April 1, 2021

Andy Chau
Supervising Pipeline Safety Engineer
State of California, Office of the State Fire Marshal
Pipeline Safety Division
3780 Kilroy Airport Way, Suite 500
Long Beach, CA 90806

Submitted via Overnight Mail and Electronically

Subject: State of California Assembly Bill 864: Coastal Best Available Technology Regulation Section 2113 Implementation Plan to Retrofit with Best Available Technology OSFM Line ID No. 0015 (Plains Pipeline, L.P. Line 901 Las Flores to Gaviota 24")

Dear Mr. Chau,

California Code of Regulations (CCR), Title 19, Article 7, Section 2113 requires operators of existing pipelines (located near an environmentally and ecologically sensitive area in the coastal zone) to submit a risk analysis and a plan to retrofit existing pipelines with Best Available Technology (BAT).

In compliance with Section 2113, Plains Pipeline, L.P. ("Plains") is submitting for your review, a risk analysis for the subject pipeline. The risk analysis identifies BAT intended to limit and reduce the quantity of release in the event of a spill and describes the timetable for implementation and completion of the identified BAT plan.

If you have and questions, comments, concerns, or require additional information, please contact me at [redacted]

Sincerely,

[redacted]

James Buchanan
HSE Senior Regulatory Specialist

Enclosures:

- Registered Agent for Service Documentation
- Outer Continental Shelf Crude Oil Safety Data Sheet
- Flow Diagrams
- Vicinity Map
- BAT Location Map
- Timetable for Implementation Gantt Chart
- Confidentiality Justification and Redacted Copy

Cc: Cory Thornton, Plains Pipeline, L.P.
Erol Alavi, Plains Pipeline, L.P.
Jon Van Reet, Plains Pipeline, L.P.
Megan Prout, Plains Pipeline, L.P.
Ngiabi Gicuhi, Plains Pipeline, L.P.
Wm. Dean Gore, Jr., Plains Pipeline, L.P.

Section 2113 Implementation Plan to Retrofit with Best Available Technology

OSFM Line ID No. 0015 (Plains Pipeline, L.P. Line 901 Las Flores to Gaviota 24")

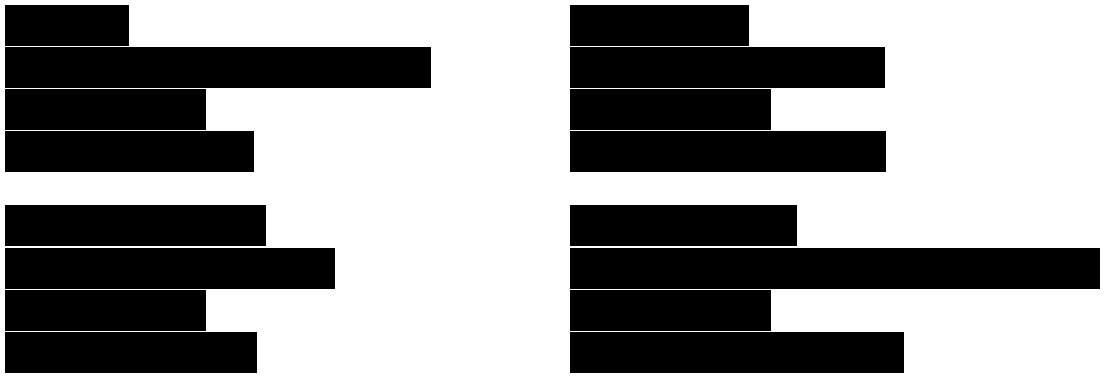
1. Introductory Material, Certification Statement, and Confidentiality Request

a. Operator Information

Plains Pipeline, L.P. (Operator)
333 Clay Street, Suite 1600
Houston, Texas 77002

OSFM ID No. 0015
Line 901 Las Flores to Gaviota 24"

List of contacts and contact information for persons within the operator's company, and any alternates, responsible for overseeing and conducting the risk analysis



Agent for Service of Process designated to receive legal documents on behalf of the operator

Corporation Service Company Which Will Do Business in California as CSC-Lawyers Incorporating Service
2710 Gateway Oaks Drive, Suite 150N
Sacramento, California 95833

b. Certification Statement by an executive within the operator's management structure authorized to fully implement the risk analysis

"*I certify, to the best of my knowledge and belief, under penalty of perjury under the laws of the State of California, that the information contained in this risk analysis is true and correct and that the plan is both effective and feasible*."

Signature / Date	Printed Name, Title
	Patrick D. Hodgins Vice President, Health, Safety & Environmental

Certification Statement by a person within the operator's management structure with the requisite training, knowledge, and experience to review a risk analysis for accuracy, effectiveness, and feasibility

"*I certify, to the best of my knowledge and belief, under penalty of perjury under the laws of the State of California, that the information contained in this risk analysis is true and correct and that the plan is both effective and feasible*."

Signature / Date	Printed Name, Title
	Wm. Dean Gore, Jr., PE Director, Special Projects

c. Confidentiality Request

The risk analysis, implementation plan, and enclosures contain confidential information exempt from disclosure under the California Public Records Act and other laws. In accordance with 19 CCR 2119, Plains has attached 1) a document identifying the confidential information and providing legal authority for the exemptions, and 2) a complete copy of this submittal depicting the confidential information as redacted.

2. Pipeline Description

a. Relevant pipeline design, construction, and operation information for OSFM Line ID No. 0015 (Line 901 Las Flores to Gaviota 24")

Year of Construction:	1990
Pipeline Diameter:	24 inches

Length of Pipeline:	10.8 miles from Las Flores Pump Station to Gaviota Pump Station. Flow diagrams for the Las Flores and Gaviota Pump Stations are enclosed for reference.
Pipe Grade:	API 5L, Grade X-60, X-65
Wall Thickness:	0.344, 0.500 inches
Maximum Operating Pressure (MOP):	1,025 psig
Normal Operating Pressure:	650 psig
Pipe Seam:	High frequency electric resistance welded (HF-ERW) long seam manufactured in 1986 by Nippon Steel in Japan.
Valves:	4 valves (3 MOV, 1 check)
Elevations:	Las Flores: 193 feet ASL Gaviota: 201 feet ASL Low point: 28 feet ASL High point: 764 feet ASL
Coating:	Coal Tar Urethane
Insulation:	1.5 inch thick layer of rigid urethane foam insulation and an outer polyethylene tape.
Operating Status:	Line was initially purged on 06/18/2015. Line was cleaned, purged, and filled with nitrogen in the summer of 2017.
General Condition of the Pipeline:	Last ILI – DEF/HRMFL 05/06/2015. [redacted] One external corrosion release in 2015.
Oil Capacity of the Pipeline:	30,275 BBLS

Product:	Crude Oil – OCS (Outer Continental Shelf); See enclosed SDS for characteristics.
Normal Operating Temperature:	135 degrees Fahrenheit.

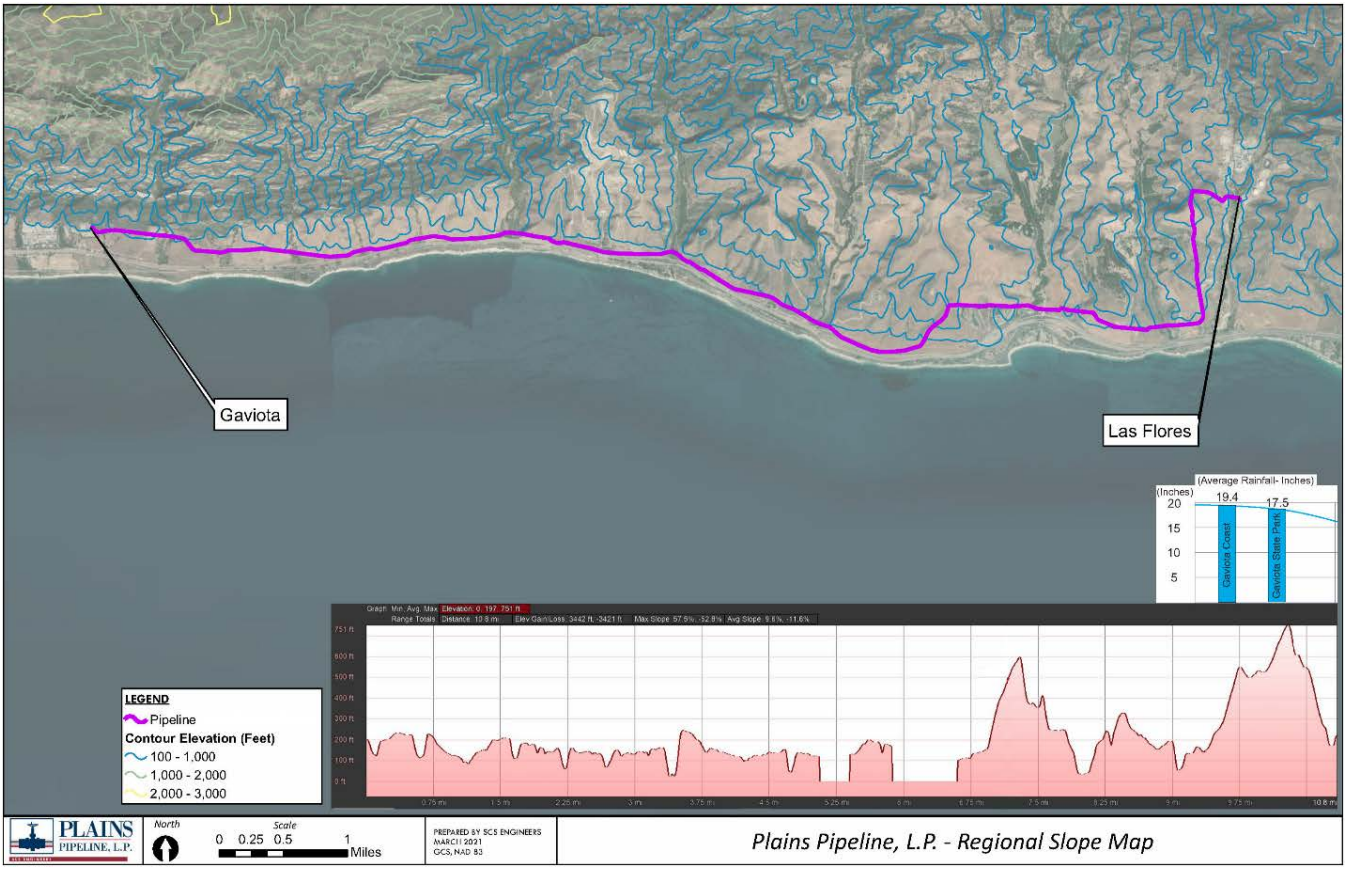
b. Vicinity Map

The Vicinity Map is provided as a dynamic PDF electronic document. Layers can be turned “on” or “off” and include the following features: distance from the coastal zone, vehicular or rail crossings along the pipeline, nearby residential, commercial, or other populated areas, physical geographic features such as soil and terrain, drainage systems such as small streams and other smaller waterways, potential natural forces inherent in the area, natural and manmade barriers, and potential physical pathways between the pipeline and environmentally and ecologically sensitive areas (EESAs).

c. Seasonal Hydrographic and Climatic Conditions

The risk analysis for Line 901 Las Flores to Gaviota 24” was completed with the inclusion of hydrographic and meteorological conditions specific to the pipeline location. Spill modelling was conducted utilizing United States Geologic Survey (USGS) digital elevation models (DEM) topographic data and water velocity factors (during potential periodic flooding events) to simulate worst-case release scenarios. As illustrated in the following figure, the relatively short 10.8 mile length of Line 901 lies within a coastal terrace with relatively consistent topographic and climate conditions. The course of the pipeline is bisected by gradually undulating coastal hills and predominantly intermittent drainages which constitute the southern face of the Santa Ynez mountain range. Average annual rainfall rates of 17.5 to 19.4 inches throughout this coastal terrace contribute to two (2) water courses, Refugio Creek and Arroyo Hondo Creek, which are capable of persistent flow throughout a majority of the year.

Figure 2.C.1: Regional Slope & Weather Data Map



d. Baseline Condition and Spill Analysis

19 CCR Section 2111(d)(4) requires the operator to conduct a spill analysis using the baseline condition of the pipeline segment. The purpose of the spill analysis is to determine whether a release anywhere along the length of a pipeline segment could impact EESA in the Coastal Zone. First the baseline condition of the pipeline segment must be identified with respect to leak detection system (LDS) technology, any automated shut-down technology present, and the number and location of any isolation valves and instrumentation needed to support the LDS. Then the worst case release volume, based on the baseline condition of the pipeline segment, must be used to model the trajectory and physical extent of that release and its relationship to EESA in the Coastal Zone.

Since this entire pipeline segment lies within the boundaries of the Coastal Zone, Plains made the conservative assumption that any release from this pipeline segment will impact an EESA in the Coastal Zone. Section 2111(d)(4) states that the spill analysis is intended to be used as the baseline for which best available technologies may be used to reduce the quantity of the release in the event of a release. Thus, the focus of the Risk Analysis for the pipeline segment would be the evaluation of BAT additions to this

pipeline segment that would serve to reduce the quantity of release in the event of a release.

The following sections present the BAT additions proposed by Plains to reduce the quantity of release from this pipeline segment, and a Risk Analysis that compares the estimated worst case discharge for the current baseline condition of the pipeline to the BAT or retrofit condition of the pipeline with all of the proposed BAT elements installed.

3. Proposed Best Available Technology (BAT)

a. Introduction to and Definition of Proposed BAT

Plains has defined BAT for this pipeline segment as a combination of several elements working together. These elements include:

[redacted]

[redacted]

The proposed locations for each of the new valves proposed for this pipeline segment are listed in the following table and illustrated on the enclosed BAT Location Map.

Table 3.A.1: Proposed BAT Valve Locations

Valve #	Type	Function	Longitude	Latitude
[redacted]				

Installation of these additional control valves will shorten the segment lengths between flow control and isolation points along the pipeline segment. This will serve to limit the volume of potential drain-down resulting from a release and thus limit the worst case release volume for this pipeline segment.

4. Summary of Risk Analysis

a. Introduction and Risk Analysis Summary

As discussed in the previous section, Plains defines BAT for this pipeline segment to be [redacted]

Plains is proposing to retrofit this pipeline segment with these BAT elements to bring it into conformance with Plain's definition of BAT for this pipeline segment.

The Risk Analysis presented below compares the baseline condition of this pipeline segment with the retrofit condition of the pipeline segment after installation of all of the proposed BAT elements. The following table summarizes the results of the Risk Analysis for these two conditions.

Table 4.A.1: Risk Analysis Summary Table

	Baseline Condition Existing L901 Las Flores to Gaviota	Retrofit with BAT Proposed L901 Las Flores to Gaviota	**Reduction** in Time/Volume Resulting from BAT Retrofit
Maximum leak detection time, hours	[redacted]		
Maximum shut-down response time, hours			
Maximum flow rate, barrels/hour	1,450	1,450	0
Drain down volume, barrels	2,776	1,726	1,050
Reasonable worst-case discharge volume, barrels	3,622	1,871	1,750

b. Risk Analysis Methodology and Findings

The following describes how each of the risk analysis metrics included in the Risk Analysis Summary Table were determined:

- *Maximum Leak Detection Time*

Maximum Leak Detection Time is defined as the time from when the pipeline release begins to when it has been detected. Detected in this case means when the LDS employed on that pipeline segment identifies a release and notifies the operator through an alarm.

The LDS employed on this pipeline segment when it last operated was a volume balance (VB) CPM system configured to balance it with the portion of Line 903 from Plains' Gaviota Station to Plains' Pentland Station. While VB CPM is a tried and true technology that meets pipeline safety regulations, [redacted]

[redacted]

- *Maximum Flow Rate*

  Maximum flow rate was determined from historical flow data and the average maximum flow rate in that pipeline segment. This maximum flowrate was used for both Risk Analysis conditions (baseline and BAT/retrofit).

- *Worst Case Drain-Down Volume and Worst Case Discharge Volume*

  Worst Case Volume is a quantity that can be theoretically calculated at any point along a pipeline based on several parameters. These parameters include pipe diameter and wall thickness, product flow rate and valve closure response times (including both leak detection and shut-down response times) for a worst-case volume release, pipeline elevation data, and the existence and location of valves that can act to isolate individual sections of pipe.

  The following table provides a listing of the existing valves on this pipeline segment and the valves proposed as one of the BAT elements. The table also provides the location of each valve based on the distance from the pipeline segment origination point at Plains' Las Flores Station, the location of each valve by its latitude and longitude, the valve type, and whether it is existing or proposed. The location and number of valves was determined through an Emergency Flow Restriction Device assessment focused on minimizing the volume of a potential release and the potential impact to the Coastal Zone.

Table 4.B.1: Existing and Proposed Valve Locations

Valve #	Current Status	Type	Function	Measure Location	Longitude	Latitude
[redacted]						

The worst-case discharge volume can be calculated for any point along a pipeline segment and consists of the sum of two calculations: the volume of the initial loss occurring from the moment the release begins to the moment the isolation valves have closed, and the volume of drain down at a given point on the pipeline. The calculation is as follows:

- DD = Drain Down Volume
- MLDT = Maximum Leak Detection Time
- MSDRT = Maximum Shut-Down Response Time
- MFR = Maximum Flow Rate
- WCD = Worst Case Discharge (bbls)
- WCD = [(MLDT + MSDRT) x MFR] + DD

For the purposes of the Risk Assessment for this pipeline segment, a guillotine failure severing the pipeline completely was assumed. The Risk Intelligence Platform (RIPL) model was used to calculate the Worst Case Discharge Volume and Drain-Down Volume every 30 meters along each portion of the pipeline segment defined by isolation valves. The location along each isolation portion of the pipeline segment that yielded the largest worst case volume was then noted.

The following table lists each of the isolation portions for the BAT (or retrofit) condition of the pipeline segment, the location of the beginning and end of each isolation portion measured in feet downstream of the pipeline segment origination point at Plains' Las Flores Station, and the worst case discharge volume and drain-down volume for each isolation portion.

Table 4.B.2: Isolation Segments and Worst-Case Volumes

Valve # From - To	Begin Measure Feet	End Measure Feet	Drain down Volume BBLS	Worst Case Volume BBLS

c. Risk Analysis Conclusions

As the Risk Analysis Summary table clearly illustrates, installation of the BAT components proposed for this pipeline segment reduces the worst case discharge volume from the baseline case. Installation of the proposed BAT elements on this

pipeline segment reduced the baseline worst case volume of 3,622.20 bbls to 1,871.40 bbls, a 48% reduction.

This analysis assumes that Plains can secure permits and access to install the proposed valves and associated power access, instrumentation, and communication devices as well as the additional flow measurement equipment at Plains' Gaviota Station.

5. Timetable for Implementation

a. Describe the timetable for implementation and completion of the identified BAT plan. This plan shall include key milestones and, at a minimum, consider the following: purchase of equipment, acquisition of permits, and securing qualified individuals for construction

Please reference the attached Gantt chart, which provides the estimated schedule and anticipated tasks involved to implement and complete the identified BAT plan. Key milestones include receiving Office of the State Fire Marshal concurrence and acceptance of the risk analysis and supplemental implementation plan, obtaining regulatory permits and surface sites for BAT installation, procurement of BAT-related equipment, and the initiation and completion of construction to install the identified BAT. Delays in securing permits and access for BAT installation, among other factors, may result in delays to the BAT implementation schedule. Should Plains experience significant delays it will notify the Office of the State Fire Marshall. 2113(c)(2)(B).

Enclosures

Registered Agent for Service Documentation

Secretary of State

1505

Registered Corporate Agent for Service of Process Certificate

(Registered Corporations ONLY)

IMPORTANT — Read Instructions before completing this form.

Filing Fee – $30.00

Copy Fees – First page $1.00; each attachment page $0.50; Certification Fee - $5.00 plus copy fees

Who Can File? Any **active** corporation that is registered with the California Secretary of State can file this Form 1505 to become authorized to be a corporate agent for service of process for other business entities that are registered with the Secretary of State. To check the status of your corporation, and to ensure you are entering the **exact** name of the corporation and the **correct** 7-digit Secretary of State file number, go to BusinessSearch.sos.ca.gov.

FILED

Secretary of State
State of California

A0852950

Filing Number

02/10/2021

Filing Date

This Space For Office Use Only

1. Corporate Name (Enter the **exact** name of the corporation as it is recorded with the California Secretary of State.)

CORPORATION SERVICE COMPANY WHICH WILL DO BUSINESS IN CALIFORNIA AS CSC - LAWYERS INCORPORATING SERVICE

2. 7-Digit Secretary of State Entity Number

C1592199

3. Address for Service of Process (Enter the **complete** street address in California of the office where any entity that named your corporation as agent for service of process may be served with process.)

Do not enter a P.O. Box or "in care of" an individual or entity.

Street Address - **Do not enter a P.O. Box**	City (no abbreviations)	State	Zip Code
2710 Gateway Oaks Drive, Suite 150N	Sacramento	**CA**	95833

4. Authorized Employees (Enter the names of all persons employed by your corporation who are authorized to accept delivery of any copy of service of process, at the address entered in Item 3 above, on any entity who has designated your corporation as its agent for service of process. **Must** enter at least 1 person. If there are more than 3, **see Instructions**.)

a. First Name of Authorized Employee	Middle Name	Last Name	Suffix
See attached list			
b. First Name of Authorized Employee	Middle Name	Last Name	Suffix
c. First Name of Authorized Employee	Middle Name	Last Name	Suffix

5. Statement of Consent (Do not alter the Statement of Consent.)

This corporation consents that delivery of a copy of service of process to an authorized employee at the address designated in item 3 shall constitute delivery of any such copy to the corporation, as the agent for service of process.

6. Read and Sign Below (See Instructions. Office or title not required. Do not use a computer generated signature.)

I am a corporate officer and am authorized to sign on behalf of the corporation.

Jackie Smetana

Signature

Jackie Smetana, Executive Vice President

Type or Print Name

Kaitlyn Mannix
Becky DeGeorge
Koy Saechao
Lai Saevang
Nicole Stauss
Kevin Bautista
Trudy Desbiens
Susie Vang
Catherine Webb
Roxie Taylor
Fanny Xiong
Melissa Vang
Dona Niemeyer
Melissa DeKoven
Carolyn Valle
Kaci Ransom
Kan Pen
Kelli Shortte
Annette Kuhlman
Arrielle Garcia
Brejet Stephens
Crystal Chapman
Janette Mcintyre
Jerome Suarez
Jonel Yelverton-
Reis
Kayla Vue
Laurie Tolman
Mindy Fay
Rafael Munoz
Samantha Alterman
Samantha Wiltz
Sherie Hinton
Parid Kurbini
Vivien Mitchell

State of California
Secretary of State

FOREIGN LIMITED PARTNERSHIP
AMENDMENT TO APPLICATION FOR REGISTRATION

A $30.00 filing fee must accompany this form.
IMPORTANT-- Read instructions before completing this form.

FILED
In the office of the Secretary of State
of the State of California

DEC 29 2006

This Space For Filing Use Only

1 SECRETARY OF STATE FILE NUMBER
199832700008

2. NAME UNDER WHICH THIS FOREIGN LIMITED PARTNERSHIP IS CONDUCTING BUSINESS IN CALIFORNIA
PLAINS PIPELINE, L.P.

3. **COMPLETE ONLY THE BOXES WHERE INFORMATION IS BEING CHANGED. ADDITIONAL PAGES MAY BE ATTACHED, IF NECESSARY. CONSULT THE INSTRUCTIONS BEFORE COMPLETING THIS FORM.**

A. THE NAME UNDER WHICH THIS FOREIGN LIMITED PARTNERSHIP CONDUCTS BUSINESS IN CALIFORNIA (END NAME WITH THE WORDS "LIMITED PARTNERSHIP" OR THE ABBREVIATION "L.P.")

B. THE NAME OF THE FOREIGN LIMITED PARTNERSHIP HAS BEEN CHANGED AS FOLLOWS AND HAS BEEN RECORDED IN THE HOME STATE OR COUNTRY

C. THE ADDRESS OF THE PRINCIPAL EXECUTIVE OFFICE — CITY — STATE — ZIP CODE

D THE ADDRESS OF THE PRINCIPAL OFFICE IN CALIFORNIA — CITY — STATE **CA** — ZIP CODE

E. THE NAME OF THE AGENT FOR SERVICE OF PROCESS
Corporation Service Company which will do business in California as CSC-Lawyers Incorporating Service

F ADDRESS OF THE AGENT FOR SERVICE OF PROCESS. **COMPLETE ONLY IF AN INDIVIDUAL.**
ADDRESS
CITY — STATE **CA** — ZIP CODE

G. THE ADDRESS OF GENERAL PARTNER(S) (ATTACH ADDITIONAL PAGES IF NECESSARY)
NAME
ADDRESS
CITY — STATE — ZIP CODE

H. NAME CHANGE OF GENERAL PARTNER(S) (ATTACH ADDITIONAL PAGES IF NECESSARY)
FROM: — TO:

I. WITHDRAWAL OF GENERAL PARTNER(S)
NAME
NAME
NAME

J. ADDED GENERAL PARTNER(S) (ATTACH ADDITIONAL PAGES IF NECESSARY)
NAME
ADDRESS
CITY — STATE — ZIP CODE

K. STATE OR COUNTRY OF FORMATION OF THE FOREIGN LIMITED PARTNERSHIP

L. DATE ON WHICH THE FOREIGN LIMITED PARTNERSHIP WAS FORMED

4. NUMBER OF PAGES ATTACHED (IF ANY)

5. THE FOREIGN LIMITED PARTNERSHIP NAMED ABOVE IS, AS OF THE DATE THIS AMENDMENT IS EXECUTED, AUTHORIZED TO EXERCISE ITS POWERS AND PRIVILEGES AS A LIMITED PARTNERSHIP IN ITS HOME STATE OR COUNTRY OF FORMATION.

6. I CERTIFY THAT THE STATEMENTS CONTAINED IN THIS DOCUMENT ARE TRUE AND CORRECT TO MY OWN KNOWLEDGE. I DECLARE THAT I AM THE PERSON WHO IS EXECUTING THIS INSTRUMENT, WHICH EXECUTION IS MY ACT AND DEED.

SIGNATURE OF AUTHORIZED PERSON

Tim Moore, VP on behalf of
TYPE OR PRINT NAME AND TITLE

11/13/06
DATE

SEC/STATE (REV. 03/2005)

Plains Marketing GP Inc. - General Partner

FORM LP-6 – FILING FEE: $30.00
Approved by Secretary of State

Outer Continental Shelf Crude Oil Safety Data Sheet

OCS-LAB Flores
Use per Exxon 9/20/95

EXXON COMPANY, U.S.A.
A DIVISION OF EXXON CORPORATION

CRUDE OIL

BEL
EMC
PNT
LAB
TLJ
BND

DATE ISSUED: 08/09/95
SUPERSEDES DATE: 09/22/93

MATERIAL SAFETY DATA SHEET

EXXON COMPANY, U.S.A. P. O. BOX 2180 HOUSTON, TEXAS 77252-2180

A. IDENTIFICATION AND EMERGENCY INFORMATION

PRODUCT NAME
Crude Oil

CHEMICAL NAME
Crude Oil

CAS NUMBER
8002-05-9

PRODUCT APPEARANCE AND ODOR
Dark Liquid
Strong hydrocarbon solvent odor

MEDICAL EMERGENCY TELEPHONE NUMBER
(713) 656-3424

B. COMPONENTS AND HAZARD INFORMATION

COMPONENTS	CAS No. OF COMPONENTS	APPROXIMATE CONCENTRATION
Crude oil - a naturally occurring combination of hydrocarbons. It consists predominately of paraffins, cyclo-paraffins, cyclic aromatic hydrocarbons having carbon numbers greater than C1. May also contain small amounts of benzene, hydrocarbons, sulfur and oxygenated compounds. All components of this product are listed on the U. S. TSCA inventory.	8002-05-9	100%

See Section E for health and hazard information

See Section H for additional Environmental Information.

HAZARDOUS MATERIALS IDENTIFICATION SYSTEM (HMIS)

Health	Flammability	Reactivity	BASIS
1	3	0	Recommended by Exxon

EXPOSURE LIMIT FOR TOTAL PRODUCT
Not established for total product

The airborne benzene level shall not exceed 1 ppm for an 8-hour workday; 5 ppm STEL — OSHA Regulation 29 CFR 1910.1028

C. PRIMARY ROUTES OF ENTRY AND EMERGENCY AND FIRST AID PROCEDURES

EYE CONTACT
If hot product is splashed into eyes, flush with clear water and contact physician immeidately. If splashed into eyes, flush with clear water for 15 minutes or until irritation subsides. If irritiation persists, call a physician.

SKIN CONTACT
Immediately contact a physician for treatment of thermal burns. In case of skin contact with product under other conditions, wash thoroughly with soap and water. Removal of product from skin may be aided by use of waterless hand cleaner. If product is injected into or under the skin, or into any part of the body, regardless of the appearance of the wound or its size, the individual should be evaluated immediately by a physician as a surgical emergency. Even though initial symptoms from high pressure injection may be minimal or absent, early surgical treatment within the first few hours may significantly reduce the ultimate extent of injury.

INHALATION
If overcome by vapor, remove from exposure and call a physician immediately. If breathing is irregular or has stopped, start resuscitation; administer oxygen, if available.

INGESTION
If ingested, **DO NOT** induce vomiting; call a physician immediately.

D. FIRE AND EXPLOSION HAZARD INFORMATION

FLASH POINT
Less than 16°C (60°F) to greater than 93°C (200°F) PMCC

AUTOIGNITION TEMPERATURE
Not Determined

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) - HAZARD IDENTIFICATION

Health	Flammability	Reactivity	BASIS
1	3	0	NFPA

HANDLING PRECAUTIONS
Keep product away from heat sparks, pilot lights, static electricity, and open flame.

FLAMMABLE OR EXPLOSIVE LIMITS (APPROXIMATE PERCENT BY VOLUME IN AIR)
Estimated Values: Lower Flammable Limit: 0.6% Upper Flammable Limit: 15%

HOT CRUDE FLASH WARNING
Studies have shown that relatively low flash point substances, such as low boiling hydrocarbons, may accumulate in the vapor space of crude tanks and bulk transport compartments. Such vapors may exhibit flammability characteristics of a significantly lower flash porduct than would be indicated by the flash test. As a precaution, keep ignition sources away from vents and openings, including prevention of accumulation of pyrophoric iron sulfide.

EXTINGUISHING MEDIA AND FIRE FIGHTING PROCEDURES
Foam, water spray (fog), dry chemical, carbon dioxide and vaporizing liquid type extinguishing agents may all be suitable for extinguishing fires involving this type of product, depending on size or potential size of fire and circumstances related to the situation. Plan fire protection and response strategy through consultation with local fire protection authorities or appropriate specialists.

The following procedures for this type of product are based on the recommendations in the National Fire Protection Association's "Fire Protection Guide on Hazardous Materials", Tenth Edition (1991):

Use water spray, dry chemical, foam, or carbon dioxide. Water or foam may cause frothing. Use water to keep fire-exposed containers cool. Water spray may be used to flush spills away from exposures. Minimize breathing gases, vapor, fumes or decomposition products. Use supplied-air breathing equipment for enclosed or confined spaces or as otherwise needed.

NOTE: The inclusion of the phrase "water may be ineffective" is to indicate that although water can be used to cool and protect exposed material, water may not extinguish the fire unless used under favorable conditions by experienced fire fighters trained in fighting all types of flammable liquid fires.

DECOMPOSITION PRODUCTS UNDER FIRE CONDITIONS
Fumes, smoke, carbon monoxide, aldehydes and other decomposition products, in the case of incomplete combustion.

"EMPTY" CONTAINER WARNING
"Empty" containers retain residue (liquid and/or vapor) and can be dangerous.
DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION; THEY MAY EXPLODE AND CAUSE INJURY OR DEATH. Do not attempt to clean since residue is difficult to remove. "Empty" drums should be completely drained, properly bunged and promptly returned to a drum reconditioner. All other containers should be disposed of in an environmentally safe manner and in accordance with governmental regulations. For work on tanks refer to Occupational Safety and Health Administration regulations, ANSI Z49.1, and other governmental and industrial references pertaining to cleaning, repairing, welding, or other contemplated operations.

E. HEALTH AND HAZARD INFORMATION

VARIABILITY AMONG INDIVIDUALS
Health studies have shown that many petroleum hydrocarbons pose potential human health risks which may vary from person to person. As a precaution, exposure to liquids, vapors, mists or fumes should be minimized.

EFFECTS OF OVEREXPOSURE (SIGNS AND SYMPTOMS OF EXPOSURE)
High vapor concentrations are irritating to the eyes and the respiratory tract, may cause headaches and dizziness, are anesthetic, may cause unconsciousness, and may have other central nervous system effects including death. **CAUTION:** Product sometimes shipped hot; protect against burns.

NATURE OF HAZARD AND TOXICITY INFORMATION
Skin contact with hot product may cause thermal burns. Prolonged or repeated contact with this product at warm or ambient temperatures tends to remove skin oils, possibly leading to irritation and dermatitis.

Eye contact with hot product may cause thermal burns. Contact with this product at warm or ambient temperatures may cause eye irritation but will not damage eye tissue.

This product may contain benzene, CAS #71-43-2, as a natural constituent. Benzene can cause anemia and other blood diseases, including leukemia (cancer of the blood-forming system), after prolonged or repeated exposures at high concentrations (e.g., 50-500 ppm). It has also caused fetal defects in tests on laboratory animals.

Crude Oil has been shown to cause skin cancer in animal tests. In such lifetime skin painting tests the substance was applied to the shaved backs of mice at regular intervals without cleanup between applications. In view of these findings, there may be a potential risk of skin cancer in humans from prolonged and repeated skin contact with this product in the absence of good personal hygiene.

Limited studies on oils that are very active carcinogens have shown that washing the animal's skin with soap and water between applications greatly reduces tumor formation. These studies demonstrate the effectiveness of cleansing the skin after contact.

Potential risks to humans can be minimized by observing good work practices and personal hygiene procedures generally recommended for petroleum products. See Section I for recommended protection and precautions.

PRE-EXISTING MEDICAL CONDITIONS WHICH MAY BE AGGRAVATED BY EXPOSURE
Benzene - Individuals with liver disease may be more susceptible to toxic effects.
Petroleum Solvents/Petroleum Hydrocarbons - Skin contact may aggravate an existing dermatitis.

F. PHYSICAL DATA

THE FOLLOWING DATA ARE APPROXIMATE OR TYPICAL VALUES AND SHOULD NOT BE USED FOR PRECISE DESIGN PURPOSES

BOILING POINT
Gas to 550°C (1000°F +)

VAPOR PRESSURE
Not Available

SPECIFIC GRAVITY (H_20 = 1)
Greater than or equal to 0.7

VAPOR DENSITY (AIR = 1)
Not Available

MOLECULAR WEIGHT
Not Available

PERCENT VOLATILE BY VOLUME
Up to 50%

pH
Essentially Neutral

EVAPORATION RATE @ ATM AND 25°C (77°F) (n-BUTYL ACETATE = 1)
Not Available

POUR, CONGEALING OR MELTING POINT
Not Available

SOLUBILITY IN WATER
Not Available

VISCOSITY
Not Available

G. REACTIVITY

This product is stable. Hazardous polymerization will not occur. Avoid contact with strong oxidants such as liquid chlorine, concentrated oxygen, sodium hypochlorite or calcium hypochlorite. Hot product in contact with water can cause foaming or sudden evolution of steam which could cause pressure build-up and possibly rupture a tank or vessel.

H. ENVIRONMENTAL INFORMATION

"CLEAN WATER ACT/OIL POLLUTION ACT - This product may be classified as an oil under Section 311 of the Clean Water Act, and under the Oil Pollution Act. Discharges or spills into or leading to surface waters that cause a sheen must be reported to the National Response Center (1-800-424-8802)."

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Shut off and eliminate all ignition sources. Keep people away. Recover free liquid. Add sand, earth or other suitable absorbent to spill area. Minimize breathing vapors. Minimize skin contact. Ventilate confined spaces. Hot product may solidify when cooled. Keep product out of sewers and watercourses by diking or impounding. Advise authorities if product has entered or may enter sewers, watercourses, or extensive land areas.

Assure conformity with applicable governmental regulations. Continue to observe precautions for volatile, flammable vapors from absorbed material.

THE FOLLOWING INFORMATION MAY BE USEFUL IN COMPLYING WITH VARIOUS STATE AND FEDERAL LAWS AND REGULATIONS UNDER VARIOUS ENVIRONMENTAL STATUES:

REPORTABLE QUANTITY (RQ), EPA REGULATION 40 CFR 302 (CERCLA Section 102)

This product/stream is exempt from CERCLA Reporting Requirements. Refer to Clean Water Act/Oil Pollution Act.

THRESHOLD PLANNING QUANTITY (TPQ), EPA REGULATION 40 CFR 355 (SARA Sections 301-304)

No TPQ for product or any constituent greater than 1% or 0.1% (carcinogen).

TOXIC CHEMICAL RELEASE REPORTING, EPA REGULATION 40 CFR 372 (SARA Section 313)

This product may contain:

- Approximately 0-1% benzene
- Approximately 0-3% cumene
- Approximately 0-2% cyclohexane
- Approximately 0-5% ethylbenzene
- Approximately 0-2% naphthalene
- Approximately 10-20% toluene
- Approximately 15-30% xylene

HAZARDOUS CHEMICAL REPORTING, EPA REGULATION 40 CFR 370 (SARA Sections 311-312)

EPA HAZARD CLASSIFICATION CODE:

Acute Hazard	Chronic Hazard	Fire Hazard	Pressure Hazard	Reactive Hazard	Not Applicable
XXX	XXX	XXX			

I. PROTECTION AND PRECAUTIONS

VENTILATION

Provide ventilation sufficient to prevent exceeding recommended exposure limit or build-up of explosive concentrations of vapor in air. Use explosion-proof equipment.

RESPIRATORY PROTECTION

Use supplied-air respiratory protection in confined or enclosed spaces, if needed.

PROTECTIVE GLOVES

Protect against hot liquid. Use chemical-resistant gloves to avoid skin contact.

EYE PROTECTION
Use splash goggles or face shield when eye contact may occur.

OTHER PROTECTIVE EQUIPMENT
Use chemical-resistant apron or other impervious clothing, if needed, to protect against hot liquid and to avoid skin contact.

WORK PRACTICES / ENGINEERING CONTROLS
Use explosion-proof equipment. No smoking or open lights.

PERSONAL HYGIENE
Minimize breathing vapor, mist or fumes. Avoid prolonged or repeated contact with skin. Remove contaminated clothing; launder or dry-clean before reuse. Remove contaminated shoes and thoroughly clean before reuse; discard if oil-soaked. Cleanse skin thoroughly after contact, before breaks and meals, and at end of work period. Product is readily removed from skin by waterless hand cleaners, followed by washing thoroughly with soap and water.

J. TRANSPORTATION AND OSHA RELATED LABEL INFORMATION

TRANSPORTATION INCIDENT INFORMATION
For further information relative to handling spills resulting from transportation incidents, refer to latest Department of Transportation Emergency Response Guidebook for Hazardous Materials Incidents (ERG).

DOT IDENTIFICATION NUMBER
Know the flash point for each shipment to accurately classify it into the right category.

Petroleum Crude Oil, 3, UN 1267, PG*
*PG I - Initial Boiling Point =< 95°F (35°)
*PG II - Initial Boiling Point > 95°F (35°), Flash Point <73°F (23°C)
*PG III - Initial Boiling Point > 95°F (35°), Flash Point ≤73°F (23°C) and =<141°F (60.5°C)
OR
Petroleum crude oil, combustible liquid, UN 1267, PG III
(Flash Point >141°F (60.5°F) and <200°F (93°)
OR
Not regulated if flash point = >200°F (93°)

OSHA REQUIRED LABEL INFORMATION
In compliance with hazard and right-to-know requirements, the following OSHA Hazard Warnings should be found on a label, bill of lading or invoice accompanying this shipment.

DANGER!

EXTREMELY FLAMMABLE

LONG-TERM, REPEATED EXPOSURE MAY CAUSE CANCER, BLOOD AND NERVOUS SYSTEM DAMAGE

CONTAINS: BENZENE

OVEREXPOSURE MAY CAUSE EYE, SKIN OR RESPIRATORY TRACT IRRITATION OR DAMAGE, AND MAY CAUSE HEADACHES, DIZZINESS OR OTHER ADVERSE NERVOUS SYSTEM EFFECTS OR DAMAGE, INCLUDING DEATH

This information and recommendations contained herein are, to the best of Exxon's knowledge and belief, accurate and reliable as of the date issued. Exxon does not warrant or guarantee their accuracy or reliability, and Exxon shall not be liable for any loss or damage arising out of use thereof.

The information and recommendations are offered for the user's consideration and examination, and it is the user's responsibility to satisfy itself that they are suitable and complete for its particular use. If buyer repackages this product, legal counsel should be consulted to insure proper health, safety and other necessary information is included on the container.

The Environmental Information included under Section H thereof as well as the National Fire Protection Association (NFPA) ratings have been included by Exxon Company, U.S.A. in order to provide additional health and hazard classification information. The ratings recommended are based upon the criteria supplied by the developers of these rating systems, together with Exxon's interpretation of the available data.

FOR ADDITIONAL INFORMATION ON HEALTH EFFECTS CONTACT:

Director of Industrial Hygiene
Exxon Company, USA
Room 3180, Exxon Building
P. O. Box 2180
Houston, Texas 77252-2180
(713) 656-2443

Flow Diagrams

[redacted]

SANTA BARBARA, CALIFORNIA
SECTION 27 – T5N – R30W

LAS FLORES PUMP STATION FLOW DIAGRAM

TITLE OF REFERENCE DRAWING	DRAWING NO.

NOTES:

NAME	DATE	NAME	DATE	NAME	DATE
OPERATIONS		ENGINEERING		DRAFTING	
				JM	09/13

REV. NO.	REVISION	DATE
0	AS-BUILT PER FIELD WALKDOWN	09/27/13

PLAINS ALL AMERICAN PIPELINE L.P.

LAS FLORES PUMP STATION
BAKERSFIELD DISTRICT, WESTERN DIVISION
PROCESS FLOW DIAGRAM

DRAWN	BP	CHECKED	JM	DRFT. APPV.	MEO
DATE	09/27/13	SCALE	NONE	ENGR. APPV.	

LSF1-D-F-1083

[redacted]

SANTA BARBARA, CALIFORNIA
SECTION , T5N – R30W

GAVIOTA PUMP STATION FLOW DIAGRAM

TITLE OF REFERENCE DRAWING	DRAWING NO.

NOTES:

NAME	DATE	NAME	DATE	NAME	DATE	REV. NO.	REVISION	DATE
OPERATIONS		ENGINEERING		DRAFTING				
				JM	09/13	0	AS-BUILT PER FIELD WALKDOWN	09/27/13

PLAINS ALL AMERICAN PIPELINE L.P.

GAVIOTA PUMP STATION
BAKERSFIELD DISTRICT, WESTERN DIVISION
PROCESS FLOW DIAGRAM

DRAWN	CHECKED	DRFT. APPV.
BP	JM	MEO
DATE 09/27/13	SCALE NONE	ENGR. APPV.

GVT1-D-F-1084

Vicinity Map

Santa Barbara

Gaviota

Las Flores

Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

0 0.15 0.3 0.6 0.9 1.2
Miles

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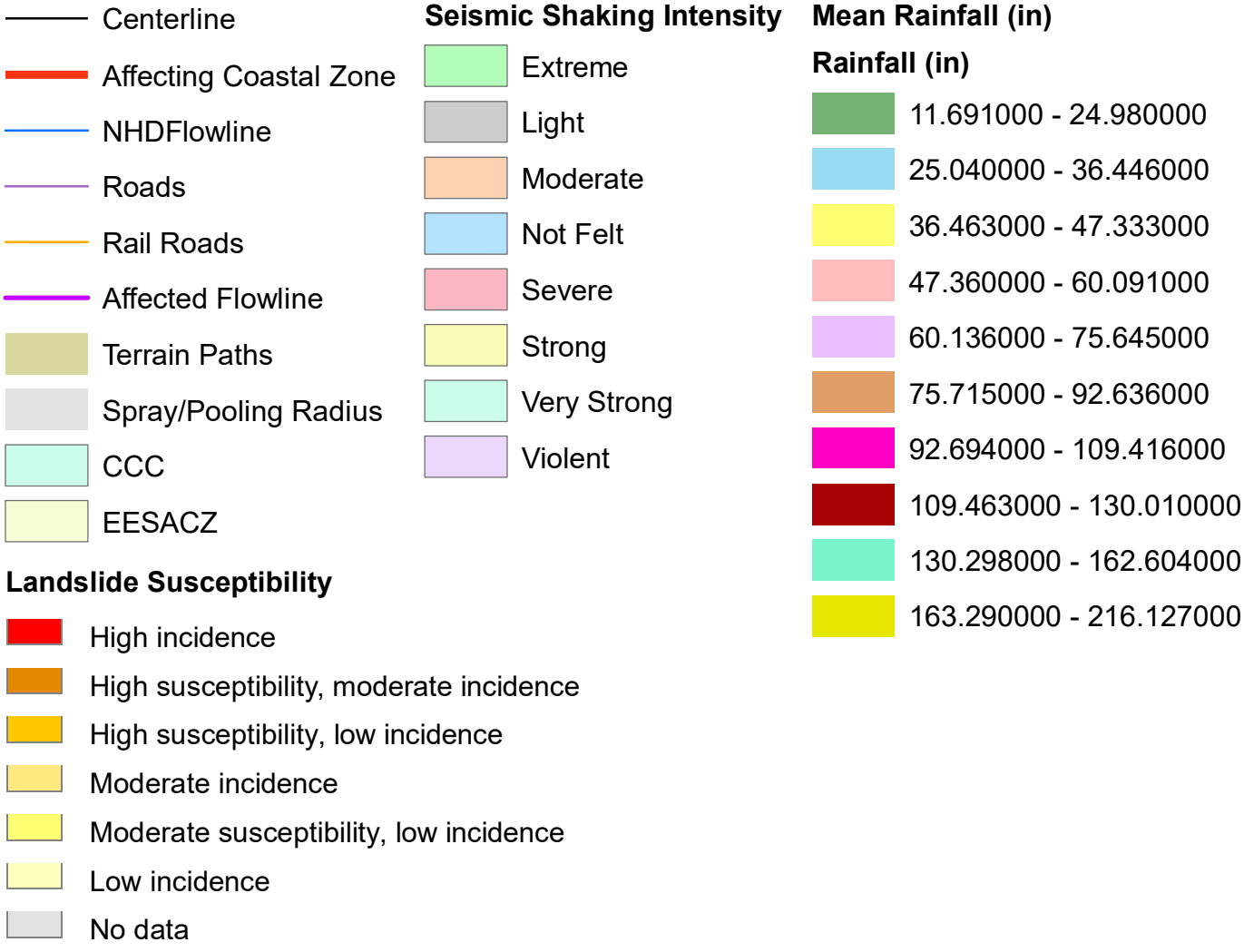
PLAINS ALL AMERICAN PIPELINE, L.P.

L901 LAS FLORES TO GAVIOTA - 24"

	1 in:1 miles
	Sheet No.: 1/2

Plains2021C-02_0000082



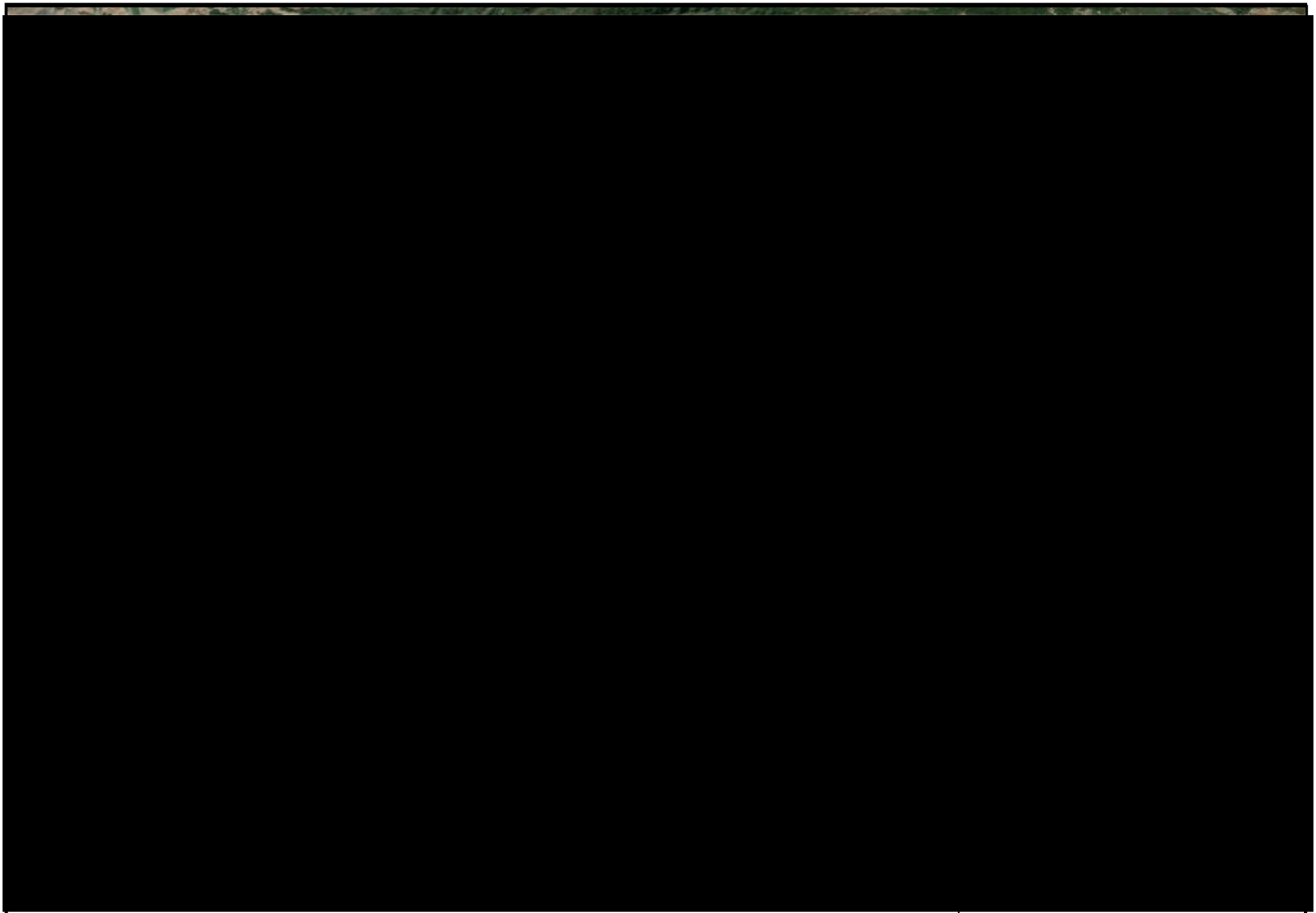
Segment:
L901 LAS FLORES TO GAVIOTA - 24"

Sheet No: 2/2

LEGEND

Owner:
PLAINS ALL AMERICAN PIPELINE, L.P.

BAT Location Map



0 1,750 3,500 7,000 10,500 14,000

Feet

N

W E

S

This user generated map has been prepared from sources considered to be reliable. However, Plains Pipeline L.P. hasfurnished this copy for information only and assumes no responsibility for the accuracy or completeness of data shown.

PLAINS ALL AMERICAN PIPELINE, L.P.

Line 901 BAT Location Map

Implementation Plan	Scale: 1:75,000
Santa Barbara, California	Sheet No: 1/1

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Timetable for Implementation Gantt Chart