
998	GC2	J Pad	Well Line	Oil	J-02	No	No
999	GC2	J Pad	Well Line	Oil	J-03	No	No
1000	GC2	J Pad	Well Line	Oil	J-04	No	No
1001	GC2	J Pad	Well Line	Oil	J-05	No	No
1002	GC2	J Pad	Well Line	Oil	J-06	No	No
1003	GC2	J Pad	Well Line	Oil	J-07	No	No
1004	GC2	J Pad	Well Line	Oil	J-08	No	No
1005	GC2	J Pad	Well Line	Oil	J-09	No	No
1006	GC2	J Pad	Well Line	Oil	J-10	No	No
1007	GC2	J Pad	Well Line	Oil	J-11	No	No
1008	GC2	J Pad	Well Line	Oil	J-12	No	No
1009	GC2	J Pad	Well Line	Oil	J-13	No	No
1010	GC2	J Pad	Well Line	Oil	J-14	No	No
1011	GC2	J Pad	Well Line	Oil	J-15	No	No
1012	GC2	J Pad	Well Line	Oil	J-16	No	No
1013	GC2	J Pad	Well Line	Oil	J-17	No	No
1014	GC2	J Pad	Well Line	Oil	J-18	No	No
1015	GC2	J Pad	Well Line	Oil	J-19	No	No
1016	GC2	J Pad	Well Line	Oil	J-20	No	No
1017	GC2	J Pad	Well Line	Oil	J-21	No	No
1018	GC2	J Pad	Well Line	Oil	J-22	No	No
1019	GC2	J Pad	Well Line	Oil	J-23	No	No
1020	GC2	J Pad	Well Line	Oil	J-24	No	No
1021	GC2	J Pad	Well Line	Oil	J-25	No	No
1022	GC2	J Pad	Well Line	Oil	J-26	No	No
1023	GC2	J Pad	Well Line	Oil	J-27	No	No
1024	GC2	J Pad	Well Line	Oil	J-28	No	No
1025	GC2	J Pad	Well Line	Oil	JX-02	No	No
1026	GC2	J Pad	Flow Line	Oil	J-41	No	No

APPENDIX A: Prudhoe Bay Unit - Pipeline System

Item	Facility	Location	Type	Service	Equipment ID / Well	ILI Piggable	Maint. Piggable
1027	GC2	J Pad	Flow Line	Oil	J-42	No	No
1028	GC2	J Pad	Flow Line	Oil	J-44	No	No
1029	GC2	J Pad	Flow Line	Oil	J-45	No	No
1030	GC2	J Pad	Flow Line	Oil	J-46	No	No
1031	GC2	J Pad	Flow Line	Oil	J-47	No	No
1032	GC2	J Pad	Flow Line	Oil	J-48	No	No
1033	GC2	J Pad	Flow Line	Oil	J-74	Yes	Yes
1034	GC1	K Pad	Well Line	Oil	K-01	No	No
1035	GC1	K Pad	Well Line	Oil	K-02	No	No
1036	GC1	K Pad	Well Line	Oil	K-03	No	No
1037	GC1	K Pad	Well Line	Oil	K-04	No	No
1038	GC1	K Pad	Well Line	Oil	K-05	No	No
1039	GC1	K Pad	Well Line	Oil	K-06	No	No
1040	GC1	K Pad	Well Line	Oil	K-07	No	No
1041	GC1	K Pad	Well Line	Oil	K-08	No	No
1042	GC1	K Pad	Well Line	Oil	K-09	No	No
1043	GC1	K Pad	Well Line	Oil	K-11	No	No
1044	GC1	K Pad	Well Line	Oil	K-12	No	No
1045	GC1	K Pad	Well Line	Oil	K-13	No	No
1046	GC1	K Pad	Well Line	Oil	K-14	No	No
1047	GC1	K Pad	Well Line	Oil	K-16	No	No
1048	GC1	K Pad	Well Line	Oil	K-19	No	No
1049	GC1	K Pad	Well Line	Oil	K-20	No	No
1050	GC1	K Pad	Well Line	Oil	K-317	No	No
1051	GC1	K Pad	Flow Line	Oil	K-36	No	No
1052	GC1	K Pad	Flow Line	Oil	K-74	Yes	No
1053	GC2	L Pad	Well Line	Oil	L-01	No	No
1054	GC2	L Pad	Well Line	Oil	L-02	No	No
1055	GC2	L Pad	Well Line	Oil	L-03	No	No
1056	GC2	L Pad	Well Line	Produced Water	L-04	No	No
1057	GC2	L Pad	Well Line	Oil	L-50	No	No
1058	GC2	L Pad	Well Line	Oil	L-51	No	No
1059	GC2	L Pad	Well Line	Oil	L-100	No	No
1060	GC2	L Pad	Well Line	Oil	L-101	No	No
1061	GC2	L Pad	Well Line	Oil	L-102	No	No
1062	GC2	L Pad	Well Line	Produced Water	L-103	No	No
1063	GC2	L Pad	Well Line	Oil	L-104	No	No
1064	GC2	L Pad	Well Line	Produced Water	L-105	No	No

APPENDIX A: Prudhoe Bay Unit - Pipeline System

Item	Facility	Location	Type	Service	Equipment ID / Well	ILI Piggable	Maint. Piggable
1065	GC2	L Pad	Well Line	Oil	L-106	No	No
1066	GC2	L Pad	Well Line	Oil	L-107	No	No
1067	GC2	L Pad	Well Line	Produced Water	L-108	No	No
1068	GC2	L Pad	Well Line	Produced Water	L-109	No	No
1069	GC2	L Pad	Well Line	Oil	L-110	No	No
1070	GC2	L Pad	Well Line	Produced Water	L-111	No	No
1071	GC2	L Pad	Well Line	Oil	L-112	No	No
1072	GC2	L Pad	Well Line	Oil	L-114	No	No
1073	GC2	L Pad	Well Line	Produced Water	L-115	No	No
1074	GC2	L Pad	Well Line	Oil	L-116	No	No
1075	GC2	L Pad	Well Line	Produced Water	L-117	No	No
1076	GC2	L Pad	Well Line	Oil	L-118	No	No
1077	GC2	L Pad	Well Line	Produced Water	L-119	No	No
1078	GC2	L Pad	Well Line	Oil	L-120	No	No
1079	GC2	L Pad	Well Line	Oil	L-121	No	No
1080	GC2	L Pad	Well Line	Oil	L-122	No	No
1081	GC2	L Pad	Well Line	Produced Water	L-123	No	No
1082	GC2	L Pad	Well Line	Oil	L-124	No	No
1083	GC2	L Pad	Well Line	Oil	L-200	No	No
1084	GC2	L Pad	Well Line	Oil	L-201	No	No
1085	GC2	L Pad	Well Line	Oil	L-202	No	No
1086	GC2	L Pad	Well Line	Oil	L-204	No	No
1087	GC2	L Pad	Well Line	Oil	L-205	No	No
1088	GC2	L Pad	Well Line	Produced Water	L-210	No	No
1089	GC2	L Pad	Well Line	Produced Water	L-211	No	No
1090	GC2	L Pad	Well Line	Produced Water	L-212	No	No
1091	GC2	L Pad	Well Line	Produced Water	L-213	No	No
1092	GC2	L Pad	Well Line	Produced Water	L-214	No	No
1093	GC2	L Pad	Well Line	Produced Water	L-215	No	No
1094	GC2	L Pad	Well Line	Produced Water	L-216	No	No
1095	GC2	L Pad	Well Line	Produced Water	L-217	No	No
1096	GC2	L Pad	Well Line	Produced Water	L-218	No	No
1097	GC2	L Pad	Well Line	Produced Water	L-219	No	No
1098	GC2	L Pad	Well Line	Produced Water	L-220	No	No
1099	GC2	L Pad	Well Line	Produced Water	L-221	No	No
1100	GC2	L Pad	Well Line	Produced Water	L-222	No	No
1101	GC2	L Pad	Well Line	Oil	L-250	No	No
1102	GC2	L Pad	Flow Line	Produced Water	EWE-69	Yes	Yes

APPENDIX A: Prudhoe Bay Unit - Pipeline System

Item	Facility	Location	Type	Service	Equipment ID / Well	ILI Piggable	Maint. Piggable
1103	GC2	L Pad	Flow Line	Oil	L-74	No	Yes
1104	SIP/F1S1	Lisburne	Flow Line	Produced Water	LPC-SWI	Yes	No
1105	GC2	LV Jct	Flow Line	Oil	LV-LDF	Yes	Yes
1106	GC2	M Pad	Well Line	Produced Water	M-03	No	No
1107	GC2	M Pad	Well Line	Oil	M-04	No	No
1108	GC2	M Pad	Well Line	Oil	M-05	No	No
1109	GC2	M Pad	Well Line	Oil	M-06	No	No
1110	GC2	M Pad	Well Line	Oil	M-07	No	No
1111	GC2	M Pad	Well Line	Oil	M-08	No	No
1112	GC2	M Pad	Well Line	Oil	M-09	No	No
1113	GC2	M Pad	Well Line	Oil	M-10	No	No
1114	GC2	M Pad	Well Line	Oil	M-11	No	No
1115	GC2	M Pad	Well Line	Oil	M-12	No	No
1116	GC2	M Pad	Well Line	Produced Water	M-14	No	No
1117	GC2	M Pad	Well Line	Oil	M-15	No	No
1118	GC2	M Pad	Well Line	Oil	M-16	No	No
1119	GC2	M Pad	Well Line	Oil	M-17	No	No
1120	GC2	M Pad	Well Line	Produced Water	M-18	No	No
1121	GC2	M Pad	Well Line	Oil	M-19	No	No
1122	GC2	M Pad	Well Line	Produced Water	M-20	No	No
1123	GC2	M Pad	Well Line	Oil	M-21	No	No
1124	GC2	M Pad	Well Line	Oil	M-22	No	No
1125	GC2	M Pad	Well Line	Oil	M-23	No	No
1126	GC2	M Pad	Well Line	Oil	M-24	No	No
1127	GC2	M Pad	Well Line	Oil	M-25	No	No
1128	GC2	M Pad	Well Line	Oil	M-26	No	No
1129	GC2	M Pad	Well Line	Oil	M-27	No	No
1130	GC2	M Pad	Well Line	Produced Water	M-28	No	No
1131	GC2	M Pad	Well Line	Produced Water	M-29	No	No
1132	GC2	M Pad	Well Line	Produced Water	M-30	No	No
1133	GC2	M Pad	Well Line	Oil	M-31	No	No
1134	GC2	M Pad	Well Line	Oil	M-32	No	No
1135	GC2	M Pad	Well Line	Oil	M-33	No	No
1136	GC2	M Pad	Well Line	Oil	M-34	No	No
1137	GC2	M Pad	Well Line	Produced Water	M-38	No	No
1138	GC2	M Pad	Flow Line	Produced Water	M-69	Yes	Yes
1139	GC2	M Pad	Flow Line	Oil	M-74	Yes	Yes
1140	GC2	N Pad	Well Line	Oil	N-01	No	No

APPENDIX A: Prudhoe Bay Unit - Pipeline System

Item	Facility	Location	Type	Service	Equipment ID / Well	ILI Piggable	Maint. Piggable
1141	GC2	N Pad	Well Line	Oil	N-02	No	No
1142	GC2	N Pad	Well Line	Oil	N-03	No	No
1143	GC2	N Pad	Well Line	Oil	N-04	No	No
1144	GC2	N Pad	Well Line	Oil	N-06	No	No
1145	GC2	N Pad	Well Line	Oil	N-07	No	No
1146	GC2	N Pad	Well Line	Produced Water	N-08	No	No
1147	GC2	N Pad	Well Line	Oil	N-09	No	No
1148	GC2	N Pad	Well Line	Oil	N-10	No	No
1149	GC2	N Pad	Well Line	Oil	N-11	No	No
1150	GC2	N Pad	Well Line	Oil	N-12	No	No
1151	GC2	N Pad	Well Line	Oil	N-13	No	No
1152	GC2	N Pad	Well Line	Oil	N-14	No	No
1153	GC2	N Pad	Well Line	Oil	N-15	No	No
1154	GC2	N Pad	Well Line	Oil	N-16	No	No
1155	GC2	N Pad	Well Line	Oil	N-17	No	No
1156	GC2	N Pad	Well Line	Oil	N-18	No	No
1157	GC2	N Pad	Well Line	Oil	N-19	No	No
1158	GC2	N Pad	Well Line	Oil	N-20	No	No
1159	GC2	N Pad	Well Line	Oil	N-21	No	No
1160	GC2	N Pad	Well Line	Oil	N-22	No	No
1161	GC2	N Pad	Well Line	Produced Water	N-23	No	No
1162	GC2	N Pad	Well Line	Oil	N-24	No	No
1163	GC2	N Pad	Well Line	Oil	N-25	No	No
1164	GC2	N Pad	Well Line	Oil	N-26	No	No
1165	GC2	N Pad	Well Line	Oil	N-27	No	No
1166	GC2	N Pad	Flow Line	Oil	N-42	No	No
1167	GC2	N Pad	Flow Line	Oil	N-44	No	No
1168	GC2	N Pad	Flow Line	Produced Water	N-69	No	No
1169	GC2	N Pad	Flow Line	Oil	N-74	Yes	Yes
1170	GC1	P Pad	Well Line	Oil	P-01	No	No
1171	GC1	P Pad	Well Line	Produced Water	P-02	No	No
1172	GC1	P Pad	Well Line	Produced Water	P-03	No	No
1173	GC1	P Pad	Well Line	Oil	P-04	No	No
1174	GC1	P Pad	Well Line	Oil	P-05	No	No
1175	GC1	P Pad	Well Line	Produced Water	P-06	No	No
1176	GC1	P Pad	Well Line	Oil	P-07	No	No
1177	GC1	P Pad	Well Line	Oil	P-08	No	No
1178	GC1	P Pad	Well Line	Oil	P-09	No	No

APPENDIX A: Prudhoe Bay Unit - Pipeline System

Item	Facility	Location	Type	Service	Equipment ID / Well	ILI Piggable	Maint. Piggable
1179	GC1	P Pad	Well Line	Produced Water	P-10	No	No
1180	GC1	P Pad	Well Line	Oil	P-11	No	No
1181	GC1	P Pad	Well Line	Oil	P-12	No	No
1182	GC1	P Pad	Well Line	Produced Water	P-13	No	No
1183	GC1	P Pad	Well Line	Produced Water	P-14	No	No
1184	GC1	P Pad	Well Line	Oil	P-15	No	No
1185	GC1	P Pad	Well Line	Oil	P-16	No	No
1186	GC1	P Pad	Well Line	Oil	P-17	No	No
1187	GC1	P Pad	Well Line	Oil	P-18	No	No
1188	GC1	P Pad	Well Line	Oil	P-19	No	No
1189	GC1	P Pad	Well Line	Oil	P-20	No	No
1190	GC1	P Pad	Well Line	Oil	P-21	No	No
1191	GC1	P Pad	Well Line	Oil	P-22	No	No
1192	GC1	P Pad	Well Line	Produced Water	P-23	No	No
1193	GC1	P Pad	Well Line	Produced Water	P-24	No	No
1194	GC1	P Pad	Well Line	Oil	P-25	No	No
1195	GC1	P Pad	Well Line	Oil	P-26	No	No
1196	GC1	P Pad	Well Line	Oil	P-27	No	No
1197	GC1	P Pad	Well Line	Oil	P-28	No	No
1198	GC1	P Pad	Flow Line	Oil	P-36	Yes	Yes
1199	GC2	P Pad	Flow Line	Produced Water	P-69	Yes	Yes
1200	GC1	PM2	Well Line	Oil	P2-01	No	No
1201	GC1	PM2	Well Line	Oil	P2-03	No	No
1202	GC1	PM2	Well Line	Oil	P2-04	No	No
1203	GC1	PM2	Well Line	Oil	P2-07	No	No
1204	GC1	PM2	Well Line	Oil	P2-08	No	No
1205	GC1	PM2	Well Line	Oil	P2-11	No	No
1206	GC1	PM2	Well Line	Oil	P2-12	No	No
1207	GC1	PM2	Well Line	Oil	P2-13	No	No
1208	GC1	PM2	Well Line	Oil	P2-14	No	No
1209	GC1	PM2	Well Line	Oil	P2-17	No	No
1210	GC1	PM2	Well Line	Oil	P2-18	No	No
1211	GC1	PM2	Well Line	Oil	P2-19	No	No
1212	GC1	PM2	Well Line	Oil	P2-21	No	No
1213	GC1	PM2	Well Line	Oil	P2-22	No	No
1214	GC1	PM2	Well Line	Oil	P2-24	No	No
1215	GC1	PM2	Well Line	Oil	P2-25	No	No
1216	GC1	PM2	Well Line	Oil	P2-27	No	No

APPENDIX A: Prudhoe Bay Unit - Pipeline System

Item	Facility	Location	Type	Service	Equipment ID / Well	ILI Piggable	Maint. Piggable
1217	GC1	PM2	Well Line	Oil	P2-30	No	No
1218	GC1	PM2	Well Line	Oil	P2-31	No	No
1219	GC1	PM2	Well Line	Oil	P2-32	No	No
1220	GC1	PM2	Well Line	Oil	P2-33	No	No
1221	GC1	PM2	Well Line	Oil	P2-35	No	No
1222	GC1	PM2	Well Line	Oil	P2-36	No	No
1223	GC1	PM2	Well Line	Oil	P2-40	No	No
1224	GC1	PM2	Well Line	Oil	P2-41	No	No
1225	GC1	PM2	Well Line	Oil	P2-45	No	No
1226	GC1	PM2	Well Line	Oil	P2-48	No	No
1227	GC1	PM2	Well Line	Oil	P2-50	No	No
1228	GC1	PM2	Well Line	Oil	P2-51	No	No
1229	GC1	PM2	Well Line	Oil	P2-52	No	No
1230	GC1	PM2	Well Line	Oil	P2-54	No	No
1231	GC1	PM2	Well Line	Oil	P2-56	No	No
1232	GC1	PM2	Well Line	Oil	P2-58	No	No
1233	GC1	PM2	Well Line	Oil	P2-59	No	No
1234	GC1	PM2/GC1	Flow Line	Oil	STP-36	Yes	Yes
1235	GC2	Q Pad	Flow Line	Oil	Q-01	No	No
1236	GC2	Q Pad	Flow Line	Oil	Q-02	No	No
1237	GC2	Q Pad	Flow Line	Oil	Q-03	No	No
1238	GC2	Q Pad	Flow Line	Oil	Q-04	No	No
1239	GC2	Q Pad	Flow Line	Oil	Q-05	No	No
1240	GC2	Q Pad	Flow Line	Oil	Q-06	No	No
1241	GC2	Q Pad	Flow Line	Oil	Q-07	No	No
1242	GC2	R Pad	Well Line	Oil	R-01	No	No
1243	GC2	R Pad	Well Line	Produced Water	R-02	No	No
1244	GC2	R Pad	Well Line	Produced Water	R-03	No	No
1245	GC2	R Pad	Well Line	Oil	R-04	No	No
1246	GC2	R Pad	Well Line	Produced Water	R-05	No	No
1247	GC2	R Pad	Well Line	Produced Water	R-06	No	No
1248	GC2	R Pad	Well Line	Produced Water	R-07	No	No
1249	GC2	R Pad	Well Line	Oil	R-08	No	No
1250	GC2	R Pad	Well Line	Oil	R-09	No	No
1251	GC2	R Pad	Well Line	Oil	R-10	No	No
1252	GC2	R Pad	Well Line	Produced Water	R-11	No	No
1253	GC2	R Pad	Well Line	Oil	R-12	No	No
1254	GC2	R Pad	Well Line	Produced Water	R-13	No	No

APPENDIX A: Prudhoe Bay Unit - Pipeline System

Item	Facility	Location	Type	Service	Equipment ID / Well	ILI Piggable	Maint. Piggable
1255	GC2	R Pad	Well Line	Oil	R-14	No	No
1256	GC2	R Pad	Well Line	Produced Water	R-15	No	No
1257	GC2	R Pad	Well Line	Oil	R-16	No	No
1258	GC2	R Pad	Well Line	Oil	R-17	No	No
1259	GC2	R Pad	Well Line	Oil	R-18	No	No
1260	GC2	R Pad	Well Line	Oil	R-19	No	No
1261	GC2	R Pad	Well Line	Produced Water	R-20	No	No
1262	GC2	R Pad	Well Line	Oil	R-21	No	No
1263	GC2	R Pad	Well Line	Produced Water	R-22	No	No
1264	GC2	R Pad	Well Line	Oil	R-23	No	No
1265	GC2	R Pad	Well Line	Oil	R-24	No	No
1266	GC2	R Pad	Well Line	Produced Water	R-25	No	No
1267	GC2	R Pad	Well Line	Oil	R-26	No	No
1268	GC2	R Pad	Well Line	Oil	R-27	No	No
1269	GC2	R Pad	Well Line	Oil	R-28	No	No
1270	GC2	R Pad	Well Line	Oil	R-29	No	No
1271	GC2	R Pad	Well Line	Oil	R-30	No	No
1272	GC2	R Pad	Well Line	Oil	R-31	No	No
1273	GC2	R Pad	Well Line	Produced Water	R-32	No	No
1274	GC2	R Pad	Well Line	Produced Water	R-34	No	No
1275	GC2	R Pad	Well Line	Oil	R-35	No	No
1276	GC2	R Pad	Well Line	Oil	R-36	No	No
1277	GC2	R Pad	Well Line	Oil	R-39	No	No
1278	GC2	R Pad	Well Line	Oil	R-40	No	No
1279	GC2	R Pad	Well Line	Oil	R-41	No	No
1280	GC2	R Pad	Flow Line	Produced Water	R-46	Yes	Yes
1281	GC2	R Pad	Flow Line	Oil	R-36	Yes	Yes
1282	GC2	S Pad	Well Line	Oil	S-01	No	No
1283	GC2	S Pad	Well Line	Oil	S-02	No	No
1284	GC2	S Pad	Well Line	Oil	S-03	No	No
1285	GC2	S Pad	Well Line	Produced Water	S-04	No	No
1286	GC2	S Pad	Well Line	Oil	S-05	No	No
1287	GC2	S Pad	Well Line	Produced Water	S-06	No	No
1288	GC2	S Pad	Well Line	Oil	S-07	No	No
1289	GC2	S Pad	Well Line	Oil	S-08	No	No
1290	GC2	S Pad	Well Line	Produced Water	S-09	No	No
1291	GC2	S Pad	Well Line	Oil	S-10	No	No
1292	GC2	S Pad	Well Line	Produced Water	S-11	No	No

APPENDIX A: Prudhoe Bay Unit - Pipeline System

Item	Facility	Location	Type	Service	Equipment ID / Well	ILI Piggable	Maint. Piggable
1293	GC2	S Pad	Well Line	Oil	S-12	No	No
1294	GC2	S Pad	Well Line	Oil	S-13	No	No
1295	GC2	S Pad	Well Line	Produced Water	S-14	No	No
1296	GC2	S Pad	Well Line	Produced Water	S-15	No	No
1297	GC2	S Pad	Well Line	Oil	S-16	No	No
1298	GC2	S Pad	Well Line	Oil	S-17	No	No
1299	GC2	S Pad	Well Line	Oil	S-18	No	No
1300	GC2	S Pad	Well Line	Oil	S-19	No	No
1301	GC2	S Pad	Well Line	Produced Water	S-20	No	No
1302	GC2	S Pad	Well Line	Oil	S-21	No	No
1303	GC2	S Pad	Well Line	Produced Water	S-22	No	No
1304	GC2	S Pad	Well Line	Oil	S-23	No	No
1305	GC2	S Pad	Well Line	Produced Water	S-24	No	No
1306	GC2	S Pad	Well Line	Produced Water	S-25	No	No
1307	GC2	S Pad	Well Line	Oil	S-26	No	No
1308	GC2	S Pad	Well Line	Oil	S-27	No	No
1309	GC2	S Pad	Well Line	Oil	S-28	No	No
1310	GC2	S Pad	Well Line	Produced Water	S-29	No	No
1311	GC2	S Pad	Well Line	Oil	S-30	No	No
1312	GC2	S Pad	Well Line	Produced Water	S-31	No	No
1313	GC2	S Pad	Well Line	Oil	S-32	No	No
1314	GC2	S Pad	Well Line	Oil	S-33	No	No
1315	GC2	S Pad	Well Line	Produced Water	S-34	No	No
1316	GC2	S Pad	Well Line	Oil	S-35	No	No
1317	GC2	S Pad	Well Line	Oil	S-36	No	No
1318	GC2	S Pad	Well Line	Oil	S-37	No	No
1319	GC2	S Pad	Well Line	Oil	S-38	No	No
1320	GC2	S Pad	Well Line	Oil	S-40	No	No
1321	GC2	S Pad	Well Line	Oil	S-41	No	No
1322	GC2	S Pad	Well Line	Oil	S-42	No	No
1323	GC2	S Pad	Well Line	Oil	S-43	No	No
1324	GC2	S Pad	Well Line	Oil	S-44	No	No
1325	GC2	S Pad	Well Line	Oil	S-100	No	No
1326	GC2	S Pad	Well Line	Produced Water	S-101	No	No
1327	GC2	S Pad	Well Line	Oil	S-102	No	No
1328	GC2	S Pad	Well Line	Oil	S-103	No	No
1329	GC2	S Pad	Well Line	Produced Water	S-104	No	No
1330	GC2	S Pad	Well Line	Oil	S-105	No	No

APPENDIX A: Prudhoe Bay Unit - Pipeline System

Item	Facility	Location	Type	Service	Equipment ID / Well	ILI Piggable	Maint. Piggable
1331	GC2	S Pad	Well Line	Oil	S-106	No	No
1332	GC2	S Pad	Well Line	Produced Water	S-107	No	No
1333	GC2	S Pad	Well Line	Oil	S-108	No	No
1334	GC2	S Pad	Well Line	Oil	S-109	No	No
1335	GC2	S Pad	Well Line	Produced Water	S-110	No	No
1336	GC2	S Pad	Well Line	Produced Water	S-111	No	No
1337	GC2	S Pad	Well Line	Produced Water	S-112	No	No
1338	GC2	S Pad	Well Line	Oil	S-113	No	No
1339	GC2	S Pad	Well Line	Produced Water	S-114	No	No
1340	GC2	S Pad	Well Line	Oil	S-115	No	No
1341	GC2	S Pad	Well Line	Produced Water	S-116	No	No
1342	GC2	S Pad	Well Line	Oil	S-117	No	No
1343	GC2	S Pad	Well Line	Oil	S-118	No	No
1344	GC2	S Pad	Well Line	Oil	S-119	No	No
1345	GC2	S Pad	Well Line	Produced Water	S-120	No	No
1346	GC2	S Pad	Well Line	Oil	S-121	No	No
1347	GC2	S Pad	Well Line	Oil	S-122	No	No
1348	GC2	S Pad	Well Line	Produced Water	S-123	No	No
1349	GC2	S Pad	Well Line	Produced Water	S-124	No	No
1350	GC2	S Pad	Well Line	Oil	S-125	No	No
1351	GC2	S Pad	Well Line	Produced Water	S-126	No	No
1352	GC2	S Pad	Well Line	Produced Water	S-134	No	No
1353	GC2	S Pad	Well Line	Oil	S-200	No	No
1354	GC2	S Pad	Well Line	Oil	S-201	No	No
1355	GC2	S Pad	Well Line	Oil	S-213	No	No
1356	GC2	S Pad	Well Line	Produced Water	S-215	No	No
1357	GC2	S Pad	Well Line	Produced Water	S-216	No	No
1358	GC2	S Pad	Well Line	Produced Water	S-217	No	No
1359	GC2	S Pad	Well Line	Produced Water	S-218	No	No
1360	GC2	S Pad	Well Line	Oil	S-400	No	No
1361	GC2	S Pad	Well Line	Produced Water	S-401	No	No
1362	GC2	S Pad	Flow Line	Oil	S-36	Yes	Yes
1363	GC2	S Pad	Flow Line	Produced Water	S-69	Yes	Yes
1364	FS3	FS1	Flow Line	Oil	TLFS1/FS3	No	No
1365	GC3	FS3	Flow Line	Oil	TLGC3/FS3	Yes	Yes
1366	GC2	U Pad	Well Line	Oil	U-02	No	No
1367	GC2	U Pad	Well Line	Produced Water	U-03	No	No
1368	GC2	U Pad	Well Line	Produced Water	U-04	No	No

APPENDIX A: Prudhoe Bay Unit - Pipeline System

Item	Facility	Location	Type	Service	Equipment ID / Well	ILI Piggable	Maint. Piggable
1369	GC2	U Pad	Well Line	Produced Water	U-05	No	No
1370	GC2	U Pad	Well Line	Oil	U-06	No	No
1371	GC2	U Pad	Well Line	Oil	U-07	No	No
1372	GC2	U Pad	Well Line	Oil	U-08	No	No
1373	GC2	U Pad	Well Line	Oil	U-09	No	No
1374	GC2	U Pad	Well Line	Produced Water	U-10	No	No
1375	GC2	U Pad	Well Line	Oil	U-11	No	No
1376	GC2	U Pad	Well Line	Oil	U-12	No	No
1377	GC2	U Pad	Well Line	Oil	U-13	No	No
1378	GC2	U Pad	Well Line	Oil	U-14	No	No
1379	GC2	U Pad	Well Line	Oil	U-15	No	No
1380	GC2	U Pad	Flow Line	Produced Water	U-69	No	No
1381	GC2	U Pad	Flow Line	Oil	U-384	Yes	Yes
1382	GC2	V Pad	Well Line	Oil	V-01	No	No
1383	GC2	V Pad	Well Line	Oil	V-02	No	No
1384	GC2	V Pad	Well Line	Oil	V-03	No	No
1385	GC2	V Pad	Well Line	Oil	V-04	No	No
1386	GC2	V Pad	Well Line	Oil	V-05	No	No
1387	GC2	V Pad	Well Line	Oil	V-07	No	No
1388	GC2	V Pad	Well Line	Produced Water	V-100	No	No
1389	GC2	V Pad	Well Line	Oil	V-101	No	No
1390	GC2	V Pad	Well Line	Oil	V-102	No	No
1391	GC2	V Pad	Well Line	Oil	V-103	No	No
1392	GC2	V Pad	Well Line	Produced Water	V-104	No	No
1393	GC2	V Pad	Well Line	Produced Water	V-105	No	No
1394	GC2	V Pad	Well Line	Oil	V-106	No	No
1395	GC2	V Pad	Well Line	Oil	V-107	No	No
1396	GC2	V Pad	Well Line	Oil	V-108	No	No
1397	GC2	V Pad	Well Line	Oil	V-109	No	No
1398	GC2	V Pad	Well Line	Oil	V-111	No	No
1399	GC2	V Pad	Well Line	Produced Water	V-112	No	No
1400	GC2	V Pad	Well Line	Oil	V-113	No	No
1401	GC2	V Pad	Well Line	Produced Water	V-114	No	No
1402	GC2	V Pad	Well Line	Oil	V-115	No	No
1403	GC2	V Pad	Well Line	Oil	V-117	No	No
1404	GC2	V Pad	Well Line	Produced Water	V-119	No	No
1405	GC2	V Pad	Well Line	Produced Water	V-120	No	No
1406	GC2	V Pad	Well Line	Produced Water	V-121	No	No

APPENDIX A: Prudhoe Bay Unit - Pipeline System

Item	Facility	Location	Type	Service	Equipment ID / Well	ILI Piggable	Maint. Piggable
1407	GC2	V Pad	Well Line	Oil	V-122	No	No
1408	GC2	V Pad	Well Line	Produced Water	V-123	No	No
1409	GC2	V Pad	Well Line	Produced Water	V-201	No	No
1410	GC2	V Pad	Well Line	Oil	V-202	No	No
1411	GC2	V Pad	Well Line	Oil	V-203	No	No
1412	GC2	V Pad	Well Line	Oil	V-204	No	No
1413	GC2	V Pad	Well Line	Oil	V-205	No	No
1414	GC2	V Pad	Well Line	Oil	V-207	No	No
1415	GC2	V Pad	Well Line	Produced Water	V-210	No	No
1416	GC2	V Pad	Well Line	Produced Water	V-211	No	No
1417	GC2	V Pad	Well Line	Produced Water	V-212	No	No
1418	GC2	V Pad	Well Line	Produced Water	V-213	No	No
1419	GC2	V Pad	Well Line	Produced Water	V-214	No	No
1420	GC2	V Pad	Well Line	Produced Water	V-215	No	No
1421	GC2	V Pad	Well Line	Produced Water	V-216	No	No
1422	GC2	V Pad	Well Line	Produced Water	V-217	No	No
1423	GC2	V Pad	Well Line	Produced Water	V-218	No	No
1424	GC2	V Pad	Well Line	Produced Water	V-219	No	No
1425	GC2	V Pad	Well Line	Produced Water	V-220	No	No
1426	GC2	V Pad	Well Line	Produced Water	V-221	No	No
1427	GC2	V Pad	Well Line	Produced Water	V-222	No	No
1428	GC2	V Pad	Well Line	Produced Water	V-223	No	No
1429	GC2	V Pad	Well Line	Produced Water	V-224	No	No
1430	GC2	V Pad	Well Line	Produced Water	V-225	No	No
1431	GC2	V Pad	Well Line	Produced Water	V-227	No	No
1432	GC2	V Pad	Flow Line	Produced Water	V-69	No	No
1433	GC2	V Pad	Flow Line	Oil	V-74	No	No
1434	GC2	W Pad	Well Line	Oil	W-01	No	No
1435	GC2	W Pad	Well Line	Oil	W-02	No	No
1436	GC2	W Pad	Well Line	Produced Water	W-03	No	No
1437	GC2	W Pad	Well Line	Oil	W-04	No	No
1438	GC2	W Pad	Well Line	Oil	W-05	No	No
1439	GC2	W Pad	Well Line	Oil	W-06	No	No
1440	GC2	W Pad	Well Line	Oil	W-07	No	No
1441	GC2	W Pad	Well Line	Oil	W-08	No	No
1442	GC2	W Pad	Well Line	Oil	W-10	No	No
1443	GC2	W Pad	Well Line	Produced Water	W-11	No	No
1444	GC2	W Pad	Well Line	Oil	W-12	No	No

APPENDIX A: Prudhoe Bay Unit - Pipeline System

Item	Facility	Location	Type	Service	Equipment ID / Well	ILI Piggable	Maint. Piggable
1445	GC2	W Pad	Well Line	Oil	W-15	No	No
1446	GC2	W Pad	Well Line	Oil	W-16	No	No
1447	GC2	W Pad	Well Line	Produced Water	W-17	No	No
1448	GC2	W Pad	Well Line	Oil	W-18	No	No
1449	GC2	W Pad	Well Line	Oil	W-19	No	No
1450	GC2	W Pad	Well Line	Produced Water	W-20	No	No
1451	GC2	W Pad	Well Line	Oil	W-21	No	No
1452	GC2	W Pad	Well Line	Oil	W-22	No	No
1453	GC2	W Pad	Well Line	Oil	W-23	No	No
1454	GC2	W Pad	Well Line	Produced Water	W-24	No	No
1455	GC2	W Pad	Well Line	Oil	W-25	No	No
1456	GC2	W Pad	Well Line	Oil	W-26	No	No
1457	GC2	W Pad	Well Line	Oil	W-27	No	No
1458	GC2	W Pad	Well Line	Produced Water	W-29	No	No
1459	GC2	W Pad	Well Line	Oil	W-30	No	No
1460	GC2	W Pad	Well Line	Oil	W-31	No	No
1461	GC2	W Pad	Well Line	Oil	W-32	No	No
1462	GC2	W Pad	Well Line	Oil	W-34	No	No
1463	GC2	W Pad	Well Line	Produced Water	W-35	No	No
1464	GC2	W Pad	Well Line	Oil	W-36	No	No
1465	GC2	W Pad	Well Line	Oil	W-37	No	No
1466	GC2	W Pad	Well Line	Oil	W-38	No	No
1467	GC2	W Pad	Well Line	Oil	W-39	No	No
1468	GC2	W Pad	Well Line	Oil	W-40	No	No
1469	GC2	W Pad	Well Line	Produced Water	W-42	No	No
1470	GC2	W Pad	Well Line	Produced Water	W-44	No	No
1471	GC2	W Pad	Well Line	Oil	W-45	No	No
1472	GC2	W Pad	Well Line	Oil	W-56	No	No
1473	GC2	W Pad	Well Line	Oil	W-200	No	No
1474	GC2	W Pad	Well Line	Oil	W-201	No	No
1475	GC2	W Pad	Well Line	Oil	W-203	No	No
1476	GC2	W Pad	Well Line	Oil	W-204	No	No
1477	GC2	W Pad	Well Line	Oil	W-205	No	No
1478	GC2	W Pad	Well Line	Produced Water	W-207	No	No
1479	GC2	W Pad	Well Line	Produced Water	W-209	No	No
1480	GC2	W Pad	Well Line	Produced Water	W-210	No	No
1481	GC2	W Pad	Well Line	Oil	W-211	No	No
1482	GC2	W Pad	Well Line	Produced Water	W-212	No	No

APPENDIX A: Prudhoe Bay Unit - Pipeline System

Item	Facility	Location	Type	Service	Equipment ID / Well	ILI Piggable	Maint. Piggable
1483	GC2	W Pad	Well Line	Produced Water	W-213	No	No
1484	GC2	W Pad	Well Line	Produced Water	W-214	No	No
1485	GC2	W Pad	Well Line	Produced Water	W-215	No	No
1486	GC2	W Pad	Well Line	Produced Water	W-216	No	No
1487	GC2	W Pad	Well Line	Produced Water	W-217	No	No
1488	GC2	W Pad	Well Line	Produced Water	W-218	No	No
1489	GC2	W Pad	Well Line	Produced Water	W-219	No	No
1490	GC2	W Pad	Well Line	Oil	W-400	No	No
1491	GC2	W Pad	Flow Line	Produced Water	W-69	No	No
1492	GC2	W Pad	Flow Line	Oil	W-74	Yes	Yes
1493	GC1	GC2	Flow Line	Produced Water	WSW-2	Yes	Yes
1494	GC3	GC1	Flow Line	Produced Water	WSW-3	Yes	Yes
1495	GC2	EWE Jct	Flow Line	Oil	WZ-LDF	Yes	Yes
1496	GC3	X Pad	Well Line	Oil	X-01	No	No
1497	GC3	X Pad	Well Line	Oil	X-02	No	No
1498	GC3	X Pad	Well Line	Oil	X-03	No	No
1499	GC3	X Pad	Well Line	Oil	X-04	No	No
1500	GC3	X Pad	Well Line	Oil	X-05	No	No
1501	GC3	X Pad	Well Line	Produced Water	X-06	No	No
1502	GC3	X Pad	Well Line	Oil	X-07	No	No
1503	GC3	X Pad	Well Line	Oil	X-08	No	No
1504	GC3	X Pad	Well Line	Oil	X-09	No	No
1505	GC3	X Pad	Well Line	Oil	X-10	No	No
1506	GC3	X Pad	Well Line	Produced Water	X-11	No	No
1507	GC3	X Pad	Well Line	Oil	X-12	No	No
1508	GC3	X Pad	Well Line	Oil	X-13	No	No
1509	GC3	X Pad	Well Line	Oil	X-14	No	No
1510	GC3	X Pad	Well Line	Oil	X-15	No	No
1511	GC3	X Pad	Well Line	Oil	X-16	No	No
1512	GC3	X Pad	Well Line	Oil	X-17	No	No
1513	GC3	X Pad	Well Line	Oil	X-18	No	No
1514	GC3	X Pad	Well Line	Oil	X-19	No	No
1515	GC3	X Pad	Well Line	Produced Water	X-20	No	No
1516	GC3	X Pad	Well Line	Oil	X-21	No	No
1517	GC3	X Pad	Well Line	Oil	X-22	No	No
1518	GC3	X Pad	Well Line	Produced Water	X-23	No	No
1519	GC3	X Pad	Well Line	Produced Water	X-24	No	No
1520	GC3	X Pad	Well Line	Oil	X-25	No	No

APPENDIX A: Prudhoe Bay Unit - Pipeline System

Item	Facility	Location	Type	Service	Equipment ID / Well	ILI Piggable	Maint. Piggable
1521	GC3	X Pad	Well Line	Produced Water	X-26	No	No
1522	GC3	X Pad	Well Line	Oil	X-27	No	No
1523	GC3	X Pad	Well Line	Produced Water	X-28	No	No
1524	GC3	X Pad	Well Line	Produced Water	X-29	No	No
1525	GC3	X Pad	Well Line	Oil	X-30	No	No
1526	GC3	X Pad	Well Line	Oil	X-31	No	No
1527	GC3	X Pad	Well Line	Oil	X-32	No	No
1528	GC3	X Pad	Well Line	Produced Water	X-33	No	No
1529	GC3	X Pad	Well Line	Oil	X-34	No	No
1530	GC3	X Pad	Well Line	Oil	X-35	No	No
1531	GC3	X Pad	Well Line	Produced Water	X-36	No	No
1532	GC3	X Pad	Flow Line	Produced Water	X-42	Yes	Yes
1533	GC3	X Pad	Flow Line	Produced Water	X-45	Yes	Yes
1534	GC3	X Pad	Flow Line	Oil	X-74	Yes	Yes
1535	GC2	GC1	Flow Line	Oil	XF-21	Yes	No
1536	GC1	GC3	Flow Line	Oil	XF-31	Yes	No
1537	GC1	Y Pad	Well Line	Oil	Y-01	No	No
1538	GC1	Y Pad	Well Line	Oil	Y-02	No	No
1539	GC1	Y Pad	Well Line	Produced Water	Y-03	No	No
1540	GC1	Y Pad	Well Line	Oil	Y-04	No	No
1541	GC1	Y Pad	Well Line	Produced Water	Y-05	No	No
1542	GC1	Y Pad	Well Line	Produced Water	Y-06	No	No
1543	GC1	Y Pad	Well Line	Produced Water	Y-07	No	No
1544	GC1	Y Pad	Well Line	Oil	Y-08	No	No
1545	GC1	Y Pad	Well Line	Oil	Y-09	No	No
1546	GC1	Y Pad	Well Line	Produced Water	Y-10	No	No
1547	GC1	Y Pad	Well Line	Produced Water	Y-11	No	No
1548	GC1	Y Pad	Well Line	Oil	Y-12	No	No
1549	GC1	Y Pad	Well Line	Oil	Y-13	No	No
1550	GC1	Y Pad	Well Line	Oil	Y-14	No	No
1551	GC1	Y Pad	Well Line	Oil	Y-15	No	No
1552	GC1	Y Pad	Well Line	Oil	Y-16	No	No
1553	GC1	Y Pad	Well Line	Oil	Y-17	No	No
1554	GC1	Y Pad	Well Line	Produced Water	Y-18	No	No
1555	GC1	Y Pad	Well Line	Oil	Y-19	No	No
1556	GC1	Y Pad	Well Line	Oil	Y-20	No	No
1557	GC1	Y Pad	Well Line	Oil	Y-21	No	No
1558	GC1	Y Pad	Well Line	Oil	Y-22	No	No

APPENDIX A: Prudhoe Bay Unit - Pipeline System

Item	Facility	Location	Type	Service	Equipment ID / Well	ILI Piggable	Maint. Piggable
1559	GC1	Y Pad	Well Line	Oil	Y-23	No	No
1560	GC1	Y Pad	Well Line	Produced Water	Y-24	No	No
1561	GC1	Y Pad	Well Line	Oil	Y-26	No	No
1562	GC1	Y Pad	Well Line	Produced Water	Y-27	No	No
1563	GC1	Y Pad	Well Line	Oil	Y-28	No	No
1564	GC1	Y Pad	Well Line	Oil	Y-29	No	No
1565	GC1	Y Pad	Well Line	Oil	Y-30	No	No
1566	GC1	Y Pad	Well Line	Oil	Y-31	No	No
1567	GC1	Y Pad	Well Line	Oil	Y-32	No	No
1568	GC1	Y Pad	Well Line	Oil	Y-33	No	No
1569	GC1	Y Pad	Well Line	Oil	Y-34	No	No
1570	GC1	Y Pad	Well Line	Oil	Y-35	No	No
1571	GC1	Y Pad	Well Line	Oil	Y-36	No	No
1572	GC1	Y Pad	Well Line	Oil	Y-37	No	No
1573	GC1	Y Pad	Well Line	Oil	Y-38	No	No
1574	GC1	Y Pad	Flow Line	Oil	Y-36	Yes	Yes
1575	GC2	H Pad	Flow Line	Oil	Y-42	No	No
1576	GC2	H Pad	Flow Line	Oil	Y-43	No	No
1577	GC2	H Pad	Flow Line	Oil	Y-46	No	No
1578	GC2	Y Pad	Flow Line	Produced Water	Y-69	Yes	Yes
1579	GC2	Z Pad	Well Line	Oil	Z-01	No	No
1580	GC2	Z Pad	Well Line	Produced Water	Z-02	No	No
1581	GC2	Z Pad	Well Line	Oil	Z-03	No	No
1582	GC2	Z Pad	Well Line	Oil	Z-04	No	No
1583	GC2	Z Pad	Well Line	Oil	Z-05	No	No
1584	GC2	Z Pad	Well Line	Oil	Z-06	No	No
1585	GC2	Z Pad	Well Line	Oil	Z-07	No	No
1586	GC2	Z Pad	Well Line	Oil	Z-08	No	No
1587	GC2	Z Pad	Well Line	Oil	Z-09	No	No
1588	GC2	Z Pad	Well Line	Oil	Z-10	No	No
1589	GC2	Z Pad	Well Line	Oil	Z-11	No	No
1590	GC2	Z Pad	Well Line	Produced Water	Z-12	No	No
1591	GC2	Z Pad	Well Line	Oil	Z-13	No	No
1592	GC2	Z Pad	Well Line	Oil	Z-14	No	No
1593	GC2	Z Pad	Well Line	Oil	Z-15	No	No
1594	GC2	Z Pad	Well Line	Oil	Z-16	No	No
1595	GC2	Z Pad	Well Line	Oil	Z-17	No	No
1596	GC2	Z Pad	Well Line	Produced Water	Z-18	No	No

APPENDIX A: Prudhoe Bay Unit - Pipeline System

Item	Facility	Location	Type	Service	Equipment ID / Well	ILI Piggable	Maint. Piggable
1597	GC2	Z Pad	Well Line	Produced Water	Z-19	No	No
1598	GC2	Z Pad	Well Line	Oil	Z-20	No	No
1599	GC2	Z Pad	Well Line	Oil	Z-21	No	No
1600	GC2	Z Pad	Well Line	Oil	Z-22	No	No
1601	GC2	Z Pad	Well Line	Oil	Z-23	No	No
1602	GC2	Z Pad	Well Line	Oil	Z-24	No	No
1603	GC2	Z Pad	Well Line	Produced Water	Z-25	No	No
1604	GC2	Z Pad	Well Line	Oil	Z-26	No	No
1605	GC2	Z Pad	Well Line	Oil	Z-27	No	No
1606	GC2	Z Pad	Well Line	Produced Water	Z-28	No	No
1607	GC2	Z Pad	Well Line	Oil	Z-29	No	No
1608	GC2	Z Pad	Well Line	Oil	Z-30	No	No
1609	GC2	Z Pad	Well Line	Produced Water	Z-31	No	No
1610	GC2	Z Pad	Well Line	Oil	Z-32	No	No
1611	GC2	Z Pad	Well Line	Produced Water	Z-33	No	No
1612	GC2	Z Pad	Well Line	Oil	Z-35	No	No
1613	GC2	Z Pad	Well Line	Oil	Z-38	No	No
1614	GC2	Z Pad	Well Line	Oil	Z-39	No	No
1615	GC2	Z Pad	Well Line	Oil	Z-46	No	No
1616	GC2	Z Pad	Well Line	Oil	Z-100	No	No
1617	GC2	Z Pad	Well Line	Oil	Z-101	No	No
1618	GC2	Z Pad	Well Line	Produced Water	Z-102	No	No
1619	GC2	Z Pad	Well Line	Produced Water	Z-103	No	No
1620	GC2	Z Pad	Well Line	Oil	Z-108	No	No
1621	GC2	Z Pad	Well Line	Oil	Z-112	No	No
1622	GC2	Z Pad	Flow Line	Produced Water	Z-69	No	No
1623	GC2	Z Pad	Flow Line	Oil	Z-74	Yes	Yes

APPENDIX B

List of Emergency Repair Equipment and Materials

BPXA shall purchase, if not currently in stock, and maintain during the term of this Consent Decree, 200 feet of pre-tested pipe, two sleeves four feet long, and one mechanical repair clamp for each pipeline in the Pipeline System, which includes the following line sizes as of the Effective Date of this Agreement: 12-inch; 14-inch; 16-inch; 18-inch; 20-inch; 24-inch; 28-inch; 30-inch; and 36-inch lines. Such inventory shall be maintained on the North Slope of Alaska.

APPENDIX C

Actionable Anomaly Criteria, Investigation and Mitigation Time Frames.
The following chart describes Actionable Anomalies:

Conditions Requiring Follow-up	Required Time Frame for Inspection (from discovery)	Required Time Frame for Repair (from discovery)
Immediate Conditions		
Metal loss > 80% of nominal wall (for rough tool tolerance inclusion, BPXA will perform field investigation to 70%).	5 days	5 days
Predicted Burst Pressure (Pburst) at the anomaly is less than the Maximum Operating Pressure (MOP).	5 days	5 days
Dent located on the top of the pipeline (above the 4 and 8 o'clock positions) that has any indication of metal loss, cracking of a stress riser.	5 days	5 days
Dent located on the top of the pipeline (above 4 and 8 o'clock positions) with a depth greater than 6% of the nominal pipe diameter.	5 days	5 days
An anomaly that in the judgment of the person designated by the operator to evaluate the assessment results requires immediate action.	5 days	5 days
60-day Conditions		
Dent located on the top of the pipeline (above the 4 and 8 o'clock positions) with a depth greater than 3% of the pipeline diameter (greater than 0.250 inches in depth for a pipeline diameter less than Nominal Pipe Size (NPS) 12).	30 days	60 days
A dent located on the bottom of the pipeline that has any indication of metal loss, cracking or a stress riser.	30 days	60 days
180-day Conditions		
Dent with a depth greater than 2% of the pipeline's diameter (0.250 inches in depth for a pipeline diameter less than NPS 12) that affects pipe curvature at a girth weld.	90 days	180 days
Dent with a depth greater than 2% of the pipeline's diameter (0.250 inches in depth for a pipeline diameter less than NPS 12) that affects pipe curvature at a longitudinal seam weld.	90 days	180 days
Dent located on the top of the pipeline (above 4 and 8 o'clock position) with a depth greater than 2% of the pipelines diameter (0.250 inches in depth for a pipeline diameter less than NPS 12).	90 days	180 days

Conditions Requiring Follow-up	Required Time Frame for Inspection (from discovery)	Required Time Frame for Repair (from discovery)
Dent located on the bottom of the pipeline with a depth greater than 6% of the pipeline's diameter.	90 days	180 days
A calculation of the remaining strength of the pipe shows an operating pressure that is less than the current established maximum operating pressure (MOP) at the location of the anomaly.	90 days	180 days
An area of general corrosion with a predicted metal loss greater than 50% of nominal wall (to incorporate rough tool tolerances, BPXA will investigate to 40%).	90 days	180 days
Predicted metal loss greater than 50% of nominal wall that is located at a crossing of another pipeline (to incorporate rough tool tolerances, BPXA will investigate to 40%).	90 days	180 days
Predicted metal loss greater than 50% of nominal wall that is in an area with widespread circumferential corrosion (to incorporate rough tool tolerances, BPXA will investigate to 40%).	90 days	180 days
Predicted metal loss greater than 50% of nominal wall that is located in an area that could affect a girth weld (to incorporate rough tool tolerances, BPXA will investigate to 40%).	90 days	180 days
Potential crack indication that when excavated is determined to be a crack.	90 days	180 days
Corrosion of or along a longitudinal seam weld.	90 days	180 days
A gouge or groove greater than 12.5% of nominal wall.	90 days	180 days

The following tables show additional conditions and timeframes for repairs resulting from inspection data.

Intervention Criteria for Metal Loss Defects (Scheduled & Immediate)

Criteria	Scheduled Intervention Condition	Immediate Intervention Condition
Minimum Thickness (Penetration - Thru Wall)	Remaining wall is ≤ 0.100 but >0.050 and where wall loss $\leq 80\%$	Remaining wall is ≤ 0.050 -inch or wall loss is $>80\%$
Safe Pressure ⁽¹⁾ (Depth and Length - Hoop Stress)	Safe Pressure ⁽¹⁾ is \geq Established MAOP ⁽²⁾ and $\leq 105\%$ of Established	Safe Pressure ⁽¹⁾ is $<$ Established MAOP ⁽²⁾

	MAOP ⁽²⁾	
Circumferential Extent (Depth and Width - Axial or Bending Stress)	Axial or Bending Stress exceeds Acceptable Limits ⁽³⁾	Pending Engineering Review

Notes:

1. Safe Pressure is the predicted remaining strength of a metal loss defect using Modified B31G 0.85-dL method in conjunction with a design factor, generally .72 for B31.4 lines and .72, .60, or .50 for B31.8 lines. As an example, applying .72 design factor to the B31G method results in a factor of safety equal to 1.39 (1/.72) or .72 of the predicted failure pressure.
2. MAOP is an acronym for Maximum Allowable Operating Pressure. MAOP, in this case, is the established maximum pressure at which the pipeline can safely operate under normal conditions.
3. Acceptable Limits for Circumferential Corrosion are theoretical solutions for determining the failure stress of a cylinder with a circumferential defect. Corrosion is acceptable if the actual effective corrosion depth and width is not greater than the allowable effective depth and width in accordance with the criteria for the given combination of pipe grade and design standard.

Options for Repair of Pipelines

Comply with ASME B31.4-2006 Table 451.6.2(b)-1 (w/notes).

APPENDIX D

Pipeline Inspection Frequency Chart

The following minimum inspection intervals shall be followed for each pipeline in the Pipeline System, unless BPXA justifies the basis for, and the Parties agree upon a different inspection interval.

Inspection Method

Aerial survey	<ul style="list-style-type: none">• Remote pipelines (non-vehicle accessible) - Once per calendar week
Vehicle /foot patrol	<ul style="list-style-type: none">• OTLs from production facilities to Skid 50 - Twice daily unless precluded by safety or weather conditions.• Pipelines on pads - during routine rounds documented monthly.• Cross country flow lines - daily
Corrosion Coupons	Initially and typically 4 months but can range to 1 year based on pipeline specific corrosion data
ER probes	Corrosion rate collected every 4 hours and evaluated weekly. Probes replaced @ 75% of probe life
Corrosion rate monitoring (CRM) sites	Initially and typically 6 months but range from 1 week to 1 year based on results
ILI	<ul style="list-style-type: none">• Carbon Steel (CS) Pipelines in three phase oil production with wall thickness of 0.312 or less and OTL pipelines - 3 years• CS Pipelines in three phase oil production with a wall thickness greater than 0.312 - 5

	<p>years</p> <ul style="list-style-type: none"> • CS Pipelines in produced water service with a wall thickness of 0.375 inches or less - 4 years • CS Pipelines in produced water service with a wall thickness of greater than 0.375 - 5 years
CP Testing	Annually
River crossing survey	Yearly and after significant flooding events
Pipeline Bridge inspections	5 years
Walking speed survey (VSMs, HSMs, etc.)	Yearly on common carrier pipelines 5-years on all other pipelines

APPENDIX E

Corrosion Monitoring Device Requirements¹

Corrosion monitoring devices shall be positioned at the location in the optimal position to monitor the stream or fluid phase where corrosion is most severe.

Location of Corrosion Monitoring Devices

a. The monitoring device shall be located in the corrosive phase. Predictive models may be used to identify the most likely location for corrosion to occur in a given phase.

The corrosive phase is almost always an aqueous phase. Therefore, monitoring devices shall be located at positions most likely to have the presence of water. Water holdup and water dropout effects are of central importance to device location. Water dropout is most likely in long horizontal pipe runs and less likely in vertical runs. If corrosion is expected to occur at the bottom of a horizontal line, the monitoring device shall be located in that position. If water condensation is expected, locating monitoring devices on top of the line shall also be considered. In fluid streams that have suspended solids, if the access fitting is located in positions between 3 o'clock and 9 o'clock, there is a risk of solids accumulating in the fitting. Accumulated solids can cause potential probe shielding problems or stuck probes.

b. The anticipated corrosion mechanisms (e.g., general or localized attack, under deposit corrosion, erosion/corrosion) shall be considered.

c. Effects of flow rate and flow regime shall be considered, including:

1. Probes and coupons should be sited in a region where water drop out is more likely and where hydrodynamics are uniform and representative of most of the system.

2. Access fittings shall be located a minimum distance of seven pipe diameters downstream and a minimum of three pipe diameters upstream of flow disturbances (e.g., bends, reducers, valves, orifice plates, thermowells) for the measurement to be representative of most of the system. In some cases, locating probes or coupons near a flow disturbance should be considered if these conditions are representative of a higher corrosion rate that is possible in the system. For example, water hold-up or flow induced corrosion may occur at an elbow.

3. If intrusive (not flush mounted) access fittings are installed in pairs, a minimum distance of 1 m (3 ft) shall be between each fitting.

4. If monitoring devices are intrusive and have a probe and a coupon holder, the probe shall be located in the upstream fitting to minimize turbulence around the second monitoring device.

¹ Adapted from BP Corrosion Monitoring Procedure GP 06-70, Section 6.2.1.

5. If space limitations do not allow meeting the location criteria mentioned above, the hydrodynamic effects on corrosion rates shall be assessed.

d. Chemical injection points shall be considered.

Injection of production chemicals, including corrosion inhibitors, scale inhibitors, asphaltene and paraffin inhibitors, demulsifiers, oxygen scavengers, and biocides can have a marked effect on corrosion.

1. Corrosion monitoring devices shall be placed a minimum of five pipe diameters downstream of treatment chemical injection points.

2. Additional monitoring points upstream of production chemical injection shall be considered.

Measuring corrosion rates before and after corrosion inhibitor injection is important in assessing its efficiency. Some production chemicals can be corrosive to certain steels and render corrosion inhibitors less effective if they are not fully compatible.

e. Effects of process stream changes shall be considered.

Changes in pressure, temperature, flow rate, inputs/outputs, etc, as well as position of equipment affecting process modify potential corrosivity of the fluids and preferred monitoring locations.

f. Physical access shall not dictate monitoring locations. However, when a monitoring point is identified, the location should allow routine access for probe maintenance, retrieval, etc.

g. Intrusive probes shall be located where they can remain in place for extended periods.

h. Intrusive probes (not flush mounted) shall be installed upstream of any pig launcher or downstream of pig receivers. Otherwise, the probe requires retrieval prior to each pigging operation to avoid damage to the probe and the possibility of the pig becoming trapped.

i. Practical factors limiting the choice of monitoring locations shall be considered.

i. Coupons and probes require the line to be accessible for installation and service.

ii. Fluid sampling may not be safe (e.g. pressures, temperatures) or reliable without contamination or blockage problems.

iii. Adverse weather conditions or chance of vandalism may exclude the use of certain techniques in some locations.

j. Corrosion monitoring locations shall be recorded on the relevant technical drawings.

i. This should include P&IDs and isometric PFDs.

- ii. On new facilities they should be included in the CAD system as this aids data analysis and the development of control procedures.
- iii. The records shall include:
 - a) Details on the system, item and location
 - b) Corrosion monitoring method.
 - c) Probe or sample valve orientation.

APPENDIX F
Leak Detection Technology Assessment Criteria.

1. Rate of false alarms and misses.
2. Instrument accuracy.
3. Personnel training and qualification requirements.
4. Ability to handle system size and complexity (including batch line factors).
5. Leak size or leak flow rate sensitivity.
6. Response time.
7. Leak size or leak flow rate versus response time.
8. Leak location estimation accuracy.
9. Release volume estimation accuracy.
10. Detection of pre-existing leaks.
11. Detection of a leak in shut-in pipeline pipelines.
12. Detection of a leak in pipelines under a slack line condition during transients.
13. Sensitivity to flow conditions.
14. Sensitivity to multiphase flow.
15. Retrofit feasibility.
16. System testing requirements.
17. System maintenance requirements.
18. Comparison of actual pilot test data with vendor's system performance data.

APPENDIX G.

Quarterly IMC Report Template

1. Executive Summary

- Summarize the BPXA information and work reviewed in support of this report.*
- Identify and analyze any potential non-compliance with the terms of the Decree.*

2. BPXA Performance: Section-by-Section Analysis

- This part of the report shall provide a section-by-section analysis of BPXA's compliance with the requirements of the Decree and recommendations for BPXA action to address any compliance issues.*
- Provide a citation to the relevant BPXA documents that support your analysis and recommendations.*
- In addition to the descriptions provided below, the IMC shall provide any other information and analysis necessary to assess BPXA's compliance with the requirements of this Decree.*

General Compliance Requirements

- Emergency Repair Equipment and Materials:

Describe whether BPXA is complying with each requirement of this Paragraph.

Pipeline System-Wide Integrity Management Program

- Data and Information Collection

- Describe whether BPXA has complied, or is on schedule to comply with each requirement of this Paragraph.*
- Describe what steps BPXA has taken to implement its plans and procedures for compliance with this Paragraph.*
- Describe whether and how BPXA has made the data and information available to BPXA personnel and agents. Comment on the effectiveness of BPXA's efforts in this regard.*
- Describe any categories of data or information which are or appear to be missing from this program, and how, if at all, BPXA has made efforts to collect missing data or information or make conservative assumptions where data or information is not available.*

- Pipeline Inspection

- Describe whether BPXA has complied, or is on schedule to comply, with each requirement of this Paragraph.*
- Describe whether BPXA has selected and justified the appropriate assessment tools.*
- Describe whether the assessment schedule is consistent with the most current risk ranking.*
- Audit a sample of inspection data and report on whether data that indicates ongoing corrosion is being addressed and reflected in BPXA's Risk Based Assessment and Ranking element.*

- Risk Based Assessment and Ranking

-Describe whether BPXA has complied, or is on schedule to comply, with each requirement of this Paragraph.

-Describe any categories of data or information which are or appear to be missing from the Risk Ranking, and how, if at all, BPXA has made efforts to collect missing data or information or make conservative assumptions where data or information is not available.

-Describe whether and how the Risk Ranking is being updated as new or changed data or information becomes available.

- Risk Prevention

-Describe whether BPXA has complied, or is on schedule to comply, with each requirement of this Paragraph.

-Describe whether and how BPXA's basis for selection of risk prevention measures takes into account the most current Risk Ranking and uses the content of the Data and Information Element.

- Continual Pipeline System Repair

-Describe whether BPXA has complied, or is on schedule to comply, with each requirement of this Paragraph.

-Describe whether and how BPXA is making use of all available data and information on the condition of its Pipeline System when scheduling repairs.

- Continual Program Improvement

-Describe whether BPXA has complied, or is on schedule to comply, with each requirement of this Paragraph.

-Describe whether and how BPXA is implementing its procedure for continual program improvement.

Leak Detection

- LEOS Pilot

-Describe whether BPXA has complied, or is on schedule to comply, with each requirement of this Paragraph.

- ATMOS Pilot

-Describe whether BPXA has complied, or is on schedule to comply, with each requirement of this Paragraph.

- Technology Evaluation

-Describe whether BPXA has complied, or is on schedule to comply, with each requirement of this Paragraph.

-Describe whether the leak detection technologies BPXA studied pursuant to this Paragraph represents a complete list of available technologies.

-Comment on BPXA's conclusions about the applicability of leak detection technologies on the OTLs and upstream pipelines