

CALENDAR ITEM

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PRC 421.1
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CONSIDER CERTIFICATION OF A FINAL ENVIRONMENTAL IMPACT REPORT (STATE CLEARINGHOUSE NO. 2005061013), ADOPTION OF FINDINGS, STATEMENT OF OVERRIDING CONSIDERATIONS, AND MITIGATION MONITORING PROGRAM; AND THE REVISED PRC 421 RECOMMISSIONING PROJECT ON STATE OIL AND GAS LEASE NO. PRC 421.1, BY VENOCO, INC., SANTA BARBARA COUNTY

APPLICANT:

Venoco, Inc.
Attn.: Mr. Chris Peltonen
6267 Carpinteria Ave., Suite 100
Carpinteria, CA 93013

AREA, LAND TYPE, AND LOCATION:

One subsurface oil and gas lease State Oil and Gas Lease No. PRC 421.1 (PRC 421), containing approximately 68.48 acres of tide and submerged land offshore Santa Barbara County, California (Exhibit A, attached hereto).

SUMMARY OF ISSUES:

- 1) PRC 421 was issued by the State Lands Commission (Commission or CSLC) on October 22, 1949, and production from the lease was continuous until it was curtailed in May 1994, due to an onshore oil spill from a 6-inch flow line transporting oil from Well 421-2, following processing on the pier, to the Ellwood Marine Terminal. The spill occurred beneath the 12th tee of the Sandpiper Golf Course.
- 2) Commission staff has repeatedly determined that PRC 421 is in full force and effect and that Venoco Inc. (Venoco), as the rightful assignee of the leasehold, has contractual and vested rights and obligations to produce oil and gas pursuant to the lease.

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- 3) Venoco has submitted a recommissioning plan to resume production pursuant to PRC 421. The recommissioning plan does not provide for any new drilling; rather, it is only the resumption of production from one well, Well 421-2.
- 4) When reviewing the recommissioning plan, the Commission is authorized to ensure that Venoco has taken adequate corrective measures to repair the pipeline leak that required the cessation of production in 1994.
- 5) Venoco's proposed Revised PRC 421 Recommissioning Project (Project) provides for:
 - (a) resumption of production of oil from Well 421-2;
 - (b) processing of an average of 150 barrels of oil per day (BOPD) at the Ellwood Onshore Facility (EOF) (historically processing of Well 421-2 crude occurred on Pier 421-2); and
 - (c) the decommissioning and removal of Well 421-1 (an adjacent well used for water disposal), Pier 421-1, and other associated facilities.

The EOF is operating as a legal nonconforming use pursuant to City of Goleta Municipal Code, and processing at the EOF requires City approval.

- 6) In response to Venoco's recommissioning plan, Commission staff prepared an Environmental Impact Report (EIR) evaluating the proposed Project and reasonable alternatives, including the No Project Alternative. The No Project Alternative was redefined in the recirculated Draft EIR to more accurately identify that if the Commission finds that Venoco has taken adequate corrective measures to repair the infrastructure associated with PRC 421, Venoco is obligated to produce oil and gas pursuant to the lease under conditions similar to those in existence in 1994, which included oil and gas processing in the surf zone. The No Project Alternative was not identified as environmentally superior to the proposed Project because it would cause the same production-related impacts as the proposed Project with the addition of oil and gas processing in the surf zone.
- 7) The potential repressurization of the Vaqueros Formation is unrelated to Venoco's legal rights under PRC 421 to resume production. Rather, Commission staff engineers have concluded that the resumption of production at PRC 421 is the only feasible way to depressurize the Vaqueros Formation and to capture the data needed to fully assess the

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long-term risks of reservoir repressurization and the potential for offshore seepage.

- 8) The use of hydraulic fracturing (“fracking”), matrix acidization or acid fracking as a stimulation treatment, within the meaning of Public Resources Code section 3157 is not proposed as part of this Project. Venoco has submitted a statement that it will not use hydraulic fracturing, matrix acidization or acid fracking to produce oil and gas at Well 421-2.
- 9) At its April 23, 2014, meeting, the Commission considered and deferred action on the Final EIR and directed staff to analyze the Las Flores Canyon Alternative; review the repressurization discussion, the EOF as a legal non-conforming use discussion, and greenhouse gas (GHG) mitigation measures; and recirculate the EIR (Calendar Item 91, April 23, 2014).

BACKGROUND:

PRC 421 overlays a small portion of the offshore Ellwood Oil Field (Ellwood field) located in Santa Barbara County adjacent to the City of Goleta (City) and near the Sandpiper Golf Course. The offshore Ellwood field runs parallel to the coast and is approximately 4 miles long by 0.5 mile wide.

Between 1929 and the early 1940s, the development of the Ellwood field occurred by wells drilled from artificial piers (see Exhibit E). During this period, a total of 74 wells were drilled on seven separate state oil and gas leases, including those leases issued by the Commission’s predecessor agency, the Surveyor-General. Oil production from these wells declined through natural depletion of the reservoir to the point where they were no longer economic to produce. All 74 wells were abandoned, and their piers were eventually removed. These 74 wells are now referred to as “orphan wells” because there is no viable entity with legal liability for any of them today and their exact locations are not precisely known. From the 1940s to the 1990s, 35 more wells were drilled on the remaining oil and gas leases including two wells in PRC 421, which was issued by State Lands Commission on October 22, 1949, to Bankline Oil Company. A total of 109 wells were drilled, all producing from the Vaqueros sandstone formation in the Ellwood field. In 1959, the term of PRC 421 was extended for an additional

“five (5) years, and for so long thereafter as oil or gas is produced in paying quantities or the Lessee shall be conducting producing, drilling, deepening, repairing, redrilling, or other necessary lease or well maintenance operations on the leased lands.”

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Through a series of assignments, the present lessee is Venoco. By 1993, all but the PRC 421 wells had become uneconomic to produce and were plugged, abandoned, and their piers removed.

Currently, the only existing wells in the Ellwood field are the two offshore wells located on PRC 421, consisting of a production Well 421-2 and a former production Well 421-1, the latter of which was converted to water injection in 1973. Production from PRC 421 was processed at the piers and sent directly into the former pipeline to the marine terminal (Line 96) at a connection point just south of the EOF, and then was sent by barge to various market destinations.

Production was continuous until an onshore oil spill from the transportation pipeline caused Venoco's predecessor (Mobil Oil) to shut down operations in May 1994. Mobil Oil subsequently repaired the pipeline and remediated the saturated soil underlying part of the Sandpiper Golf Course. In July 1997, the Commission approved Mobil Oil's assignment of PRC 421 to Venoco (Calendar Item 76, July 11, 1997).

PROPOSED PROJECT:

Venoco has submitted its proposed Revised PRC 421 Recommissioning Project (originally submitted in May 2004 and subsequently amended and revised in May 2013) for consideration by the Commission. The Project proposes to resume oil and gas production from Well 421-2 utilizing the existing infrastructure currently in place (Well 421-2, Pier 421-2, and the EOF). Production from PRC 421 is estimated to continue for 20 years. Project components include the following.

- A new electrical submersible pump (ESP) deep inside the casing (approximately 2,000 feet below ground level) of Well 421-2 and associated stainless steel equipment enclosures.
- A new power cable from the EOF to Pier 421-2 to power metering, well instrumentation, and the ESP and control systems.
- Installation of well safety equipment.
- Connecting piping and installation of a pig launcher connection.
- Production metering and process monitoring equipment within the EOF.
- Provisions for process monitoring and control between Pier 421-2 and the EOF.
- New wood-plank decking and replacement railings on and around the perimeter of the Pier 421-2 deck for safety and aesthetic purposes.

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- A communication system, including a cable between Pier 421-2 and the EOF.
- A surveillance camera mounted on Pier 421-2 that would monitor the piers and would provide live video feed displayed in the EOF Control Room.
- One new 3-inch flowline (to be installed inside the upgraded existing 6-inch line) connecting Pier 421-2 to the EOF commingling with oil production from Platform Holly for oil processing.
- Reactivation of Well 421-2.

The proposed Project also includes processing of an average of 150 BOPD of produced oil/gas/water emulsion at the EOF where it would commingle with oil emulsion from Platform Holly. The EOF is operating as a legal nonconforming use pursuant to City of Goleta Municipal Code, and processing at the EOF requires City approval.

Processing oil at the EOF would result in the decommissioning and removal of Well 421-1 and Pier 421-1 as they would no longer be needed for processing the oil or for produced water injection. Venoco would submit to Commission staff for review and consent to its proposal for Well 421-1 decommissioning and abandonment of Well 421-1 and associated facilities, including Pier 421-1, within 90 days of receipt of all permits required for the recommissioning of Well 421-2 using the EOF for processing.

ENVIRONMENTAL IMPACT REPORT (EIR):

Commission staff has prepared an EIR for the proposed Project in compliance with the California Environmental Quality Act (CEQA) and the State CEQA Guidelines. (Pub. Resources Code, § 21000 et seq. and Cal. Code Regs., tit. 14, § 15000 et seq., respectively.) The EIR examines the potential impacts of the proposed Project.

The following is a brief chronology of the CEQA process associated with the proposed Project.

- On June 3, 2005, staff issued a Notice of Preparation (NOP) for the proposed Project to responsible and trustee agencies and to other interested parties. The proposed Project was based on Venoco's May 2004 Recommissioning Plan as part of Venoco's application submittal. Through the NOP, the staff solicited both written and verbal comments on the EIR's scope during a 30-day comment period and provided information

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on two forthcoming public scoping meetings held in Goleta, California, on July 5, 2005.

- On September 4, 2007, a Draft EIR was released for public review with comments accepted by mail, email, facsimile transmission (fax), and in person at two public meetings held in Goleta on October 16, 2007.
- From December 2007 to January 2013, Commission staff suspended EIR preparation due to major changes in Project details that occurred since staff released the 2007 Draft EIR. (The Commission did not respond to the comments received on the 2007 Draft EIR, which was not finalized; however, the comments are on file as part of the administrative record.) A summary of the Project changes include the following:
 - 1) Venoco revised its Project Description in 2013.
 - 2) Line 96 from the EOF to Las Flores Canyon was constructed and is now operating.
 - 3) Venoco ended barging of oil production from the Ellwood Marine Terminal.
 - 4) Venoco completed emergency repairs to the Pier 421-2 caisson.
 - 5) Project alternatives and cumulative projects changed. (State CEQA Guidelines, § 15088.5, subd. (g).)
- In January 2013, Commission staff and Venoco agreed to restart the EIR process.
- On March 6, 2013, staff issued a new NOP. The NOP was revised and recirculated on March 26, 2013, consistent with the amended 2013 Recommissioning Plan, and staff held two scoping meetings in Goleta on April 3, 2013.
- On October 18, 2013, a Revised Draft EIR was released for public review with comments accepted by mail, email, fax, and in person at two public meetings held in Goleta on December 11, 2013.
- On January 30, 2014, the Final EIR was posted on the Commission website at www.slc.ca.gov and made available for public review.
- On April 23, 2014, the Commission considered and deferred action on the Final EIR and directed staff to analyze the Las Flores Canyon Alternative, review the repressurization discussion, land use discussion, and GHG mitigation measures, and recirculate the EIR.

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- On July 24, 2014, a Recirculated Draft EIR was released for public review with comments accepted by mail, email, fax, and in person at two public meetings held in Goleta on September 15, 2014.
- On November 7, 2014, the Final EIR was posted on the Commission website at www.slc.ca.gov and made available for public review.

The proposed Project received comments from governmental agencies, environmental organizations, and individuals during the Recirculated Draft EIR public review period (July – September 2014). Five speakers provided comments at the public hearings on the Recirculated Draft EIR in September 2014, and staff received 13 written sets of comments. Many of the comments had recurring themes relating to the Project including:

- Duration of Project and Production at Platform Holly;
- Continued Use of the EOF;
- Repressurization and Repressurization Monitoring;
- Use of Shared Facilities at Las Flores Canyon; and
- Mitigation of Greenhouse Gas Emissions.

Responses to these recurring comments are included in master responses in Part II of the Final EIR. The Final EIR also provides responses to all other comments received on the Recirculated Draft EIR.

Summary of Environmental Impacts:

As analyzed in the EIR, the Project would generate potentially significant environmental impacts associated with the following issue areas:

- Geological Resources
- Safety
- Hazardous Materials
- Air Quality and Greenhouse Gases
- Hydrology, Water Resources, and Water Quality
- Marine Biological Resources
- Terrestrial Biological Resources
- Land Use, Planning, and Recreation
- Public Services
- Transportation and Circulation
- Noise
- Aesthetic/Visual Resources
- Cultural, Historical, and Paleontological Resources

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- Energy and Mineral Resources
- Socioeconomics and Environmental Justice

With the implementation of mitigation measures specified in the EIR, a number of these impacts would be reduced to *Less than Significant*, but several impacts would remain *Significant and Unavoidable* even after all appropriate and feasible mitigation measures are applied. Specifically, the Project is expected to have *Significant and Unavoidable* impacts associated with the following:

- Safety
- Hydrology and Water Resources and Water Quality
- Marine and Terrestrial Biological Resources
- Land Use, Planning, and Recreation
- Public Services
- Aesthetics/Visual Resources

The *Significant and Unavoidable* impacts are mainly attributed to the inherent risk of oil spills from the Project and impacts to Land Use due to the Project's conflicts with the City of Goleta's General Plan/Coastal Land Use Plan and underlying Coastal Act Policies.

Alternatives:

Many alternatives to the proposed Project were considered in the EIR; however, several were eliminated due to feasibility issues and include the following:

- Drilling from the Ellwood Onshore Facility (EOF)
- Drilling from Platform Holly
- Condensed Production Schedule
- Offshore Oil Processing on Platform Holly
- Transportation of Production By Truck
- Recommissioning Using Historic Production Methods
- No Project Alternative with Pressure Testing

Alternative locations to produce the oil from PRC 421 from the existing Well 421-2 were examined including drilling from the EOF or drilling from Platform Holly, as provided above; however, both of these alternatives are technically infeasible leaving no other location to produce oil and gas from PRC 421. Alternatives analyzed in the EIR include the following:

- No Project Alternative
- No Production/Quitclaim State Oil and Gas Lease PRC 421 Alternative

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- Reinjection at Platform Holly Alternative
- Processing PRC 421 Oil at Las Flores Canyon Alternative

In addition to analyzing the Las Flores Canyon Alternative, the redefinition of the No Project Alternative more accurately identifies the limits of the Commission's action as it relates to the Applicant's request to resume production at Well 421-2. Specifically, the Oil Processing on Pier 421-2 Alternative was renamed the No Project Alternative, and the former No Project Alternative was renamed the No Production/Quitclaim State Oil and Gas Lease PRC 421 Alternative. Other than the change in titles of these alternatives, the analyses of these alternatives was retained; staff changed the organization of these alternatives to better reflect the results of alternative Commission actions on PRC 421. Based on the analysis between the proposed Project and the four above alternatives, the proposed Project is the environmentally superior alternative.

It is important to highlight that the resumption of production from PRC 421 does not require processing at the EOF nor does resumption require the removal of Pier 421-1 and the associated injection well because the oil and gas may also be processed on the piers under conditions similar to those in existence in 1994. As such, the Commission's action would proceed pursuant to an existing valid oil and gas lease and a ministerial finding that adequate corrective measures have been taken, with reference to the 1994 suspension of operations, under Title 2 of the California Code of Regulations, section 2121. Upon finding that Venoco has taken adequate corrective measures, the Commission would approve Venoco's resumption of production and processing under conditions similar to those in existence in 1994 when the well was shut-in for corrective action.

The only significant addition to the EIR was an in-depth analysis of the Las Flores Canyon Alternative as directed by the Commission at the April 23, 2014, Commission meeting. The Las Flores Canyon Alternative would introduce new significant environmental impacts¹ and increase the severity of others, when compared to the proposed Project. This alternative would also result in many similar significant and unavoidable impacts to those that would occur under the proposed Project.

- The Las Flores Canyon Alternative would require the construction and operation of 9.7 miles of new pipeline from the EOF to the Receiving

¹ At least five additional significant and unavoidable impacts to safety, water quality, biological resources, land use, planning and recreation, and public services are associated with this alternative.

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Station in Las Flores Canyon and the construction and operation of up to 1.5 acres of new oil processing facilities at Las Flores Canyon.

- Processing at Las Flores Canyon after construction of the above facilities would eliminate the need to process approximately 150 BOPD of PRC 421 crude oil at the EOF, which, as mentioned above, is operating as a legal nonconforming use pursuant to City of Goleta Municipal Code. It would also reduce the risk of an environmental release or fire related to crude oil processing at the EOF. These scenarios would also occur under the No Project Alternative.
- Moving oil processing from the EOF to Las Flores Canyon would, however, increase Land Use and other impacts related to construction of the new pipeline and associated facilities, including potential exposure of Corral Canyon Creek and other Gaviota area streams to increased risk of spills more severe than under the Project and additional significant and unavoidable impacts to water quality and to marine and terrestrial biological resources due to a release of drilling fluids during horizontal directional drilling of these water crossings.
- Potential operational impacts would also incrementally increase under this alternative because the new pipeline system would require the use of a three-phase operation (i.e., oil/water/gas emulsion). This would require a pressure-based, rather than volumetric, leak detection system, which would, in turn, decrease leak detection capabilities and increase the probability of a larger-sized spill if the pipeline ruptured or leaked.

The No Production/Quitclaim State Oil and Gas Lease PRC 421 Alternative does not achieve any of the project objectives, as proposed by the Applicant, and would not provide the added benefit of pressure testing and monitoring the reservoir during its production. While the impacts of production could be avoided, the cost to the State to seek a quitclaim, to buy out the remaining production from Venoco, and to decommission and restore the land could be substantial. This alternative would lead to the following conditions:

- The PRC 421 wells are immediately and permanently shut in. Commission reservoir engineers are unable to pressure test the reservoir (a process that requires oil production).
- The Vaqueros Formation repressurizes over time.
- Repressurization could cause oil to leak at the sites of historic wells abandoned under antiquated standards or from natural seeps. (See below for full discussion on reservoir repressurization.)

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Repressurization without pressure testing and data collection means the significant risk that oil may be released into the coastal environment remains, affecting human health and marine resources, and the Commission will not have the data to prepare a meaningful response. As a result, this alternative is not the environmentally superior option.

The other two alternatives were also not considered environmentally superior to the proposed Project because, under the No Project Alternative, processing oil production would occur on Pier 421-1 and Pier 421-2, which would have an increased risk of accidental release of oil spills in the marine environment compared to processing at the EOF. The Reinjection at Platform Holly Alternative, similar to the No Project Alternative, would have an increased risk of accidental release of oil spills into the marine environment compared to processing at the EOF. However, processing PRC 421 oil at the EOF, as currently proposed for the Project, is contingent on approvals from the City of Goleta.

APRIL 2014 – ADDITIONAL COMMISSION DIRECTED REVIEW

In addition to the in-depth analysis of the Las Flores Canyon Alternative as discussed above, the topics below were reexamined.

Repressurization:

Pursuant to Commission direction, staff engineers and environmental scientists reviewed and reorganized the repressurization discussion in the Final EIR. Specifically, the repressurization discussion was removed from the project description and placed in the Environmental Impact Analysis Safety section (Section 4.2 of the Final EIR) to better illustrate that repressurization is unrelated to the Project and is a distinct risk to the existing environment. Furthermore, Commission staff's ability to monitor repressurization after resumption of production (see section 2.4.5 of the Final EIR) would be a beneficial impact of the Project. Upon review, Commission staff reaffirms its conclusion that the empirical evidence shows that the reservoir is repressurizing and that only production will allow the testing necessary to evaluate long term risks and impacts.

The oil reservoir from which PRC 421 produces is known as the Vaqueros sandstone formation ("Vaqueros"), and has been one of the more prolific producing reservoirs in the Ellwood oil field. This reservoir is not flat, but dome

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shaped, and lies between 3,200 and 3,700 feet beneath the sea floor. The reservoir is filled with fluid consisting of oil, water, and gas. The reservoir is pressurized from the weight of the fluids (oil and water) flowing within the formation. Returning Well 421-2 to production will cause the reservoir pressure to decline and will provide an opportunity to generate data regarding the probability of future repressurization.

A number of events and observations indicate that the Vaqueros Reservoir has been repressurizing and continues to repressurize. The empirical evidence demonstrates that reservoir pressures have risen, as shown by the controlled release of nearly 17,000 barrels of pure oil from PRC 421-2 in 2001 while undertaking emergency repairs. The release of oil confirmed that repressurization in the Vaqueros Reservoir was substantial and raised concern and the realization that nearby poorly abandoned wells could leak under similar and prolonged elevated reservoir pressures. Based on well records from the California Department of Conservation's Division of Oil, Gas, and Geothermal Resources (DOGGR) and knowledge of historical abandonment practices, many of the 74 orphan wells in the Ellwood Oil Field were abandoned in ways that do not meet modern standards.

The rise of fluid inside Well 412-2 was continually recorded from 1987-2000, and these fluid levels have been mathematically² converted into hydrostatic pressure, thereby providing the basis for an estimate of actual reservoir (formation) pressure. The pressure was calculated as 690 pounds per square inch (psi) in 1987, and steadily rose to approximately 1,350 psi in 2000 or almost double during that period of time.

The Commission's Mineral Resources Management Division staff has evaluated fluid level measurement data from Well 421-2 during the period from August 1987 through October 2000 and believes that pressures have continued to climb above the 1350 psi measurement and will reach a pressure very close to original reservoir pressure of 1525 psi. It is important to highlight that during the period that the wells were abandoned, reservoir pressures were low and the sealing effectiveness of the plugs were subject only to these low pressures. This means that the sealing adequacy of the plugs placed in the older abandoned wells, now subject to higher pressure conditions, will be increasingly tested. The risks of leakage cannot be quantified; however, the relative risk can be reduced if the

² An estimate of formation pressure can be made by using the height of the fluid column in a static well and the density of that fluid, by multiplying the column height (in feet) by the pressure gradient derived from the density (in psi/ft).

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reservoir pressure that has risen over time can be reduced by resuming withdrawals from Well 421-2.

Engineers with Venoco and the Commission identified two possible sources of repressurization: Aquifer influx (natural groundwater movement), or water influx from onshore water injection Well WD-1.

Substantial evidence exists that supports the basis of aquifer influx (natural groundwater movement) being the source of the original Vaqueros reservoir pressure state, as well as the cause of its present repressurization. First, geologic data from exploratory and developmental drilling showed that oil accumulation lies on the surface of an extensive aquifer. Second, an active water drive was suspected early in the field's development, as most initial wells flowed and many experienced rapid water encroachment. Finally, evidence of pressure support from aquifer influx, as well as gravity segregation, can be seen in the production performance of Well 421-2. Gravity segregation refers to the tendency of fluids (water and oil in this case) to stratify into different layers because of gravitational forces. In gravity segregation, the heaviest fluid (water) settles near the bottom of the reservoir and the lightest fluid (oil) rises to the top.

Injection Well WD-1 disposes of produced water from Platform Holly; it is drilled into a down-structure portion of the Vaqueros Reservoir. The well is located onshore, at the EOF, about 2,500 feet northwest of PRC 421. The well location was chosen because geologic data indicated that the Vaqueros Reservoir in that area selected for water injection is isolated from the oil-bearing part of the reservoir (the Ellwood Oil Field) by an east-west trending, high-angle reverse fault known as the La Vigia fault. Geologic data further suggest that Well WD-1 does not penetrate an area of the Vaqueros Reservoir that would affect the pressure at Well 421-2. Previous drilling showed that the La Vigia Fault acts as a barrier to oil migration. Oil is trapped in the sands on the south side of the fault, while no oil is found to the north of the fault.

For the above reasons, the Commission's staff engineers have concerns about the potential risk of oil and gas contamination in the marine environment from seepage through the older abandoned wells. Re-entering these older wells with the intent of re-abandoning them is not practical and could present a significant environmental risk to the surrounding marine area, even if the locations of these wells were accurately known and there was sufficient funding to re-abandon them. For the same reasons, the EIR analysis found that the No

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Production/Quitclaim State Oil and Gas Lease PRC 421 Alternative was not the environmentally superior alternative.

The expert opinion of the Commission's staff engineers is that repressurization of the Vaqueros Reservoir is an ongoing natural phenomena and an element of the environmental baseline with or without the Project (i.e., the reservoir would still be subject to repressurization following the completion of the proposed Project). The production of oil, pursuant to the proposed Project, would provide the temporary reduction in formation pressure necessary to generate data needed for long-term planning. The removal of oil through the production lifetime would also reduce the potential quantity of oil that could be released into the environment from repressurization.

Legal Non-Conforming Use:

In response to Commission direction, staff reviewed the discussion regarding the continued legal non-conforming use of the EOF and concludes that this issue has been accurately and fully analyzed. As explained in Master Response #2, in Part II, of the Final EIR, the EOF is a fully permitted and operating facility, and Venoco asserts that it intends to continue operating this facility under its existing permits as a legal nonconforming use. Under the proposed Project, the buildings and facilities at the EOF would not be enlarged, expanded, or extended, and proposed modifications would not result in oil processing exceeding or approaching permitted levels for the EOF, which is permitted and designed to process 13,000 BOPD. The EOF currently processes approximately 5,000 BOPD, or less than 39 percent of its permitted capacity. The Project would result in an increase in processing of an average of 150 BOPD, which is an increase of 3 percent over existing flows, or less than 2 percent of existing remaining permitted capacity of 8,000 BOPD.

Additionally, the proposed Project will not extend the life of the EOF (see Master Response #1 in Part II of the Final EIR). The estimated life of an oil and gas project, like PRC 421, is determined by several dynamic factors, such as oil price, operating cost and rate of production decline, as well as technical advancements in oil recovery. Based on the latest reservoir modeling and market forecasts, Venoco estimates that the production life of Platform Holly, and therefore the EOF, is anticipated to be 40 years (see Section 2.4.1 of the EIR). Because production from Lease PRC 421 is anticipated to end in 20 years, no conflict is expected. Moreover, Venoco's Project application states the EOF will be decommissioned when the production life of Platform Holly ends, regardless

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of the status of Lease PRC 421. In the event that production from Lease PRC 421 has not ended by the time production ends on Platform Holly, the EOF must still be decommissioned and may not be used to process production only from Lease PRC 421 (see Section 2.2 of the EIR).

The Final EIR addresses the environmental impacts associated with the proposed Project, including changes to the EOF, and discloses the potential for conflicts with adopted City policies and ordinances, with regard to PRC 421 and the EOF. Final determination of project consistency with adopted City policies and ordinances rests with the Goleta City Council. If the City of Goleta finds that the Project-related modifications and improvements would result in the termination of the EOF's nonconforming status, then the EIR provides a range of alternatives that do not include processing at the EOF for consideration by the CSLC, which may be considered by the City of Goleta as well during review of the Project.

Greenhouse Gas Mitigation Measures:

In response to Commission direction, staff reviewed the discussion regarding the adequacy of the proposed GHG mitigation measures and believes that the proposed mitigation measures are more than sufficient (as outlined in Master Response #5, in Part II, and section 7.0 of the Final EIR) to reduce emissions to zero. More specifically, the Final EIR identifies Project-related GHG emission estimates using CalEEMod modeling data listed in the Technical Air Quality Report, in Appendix D, and provides mitigation requiring the formulation of a GHG emissions reduction program with participation in an accredited regulatory program or equivalent prior to approval of the Project, and annual mandatory GHG reporting. Achievement of mitigation for reduction of GHGs is not required to be an onsite measure, as onsite mitigation would be infeasible for many projects. Rather, the EIR sets forth feasible enforceable options for the Applicant to implement a program of GHG reductions to reduce emissions to zero.

OTHER CONSIDERATIONS:

THE COMMISSION'S AUTHORITY TO ENFORCE THE CURRENT SHUT-IN:

Under the Commission's oil and gas regulations, in the event of any spill, all lessees are required to immediately cease all operations except for those necessary to prevent pollution or other health and safety risks (i.e., "suspension of operations"). For PRC 421, Commission staff has maintained that the applicable regulation on this point is Title 2 of the California Code of Regulations,

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section 2121. Under this regulation, “drilling and production operations shall not be resumed until adequate corrective measures have been taken and authorization of resumption of operations has been made by the commission.” This is one of the elements of the Project currently before the Commission for its consideration.

The onshore oil spill in 1994 was related to the deteriorated condition of an onshore, underground pipeline. This resulted in Mobil Oil, the lessee at the time, shutting-in the operation. Subsequently, while the operation remained shut-in, additional structural deficiencies resulting from a failure of maintenance were noted during four annual inspections by various governmental entities. These required immediate repair work. The incidents are described in detail below.

1. In March 1994, the onshore pipeline that runs between PRC 421 and former “Line 96” had a leak onshore, underneath the Sandpiper Golf Course. Mobil Oil unilaterally halted lease operations until repairs and the remediation were completed. Santa Barbara County adopted a Negative Declaration (State Clearinghouse No. 1994081058) approving the repair and remediation work. Santa Barbara County also required that the lessee submit a recommissioning plan prior to the resumption of lease operations. The lessee repaired the pipeline and remediated the damage.
2. In November 2000, a methane gas leak was detected at Well 421-1 and oil seepage was detected around the Well 421-2 wellhead during a routine Santa Barbara County Air Pollution Control District (APCD) inspection. Subsequent inspection by Commission staff noted: (1) the corroded condition of the wellhead control and associated equipment occupying both piers; and (2) that the access piers adjoining the caissons to the roadway were deteriorated and unable to support the required equipment loads necessary to conduct well repairs.
3. Commission staff directed Venoco to resurface the access road, reinforce the deteriorated seawall, reconstruct the offshore piers and caissons and conduct well repairs to eliminate any pollution or public safety risk. Venoco’s corrective action plan to address these issues was reviewed by Commission staff and the California Coastal Commission (CCC). An emergency permit was issued by the CCC to conduct pier strengthening repairs. Entry into Well 421-1 and Well 421-2 to conduct repairs could not commence safely until the pressure

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that had built up in the well bores since the wells were shut-in in 1994 could be relieved. In order to relieve the pressure, a temporary pipeline was installed from the wells to the EOF to relieve well bore pressure. The period of pressure relief was about 10 months, during which a total of 16,997 barrels of oil flowed from the well to the EOF.

4. In January 2004, a seawall protecting the caisson housing Well 421-1 (the water injection well) failed. Venoco requested approval for temporary riprap and seawall repair from both Commission staff and the CCC. In August 2004, the CCC approved the seawall repairs through an emergency permit E-04-013 and subsequently issued a follow up Coastal Development Permit in July 2007, making the emergency work permanent. Commission staff authorized the same. The repairs included strengthening the caissons and replacing the 68-foot-wide seawall, including 6 feet on each side wall adjacent to the seawall. Repairs were completed in December 2004.
5. In November 2010, Commission staff inspections of the ocean-side caisson surrounding Well 421-2 (the producing well) identified significant deterioration. Commission staff directed Venoco to make repairs. Venoco obtained an emergency permit E-10-013-G from the CCC to execute repairs of the caisson and the piles supporting the pier. Venoco also obtained an emergency permit # 10-120-EMP from the City of Goleta for the repair work, in addition to approvals from other involved agencies.
6. In November 2011, Commission staff determined that 72 redundant pilings located on both Piers 421-1 and 421-2 had become a threat to public safety and directed Venoco to remove them. Venoco obtained emergency permits from the CCC (E-11-001-G) and the City of Goleta (#11-0016-EMP) in addition to other agency approvals to remove the 72 redundant pilings from the piers and removed those pilings.

The last repair was completed in 2011. Under California Code of Regulations, Title 2, section 2121, Venoco cannot resume operations until the Commission is satisfied that the operational and/or structural deficiencies that led to the shut-in have been corrected. Commission staff has inspected the operations and is of the opinion that the structural deficiencies have been corrected. Venoco's proposed Project includes the removal of Well 421-1 and its caisson and pier, which when removed will further limit the opportunity for structural deficiencies to

CALENDAR ITEM NO. 72 (CONT'D)

develop. Mitigation Measure S-4d also provides for regular facility inspections by Commission staff with daily self-reporting by the Lessee.

CONTRACTUAL AND VESTED RIGHTS:

Questions have been raised by members of the public during the environmental review process about whether Venoco has a contractual or vested right to produce from PRC 421, as Venoco has asserted. In the CEQA context, the existence of this right is related to whether the No Production/Quitclaim State Oil and Gas Lease PRC 421 Alternative is a “viable alternative” that should be considered by the Commission. (State CEQA Guidelines, § 15126.6.) Whether Venoco has a contractual right to produce depends on the terms of PRC 421 and whether it remains in full force and effect.

PRC 421 gives Venoco, as the lessee, the “sole and exclusive right” to produce oil and gas from the lease. In exchange, Venoco is obligated to pay the Commission an annual rental, which can be credited against the monthly royalties, if any. Venoco is required to “exercise reasonable diligence in the operation of the wells” and cannot “unreasonably or unnecessarily suspend continuous operations” absent “the consent of the State.” If Venoco fails to perform any term of the lease and neither corrects nor takes steps to correct within thirty (30) days from receipt of a written notice from the Commission of such failure, then the Commission has the right to terminate the lease. Otherwise, the lease remains in full force and effect until production becomes uneconomic.

As discussed above, the lease, which was actively producing oil and gas from 1929 to 1994, was temporarily shut-in following a small onshore oil spill. The shut-in was in conformance with the Commission’s regulations that require a lessee to immediately cease all oil and gas operations, except for those that are “corrective, protective, or mitigative” in the event of pollution resulting from the lease operations. (See Cal. Code Regs., tit. 2, § 2121.) Venoco’s predecessor in interest immediately ceased all oil and gas operations and began taking measures necessary to prevent additional spills and those needed to mitigate the onshore damage. Pursuant to the Commission’s regulations a lessee is prohibited from resuming production until “adequate corrective measures have been taken and authorization of resumption of operations has been made by the [C]ommission.” (See Cal. Code Regs., tit. 2, § 2121.)

Venoco, like its predecessor in interest, has undertaken significant repairs to the oil and gas related facilities on and around PRC 421 to ensure that “adequate

CALENDAR ITEM NO. 72 (CONT'D)

corrective measures” have been taken to ameliorate the condition that caused the onshore spill so that it can seek the resumption of operations, following the Commission’s review of Venoco’s corrective measures. Until the Commission reviews the adequacy of Venoco’s corrective measures on PRC 421, Venoco is prohibited from resuming production.

Commission staff has been monitoring the situation since the initial shut-in in 1994 and has been monitoring the repairs of the facility. While the original incident that caused the shut-in occurred 20 years ago, Venoco has sought the resumption of production since it took assignment of the lease, as evidenced by completing a series of repairs and undertaking the environmental analysis, as discussed above. Based on these facts, Commission staff does not believe that there were any unnecessary delays on the part of Venoco or its predecessor in interest that resulted in a breach of the production requirement of the lease. Consequently, the Commission has never found the Lessee to be in default, and PRC 421 has been and still is in full force and effect.

STATUTORY AND OTHER REFERENCES:

California Code of Regulations, Title 2, section 2121. “Such drilling and production operations shall not be resumed until adequate corrective measures have been taken and authorization of resumption of operations has been made by the commission.”

OTHER PERTINENT INFORMATION:

1. The City of Goleta will act on Venoco’s request to utilize the Ellwood Onshore Facility for production from PRC 421 after the Commission acts, as the City will need to rely on the certified EIR for its approvals. In the event that the City does not authorize Venoco to utilize the EOF for production from PRC 421, then the only other feasible option is for the oil to be processed, as it historically has been, on Pier 421-2.
2. At this time, Commission staff has no evidence and no evidence has been provided that production from PRC 421 will increase the life of the EOF, as the EOF’s lifespan is tied primarily to the production from Platform Holly, which produces from a significantly larger and different oil and gas reservoir.
3. The City of Goleta has not yet submitted its Local Coastal Program (LCP) to the CCC for certification and as such, Project components within the coastal zone of the City will require a coastal development permit from the CCC. As

CALENDAR ITEM NO. **72** (CONT'D)

with the City, the CCC will also act on the Project after the Commission's consideration of the Project.

4. Pursuant to the Commission's delegation of authority and the State CEQA Guidelines (Cal. Code Regs., tit. 14, § 15025), the staff has prepared an EIR identified as CSLC EIR No. 732, State Clearinghouse No. 2005061013. Such EIR was prepared and circulated for public review pursuant to the provisions of CEQA. A Mitigation Monitoring Program has been prepared in conformance with the provisions of CEQA (Pub. Resources Code, § 21081.6), and is contained in Exhibit C, attached hereto.
5. Findings made in conformance with the State CEQA Guidelines (Cal. Code Regs., tit. 14, § 15091) and a Statement of Overriding Considerations made in conformance with the State CEQA Guidelines (Cal. Code Regs., tit. 14, § 15093) are contained in Exhibit D, attached hereto.
6. This activity involves lands identified as possessing significant environmental values pursuant to Public Resources Code section 6370 et seq., but such activity will not affect those significant lands. Based upon the staff's consultation with the persons nominating such lands and through the CEQA review process, it is the staff's opinion that the Project, as proposed, is consistent with its use classification.

EXHIBITS:

- A. Land Description
- B. Site and Location Map
- C. Mitigation Monitoring Program
- D. Findings and Statement of Overriding Considerations
- E. Project Timeline

RECOMMENDED ACTION:

It is recommended that the Commission:

CEQA FINDINGS:

Certify that the Environmental Impact Report, CSLC EIR No. 732, State Clearinghouse No. 2005061013, was prepared for this Project pursuant to the provisions of CEQA, that the Commission has reviewed and considered the information contained therein and in the comments received in response thereto and that the EIR reflects the Commission's independent judgment and analysis.

CALENDAR ITEM NO. 72 (CONT'D)

Adopt the Mitigation Monitoring Program, as contained in Exhibit C, attached hereto.

Adopt the Findings, made in conformance with California Code of Regulations, Title 14, section 15091, as contained in Exhibit D, attached hereto.

Adopt the Statement of Overriding Considerations made in conformance with California Code of Regulations, Title 14, section 15093, as contained in Exhibit D, attached hereto.

SIGNIFICANT LANDS INVENTORY FINDING:

Find that this activity is consistent with the use classification designated by the Commission for the land pursuant to Public Resources Code section 6370 et seq.

AUTHORIZATION:

1. Find that adequate corrective measures have been taken to repair the infrastructure associated with PRC 421, as required under California Code of Regulations, Title 2, section 2121, and that, pursuant to the Lease, Venoco is obligated to resume production of oil and gas from PRC 421.
2. Find that Venoco's proposed Project, utilizing the EOF for processing oil from PRC 421, as defined in the Recommissioning Plan, dated May 2004 and amended in 2013, subject to the implementation of the Mitigation Monitoring Program identified in Exhibit C, is consistent with Lease PRC 421 and the Final EIR, pursuant to the following conditions:
 - a. Well 421-2 shall not be stimulated, within the meaning of Public Resources Code section 3157, using hydraulic fracturing, matrix acidization or acid fracturing techniques, unless subsequently approved by the State Lands Commission.
 - b. Venoco must comply with all other applicable laws and obtain all required DOGGR permits.
 - c. Venoco shall be responsible for all costs associated with the execution of the adopted Mitigation Monitoring Program,

CALENDAR ITEM NO. 72 (CONT'D)

including staff/consultant monitoring.

3. Exercise the State's option to require Venoco to remove, at Venoco's sole expense, Well 421-1 and its associated facilities, including Pier 421-1, pursuant to the following conditions:
 - a. Venoco shall submit to the Executive Officer the information necessary to evaluate whether the decommissioning and abandonment plan of Well 421-1 and its associate facilities is consistent with the Commission's regulations, Lease PRC 421, and the Final EIR within 90 days of receipt of all required permits.
 - b. If the Executive Officer determines that the decommissioning and abandonment plan is consistent with the Commission's regulations, Lease PRC 421, and the Final EIR, then the Executive Officer is authorized to approve the removal and decommissioning of Well 421-1 and its associated facilities to proceed.

Exhibit A

PRC 421.1

Land Description:

Beginning at a point on the ordinary high water mark of the Pacific Ocean, at the most easterly corner of the lands embraced in expired Lease No. 88 (303-1921), which point bears S. 54° 52' 30" E. 340.46 feet, S. 52° 28' 00" E. 1062.38 feet, S. 50° 34' 30" E. 258.19 feet, and S. 50° 03' 30" E. 1.00 foot from Monument No. 8 as shown on a map entitled "State Leases and Permits, Elwood Oil Field," approved November 1, 1929, and filed in the office of the Division of State Lands; thence along said ordinary high water mark S. 50° 03' 30" E. 1092.33 feet to the most northerly point of the lands embraced in Lease No. 90 (303-1921); thence leaving said ordinary high water mark and running along the westerly side boundary line of the lands embraced in Lease No. 90 (303-1921), S. 39° 56' 30" W. 2730.82 feet; thence N. 50° 03' 30" W. 1092.33 feet to the easterly side boundary line of the lands embraced in expired Lease No. 88 (303-1921); thence along the said easterly side boundary line of the lands embraced in said expired Lease No. 88 (303-1921), N. 39° 56' 30" E. 2730.82 feet to the point of beginning;

and containing approximately 68.48 acres more or less.

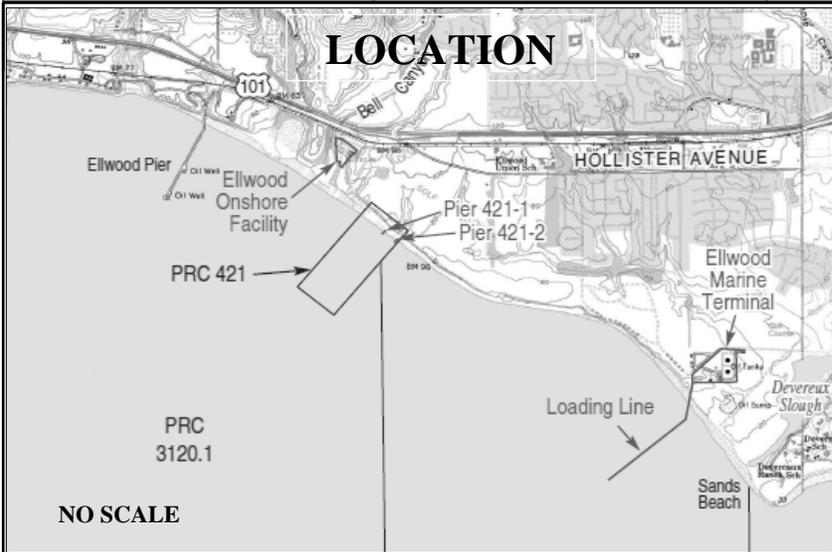
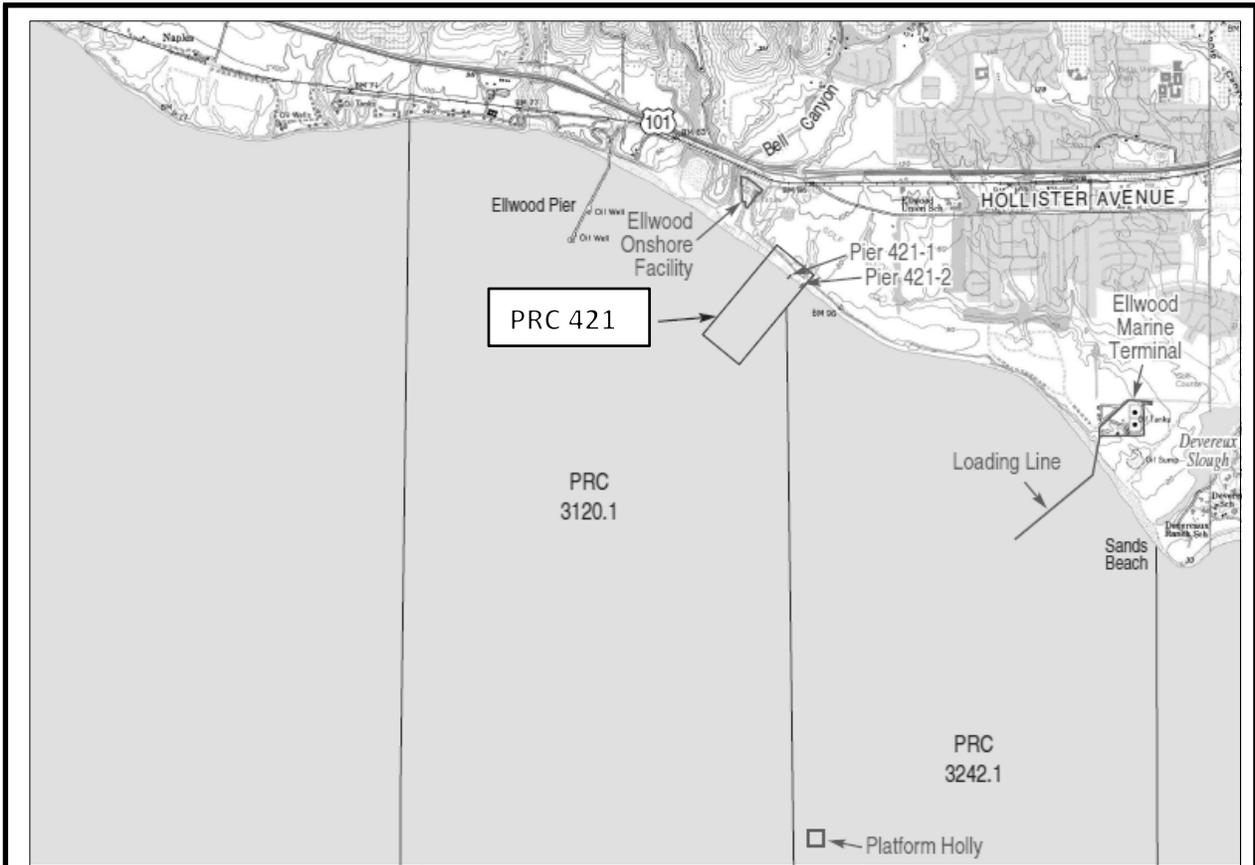


EXHIBIT A
PRC 421.1
Venoco, Inc.
Re-Commissioning Project
Oil & Gas Lease
Santa Barbara County



This Exhibit is solely for purposes of generally defining the lease premises, is based on unverified information provided by the Lessee or other parties and is not intended to be, nor shall it be construed as, a waiver or limitation of any State interest in the subject or any other property.

EXHIBIT C
CALIFORNIA STATE LANDS COMMISSION
MITIGATION MONITORING PROGRAM

Revised PRC 421 Recommissioning Project
(State Clearinghouse No. 2005061013)

As the Lead Agency under the California Environmental Quality Act (CEQA), the California State Lands Commission (CSLC) is required to adopt a program for reporting or monitoring regarding the implementation of mitigation measures (MMs) for the proposed Revised PRC 421 Recommissioning Project (Project), if it is approved, to ensure that the adopted MMs are implemented as defined in the Environmental Impact Report (EIR). This Lead Agency responsibility originates in Public Resources Code section 21081.6, subdivision (a) (Findings), and the State CEQA Guidelines sections 15091, subdivision (d) (Findings), and 15097 (Mitigation Monitoring or Reporting).

MONITORING AUTHORITY

The purpose of this Mitigation Monitoring Program (MMP) is to ensure that measures adopted to mitigate or avoid significant impacts are implemented. An MMP can be a working guide to facilitate not only the implementation of mitigation measures by the Project proponent, but also the monitoring, compliance and reporting activities of the CSLC and any monitors it may designate.

The CSLC may delegate duties and responsibilities for monitoring to independent, qualified environmental monitors (EMs) or consultants, as deemed necessary. and some monitoring responsibilities may be assumed by responsible agencies, such as affected jurisdictions and cities, and the California Department of Fish and Wildlife (CDFW). The number of construction monitors assigned to the project will depend on the number of concurrent construction activities and their locations. The CSLC or its designee(s), however, will ensure that each person delegated any duties or responsibilities is qualified to monitor compliance.

Any mitigation measure study or plan that requires the approval of the CSLC must allow at least 60 days for adequate review time. When a MM requires that a mitigation program be developed during the design phase of the project, the Applicant must submit the final program to the CSLC for review and approval at least 60 days before construction begins. Other agencies and jurisdictions may require additional review time. It is the responsibility of the EM assigned to the installation or implementation of the project or a project component (e.g., a pipeline “spread” [the equipment and crew needed to build a section of pipeline]) to ensure that appropriate agency reviews and approvals are obtained.

The CSLC or its designee will also ensure that any deviation from the procedures identified under the monitoring program is approved by the CSLC. Any deviation and its correction shall be reported immediately to the CSLC or its designee by the EM.

ENFORCEMENT RESPONSIBILITY

The CSLC is responsible for enforcing the procedures adopted for monitoring through the EM assigned to the Project. Any assigned EM shall note problems with monitoring, notify appropriate agencies or individuals about any problems, and report the problems to the CSLC or its designee.

MITIGATION COMPLIANCE RESPONSIBILITY

The Applicant, Venoco, is responsible for successfully implementing all the MMs in the MMP, and shall ensure that these requirements are met by all of its construction contractors and field personnel. Standards for successful mitigation also are implicit in many mitigation measures that include such requirements as obtaining permits or avoiding a specific impact entirely. Other mitigation measures include detailed success criteria. Additional mitigation success thresholds may be established by applicable agencies with jurisdiction through the permit process and through the review and approval of specific plans for the implementation of MMs.

GENERAL MONITORING PROCEDURES

Environmental Monitors

The monitoring procedures will be conducted during the construction phase of the project. The CSLC is responsible for integrating the mitigation monitoring procedures into the construction process in coordination with the Applicant. To oversee the monitoring procedures and to ensure success, the CSLC's EM assigned to the Project must be on site during that portion of construction that has the potential to create a significant environmental impact or other impact for which mitigation is required. The EM is responsible for ensuring that all procedures specified in the monitoring program are followed.

General Reporting Procedures

Site visits and specified monitoring procedures performed by other individuals will be reported to the EM. A monitoring record form will be submitted to the EM by the individual conducting the visit or procedure so that details of the visit can be recorded and progress tracked by the EM. A checklist will be developed and maintained by the EM to track all procedures required for each MM and to confirm adherence to the timing specified for the procedures. The EM will note any problems that may occur and take appropriate action to rectify the problems.

Public Access to Records

The public is allowed access to records and reports used to track the monitoring program. Monitoring records and reports will be made available for public inspection by the CSLC or its designee on request.

MITIGATION MONITORING TABLE

The following tables present the mitigation monitoring program for each environmental discipline. Each table lists the following information, by column:

- Impact (impact number, title, and impact class);
- Mitigation Measure (full text of the measure);
- Location (where the impact occurs and the mitigation measure should be applied);
- Monitoring/reporting action (the action to be taken by the monitor or Lead Agency);
- Effectiveness criteria (how the agency can know if the measure is effective);
- Responsible agency; and
- Timing (before, during, or after construction; during operation, etc.).

Table C-1: Mitigation Monitoring Program

Impact (Class)	Mitigation Measure (MMs)	Location	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
Geological Resources						
Impact GEO-1: Seismic and Seismically Induced Hazards Seismic activity along the More Ranch Fault Zone or other regional faults could produce fault rupture, seismic ground shaking, liquefaction, or other seismically induced ground failure that could expose Pier 421-2 facilities, including the pier, caisson and pipeline, to damage during the Project life; Pier 421-1 would be exposed to seismic hazards for approximately 1 year before decommissioning is completed (Less than Significant with Mitigation).	MM GEO-1a. Include Seismic Loading Evaluation. Venoco shall have the caisson at Pier 421-2 evaluated to ensure its ability to withstand effects of dynamic earth pressures, seismic overturning and base shear, and to support Project facilities through the production life of the facility. Results of the evaluation, together with any redesign plans determined to be necessary to ensure the ability of the caisson to withstand effects of dynamic earth pressures, seismic overturning and base shear, and to support Project facilities through the production life shall be reviewed and certified by a professional engineer and submitted to California State Lands Commission (CSLC) staff for approval. Prior to recommencement of production, and subject to receipt of all necessary approvals and permits to undertake the work, Venoco shall construct the necessary improvements to meet the criteria of this mitigation measure.	At PRC 421	Venoco shall ensure that a seismic loading evaluation is conducted, reviewed, and certified by a professional civil/structural engineer and that seismic design is incorporated into the upgrades to PRC 421.	Incorporating seismic design into the Project would reduce the chance of a seismic or seismically-induced hazard.	CSLC	Evaluate prior to finalizing Project design Implement prior to commencing production
	MM GEO-1b. Field-Verify Subsurface Condition Assumptions. Venoco shall establish a procedure to field-verify that the subsurface conditions used in the design of the past repairs and proposed improvements at the 421-2 caisson are representative of actual conditions to be encountered. The procedure established by Venoco for field-verification shall be submitted to California State Lands Commission (CSLC) staff for approval prior to implementation. If the field conditions	At PRC 421	Venoco shall submit procedure used to verify subsurface conditions used in the design of caisson repairs to the CSLC. If conditions warrant design modifications, revised design	Incorporating any required modifications into the Project design would reduce impacts to PRC 421 from a tsunami	CSLC	Verify prior to finalizing Project design Construct prior to commencing production

Impact (Class)	Mitigation Measure (MMs)	Location	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
	encountered require a design modification of past repairs and proposed improvements, then the revised design plans shall be reviewed and certified by a registered professional civil/structural engineer, and shall be submitted to the CSLC staff for approval. Prior to recommencement of production, and subject to receipt of all necessary approvals and permits to undertake the work, Venoco shall construct the necessary improvements to meet the criteria of this mitigation measure.		shall be reviewed and certified by a professional civil/structural engineer and submitted to CSLC.			
	MM GEO-1c. Seismic Inspection. Venoco shall inspect the structures, including Pier 421-2, pipeline, and associated infrastructure following any seismic event in the region (for these purposes defined as Santa Barbara County and offshore waters of the Santa Barbara Channel and Channel Islands) that exceeds a Richter magnitude of 4.0 (see also Appendix H, MM GEO-4c Seismic Inspection). Venoco shall report the findings of such inspection to the California State Lands Commission staff and City of Goleta staff. Venoco shall not reinstate operations of the pipeline within the City of Goleta until authorized by the City of Goleta.	At PRC 421 facilities	Venoco shall report applicable seismic events and inspection results. The monitoring agency or designated monitor shall review and approve the repairs.	Regular inspections after seismic events would permit timely repair.	CSLC, City of Goleta	Follow each applicable seismic event in the region
	MM GEO-1d. Tsunami Preparedness. In the event that a tsunami warning is issued for an area that includes PRC 421, Venoco shall cease production activities at PRC 421 as quickly as possible within the constraints of operations and safety. When the tsunami warning is lifted, Venoco shall conduct a thorough inspection of Pier 421-2, pipeline, and associated infrastructure before resuming production. Venoco shall report the findings of such inspections to the	At PRC 421 facilities	Venoco shall report applicable tsunami warnings and inspection results. The monitoring agency or designated monitor shall review and approve the report and any repairs	Ceasing production during potential tsunami events and conducting inspections would minimize the risk of upset and release of oil.	CSLC, City of Goleta	Follow each applicable tsunami warning event

Impact (Class)	Mitigation Measure (MMs)	Location	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
	California State Lands Commission and City of Goleta staffs.		stemming from inspections.			
Impact GEO-2: Landslide and Slope Failure The Project would be located on a geologic unit or soil that is unstable, which could create potentially significant damage to the project access road and pipeline from a landslide or slope failure (Less than Significant with Mitigation).	MM GEO-2a. Monitor Coastal Bluff and Access Road. Venoco shall monitor the coastal bluff and access road weekly for signs of water saturation, including during and/or heavy rains, or after a sprinkler line leak from the Sandpiper Golf Course. If saturation is apparent, the source of the water infiltration shall be evaluated and, diverted (if possible) or removed. Venoco shall provide written weekly statements regarding bluff and access road stability and saturation conditions to the City of Goleta. If saturation is apparent, Venoco shall immediately report such finding to the City of Goleta. Within 24 hours of such a finding, Venoco shall identify the source of water infiltration and shall divert or remove the water source within 24 hours, and shall provide a written report with photo documentation to the City within one week of the action. If native habitats could be impacted as a result of related activities, Venoco shall coordinate the activities with the Project Biologist and implement MM TBIO-1b Project Biological Monitors and MM TBIO-1c Restoration Plan/Restoration.	At coastal bluffs and access road located north of PRC 421	As part of its routine inspection of facilities, Venoco shall inspect the coastal bluff and access road for signs of water saturation, including during and after heavy rains or after a sprinkler line leak.	If erosion is avoided after the ground disturbing activities, the measure is effective.	CSLC, City of Goleta	During and after heavy rain events or after a sprinkler line leak
	MM GEO-2b. Maintain Existing Seawall and Rock Revetment. Venoco shall inspect the existing seawall and rock revetment weekly for signs of erosion or need for repairs. If eroded areas are observed, these shall immediately be filled in, and any areas in need of repair or addition of rip-rap shall be repaired consistent with applicable permit requirements. Venoco shall provide written weekly reports regarding existing	At seawall and rock revetment located just north of PRC 421	After completion of improvements, monitoring agency or designated monitor shall inspect seawall/ rock revetment for permit compliance. As part of its routine	Ensuring the integrity of the seawall and revetment would protect the flowlines.	CSLC, City of Goleta	Daily as part of Venoco's routine inspection of facilities and as required to address major failures or repairs

Impact (Class)	Mitigation Measure (MMs)	Location	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
	seawall and rock revetment stability to the City of Goleta. If erosion is observed, Venoco shall immediately report such finding to the City of Goleta. Within 24 hours of such a finding, Venoco shall repair the erosion and shall provide a written report with photo documentation to the City within one week of the action. Venoco shall coordinate the activities with the Project Biologist and implement MM TBIO-1b Project Biological Monitors and MM TBIO-1c Restoration Plan/Restoration.		inspection of facilities, Venoco shall inspect seawall/ revetment for signs of erosion or need for repairs. Failures shall be reported. Any repairs shall be coordinated with monitoring agencies.			
	MM GEO-2c. Inspect and Repair Access Road and Pipeline after Landslide Events. Venoco shall monitor the access road and pipeline after bluff failure or landslide events and shall repair any damaged areas or add rip-rap consistent with applicable permit requirements. In addition to clearing the road of debris, Venoco shall test or inspect the pipeline immediately after any major slope failure to determine if pipeline damage has occurred and shall implement repairs to this infrastructure. If damage is observed, Venoco shall immediately report such finding to the City of Goleta. Within 24 hours of such a finding, Venoco shall repair the erosion and shall provide a written report with photo documentation to the City within one week of the action. Venoco shall coordinate the activities with the Project Biologist and implement MM TBIO-1b Project Biological Monitors and MM TBIO-1c Restoration Plan/Restoration.	At PRC 421	Venoco shall contract a registered professional engineer or a registered certified engineering geologist to perform an onshore soil evaluation to identify expansive soils. If any expansive soils are identified, the design of Project upgrades shall be amended as needed.	Identifying expansive soils would alert monitors of conditions to look for and where to look, which would increase effectiveness of mitigation measure GEO-2a and GEO-2b.	CSLC, City of Goleta	Evaluate prior to finalizing Project design

Impact (Class)	Mitigation Measure (MMs)	Location	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
<p>Impact GEO-3: Soil Settlement and Liquefaction The recommissioning of PRC 421 could potentially expose Project facilities such as the caisson and proposed pipeline to soil settlement or liquefaction that could damage these facilities, particularly the pipeline (Less than Significant with Mitigation).</p>	<p>MM GEO-3. Perform Subsurface Evaluation. An evaluation of soils within and beneath the Pier 421-2 caisson, seawall, revetment, and access road shall be performed to ascertain if the soil is fit for purpose. The evaluation shall be performed by a California-registered Geotechnical Engineer, and shall propose maintenance and repair procedures as needed to ensure these areas remain fit for purpose for the life of the Project. The conclusions and recommendations shall be incorporated into Project engineering design components, as applicable, and submitted to the California State Lands Commission, City of Goleta, and California Coastal Commission staffs for review and approval prior to issuance of permits for construction clearance.</p>	<p>At PRC 421</p>	<p>Venoco shall ensure that a subsurface evaluation is conducted by a registered professional engineer or engineering geologist and the results are incorporated into the upgrades to PRC 421.</p>	<p>Identifying the potential for soil settlement and liquefaction would allow engineers to design project upgrades appropriately.</p>	<p>CSLC, City of Goleta, CCC</p>	<p>Evaluate prior to finalizing Project design</p>
<p>Impact GEO-4: Corrosion, Weathering, and Erosion Corrosion, weathering, fatigue, or erosion could cause deterioration of structural components of PRC 421 (Less than Significant with Mitigation).).</p>	<p>MM GEO-4a. Corrosion Protection Design Specifications. The corrosion protection design specifications shall be included on the design drawings. Once included, the revised design plans shall be reviewed and certified by a registered corrosion engineer or qualified mechanical or electrical engineer, and submitted to the California State Lands Commission staff for approval. Prior to commencement of production, and subject to receipt of all necessary approvals and permits to undertake the work, Venoco shall construct all corrosion protection improvements specified in the approved plans. If corrosion protection is required for the Project, with the exception of the caisson walls which are just beyond the City limits, all design plans shall be submitted to the City of Goleta for review and approval.</p>	<p>At PRC 421</p>	<p>Venoco shall ensure that corrosion protection design specifications are included on the design drawings and that the plans are appropriately reviewed.</p>	<p>Including corrosion protection in the project specifications would reduce deterioration of structural components.</p>	<p>CSLC, City of Goleta</p>	<p>Include design specifications prior to review by professional civil or structural engineer</p>

Impact (Class)	Mitigation Measure (MMs)	Location	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
	<p>MM GEO-4b. Check Overall Structural Stability against Wind and Wave Action. The Project design shall include evaluation of cyclic wind and wave action on structural components. Once included, revised design plans shall be reviewed and certified by a professional civil/structural engineer then submitted to the California State Lands Commission staff for approval. These revised design plans shall identify any additional construction required as part of the Project. Prior to commencement of production, and subject to receipt of all necessary approvals and permits to undertake the work, Venoco shall construct all structural improvements specified in the approved plans. Venoco shall submit the design plans to the City of Goleta, for review and approval for any part of the Project within City limits.</p>	At PRC 421	Venoco shall ensure that cyclic wind and wave action on the structural components are evaluated and that the results of the analysis are included in the project design. Venoco will ensure that the revised design plans are certified by a professional civil/structural engineer.	Incorporating the impacts of wind and wave action into the project design would reduce the impacts on project facilities.	CSLC, City of Goleta	Include design specifications prior to review by professional civil or structural engineer
	<p>MM GEO-4c. Evaluate Embedment of Concrete Panels and Lean Concrete Backfill. Venoco shall include in the Project design an evaluation of the potential depth of scour and erosion during the lifetime of the Project within the Monterey Formation in the area of Pier 421-2. Venoco shall ensure that the concrete shoring panels and lean concrete backfill shall be embedded into the Monterey Formation to a depth greater than the maximum potential scour depth. Venoco shall submit all plans to the City of Goleta for work within City limits and California State Lands Commission staffs.</p>	At PRC 421	Venoco will ensure that the design of the Project includes an evaluation of the potential depth of scour and erosion during the lifetime of the project.	Incorporating the impacts of scouring into the project design would reduce the impacts on project facilities.	CSLC, City of Goleta	Include design specifications prior to review by professional civil or structural engineer
	<p>MM GEO-4d. Inspect Structures During and/or After Storm Events. Venoco shall conduct inspections of the structural components including the pier, caisson,</p>	At PRC 421	Venoco employees shall inspect structural components	Regular monitoring would provide for early	CSLC, City of Goleta	Ongoing throughout project operation

Impact (Class)	Mitigation Measure (MMs)	Location	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
	causeway, seawall and revetment during and after major storm events. Venoco shall immediately report inspection results to the California State Lands Commission and the City of Goleta staffs and conduct repairs accordingly and per agency authorization.		during and/or after winter storms. Monitor shall inspect structural components including piers, caissons, causeways, seawall, and revetment.	identification and repair of damage to structures.		
Safety						
<p>Impact S-2: Exposure of the Public and Environment to Safety Hazards Due to Collapse of the Pier 421-1 or 421-2 Caisson</p> <p>The Project would prolong the use of the aging caisson on Pier 421-2, which could collapse and lead to the release of hazardous materials and oil from within the caisson or from Project-related pipelines (Less than Significant with Mitigation).</p>	<p>MM S-2a. Design Review/Wave Loading Evaluation. Prior to implementing caisson repairs at Pier 421-2, Venoco shall develop design improvement plans that account for design wave loading conditions including hydrodynamic loading, overturning, and base shear, as well as the maximum credible earthquake according to the current California Building Code; these improvements shall be sufficient to support Project facilities through the production life. The revised design plans shall be reviewed and certified by a professional civil/structural engineer and shall be submitted to the California State Lands Commission staff for approval. Caisson repair shall be performed in accordance with approved design plans prior to recommencement of production at Pier 421-2.</p>	At PRC 421	Venoco shall contract a civil/structural engineer to perform an analysis of the caissons to determine the structural stability of the facilities.	Structural stability analysis would allow project design to account for potential deficiencies.	CSLC, City of Goleta	Evaluate prior to finalizing Project design
	<p>MM S-2b. Post Storm Inspection, Monitoring and Cleanup. Venoco shall amend the existing monitoring program to include regular monitoring and inspection of both caissons during the winter storm season. Damage to caissons shall be reported to California State Lands Commission staff and cleanup and removal of any debris immediately initiated (see also</p>	At PRC 421	Venoco shall ensure that the caissons are reinforced to withstand wave and tidal action, including tsunami-sized waves.	Ensuring that project facilities would withstand substantial wave and tidal action would reduce the potential for a	CSLC, City of Goleta	Include design specifications prior to review by professional civil or structural engineer

Impact (Class)	Mitigation Measure (MMs)	Location	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
	MM S-4e).			release of oil.		
<p>Impact S-3: Exposure of the Public and Environment to Safety Hazards Due to Collapse of or Damage to the Existing Timber Bulkhead or Rip-Rap Seawall</p> <p>The Project would prolong the use of the existing causeway and supporting, aging timber bulkhead and rip-rap seawall, which would be exposed to high winter surf and large wave events over the Project's life, leading to possible erosion or collapse and the potential for release of hazardous materials and oil from within the causeway or Project-related pipelines (Less than Significant with Mitigation).</p>	<p>MM S-3. Design Review by Civil/Structural Engineer. Prior to construction on the Project and subject to receipt of all necessary approvals and permits to undertake the work, Venoco shall complete the following:</p> <ul style="list-style-type: none"> • Venoco shall retain a licensed civil/structural engineer to review seawall design and recommend improvements to the Project seawall to permit it to support Project access road, pipelines, and power cables through the production life. • These potential design improvements, including a maintenance and repair plan to ensure fitness for purpose, shall account for anticipated winter surf conditions and for a design wave event. • West of Pier 421-1, improvements to the seawall may include use of additional appropriately sized (i.e., 1- to 3-ton boulders) rip-rap if needed to fill in small gaps in the wall. • Between Piers 421-1 and 421-2 and east of 421-2, to the maximum extent feasible, any needed seawall improvements shall consist of minor repairs to and strengthening of the existing timber bulkhead, unless seawall design review indicates that such improvements would be insufficient to protect the pipeline and power cables over the life of the Project. 	At PRC 421	Venoco shall contract a civil/structural engineer to perform an analysis of the timber bulkhead and seawall to determine the structural stability of both facilities.	Structural stability analysis would allow project design to account for potential deficiencies.	CSLC, City of Goleta	<p>Design Review: Evaluate prior to finalizing Project design</p> <p>Construction: Prior to restart of production, Venoco shall construct necessary improvements to meet criteria of MM</p>
<p>Impact S-4: Potential for Release of Oil or Hazardous Materials from Pier 421-2</p> <p>Project operations</p>	<p>MM S-4a. Containment. As the primary containment at Pier 421-2, the well cellar shall be tested by Venoco to determine whether it is leaking, and coated with a rubber type liner or other sealant to prevent</p>	Pier 421-2	Venoco shall ensure that the Project design includes measures to update the well	Installing containment features would reduce the potential for a	CSLC	<p>Design Review: Incorporate features into final Project</p>

Impact (Class)	Mitigation Measure (MMs)	Location	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
could result in the release of oil or hazardous materials from Project facilities, including the 421-2 well and caisson, drilling and separation equipment (Significant and Unavoidable).	migration from the cellar walls or bottom to surrounding areas. If the well cellar is leaking, an engineering evaluation shall be performed to determine the best method to achieve containment; which may include replacement with a double wall cellar or retrofit with a membrane coating capable of containing oil and preventing migration. The revised design, which includes these improvements, shall be reviewed and certified by a registered engineer and submitted to the California State Lands Commission staff for approval, and Venoco shall construct all approved improvements prior to recommencing production.		cellar and caisson deck at PRC 421-2.	release of oil to reach the environment.		design Construction: Prior to restart of production, Venoco shall construct all containment upgrades described in MM
	MM S-4b. Response Drills and Planning. Venoco shall revise its existing Oil Spill Contingency Plan (OSCP) to include site-specific procedures for response to a release from Pier 421-2, in accordance with applicable State and Federal regulations. The revised OSCP shall be submitted to the City of Goleta, county of Santa Barbara, California Department of Fish and Wildlife Office of Spill Prevention and Response, California Coastal Commission, and California State Lands Commission (CSLC) staffs for review and approval prior to issuance of the Land Use Permit. Venoco shall demonstrate spill response capability by responding to at least two surprise drills each year – one at Pier 421-2 and one along the pipeline route. A tabletop exercise shall be conducted within six months of operation to test and improve upon the revised procedures. Venoco shall prepare and submit a critique and recommendations of Venoco’s OSCP, regarding Pier 421-2, to	Pier 421-2	Venoco shall ensure that the existing OSCP is updated to include site specific procedures relevant to the Project and conduct a tabletop exercise of the Project.	Plan would ensure that clean up procedures are in place to quickly respond to a release from the Project.	CSLC, OSPR, CCC, City of Goleta	Complete Plan prior to Project operation Conduct tabletop exercise within 6 months after start of Project operation

Impact (Class)	Mitigation Measure (MMs)	Location	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
	<p>CSLC staff and shall demonstrate the effectiveness of Venoco's oil spill response plan. Any recommended adjustments to the frequency of drills required to improve the effectiveness of the measure, in consideration of all other Ellwood oil spill response drill operations by Venoco, and a timetable for implementation of drill schedules may be considered by CSLC staff. In addition, Venoco shall participate in the Santa Barbara County Area Oil and Gas Industry Emergency Response Plan (P-4 Plan).</p>					
	<p>MM S-4c. Casing Pressure Testing. Prior to initiating active pumping, Venoco shall perform pressure testing on the well casing to ensure that the casing meets required operating specifications. The exact pressure shall be determined by the reviewing agencies. If the casing does not meet required test pressure as reviewed and approved by the California Department of Conservation's Division of Oil, Gas, and Geothermal Resources (DOGGR), Venoco shall implement casing repairs and improvements subject to review and approval by the DOGGR and California State Lands Commission staffs.</p>	At PRC 421	Venoco shall ensure that well casing meets required operating specifications for pressure and shall repair and improve if it does not.	Measure would reduce the potential for a release of oil or hazardous materials.	CSLC, DOGGR	Prior to initiating active pumping
	<p>MM S-4d. Regular Facility Inspections. As part of its daily facility inspections, Venoco shall check the caisson at Pier 421-2 for signs of oily or sulfurous leaks. If leaks are detected, Venoco shall report this occurrence to the City of Goleta, Santa Barbara County Office of Emergency Management, California Coastal Commission, and California Department of Fish and Wildlife Office of Spill Prevention and Response, and California State Lands</p>	At PRC 421	Venoco shall inspect facilities on a daily basis for signs of leaks.	Implementation of this measure would ensure timely repairs and reduce the risk of release of oil or hazardous materials.	CSLC, OSPR, City of Goleta, Santa Barbara County Office of Emergency Services, CCC	Regularly throughout Project duration

Impact (Class)	Mitigation Measure (MMs)	Location	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
	<p>Commission staffs, and in coordination with these agencies, take immediate steps to clean up or repair such leaks and prevent public exposure to any hazards.</p> <p>MM S-4e. Quantitative Risk Assessment (QRA) and Implementation of QRA-Recommended Measures. Prior to issuance of land use permits, Venoco shall prepare a QRA to determine long-term risk of upset potential for the PRC 421 facilities. The QRA should assume the best estimate of life of the project. The QRA shall identify any deficient facilities with potential for creation of hazards associated with production from PRC 421 and processing of oil/gas/water at the Ellwood Onshore Facility and identify any improvements needed to reduce such hazards to acceptable levels. The QRA shall be submitted to the California State Lands Commission, City of Goleta, Santa Barbara County Fire Department Fire Protection Division staffs for review and comment prior to approval. Subsequent to approval, Venoco shall implement any modifications to facilities or processes recommended in the QRA.</p>	PRC 421 and EOF	Venoco shall ensure that a QRA is prepared for PRC 421 and facilities altered under the Project (i.e., pipelines, EOF). Venoco shall implement measures recommended in the approved QRA.	Implementation of this measure would ensure that risks from the Project to the public are identified, quantified, and reduced to the extent possible.	City of Goleta, CSLC	Prior to issuance of land use clearances
<p>Impact S-5: Potential for Release of Oil or Hazardous Materials from the Crude Oil Flowline Project operations could result in the release of oil or hazardous materials from the crude oil flowline as oil is</p>	<p>MM S-5a. Install Pipeline Warning Markers. Venoco shall modify Project design to include installation of several pipeline markers with reflective warning tape along the 6-inch line to identify the pipeline route and associated excavation hazards. Venoco shall submit the modified Project design to the City of Goleta for review and approval prior to issuance of the Land Use Permit.</p>	At PRC 421	Venoco shall install pipeline warning markers along the 6-inch line to identify the pipeline route and associated excavation hazards.	This measure would reduce the risk of release of oil or hazardous materials by alerting future workers in the area of the pipeline location.	City of Goleta	Prior to the finalizing Project design

Impact (Class)	Mitigation Measure (MMs)	Location	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
<p>transported from Well 421-2 to the tie-in at the EOF (Less than Significant with Mitigation).</p>	<p>MM S-5b. Develop Emergency Action Plan (EAP)/Update South Ellwood Field EAP. Venoco shall develop and incorporate into the EAP updated descriptions of the pipeline and flowline, detection systems, emergency shutdown, and response procedures specific to the new system prior to the initiation of operation. Venoco shall update the existing South Ellwood Field EAP to include descriptions of the new flowline interconnection with Platform Holly production within the EOF, and other EOF modifications such as the programmable logic controller cabinet, variable speed drive facility, and transformer. Venoco shall submit the EAPs to the City of Goleta and Santa Barbara County Office of Emergency Management for review and approval prior to recommissioning start-up. The City of Goleta and Santa Barbara County Office of Emergency Management shall coordinate updates of the EAPs with the operator on a regular basis or as conditions change that warrant review of emergency response protocols.</p>	<p>At PRC 421 and EOF</p>	<p>Venoco shall include updated descriptions of the pipeline and flow lines, detection systems, emergency shutdown, and response procedures specific to the new system into the EAPs.</p>	<p>Updates to plans and procedures would provide responders with better information to manage emergency conditions.</p>	<p>City of Goleta</p>	<p>Prior to initiation of operation Update notice within two months of initiating operations</p>
	<p>MM S-5c. Safety, Inspection, and Maintenance of Oil and Gas Pipelines. Venoco shall prepare a Safety Inspection, Maintenance, and Quality Assurance Program (SIMQAP) or similar mechanism for Project-related pipelines to ensure adequate ongoing inspection, maintenance, and other operating procedures. Any such mechanism shall be subject to approval by the City of Goleta prior to commencement of pipeline operations and provide for systematic updates as appropriate. Requirements shall be commensurate with</p>	<p>At PRC 421 and EOF</p>	<p>Venoco shall ensure that the program is prepared and updated as necessary.</p>	<p>Implementation of this MM would ensure that pipelines are regularly inspected and properly maintained.</p>	<p>City of Goleta</p>	<p>Prior to issuance of land use clearances, and updated biennially or as necessary during operation</p>

Impact (Class)	Mitigation Measure (MMs)	Location	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
	the level and anticipated duration of the risk. The City of Goleta and Venoco would update the SIMQAP or similar mechanism biennially or sooner if conditions change that warrant review of the program.					
Impact S-6: Increased Amount of Oil or Hazardous Materials Potentially Released from Oil Transfer in Line 96 Project implementation would increase throughput in the Line 96 pipeline, and therefore increase the amount of oil or hazardous materials potentially released (Significant and Unavoidable).	MM HM-3 (Automated Block Valves and an Additional Check Valve on the Proposed Pipeline) from the certified Line 96 Modification Project EIR (Santa Barbara County 2011) is incorporated by reference (see Appendix H for details). ²	At EOF and Line 96	Venoco would demonstrate to the satisfaction of the City of Goleta and county of Santa Barbara that the recommended upgrades to the SCADA system have been made.	The upgrades improved the capability of the SCADA system to accommodate the production from PRC 421.	City of Goleta	Prior to initiation of operation
Impact S-7: Increased Processing of Oil and Gas at the EOF Project implementation would increase processing of oil and gas at the EOF, and therefore increase potential risks related to safety and potential release of hazardous materials (Significant and Unavoidable).	MM S-5b would apply to this impact.	See specific MM in MMP for details on Location, Monitoring/ Reporting Action, Effectiveness Criteria, Responsible Agency, and Timing.				
Impact S-8: Increased Risk of Fire Project implementation would include	MM S-8. Fire Prevention and Suppression. Venoco shall revise the existing Fire Prevention and Preparedness Plan to incorporate the new equipment and	At PRC 421	Venoco shall ensure that the existing Fire Prevention and	Updating the plan will ensure that emergency procedures are	CSLC, Santa Barbara County	Prior to starting Project operations

Impact (Class)	Mitigation Measure (MMs)	Location	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
production and transport of oil and gas from PRC 421 to the EOF, increase processing of oil and gas at the EOF, and increase transport of oil and gas to market, therefore increasing potential risks related to fire (Less than Significant with Mitigation).	operations at PRC 421, and submit to the City of Goleta, Santa Barbara County Fire Department, California Coastal Commission, California Department of Transportation, and California State Lands Commission staffs for review and approval. The plan shall be revised and provided to the agencies for review prior to commencing operations, and the plan shall be formally updated and circulated within one month of receiving comments from the aforementioned agencies.		Preparedness Plan is updated to adequately cover new equipment and operations at PRC 421.	in place to respond adequately to emergencies at the Project site.	Fire Department, City of Goleta, CCC, Caltrans	
Hazardous Materials						
Impact HAZ-1: Exposure of Public or Environment to Hazardous Materials The Project would create a potential hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials during construction and/or project operation (Less than Significant with Mitigation).	MM HAZ-1a. Proper Personnel Training. Personnel working during the Project's construction, operation, and Pier 421-1 decommissioning and removal phases shall be adequately trained per the requirements included in Venoco's Emergency Action Plan, Oil Spill Contingency Plan, Fire Prevention and Preparedness Plan, Spill Prevention, Control and Countermeasures Plan and other relevant plans. These plans include specific training requirements such that personnel that have the potential to come into contact with contaminated media and/or hazardous materials understand safe work practices, Best Management Practices, and waste management practices, so that a release of hazardous materials can be avoided, controlled, or minimized. Project construction and field personnel shall also be trained to identify possible indicators of a hazardous release, such as hydrocarbon or solvent odors, stained soils, and oily sheens on standing water.	At PRC 421	Venoco shall ensure that personnel working on the proposed Project are adequately trained per the requirements contained in the relevant construction and operation planning documents.	Training personnel will ensure that a release of hazardous materials is controlled, minimized, or eliminated.	CSLC, City of Goleta	Prior to starting Project operations

Impact (Class)	Mitigation Measure (MMs)	Location	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
	<p>MM HAZ-1b. Conduct a Phase I Environmental Site Assessment (ESA). To gain a better understanding of the study area and its potential to have additional, previously unknown releases of hazardous materials or other environmental concerns, Venoco shall perform a Phase I ESA on the study area prior to issuance of land use permits, which shall incorporate information from Santa Barbara County Fire Department Fire Protection Division (FPD) records and files. The results of this study shall be provided to the City of Goleta, FPD, and California State Lands Commission staffs. Conclusions of the Phase I ESA, including any recommendation of a Phase II and subsequent investigation, shall be followed. Any subsequent work plans for soil and groundwater sampling shall be submitted to FPD for review and incorporated into the current and ongoing assessment under their Site Mitigation Unit Site #371.</p>	At PRC 421	Venoco shall conduct a Phase I ESA. Conclusions of the Phase I ESA, including recommendation of a Phase II and subsequent investigation, shall be followed.	Phase I ESA will determine the likelihood of site contamination and whether subsequent investigations are necessary to quantify and remediate any existing contamination.	CSLC, City of Goleta	Prior to Project construction activities
	<p>MM HAZ-1c. Soil Sampling. During construction activities at Pier 421-2 and during Pier 421-1 decommissioning and removal, all soil materials removed shall be presumed to be contaminated and handled accordingly. The soil materials removed from the caisson will be sampled, profiled, and disposed of or recycled according to regulatory requirements. During all other Project construction activities, a City of Goleta Soils Inspector/Monitor shall continually visually monitor the soils disturbed within the construction areas to determine if there is any evidence of undiscovered contamination. The City of</p>	At PRC 421	City of Goleta Soils Inspector/Monitor shall ensure that contaminated soils, sediment, or water are disposed of properly and that a Removal Action Plan is prepared, if needed.	Properly disposing of contamination will reduce the likelihood of a release to the environment.	CSLC, City of Goleta	Upon generation of waste containing hazardous materials or contamination

Impact (Class)	Mitigation Measure (MMs)	Location	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
	<p>Goleta shall hire the Soils Inspector/Monitor, paid for by Venoco, to inspect soil disturbance activities within the City's jurisdiction during all phases of the Project to ensure that any hazardous materials and/or contaminated soils encountered are properly contained and removed. Soil samples may be taken, subject to the direction of the Soils Inspector/Monitor. Any soil suspected of contamination shall be contained on site in appropriate storage container, sampled, profiled, and disposed of or recycled according to regulatory requirements. All soils removed shall be handled in accordance with MM HAZ-1d. All soil sampling results shall be provided to the California State Lands Commission and City of Goleta staffs immediately upon receiving results.</p>					
	<p>MM HAZ-1d. Removal Action Plan. If sediment within the Project construction and 421-1 decommissioning areas and surrounding soils is determined to contain total petroleum hydrocarbons or other contaminants above California Ocean Plan thresholds and if such sediments may be exposed, prior to commencing construction activities, Venoco shall prepare a Removal Action Plan for the safe removal of contaminated materials from the structures and surrounding area. The action plan shall be circulated to the City of Goleta, Santa Barbara County Fire Department Fire Protection Division, California State Lands Commission (CSLC) staffs for review and comment. Final approval of the plan shall be under the purview of the California Department of Fish and Wildlife Office of</p>	<p>At PRC 421</p>	<p>Venoco shall ensure that contaminated soils, sediment, or water are disposed of properly and that a Removal Action Plan is prepared, if needed.</p>	<p>If contamination is determined to be present, a Removal Action Plan will define requirements for proper cleanup and disposal, thereby minimizing risk to the public and environment.</p>	<p>CSLC, City of Goleta, RWQCB, OSPR</p>	<p>Prior to Project construction activities</p>

Impact (Class)	Mitigation Measure (MMs)	Location	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
	<p>Spill Prevention and Response (OSPR) and/or CSLC staffs. Upon approval, sediments shall be removed from construction areas and disposed of in accordance with procedures described in the Removal Action Plan. However, if OSPR and/or CSLC staffs determine that removal of some contaminated sediments would impair the integrity of Pier 421-2 (includes the well, caisson supporting the well, and the causeway leading to the caisson) (either through complete removal of the soil filling the caisson or having to dig underneath), Venoco shall prepare a Decommissioning Plan to remove those remaining contaminated sediments at such time that Pier 421-2 is decommissioned. All other contaminated sediments whose removal would not threaten the integrity of Pier 421-2 would be removed upon approval of the Plan as described above.</p>					
	<p>MM HAZ-1e. Performance Security. The permittee shall provide to the California State Lands Commission (CSLC) and the City of Goleta, or maintain if already provided, performance securities and agreements for work that would need to be performed at the end of the Project's life. The security and agreement provided to CSLC would cover decommissioning and abandonment of the Well 421-1 and Pier 421-2. The performance security total shall be the estimated amount for the decommissioning/ abandonment work. The performance security shall be provided to the CSLC and agreements signed, prior to return to production of the PRC 421 well.</p>	At PRC 421	Venoco shall pay the performance security and formally complete all necessary agreements.	Provision of a performance security and related agreements will ensure that decommissioning and abandonment is completed as promised.	CSLC, City of Goleta	Prior to issuance of land use clearances

Impact (Class)	Mitigation Measure (MMs)	Location	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
	<p>The security and agreement provided to the City of Goleta would cover decommissioning and abandonment of the portions of the Project located within the City's jurisdiction, including, but not limited to, the piers, the sea wall supporting the access road, the access road, and the onshore pipelines and cables and ancillary facilities. The performance security total shall be the estimated amount for the decommissioning/abandonment work, less any amount contributed toward overlapping infrastructure that is covered in the securities and agreements with CSLC. The performance security shall be provided to the City of Goleta and agreements signed prior to the issuance of the Land Use Permit.</p>					
<p>Impact HAZ-2: Release of Contaminated Sediment from the Caisson on Pier 421-2 during Operation of the Project Contaminated sediment contained within the caisson structures could infiltrate to the surrounding environment (Less than Significant with Mitigation).</p>	<p>MMs GEO-4a, Corrosion Protection Design Specification, MM GEO-4d, Inspect Structures During and/or After Storm Events, and MM S-2a, Design Review/ Wave Loading Evaluation, shall be employed to ensure the integrity of the structure. Results from the Phase I and any subsequent Phase II ESAs described in MM HAZ-1b would provide information on the nature and extent of any pre-existing contamination from past site operations.</p>	At PRC 421	Venoco shall ensure that appropriate engineering design reports are completed to address identified structural design issues and that project design incorporates all recommended design features.	MMs will identify environmental issues with existing contamination in the Project area and ensure the integrity of the caisson structures, thereby decreasing the potential for a release of contaminated sediment	CSLC, City of Goleta	Various

Impact (Class)	Mitigation Measure (MMs)	Location	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
Air Quality						
<p>Impact AQ-1: Increase in Emissions from Construction Project construction could potentially result in increased emissions at the Project site (Less than Significant).</p>	<p>MM AQ-1a. Prohibit Unnecessary Truck Idling. The construction contractor shall limit unnecessary truck idling on site in excess of five minutes.</p>	At PRC 421	Project contractor should ensure that unnecessary truck idling is prohibited by including the MM in the construction site management plan.	Prohibiting unnecessary idling will reduce emissions from trucks.	APCD	Prior to initiating, and during, construction activities
	<p>MM AQ-1b. Use of Diesel Emission Reduction Measures. The construction contractor shall implement the following measures, as feasible.</p> <ul style="list-style-type: none"> • Diesel construction equipment meeting the California Air Resources Board (CARB) Tier 1 emission standards for off-road heavy-duty diesel engines shall be used. Equipment meeting CARB Tier 2 or higher emission standards should be used to the maximum extent feasible. • Diesel powered equipment should be replaced by electric equipment whenever feasible. • If feasible, diesel construction equipment shall be equipped with selective catalytic reduction systems, diesel oxidation catalysts and diesel particulate filters as certified and/or verified by the U.S. Environmental Protection Agency (EPA) or California. • Catalytic converters shall be installed on gasoline-powered equipment, if feasible. • All construction equipment shall be maintained in tune per the manufacturer's specifications. • The engine size of construction equipment shall be the minimum practical size. 	At PRC 421	Project contractor should ensure that diesel emission reduction measures are implemented by using equipment with diesel particulate filters or oxidation catalysts and using emulsified diesel fuel in construction equipment, as specified. Project monitor should confirm use of approved equipment.	Implementing diesel emission reduction measures will reduce emissions from construction equipment.	APCD	During construction activities

Impact (Class)	Mitigation Measure (MMs)	Location	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
	<ul style="list-style-type: none"> The number of construction equipment operating simultaneously shall be minimized through efficient management practices to ensure that the smallest practical number is operating at any one time. Construction worker trips should be minimized by requiring carpooling and by providing for lunch onsite. 					
	<p>MM AQ-1c. Maintain Construction Equipment. All construction equipment shall be properly maintained according to manufacturers' specifications.</p>	At PRC 421	Project contractor should ensure that all equipment is properly maintained. Project monitor should confirm adherence to approved maintenance schedule.	Properly maintained equipment emits fewer emissions than equipment that is not maintained.	APCD	During Project construction
	<p>MM AQ-1d. Compliance with State Portable Air Toxics Control Measure. Any portable diesel engines greater than 50 horsepower used in construction shall comply with the State Portable Air Toxics Control Measure and be certified to Tier 1, 2, or 3 non-road engine standards.</p>	At PRC 421	Project contractor should use ultra-low sulfur fuel, as specified. Project monitor should confirm use of approved fuel.	Utilizing ultra-low sulfur fuel will reduce the sulfur content of equipment emissions.	APCD, City of Goleta	During Project construction
	<p>MM AQ-1e. Establish On-Site Equipment Staging Area and Worker Parking Lots. The staging area and worker parking lots shall be restricted to either paved surfaces or soil stabilized unpaved surfaces only.</p>	At PRC 421	Project contractor should establish on-site equipment staging areas and worker parking lots, as detailed. Project monitor should ensure compliance with this measure.	Properly designed staging areas and parking lots minimize dust generation.	APCD, City of Goleta	Prior to starting Project construction activities
	<p>MM AQ-1f. Fugitive Dust Management. Venoco shall implement the following</p>		Project contractor should adhere to	Implementing MM would	APCD, City of Goleta	During Project

Impact (Class)	Mitigation Measure (MMs)	Location	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
	<p>measures in accordance with requirements of the Santa Barbara Air Pollution Control District.</p> <ul style="list-style-type: none"> • During construction, use water trucks or sprinkler systems to keep all areas of vehicle movement damp enough to prevent dust from leaving the site. At a minimum, this should include wetting down such areas in the late morning and after work is completed for the day. Increased watering frequency should be required whenever the wind speed exceeds 15 mph. Reclaimed water should be used whenever possible. However, reclaimed water should not be used in or around crops for human consumption. • Minimize amount of disturbed area and reduce on site vehicle speeds to 15 miles per hour or less. • If importation, exportation and stockpiling of fill material is involved, soil stockpiled for more than two days shall be covered, kept moist, or treated with soil binders to prevent dust generation. Trucks transporting fill material to and from the site shall be tarped from the point of origin. • Gravel pads shall be installed at all access points to prevent tracking of mud onto public roads. • After clearing, grading, earth moving or excavation is completed, treat the disturbed area by watering, or revegetating, or by spreading soil binders until the area is paved or otherwise developed so that dust generation will not occur. 		<p>the dust reduction practices listed in the measure.</p>	<p>reduce fugitive dust generation.</p>		<p>construction</p>

Impact (Class)	Mitigation Measure (MMs)	Location	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
	<ul style="list-style-type: none"> The contractor shall designate a person or persons to monitor the dust control program and to order increased watering, as necessary, to prevent transport of dust offsite. Their duties shall include holiday and weekend periods when work may not be in progress. The name and telephone number of such persons shall be provided to the Air Pollution Control District prior to land use clearance for map recordation and land use clearance for finish grading of the structure. 					
<p>Impact AQ-4: Project Would Result in a Net Increase in GHG Emissions Project oil and gas production and drilling and construction would increase GHG emissions. (Less than Significant with Mitigation)</p>	<p>MM AQ-4. Greenhouse Gas Monitoring and Reduction Strategies. The Applicant shall be required to quantify and report annually the greenhouse gas (GHG) emissions associated with Project operations using methodologies prescribed for the California Climate Action Registry General Reporting Protocol, the California Air Resources Board (CARB) Compendium of Emission Factors and Methods to Support Mandatory Reporting of Greenhouse Gas Emissions (CCAR 2009, CARB 2007c) and the U.S. Environmental Protection Agency (EPA) Mandatory Reporting of Greenhouse Gases annual reports. Copies shall be provided to the California State Lands Commission (CSLC) and Santa Barbara County Air Pollution Control District (APCD) staffs, including a reporting of all mitigation measures applied. In addition, Venoco shall prepare and submit a GHG emission reduction program to CSLC staff for review and approval prior to commencement of construction. Venoco shall detail specific measures to reduce net</p>	<p>At PRC 421 and Ellwood Onshore Facility</p>	<p>Applicant shall annually report GHG emissions and effectiveness of mitigation measures to CSLC and APCD and applicant shall prepare and submit a GHG reduction program to CSLC</p>	<p>Offset of GHG emissions to zero net increase.</p>	<p>CSLC</p>	<p>Prior to construction and ongoing throughout project operation</p>

Impact (Class)	Mitigation Measure (MMs)	Location	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
	<p>GHG emissions to zero on an annual basis over the life of the Project. Annual updates shall specify any changes in such measures required to meet targeted reductions. The following measures, or their equivalent, shall be used individually or in combination to achieve such reductions:</p> <ul style="list-style-type: none"> • On-site increased equipment efficiencies or operational modifications such as using more efficient de-watering systems at the EOF or other measures to reduce the need for crude heating; • Implementation of off-site GHG reduction programs in Santa Barbara County as approved by the APCD; and/or • Purchase of “credits” or offsets through existing adopted plan or mitigation program such as CARB’s Cap-and-Trade program or Climate Action Reserve, the City of Goleta’s Climate Action Plan, or other equivalent approved or certified program that is verified by the CSLC staff or CARB. 					
Hydrology, Water Resources, and Water Quality						
<p>Impact WQ-1: Temporary Construction Impacts to Marine Water Quality Short-term construction activities along the access road and seawall, and in the surf zone could adversely affect marine water quality (Less than Significant with Mitigation).</p>	<p>MM WQ-1a. Avoidance of High Tides and Silt Curtain. Venoco shall schedule in-water construction efforts to avoid times of high tides (defined herein as tides greater than +5 feet as predicted by the National Oceanic and Atmospheric Administration). Prior to implementation of any in-water construction, affected sediments shall be tested for the presence of hydro-carbons and trace metals. Any potentially contaminated sediment which may be disturbed during caisson repairs would be contained within the Project area for off-site disposal at an appropriate waste facility,</p>	At PRC 421	Venoco shall ensure construction activities are scheduled appropriately and that a silt curtain or other silt containment method is used during in-water construction activities and that contaminated	Appropriate scheduling and use of a silt curtain or other silt containment methods will reduce the risk of short-term construction impacts on marine water quality	CSLC, City of Goleta	Prior to in-water construction activities

Impact (Class)	Mitigation Measure (MMs)	Location	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
	<p>and disposed of according to State and Federal regulation. Regardless of the presence of contaminated sediment, Venoco shall install measures to reduce siltation of the nearshore marine environment during in-water construction, potentially including but not limited to a silt curtain, installation of sheet piling, and/ or soil removal techniques such as hydro-displacement and weighted floating. Venoco shall prepare a plan to monitor the performance of the adopted measure and identify thresholds for localized turbidity to ensure that they are performing as expected and not impairing water quality. If it is found that turbidity threshold values are being repeatedly exceeded, construction activities shall be temporarily halted until a better capture solution is implemented. Additionally, in order to protect spawning endangered species, monitoring should occur to ensure that a turbidity plume from construction in the marine environment does not reach the mouth of Bell Creek or Tecolote Creek and that turbidity in the lagoon does not increase as a result of construction activities. If a plume reaches the mouth of the lagoon, construction should be halted until turbidity returns to normal levels.</p>		<p>materials are disposed of properly</p>			
	<p>MM WQ-1b. Water Quality Certification. Venoco shall complete and implement a Spill Prevention, Control and Countermeasures (SPCC) Plan and implement any additional MMs mandated by the State Water Resources Control Board (SWRCB) through the Section 401 water quality certification process.</p>	<p>At PRC 421</p>	<p>Venoco shall implement SPCC Plan and any additional MMs mandated by SWRCB through 401 water quality certification</p>	<p>Implementation of MMs above and those mandated by the SWRCB would reduce potential water quality impacts</p>	<p>CSLC, SWRCB</p>	<p>Prior to in-water construction activities</p>

Impact (Class)	Mitigation Measure (MMs)	Location	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
			process.	to below State thresholds.		
<p>Impact WQ-2: Temporary Construction Impacts to Wetlands Short-term construction activities along the access road and could adversely affect water quality in adjacent wetlands (Less than Significant with Mitigation).</p>	<p>MM WQ-2. Wetland Delineation, Avoidance and Minimization. Venoco shall engage a qualified biologist to conduct a Wetland Delineation and prepare a Wetland Delineation Report, subject to approval and permitting by the City of Goleta, California Department of Fish and Wildlife, Army Corps of Engineers, and California Coastal Commission, to determine the precise location of all wetlands within and in the vicinity of the Project, including the access road, the flow line, the cables, sea wall bulkheads, and riprap sea-walls. The Report shall be reviewed and approved prior to City issuance of the Land Use Permit. Prior to commencement of construction, all wetland areas located within and adjacent to the Project area will be flagged for fencing by a qualified wetland scientist. If wetlands identified in the Wetland Delineation Report cannot be avoided, the Applicant shall consult with appropriate agencies including the City of Goleta, California Department of Fish and Wildlife, California Coastal Commission, and the Regional Water Quality Control Board to design measures to minimize impacts to the wetland and appropriate restoration standards and methods, if necessary following construction.</p>	At PRC 421	Venoco shall delineate provide measures to avoid impacts to any identified wetlands during construction and operation of the Project, and any necessary post-construction restoration actions for any temporary disturbance to the wetlands.	Identification of wetlands and appropriate conservation measures would reduce impacts to wetlands and sensitive habitats.	City of Goleta, CDFW, CCC, RWQCB, USACE	Prior to any Project construction
<p>Impact WQ-3: Oil Spill Impacts to Surface and Marine Water Quality Accidental discharge of</p>	<p>MM WQ-3a. Pipeline Monitoring. In addition to the installed safety measures on the pipeline from Pier 421-2 to the EOF tie-in (e.g., low-pressure alarm system and automatic shut-in), Venoco staff shall</p>	Along the pipeline in the access road	Venoco shall inspect the pipeline and provide the report and any	Regularly inspecting the pipeline will ensure that leaks are	City of Goleta, CSLC	During Project operation

Impact (Class)	Mitigation Measure (MMs)	Location	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
petroleum hydrocarbons into the surf zone from Pier 421-2 and flowline would adversely affect surface or marine water quality (Significant and Unavoidable).	conduct daily visual monitoring of the access road above the pipeline and soils adjacent to the access road. Staff shall inspect for obvious indicators of a small leak such as petroleum smells and any seepage of oil or visible sheen in soils adjacent to the roadway. If any indicators are present, Venoco shall (1) notify City of Goleta and California State Lands Commission (CSLC) staffs within 24 hours, (2) conduct further investigations to determine the source of the indicator, and (3) repair the pipeline as necessary upon City and CSLC staff approval.		indications of a leak to the City of Goleta and CSLC. If any indicators are present Venoco shall conduct further investigations to determine the source of the indicator and conduct repairs as necessary.	detected early and would prevent large releases of oil.		
	MM WQ-3b. Storm Water Pollution Prevention Plan (SWPPP). A site-specific SWPPP shall be prepared for construction activities and the existing Ellwood area SWPPP shall be updated to include the Project and submitted to the Regional Water Quality Control Board (RWQCB), Central Coast Region, and City of Goleta to prevent adverse impacts to nearby waterways associated with oil spills and contaminated storm water releases not covered under the Emergency Action Plan (EAP), which only applies to “significant events.” This plan shall include site-specific diagrams illustrating primary surface drainage features (e.g., Bell Canyon Creek, Devereux Creek and Devereux Slough, and proposed spill containment, delineation of drainage features) and a description of Best Management Practices (BMPs), including spill containment equipment and procedures tailored for the Project site.	Venoco Offices	Venoco shall prepare a site-specific SWPPP and submit it to the Central Coast RWQCB.	The Plan will prevent releases of contaminants and sediment to nearby waterways.	RWQCB, City of Goleta	Prior to implementing Project activities
Impact WQ-4: Cumulative Impacts	Each of these projects must meet regulatory requirements designed to reduce the	Santa Barbara	Implementation of standard	Permits obtained and	Local, State and	Ongoing

Impact (Class)	Mitigation Measure (MMs)	Location	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
<p>to Marine Water Quality Potential oil spills occurring as a result of recommissioning of PRC 421 could result in contributions to cumulative water quality impacts on the waters of the Santa Barbara Channel (Significant and Unavoidable).</p>	<p>probability and consequences of accidental releases to the environment. However, even the best-designed and implemented MMs, such as safe design of the facilities, oil spill contingency plans, training and drills, and availability of oil spill cleanup means, cannot eliminate all risk of an oil spill.</p>	<p>Channel</p>	<p>regulatory process.</p>	<p>regulator processes adhered to.</p>	<p>Federal agencies</p>	
<p>Marine Biological Resources</p>						
<p>Impact MBIO-1: Disturbance to Intertidal Organisms during Construction Construction activities during recommissioning activities at Pier 421-2 and following decommissioning and removal of Pier 421-1 would disturb and kill intertidal invertebrates and might dislodge grunion eggs (Less than Significant with Mitigation).</p>	<p>MM MBIO-1. Avoid Caisson Repair on Pier 421-2 and Removal of Pier 421-1 during Grunion Spawning Season. Project activities that require equipment access on the beach shall be scheduled to avoid, to the extent possible, anticipated California grunion runs. In the event that construction will occur during the seasonally predicted run period and egg incubation period for California grunion as identified by the California Department of Fish and Wildlife, a Project Biological Monitor, hired by the City of Goleta and paid by Venoco, shall be present on the Project site each night, for the entire night, from one night before the beginning of each seasonally predicted grunion run until one night after the end of each run to monitor the presence of grunion on the site. If any adult grunion are observed at the Project site, no construction activities requiring equipment access within the area of the observed grunion will be allowed until after the next predicted grunion run (or two weeks after</p>	<p>Project Caissons</p>	<p>Venoco to coordinate with City of Goleta, CSLC, and CDFW on timing of Caisson repairs outside of grunion season. Project biological monitor to oversee construction.</p>	<p>Caisson repairs occur outside grunion runs. Construction avoids documented grunion spawning areas.</p>	<p>City of Goleta, CSLC, CDFW</p>	<p>During Project construction</p>

Impact (Class)	Mitigation Measure (MMs)	Location	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
	the last run in August) in which no adult grunion have been observed on the Project site, unless otherwise approved by the California State Lands Commission staff.					
<p>Impact MBIO-2: Impacts to Marine Organisms from Sediment Resuspension in the Near-Shore Zone due to Disturbance of Sediments during Construction Activities during construction activities such as caisson repairs on non-seaward facing walls on Pier 421-2 and later decommissioning and removal of Pier 421-1 would have the potential to resuspend sediments in near-shore waters due to the disturbance of beach sediments. Resuspension of sediment, particularly contaminated sediments, could have adverse impacts on marine organisms (Less than Significant with Mitigation).</p>	<p>Implement MMs WQ-1a through WQ-1b and MMs HAZ-1c through HAZ-1-d.</p>	<p>See specific MMs in MMP for details on Location, Monitoring/ Reporting Action, Effectiveness Criteria, Responsible Agency, and Timing</p>				
<p>Impact MBIO-4: Oil Spill Impacts to Marine Resources Leaks and spills of</p>	<p>MM MBIO-4a. Update South Ellwood Field Oil Spill Contingency Plan (OSCP) to Address a Spill from Lease PRC 421 Oil Production. Prior to beginning</p>	Ellwood Area	Venoco shall coordinate with CSLC, CDFW, the County, the City	The OSCP is updated and approved by all affected	CSLC, CDFW, Santa Barbara	Prior to Project operation

Impact (Class)	Mitigation Measure (MMs)	Location	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
<p>petroleum hydrocarbons into the ocean could adversely affect marine organisms (Significant and Unavoidable).</p>	<p>construction at PRC 421 and prior to the City of Goleta's issuance of the Land Use permit, Venoco shall update the South Ellwood Field OSCP to address protection of sensitive biological resources disturbed during an oil spill or cleanup activities. The revised OSCP shall include specific measures to avoid impacts on Federal- and State-listed endangered and threatened species, and shall specifically identify training and procedures to contain oil spilled from production at Lease PRC 421. The OSCP shall identify sensitive resources, including the birds on the Bird Island platforms, kelp beds offshore the piers, intertidal and subtidal resources within the Campus Point SMCA such as those at Coal Oil Point, the harbor seal rookery at Burmah Beach and Naples Reef, and the Naples MPA that could be oiled rapidly from a spill on PRC 421. Rapid response procedures to protect those sensitive resources shall be identified. Venoco shall submit the updated South Ellwood Field and OSCP to the California State Lands Commission, Department of Fish and Wildlife Office of Spill Prevention and Response, California Coastal Commission, Santa Barbara County, and City of Goleta staffs for review and approval prior to operation of the recommissioned facilities.</p>		<p>and Coal Oil Point Reserve on preparation of the OSCP.</p>	<p>agencies.</p>	<p>County, City of Goleta</p>	
	<p>MM MBIO-4b. Develop a Protection Plan to Keep Birds Roosting on Bird Island from Harm in the Event of an Oil Spill on Lease PRC 421. Prior to starting construction at PRC 421 and prior to the City of Goleta's issuance of a Land Use Permit, Venoco shall engage a biologist</p>	<p>Ellwood Area</p>	<p>Venoco to coordinate with CSLC and CDFW and selected wildlife rehabilitation expert on need for</p>	<p>The protection plan, if necessary, is approved by CSLC and CDFW and provides clear</p>	<p>CSLC, CDFW, City of Goleta</p>	<p>Prior to Project operation</p>

Impact (Class)	Mitigation Measure (MMs)	Location	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
	<p>experienced with wildlife and bird rehabilitation to determine whether it is necessary to develop a plan specifically to protect pelicans and cormorants roosting on the Bird Island platforms from harm in the event of an oil spill. The biologist shall submit a memorandum explaining their position to the California State Lands Commission staff for review and approval. If the biologist deems plan preparation necessary, Venoco shall include this plan within the revised OSCP, potentially including methods to deter the birds from feeding or resting in oiled waters. The plan also shall include procedures to capture and rehabilitate oiled birds. If the plan is deemed necessary, Venoco shall submit the Plan to the California State Lands Commission, California Coastal Commission, Santa Barbara County, and City of Goleta staffs for review and approval prior to operation of the recommissioned facilities.</p>		<p>preparation of Bird Island Protection Plan.</p>	<p>measures to avoid disturbance of or harm to birds using Bird Island.</p>		
<p>Impact MBIO-5: Oil Spill Impacts to Commercial and Recreational Fishing Accidental discharge of petroleum hydrocarbons into marine waters would adversely affect commercial and recreational fishing (Significant and Unavoidable).</p>	<p>Implementation of MMs identified in Sections 4.2, Safety; 4.5, Hydrology, Water Resources, and Water Quality; and 4.7, Terrestrial Biological Resources, for contingency planning and spill response would be required.</p>	<p>See specific MMs in MMP for details on Location, Monitoring/ Reporting Action, Effectiveness Criteria, Responsible Agency, and Timing</p>				
<p>Impact MBIO-7: Cumulative Impacts of an Oil Spill on</p>	<p>Implementation of MMs MBIO-4a and MBIO-4b would be required.</p>	<p>See specific MMs in MMP for details on Location, Monitoring/ Reporting Action, Effectiveness Criteria, Responsible Agency, and Timing</p>				

Impact (Class)	Mitigation Measure (MMs)	Location	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
<p>Marine Resources Oil development at PRC 421 would add to the cumulative risk that marine resources would be impacted by one or more oil spills (Significant and Unavoidable).</p>						
<p>Terrestrial Biological Resources</p>						
<p>Impact TBIO-1: Short-Term Construction Impacts to Biological Resources Construction activities associated with installation of underground cables, repair of pipelines, recommissioning of Pier 421-2, and decommissioning and removal of Pier 421-1 and related infrastructure may impact existing wetlands along the project access road and nearby ESHAs (Less than Significant with Mitigation).).</p>	<p>MM TBIO-1a. Locate Power Cables and Pipeline Outside ESHA. To the maximum extent feasible, Venoco shall locate new power cables and pipeline repair activities outside existing wetland areas and wetland buffers (defined as undeveloped lands surrounding wetlands) along the access road. A wetland delineation shall be performed in accordance with MM WQ-2. The delineation report and related restoration plan, if required, will establish construction avoidance techniques and restoration where impacts cannot be avoided. The City of Goleta requires a minimum 3 to 1 ratio for wetland or wetland buffer impacts. The wetland delineation, wetland protection plan, and related restoration plan shall be prepared by Venoco for the City of Goleta and Coastal Commission comment and final approval prior to issuance of the City's Land Use Permit. To protect adjacent small wetlands from disturbance, the inland edge of the access road shall be fenced prior to commencement of construction activities. Any unavoidable intrusion of construction activities into this area shall only be performed under the supervision of a City of</p>	<p>PRC 421 access road</p>	<p>Project biological monitor shall ensure that fencing is installed around all sensitive wetland areas, and that all construction avoids these protected areas.</p>	<p>No intrusion of construction activities into protected areas.</p>	<p>CSLC, City of Goleta</p>	<p>During Project construction</p>

Impact (Class)	Mitigation Measure (MMs)	Location	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
	<p>Goleta-approved biologist. Venoco shall also engage a qualified biologist to prepare a Native Habitat and Special Status Species Survey and Protection Plan (Protection Plan) to be submitted to the City of Goleta and the California Coastal Commission for review and approval prior to the issuance of the City's Land Use Permit. The Protection Plan will map and describe accurate locations of resources in the City's jurisdiction, from the mean high tide line north to Hollister Avenue, in the context of the Project features and all construction staging, laydown, stockpile, and parking areas and shall identify methods to avoid or reduce related impacts to sensitive biological resources and resource buffers. Protection measures will include, at a minimum, a requirement for pre-construction surveys, worker training, the presence of the Project Biological Monitor during all construction activities, and authorization of the Project Biological Monitor to stop work if threats to any sensitive species or habitats are identified during monitoring.</p>					
	<p>MM TBIO-1b. Project Biological Monitors. The City of Goleta shall hire a Project Biological Monitor, paid for by Venoco, to supervise pipeline and cable installation, and oversee all construction activities that cross sensitive biological areas and habitat restoration and enhancement activities. The Project Biological Monitor shall ensure that damage to any sensitive wetland habitat within or adjacent to construction zones is minimized. The Project Biological Monitor and the project engineer shall clearly</p>	<p>PRC 421 access road</p>	<p>The monitor shall oversee the installation and maintenance of temporary fencing around sensitive habitats and ensure that construction activities do not intrude into or damage these</p>	<p>Sensitive wetland areas are protected from damage.</p>	<p>CSLC, City of Goleta</p>	<p>Throughout Project construction</p>

Impact (Class)	Mitigation Measure (MMs)	Location	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
	<p>designate “sensitive resource zones” on the project maps and construction plans, which would include the mouth of Bell Canyon Creek. Sensitive resource zones shall be defined in the Native Habitat and Special Status Species Survey and Protection Plan (required under MM TBIO-1a), to avoid impacts to special status biological resources. If the Project Biological Monitor determines that birds are nesting and/or breeding in the Project vicinity, Venoco shall cease Project activities that may affect these birds during the breeding season.</p>		<p>areas.</p>			
	<p>MM TBIO-1c. Restoration Plan/ Restoration. Venoco shall submit a Restoration Plan, prepared by a consultant specializing in restoration ecology to the City, California State Lands Commission, California Coastal Commission, and California Department of Fish and Wildlife staffs for review and approval prior to the issuance of the City’s Land Use Permit. The Restoration Plan shall include at least the following elements and shall be consistent with the wetland-specific guidance and Native Habitat and Special Status Species Survey and Protection Plan associated with implementation of MM WQ-2a and TBIO-1a.</p> <p>a. Venoco shall restore any plant communities disturbed by Project construction activities within 90 days of completion of Project construction in conformance with the City-approved Restoration Plan.</p> <p>b. The Plan shall include criteria for evaluating success of restoration efforts and contingencies in the event efforts and not successful.</p>	<p>PRC 421 access road, EOF</p>	<p>The project biologist shall document any disturbance to native habitats and provide recommendations on and oversight of restoration activities.</p>	<p>Disturbed native habitats are restored.</p>	<p>CSLC, City of Goleta</p>	<p>Four weeks prior to completion of Project construction</p>

Impact (Class)	Mitigation Measure (MMs)	Location	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
	<p>c. Any salvaging and replanting of existing native vegetation shall be undertaken as much as feasible at the direction of the Project Biological Monitor.</p> <p>d. Only native locally derived vegetation and seeds shall be planted in project restoration areas.</p> <p>e. Monitoring and reporting of restored sites by the Project Biological Monitor biologist shall occur for a minimum of 5 years after Project completion, with changes made as necessary based on annual monitoring reports.</p>					
	<p>MM TBIO-1d. Protect Stockpiles of Excavated Material. In addition to Best Management Practices identified in the State Water Resource Control Board 401 certification, materials excavated to install the underground cables shall be stockpiled in such a way that they will not inadvertently spill into or be washed into wetland areas. Stockpile areas shall be located at least 100 feet from delineated wetlands. Drainages and any riparian areas shall be prohibited from use for disposal or temporary placement of excess fill. The Project Biological Monitor shall ensure compliance with this mitigation measure during construction monitoring activities.</p>	<p>PRC 421 access road, EOF</p>	<p>The monitor shall ensure proper stockpiling of material to avoid any disturbance to native habitats.</p>	<p>Wetlands are protected from stockpiled fill material.</p>	<p>CSLC, City of Goleta</p>	<p>During Project construction</p>
	<p>MM TBIO-1e. Equipment Use, Storage, and Maintenance. Prior to issuance of the Project Land Use Permit, Venoco shall submit an equipment use, storage, and maintenance work plan to the City of Goleta and California State Lands Commission staffs for review and approval. The work plan shall include at least the following elements.</p>	<p>PRC 421</p>	<p>The project contractor shall ensure that all equipment is properly maintained. The project monitor will verify the appropriate</p>	<p>Accidental leaks and spills are avoided or cleaned up.</p>	<p>CSLC, City of Goleta</p>	<p>During Project construction</p>

Impact (Class)	Mitigation Measure (MMs)	Location	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
	<p>a. Heavy equipment and construction activities shall be restricted to the defined construction right-of-way. Vehicles and personnel shall only use existing access roads to the maximum degree feasible.</p> <p>b. Emergency provisions shall be in place at all drainage crossings prior to the onset of construction to deal with accidental spills.</p> <p>c. All equipment used on site and in or near drainages shall be maintained such that no leaks of oil, fuel, or vehicle residues will take place.</p> <p>d. Provisions shall be in place to remediate any accidental spills.</p> <p>e. All machinery shall be stored and fueled in designated locations, such as the equipment laydown areas next to the Ellwood Onshore Facility, as specified in previous sections.</p>		maintenance occurs.			
	<p>MM TBIO-1f. Biological Enhancement Activities. Where possible (e.g., not including steep slopes adjacent to the roadway), existing native habitats within 100 feet of the proposed trenching activities shall be enhanced in terms of their biological value through removal of invasive, non-native species and the planting of appropriate native species. Enhancement activities are to include removal of the non-native giant reed (<i>Arundo donax</i>) and other invasive species identified by the Project Biological Monitor. Hand-removal of above-ground stalk and rhizome biomass shall be undertaken to prevent damage to adjacent native plants. Monitoring and reporting of restored sites by the Project Biological Monitor shall occur for a minimum of 5 years after Project completion, with changes</p>	Three small wetlands along PRC 421 access road and Bell Canyon Creek Estuary	The Project Biologist shall identify all clumps of <i>Arundo</i> or other highly invasive species along access road and in Bell Canyon Creek Estuary and oversee their removal.	Highly invasive non native species are removed.	CSLC, City of Goleta	Prior to completion of Project construction

Impact (Class)	Mitigation Measure (MMs)	Location	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
	made as necessary based on annual monitoring reports.					
<p>Impact TBIO-2: Oil Spill Impacts to Terrestrial Biological Resources An accidental oil spill and subsequent cleanup efforts during operation of the Project would potentially result in the loss or injury of threatened, endangered, or candidate species such as the Western snowy plover; the loss or degradation of functional habitat value of sensitive biological habitats such as coastal wetlands; or cause a substantial loss of a population or habitat of native fish, wildlife, or vegetation (Significant and Unavoidable).</p>	<p>MM TBIO-2a. Oil Spill Contingency Plan (OSCP) Measures Regarding Protection of Biological Resources. Before re-starting production at PRC 421, Venoco shall revise and update the OSCP to address protection of sensitive biological resources disturbed during an oil spill or cleanup activities. The revised OSCP shall, at a minimum, include: (1) specific measures to avoid impacts on Federal- and State-listed endangered and threatened species and Environmentally Sensitive Habitat Areas (ESHAs) during response and cleanup operations; (2) identify, feasible, low-impact, site-specific, and species-specific techniques; (3) identify standards of a spill response personnel training program; (4) funding (up to \$5,000 each) for City and Coal Oil Point Reserve updates to multi-hazard response plans and other emergency response documents (e.g., those for Coal Oil Point Reserve) to ensure clear internal and inter-agency communication in the event of an accident and for spill clean-up/restoration; and (5) provide one-time training and a brief checklist regarding the OSCP and the Emergency Action Plan for Neighborhood Services and Public Safety Department and Planning and Environmental Review Department, and the staff of the Coal Oil Point Reserve. Venoco shall submit the updated OSCP to the California State Lands Commission, Department of Fish and Wildlife Office of Spill Prevention and Response, California Coastal Commission,</p>	<p>PRC 421 and Ellwood Coast area</p>	<p>Venoco shall prepare a revised EAP that permits training and provides funding for the two understaffed agencies most responsible for oversight of the sensitive biological resources potentially affected by a Project-related oil spill.</p>	<p>A revised OSCP is submitted and approved by concerned agencies and adequate funding is provided to local agencies.</p>	<p>CSLC, OSPR, CCC, Santa Barbara County, and City of Goleta</p>	<p>Prior to Project operation</p>

Impact (Class)	Mitigation Measure (MMs)	Location	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
	<p>Santa Barbara County, and City of Goleta staffs for review and approval prior to operation of the recommissioned facilities.</p> <p>MM TBIO-2b. Oil Spill Contingency Plan (OSCP) Measures Regarding Habitat Protection and Restoration. Before re-starting production at PRC 421, Venoco shall revise and update the OSCP to address revegetation of any areas disturbed during an oil spill or cleanup activities. The revised OSCP shall include: (1) preemptive identification of access and egress points, staging areas, and material stockpile areas that avoid sensitive habitat areas; (2) stipulations for development and implementation of site-specific habitat restoration plans and other site-specific and species-specific measures; (3) identification of sources for restoration project implementation (e.g., restoration contractors, seed vendors, native plant nursery facilities, academic institution support); (4) procedures for timely re-establishment of vegetation; (5) monitoring procedures and minimum success criteria to be satisfied for restoration areas; (6) funding (up to \$5,000 each) for City and Coal Oil Point Reserve updates to multi-hazard response plans and other emergency response documents to ensure clear internal and inter-agency communication in the event of an accident and for spill clean-up/restoration; and (7) provide one-time training a brief checklist regarding the OSCP and the Emergency Action Plan for Neighborhood Services and Public Safety Department and Planning and Environmental Review Department. Venoco</p>	<p>PRC 421 and Ellwood Coast area</p>	<p>Venoco shall revise the OSCP to address revegetation of any areas disturbed during an oil spill or cleanup activities.</p>	<p>A revised OSCP is submitted and approved by concerned agencies and adequate funding are provided to local agencies.</p>	<p>CSLC, Santa Barbara County, City of Goleta</p>	<p>Prior to Project operation</p>

Impact (Class)	Mitigation Measure (MMs)	Location	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
	shall submit the updated OSCP to the California State Lands Commission, Department of Fish and Wildlife Office of Spill Prevention and Response, California Coastal Commission, Santa Barbara County, and City of Goleta staffs for review and approval prior to operation of the recommissioned facilities.					
Impact TBIO-3: Cumulative Impacts to Terrestrial Biological Resources Potential oil spills occurring as a result of recommissioning Pier 421-2 could result in contributions to cumulative terrestrial biological resource impacts (Significant).	MMs TBIO-2a and -2b would apply to this impact.	See specific MMs in MMP for details on Location, Monitoring/ Reporting Action, Effectiveness Criteria, Responsible Agency, and Timing				
Land Use, Planning, and Recreation						
Impact LU-1: Conflicts with Goleta General Plan/Coastal Land Use Plan and underlying Coastal Act Policies Production of oil and gas at PRC 421 would increase the potential for accidental releases of oil into the environment and conflict with policies contained within the Goleta General Plan/Coastal Land Use Plan (GP/CLUP) Land	MM LU-1a. Obtain Property Owner Authorizations. Prior to issuance of any Land Use Permit, Venoco shall secure all required property owner authorizations or other documentation, including encroachment permits or easements to the satisfaction of the City of Goleta allowing the project on or within property not owned by the permittee, including, but not limited to property owned by Sandpiper Golf Trust and the City.	N/A	Venoco shall present documentation of all necessary authorizations.	Confirming authorizations will avoid unauthorized land uses.	City of Goleta, CSLC	Prior to issuance of land use clearances.
	MM LU-1b. Obtain Permits Required by Title 15 of Goleta Municipal Code. Venoco shall obtain from the City's Planning and Environmental Review Department all Building, Electrical, Well or other Permits required by Title 15 of the Goleta Municipal	N/A	Venoco shall present documentation that all necessary permits have been received.	Confirming permits will avoid unauthorized land uses.	City of Goleta, CSLC	Prior to issuance of land use clearances.

Impact (Class)	Mitigation Measure (MMs)	Location	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
Use, Open Space, or Conservation Elements and relevant underlying Coastal Act policies (Significant and Unavoidable).	Code prior to the construction, erection, moving, alteration, enlarging, rebuilding of any building, structure, or improvement, or any other action(s) requiring a Building Permit pursuant to Title 15 of the Goleta Municipal Code.					
	MM LU-1c. Obtain City Land Use Permit Prior to Development. The permittee shall obtain from the City’s Planning and Environmental Review Department a Land Use Permit prior to commencement of any uses and/or development authorized by this permit.	N/A	Venoco shall ensure receipt of the necessary land use permit.	Ensuring permitting prior to development allows for implementation of mitigation.	City of Goleta, CSLC	Prior to start of Project development.
Impact LU-2: Oil Releases Could Affect Recreational Activities High-quality recreational resources are located within the area and could be impacted by the spread of oil from an accidental release from surf zone production activities at Pier 421-2, associated pipelines, and transportation by the Line 96 pipeline. Shoreline and water-related uses would be disrupted by oil on the shoreline and in the water, resulting in significant impacts to on- and off-shore public recreation (Significant and Unavoidable).	Implementation of those MMs identified in Sections 4.1, Geological Resources; 4.2, Safety, 4.3 Hazardous Materials; 4.5, Hydrology, Water Resources, and Water Quality; 4.6, Marine Biological Resources, and 4.7, Terrestrial Biological Resources, reinforcement of caisson containment walls, and contingency planning and spill response.	See specific MMs in MMP for details on Location, Monitoring/ Reporting Action, Effectiveness Criteria, Responsible Agency, and Timing				

Impact (Class)	Mitigation Measure (MMs)	Location	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
<p>Impact LU-3: Oil Releases from Pier 421-2 or Pipelines Could Affect Sensitive Area Resources and Raise Consistency Issues with Adopted Policies. Spills that reach the shore along sensitive land use areas or heavily used areas, including recreational areas, would limit or preclude such uses and result in significant adverse impacts (Significant and Unavoidable).</p>	<p>Implementation of those MMs identified in Sections 4.2, Safety; 4.5, Hydrology, Water Resources, and Water Quality; 4.6, Marine Biological Resources, and 4.7, Terrestrial Biological Resources, for reinforcement of caisson containment walls, and contingency planning and spill response.</p>	<p>See specific MMs in MMP for details on Location, Monitoring/ Reporting Action, Effectiveness Criteria, Responsible Agency, and Timing</p>				
<p>Impact LU-4: Cumulative Impacts of Potential Project-Related Oil Spills on Area Land Use and Recreational Uses. Impacts to sensitive shoreline lands, and/or water and non-water recreation due to a release of oil would result in potentially significant impacts. When the cumulative environment is considered, the contribution from the Project could be</p>	<p>Implementation of those MMs identified in Sections 4.2, Safety; 4.5, Hydrology, Water Resources, and Water Quality; 4.6, Marine Biological Resources; and 4.7, Terrestrial Biological Resources, for reinforcement of caisson containment walls, and contingency planning and spill response would be required.</p>	<p>See specific MMs in MMP for details on Location, Monitoring/ Reporting Action, Effectiveness Criteria, Responsible Agency, and Timing</p>				

Impact (Class)	Mitigation Measure (MMs)	Location	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
significant (Significant and Unavoidable).						
Public Services						
<p>Impact PS-1: Adequacy of Fire Response The incremental increase for fire protection services caused by reactivating oil production in an area which is currently under-served with difficult and limited accessibility contributes to the need for new and/or expanded fire inspection and protection services in western Goleta (Significant and Unavoidable).</p>	<p>MM PS-1. Impact Development Fee. Venoco shall provide an impact development fee payment to the City of Goleta that would be directed toward fire response improvements. The fee would be determined based on the County of Santa Barbara's Development Fee Ordinance (County Ordinance 4745), which assesses a fee of \$1,007.00 per 1,000 sf for non-retail commercial development in Fiscal Year 2013-2014. For the purposes of determining the fee, the Project area would consist of the PRC 421 piers, pipeline corridor, and roadbed, which has a total cost of \$26,168. Fire response upgrades, which may include maintenance of a 12-foot-wide all-weather access road and installation of portable fire extinguishers, shall be implemented per Santa Barbara County Fire Department (SBCFD) requirements. Venoco shall also obtain a hot-work permit from SBCFD before any hot-work operations on the Project.</p>	At PRC 421	Venoco shall pay an impact development fee to the City of Goleta. CSLC will identify the fee as part of final approval of this project.	The impact fee will help pay for the construction of a new fire station that could service the project site.	CSLC, SBCFD, and City of Goleta	Upon Project approval
<p>Impact PS-2: Operation without an Approved Fire Prevention Plan Operating PRC 421 without an approved fire protection plan could result in an unsafe situation if an emergency requiring response by Venoco or the Santa Barbara County Fire Department</p>	<p>MM PS-2. Prepare Fire Prevention Plan for PRC 421. Prior to re-starting oil and gas production at PRC 421, Venoco shall prepare a fire prevention plan that includes fire prevention strategies for the Project area. The plan may either be in the form of a stand-alone plan for the PRC 421 facilities or included as an update to the South Ellwood Facilities Fire Prevention and Preparedness Plan. The Plan shall be submitted to the City of Goleta and the Santa Barbara County Fire Department (SBCFD) for review and approval prior to</p>	At PRC 421	Venoco shall ensure that a Fire Prevention Plan is created for PRC 421.	A Fire Prevention Plan would detail fire prevention strategies for the project.	SBCFD, City of Goleta	Prior to City's Land Use Permit issuance

Impact (Class)	Mitigation Measure (MMs)	Location	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
ment were to occur (Less than Significant with Mitigation).	the issuance of the City's Land Use Permit.					
Transportation and Circulation						
Impact TR-1: Construction-Generated Traffic Traffic generated from construction activities would have a short-term, less than significant impact on local transportation and circulation (Less than Significant with Mitigation).	MM TR-1a. Route Construction Traffic to Avoid Congested Intersections. To minimize the potential for adverse impacts, Venoco shall direct Project construction traffic, particularly heavy trucks, during non-emergency trips, to avoid congested areas at Storke Road and use the Winchester Canyon Overpass to access the Project site. Venoco shall prepare and implement a Construction Traffic Control Plan that would apply to all construction activities, including but not limited to recommissioning and decommissioning activities, for review and approval by the City of Goleta.	Winchester Canyon Overpass	The project contractor and monitor shall ensure that construction traffic accesses the project site and Highway 101 from the Winchester Canyon Overpass instead of Storke Rd.	Directing traffic away from Storke Rd will reduce traffic congestion.	City of Goleta	During Project construction
	MM TR-1b. Repair/Upgrade Any Damage to Access Road. To minimize the potential for adverse impacts, Venoco shall repair/upgrade the access road if it receives damage or degradation as a result of construction-related traffic. The access road shall be inspected and photographed before and after the Project, and a determination will be made regarding any needed repairs.	Access road	The project contractor and monitor shall ensure that repairs to damage from construction related activities are preformed on the access road.	Impacts from short-term construction are less than significant on local transportation, circulation, and roadways.	City of Goleta	During and after Project construction
Noise						
Impact NZ-1: Construction Impacts to Beach Users and Golfers Short-term noise levels would increase during Project construction potentially affecting a public beach and the	MM NZ-1a. Sound-Control Devices. All construction equipment shall have properly maintained sound-control devices, and no equipment should have an unmuffled exhaust system.	At PRC 421	The project contractor shall ensure that all construction equipment has properly maintained sound control devices and that no	Ensuring the use of sound control devices will reduce noise generated from construction equipment.	City of Goleta	During Project construction

Impact (Class)	Mitigation Measure (MMs)	Location	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
Sandpiper Golf Course (Less than Significant).			equipment has an unmuffled exhaust system. The project monitor will review and confirm implementation of required measures.			
	<p>MM NZ-1b. Additional Best Management Practices (BMPs). Contractors shall implement appropriate BMPs to avoid impacting the public including but not limited to changing the location of stationary construction equipment, shutting off idling equipment, and installing acoustic barriers around significant sources of stationary construction noise, so that the noise at sensitive receptors such as golf courses, water recreation areas, and riding stables does not exceed 70 A-weighted decibels (dBA) California Noise Equivalent Level (CNEL).</p>	At PRC 421	The project contractor should ensure that all appropriate noise mitigation measures are implemented, as detailed. The project monitor should review and confirm implementation of measures.	Implementing noise mitigation measures will reduce noise generated from the project.	City of Goleta	During Project construction
	<p>MM NZ-1c. Buffers. To the maximum extent feasible, adequate distance buffers shall be maintained between noise-generating machinery or equipment and any sensitive receptors. The buffer shall be of a width that will ensure that noise at the receiver site such as a residence does not exceed 65 A-weighted decibels (dBA) California Noise Equivalent Level (CNEL), and at receptors such as golf courses, water recreation areas, and riding stables, the noise does not exceed 70 dBA CNEL. For equipment that produces a noise level of 95 dBA at 50 feet, a buffer of 1,600 feet is required for attenuation of sound levels to 65 dBA.</p>	At PRC 421	The project contractor and project monitor should ensure that noise buffers are maintained, as detailed, in coordination with the City of Goleta.	Noise buffers will reduce noise generated from the project for sensitive receivers.	City of Goleta	During Project construction

Impact (Class)	Mitigation Measure (MMs)	Location	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
Aesthetics/Visual Resources						
Impact VR-1: Visual Effects from Construction Activities at PRC 421 Construction activities would create negative visual impacts (Less than Significant with Mitigation).	MM VR-1a. Use Laydown Areas for Overnight Storage of Equipment. Equipment placed on the beach shall be returned to the laydown areas at the end of each workday, both for public safety and for aesthetic considerations.	At the beach at PRC 421	The project contractor and monitor shall ensure that all construction equipment placed on the beach is returned to the laydown areas at the end of each work day.	Removing equipment from the beach will eliminate visual impacts on the weekends and at night.	CSLC and City of Goleta	Each night during Project construction
	MM VR-1b. Caution Tape around Materials Placed on Beach. Materials temporarily placed on the upper reaches of the beach shall be roped-off with caution tape and removed within 24 hours in most cases.	At the beach at PRC 421	The project contractor and monitor shall ensure that materials placed on the beach temporarily are roped off with caution tape and removed as detailed.	Removal of items placed temporarily on the beach after 24 hours will reduce visual impacts.	CSLC and City of Goleta	During Project construction
	MM VR-1c. Material Removal at Construction Completion. All materials, equipment, and debris shall be removed from the site upon completion of the Project construction. Venoco shall revegetate all areas subject to ground disturbance associated with project construction with species that are biologically and visually compatible with the surroundings in accordance with a Restoration Plan approved by the City of Goleta as identified in MM TBIO-1c Restoration Plan/Restoration.	At PRC 421	Venoco shall ensure that all construction materials will be removed from the Project site after completion and appropriately revegetate disturbed areas.	Removal of construction materials and revegetation will help minimize visual impacts	CSLC and City of Goleta	At construction completion
	MM VR-1d. Minimal Night Lighting. Lighting shall use the minimum number of	At PRC 421	Venoco shall ensure that use of	Minimal use of night lighting	CSLC and City of	During construction

Impact (Class)	Mitigation Measure (MMs)	Location	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
	<p>fixtures and intensity needed for construction activities. Fixtures shall be fully shielded and have full cut-off lights to minimize visibility from public viewing areas, wildlife habitats, migration routes, and other sensitive environs. Venoco shall prepare and implement a Night Lighting Plan to ensure that night lighting is minimal and directed away from sensitive habitats to the maximum extent feasible, for review and approval by the City of Goleta.</p>		<p>night lighting will be minimized</p>	<p>will help reduce visual impacts to receptors</p>	<p>Goleta</p>	
	<p>MM VR-1e. No Night Lighting After 5:00 p.m. Night lighting and work shall not occur past the 5:00 p.m. work stoppage deadline.</p>	<p>At PRC 421</p>	<p>Venoco shall ensure that construction activities cease by 5 p.m. and that no night lighting is used thereafter.</p>	<p>Adherence to the 5 p.m. stoppage deadline will reduce the need for night lighting and reduce visual impacts.</p>	<p>CSLC and City of Goleta</p>	<p>During construction</p>
<p>Impact VR-2: Visual Effects from Accidental Oil Spills Project implementation would incrementally increase the likelihood of oil spill from primary or secondary Project components, including Pier 421-2, associated pipelines, and the Line 96 pipeline (Significant and Unavoidable).</p>	<p>Implementation of those MMs identified in Sections 4.2, Safety; 4.3, Hazardous Materials; 4.5 Hydrology, Water Resources, and Water Quality, 4.6, Marine Biological Resources; and 4.7 Terrestrial Biological Resources for contingency planning and spill response shall be required.</p>	<p>See specific MMs in MMP for details on Location, Monitoring/ Reporting Action, Effectiveness Criteria, Responsible Agency, and Timing</p>				

Impact (Class)	Mitigation Measure (MMs)	Location	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
<i>Cultural, Historical, and Paleontological Resources</i>						
<p>Impact CR-1: Potential Impacts to Previously Undiscovered Cultural Resources During Construction Although no cultural resources are known to be present within the Project area and Project activities would generally occur in previously disturbed areas, excavations around the EOF and along the Project access road could exceed previous depths and disturb previously undiscovered cultural resources (Less than Significant with Mitigation).</p>	<p>MM CR-1. Cultural Resources Monitor. A qualified cultural resources expert shall act as a construction monitor during all ground-disturbing work. The expert shall be retained by the City of Goleta and paid for by Venoco. The Cultural Resources Monitor shall prepare a Cultural Resources Monitoring Plan, outlining the approach to monitoring, involvement of the affected Native American nation, and detailing pre-construction workshops for construction personnel for review approval by the City of Goleta and paid for by Venoco. In the event archaeological resources are encountered during grading, as observed by the cultural resources monitor or their designee, work shall be stopped immediately or redirected until the City-approved archaeologist and local Chumash observer can evaluate the significance of the find pursuant to Phase 2 investigation standards set forth in the City Archaeological Guidelines. The Phase 2 shall be funded by Venoco. If resources are found to be significant, they shall be subject to a Phase 3 mitigation program consistent with City Archaeological Guidelines. The Phase 3 shall be funded by the permittee. This requirement shall be printed on all plans submitted for any City of Goleta Land Use Permit, building, grading, or demolition permits.</p>	<p>At PRC 421, EOF</p>	<p>Monitors shall prepare memoranda for review by City describing any discovered resources and the course of action taken. If a Phase II investigation is necessary, Venoco shall consult with the City to identify and retain a cultural resources expert to prepare the investigation.</p>	<p>Expert monitor will ensure that any previously undiscovered resources are protected.</p>	<p>City of Goleta</p>	<p>During construction</p>

EXHIBIT D – REVISED PRC 421 RECOMMISSIONING PROJECT

CALIFORNIA STATE LANDS COMMISSION STATEMENT OF FINDINGS AND STATEMENT OF OVERRIDING CONSIDERATIONS

1.0 INTRODUCTION

The California State Lands Commission (CSLC), acting as a lead agency under the California Environmental Quality Act (CEQA), makes these Findings and this Statement of Overriding Considerations to comply with CEQA as part of its consideration of the Recommissioning Plan (dated May 2004 and amended in 2013) of State Oil and Gas Lease PRC 421 (PRC 421), by Venoco, Inc. (Venoco), associated with the proposed Revised PRC 421 Recommissioning Project (Project). The CSLC is making these Findings pursuant to Public Resources Code section 21081 and the State CEQA Guidelines (Cal. Code Regs., tit. 14, § 15091, subd. (a)),¹ which states in part:

No public agency shall approve or carry out a project for which an EIR has been certified which identifies one or more significant environmental effects of the project unless the public agency makes one or more written findings for each of those significant effects, accompanied by a brief explanation of the rationale of each finding.

The CSLC has jurisdiction and management authority over all ungranted tidelands, submerged lands, and the beds of navigable lakes and waterways. The CSLC also has certain residual and review authority for tidelands and submerged lands legislatively granted in trust to local jurisdictions. (Pub. Resources Code, §§ 6301, 6306.) All tidelands and submerged lands, granted or ungranted, as well as navigable lakes and waterways, are subject to the protections of the Common Law Public Trust.

The CSLC is the lead agency under CEQA for the Project because the CSLC has the principal responsibility for taking action on the Recommissioning Plan for the Project. The CSLC analyzed the environmental impacts associated with the Project in a Final Environmental Impact Report (EIR) (State Clearinghouse [SCH] No. 2005061013).²

The Project involves recommissioning an existing shoreline well (Well 421-2) to oil production by Venoco, an independent oil and gas company and operator of State Oil and Gas Lease PRC 421. The Project will be conducted along the southern coast of California, adjacent to and within the City of Goleta, Santa Barbara County. The proposed Project has several primary components:

¹ CEQA is codified in Public Resources Code section 21000 et seq. The State CEQA Guidelines are found in California Code of Regulations, Title 14, section 15000 et seq.

² The Final EIR was published in November 2014 and is available on the CSLC website at: www.slc.ca.gov (under the “Information” tab and “CEQA Updates” link).

1. Well 421-2 will be recommissioned using an existing pier (Pier 421-2) located on Haskell's Beach, straddling Goleta and CSLC jurisdictions;
2. Water and gas from crude oil emulsion extracted from Well 421-2 will be separated at the existing Ellwood Onshore Facility (EOF) in the City of Goleta;
3. Venoco will decommission a second well (Well 421-1) located on an adjacent pier (Pier 421-1), which was historically used as a water and gas injection well during past production of PRC 421; and
4. Venoco will remove Pier 421-1, which was historically used for the processing and storage of the Well 421-2 product, and the caisson and facilities that support Well 421-1.

2.0 ADMINISTRATIVE RECORD OF PROCEEDINGS

These Findings are based on the information contained in the EIR for the Project, as well as information provided by the Applicant and gathered through the public involvement process, all of which is contained in the administrative record. References cited in these Findings can be found in the Final EIR, Section 9.0, References. The administrative record is located in the Sacramento office of the California State Lands Commission, 100 Howe Avenue, Suite 100-South, Sacramento, CA 95825.

3.0 FINDINGS

Findings are required by each “public agency” that approves a project for which an EIR has been certified that identifies one or more significant environmental impacts. (Pub. Resources Code, § 21081; State CEQA Guidelines, § 15091.) These Findings, as a result, are intended to comply with the above-described mandate that for each significant effect identified in the EIR, the CSLC adopt one or more of the following, as appropriate.

- (1) Changes or alterations have been required in, or incorporated into, the Project that avoid or substantially lessen the significant environmental effect as identified in the Final EIR.
- (2) Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the CSLC. Such changes have been adopted by such other agency or can and should be adopted by such other agency.
- (3) Specific economic, legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the Final EIR.

These Findings are also intended to comply with the requirement that each finding by the CSLC be supported by substantial evidence in the administrative record of proceedings, as well as accompanied by a brief explanation of the rationale for each finding. (State CEQA Guidelines, § 15091, subds. (a), (b).) To that end, these Findings provide the written, specific reasons supporting the CSLC's decision under CEQA to approve the Project.

A discussion of supporting facts follows each Finding.

- Whenever Finding (1) occurs, the mitigation measures that lessen the significant environmental impact are identified in the facts supporting the Finding.
- Whenever Finding (2) occurs, the agencies with jurisdiction are specified. These agencies, within their respective spheres of influence, have the responsibility to adopt, implement, and enforce the mitigation discussed.
- Wherever Finding (3) is made, the CSLC has determined that, even after implementation of all feasible mitigation measures and consideration of feasible alternatives, the identified impact will exceed the significance criteria set forth in the EIR. Furthermore, to the extent that potentially feasible measures have been alleged or proposed, the Findings explain why certain economic, legal, social, technological or other considerations render such possibilities infeasible. The significant and unavoidable impacts requiring Finding (3) are identified in the Final EIR, discussed in the Responses to Comments, and explained below. Having done everything it can to avoid and substantially lessen these effects consistent with its legal authority and CEQA, the CSLC finds in these instances that overriding economic, legal, social, and other benefits of the approved Project outweigh the resulting significant and unavoidable impacts. The Statement of Overriding Considerations adopted as part of this exhibit applies to all such unavoidable impacts as required by CEQA. (Pub. Resources Code, § 21081, subd. (b); State CEQA Guidelines, §§ 15092 and 15093.)

All environmental impacts of the Project identified in the EIR are listed below; the significance of each impact is classified as follows.

Definition	Findings Required
Significant and Unavoidable (SU). Significant adverse impact that remains significant after mitigation	Yes
Less than Significant with Mitigation (LTSM). Significant adverse impact that can be eliminated or reduced below an issue’s significance criteria	Yes
Less than Significant (LTS). Adverse impact that does not meet or exceed the identified significance criteria	No
No Impact (NI)	No

A. SUMMARY OF FINDINGS

Based on public scoping, the proposed Project will have No Impact on the following environmental issue areas:

- Agricultural Resources
- Population and Housing

The EIR subsequently identified the following impacts as Less Than Significant:

- Noise

- Energy and Mineral Resources
- Socioeconomics and Environmental Justice

For the remaining potentially significant effects, the Findings set forth below are:

- Organized by significant impacts identified in Section 4.0 of the EIR:
 - Geological Resources (GEO)
 - Safety (S)
 - Hazardous Materials (HAZ)
 - Air Quality and Greenhouse Gases (AQ)
 - Hydrology, Water Resources, and Water Quality (WQ)
 - Marine Biological Resources (MBIO)
 - Terrestrial Biological Resources (TBIO)
 - Land Use, Planning, and Recreation (LU)
 - Public Services (PS)
 - Transportation and Circulation (TR)
 - Aesthetics/Visual Resources (VR)
 - Cultural, Historical, and Paleontological Resources (CR)
- Numbered in accordance with the impact and mitigation numbers identified in the Mitigation Monitoring Program (MMP) in the EIR (see Section 8.0 of the EIR) (Findings may not be numbered sequentially, since Findings are not required when impacts are Less than Significant or there is No Impact); and
- Followed by an explanation of the rationale for each Finding.

B. POTENTIALLY SIGNIFICANT IMPACTS

In certifying the EIR and approving the Project, the CSLC imposed various mitigation measures for Project-related significant effects on the environment as conditions of Project approval and concluded that Project-related impacts would be substantially lessened with implementation of these mitigation measures. Impacts determined to be Less Than Significant with Mitigation are shown in Table 1.

However, even with the integration of all feasible mitigation, the CSLC concluded in the EIR that the other identified potentially significant impacts will remain significant. Table 1 also identifies those impacts that the CSLC determined would be, after mitigation, Significant and Unavoidable.

As a result, the CSLC adopts the Statement of Overriding Considerations set forth as part of this exhibit to support its approval of the Project despite the significant and unavoidable impacts.

Table 1 – LTSM and SU Impacts

Environmental Issue Area	Impact Nos.	
	LTSM	SU
Geological Resources	GEO-1, GEO-2, GEO-3, GEO-4	
Safety	S-2, S-3, S-5, S-8	S-4; S-6, S-7
Hazardous Materials	HAZ-1, HAZ-2	
Air Quality and Greenhouse Gases	AQ-4	
Hydrology, Water Resources, and Water Quality	WQ-1, WQ-2	WQ-3, WQ-4
Marine Biological Resources	MBIO-1, MBIO-2	MBIO-4, MBIO-5, MBIO-7(Cum.)
Terrestrial Biological Resources	TBIO-1	TBIO-2, TBIO-3
Land Use, Planning, and Recreation		LU-1, LU-2, LU-3, LU-4
Public Services	PS-2	PS-1
Transportation and Circulation	TR-1	
Aesthetic/Visual Resources	VR-1	VR-2
Cultural, Historical, and Paleontological Resources	CR-1	

C. IMPACTS REDUCED TO LESS THAN SIGNIFICANT LEVELS WITH MITIGATION (LTSM)

The impacts identified below were determined in the EIR to be potentially significant absent mitigation; after application of mitigation, however, the impacts were determined to be less than significant.

1. GEOLOGICAL RESOURCES

CEQA FINDING NO. GEO-1

Impact: **Impact GEO-1: Seismic and Seismically Induced Hazards.** Seismic activity along the More Ranch Fault Zone or other regional faults could produce fault rupture, seismic ground shaking, liquefaction, or other seismically induced ground failure that could expose Pier 421-2 facilities, including the pier, caisson and pipeline, to damage during the at least 20-year Project life; Pier 421-1 would be exposed to seismic hazards for approximately 1 year before decommissioning is completed.

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

The North Branch More Ranch Fault is located less than 0.25 mile away from the Project site, making the proposed Project susceptible to seismically-induced hazards such as landslides, liquefaction, subsidence, etc. Additionally, the Project site’s location

along the coast will make it susceptible to seismically-induced large wave events, which could originate from more distant offshore faults. Project infrastructure will be at risk of being damaged in a seismic event.

Mitigation Measures (MMs) GEO-1a, GEO-1b, GEO-1c, and GEO-1d have been incorporated into the Project to reduce this impact to a less than significant level.

MM GEO-1a. Include Seismic Loading Evaluation. Venoco shall have the caisson at Pier 421-2 evaluated to ensure its ability to withstand effects of dynamic earth pressures, seismic overturning and base shear, and to support Project facilities through at least the estimated 20-year production life of the facility. Results of the evaluation, together with any redesign plans determined to be necessary to ensure the ability of the caisson to withstand effects of dynamic earth pressures, seismic overturning and base shear, and to support Project facilities through at least the estimated 20-year production life shall be reviewed and certified by a professional engineer and submitted to California State Lands Commission (CSLC) staff for approval. Prior to recommencement of production, and subject to receipt of all necessary approvals and permits to undertake the work, Venoco shall construct the necessary improvements to meet the criteria of this mitigation measure.

MM GEO-1b. Field-Verify Subsurface Condition Assumptions. Venoco shall establish a procedure to field-verify that the subsurface conditions used in the design of the past repairs and proposed improvements at the 421-2 caisson are representative of actual conditions to be encountered. The procedure established by Venoco for field-verification shall be submitted to California State Lands Commission (CSLC) staff for approval prior to implementation. If the field conditions encountered require a design modification of past repairs and proposed improvements, then the revised design plans shall be reviewed and certified by a registered professional civil/structural engineer, and shall be submitted to the CSLC staff for approval. Prior to recommencement of production, and subject to receipt of all necessary approvals and permits to undertake the work, Venoco shall construct the necessary improvements to meet the criteria of this mitigation measure.

MM GEO-1c. Seismic Inspection. Venoco shall inspect the structures, including Pier 421-2, pipeline, and associated infrastructure following any seismic event in the region (for these purposes defined as Santa Barbara County and offshore waters of the Santa Barbara Channel and Channel Islands) that exceeds a Richter magnitude of 4.0 (see also Appendix H, MM GEO-4c Seismic Inspection). Venoco shall report the findings of such inspection to the California State Lands Commission staff and City of Goleta staff. Venoco shall not reinstate operations of the pipeline within the City of Goleta until authorized by the City of Goleta.

MM GEO-1d. Tsunami Preparedness. In the event that a tsunami warning is issued for an area that includes PRC 421, Venoco shall cease production

activities at PRC 421 as quickly as possible within the constraints of operations and safety. When the tsunami warning is lifted, Venoco shall conduct a thorough inspection of Pier 421-2, pipeline, and associated infrastructure before resuming production. Venoco shall report the findings of such inspections to the California State Lands Commission staff and City of Goleta staff.

LEVEL OF SIGNIFICANCE AFTER MITIGATION. With the mitigation described above, this impact is reduced to a less than significant level.

CEQA FINDING NO. GEO-2

Impact: **Impact GEO-2: Landslide and Slope Failure.** The Project would be located on a geologic unit or soil that is unstable, which could create potentially significant damage to the project access road and pipeline from a landslide or slope failure.

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

All components of the Project (e.g., access road, coastal cliff, Pier 421-2) are located on soil units or fill that overlie the Monterey Formation. The Monterey Formation and the soils that overlie it in this area are considered to be geologically unstable, and have the potential for slope failure or landslide. The potential instability of the coastal bluff increases when saturated with water, which may occur due to the presence of several springs along the bluff face.

MMs GEO-2a, GEO-2b, and GEO-2c have been incorporated into the Project to reduce this impact to a less than significant level.

MM GEO-2a. Monitor Coastal Bluff and Access Road. Venoco shall monitor the coastal bluff and access road weekly for signs of water saturation, including during and/or after heavy rains, or after a sprinkler line leak from the Sandpiper Golf Course. If saturation is apparent, the source of the water infiltration shall be evaluated and, diverted (if possible) or removed. Venoco shall provide written weekly statements regarding bluff and access road stability and saturation conditions to the City of Goleta. If saturation is apparent, Venoco shall immediately report such finding to the City of Goleta. Within 24 hours of such a finding, Venoco shall identify the source of water infiltration and shall divert or remove the water source within 24 hours, and shall provide a written report with photo documentation to the City within one week of the action. If native habitats could be impacted as a result of related activities, Venoco shall coordinate the activities with the Project Biologist and implement MM TBIO-1b Project Biological Monitors and MM TBIO-1c Restoration Plan/Restoration.

MM GEO-2b. Maintain Existing Seawall and Rock Revetment. Venoco shall inspect the existing seawall and rock revetment weekly for signs of erosion or need for repairs. If eroded areas are observed, these shall immediately be filled in, and any areas in need of repair or addition of rip-rap shall be repaired consistent with applicable permit requirements. Venoco shall provide written weekly reports regarding existing seawall and rock revetment stability to the City of Goleta. If erosion is observed, Venoco shall immediately report such finding to the City of Goleta. Within 24 hours of such a finding, Venoco shall repair the erosion and shall provide a written report with photo documentation to the City within one week of the action. Venoco shall coordinate the activities with the Project Biologist and implement MM TBIO-1b Project Biological Monitors and MM TBIO-1c Restoration Plan/Restoration.

MM GEO-2c. Inspect and Repair Access Road and Pipeline after Landslide Events. Venoco shall monitor the access road and pipeline after bluff failure or landslide events and shall repair any damaged areas or add rip-rap consistent with applicable permit requirements. In addition to clearing the road of debris, Venoco shall test or inspect the pipeline immediately after any major slope failure to determine if pipeline damage has occurred and shall implement repairs to this infrastructure. If damage is observed, Venoco shall immediately report such finding to the City of Goleta. Within 24 hours of such a finding, Venoco shall repair the erosion and shall provide a written report with photo documentation to the City within one week of the action. Venoco shall coordinate the activities with the Project Biologist and implement MM TBIO-1b Project Biological Monitors and MM TBIO-1c Restoration Plan/Restoration.

LEVEL OF SIGNIFICANCE AFTER MITIGATION. With the mitigation described above, this impact is reduced to a less than significant level.

CEQA FINDING NO. GEO-3

Impact: **Impact GEO-3: Soil Settlement and Liquefaction.** The recommissioning of PRC 421 could potentially expose Project facilities such as the caisson and proposed pipeline to soil settlement or liquefaction that could damage these facilities, particularly the pipeline.

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

Portions of the Project, including the access road, seawall, and revetment, may have been constructed on beach sand and may consist of fill soils of unknown origin. The potential for settlement and liquefaction of these soils must be assumed until evaluated. If settlement or liquefaction of the fill or soils beneath the access road were to occur, the pipeline in the access road could be damaged and an oil spill could potentially occur.

MM GEO-3 has been incorporated into the Project to reduce this impact to a less than significant level.

MM GEO-3. Perform Subsurface Evaluation. An evaluation of soils within and beneath the Pier 421-2 caisson, seawall, revetment, and access road shall be performed to ascertain if the soil is fit for purpose. The evaluation shall be performed by a California-registered Geotechnical Engineer, and shall propose maintenance and repair procedures as needed to ensure these areas remain fit for purpose for the life of the Project. The conclusions and recommendations shall be incorporated into Project engineering design components, as applicable, and submitted to the California State Lands Commission, City of Goleta, and California Coastal Commission staffs for review and approval prior to issuance of permits for construction clearance.

LEVEL OF SIGNIFICANCE AFTER MITIGATION. With the mitigation described above, this impact is reduced to a less than significant level.

CEQA FINDING NO. GEO-4

Impact: **Impact GEO-4: Corrosion, Weathering, and Erosion.** Corrosion, weathering, fatigue, or erosion could cause deterioration of structural components of PRC 421.

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

The Project is located in a naturally corrosive and erosive environment. The potential exists for impacts associated with weathering of the caisson wall to occur. Further, pipeline and valves associated with the Project may be exposed to cyclic and continual wave action in the surf zone and could experience fatigue as a result. Based on the continual erosion that occurs at the wave-cut platform on which Pier 421-2 is located, there is a potential for the sheet pile foundations to be eroded at the base. Additionally, sea level rise could potentially affect the Project because the loss of beaches will likely result in greater wave force on Pier 421-2, resulting in increased weathering and corrosion.

MMs GEO-4a, GEO-4b, GEO-4c, and GEO-4d have been incorporated into the Project to reduce this impact to a less than significant level.

MM GEO-4a. Corrosion Protection Design Specifications. The corrosion protection design specifications shall be included on the design drawings. Once included, the revised design plans shall be reviewed and certified by a registered corrosion engineer or qualified mechanical or electrical engineer, and submitted to the California State Lands Commission staff for approval. Prior to commencement of production, and subject to receipt of all necessary approvals

and permits to undertake the work, Venoco shall construct all corrosion protection improvements specified in the approved plans. If corrosion protection is required for the Project, with the exception of the caisson walls which are just beyond the City limits, all design plans shall be submitted to the City of Goleta for review and approval.

MM GEO-4b. Check Overall Structural Stability against Wind and Wave Action.

The Project design shall include evaluation of cyclic wind and wave action on structural components. Once included, revised design plans shall be reviewed and certified by a professional civil/structural engineer then submitted to the California State Lands Commission staff for approval. These revised design plans shall identify any additional construction required as part of the Project. Prior to commencement of production, and subject to receipt of all necessary approvals and permits to undertake the work, Venoco shall construct all structural improvements specified in the approved plans. Venoco shall submit the design plans to the City of Goleta, for review and approval for any part of the Project within City limits.

MM GEO-4c. Evaluate Embedment of Concrete Panels and Lean Concrete

Backfill. Venoco shall include in the Project design an evaluation of the potential depth of scour and erosion during the lifetime of the Project within the Monterey Formation in the area of Pier 421-2. Venoco shall ensure that the concrete shoring panels and lean concrete backfill shall be embedded into the Monterey Formation to a depth greater than the maximum potential scour depth. Venoco shall submit all plans to the City of Goleta for work within City limits and California State Lands Commission staffs.

MM GEO-4d. Inspect Structures During and/or After Storm Events.

Venoco shall conduct inspections of the structural components including the pier, caisson, causeway, seawall and revetment during and after major storm events. Venoco shall immediately report inspection results to the California State Lands Commission and the City of Goleta staffs and conduct repairs accordingly and per agency authorization.

LEVEL OF SIGNIFICANCE AFTER MITIGATION. With the mitigation described above, this impact is reduced to a less than significant level.

2. SAFETY

CEQA FINDING NO. S-2

Impact: **Impact S-2: Exposure of the Public and Environment to Safety Hazards Due to Collapse of the Pier 421-1 or 421-2 Caisson.** The Project would prolong the use of the aging caisson on Pier 421-2, which could collapse and lead to the release of hazardous materials and oil from within the caisson or from Project-related pipelines.

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

The extent and quality of repairs made following the caisson’s collapse in the 1980s are not clearly documented as no engineering plans for these repairs are available. Under these circumstances, based on the lack of definitive engineering information, the partial collapse of the aging caisson on Pier 421-1 could occur during its remaining 1 year of existence. Further, Pier 421-2 could also collapse during the 20 years or more of Project operation, particularly associated with sustained high winter surf, seismic activity, or in a low-probability large wave event. Sea level rise will be expected to gradually increase this risk over the next 20-year period.

MMs S-2a and S-2b have been incorporated into the Project to reduce this impact to a less than significant level.

MM S-2a. Design Review/Wave Loading Evaluation. Prior to implementing caisson repairs at Pier 421-2, Venoco shall develop design improvement plans that account for design wave loading conditions including hydrodynamic loading, overturning, and base shear, as well as the maximum credible earthquake according to the current California Building Code); these improvements shall be sufficient to support Project facilities through the anticipated 20-year-plus production life. The revised design plans shall be reviewed and certified by a professional civil/structural engineer and shall be submitted to the California State Lands Commission staff for approval. Caisson repair shall be performed in accordance with approved design plans prior to recommencement of production at Pier 421-2.

MM S-2b. Post Storm Inspection, Monitoring and Cleanup. Venoco shall amend the existing monitoring program to include regular monitoring and inspection of both caissons during the winter storm season. Damage to caissons shall be reported to California State Lands Commission staff and cleanup and removal of any debris immediately initiated (see also MM S-4e).

LEVEL OF SIGNIFICANCE AFTER MITIGATION. With the mitigation described above, this impact is reduced to a less than significant level.

CEQA FINDING NO. S-3

Impact: **Impact S-3: Exposure of the Public and Environment to Safety Hazards Due to Collapse of or Damage to the Existing Timber Bulkhead or Rip-Rap Seawall.** The Project would prolong the use of the existing causeway and supporting, aging timber bulkhead and rip-rap seawall, which would be exposed to high winter surf and large wave events over at least an additional 20 years, leading to possible erosion or collapse and the potential for release of hazardous materials and oil from within the causeway or Project-related pipelines.

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

The existing seawall is faced with 1- to 3-ton boulders; however, several gaps exist in the rip-rap portions of this seawall, and minor areas have been repaired with smaller sized rock that could become remobilized during high surf events. Such events have the potential to cause seawall failure, as is evidenced by previous failures of this same seawall along other unmaintained portions. Further, the original timber bulkhead has not been reinforced with rip-rap and thus should be considered as marginally stable.

MM S-3 has been incorporated into the Project to reduce this impact to a less than significant level.

MM S-3. Design Review by Civil/Structural Engineer. Prior to construction on the Project and subject to receipt of all necessary approvals and permits to undertake the work, Venoco shall complete the following:

- Venoco shall retain a licensed civil/structural engineer to review seawall design and recommend improvements to the Project seawall to permit it to support Project access road, pipelines, and power cables through the anticipated 20-year-plus production life.
- These potential design improvements, including a maintenance and repair plan to ensure fitness for purpose, shall account for anticipated winter surf conditions and for a design wave event. West of Pier 421-1, improvements to the seawall may include use of additional appropriately sized (i.e., 1- to 3-ton boulders) rip-rap if needed to fill in small gaps in the wall.
- Between Piers 421-1 and 421-2 and east of 421-2, to the maximum extent feasible, any needed seawall improvements shall consist of minor repairs to and strengthening of the existing timber bulkhead, unless seawall design review indicates that such improvements would be insufficient to protect the pipeline and power cables over the estimated 20-year-plus life of the Project.

LEVEL OF SIGNIFICANCE AFTER MITIGATION. With the mitigation described above, this impact is reduced to a less than significant level.

CEQA FINDING NO. S-5

Impact: **Impact S-5: Potential for Release of Oil or Hazardous Materials from the Crude Oil Flowline.** Project operations could result in the release of oil or hazardous materials from the crude oil flowline as oil is transported from Well 421-2 to the tie-in at the EOF.

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

There is some potential for accidental damage to occur to this oil line during trenching or other unanticipated future construction activities. A catastrophic break (e.g., from construction equipment) could potentially cause a release of the entire contents of the line. Because of the proximity of the pipeline to the surf zone, Bell Canyon Creek, and other nearby sensitive resources, a release from the flowline is of particular concern, even though the volume is relatively low and spills to land are typically contained more readily than spills to water.

MMs S-5a, S-5b, and S-5c have been incorporated into the Project to reduce this impact to a less than significant level.

MM S-5a. Install Pipeline Warning Markers. Venoco shall modify Project design to include installation of several pipeline markers with reflective warning tape along the 6-inch line to identify the pipeline route and associated excavation hazards. Venoco shall submit the modified Project design to the City of Goleta for review and approval prior to issuance of the Land Use Permit.

MM S-5b. Develop Emergency Action Plan (EAP)/Update South Ellwood Field EAP. Venoco shall develop and incorporate into the EAP updated descriptions of the pipeline and flowline, detection systems, emergency shutdown, and response procedures specific to the new system prior to the initiation of operation. Venoco shall update the existing South Ellwood Field EAP to include descriptions of the new flowline interconnection with Platform Holly production within the EOF, and other EOF modifications such as the programmable logic controller cabinet, variable speed drive facility, and transformer. Venoco shall submit the EAPs to the City of Goleta and Santa Barbara County Office of Emergency Management for review and approval prior to recommissioning start-up. The City of Goleta and Santa Barbara County Office of Emergency Management shall coordinate updates of the EAPs with the operator on a regular basis or as conditions change that warrant review of emergency response protocols.

MM S-5c. Safety, Inspection, and Maintenance of Oil and Gas Pipelines.

Venoco shall prepare a Safety Inspection, Maintenance, and Quality Assurance Program (SIMQAP) or similar mechanism for Project-related pipelines to ensure adequate ongoing inspection, maintenance, and other operating procedures. Any such mechanism shall be subject to approval by the City of Goleta prior to commencement of pipeline operations and provide for systematic updates as appropriate. Requirements shall be commensurate with the level and anticipated duration of the risk. The City of Goleta and Venoco would update the SIMQAP or similar mechanism biennially or sooner if conditions change that warrant review of the program.

LEVEL OF SIGNIFICANCE AFTER MITIGATION. With the mitigation described above, this impact is reduced to a less than significant level.

CEQA FINDING NO. S-8

Impact: **Impact S-8: Increased Risk of Fire.** Project implementation would include production and transport of oil and gas from PRC 421 to the EOF, increase processing of oil and gas at the EOF, and increase transport of oil and gas to market, therefore increasing potential risks related to fire.

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

A spill of crude oil from the PRC 421 production equipment, pipelines, or EOF facilities could produce public health concerns as a result of fires that may arise if the oil or the oil vapors reach an ignition source and the oil burns. For the Line 96 pipeline route, residential areas and the Ellwood School are located within the injury hazard zones, both thermal and toxic. Although the risk of fire resulting from Project operations is small, there exists the potential of fire at PRC 421, the EOF, and along the Line 96 pipeline route which will include significant consequences.

MM S-8 has been incorporated into the Project to reduce this impact to a less than significant level.

MM S-8. Fire Prevention and Suppression. Venoco shall revise the existing Fire Prevention and Preparedness Plan to incorporate the new equipment and operations at PRC 421, and submit to the City of Goleta, Santa Barbara County Fire Department, California Coastal Commission, California Department of Transportation, and California State Lands Commission staffs for review and approval. The plan shall be revised and provided to the agencies for review prior to commencing operations, and the plan shall be formally updated and circulated within one month of receiving comments from the aforementioned agencies.

LEVEL OF SIGNIFICANCE AFTER MITIGATION. With the mitigation described above, this impact is reduced to a less than significant level.

3. HAZARDOUS MATERIALS

CEQA FINDING NO. HAZ-1

Impact: **Impact HAZ-1: Exposure of Public or Environment to Hazardous Materials.** The Project would create a potential hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials during construction and/or project operation.

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

Disturbance of existing contaminated soil or sediment could result in a release of hazardous materials, which could adversely affect human or ecological receptors. The Project will potentially result in the release of contaminated sediment from the caisson at Pier 421-2 into the environment. Decommissioning and removal of Pier 421-1 and associated infrastructure, which will occur following recommissioning of Pier 421-2, also presents a risk of exposing contaminated sediment to the marine environment. During the construction phase for the Project and subsequent decommissioning and removal of Pier 421-1, other pollutants typically associated with construction activities, such as concrete curing compounds, sealants, and paints (among others) could be released.

MMs HAZ-1a, HAZ-1b, HAZ-1c, HAZ-1d, and HAZ-1e have been incorporated into the Project to reduce this impact to a less than significant level.

MM HAZ-1a. Proper Personnel Training. Personnel working during the Project's construction, operation, and Pier 421-1 decommissioning and removal phases shall be adequately trained per the requirements included in Venoco's Emergency Action Plan, Oil Spill Contingency Plan, Fire Prevention and Preparedness Plan, Spill Prevention, Control and Countermeasures Plan and other relevant plans. These plans include specific training requirements such that personnel that have the potential to come into contact with contaminated media and/or hazardous materials understand safe work practices, Best Management Practices, and waste management practices, so that a release of hazardous materials can be avoided, controlled, or minimized. Project construction and field personnel shall also be trained to identify possible indicators of a hazardous release, such as hydrocarbon or solvent odors, stained soils, and oily sheens on standing water.

MM HAZ-1b. Conduct a Phase I Environmental Site Assessment (ESA). To gain a better understanding of the study area and its potential to have additional,

previously unknown releases of hazardous materials or other environmental concerns, Venoco shall perform a Phase I ESA on the study area prior to issuance of land use permits, which shall incorporate information from Santa Barbara County Fire Department Fire Protection Division (FPD) records and files. The results of this study shall be provided to the City of Goleta, FPD, and California State Lands Commission staffs. Conclusions of the Phase I ESA, including any recommendation of a Phase II and subsequent investigation, shall be followed. Any subsequent work plans for soil and groundwater sampling shall be submitted to FPD for review and incorporated into the current and ongoing assessment under their Site Mitigation Unit Site #371.

MM HAZ-1c. Soil Sampling. During construction activities at Pier 421-2 and during Pier 421-1 decommissioning and removal, all soil materials removed shall be presumed to be contaminated and handled accordingly. The soil materials removed from the caisson will be sampled, profiled, and disposed of or recycled according to regulatory requirements. During all other Project construction activities, a City of Goleta Soils Inspector/Monitor shall continually visually monitor the soils disturbed within the construction areas to determine if there is any evidence of undiscovered contamination. The City of Goleta shall hire the Soils Inspector/Monitor, paid for by Venoco, to inspect soil disturbance activities within the City's jurisdiction during all phases of the Project to ensure that any hazardous materials and/or contaminated soils encountered are properly contained and removed. Soil samples may be taken, subject to the direction of the Soils Inspector/Monitor. Any soil suspected of contamination shall be contained on site in appropriate storage container, sampled, profiled, and disposed of or recycled according to regulatory requirements. All soils removed shall be handled in accordance with MM HAZ-1d. All soil sampling results shall be provided to the California State Lands Commission and City of Goleta staffs immediately upon receiving results.

MM HAZ-1d. Removal Action Plan. If sediment within the Project construction and 421-1 decommissioning areas and surrounding soils is determined to contain total petroleum hydrocarbons or other contaminants above California Ocean Plan thresholds and if such sediments may be exposed, prior to commencing construction activities, Venoco shall prepare a Removal Action Plan for the safe removal of contaminated materials from the structures and surrounding area. The action plan shall be circulated to the City of Goleta, Santa Barbara County Fire Department Fire Protection Division, California State Lands Commission (CSLC) staffs for review and comment. Final approval of the plan shall be under the purview of the California Department of Fish and Wildlife Office of Spill Prevention and Response (OSPR) and/or CSLC staffs. Upon approval, sediments shall be removed from construction areas and disposed of in accordance with procedures described in the Removal Action Plan. However, if OSPR and/or CSLC staffs determine that removal of some contaminated sediments would impair the integrity of Pier 421-2 (includes the well, caisson supporting the well, and the causeway leading to the caisson) (either through complete removal of the soil filling the caisson or having to dig underneath),

Venoco shall prepare a Decommissioning Plan to remove those remaining contaminated sediments at such time that Pier 421-2 is decommissioned. All other contaminated sediments whose removal would not threaten the integrity of Pier 421-2 would be removed upon approval of the Plan as described above.

MM HAZ-1e. Performance Security. The permittee shall provide to the California State Lands Commission (CSLC) and the City of Goleta, or maintain if already provided, performance securities and agreements for work that would need to be performed at the end of the Project’s life. The security and agreement provided to CSLC would cover decommissioning and abandonment of the Well 421-1 and Pier 421-2. The performance security total shall be the estimated amount for the decommissioning/abandonment work. The performance security shall be provided to the CSLC and agreements signed, prior to return to production of the PRC 421 well. The security and agreement provided to the City of Goleta would cover decommissioning and abandonment of the portions of the Project located within the City’s jurisdiction, including, but not limited to, the piers, the sea wall supporting the access road, the access road, and the onshore pipelines and cables and ancillary facilities. The performance security total shall be the estimated amount for the decommissioning/abandonment work, less any amount contributed toward overlapping infrastructure that is covered in the securities and agreements with CSLC. The performance security shall be provided to the City of Goleta and agreements signed prior to the issuance of the Land Use Permit.

LEVEL OF SIGNIFICANCE AFTER MITIGATION. With the mitigation described above, this impact is reduced to a less than significant level.

CEQA FINDING NO. HAZ-2

Impact: **Impact HAZ-2: Release of Contaminated Sediment from the Caisson on Pier 421-2 during Operation of the Project.** Contaminated sediment contained within the caisson structures could infiltrate to the surrounding environment.

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

Although the seaward-facing wall has been reconstructed and the remaining walls will be repaired as part of the Project, these walls are subject to weathering, corrosion, and fatigue and the potential exists for possibly contaminated sediment contained within the caissons to infiltrate to the surrounding environment. Collapse of the caisson structures also includes this possibility.

MMs listed in Sections 4.1, Geological Resources, and 4.2, Safety, will reduce the potential for contamination to leak or infiltrate from the caisson structure at Pier 421-2. In particular, **MM GEO-4a**, Corrosion Protection Design Specification, **MM GEO-4d**,

Inspect Structures During and/or After Storm Events, and **MM S-2a**, Design Review/ Wave Loading Evaluation, shall be employed to ensure the integrity of the structure. Results from the Phase I and any subsequent Phase II ESAs described in **MM HAZ-1b** will provide information on the nature and extent of any pre-existing contamination from past site operations. These MMs incorporated into the project will reduce this impact to a less than significant level.

LEVEL OF SIGNIFICANCE AFTER MITIGATION. With the mitigation mentioned above, this impact is reduced to a less than significant level.

4. AIR QUALITY AND GREENHOUSE GASES

CEQA FINDING NO. AQ-4

Impact: **Impact AQ-4: Project Would Result in a Net Increase in Greenhouse Gas (GHG) Emissions.** Project oil and gas production and drilling and construction would increase GHG emissions.

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

The atmosphere and the oceans are reaching their capacity to absorb carbon dioxide (CO₂) and other GHGs without significantly changing the earth's climate. In its Fifth Assessment Report, "Climate Change 2014: Mitigation of Climate Change," released on March 31, 2014, the Intergovernmental Panel on Climate Change (IPCC), in its conclusions specific to North America (Chapter 26), stated in part:

North American ecosystems are under increasing stress from rising temperatures, CO₂ concentrations, and sea-levels, and are particularly vulnerable to climate extremes (*very high confidence*). Climate stresses occur alongside other anthropogenic influences on ecosystems, including land-use changes, non-native species, and pollution, and in many cases will exacerbate these pressures (*very high confidence*). [26.4.1; 26.4.3]. Evidence since the Fourth Assessment Report highlights increased ecosystem vulnerability to multiple and interacting climate stresses in forest ecosystems, through wildfire activity, regional drought, high temperatures, and infestations (*medium confidence*) [26.4.2.1; Box 26-2]; and in coastal zones due to increasing temperatures, ocean acidification, coral reef bleaching, increased sediment load in run-off, sea level rise, storms, and storm surges (*high confidence*) [26.4.3.1].³

³ Intergovernmental Panel on Climate Change, 2014. Fifth Assessment Report, "Climate Change 2014: Impacts, Adaptation, and Vulnerability," <http://www.ipcc.ch/report/ar5/wg2/>, accessed April 2014. (See Vol. II, Regional Aspects, Ch. 26, "North America," Final Draft dated October 28, 2013, accepted March 31, 2014, http://ipcc-wg2.gov/AR5/images/uploads/WGIIAR5-Chap26_FGDall.pdf, accessed April 2014.)

California has already been affected by climate change: sea level rise, increased average temperatures, more extreme hot days and increased heat waves, fewer shifts in the water cycle, and increased frequency and intensity of wildfires. Higher sea levels can result in increased coastal erosion, more frequent flooding from storm surges, and increased property damage. Additionally, loss of wetland habitats, ecosystem services and reduced waterfront public access options is also anticipated. These effects are expected to increase with rising GHG levels in the atmosphere.

Projected impacts to the local region caused by climate change include: decreases in the water quality of surface water bodies, groundwater, and coastal waters; sea level rise and increased coastal erosion (which may have a secondary effect such as uncovering hazards such as occurred in March 2014 along the Santa Barbara coastline); increased flooding and fire events; decline in aquatic ecosystem health; lowered profitability for water-intensive crops; changes in species and habitat distribution; and impacts to fisheries (California Regional Assessment Group 2002).

For context, the concentration of CO₂, the primary GHG, has increased from approximately 280 parts per million (ppm) in pre-industrial times to well over 380 ppm, according to the IPCC.⁴ The current rate of increase in CO₂ concentrations is about 1.9 ppm/year; present CO₂ concentrations are higher than any time in at least the last 650,000 years. To meet the statewide reduction target for 2020, requiring California to reduce its total statewide GHG emissions to the level they were in 1990 (Health & Safety Code, § 38550), and the 2050 goal of 80 percent below 1990 levels (Executive Order S-3-05), not only must projects contribute to slowing the *increase* in GHG emissions, but ultimately projects should contribute to *reducing* the State's output of GHG – it is estimated that per capita emissions will need to be reduced by slightly less than five percent per year during the 2020 to 2030 period, with continued reductions required through midcentury.

Project construction will directly contribute approximately 78 metric tons of CO₂ equivalents (CO₂e); routine Project operations and production will generate GHG emissions of approximately 167.4 metric tons of CO₂e annually (EIR pages, 4-135 through 4-136). In its 2008 “Report on Climate Change: Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act,” the California Air Pollution Control Officers Association (CAPCOA) stated:

“[w]hile it may be true that many GHG sources are individually too small to make any noticeable difference to climate change, it is also true that the countless small sources around the globe, combine to produce a very substantial portion of total GHG emissions.”⁵

⁴ Intergovernmental Panel on Climate Change, 2007. Fourth Assessment Report, “Impacts, Adaptation and Vulnerability,” <http://www.ipcc-wg2.gov/publications/AR4/index.html>, accessed April 2014.

⁵ California Air Pollution Control Officers Association, 2008. “Report on Climate Change: Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act.”

The Project's expected emissions, combined with emissions from other small sources, thus constitute a significant portion of the GHG inventory. With these facts in mind, CSLC staff determined that the most conservative and realistic approach, to ensure the EIR discloses and analyzes all that it feasibly can, is to conclude that any degree of project-related increase in GHG emissions would contribute, on a cumulative level, to climate change and therefore would be a significant impact.

CSLC staff evaluated the potential for improved operational efficiencies and found there are feasible improvements that can be made to ensure the Project maximizes efficiency. For example: measures could be implemented to reduce GHG emissions on-site, including more efficient operation at the EOF; GHG reductions could be achieved by using high efficiency emulsion heaters to replace the existing heater treaters and reductions of more than 200 MT CO_{2e} could be achieved depending on the heater design; and in the absence of other on-site measures, off-site offsets can be obtained through reductions in emissions at other facilities, or by purchasing credits from the California Climate Action Reserve or California's Cap-and-Trade Program.

CSLC staff considered the near term availability and quality of potential offsets, and found offsets as mitigation to be feasible. Because the quantity of offsets needed to achieve a zero increase are not known at this time, the mitigation proposes a measurable, enforceable formula that must be implemented as GHG emissions are quantified over time. Therefore, implementation of the identified mitigation measure will ensure Project impacts remain less than significant.

MM AQ-4 has been incorporated into the Project to reduce this impact to a less than significant level.

MM AQ-4 Greenhouse Gas Monitoring and Reduction Strategies. The Applicant shall be required to quantify and report annually the greenhouse gas (GHG) emissions associated with Project operations using methodologies prescribed for the California Climate Action Registry General Reporting Protocol, the California Air Resources Board (CARB) Compendium of Emission Factors and Methods to Support Mandatory Reporting of Greenhouse Gas Emissions (CCAR 2009, CARB 2007c) and the U.S. Environmental Protection Agency (EPA) Mandatory Reporting of Greenhouse Gases annual reports. Copies shall be provided to the California State Lands Commission (CSLC) and Santa Barbara County Air Pollution Control District (APCD) staffs, including a reporting of all mitigation measures applied. In addition, Venoco shall prepare and submit a GHG emission reduction program to CSLC staff for review and approval prior to commencement of construction. Venoco shall detail specific measures to reduce net GHG emissions to zero on an annual basis over the life of the Project. Annual updates shall specify any changes in such measures required to meet targeted reductions. The following measures, or their equivalent, shall be used individually or in combination to achieve such reductions:

- On-site increased equipment efficiencies or operational modifications such as using more efficient de-watering systems at the EOF or other measures to reduce the need for crude heating;

- Implementation of off-site GHG reduction programs in Santa Barbara County as approved by the APCD; and/or
- Purchase of “credits” or offsets through existing adopted plan or mitigation program such as CARB’s Cap-and-Trade program or Climate Action Reserve, the City of Goleta’s Climate Action Plan, or other equivalent approved or certified program that is verified by the CSLC staff or CARB.

LEVEL OF SIGNIFICANCE AFTER MITIGATION. With the mitigation described above, this impact is reduced to a less than significant level.

5. HYDROLOGY, WATER RESOURCES, AND WATER QUALITY

CEQA FINDING NO. WQ-1

Impact: **Impact WQ-1: Temporary Construction Impacts to Marine Water Quality.** Short-term construction activities along the access road and seawall, and in the surf zone could adversely affect marine water quality.

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

Construction activities on the beach and within the surf zone could release contaminated mud and sand from the caissons and underlying soil to the ocean. Results of chemical analyses performed on mud and sand within the caisson revealed the presence of TPH at levels of 100 to 200 parts per million (ppm). In addition, hydrocarbons were detected in the soil surrounding the piers at a depth of 15 feet below ground. Further, analytical sampling conducted in October 2006 on water from the caissons detected trace amounts of arsenic, mercury, and selenium; all amounts were below water quality threshold levels.

MMs WQ-1a and WQ-1b have been incorporated into the Project to reduce this impact to a less than significant level.

MM WQ-1a. Avoidance of High Tides and Silt Curtain. Venoco shall schedule in-water construction efforts to avoid times of high tides (defined herein as tides greater than +5 feet as predicted by the National Oceanic and Atmospheric Administration). Prior to implementation of any in-water construction, affected sediments shall be tested for the presence of hydrocarbons and trace metals. Any potentially contaminated sediment which may be disturbed during caisson repairs would be contained within the Project area for off-site disposal at an appropriate waste facility, and disposed of according to State and Federal regulation. Regardless of the presence of contaminated sediment, Venoco shall install measures to reduce siltation of the nearshore marine environment during in-water construction, potentially including but not limited to a silt curtain,

installation of sheet piling, and/ or soil removal techniques such as hydro-displacement and weighted floating. Venoco shall prepare a plan to monitor the performance of the adopted measure and identify thresholds for localized turbidity to ensure that they are performing as expected and not impairing water quality. If it is found that turbidity threshold values are being repeatedly exceeded, construction activities shall be temporarily halted until a better capture solution is implemented. Additionally, in order to protect spawning endangered species, monitoring should occur to ensure that a turbidity plume from construction in the marine environment does not reach the mouth of Bell Creek or Tecolote Creek and that turbidity in the lagoon does not increase as a result of construction activities. If a plume reaches the mouth of the lagoon, construction should be halted until turbidity returns to normal levels.

MM WQ-1b. Water Quality Certification. Venoco shall complete and implement a Spill Prevention, Control and Countermeasures (SPCC) Plan and implement any additional MMs mandated by the State Water Resources Control Board (SWRCB) through the Section 401 water quality certification process.

LEVEL OF SIGNIFICANCE AFTER MITIGATION. With the mitigation described above, this impact is reduced to a less than significant level.

CEQA FINDING NO. WQ-2

Impact: **Impact WQ-2: Temporary Construction Impacts to Wetlands.** Short-term construction activities along the access road and could adversely affect water quality in adjacent wetlands.

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

Construction activities along the access road may temporarily affect three small wetlands located between the access road and the Sandpiper Golf Course. Such activities include excavation and installation of subsurface cables for power and system control between the EOF and Pier 421-2, and extending and upgrading the existing 6-inch line to accommodate an internal 3-inch flowline from Pier 421-2 to the tie-in at the EOF. Additionally, decommissioning and removal of Pier 421-1 will include construction activities that may impact wetlands along the access road when heavy construction machinery is used to remove the well, pier, and caisson at Pier 421-1.

MM WQ-2 has been incorporated into the Project to reduce this impact to a less than significant level.

MM WQ-2. Wetland Delineation, Avoidance and Minimization. Venoco shall engage a qualified biologist to conduct a Wetland Delineation and prepare a Wetland Delineation Report, subject to approval and permitting by the City of

Goleta, California Department of Fish and Wildlife, Army Corps of Engineers, and California Coastal Commission, to determine the precise location of all wetlands within and in the vicinity of the Project, including the access road, the flow line, the cables, sea wall bulkheads, and riprap sea-walls. The Report shall be reviewed and approved prior to City issuance of the Land Use Permit. Prior to commencement of construction, all wetland areas located within and adjacent to the Project area will be flagged for fencing by a qualified wetland scientist. If wetlands identified in the Wetland Delineation Report cannot be avoided, the Applicant shall consult with appropriate agencies including the City of Goleta, California Department of Fish and Wildlife, California Coastal Commission, and the Regional Water Quality Control Board to design measures to minimize impacts to the wetland and appropriate restoration standards and methods, if necessary following construction.

LEVEL OF SIGNIFICANCE AFTER MITIGATION. With the mitigation described above, this impact is reduced to a less than significant level.

6. MARINE BIOLOGICAL RESOURCES

CEQA FINDING NO. MBIO-1

Impact: **Impact MBIO-1: Disturbance to Intertidal Organisms during Construction.** Construction activities during recommissioning activities at Pier 421-2 and following decommissioning and removal of Pier 421-1 would disturb and kill intertidal invertebrates and might dislodge grunion eggs.

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

Disturbance of sediment during construction activities associated with caisson repairs on Pier 421-2, recommissioning of Well 421-2, and decommissioning and removal of Pier 421-1 (estimated to occur 1 year following recommissioning of Pier 421-2) have the potential to impact marine resources due to excavation and jetting of sand around the piles. If caisson repair on Pier 421-2 or decommissioning and removal of Pier 421-1 occurs between March and September, excavation or jetting of sand will potentially expose grunion eggs deposited in the high intertidal zone. Because grunion populations are declining and the beaches where they spawn are limited, destruction of grunion eggs will result in a loss of the functional value of the beach as grunion spawning habitat.

MM MBIO-1 has been incorporated into the Project to reduce this impact to a less than significant level.

MM MBIO-1. Avoid Caisson Repair on Pier 421-2 and Removal of Pier 421-1 during Grunion Spawning Season. Project activities that require equipment access on the beach shall be scheduled to avoid, to the extent possible, anticipated California grunion runs. In the event that construction will occur during the seasonally predicted run period and egg incubation period for California grunion as identified by the California Department of Fish and Wildlife, a Project Biological Monitor, hired by the City of Goleta and paid by Venoco, shall be present on the Project site each night, for the entire night, from one night before the beginning of each seasonally predicted grunion run until one night after the end of each run to monitor the presence of grunion on the site. If any adult grunion are observed at the Project site, no construction activities requiring equipment access within the area of the observed grunion will be allowed until after the next predicted grunion run (or two weeks after the last run in August) in which no adult grunion have been observed on the Project site, unless otherwise approved by the California State Lands Commission staff.

LEVEL OF SIGNIFICANCE AFTER MITIGATION. With the mitigation described above, this impact is reduced to a less than significant level.

CEQA FINDING NO. MBIO-2

Impact: **Impact MBIO-2: Impacts to Marine Organisms from Sediment Resuspension in the Near-Shore Zone due to Disturbance of Sediments during Construction.** Activities during construction activities such as caisson repairs on non-seaward facing walls on Pier 421-2 and later decommissioning and removal of Pier 421-1 would have the potential to resuspend sediments in near-shore waters due to the disturbance of beach sediments. Resuspension of sediment, particularly contaminated sediments, could have adverse impacts on marine organisms.

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

Caisson repairs of the non-seaward facing walls on Pier 421-2 will disturb sediments by excavation, jetting and the removal and placement of structures in the sand. Additionally, decommissioning and removal of Pier 421-1, expected to occur about 1 year following recommissioning of Pier 421-2, will disturb the sand at the base of the pier and the surrounding area during removal of the pier and caisson. Some of this sediment may become suspended in near-shore waters, thus impacting marine organisms and/or interfering with organism behaviors. Additionally, if these sediments are released into the marine environment during construction, contaminants may be at levels that could have an adverse impact on marine organisms.

MMs WQ-1a, WQ-1b, HAZ-1c and HAZ-1-d have been incorporated into the Project to reduce this impact to a less than significant level. These mitigation measures have been described earlier in this section.

LEVEL OF SIGNIFICANCE AFTER MITIGATION. With the mitigation described above, this impact is reduced to a less than significant level.

7. TERRESTRIAL BIOLOGICAL RESOURCES

CEQA FINDING NO. TBIO-1

Impact: **Impact TBIO-1: Short-Term Construction Impacts to Biological Resources.** Construction activities associated with installation of underground cables, repair of pipelines, recommissioning of Pier 421-2, and decommissioning and removal of Pier 421-1 and related infrastructure may impact existing wetlands along the project access road and nearby ESHAs.

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

Impacts to native species and habitats could occur through disturbance to fresh-/brackish-water marsh wetland habitats and associated plant and wildlife species by trenching, deposition of spoils, and operation of heavy equipment resulting in ground disturbance and increased noise levels. Incidental disturbance caused by equipment, indirect construction effects, and impacts from accidental fuel or oil releases are possible. If nesting birds are present near the Project, these animals could also be disturbed by construction activities.

MMs TBIO-1a, TBIO-1b, TBIO-1c, TBIO-1d, TBIO-1e, and TBIO-1f have been incorporated into the Project to reduce this impact to a less than significant level.

MM TBIO-1a. Locate Power Cables and Pipeline Outside ESHA. To the maximum extent feasible, Venoco shall locate new power cables and pipeline repair activities outside existing wetland areas and wetland buffers (defined as undeveloped lands surrounding wetlands) along the access road. A wetland delineation shall be performed in accordance with MM WQ-2. The delineation report and related restoration plan, if required, will establish construction avoidance techniques and restoration where impacts cannot be avoided. The City of Goleta requires a minimum 3 to 1 ratio for wetland or wetland buffer impacts. The wetland delineation, wetland protection plan, and related restoration plan shall be prepared by Venoco for the City of Goleta and Coastal Commission comment and final approval prior to issuance of the City's Land Use Permit. To protect adjacent small wetlands from disturbance, the inland edge of

the access road shall be fenced prior to commencement of construction activities. Any unavoidable intrusion of construction activities into this area shall only be performed under the supervision of a City of Goleta-approved biologist. Venoco shall also engage a qualified biologist to prepare a Native Habitat and Special Status Species Survey and Protection Plan (Protection Plan) to be submitted to the City of Goleta and the California Coastal Commission for review and approval prior to the issuance of the City's Land Use Permit. The Protection Plan will map and describe accurate locations of resources in the City's jurisdiction, from the mean high tide line north to Hollister Avenue, in the context of the Project features and all construction staging, laydown, stockpile, and parking areas and shall identify methods to avoid or reduce related impacts to sensitive biological resources and resource buffers. Protection measures will include, at a minimum, a requirement for pre-construction surveys, worker training, the presence of the Project Biological Monitor during all construction activities, and authorization of the Project Biological Monitor to stop work if threats to any sensitive species or habitats are identified during monitoring.

MM TBIO-1b. Project Biological Monitors. The City of Goleta shall hire a Project Biological Monitor, paid for by Venoco, to supervise pipeline and cable installation, and oversee all construction activities that cross sensitive biological areas and habitat restoration and enhancement activities. The Project Biological Monitor shall ensure that damage to any sensitive wetland habitat within or adjacent to construction zones is minimized. The Project Biological Monitor and the project engineer shall clearly designate “sensitive resource zones” on the project maps and construction plans, which would include the mouth of Bell Canyon Creek. Sensitive resource zones shall be defined in the Native Habitat and Special Status Species Survey and Protection Plan (required under MM TBIO-1a) to avoid impacts to special status biological resources. If the Project Biological Monitor determines that birds are nesting and/or breeding in the Project vicinity, Venoco shall cease Project activities that may affect these birds during the breeding season.

MM TBIO-1c. Restoration Plan/Restoration. Venoco shall submit a Restoration Plan prepared by a consultant specializing in restoration ecology to the City, California State Lands Commission, California Coastal Commission, and California Department of Fish and Wildlife staffs for review and approval prior to the issuance of the City's Land Use Permit. The Restoration Plan shall include at least the following elements and shall be consistent with the wetland-specific guidance and Native Habitat and Special Status Species Survey and Protection Plan associated with implementation of MM WQ-2a and TBIO-1a.

- a. Venoco shall restore any plant communities disturbed by Project construction activities within 90 days of completion of Project construction in conformance with the City-approved Restoration Plan.
- b. The Plan shall include criteria for evaluating success of restoration efforts and contingencies in the event efforts are not successful.

- c. Any salvaging and replanting of existing native vegetation shall be undertaken as much as feasible at the direction of the Project Biological Monitor.
- d. Only native vegetation and locally derived seeds shall be planted in project restoration areas.
- e. Monitoring and reporting of restored sites by the Project Biological Monitor shall occur for a minimum of 5 years after Project completion, with changes made as necessary based on annual monitoring reports.

MM TBIO-1d. Protect Stockpiles of Excavated Material. In addition to Best Management Practices identified in the State Water Resource Control Board 401 certification, materials excavated to install the underground cables shall be stockpiled in such a way that they will not inadvertently spill into or be washed into wetland areas. Stockpile areas shall be located at least 100 feet from delineated wetlands. Drainages and any riparian areas shall be prohibited from use for disposal or temporary placement of excess fill. The Project Biological Monitor shall ensure compliance with this mitigation measure during construction monitoring activities.

MM TBIO-1e. Equipment Use, Storage, and Maintenance. Prior to issuance of the Project Land Use Permit, Venoco shall submit an equipment use, storage, and maintenance work plan to the City of Goleta and California State Lands Commission staffs for review and approval. The work plan shall include at least the following elements.

- 1) Heavy equipment and construction activities shall be restricted to the defined construction right-of-way. Vehicles and personnel shall only use existing access roads to the maximum degree feasible.
- 2) Emergency provisions shall be in place at all drainage crossings prior to the onset of construction to deal with accidental spills.
- 3) All equipment used on site and in or near drainages shall be maintained such that no leaks of oil, fuel, or vehicle residues will take place.
- 4) Provisions shall be in place to remediate any accidental spills.
- 5) All machinery shall be stored and fueled in designated locations, such as the equipment laydown areas next to the Ellwood Onshore Facility, as specified in previous sections.

MM TBIO-1f. Biological Enhancement Activities. Where possible (e.g., not including steep slopes adjacent to the roadway), existing native habitats within 100 feet of the proposed trenching activities shall be enhanced in terms of their biological value through removal of invasive, non-native species and the planting of appropriate native species. Enhancement activities are to include removal of the non-native giant reed (*Arundo donax*) and other invasive species identified by the Project Biological Monitor. Hand-removal of above-ground stalk and rhizome biomass shall be undertaken to prevent damage to adjacent native plants. Monitoring and reporting of restored sites by the Project Biological Monitor shall occur for a minimum of 5 years after Project completion, with changes made as necessary based on annual monitoring reports.

LEVEL OF SIGNIFICANCE AFTER MITIGATION. With the mitigation described above, this impact is reduced to a less than significant level.

8. PUBLIC SERVICES

CEQA FINDING NO. PS-2

Impact: **Impact PS-2: Operation without an Approved Fire Prevention Plan.** Operating PRC 421 without an approved fire protection plan could result in an unsafe situation if an emergency requiring response by Venoco or by the Santa Barbara County Fire Department (SBCFD) were to occur.

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

Venoco does not have an approved fire protection plan for PRC 421. Operating PRC 421 without an approved fire protection plan could result in an unsafe situation if an emergency requiring response by Venoco or by the SBCFD were to occur.

MM PS-2 has been incorporated into the Project to reduce this impact to a less than significant level.

MM PS-2. Prepare Fire Prevention Plan for PRC 421. Prior to re-starting oil and gas production at PRC 421, Venoco shall prepare a fire prevention plan that includes fire prevention strategies for the Project area. The plan may either be in the form of a stand-alone plan for the PRC 421 facilities or included as an update to the South Ellwood Facilities Fire Prevention and Preparedness Plan. The Plan shall be submitted to the City of Goleta and the Santa Barbara County Fire Department (SBCFD) for review and approval prior to the issuance of the City's Land Use Permit.

LEVEL OF SIGNIFICANCE AFTER MITIGATION. With the mitigation described above, this impact is reduced to a less than significant level.

9. TRANSPORTATION AND CIRCULATION

CEQA FINDING NO. TR-1

Impact: **Impact TR-1: Construction-Generated Traffic.** Traffic generated from construction activities would have a short-term, less than significant impact on local transportation and circulation.

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

Traffic generated from construction activities would consist of daily trips from employees and periodic trips associated with delivery of equipment and construction materials and hauling of debris. Additionally, during the decommissioning and removal of Pier 421-1, expected to occur approximately 1 year following recommissioning of Pier 421-2, construction traffic would include traffic from similar activities, as well as regular hauling trips to remove debris. Venoco estimates that Project construction would require 90 working days; depending upon weather and other factors this may not be continuous and may extend over 3 or more months. Therefore, any potential impacts associated with traffic generated from construction activities would be of a short duration. The decommissioning and removal of Pier 421-1 is expected to have a 30-day construction schedule, so it would also be short in duration.

MMs TR-1a and TR-1b have been incorporated into the Project to reduce this impact to a less than significant level.

MM TR-1a. Route Construction Traffic to Avoid Congested Intersections. To minimize the potential for adverse impacts, Venoco shall direct Project construction traffic, particularly heavy trucks, during non-emergency trips, to avoid congested areas at Storke Road and use the Winchester Canyon Overpass to access the Project site. Venoco shall prepare and implement a Construction Traffic Control Plan that would apply to all construction activities, including but not limited to recommissioning and decommissioning activities, for review and approval by the City of Goleta.

MM TR-1b. Repair/Upgrade Any Damage to Access Road. To minimize the potential for adverse impacts, Venoco shall repair/upgrade the access road if it receives damage or degradation as a result of construction-related traffic. The access road shall be inspected and photographed before and after the Project, and a determination will be made regarding any needed repairs.

LEVEL OF SIGNIFICANCE AFTER MITIGATION. With the mitigation described above, this impact is reduced to a less than significant level.

10. AESTHETIC/VISUAL RESOURCES

CEQA FINDING NO. VR-1

Impact: **Impact VR-1: Visual Effects from Construction Activities at PRC 421.**
Construction activities would create negative visual impacts.

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

Construction activities associated with Project implementation will have potentially significant short-term impacts to the visual quality of the Project area. The visual environment will be disturbed by construction equipment (particularly the large workover rig), construction fencing, construction materials, and occasional stockpiling of debris on the upper reaches of the beach overnight for pick up and removal the next day for the duration of the 90-day construction schedule. Daily enjoyment of the area by recreationists adds a level of visual sensitivity to the area. Additionally, night lighting will likely be used during construction.

MMs VR-1a, VR-1b, VR-1c, VR-1d, and VR-1e have been incorporated into the Project to reduce this impact to a less than significant level.

MM VR-1a. Use Laydown Areas for Overnight Storage of Equipment.

Equipment placed on the beach shall be returned to the laydown areas at the end of each workday, both for public safety and for aesthetic considerations.

MM VR-1b. Caution Tape around Materials Placed on Beach. Materials temporarily placed on the upper reaches of the beach shall be roped-off with caution tape and removed within 24 hours in most cases.

MM VR-1c. Material Removal at Construction Completion. All materials, equipment, and debris shall be removed from the site upon completion of the Project construction. Venoco shall revegetate all areas subject to ground disturbance associated with project construction with species that are biologically and visually compatible with the surroundings in accordance with a Restoration Plan approved by the City of Goleta as identified in MM TBIO-1c Restoration Plan/Restoration.

MM VR-1d. Minimal Night Lighting. Lighting shall use the minimum number of fixtures and intensity needed for construction activities. Fixtures shall be fully shielded and have full cut-off lights to minimize visibility from public viewing areas, wildlife habitats, migration routes, and other sensitive environs. Venoco shall prepare and implement a Night Lighting Plan to ensure that night lighting is minimal and directed away from sensitive habitats to the maximum extent feasible, for review and approval by the City of Goleta.

MM VR-1e. No Night Lighting After 5:00 p.m. Night lighting and work shall not occur past the 5:00 p.m. work stoppage deadline.

LEVEL OF SIGNIFICANCE AFTER MITIGATION. With the mitigation described above, this impact is reduced to a less than significant level.

11. CULTURAL, HISTORICAL, AND PALEONTOLOGICAL RESOURCES

CEQA FINDING NO. CR-1

Impact: **Impact CR-1: Potential Impacts to Previously Undiscovered Cultural Resources During Construction.** Although no cultural resources are known to be present within the Project area and Project activities would generally occur in previously disturbed areas, excavations around the EOF and along the Project access road could exceed previous depths and disturb previously undiscovered cultural resources.

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

The sensitivity for encountering important archaeological, historical, or paleontological resources within the Project area and vicinity is considered low. However, Project-related ground disturbance could reach depths which will introduce the possibility to affect previously undiscovered cultural resources, such as along the access road or within the EOF.

MM CR-1 has been incorporated into the Project to reduce this impact to a less than significant level.

MM CR-1. Cultural Resources Monitor. A qualified cultural resources expert shall act as a construction monitor during all ground-disturbing work. The expert shall be retained by the City of Goleta and paid for by Venoco. The Cultural Resources Monitor shall prepare a Cultural Resources Monitoring Plan, outlining the approach to monitoring, involvement of the affected Native American nation, and detailing pre-construction workshops for construction personnel for review approval by the City of Goleta and paid for by Venoco. In the event archaeological resources are encountered during grading, as observed by the cultural resources monitor or their designee, work shall be stopped immediately or redirected until the City-approved archaeologist and local Chumash observer can evaluate the significance of the find pursuant to Phase 2 investigation standards set forth in the City Archaeological Guidelines. The Phase 2 shall be funded by Venoco. If resources are found to be significant, they shall be subject to a Phase 3 mitigation program consistent with City Archaeological Guidelines. The Phase 3 shall be funded by the permittee. This requirement shall be printed

on all plans submitted for any City of Goleta Land Use Permit, building, grading, or demolition permits.

LEVEL OF SIGNIFICANCE AFTER MITIGATION. With the mitigation described above, this impact is reduced to a less than significant level.

4.0 SIGNIFICANT AND UNAVOIDABLE IMPACTS

The following impacts were determined in the Final EIR to be significant and unavoidable. The Statement of Overriding Considerations adopted as part of this exhibit applies to all such unavoidable impacts as required by CEQA. (Pub. Resources Code, § 21081, subd. (b); State CEQA Guidelines, §§ 15092 and 15093.)

1. SAFETY

CEQA FINDING NO. S-4

Impact: **Impact S-4: Potential for Release of Oil or Hazardous Materials from Pier 421-2.** Project operations could result in the release of oil or hazardous materials from Project facilities, including the 421-2 well and caisson, drilling and separation equipment.

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR.

(3) Specific economic, legal, social, technological, or other considerations, including considerations for the provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or alternatives identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

Containment capacity in the well cellar, in the event oil is released, is adequate to contain expected volumes of oil given design capacity and pumping rates. However, the well cellar is an old structure of unknown condition, and its ability to fully contain spills is unknown. Sands and materials enclosed in the caisson could be contaminated by leakage produced by the Project if the cellar is not adequately sealed. Although remote, the potential also exists for a well blowout to occur below the well cellar and caisson, with an associated potential for release into the marine environment. Such a blowout could occur during routine operations due to human error or during the estimated one to two well workovers that may occur over the life of the Project. A potential release of oil to marine waters is a significant impact.

MMs S-4a, S-4b, S-4c, S-4d, and S-4e will minimize this impact to the maximum extent feasible, by ensuring the well cellar provides containment, by revising the Venoco Oil Spill Contingency Plan, by conducting oil spill response drills, by performing pressure

testing on the well casing, by conducting regular facility inspection, and by preparing a Quantitative Risk Assessment.

MM S-4a. Containment. As the primary containment at Pier 421-2, the well cellar shall be tested by Venoco to determine whether it is leaking, and coated with a rubber type liner or other sealant to prevent migration from the cellar walls or bottom to surrounding areas. If the well cellar is leaking, an engineering evaluation shall be performed to determine the best method to achieve containment; which may include replacement with a double wall cellar or retrofit with a membrane coating capable of containing oil and preventing migration. The revised design, which includes these improvements, shall be reviewed and certified by a registered engineer and submitted to the California State Lands Commission staff for approval, and Venoco shall construct all approved improvements prior to recommencing production.

MM S-4b. Response Drills and Planning. Venoco shall revise its existing Oil Spill Contingency Plan (OSCP) to include site-specific procedures for response to a release from Pier 421-2, in accordance with applicable State and Federal regulations. The revised OSCP shall be submitted to the City of Goleta, county of Santa Barbara, California Department of Fish and Wildlife Office of Spill Prevention and Response, California Coastal Commission, and California State Lands Commission (CSLC) staffs for review and approval prior to issuance of the Land Use Permit. Venoco shall demonstrate spill response capability by responding to at least two surprise drills each year – one at Pier 421-2 and one along the pipeline route. A tabletop exercise shall be conducted within six months of operation to test and improve upon the revised procedures. Venoco shall prepare and submit a critique and recommendations of Venoco's OSCP, regarding Pier 421-2, to CSLC staff and shall demonstrate the effectiveness of Venoco's oil spill response plan. Any recommended adjustments to the frequency of drills required to improve the effectiveness of the measure, in consideration of all other Ellwood oil spill response drill operations by Venoco, and a timetable for implementation of drill schedules may be considered by CSLC staff. In addition, Venoco shall participate in the Santa Barbara County Area Oil and Gas Industry Emergency Response Plan (P-4 Plan).

MM S-4c. Casing Pressure Testing. Prior to initiating active pumping, Venoco shall perform pressure testing on the well casing to ensure that the casing meets required operating specifications. The exact pressure shall be determined by the reviewing agencies. If the casing does not meet required test pressure as reviewed and approved by the California Department of Conservation's Division of Oil, Gas, and Geothermal Resources (DOGGR) Venoco shall implement casing repairs and improvements subject to review and approval by the DOGGR and California State Lands Commission staffs.

MM S-4d. Regular Facility Inspections. As part of its daily facility inspections, Venoco shall check the caisson at Pier 421-2 for signs of oily or sulfurous leaks. If leaks are detected, Venoco shall report this occurrence to the City of Goleta,

Santa Barbara County Office of Emergency Management, California Coastal Commission, and California Department of Fish and Wildlife Office of Spill Prevention and Response, and California State Lands Commission staffs, and in coordination with these agencies, take immediate steps to clean up or repair such leaks and prevent public exposure to any hazards.

MM S-4e. Quantitative Risk Assessment (QRA) and Implementation of QRA-Recommended Measures. Prior to issuance of land use permits, Venoco shall prepare a QRA to determine long-term risk of upset potential for the PRC 421 facilities. The QRA should assume the best estimate of life of the project based upon the possibility that production could continue for over 20 years. The QRA shall identify any deficient facilities with potential for creation of hazards associated with production from PRC 421 and processing of oil/gas/water at the Ellwood Onshore Facility and identify any improvements needed to reduce such hazards to acceptable levels. The QRA shall be submitted to the California State Lands Commission, City of Goleta, Santa Barbara County Fire Department Fire Protection Division staffs for review and comment prior to approval. Subsequent to approval, Venoco shall implement any modifications to facilities or processes recommended in the QRA.

LEVEL OF SIGNIFICANCE AFTER MITIGATION. This impact is considered significant and unavoidable.

CEQA FINDING NO. S-6

Impact: **Impact S-6: Increased Amount of Oil or Hazardous Materials Potentially Released from Oil Transfer in Line 96.** Project implementation would increase throughput in the Line 96 pipeline, and therefore increase the amount of oil or hazardous materials potentially released.

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR.

(3) Specific economic, legal, social, technological, or other considerations, including considerations for the provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or alternatives identified in EIR.

FACTS SUPPORTING THE FINDING(S)

There is a low probability for a release of oil from the production process at Pier 421-2 because safeguards designed into the system (i.e., loss of power will shut in the valves) will prevent oil from reaching the surface under non-routine conditions. However, because of the remote potential for a blowout or other failure at Pier 421-2 or a failure along the Line 96 pipeline, with subsequent release of oil into the marine environment, no matter how low the probability, this impact is significant and unavoidable.

Implementation of **MM HM-3** (Automated Block Valves and an Additional Check Valve on the Proposed Pipeline) from the certified Line 96 Modification Project EIR will minimize this impact by adding a safety measure, thus decreasing the probability of a potential large-volume oil spill/release.

LEVEL OF SIGNIFICANCE AFTER MITIGATION. This impact is considered significant and unavoidable.

CEQA FINDING NO. S-7

Impact: **Impact S-7: Increased Processing of Oil and Gas at the EOF.** Project implementation would increase processing of oil and gas at the EOF, and therefore increase potential risks related to safety and potential release of hazardous materials.

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR.

(3) Specific economic, legal, social, technological, or other considerations, including considerations for the provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or alternatives identified in EIR.

FACTS SUPPORTING THE FINDING(S)

Based on the descriptions above and defined throughput levels, the introduction of oil/gas/water emulsion produced at Pier 421-2 will not have adverse effects on the safe operation of the EOF processing systems. However, additional processing at the EOF will incrementally increase the risk of a release of hazardous materials and subsequent release of oil into the marine environment; no matter how low the probability, this impact is significant and unavoidable.

Although this impact is significant and unavoidable, the EOF operates under an approved EAP and OSCP for the South Ellwood Field; however, the EAP would be updated, as specified in **MM S-5b**, to include information about the new flowline connection and new equipment that would be present on the site as part of the proposed Project.

LEVEL OF SIGNIFICANCE AFTER MITIGATION. This impact is considered significant and unavoidable.

2. HYDROLOGY, WATER RESOURCES, AND WATER QUALITY

CEQA FINDING NO. WQ-3

Impact: **Impact WQ-3: Oil Spill Impacts to Surface and Marine Water Quality.**
Accidental discharge of petroleum hydrocarbons into the surf zone from Pier 421-2 and flowline would adversely affect surface or marine water quality.

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR.

(3) Specific economic, legal, social, technological, or other considerations, including considerations for the provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or alternatives identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

An accidental release of oil during production at Pier 421-2 could occur from a well casing blow out or from potential wave or seismic damage to Project facilities (e.g., the caisson, seawall, or pipeline). A spill from the Pier 421-2, from the flowline, or from Line 96 has the potential to release limited amounts of petroleum hydrocarbons into the marine environment within Santa Barbara Channel. Multiple biologically productive and/or sensitive areas are located in the Project vicinity.

Implementation of **MMs WQ-3a** and **WQ-3b** will minimize this impact by requiring daily monitoring of facilities and a Storm Water Pollution Prevention Plan (SWPPP).

MM WQ-3a. Pipeline Monitoring. In addition to the installed safety measures on the pipeline from Pier 421-2 to the EOF tie-in (e.g., low-pressure alarm system and automatic shut-in), Venoco staff shall conduct daily visual monitoring of the access road above the pipeline and soils adjacent to the access road. Staff shall inspect for obvious indicators of a small leak such as petroleum smells and any seepage of oil or visible sheen in soils adjacent to the roadway. If any indicators are present, Venoco shall (1) notify City of Goleta and California State Lands Commission (CSLC) staffs within 24 hours, (2) conduct further investigations to determine the source of the indicator, and (3) repair the pipeline as necessary upon City and CSLC staff approval.

MM WQ-3b. Storm Water Pollution Prevention Plan (SWPPP). A site-specific SWPPP shall be prepared for construction activities and the existing Ellwood area SWPPP shall be updated to include the Project and submitted to the Regional Water Quality Control Board (RWQCB), Central Coast Region, and City of Goleta to prevent adverse impacts to nearby waterways associated with oil spills and contaminated storm water releases not covered under the Emergency Action Plan (EAP), which only applies to “significant events.” This plan shall

include site-specific diagrams illustrating primary surface drainage features (e.g., Bell Canyon Creek, Devereux Creek and Devereux Slough, and proposed spill containment, delineation of drainage features) and a description of Best Management Practices (BMPs), including spill containment equipment and procedures tailored for the Project site.

LEVEL OF SIGNIFICANCE AFTER MITIGATION. This impact is considered significant and unavoidable.

CEQA FINDING NO. WQ-4

Impact: **Impact WQ-4: Cumulative Impacts to Marine Water Quality.** Potential oil spills occurring as a result of recommissioning of PRC 421 could result in contributions to cumulative water quality impacts on the waters of the Santa Barbara Channel.

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR.

(3) Specific economic, legal, social, technological, or other considerations, including considerations for the provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or alternatives identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

Potential oil spills occurring as a result of the Project could contribute to cumulative water quality impacts offshore the Project site. Projects that could increase the risk of a spill that could impact the same coastal areas as the Project include the Carpinteria Field Redevelopment Project, Carpinteria Onshore Project/Venoco, and development of undeveloped Federal outer continental shelf (OCS) leases. All of these projects will exacerbate an already significant and unavoidable impact associated with the Project's risks of spills to the marine environment. Each of these projects must meet regulatory requirements designed to reduce the probability and consequences of accidental releases to the environment. However, even the best-designed and implemented MMs, such as safe design of the facilities, oil spill contingency plans, training and drills, and availability of oil spill cleanup means, cannot eliminate all risk of an oil spill.

LEVEL OF SIGNIFICANCE AFTER MITIGATION. This impact is considered significant and unavoidable.

3. MARINE BIOLOGICAL RESOURCES

CEQA FINDING NO. MBIO-4

Impact: **Impact MBIO-4: Oil Spill Impacts to Marine Resources.** Leaks and spills of petroleum hydrocarbons into the ocean could adversely affect marine organisms.

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR.

(3) Specific economic, legal, social, technological, or other considerations, including considerations for the provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or alternatives identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

Oil production on PRC 421 and transport of crude oil from the Project via onshore pipeline have the potential to result in the accidental release of limited quantities of petroleum hydrocarbons. Oil released to marine waters from the PRC 421 Project area was assumed to be transported approximately 1 mile west of the site and 2 miles to the east. Significant rocky intertidal habitat that will be vulnerable to a Project oil spill occurs near Coal Oil Point east of PRC 421 and within the bend of "Ellwood Cove" approximately 0.5 mile east of the Project site. Rocky intertidal habitat, primarily boulders and cobble, also occurs west of the Project area up-coast from the Bacara Resort. Oil spill impacts to the marine environment are varied; however, in the event of a spill, significant effects will affect a large variety of marine organisms.

Implementation of **MMs MBIO-4a and MBIO-4b** will minimize this impact by updating the South Ellwood Field OSCP and requiring a study of the birds at the Bird Island platforms with the possibility of requiring a protection plan if necessary.

MM MBIO-4a. Update South Ellwood Field Oil Spill Contingency Plan (OSCP) to Address a Spill from Lease PRC 421 Oil Production.

Prior to beginning construction at PRC 421 and prior to the City of Goleta's issuance of the Land Use permit, Venoco shall update the South Ellwood Field OSCP to address protection of sensitive biological resources disturbed during an oil spill or cleanup activities. The revised OSCP shall include specific measures to avoid impacts on Federal- and State-listed endangered and threatened species, and shall specifically identify training and procedures to contain oil spilled from production at Lease PRC 421. The OSCP shall identify sensitive resources, including the birds on the Bird Island platforms, kelp beds offshore the piers, intertidal and subtidal resources within the Campus Point SMCA such as those at Coal Oil Point, the harbor seal rookery at Burmah Beach and Naples Reef, and the Naples MPA that could be oiled rapidly from a spill on PRC 421. Rapid response procedures to protect those sensitive resources shall be identified. Venoco shall

submit the updated South Ellwood Field and OSCP to the California State Lands Commission, Department of Fish and Wildlife Office of Spill Prevention and Response, California Coastal Commission, Santa Barbara County, and City of Goleta staffs for review and approval prior to operation of the recommissioned facilities.

MM MBIO-4b. Develop a Protection Plan to Keep Birds Roosting on Bird Island from Harm in the Event of an Oil Spill on Lease PRC 421. Prior to starting construction at PRC 421 and prior to the City of Goleta’s issuance of a Land Use Permit, Venoco shall engage a biologist experienced with wildlife and bird rehabilitation to determine whether it is necessary to develop a plan specifically to protect pelicans and cormorants roosting on the Bird Island platforms from harm in the event of an oil spill. The biologist shall submit a memorandum explaining their position to the California State Lands Commission staff for review and approval. If the biologist deems plan preparation necessary, Venoco shall include this plan within the revised OSCP, potentially including methods to deter the birds from feeding or resting in oiled waters. The plan also shall include procedures to capture and rehabilitate oiled birds. If the plan is deemed necessary, Venoco shall submit the Plan to the California State Lands Commission, California Coastal Commission, Santa Barbara County, and City of Goleta staffs for review and approval prior to operation of the recommissioned facilities.

LEVEL OF SIGNIFICANCE AFTER MITIGATION. This impact is considered significant and unavoidable.

CEQA FINDING NO. MBIO-5

Impact: **Impact MBIO-5: Oil Spill Impacts to Commercial and Recreational Fishing.** Accidental discharge of petroleum hydrocarbons into marine waters would adversely affect commercial and recreational fishing.

- Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR.
- (3) Specific economic, legal, social, technological, or other considerations, including considerations for the provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or alternatives identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

A wide variety of fish and shellfish species are commercially harvested in the Project area and biota residing in intertidal and shallow subtidal habitats are vulnerable to oil spills. Both sea urchins and lobsters are high-value species that are harvested commercially and recreationally in the immediate Project area. In the event of an oil spill, impacts could occur to the local commercial and recreational fishing industry. The

resultant potential losses to commercial and recreational fish resources and those losses due to closure of fishing areas for most or all of a fishing season is considered a potentially significant impact. In addition, fish harvested from contaminated areas may also be reduced in value, and fishing gear may be damaged due to oil fouling, causing additional significant impacts.

Implementation of mitigation designed to reduce the probability and severity of oil spills including, but not limited to, **MMs S-2a, S-2b, S-4a, S-4b, S-4d, S-4e, S-5b, S-5c, WQ-3a, WQ-3b, TBIO-2a, and TBIO-2b**, shall be required.

LEVEL OF SIGNIFICANCE AFTER MITIGATION. This impact is considered significant and unavoidable.

CEQA FINDING NO. MBIO-7

Impact: **Impact MBIO-7: Cumulative Impacts of an Oil Spill on Marine Resources.** Oil development at PRC 421 would add to the cumulative risk that marine resources would be impacted by one or more oil spills.

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR.

(3) Specific economic, legal, social, technological, or other considerations, including considerations for the provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or alternatives identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

Oil development projects that will add to the risk of an oil spill in the study area include the Carpinteria Field Redevelopment Project, with the proposed drilling of up to 25 new wells from Platform Hogan, Venoco's Carpinteria Onshore Project, and maintenance projects such as the Santa Ynez Unit Offshore Power System Reliability – B Project. Potential cumulative impacts of an oil spill are considered significant.

Implementation of **MMs MBIO-4a** and **MBIO-4b** will minimize this impact by updating the South Ellwood Field OSCP and requiring a study of the birds at the Bird Island platforms with the possibility of requiring a protection plan if necessary. These mitigation measures are discussed under CEQA Finding No. MBIO-4.

LEVEL OF SIGNIFICANCE AFTER MITIGATION. This impact is considered significant and unavoidable.

4. TERRESTRIAL BIOLOGICAL RESOURCES

CEQA FINDING NO. TBIO-2

- Impact:** **Impact TBIO-2: Oil Spill Impacts to Terrestrial Biological Resources.**
 An accidental oil spill and subsequent cleanup efforts during operation of the Project would potentially result in the loss or injury of threatened, endangered, or candidate species such as the Western snowy plover; the loss or degradation of functional habitat value of sensitive biological habitats such as coastal wetlands; or cause a substantial loss of a population or habitat of native fish, wildlife, or vegetation.
- Finding(s):** (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR.
- (3) Specific economic, legal, social, technological, or other considerations, including considerations for the provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or alternatives identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

An oil spill could occur from Project components including the wells or caisson at Pier 421-2, the pipeline from Pier 421-2 to the EOF, or the Line 96 pipeline; an oil spill will cause a potentially significant impact to biological resources. Spills in the primary study area will likely be limited to a maximum of 1.7 barrels and those within the secondary study area to a maximum of 60 barrels along the Line 96 pipeline for Llagas Creek and 52 barrels from Corral Canyon. While these spills are relatively small, the threshold for such spills is zero and impacts are considered potentially significant. Direct impacts on wildlife from oil spills include physical contact with oil, ingestion of oil, and loss of food and critical nesting and foraging habitats. Aquatic reptiles, amphibians, and birds are the most vulnerable to oil spills.

MMs TBIO-2a and **TBIO-2b** will minimize this impact by adding biological resource and habitat protection measures to the OSCP.

MM TBIO-2a. Oil Spill Contingency Plan (OSCP) Measures Regarding Protection of Biological Resources. Before re-starting production at PRC 421, Venoco shall revise and update the OSCP to address protection of sensitive biological resources disturbed during an oil spill or cleanup activities. The revised OSCP shall, at a minimum, include: (1) specific measures to avoid impacts on Federal- and State-listed endangered and threatened species and Environmentally Sensitive Habitat Areas (ESHAs) during response and cleanup operations; (2) identify, feasible, low-impact, site-specific, and species-specific techniques; (3) identify standards of a spill response personnel training program; (4) funding (up to \$5,000 each) for City and Coal Oil Point Reserve updates to multi-hazard response plans and other emergency response documents (e.g.,

those for Coal Oil Point Reserve) to ensure clear internal and inter-agency communication in the event of an accident and for spill clean-up/restoration; and (5) provide one-time training and a brief checklist regarding the OSCP and the Emergency Action Plan for Neighborhood Services and Public Safety Department and Planning and Environmental Review Department, and the staff of the Coal Oil Point Reserve. Venoco shall submit the updated OSCP to the California State Lands Commission, Department of Fish and Wildlife Office of Spill Prevention and Response, California Coastal Commission, Santa Barbara County, and City of Goleta staffs for review and approval prior to operation of the recommissioned facilities.

MM TBIO-2b. Oil Spill Contingency Plan (OSCP) Measures Regarding Habitat

Protection and Restoration. Before re-starting production at PRC 421, Venoco shall revise and update the OSCP to address revegetation of any areas disturbed during an oil spill or cleanup activities. The revised OSCP shall include: (1) preemptive identification of access and egress points, staging areas, and material stockpile areas that avoid sensitive habitat areas; (2) stipulations for development and implementation of site-specific habitat restoration plans and other site-specific and species-specific measures; (3) identification of sources for restoration project implementation (e.g., restoration contractors, seed vendors, native plant nursery facilities, academic institution support); (4) procedures for timely re-establishment of vegetation; (5) monitoring procedures and minimum success criteria to be satisfied for restoration areas; (6) funding (up to \$5,000 each) for City and Coal Oil Point Reserve updates to multi-hazard response plans and other emergency response documents to ensure clear internal and inter-agency communication in the event of an accident and for spill clean-up/restoration; and (7) provide one-time training a brief checklist regarding the OSCP and the Emergency Action Plan for Neighborhood Services and Public Safety Department and Planning and Environmental Review Department. Venoco shall submit the updated EAP and OSCP to the California State Lands Commission, Department of Fish and Wildlife Office of Spill Prevention and Response, California Coastal Commission, Santa Barbara County, and City of Goleta staffs for review and approval prior to operation of the recommissioned facilities.

LEVEL OF SIGNIFICANCE AFTER MITIGATION. This impact is considered significant and unavoidable.

CEQA FINDING NO. TBIO-3

Impact: **Impact TBIO-3: Cumulative Impacts to Terrestrial Biological Resources.** Potential oil spills occurring as a result of recommissioning Pier 421-2 could result in contributions to cumulative terrestrial biological resource impacts.

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR.

(3) Specific economic, legal, social, technological, or other considerations, including considerations for the provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or alternatives identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

Potential oil spills from production at PRC 421 and transport through the Line 96 pipeline, when combined with the potential for spills from on-going operations at the Las Flores (LFC) processing facility and the Plains All American Pipeline, Limited Partners (PAAPLP) Coastal Pipeline could result in adverse biological impacts to Corral/Las Flores Creek. Potential oil spills occurring as a result of Project implementation could cumulatively contribute to those impacts. Because of the severity of impacts associated with potential large oil spills from the EOF or Line 96 pipeline, the Project’s contribution to the cumulative degradation of Devereux Slough and other waterways and habitat along the pipeline route are considered significant and unavoidable.

MMs TBIO-2a and **-2b** apply to this impact. **MM BIO-4a** from the Line 96 Modification Project EIR required update of the OSCP to protect sensitive resources, which further protects sensitive terrestrial biological resources.

LEVEL OF SIGNIFICANCE AFTER MITIGATION. This impact is considered significant and unavoidable.

5. LAND USE, PLANNING, AND RECREATION

CEQA FINDING NO. LU-1

Impact: **Impact LU-1: Conflicts with Goleta General Plan/Coastal Land Use Plan and underlying Coastal Act Policies.** Production of oil and gas at PRC 421 would increase the potential for accidental releases of oil into the environment and conflict with policies contained within the Goleta General Plan/Coastal Land Use Plan (GP/CLUP) Land Use, Open Space, or Conservation Elements and relevant underlying Coastal Act policies.

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR.

(3) Specific economic, legal, social, technological, or other considerations, including considerations for the provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or alternatives identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

Implementation of the Project, particularly the potential for impacts resulting from the accidental release of oil into the environment, conflict with the City of Goleta Coastal Zoning Ordinance, several policies of the Goleta GP/CLUP and with the Coastal Act upon which the Goleta GP/CLUP is based. Coastal Zoning Ordinance Section 35-160 and policies LU10.1 and LU10.4 of the City of Goleta’s GP/CLUP are among the policies with which the Project is in conflict.

Implementation of **MMs LU-1a, LU-1b, and LU-1c** will minimize this impact by requiring additional permits and special authorizations.

MM LU-1a. Obtain Property Owner Authorizations. Prior to issuance of any Land Use Permit, Venoco shall secure all required property owner authorizations or other documentation, including encroachment permits or easements to the satisfaction of the City allowing the project on or within property not owned by the permittee, including, but not limited to property owned by Sandpiper Golf Trust and the City.

MM LU-1b. Obtain Permits Required by Title 15 of Goleta Municipal Code. Venoco shall obtain from the City’s Planning and Environmental Review Department all Building, Electrical, Well or other Permits required by Title 15 of the Goleta Municipal Code prior to the construction, erection, moving, alteration, enlarging, rebuilding of any building, structure, or improvement, or any other action(s) requiring a Building Permit pursuant to Title 15 of the Goleta Municipal Code.

MM LU-1c. Obtain City Land Use Permit Prior to Development. The permittee shall obtain from the City’s Planning and Environmental Review Department a Land Use Permit prior to commencement of any uses and/or development authorized by this permit.

LEVEL OF SIGNIFICANCE AFTER MITIGATION. This impact is considered significant and unavoidable.

CEQA FINDING NO. LU-2

Impact: **Impact LU-2: Oil Releases Could Affect Recreational Activities.** High-quality recreational resources are located within the area and could be impacted by the spread of oil from an accidental release from surf zone production activities at Pier 421-2, associated pipelines, and transportation by the Line 96 pipeline. Shoreline and water-related uses would be disrupted by oil on the shoreline and in the water, resulting in significant impacts to on- and off-shore public recreation.

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR.

- (3) Specific economic, legal, social, technological, or other considerations, including considerations for the provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or alternatives identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

Impacts from accidental oil releases could preclude the use of beach areas and associated recreational activities. Shoreline and water-related uses will be disrupted by oil on the beach and in the water. While not readily quantifiable, a coastal spill could significantly affect coastal recreation and tourism, resulting in lost commercial recreation and tourism revenues. Because it is impossible to predict with any certainty the potential consequences of spills, impacts are considered to be significant and unavoidable, because large spills could have residual impacts that could affect the beach and recreational uses.

Implementation of mitigation designed for protection of the oil separator, reinforcement of caisson containment walls, and contingency planning and spill response including, but not limited to, **MMs GEO-2b, GEO-4a, GEO-4b, GEO-4d, HAZ-1a, HAZ-1b, S-2a, S-2b, S-4a, S-4b, S-4d, S-4e, S-5b, S-5c, WQ-3a, WQ-3b, MBIO-4a, TBIO-2a, and TBIO-2b**, will reduce impacts to recreational activities associated with oil releases.

LEVEL OF SIGNIFICANCE AFTER MITIGATION. This impact is considered significant and unavoidable.

CEQA FINDING NO. LU-3

Impact: **Impact LU-3: Oil Releases from Pier 421-2 or Pipelines Could Affect Sensitive Area Resources and Raise Consistency Issues with Adopted Policies.** Spills that reach the shore along sensitive land use areas or heavily used areas, including recreational areas, would limit or preclude such uses and result in significant adverse impacts.

- Finding(s):** (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR.
- (3) Specific economic, legal, social, technological, or other considerations, including considerations for the provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or alternatives identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

Although spills from Project facilities are anticipated to be limited, even spills of limited magnitude will exceed adopted thresholds. Conflicts with the Goleta GP/CLUP Conservation Element Policy will result from an oil spill impacting such resources. ESHAs designated in Policy CE 1.2 include: all marine areas offshore Goleta extending

from the mean high tide (MHT) line seaward to the outer limit of State waters; all areas extending from the MHT line landward to the top of the ocean bluffs; Tecolote Creek and Lagoon; Bell Canyon Creek and Lagoon; Sandpiper Golf Course pond; and Devereux Creek.

Implementation of mitigation designed for reinforcement of caisson containment walls, and contingency planning and spill response including, but not limited to, **MMs S-2a, S-2b, S-4a, S-4b, S-4d, S-4e, S-5b, S-5c, WQ-3a, WQ-3b, MBIO-4a, TBIO-2a, and TBIO-2b**, will reduce impacts to sensitive areas associated with oil releases. The certified Line 96 Modification Project EIR also provides **MM AG-2**, which requires all agricultural areas contaminated as a result of an oil leak or spill along the pipeline route be restored to their prior state with equivalent soils and agricultural resources.

LEVEL OF SIGNIFICANCE AFTER MITIGATION. This impact is considered significant and unavoidable.

CEQA FINDING NO. LU-4

Impact: **Impact LU-4: Cumulative Impacts of Potential Project-Related Oil Spills on Area Land Use and Recreational Uses.** Impacts to sensitive shoreline lands, and/or water and non-water recreation due to a release of oil would result in potentially significant impacts. When the cumulative environment is considered, the contribution from the Project could be significant.

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR.

(3) Specific economic, legal, social, technological, or other considerations, including considerations for the provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or alternatives identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

The risk of an oil release associated with Project operation will contribute to impacts to the cumulative environment given increased demand for the transportation of oil. Over the Project lifetime, this will represent an incremental increase in spill risk and oil spill risks to land uses and recreational uses will be associated with that increase. Other projects will contribute to the spill risk, exacerbating an already significant impact.

Implementation of mitigation designed for properly engineered reinforcement of caisson containment walls and contingency planning and spill response including, but not limited to, **MMs S-2a, S-2b, S-4a, S-4b, S-4d, S-4e, S-5b, S-5c, WQ-3a, WQ-3b, MBIO-4a, TBIO-2a, and TBIO-2b** shall be required.

LEVEL OF SIGNIFICANCE AFTER MITIGATION. This impact is considered significant and unavoidable.

6. PUBLIC SERVICES

CEQA FINDING NO. PS-1

Impact: **Impact PS-1: Adequacy of Fire Response.** The incremental increase for fire protection services caused by reactivating oil production in an area which is currently under-serviced with difficult and limited accessibility contributes to the need for new and/or expanded fire inspection and protection services in western Goleta.

- Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR.
- (3) Specific economic, legal, social, technological, or other considerations, including considerations for the provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or alternatives identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

The SBCFD has determined that the most under-served area in Goleta is the western part of the City, including the Project area, due to both response times and the population to firefighter ratio. Annual inspections, emergency response, and planning activities at the EOF and PRC 421 associated with the Project will incrementally add to the demand for fire protection services. Because the Project area is currently underserved in terms of both an acceptable ratio of firefighter-to-population ratio and in terms of the fire service response time, potential impacts to fire protection and emergency response services are considered significant for the Project.

Implementation of **MM PS-1** will minimize this impact by requiring an impact development fee which will be used to improve fire response.

MM PS-1. Impact Development Fee. Venoco shall provide an impact development fee payment to the City of Goleta that would be directed toward fire response improvements. The fee would be determined based on the County of Santa Barbara’s Development Fee Ordinance (County Ordinance 4745), which assesses a fee of \$1,007.00 per 1,000 sf for non-retail commercial development in Fiscal Year 2013-2014. For the purposes of determining the fee, the Project area would consist of the PRC 421 piers, pipeline corridor, and roadbed, which has a total cost of \$26,168. Fire response upgrades, which may include maintenance of a 12-foot-wide all-weather access road and installation of portable fire extinguishers, shall be implemented per Santa Barbara County Fire Department (SBCFD) requirements. Venoco shall also obtain a hot-work permit from SBCFD before any hot-work operations on the Project.

LEVEL OF SIGNIFICANCE AFTER MITIGATION. This impact is considered significant and unavoidable.

7. AESTHETICS/VISUAL RESOURCES

CEQA FINDING NO. VR-2

Impact: **Impact VR-2: Visual Effects from Accidental Oil Spills.** Project implementation would incrementally increase the likelihood of oil spill from primary or secondary Project components, including Pier 421-2, associated pipelines, and the Line 96 pipeline.

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR.

(3) Specific economic, legal, social, technological, or other considerations, including considerations for the provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or alternatives identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

A large spill from the Project could cause visual impacts ranging from oil sheens to heavy oiling including floating lumps of tar. Heavy crude oil may disappear over the duration of several days, with remaining heavy fractions floating at or near the surface in the form of mousse, tarballs, or mats, and lasting from several weeks to several months. Although the potential for spills is low and volumes are not likely to be large, such oiling could result in a negative impression of the highly sensitive viewshed. Additionally, the impact of a spill could possibly last for an extended period of time, depending on the level of physical impact and clean up effectiveness. Even in events where light oiling disperses rapidly, significant impacts are expected.

Implementation of mitigation designed for contingency planning and spill response including, but not limited to, **MMs S-2a, S-2b, S-4a, S-4b, S-4d, S-4e, S-5b, S-5c, WQ-3a, WQ-3b, MBIO-4a, TBIO-2a, and TBIO-2b** shall be required.

LEVEL OF SIGNIFICANCE AFTER MITIGATION. This impact is considered significant and unavoidable.

4.0 STATEMENT OF OVERRIDING CONSIDERATIONS

A. INTRODUCTION

The Final EIR prepared by the CSLC as lead agency under CEQA Lead Agency for the Revised PRC 421 Recommissioning Project (Project) identifies significant impacts of the proposed Project that cannot feasibly be mitigated to below a level of significance. Pursuant to Public Resources Code section 21081 and section 15043 of the State CEQA Guidelines, the CSLC may approve a project even though it will cause a significant effect on the environment, if the CSLC makes a fully informed and publicly disclosed decision that there is no feasible way to lessen or avoid the significant effect, and specifically identified expected benefits from the project outweigh the policy of reducing or avoiding significant environmental impacts of the project.

State CEQA Guidelines section 15093 states in part:

- (a) CEQA requires the decision-making agency to balance, as applicable, the economic, legal, social, technological, or other benefits, including region-wide or statewide environmental benefits, of a proposed project against its unavoidable environmental risks when determining whether to approve the project. If the specific economic, legal, social, technological, or other benefits, including region-wide or statewide environmental benefits, of a proposed project outweigh the unavoidable adverse environmental effects, the adverse environmental effects may be considered "acceptable."
- (b) When the lead agency approves a project which will result in the occurrence of significant effects which are identified in the final EIR but are not avoided or substantially lessened, the agency shall state in writing the specific reasons to support its action based on the final EIR and/or other information in the record. The statement of overriding considerations shall be supported by substantial evidence in the record.

This Statement of Overriding Considerations presents a list of (1) the specific significant effects on the environment attributable to the approved Project that cannot feasibly be mitigated to below a level of significance, (2) benefits derived from the approved Project, and (3) specific reasons for approving the Project.

Although the CSLC has imposed mitigation measures to reduce impacts, impacts remain that are considered significant after application of all feasible mitigation. Significant impacts of the approved Project fall under several resource areas: Safety; Hydrology, Water Resources/Water Quality; Marine Biological Resources; Terrestrial Biological Resources; Land Use, Planning, and Recreation; Public Services; and Aesthetics/Visual Resources (see Tables 1 and 2). These impacts are identified and discussed in more detail in the CSLC's CEQA Findings and Section 4.0 of the Final EIR. (Impacts and mitigation measures are identified and discussed throughout Section 4.0 of the Final EIR. A summary of all impacts and mitigation measures is provided in the Mitigation Monitoring Program, adopted as part of this Project, as set forth in Exhibit C.)

While the CSLC has imposed all feasible mitigation measures, the following impacts remain significant for purposes of adopting this Statement of Overriding Considerations.

Table 2 –Significant and Unavoidable Impacts Identified for the Approved Project

Impact	Impact Description
Safety	
Impact S-4: Potential for Release of Oil or Hazardous Materials from Pier 421-2	Containment capacity in the well cellar, in the event oil is released, is adequate to contain expected volumes of oil given design capacity and pumping rates. However, the well cellar is an old structure of unknown condition, and its ability to fully contain spills is unknown. Sands and materials enclosed in the caisson could be contaminated by leakage produced by the Project if the cellar is not adequately sealed. Although remote, the potential also exists for a well blowout to occur below the well cellar and caisson, with an associated potential for release into the marine environment. Such a blowout could occur during routine operations due to human error or during the estimated one to two well workovers that may occur over the life of the Project. A potential release of oil to marine waters is a significant and unavoidable impact.
Impact S-6: Increased Amount of Oil or Hazardous Materials Potentially Released from Oil Transfer in Line 96	There is a low probability for a release of oil from the production process at Pier 421-2 because safeguards designed into the system (i.e., loss of power will shut in the valves) will prevent oil from reaching the surface under non-routine conditions. However, because of the remote potential for a blowout or other failure at Pier 421-2 or a failure along the Line 96 pipeline, with subsequent release of oil into the marine environment, no matter how low the probability, this impact is significant and unavoidable.
Impact S-7: Increased Processing of Oil and Gas at the EOF	Based on the descriptions above and defined throughput levels, the introduction of oil/gas/water emulsion produced at Pier 421-2 will not have adverse effects on the safe operation of the EOF processing systems. However, additional processing at the EOF will incrementally increase the risk of a release of hazardous materials and subsequent release of oil into the marine environment; no matter how low the probability, this impact is significant and unavoidable.
Hydrology, Water Resources, and Water Quality	
Impact WQ-3: Oil Spill Impacts to Surface and Marine Water Quality	An accidental release of oil during production at Pier 421-2 could occur from a well casing blow out or from potential wave or seismic damage to Project facilities (e.g., the caisson, seawall, or pipeline). A spill from the Pier 421-2, from the flowline, or from Line 96 has the potential to release limited amounts of petroleum hydrocarbons into the marine environment within Santa Barbara Channel. Multiple biologically productive and/or sensitive areas are located in the Project vicinity, which any spill affecting these resources is significant and unavoidable.
Impact WQ-4: Cumulative Impacts to Marine Water Quality	Potential oil spills occurring as a result of the Project could contribute to cumulative water quality impacts offshore the Project site. Projects which could produce an increased risk of oil spill that could impact the same coastal areas as the Project include the Carpinteria Field

Impact	Impact Description
	Redevelopment Project, Carpinteria Onshore Project/Venoco, and development of undeveloped Federal outer continental shelf (OCS) leases. All of these projects will exacerbate an already significant and unavoidable impact associated with the Project's risks of spills to the marine environment.
Marine Biological Resources	
Impact MBIO-4: Oil Spill Impacts to Marine Resources	Oil production on PRC 421 and transport of crude oil from the Project via onshore pipeline have the potential to result in the accidental release of limited quantities of petroleum hydrocarbons. Oil released to marine waters from the PRC 421 Project area was assumed to be transported approximately 1 mile west of the site and 2 miles to the east. Significant rocky intertidal habitat that is vulnerable to a Project oil spill occurs near Coal Oil Point east of PRC 421 and within the bend of "Ellwood Cove" approximately 0.5 mile east of the Project site. Rocky intertidal habitat, primarily boulders and cobble, also occurs west of the Project area up-coast from the Bacara Resort. Oil spill impacts to the marine environment can vary; however, in the event of a spill, a variety of marine organisms will be affected and is a significant and unavoidable impact .
Impact MBIO-5: Oil Spill Impacts to Commercial and Recreational Fishing	A wide variety of fish and shellfish species are commercially harvested in the Project area and biota residing in intertidal and shallow subtidal habitats are vulnerable to oil spills. Both sea urchins and lobsters are high-value species that are harvested commercially and recreationally in the immediate Project area. In the event of an oil spill, impacts could occur to the local commercial and recreational fishing industry. The resultant potential losses to commercial and recreational fish resources and those losses due to closure of fishing areas for most or all of a fishing season is considered a significant impact. In addition, fish harvested from contaminated areas may also be reduced in value, and fishing gear may be damaged due to oil fouling, causing additional significant impacts.
Impact MBIO-7: Cumulative Impacts of an Oil Spill on Marine Resources	Oil development projects that add to the risk of an oil spill in the study area include the Carpinteria Field Redevelopment Project, with the proposed drilling of up to 25 new wells from Platform Hogan, Venoco's Carpinteria Onshore Project, and maintenance projects such as the Santa Ynez Unit Offshore Power System Reliability – B Project. Potential cumulative impacts of an oil spill are significant.
Terrestrial Biological Resources	
Impact TBIO-2: Oil Spill Impacts to Terrestrial Biological Resources	An oil spill could occur from Project components including the wells or caisson at Pier 421-2 the pipeline from Pier 421-2 to the EOF, or the Line 96 pipeline; an oil spill will cause a potentially significant impact to biological resources. Spills in the primary study area are likely to be limited to a maximum of 1.7 barrels and those within the secondary study area to a maximum of 60 barrels along the Line 96 pipeline for Llagas Creek and 52 barrels from Corral Canyon. While these potential spills are relatively small, the threshold for such spills is zero and impacts are considered significant. Direct impacts on wildlife from oil spills include physical contact with oil, ingestion of oil, and loss of

Impact	Impact Description
	food and critical nesting and foraging habitats. Aquatic reptiles, amphibians, and birds are the most vulnerable to oil spills.
Impact TBIO-3: Cumulative Impacts to Terrestrial Biological Resources	Potential oil spills from production at PRC 421 and transport through the Line 96 pipeline, when combined with the potential for spills from on-going operations at the LFC processing facility and the PAAPLP Coastal Pipeline could result in adverse biological impacts to Corral/Las Flores Creek. Potential oil spills occurring as a result of Project implementation could cumulatively contribute to those impacts. Because of the severity of impacts associated with potential large oil spills from the EOF or Line 96 pipeline, the Project's contribution to the cumulative degradation of Devereux Slough and other waterways and habitat along the pipeline route is significant and unavoidable.
Land Use, Planning, and Recreation	
Impact LU-1: Conflicts with Goleta General Plan/Coastal Land Use Plan and underlying Coastal Act Policies	Implementation of the Project, particularly the potential for impacts resulting from the accidental release of oil into the environment, conflicts with the City of Goleta Coastal Zoning Ordinance, several policies of the Goleta GP/CLUP and with the Coastal Act upon which the Goleta GP/CLUP is based. Coastal Zoning Ordinance Section 35-160 and policies LU10.1 and LU10.4 of the City of Goleta's GP/CLUP are among the policies with which the Project is in conflict. As a result of these land use conflicts, this impact is significant and unavoidable.
Impact LU-2: Oil Releases Could Affect Recreational Activities	Impacts from accidental oil releases could preclude the use of beach areas and associated recreational activities. Shoreline and water-related uses will be disrupted by oil on the beach and in the water. While not readily quantifiable, a coastal spill could significantly affect coastal recreation and tourism, resulting in lost commercial recreation and tourism revenues. Because it is impossible to predict with any certainty the potential consequences of spills, impacts are considered to be significant and unavoidable, because large spills could have residual impacts that could affect the beach and recreational uses.
Impact LU-3: Oil Releases from Pier 421-2 or Pipelines Could Affect Sensitive Area Resources and Raise Consistency Issues with Adopted Policies	Although spills from Project facilities are anticipated to be limited, even spills of limited magnitude will exceed adopted thresholds. Conflicts with the Goleta GP/CLUP Conservation Element Policy will result from an oil spill impacting such resources. ESHAs designated in Policy CE 1.2 include: all marine areas offshore Goleta extending from the MHT line seaward to the outer limit of State waters; all areas extending from the MHT line landward to the top of the ocean bluffs; Tecolote Creek and Lagoon; Bell Canyon Creek and Lagoon; Sandpiper Golf Course pond; and Devereux Creek.
Impact LU-4: Cumulative Impacts of Potential Project-Related Oil Spills on Area Land Use and Recreational Uses	The risk of an oil release associated with Project operation will contribute to impacts to the cumulative environment given increased demand for the transportation of oil. Over the Project lifetime, this represents an incremental increase in spill risk and oil spill risks to land uses and recreational uses associated with that increase. Other projects will contribute to the spill risk, exacerbating an already significant impact.

Impact	Impact Description
Public Services	
Impact PS-1: Adequacy of Fire Response	The SBCFD has determined that the most under-served area in Goleta is the western part of the City, including the Project area, due to both response times and the population to firefighter ratio. Annual inspections, emergency response, and planning activities at the EOF and PRC 421 associated with the Project will incrementally add to the demand for fire protection services. Because the Project area is currently underserved in terms of both an acceptable ratio of firefighter-to-population ratio and in terms of the fire service response time, potential impacts to fire protection and emergency response services are considered significant for the Project.
Aesthetics/Visual Resources	
Impact VR-2: Visual Effects from Accidental Oil Spills	A large spill from the Project could cause visual impacts ranging from oil sheens to heavy oiling including floating lumps of tar. Heavy crude oil may disappear over the duration of several days, with remaining heavy fractions floating at or near the surface in the form of mousse, tarballs, or mats, and lasting from several weeks to several months. Although the potential for spills is low and volumes are not likely to be large, such oiling will result in a negative impression of the highly sensitive viewshed. Additionally, the impact of a spill could possibly last for an extended period of time, depending on the level of physical impact and clean up effectiveness. Even in events where light oiling disperses rapidly, significant impacts are expected.

B. ALTERNATIVES

As explained in California Native Plant Society v. City of Santa Cruz (2009) 177 Cal.App.4th 957, 1000:

When it comes time to decide on project approval, the public agency’s decisionmaking body evaluates whether the alternatives [analyzed in the EIR] are actually feasible... At this final stage of project approval, the agency considers whether ‘[s]pecific economic, legal, social, technological, or other considerations...make infeasible the mitigation measures or alternatives identified in the environmental impact report.’ Broader considerations of policy thus come into play when the decisionmaking body is considering actual feasibility than when the EIR preparer is assessing potential feasibility of the alternatives [citations omitted].

The four alternatives analyzed in the EIR represent a reasonable range of potentially feasible alternatives that could reduce one or more significant impacts of the Project. These alternatives include:

- 1) No Project Alternative;
- 2) No Production/Quitclaim State Oil and Gas Lease PRC 421 Alternative;
- 3) Reinjection at Platform Holly Alternative; and
- 4) Processing PRC 421 Oil at Las Flores Canyon Alternative.

As presented in the EIR, the alternatives were described and compared with each other and with the proposed Project.

Under State CEQA Guidelines section 15126.6, subdivision (e)(2), if the No Project Alternative is identified as the environmentally superior alternative, the EIR must also identify an environmentally superior alternative among the other alternatives. However, based on the analysis contained in the EIR, there is no clear environmentally superior alternative to the proposed Project that is capable of achieving the Project objective. No one alternative would eliminate the significant and adverse impacts of the proposed Project.

The four CEQA alternatives proposed and evaluated in the EIR were rejected for the following reasons.

- 1) **No Project Alternative.** This alternative would have greater environmental impacts when compared to the proposed Project, as oil produced from PRC 421 would be processed in the shore zone on Pier 421-2 instead of at the EOF, thus resulting in greater environmental impacts related to surf zone accidental spills. By moving the separation process from the EOF to Pier 421-2, this alternative would increase activity and equipment required on Pier 421-2 and would result in the potential for releases from separation equipment on the pier. Furthermore, Pier 421-1 would not be removed and Well 421-1 decommissioned. This alternative is not environmentally superior to the proposed Project.
- 2) **No Production/Quitclaim State Oil and Gas Lease PRC 421 Alternative.** This alternative is not environmentally superior to the proposed Project. The No Production/Quitclaim State Oil and Gas Lease PRC 421 Alternative would avoid all Project-related construction and operational impacts compared to the proposed Project. However, this alternative is not environmentally superior because of the potential, significant risk that oil may be released into the coastal environment due to the passive, gradual pressurization of the Vaqueros Reservoir.
- 3) **Reinjection at Platform Holly Alternative.** The Reinjection at Platform Holly Alternative is essentially the same as the Oil Processing on Pier 421-2 Alternative except produced water would not be injected in Well 421-1, but would be piped to Platform Holly for reinjection. Because processing would still occur on Pier 421-2, there would be a continued risk of an oil spill in the surf zone and this alternative would not substantially reduce or avoid any of the impacts identified for the proposed Project; therefore, similar to the No Project Alternative above, this alternative is not environmentally superior to the proposed Project.
- 4) **Processing PRC 421 Oil at Las Flores Canyon Alternative.** This alternative would have greater environmental impacts when compared to the proposed Project due to construction and operation of 9.7 miles of new pipeline from the EOF to the Receiving Station in LFC. In addition, construction and operation of up to 1.5 acres of new oil processing facilities at LFC would be required and

would result in additional environmental impacts. While the construction-related impacts for the new pipeline and processing facility would be short term, they would be substantially more severe compared to the limited construction impacts associated with the Project. Under this Alternative, potential operational impacts would also incrementally increase. The new pipeline system would require the use of three-phase operation (i.e., oil/gas/water emulsion). This would require a pressure-based, rather than volumetric, leak detection system, which would in turn decrease leak detection capabilities and increase the probability of a larger-sized spill if the pipeline ruptured or leaked. Additionally, operation of new facilities at LFC would introduce potential impacts associated with spills or releases from the 1.3-mile-long portion of pipeline and new processing facility in LFC into and along Corral Canyon Creek that would not occur under the proposed Project. The potential for a release of oil or hazardous materials from Pier 421-2 would be similar to the Project and would remain significant and unavoidable since this alternative would still entail production of oil at this location; however, potential impacts would be incrementally increased due to the presence of four chemical tanks ranging from 55 to 350 gallons being present on Pier 421-2 as such tanks could be damaged or subject to other causes of leaks. Because this alternative would introduce new environmental impacts and increase the severity of others, and result in many similar significant and unavoidable impacts to those that would occur under the proposed Project, this alternative would not be environmentally superior to the proposed Project.

Based upon the objectives identified in the Final EIR and the detailed mitigation measures imposed upon the Project, the CSLC has determined that the Project should be approved, subject to such mitigation measures (Exhibit C, Mitigation Monitoring Program), and that any remaining unmitigated environmental impacts attributable to the Project are outweighed by the following specific economic, fiscal, social, environmental, land use, and other overriding considerations.

C. BENEFICIAL IMPACTS OF THE PROJECT

State CEQA Guidelines section 15093, subdivision (a), requires the decision-making agency to balance, as applicable, the economic, legal, social, technological, or other benefits, including region-wide or statewide environmental benefits, of a proposed project against its unavoidable environmental risks when determining whether to approve the project.

Venoco is the current lease holder of State Oil and Gas Lease PRC 421 and CSLC staff has taken the position that PRC 421 remains in full force and effect, which means that Venoco continues to have the exclusive right and obligation to produce oil from the lease premises. One of the benefits of approving the Project and allowing Venoco to resume production from PRC 421 is that it will restart the process of depleting the oil reserves to a point that it is no longer economical to produce at which time the facilities can be ultimately abandoned and decommissioned. The wells have been shut-in since 1994 and prolonging the restart of production prolongs the Project's duration. Although it is speculative to know the when the exact end of production would occur, it is currently

estimated at 20 years. The proposed Project, however, does have the immediate benefit of abandoning Well 421-1 and removing the associated Pier 421-1 as it will no longer be used as an injection well for the Project. This will improve the aesthetics of the Project area and provides much less infrastructure on the beach.

Restarting production of PRC 421 will also allow pressure monitoring of the reservoir for the Commission's engineers to get a better understanding of repressurization occurring within the reservoir. The current evidence available indicates that reservoir pressures have risen since the well shut-in in 1994. In the event that the reservoir pressure continues to increase, there is the potential, significant risk that the oil and gas could leak from either natural seeps or through historic wells that were abandoned under antiquated standards. Currently, Commission engineers cannot collect pressure data of the reservoir and Venoco has no obligation under the lease to perform pressure testing without approval of a Project to return PRC 421 to production.

It is the expert opinion of the Commission's staff engineers that depressurizing the Vaqueros Formation will reduce the risk of seepage from occurring, and that only by resuming production of PRC 421 can depressurizing occur. The resumption of production at Well 421-2 allows for a monitored and controlled release for the oil, gas and pressure. While the evidence indicates that the Vaqueros sandstone formation may continue to re-pressurize, even if production resumes at PRC 421, the production will remove oil and gas from the formation so that when the operation ceases there will be less oil and gas in the formation available to seep from the orphan wells.

Continuing to have the lease in place and in full force also protects the interest of the State through indemnification and liability from the facilities and operations. Basically, Venoco or any future lease holder will be liable for any issues that may arise from operations and will be ultimately responsible for properly decommissioning the facilities at the end of the economic life of the Project.

The Project will also provide a domestic production of oil for delivery to markets in the San Francisco and Los Angeles areas contributing to energy independence from imported oil sources and provide an economic benefit by reestablishing the State's royalty on the oil production that will provide revenues to the General Fund.

D. CSLC ADOPTION OF STATEMENT OF OVERRIDING CONSIDERATIONS

As noted above, under Public Resources Code section 21081, subdivisions (a)(3) and (b) and State CEQA Guidelines section 15093, subdivision (a), the decision-making agency is required to balance, as applicable, the economic, legal, social, technological, or other benefits, including region-wide or state-wide environmental benefits, of a proposed project against its unavoidable environmental risks when determining whether to approve a project.

For purposes of CEQA, if the specific economic, legal, social, technological, or other benefits of a proposed project outweigh the unavoidable significant environmental effects, the decision-making agency may approve the underlying project. CEQA, in this

respect, does not prohibit the CSLC from approving the Project, even if the activities authorized by that approval may cause significant and unavoidable environmental effects. This balancing is particularly difficult given the significant and unavoidable impacts on the resources discussed in the EIR and these Findings. Nevertheless, the CSLC finds, as set forth below, that the benefits anticipated by implementing the Project outweigh and override the expected significant effects.

The CSLC has balanced the benefits of the Project against the significant unavoidable impacts that will remain after selection of the Approved Project and with implementation of all feasible mitigation in the EIR that is adopted as enforceable conditions of the CSLC's approval of the Project. Based on all available information, the CSLC finds that the benefits of the approved Project outweigh the significant and unavoidable adverse environmental effects, and considers such effects acceptable. The CSLC adopts and makes this Statement of Overriding Considerations with respect to the impacts identified in the EIR and these Findings that cannot be reduced to a less than significant level. Each benefit set forth above or described below constitutes an overriding consideration warranting approval of the project, independent of the other benefits, despite each and every significant unavoidable impact.

E. CONCLUSION

The CSLC has considered the Final EIR and all of the environmental impacts described therein including those that cannot be mitigated to a less than significant level and those that may affect Public Trust uses of State sovereign lands. The CSLC has considered the fiscal, economic, legal, social, environmental, and public health and safety benefits of the Project and has balanced them against the Project's significant and unavoidable adverse environmental impacts and, based upon substantial evidence in the record, has determined that the benefits of the Project outweigh the adverse environmental effects. Based on the foregoing and pursuant to Public Resources Code section 21081 and State CEQA Guidelines section 15093, the CSLC finds that the remaining significant unavoidable impacts of the Project are acceptable in light of the economic, fiscal, social, environmental, and public health and safety benefits of the Project. Such benefits outweigh such significant and unavoidable impacts of the Project and provide the substantive and legal basis for this Statement of Overriding Considerations.

The CSLC finds that to the extent that any impacts identified in the Final EIR remain unmitigated, mitigation measures have been required to the extent feasible, although the impacts could not be reduced to a less than significant level. Based on the above discussion, the CSLC finds that the benefits of the Project outweigh the significant unavoidable impacts that could remain after mitigation is applied and considers such impacts acceptable.

EXHIBIT E – REVISED PRC 421 RECOMMISSIONING PROJECT TIMELINE

1928 to early 1940s	1928	The Ellwood Oil Field was discovered by Barnsdall Oil Company. Construction of piers to develop the Field began.
	1929	The Surveyor-General, the CSLC's predecessor agency, issued the original oil and gas lease, Lease No. 89, for what is now Lease PRC 421.
		From 1929 to early 1940s, the Ellwood Oil Field was developed by wells drilled from manmade piers; 74 wells were drilled on seven separate state oil and gas leases.
1940s to 1993		From the 1940s to the 1990s, 35 more wells were drilled on the remaining oil and gas leases for a total of 109 wells, all producing from Vaqueros sandstone formation in the Ellwood Field, including two wells in what is now Lease PRC 421.
	1949	The CSLC terminated Lease No. 89 and issued PRC 421 to Bankline Oil Company. PRC 421 continued the exclusive right to the lessee to produce oil and gas from the lease premises. In the years to follow, a series of lease assignments and corporate name changes occurred.
	1959	The CSLC extended the PRC 421 lease term to the existing lessee, Signal Oil and Gas Company, for <i>"five (5) years, and for so long thereafter as oil or gas is produced in paying quantities or the Lessee shall be conducting producing, drilling, deepening, repairing, redrilling, or other necessary lease or well maintenance operations on the leased lands."</i>
		By 1993, all but Wells 421-1 and 421-2 had become uneconomic to produce and were plugged, abandoned and their piers removed. Based on California Department of Conservation's Division of Oil, Gas, and Geothermal Resources (DOGGR) well records and knowledge of historical abandonment practices, many of the original 74 orphan wells were abandoned in ways that do not meet modern standards.
1994 to date (PRC 421 is and remains shut-in)	1994	The existing lessee, Mobil, shut down operations in May after an onshore oil spill from the transportation pipeline. Mobil subsequently repaired the pipeline and remediated saturated soil affected by the spill. PRC 421 has remained shut-in, except for emergency purposes during a 10-month period in 2000-2001 (see below), since 1994.
	1997	The CSLC reassigned Lease PRC 421 from Mobil to Venoco.
	2000 to 2001	A methane gas leak was detected at Well 421-1 and oil seepage was detected around the Well 421-2 wellhead. CSLC staff directed Venoco to obtain all necessary permits and conduct well repairs to eliminate any pollution or public safety risk. Entry into Well 421-1 and Well 421-2 to conduct repairs, however, could not commence safely until pressure, built up in the well bores since the wells were shut-in in 1994, was relieved. In order to relieve the pressure, a temporary pipeline was installed from the wells to the Ellwood Onshore Facility (EOF) to relieve well bore pressure. The period of pressure relief was about 10 months, during which a total of approximately 17,000 barrels of oil flowed from the well to the EOF.
	2013 to 2014	Venoco seeks CSLC authorization (Venoco 2013; Appendix G) to: <ul style="list-style-type: none"> 1) return PRC 421 to oil production from the existing Well 421-2; and 2) process PRC 421 crude oil emulsion at the EOF.