California State Lands Commission

PART II – RESPONSES TO COMMENTS

Final Environmental Impact Report for the
Revised PRC 421 Recommissioning Project, November 2014

PART II. RESPONSES TO COMMENTS

Pursuant to State California Environmental Quality Act (CEQA) Guidelines section 15088, the California State Lands Commission (CSLC or Commission), as CEQA lead agency, is required to evaluate comments on environmental issues received from persons who reviewed the Recirculated Draft Environmental Impact Report (EIR) prepared for the Revised PRC 421 Recommissioning Project (Project) and to prepare a written response. The lead agency must respond to comments received during the noticed comment period and may respond to late comments. The State CEQA Guidelines further require the lead agency to describe in its written response the disposition of significant environmental issues raised (e.g., revisions to the proposed Project to mitigate anticipated impacts or objections). If the lead agency's position varies from recommendations and objections raised in the comments, the agency must address the major environmental issues raised and give details to explain why any specific comments and suggestions were not accepted.

Part II of this Final EIR contains copies of the comment letters and oral comments (excerpts from transcripts of the two public meetings on the Recirculated Draft EIR) and the CSLC's responses. Fourteen written comment letters were submitted on the July 2014 Recirculated Draft EIR during the 60-day public review period (July 24, 2014, through September 24, 2014). Four speakers gave oral comments at the public meetings, which the CSLC staff held in the City of Goleta on September 15, 2015 (see below for details).

To reduce redundancy, the CSLC has prepared both (1) Master Responses to several general or recurring comments (Subpart II.A) and (2) responses to significant environmental issues raised in individual comments (Subpart II.B). Responses to comments are presented in the order listed in Table II-1 and are organized as follows:

- Each commenter is given a unique comment set and code that refers to the agency, organization, or person submitting the comments. The comment set includes all written and/or oral comments provided by that commenter, including multiple submittals of comments, if applicable.
- Individual comments are numbered in the margins of each comment letter and/or the corresponding transcripts from the two public meetings held on the July 2014 Recirculated Draft EIR; correspondingly numbered responses follow each comment set.

Part III of this Final EIR contains the complete EIR with revisions to the text of the July 2014 Recirculated Draft EIR shown in strikeout and underline that were made in response to comments that required changes for the reasons stated on page I-1. The following conventions are used to indicate how the June 2014 Recirculated Draft EIR text was changed during EIR finalization in Part III of this Final EIR:

- <u>Underlined text</u> represents text added to the EIR (in some cases moved from another location in the document, in other cases new text).

- ~~Strikeout text~~ represents text removed from that location in the EIR (in some cases moved elsewhere, in other cases deleted entirely).
- Figures updated from those presented in the Recirculated Draft EIR are marked [revised].

Table II-1 Order of Responses to Comments, Commenters on Recirculated Draft EIR, and Comment Identification Numbers Used in this Final EIR

MASTER RESPONSES TO RECURRING COMMENTS			
Comment ID #			
MR-1		Duration of Project and Production at Platform Holly	
MR-2		Continued Use of the EOF	
MR-3		Repressurization and Repressurization Monitoring	
MR-4		Use of Shared Facilities at Las Flores Canyon	
MR-5		Mitigation of Greenhouse Gas Emissions	
Comment Set/ID #		*Name of Commenter*	*Date*
GOVERNMENTAL AGENCY			
1	CG-1 to CG-37	City of Goleta	09/24/14
2	SBC-1 to SBC-8	County of Santa Barbara	09/24/14
3	APCD-1; APCD-2	Santa Barbara County Air Pollution Control District	09/08/14
4	DOGGR-1	California Department of Conservation, Division of Oil, Gas, and Geothermal Resources	08/26/14
5	USACE-1	U.S. Army Corps of Engineers	12/19/13
GROUPS / ORGANIZATIONS			
6	CBD-1 to CBD-9	Center for Biological Diversity	09/24/14
7	EDC-1 to EDC-20	Environmental Defense Center (including oral comments: Linda Krop])	09/24/14
8	GOO-1 to GOO-9	Get Oil Out! (oral comments: Carla Frisk)	09/15/14
9	CK-1 to CK-6	Santa Barbara Channelkeeper	09/24/14
PUBLIC			
10	IC-1 to IC-26	Ingeborg Cox, MD (including oral comments)	09/20/14
11	ESD-1	Ed and Susan Dougherty	09/04/14
12	ML-1	Michael Lopez (oral comments)	09/15/14
13	BM-1 to BM-3	Barbara Massey (oral comments)	09/15/14
14	DM-1	D. A. Metrov	09/04/14
15	NWV-1; NWV-2	Nancy Vasquez and William Vasquez	07/28/14
APPLICANT			
16	VEN-1	Venoco, Inc.	09/23/14

SUBPART II.A. MASTER RESPONSES (MR-1 THROUGH MR-4)

MR-1 DURATION OF PROJECT AND PRODUCTION AT PLATFORM HOLLY

Commenters on the Recirculated Draft EIR raised several issues regarding the Project's anticipated duration and the projected life of Platform Holly, including the possibility that the Project would extend the life of the Ellwood Onshore Facility (EOF) if production is authorized for PRC 421.

Commenter issue: Why is the anticipated Project duration stated as 12 years in the Notice of Preparation (NOP) and as 20 years in the Recirculated Draft 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. Since each of these factors can be variable over time, reported values derived from these factors represent a snapshot in time. In general, the economic limit of an oil and gas project is reached when operating expenses exceed revenues. Small changes in any one of these variables will have a significant effect on economic life. The estimate of 12 years provided in the October 2013 NOP was based on then current information regarding the economically recoverable oil. This estimate is no longer accurate based on current and reasonably foreseeable oil prices, which are forecasted to increase over the Project life based on historic pricing trends. For example, U.S. oil prices increased 95.8 percent over a 9-year period between June 2005 (the NOP date of the original PRC 421 project) and the publication of the Recirculated Draft EIR.[1] While oil prices are volatile and have fallen recently, the long-term trend of increasing prices indicates that the price of oil will likely continue to increase and, as a result, extend the reported Project duration to an estimated 20 years; the most recent drop in oil prices would correspondingly affect the reported Project duration if all other factors remained the same. Technological advancements in oil recovery also have the potential to extend the life of an oil project. It has been asserted that technological advances are speculative; however, oil production technology has advanced significantly over the last 40 years with developments. For example, directional drilling has allowed for expanded ability to reach greater areas of an oil field and to produce oil from a single platform or well. Further, **although not proposed as part of this Project**, hydrologic fracturing ("fracking") has vastly expanded oil production in the U.S., with the first expansion of domestic production in more than 30 years occurring in states such as North Dakota and Pennsylvania. The current estimate of the production life for the Project, as evaluated in the EIR, of "at least 20 years," is based on reservoir modeling calculations and market forecasts completed by Venoco and independently reviewed by the CSLC's Mineral Resources Management Division staff.

Direct comparison between the production life of Platform Holly and PRC 421 is inappropriate as there are substantial differences in the amounts of recoverable oil present in the Ellwood and South Ellwood Oil Fields. While the Ellwood Oil Field has

[1] The crude oil price index that was used represents world market oil prices and is based on the simple average of three spot prices: Dated Brent, West Texas Intermediate, and the Dubai Fateh.

been produced for more than 80 years, the South Ellwood Oil Field has been in production approximately half of that time, and it is known that substantial amounts of recoverable oil exist within the South Ellwood Oil Field. For example, the South Ellwood Oil Field holds an estimated 840 million to 1.95 billion barrels of remaining oil in place, although only a portion may be fully recoverable (Adjustment to Easterly Boundary of PRC 3242.1; application submitted to CSLC by Venoco, 6/30/2014).

As a point of clarification, CEQA does not require a lead agency to conduct a speculative worst case analysis. Rather, the analysis must consider a reasonably foreseeable worst case scenario (*North Coast Rivers Alliance v. Marin Municipal Water District Board of Directors* (2013) 216 Cal.App.4th 614, 635.). The Project life of 20 years is the reasonably foreseeable production life of the Project based on current prices and technology. Therefore, the projected remaining life of PRC 421 represents an estimate based on the available evidence and provides an accurate, stable, and finite description of the Project for environmental review.

Commenter issue: Why is there a difference between the anticipated lifetime of Platform Holly in past EIRs, including the 25-year estimate in the October 2013 Draft EIR, versus the Recirculated Draft EIR, which includes a 40-year estimate?

The expected life of Platform Holly is subject to similar dynamic variables as discussed above. Because the forecasted price of oil is expected to increase over the life of the Project, projected revenues relative to costs would increase, indicating that production from Platform Holly may be economically viable for a longer period of time. A mid-year 2013 reserve analysis that was performed by an independent petroleum industry consulting firm for Venoco estimates the economic limit of Platform Holly to be 2055. Therefore, this new information of the estimated lifetime for Platform Holly production was incorporated into the July 2014 Recirculated Draft EIR.

Commenter issue: PRC 421 oil production may extend the life of the EOF.

Venoco's Project application states the EOF will be decommissioned when the production life of Platform Holly ends, regardless 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 from Lease PRC 421 (see Section 2.2 of the EIR). 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.

Commenter issue: Without a definite end date, because the lease is held so long as there is production in paying quantities or lease/well maintenance, there is no way to evaluate the long-term impacts.

As stated in Section 2.2 of the EIR, processing of oil from PRC 421 at the EOF will cease prior to the end of production at Platform Holly. In the event that production continues at PRC 421 beyond the EOF's lifetime, the production would have to go

elsewhere for processing. Pursuant to State CEQA Guidelines section 15144 (Forecasting), while an agency cannot foresee the unforeseeable, it must use its best efforts to find out and disclose all that it reasonably can. Based on the current and reasonably foreseeable price of oil, production from Lease PRC 421 is anticipated to be 20 years. Section 15145 of the State CEQA Guidelines further provides that if, after thorough investigation, an impact is too speculative for evaluation, the agency need only note its conclusion and terminate discussion of the impact. There is no way to know for certain whether the oil and gas resources underlying the Lease PRC 421 area will continue to be economically recoverable beyond 20 years, perhaps due to an unforeseeable increase in oil prices or technological advances in oil recovery, and any further estimate would be speculative. Venoco is obligated under its lease and also by Public Resources Code section 6830 to achieve the maximum economic recovery of oil. Placing an artificial endpoint on the Project production would be inconsistent with Venoco's lease terms and Public Resources Code section 6830. Because the reasonably foreseeable production from Lease PRC 421 is expected to terminate prior to the end of production on Platform Holly (which would terminate all processing at the EOF), there is no evidence to support the contention that future impacts, not already assessed, would occur. The estimate of the Project duration reported in the EIR provides an accurate, stable, and finite description of the Project for environmental review in compliance with the State CEQA Guidelines.

MR-2 CONTINUED USE OF THE EOF

Commenters on the Recirculated Draft EIR raised several points regarding the continued use of the EOF, which they characterized as aging, as well as its designation as a legal nonconforming use.

Commenter issue: The EOF is an aging facility in need of significant improvements and modifications in order to safely process oil from PRC 421.

The EOF is subject to intensive safety inspections by various local and state agencies, and has undergone substantial improvements over the last 20 years to maintain safe operation of the facility. This combination of rigorous ongoing inspections and required improvements has led to ongoing updates and improvements to EOF systems. Many safety and operational improvements have occurred at the EOF over the last 20 years to improve performance while it has been operating as a non-conforming use. These improvements include the installation of and modifications to the Grace unit, which is a component of gas processing that removes carbon dioxide (CO_2) from the sales gas stream to increase the efficiency of CO_2 removal, modifications to underground storage tanks, installation of an odor station and fenceline air quality monitors, and safety instrument upgrades for the York skid refrigeration unit and LoCat system for sulfur absorption, which are both utilized during natural gas processing. These improvements were implemented to address odor complaints of area residents, improve safety, and to replace aging or defective equipment. Table MR-2 outlines some of the more substantial modifications and upgrades and a list of additional minor upgrades or maintenance actions can be found in Appendix K.

Table MR-2: Ellwood Onshore Facility Modifications and Upgrades

	Modification	Year
1.	Installation of Grace unit, a component of Venoco's gas processing stream consisting of four membranes that strip CO_2 and other inert gases from the sales gas. This replaced the previous Fluor unit for CO_2 removal	1992
2.	Replacement of portions of broken 6" pipeline under Emergency Permit conditions	1994
3.	Removal of Odor Abatement System (OAS) and reroute sulfide gas flows to existing thermal oxidizer, a processing unit for air pollution control that decomposes hazardous gases at a high temperature and releases them into the atmosphere	1997
4.	Installation of GSF Energy odor station and Met, Data Acquisition System (DAS) and hydrogen sulfide (H_2S) fenceline air quality monitors	2000
5.	Phase 2 modification to Grace CO_2 removal unit with the addition of four membrane tubes	2003
6.	Cathodic protection upgrades for equipment and underground process piping	2004
7.	Underground diesel storage tank modifications and installation of new sump and dispenser tanks	2004
8.	Safety instrument upgrade for York skid, a refrigeration unit that cools gases, with installation of additional instruments to monitor critical temperature points on the existing York Skid motor	2004
9.	Safety instrument upgrades related to the LoCat system, used for absorbing sulfur during the processing of natural gas	2005
10.	Phase 3 Grace unit membrane upgrade	2005
11.	Replacement of the exterior coating on the Platform Holly-EOF oil & gas pipeline	2006
12.	Installation of two additional membrane tubes to the Grace unit	2008
13.	Replacement of existing burner and blower on thermal oxidizer (H-205) with new units	2010
14.	Construction of new pipeline from EOF to Plains Pipeline (PAAPLP)	2010
15.	Addition of a pump skid, a platform where pumps are installed, to blend natural gas liquids (NGLs) and liquefied petroleum gas (LPG) into the crude sent by pipeline	2011-2014

Sources: APCD 2011. Final District Reevaluation permit to operate No. 7904-R9 Venoco, Ellwood Onshore Facility. December. Available at http://www.sbcapcd.org/eng/titlev/permits/p7904r9.pdf
Venoco 2006. Platform Holly to Ellwood Onshore Facility 6" Oil and 6" Gas Pipeline Beach Crossing Exterior Coating Repair Project Execution Plan. May.
Santa Barbara County 2003. Energy Division Memorandum: Venoco's Grace Unit Modification Recommended for Building Permit, February 11.
Santa Barbara County 2004. Memorandum: State Lease 421. July 29.
Santa Barbara County Energy Division Letter to Steven A. Greig 2004. Re: Safety Instrument Upgrade for York Skid. December 21.
Santa Barbara County Energy Division Letter to Steven A. Greig 2005. Re: Safety Instrument Upgrades Related to the LoCat System. February 3.
Santa Barbara County Energy Division Letter to Vytautas P. Adomaitis 2004. Re: Venoco Ellwood EOF Cathodic Protection Inspection Record. September 13.

Operation and safety of the EOF is subject to review and oversight by multiple agencies. The System Safety and Reliability Review Committee (SSRRC), a countywide interagency group with participation from the Santa Barbara County Air Pollution Control District (APCD), reviews maintenance and safety issues at the EOF. A review of records of the last 3 years of SSRRC issues and their current status showed no "significant potential for serious issues." Regular inspections are performed by APCD, the Santa Barbara County (County) Fire Department, the County Office of Emergency Management, and an engineer and electrician from Building and Safety Division of the Planning & Development Department (P&D) under contract with the City of Goleta. In addition, a full-day inspection is conducted by the Energy and Minerals Division of P&D under contract to the City of Goleta that includes representatives of all the above County departments to provide a comprehensive interagency review of systems safety and reliability at the EOF. The EOF is also subject to inspections at least once a month by the State Division of Oil, Gas, and Geothermal Resources (DOGGR). Additionally, this facility will continue to perform modifications to improve safety and reduce emissions as required under the existing inspection regimen and as allowed by the City of Goleta. In addition, if required, PRC 421 production can be shut down in less than 5 minutes (refer to page 4-84).

In addition to these ongoing inspections by local agencies, the EOF was also subject to Safety and Oil Spill Prevention Audits conducted by the CSLC staff in 2008 and 2011. These audits concluded that the EOF design and strategy was based on sound engineering principles and accepted industry practices and contained a high level of compliance.

Commenter issue: The proposed modifications and improvements at the EOF cannot lawfully be constructed because the EOF is a legal nonconforming use, and, accordingly, significant modifications would likely result in termination on the EOF's nonconforming status.

At this time, the EOF is a fully permitted and operating facility and the owner asserts that it intends to continue operating this facility under its existing permits as a legal nonconforming use. However, the modifications and improvements that are proposed under the Project would be considered by the City of Goleta as the responsible agency with permit authority over modifications to EOF. The City of Goleta would review anticipated modifications and improvements to determine if they qualify as substantial structural changes or an extension or expansion of the nonconforming use. In the case that these modifications and improvements do qualify as such, the City would then have to determine if they can be approved under City ordinances. These future determinations are a function of the City of Goleta decision-makers as the permitting authority over the EOF.

This Final EIR addresses the environmental impacts associated with the proposed Project, including changes to the EOF. The purpose of this Final EIR is to analyze the Project as proposed by the Applicant for its potential effects on the physical environment, along with a reasonable range of alternatives. The EIR discloses the potential for conflicts with adopted City policies and ordinances regarding PRC 421 and

the EOF, as well as the potential for the City to find the Project consistent with City policies and ordinances, which is the function of an EIR. 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.

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 barrels of oil per day (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. The proposed Project would include minor changes to the EOF, including installation of various pressure sensors and gauges and installation of a programmable logic controller (PLC), transformer, and electrical motor control panel. In general, under State planning and zoning law, local zoning ordinances can provide a workable framework for the maintenance and continuation of legal non-conforming uses, as well as a process for bringing them into conformance when changes or improvements take place. Based on the City of Goleta's zoning code, all improvements proposed at the EOF will be reviewed for conformity with the City's code regarding nonconforming uses.

MR-3 REPRESSURIZATION AND REPRESSURIZATION MONITORING

Commenters on the Recirculated Draft EIR raised several issues regarding the evidence for repressurization and the potential for measuring repressurization without authorizing production of PRC 421.

Commenter issue: There is not enough evidence of repressurization. Also, repressurization of the Vaqueros Reservoir may continue after production ceases, resulting in continued environmental hazards.

As discussed in the EIR, based upon the best available information, repressurization of the Vaqueros Reservoir is an ongoing natural phenomena and an element of the environmental baseline that will occur 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 a temporary reduction in formation pressure necessary to generate data needed for long-term planning. The removal of oil through the production lifetime reduces the potential quantity of oil that could be released into the environment associated with repressurization concerns.

The pressure in the Vaqueros Reservoir increased throughout the time it was measured from August 1987 through November 2000, as shown in Figure 4.2-2. The total pressure increase from 1987 to 2000 was from approximately 690 pounds per square inch (psi) to 1,350 psi. The rate of increase in pressure from the year 1987 to 1994 was 55 psi per year. During the time period Well 421-2 was shut in, the pressure continued to increase at a slightly higher rate of climb, approximately 62 psi per year, from 1996 to 2000 (see Figure 4.2-2). Following the emergency production of oil in 2000, Well 421-2 was again shut-in thereby eliminating the possibility for future pressure measurements and monitoring. These measurements are readings of the pressure within the reservoir at the bottom hole location in the reservoir. These bottom hole pressure readings were determined from measurement instruments that record fluid rise inside the well bore. The higher the fluid levels within the well, the greater the pressure at the bottom of the well at reservoir depth.

The pressure increase appears to be a natural condition that occurs due to aquifer influx, which is natural groundwater movement. The Vaqueros formation is a layer of sandstone deposits that occurs both onshore and offshore. Groundwater and sea water entering the formation over time provided the original reservoir pressure at the reservoir depth. When the oil field was developed and under full production from all of the 109 historic wells, the withdrawal of reservoir fluids was depleting the pressure from within the reservoir. Many years later, when wells of various operators began to be abandoned, fluid withdrawals diminished until only one well, 421-2, was producing. During this period of reduced production, the constant rate of aquifer water feed began to exceed the reservoir withdrawals, and the pressure began to climb.

CSLC staff believes that the natural forces that caused the original pressurization have not changed, and are still ongoing. Substantial evidence exists to support 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, as documented in Appendix C, Safety.

Evidence of the hazards of repressurization was seen in 2000 when both PRC 421 wellheads developed gas leaks. In order to repair the leaks, the pressure within Well 421-2 had to be relieved to be able to safely enter the well. Venoco installed a temporary pipeline at Well 421-2, and when it was subsequently opened it flowed unaided an estimated total of 17,000 barrels of nearly pure oil over the next 10 months until pressure was reduced to the point that it could be safely re-entered. Repressurization has the potential to result in similar hazards at some of the older wells that were abandoned at lower than current standards, possibly resulting in seepage of gas or oil.

The pressure in the Vaqueros Reservoir is expected to increase over time, including following completion of the proposed Project, as groundwater continues to enter the formation. The pressurization monitoring that is included as part of the proposed Project would provide additional information regarding this issue so that the CSLC can work toward formulating a long-term solution after the Project is complete.

Commenter Issue: There is no clear demonstration that allowing the proposed Project will resolve the concern of repressurization. The proposed Project does not analyze other mechanisms available to resolve the pressurization issue. Also, the potential effect of elevating the pressure in the field knowing that there are improperly abandoned wells offshore needs to be clearly analyzed.

The Applicant is not responsible for ongoing or future pressurization of the reservoir or for previously abandoned wells that were not part of its operations; however, producing oil from PRC 421-2 would reduce pressure in the reservoir for the short- to mid-term (i.e., estimated 20-year Project life), reducing potential for a leak from a previously capped well or a natural seep. Additionally, over the long term, draining oil from this reservoir would leave less oil in the formation subject to potential release due to repressurization. This would reduce the potential for a leak, as well as the size of the leak, if one were to occur. The pressure monitoring results obtained from Venoco over the productive life of PRC 421 would also help inform the CSLC and other agencies, including DOGGR, of the repressurization issue so that the State could develop an appropriate response to repressurization and potential for accidental oil releases.

The purpose of this Final EIR is to analyze the Project as proposed by the Applicant for its potential effects on the physical environment. Although this document includes analysis of repressurization of the Vaqueros Reservoir and the Project's potential effects on repressurization, as well as discussion of the potential environmental hazards associated with previously abandoned wells, it is not intended as an evaluation of potential solutions to the repressurization issue or of the hazards associated with existing abandoned wells. Reducing the buildup of pressure and removing oil from the reservoir that may otherwise leak into the environment due to repressurization of the oil field, as well as repressurization monitoring during the life of the Project, are benefits that would help to reduce potential impacts related to repressurization. Pursuant to State CEQA Guidelines section 15144, while an agency cannot foresee the unforeseeable, it must use its best efforts to find out and disclose all that it reasonably can. The data that would be collected by the Project are integral to assessing the future risks of repressurization of the formation. Any issues regarding future repressurization will be addressed by the CSLC, DOGGR, and other interested agencies as part of ongoing management of the State's offshore resources. While the precise degree of repressurization of the formation and its resultant potential for risk of significant offshore oil leaks may be unknown, the absence of the Project has the potential to incrementally increase potential for such leaks and would deprive agencies from obtaining essential information on repressurization. This reinforces the findings in the EIR that the Project is an environmentally superior option.

MR-4 USE OF SHARED FACILITIES AT LAS FLORES CANYON

Commenters on the Recirculated Draft EIR raised several issues regarding oil processing at Las Flores Canyon (LFC), including use of shared facilities and alternatives to wastewater disposal at this location. Comments regarding use of shared facilities generally requested more information about why PRC 421 emulsion could not be commingled with ExxonMobil's production that is currently processed at the LFC facility. Comments about wastewater disposal alternatives suggested trucking to dispose of wastewater, rather than using another pipeline to ship wastewater to PRC 421-1 for disposal.

Commenter Issue: What is the reason that PRC 421 production cannot be commingled with ExxonMobil production for processing at LFC?

The LFC facility is owned and operated by ExxonMobil. The Applicant met with ExxonMobil to discuss potential commingling of production at the existing LFC facility. As discussed as part of Alternative 4 of this EIR, *Processing PRC 421 Oil at Las Flores Canyon*, ExxonMobil has capacity to allow only for PRC 421 gas to be commingled and processed along with its production. However, ExxonMobil responded that it presently lacks processing capacity to admit additional wet crude oil into its dehydration plant and does not have facilities for disposing of wastewater generated by the proposed Project. Therefore, the Applicant would have to develop separate new dehydration facilities to process wet oil, as well as facilities for wastewater disposal. Adequate space was identified at the LFC site for the Applicant to develop its own facilities, as discussed in detail in Section 5.3.4.

In addition to capacity constraints, shared use of processing facilities at LFC is limited based on the ability to measure oil and gas streams. The federal Bureau of Safety and Environmental Enforcement (BSEE) "best practices" for royalty accounting, as well as those of the CSLC and DOGGR, do not permit commingling of State and federal produced oil and gas without first metering the independent streams. Because the PRC 421 three-phase emulsion is wet, it cannot be measured accurately nor commingled with the ExxonMobil's production stream until after it is dehydrated. In order to dehydrate PRC 421 production, a complete stand-alone dehydration train, independent of ExxonMobil, would be required.

Commenter Issue: Under the LFC alternative, PRC 421-1 should be decommissioned regardless of water disposal limitations at LFC. Additional alternatives for disposal of produced water need to be explored, with the worst case scenario being trucking of produced water to a disposal site.

According to State CEQA Guidelines section 15126.6, subdivision (a), an EIR should describe a range of reasonable alternatives that would avoid or substantially lessen environmental impacts. An EIR does not need to consider every conceivable alternative. The Processing PRC 421 Oil at LFC Alternative was developed with the intent of reducing potential environmental impacts of the proposed Project. Accordingly, this alternative analyzed the method of water disposal that was thought to have the least

potential for impacts. In the event that wastewater injection is not possible at LFC, wastewater would need to be piped back to PRC 421-1 for disposal. This method is expected to have less impact to the environment than trucking wastewater for subsequent disposal, which would contribute to a range of resource area impacts, such as transportation, air quality, and greenhouse gas emissions (GHGs).

For example, under the Processing PRC 421 Oil at LFC Alternative, trucking of disposal water from the LFC to a disposal site would require the construction of a produced water holding tank, and a truck loading rack capable of loading both tank trucks and vacuum trucks. In order to return water to the EOF, additional construction of a truck off-loading station within the EOF, with associated pumps, storage facilities, and vapor recovery connections would be required. Based on an average 60 percent water cut increasing up to 90 percent over time in the emulsion produced at PRC 421-2 and an average of 150 BOPD dropping to 50 BOPD over the first 2 years, there would be a total of approximately 225 barrels (9,450 gallons) of process water per day at the beginning of the Project. Over time the water cut would rise, possibly reaching 90 percent as experienced in the early 1940s to mid-1960s. In this case, 50 BOPD of production would result in 450 barrels (18,900 gallons) of process water for disposal. Given the production of up to 450 barrels, approximately two to four trips per day would be required by 5,000- to 10,000-gallon capacity tanker trucks, depending on the size truck that is able to access the Project site. This would result in up to 15,000 to 30,000 truck trips over the Project life. These trucks would haul the wastewater to an appropriate disposal site, with associated impacts to air quality, GHGs, transportation, noise, safety, and hazards and hazardous materials. Transferring this water back to PRC 421-1, an established wastewater injection well, via pipeline would not require ongoing truck trips.

In accordance with State CEQA Guidelines section 15126.6, subdivision (b), “the discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project.” Due to the additional environmental impacts associated with the trucking of water, this alternative would not substantially lessen significant environmental impacts of the proposed Project and is therefore not included in this EIR for consideration.

MR-5 MITIGATION OF GREENHOUSE GAS EMISSIONS

Commenters on the Draft EIR raised several issues regarding mitigation measures for the emissions of GHGs.

Commenter issue: The Recirculated Draft EIR generally identifies potential mitigation measures but then – despite the stated feasibility of mitigation – improperly defers formulation of specific mitigation measures, and removes the topic from public purview. The Recirculated Draft EIR lacks any analysis regarding the effectiveness of the proposed measures, and fails to provide any measures that can be implemented as enforceable project conditions.

This EIR incorporates the following Mitigation Measures (MMs) related to GHG emission reductions: MMs AQ-1a, which prohibits unnecessary truck idling; AQ-1b, which encourages alternative fueled equipment and reduces construction emissions; and AQ-4, which is discussed in more detail below. These measures are fully enforceable through permitting conditions, regulations and agreements set by the California Air Resources Board (CARB), U.S. Environmental Protection Agency (EPA), and/or Santa Barbara County APCD; the implementation and monitoring of these measures are detailed in the Mitigation Monitoring Program (MMP) in Section 7.0. As the Lead Agency, the CSLC is responsible for enforcement and monitoring of all mitigation for the Project.

MM AQ-4 requires demonstration of required reductions in GHGs prior to commencement of construction and provides the public with the opportunity to comment on key elements of the mitigation measure, including a preference for onsite measures versus participation in adopted plans or programs. Specifically, MM AQ-4 requires the Applicant select a GHG reduction program, including onsite emissions reductions (such as transportation, building retrofit, and water efficiency programs) or participation in an adopted GHG management plan, accredited regulatory program or equivalent in order to reach GHG reduction targets. MM AQ-4 provides flexibility for the GHG reduction program to obtain the mitigation reduction goal and provides the CSLC and Santa Barbara County APCD with the flexibility to evaluate feasible approaches or measures. These recommended measures have been employed by public agencies and are listed as mitigation options in the Office of Planning and Research (2008) Technical Advisory on CEQA and Climate Change. These include increased on-site efficiency through equipment or operational modifications, implementation of off-site GHG reduction programs within Santa Barbara County, and the purchase of credits through sources such as CARB's Cap-and-Trade program or Climate Action Reserve. The overall GHG reduction program must be approved by the CSLC staff prior to commencement of construction.

The incorporation of State accredited programs and local adopted GHG reduction programs provide several vehicles for which the Project's GHG reduction program can achieve targets. Impact AQ-4 under Section 4.4, Air Quality and Greenhouse Gas Emissions, has been updated to include more information on these programs.

Cap-and-Trade Program: The Cap-and-Trade program, established in 2012 and administrated by CARB is a statewide initiative to achieve the requirements set by Assembly Bill (AB) 32. It establishes market-based GHG regulation and compliance mechanisms, setting a price on carbon emissions, and sets a firm annual cap on these emissions. Subsequently the cap will decline three percent per year. Legally enforceable regulations for the program have been included in the California Code of Regulations sections 95801-96022. Participants must first register with CARB through the Compliance Instrument Tracking System Service (CITSS), a market tracking system that provides accounts to participants and allows them to conduct transactions with other account holders. The CITSS issues participants allowances and compliance offsets, tracks compliance instruments, and supports market oversight of transfers.

Compliance instruments under the Cap-and-Trade program include annual GHG allowances issued by CARB and offset credits issued by CARB.

Participants must also report and verify annual GHG emissions and energy data for the Mandatory Reporting of Greenhouse Gas Regulation pursuant to California Code of Regulations, Title 17, section 95101, and AB 32 California Cap-and-Trade program under AB 32 (Cal. Code Regs., tit. 17, § 95802). The annual quantification of GHG emissions is included as part of MM AQ-4 as required by State mandatory GHG reporting programs. Participants are required to report the amount of transportation fuel supplied, therms of natural gas delivered to end users, therms received from interstate pipelines, energy delivered to the California transmission and distribution system, and combustion/ fugitive emissions. All data reported must be certified and completed under penalty of perjury. Further details on the Cap-and-Trade program may be found at http://www.arb.ca.gov/cc/capandtrade/capandtrade.htm.

Climate Action Reserve: The Climate Action Reserve is a carbon offset registry in North America and establishes standards for carbon offset projects, oversees independent third-party verification bodies, issues carbon credits generated from projects, and tracks the transaction of credits in a transparent, publicly-accessible system. The Climate Action Reserve first began in 2001 as the California Climate Action Registry, which addressed GHG emissions through voluntary public reporting of emissions. With the passing of AB 32 in 2006, CARB approved the Climate Action Reserve as an Offset Registry for the Cap-and-Trade program, allowing the Reserve to issue Registry Offset Credits and Early Action Offset Credits. Participants must register for an account through the Climate Action Reserve and submit the necessary supporting documents related to the registered project. The Reserve provides carbon offsets that meet the criteria of permanent, verifiable and enforceable benefits to the environment. Further information may be found at http://www.climateactionreserve.org/.

City of Goleta Climate Action Plan: The City of Goleta Climate Action Plan, created in 2014, includes an Emissions Reduction Plan that identifies various measures to effectively meet GHG reduction targets outlined in AB 32. The City's Emissions Reduction Plan targets sectors in building energy, transportation and land use, water consumption, waste generation, refrigerants, and municipal operations with the goal of a 15 percent reduction in GHG emissions by 2020. Measures selected for inclusion in the Climate Action Plan are statewide initiatives to improve building energy efficiency and renewable energy, and community measures and City-aided outreach programs. Examples of specific measures include energy efficiency retrofit programs for low-income housing, residential and commercial buildings, funding programs for residential and commercial solar installations, expansion of the Santa Barbara Metropolitan Transit District (SBMTD) network, and implementation of Goleta's Bikeways Plan. The effectiveness of these measures to reduce GHG emissions is detailed in Appendix B of the Climate Action Plan. In coordination with the City of Goleta, the Applicant may choose to participate in or contribute towards the measures and programs listed within the Climate Action Plan as a means of off-site mitigation of GHG emissions. The City of Goleta Climate Action Plan is available online at http://www.projectgoleta.com/wp-content/uploads/2014/06/COG-Final-Climate-Action-Plan.pdf

Commenter Issue: The CSLC cannot legally set a zero emissions threshold for GHG emissions either generally or for one particular type of industrial use.

Pursuant to State CEQA Guidelines section 15064.4, subdivision (b), a lead agency has the discretion to determine appropriate thresholds for GHG emissions with consideration to the extent to which a project increases GHG emissions compared to the existing setting. CARB also gives authority to individual agencies and jurisdictions to select GHG emission thresholds. Under CEQA (Pub. Resources Code, § 21001, subd. (d)), and *No Oil Inc. v City of Los Angeles (1974)* Cal. 3d 68, the Legislature seeks to protect the environment by the establishment of administrative procedures drafted to "ensure that the long-term protection of the environment shall be the guiding criterion in public decisions." As provided in Section 4.4.3 of this EIR, the zero emissions threshold was selected to assure no net increase in GHGs over baseline conditions and not to impede progress in meeting AB 32 mandated reductions or the goal of 80 percent reduction goals of GHGs by 2050 under Executive Order S-3-05.

While the California Natural Resources Agency (CNRA) states that section 15064.4, subdivision (b) does not necessarily imply a zero emissions threshold, this does not preclude the CSLC from selecting a zero net increase threshold of GHG emissions for the proposed Project. The CSLC staff recommendation for a zero net increase threshold is consistent with past and current offshore oil and gas projects that have been under the Commission's purview in Santa Barbara County (e.g., Venoco Ellwood Full Field Development Project EIR, the Plains Exploration & Production Company Tranquillon Ridge Oil and Gas Project [CSLC Staff Report 2009]).

SUBPART II.B. INDIVIDUAL COMMENTS AND RESPONSES

COMMENT SET 1: CITY OF GOLETA

September 24, 2014

SENT VIA EMAIL
CEQAcomments@slc.ca.gov

Eric Gillies, Project Manager
California State Lands Commission
100 Howe Avenue, Suite 100-South
Sacramento, CA 95825

RE: Revised PRC 421 Recommissioning Project Recirculated Draft EIR

Dear Mr. Gillies,

The City of Goleta (City) staff has reviewed the Recirculated Draft Environmental Impact Report for the Venoco, Inc. Revised PRC 421 Recommissioning Project, dated July 2014, State Clearinghouse No. 2005061013 (RDEIR). The City appreciates the numerous changes and additions that were made to strengthen the analysis in the environmental document. The Venoco, Inc. Revised PRC 421 Recommissioning Project (the Project) is located primarily within both the jurisdictional and authoritative boundaries of the California State Lands Commission (CSLC) and the City. The existing wells and the seaward portion of the piers are located within the CSLC's jurisdiction and leasing authority. The landward portion of the existing piers, access to and from the piers, construction staging, pipelines/flowlines, and cables are located within the jurisdictional boundaries and subject to the regulatory authority of the City. The Project proposes to process the oil and gas and re-inject the water within the jurisdictional boundaries of the City, utilizing the Ellwood Onshore Facility (EOF), which is located in an area that is zoned "Recreation". The EOF is, and has been since 1991, a legal, non-conforming use.

The City, the CSLC, and the California Coastal Commission (CCC) have determined and agreed, pursuant to a Memorandum of Understanding, that the CSLC shall act as the lead agency for the Project pursuant to the California Environmental Quality Act, Public Resources Code Sections 21000, *et seq.* (CEQA) and the CEQA Guidelines, Title 14 of the California Code of Regulations, Sections 15000, *et seq.*, (collectively CEQA, unless provided otherwise). Therefore, pursuant to CEQA, the City is a Responsible Agency for

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purposes of the RDEIR. The RDEIR is supposed to examine potential impacts to the environment during the construction, operational, and decommissioning/restoration phases of the Project and is intended to be the environmental analysis required by law for issuance of any appropriate permits by the CSLC and other Responsible Agencies, most notably the City.

As a Responsible Agency, the City is directed by Section 15096 of the CEQA Guidelines to review and comment on the RDEIR and such comments are to be focused on any shortcomings in the RDEIR limited to the portions of the Project that are under the jurisdiction of the City and subject to the exercise of the City's permitting authority.

Based on our review of the RDEIR, we have identified outstanding issues which require correction, clarification, and/or further analysis to ensure that the Final Environmental Impact Report (EIR) provides adequate environmental analysis for the portion of the Project within the City, as required by law. The EIR fails to adequately acknowledge and/or address fundamental issues relating to re-commencing processing of the 421 product at the EOF:

- The EOF is an aging facility in need of significant improvements and modifications in order to safely perform the proposed processing of the 421 product;
- The modifications and improvements needed for this project cannot lawfully be constructed because the EOF is and has been for the past 25 years, a legal non-conforming use. As a non-conforming use, the Goleta Municipal Code (GMC) prohibits any existing building or structure from being enlarged, extended, reconstructed, moved or structurally altered (GMC § 35-161). The proposed modifications to the EOF, as defined in the RDEIR, are significant and would likely result in the loss of and subsequent termination of the EOF's non-conforming status. The RDEIR fails to address the potential loss of the EOF as the processing facility for the 421 product.

CG-1

The City's more specifically focused comments regarding the adequacy of the RDEIR as environmental analysis for the issuance of City permits are provided below.

1. Section 1.0 Introduction - Project Objecti

The RDEIR Project Objective has been narrowed since the previous DEIR was prepared (page 1-4, line 18 through 26). Despite the lack of production from the 421 wells for over 20 years as the result of an onshore oil spill, the DEIR clearly states that the recommissioning of production is not the "project", but rather it is the processing of the 421 product at the EOF, located within the City. This is short-sighted at best, and contrary to the letter and spirit of CEQA. The EOF is an almost 50-year old facility whose useful productive life is already significantly diminished. It is and has been for 25 years a legal non-conforming and entirely incompatible use with the surrounding

CG-2

recreation, resort, residential, and adjacent highly sensitive habitats. In fact, currently, it is more incompatible with its surrounding environment than it has ever been. There are still only conclusory statements with no factual analysis or basis presented about the necessity for this project either as a means to determine or alleviate possible re-pressurization. Decommissioning and restoration are not adequately discussed.

The City requests that the Project Objective be re-broadened to include *multiple* objectives and the analysis be re-evaluated based on the broadened objectives. Two suggested objectives include (1) decommissioning and restoration of the wells and piers and (2) independently pressure testing to address the currently wholly speculative assertion that this 421 project is the only means of determining future risks of pressurization of the formation and the determination of future spill risks and responses.

CG-2 cont.

2. Section 2.0 Project Description - EOF Chang

The proposed project includes changes within the boundary of the EOF that are not clearly and specifically described. The requested clarifications, descriptions, drawings, and maps are identified below:

- Modifications at the EOF are inadequately described on page 2-21, lines 21-28 and do not reflect the new facilities mapped in Figure 2-3 and provided in RDEIR Appendix G. For example, based on Appendix G, the proposed new programmable logic controller (PLC) would be placed in an upgraded electrical cabinet to monitor Lease 421 production facilities. What are the dimensions of the new cabinet and will the siding be plywood or metal, for example? Will there be lighting needed that will affect the adjacent Bell Creek ESHA? Per Appendix G, the PLC would also include local control functions as well as communication to the existing EOF control room. How would the communications occur? Are new overhead lines necessitated? Elaborate with the specifics and re-evaluate the impacts, as necessary.

CG-3

- Appendix G and Figure 2-3 also identify a new Variable Speed Drive (VSD) control for well and leak detection and safety shutdown to be installed at the EOF. Appendix G describes the VSD package as approximately 3 feet by 8 feet by 6 feet high with a new cable from the VSD to the well at Lease 421. The VSD must be described in detail and include any housing, footprints, foundations, siding materials, roofing, and overhead connections that may be required to support the new equipment. Figure 2-3 does not reflect a cable connection to the VSD nor does the text describe the cable except a general statement that cables would occur within existing conduits in the EOF. The City needs this information to be included in the RDEIR, noting that we are not aware of any conduits at the proposed location of the VSD.
- Page 2-20, lines 21-23, identifies a connection for a temporary pig receiver but does not include detail about the size and extent of the equipment. This

information and additional detail about where the receiver will be stored when it is not in use must be included in the RDEIR.

- Page 2-21, line 23 identifies that a transformer will be required for the project. Add the location of the new transformer to Figure 2-3 and describe in more detail the size and extent of the facility.
- Upgrades, such as switches, video feed, and an electrical motor control panel, are proposed to the existing EOF control room for remote monitoring and control (pages 2-24 and 2-25). There is no specific description of these modifications and whether these modifications will have an effect on EOF facilities. Include this description and explanation and provide evidence to support the claim that there is capacity within the existing control room to support these additions.
- The project description in the RDEIR must identify whether those changes and modifications that are proposed at the EOF may facilitate and be used to change oil and gas processing activities at the EOF, regardless of whether that is part of the Project. Include this analysis in the EIR.

CG-3 cont.

- The new 3-inch flowline exits the existing 6-inch pipe cover 25 feet south of the EOF fenceline and continues without a cover until it intersects the Holly tie-in within the EOF. This is unclear in the Project Description text and incorrect on Figure 2-2 and Figure 2-3. The text needs to be clarified. The figures need to accurately map the new 3-inch pipeline segment where it exits the existing 6-inch pipe cover. Add a new map legend feature identifying the Proposed 3-inch Flowline - Uncovered for the portion within the EOF and include the termination point of the 6-inch line on Figures 2-2 and 2-3.

CG-4

3. Section 2.0 Project Descrip on - EOF Backup Storage Capacity

The backup storage at the EOF is incorrectly stated in the project description and needs to be corrected. On page 2-29, line 29, the backup storage is presented as 1 to 2 days of production when in actuality, the EOF can accommodate less than one day's storage for Platform Holly product only. More specifically, there are two, 2,000 barrel storage tanks at the EOF, for a total storage capacity of 4,000 barrels of oil. Utilizing the current production from Platform Holly at 5,000 BOPD (refer to page 2-22, line 1) backup storage at the EOF is less than one day for Platform Holly alone. As such *there is no capacity for backup storage for the 421 product at the EOF*. The safety features of the EOF and the PRC 421 project should be reassessed with this updated information. Section 4.2 Safety should be updated to evaluate the risk of the lack of backup storage for the Project.

CG-5

4. Section 2.0 Project Description - Pipelines and Cabl

On page 2-27, lines 8 and 10, the 6-inch pipeline is referred to as existing/new. Exactly what portions exist and what portions are new? The maps and text in the project

CG-6

description and as evaluated in the environmental sections do not consistently evaluate the portions of the pipeline that are existing versus the portions of the pipeline that are new. This is important from the perspective that new pipeline segments create new impacts. For example, on page 2-13, lines 25 and 26, a new 25-foot long pipeline connection is proposed to be constructed from the abandoned interconnection with the Line 96 to the EOF fenceline. This new pipeline segment is reflected in Figure 2-2 and Figure 2-3 as an existing pipeline and nowhere is it evaluated as a new pipeline connection. This needs to be correctly described and mapped in the project description and analyzed for impacts and mitigations.

The routes presented in Figures 2-2 and 2-3 (RDEIR pages 2-8 and 2-9 respectively) show different alignments for the cables and the 3 inch flowline in the existing 6 inch line. For example, the cables and the 3 inch flowline enter into the EOF at different locations from one figure to another. Also, Figure 2-3 identifies the 3 inch flowline in existing 6 inch line running directly through the Bell Creek ESHA creekbank. If this is the correct route as is likely the case, the alignment through the Bell Creek ESHA must be re-evaluated in the environmental analysis as most if not all the sections used the incorrect alignment. In particular, Section 4.2 Safety, Section 4.5 Hydrology, Water Resources, and Water Quality, and Section 4.7 Terrestrial Biological Resources must analyze related impacts and present mitigation for this route.

CG-6 cont.

A repair of a 25-foot section of existing, in ground, pipeline is depicted in Figure 2-2 on page 2-8 of the RDEIR and briefly described as both a repair and a pulling point for the 6-inch slipline and the 3-inch flowline on page 2-19 lines 16-21 under Section 2.3 Construction Procedures. There does not appear to be a physical description of the proposed pipeline repair under the "Pipelines" section on page 2-13. Include a detailed description of the repair, including access and construction methods under the "Pipelines" section starting on page 2-13. The City points out that this segment of pipeline is located along the beach bluff in an ESHA (refer to map on page 4-208 for ESHA locations) and we require this detail as part of the environmental review document. We also require detail regarding the construction methods and staging related to the pulling point for the 6-inch slipline and the 3-inch flowline, also proposed to occur at this location. Also, update Figure 2-2 to reflect the precise location of the segment requiring repair and all access points, and any other related stockpiles or staging areas.

In order to access this repair site, construction equipment will utilize the beach (according to the January 2014 FEIR Response to Comment, page II-42). The impacts associated with this work do not appear to be considered in Impact TBIO-1 and the associated mitigation measures. The details of the equipment needed for construction, where the equipment will be staged, and what areas of wetlands and important habitats are disturbed in the process are omitted from the RDEIR. An analysis of these sites should be included in the FEIR and the construction impacts on these areas fully analyzed. Only then will the City have the information necessary to consider what permits will be necessary for the project.

CG-7

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In numerous locations throughout the project description and the RDEIR the existing 6-inch pipeline is incorrectly referred to as a 6-inch outer diameter pipeline, for example on pages 2-6, line 30 and 2-14, line 13. This global change should be made throughout the RDEIR to ensure that there are no engineering design miscommunications regarding the size of the pipeline as it is proposed to be used as a sleeve for a 421-related product line. CG-8

5. Section 2.0 Project Description - Project Durati

The project duration (page 2-6, lines 18-19) includes an estimated project life of 20 years, depending upon production characteristics and project economics. The importance of the project duration cannot be understated as the project impacts hinge on the length of time that the well 421-2 is likely to be producing and the expected timeline for decommissioning. The project, as defined, specifically incorporates processing at the EOF and no analysis or data is provided, discussed, or referenced as to the life of the EOF facility itself. It is an already aged facility and modifications needed for this current project, let alone future project extensions governed by well production methodologies and technologies do nothing to address the deterioration of the EOF. The City is concerned about the lack of justification and validation regarding the change from the CSLC's Project EIR Notice of Preparation, dated March 26, 2013, documenting a 12 year project duration. There was no data provided to justify a change from a 12 year project duration to a 20 year project duration. This change needs to be justified and validated with facts, such as modeling methods and results to be included in the EIR. CG-9

The City is also concerned about the RDEIR's explanation of the Proposed Project in relation to Platform Holly (Page 2-7, lines 16-18). The estimated lifetime of Platform Holly was extended from 25 years in the October 2013 Draft EIR to 40 years in the January 2014 Final EIR without supporting evidence. On page II-10 of CSLC's Response to Comments in the January 2014 Final EIR, the response to comments notes that "technological advances in oil recovery" may extend the life of the Proposed Project. This is speculative and the EIR should contain evidence to support this claim. CG-10

If the life of Platform Holly can be nearly doubled due to technological advances, an argument could be made that so can the life of PRC 421, and the PRC 421 impacts must be similarly analyzed. Additionally, the life of the EOF is not necessarily coterminous with that of the availability of product from either Holly or 421. Failure to address modifications and improvements that would be needed to the EOF – and more importantly, whether they could be legally done – for any timeline is a significant deficiency throughout this document. As such, the supposed long-term impacts of the proposed project are poorly underestimated and require reconsideration. This is especially significant when comparing alternatives and may alter the Environmentally Superior Alternative conclusion, in support for consolidation at Las Flores Canyon. CG-11

6. Section 2.3.2 Construction Staging Area and Equipment

The Project Description does not provide specific locations for stockpiles, staging, and turnaround points for construction, decommissioning, and restoration work in a very constrained work area along the access road, at the piers, and on the beach. The City requires this level of detail for construction projects, particularly projects located along constrained corridors and where ESHA are within and adjacent to the work area. As such, include a description of the stockpiles, staging, and turnaround points for construction, decommissioning, and restoration work and reflect the locations on project maps. A new map may be warranted to reflect this information.

Proposed equipment width in relation to the existing road width should also be described to demonstrate that the access road along the shoreline can (or cannot) adequately accommodate equipment. Additionally, the trenching activities in support of pipeline installation will include utilizing the entire width of the access road. The project description needs to explain how access to and from the site will be maintained (or not) during trenching activities. CG-12

After the location of stockpiles, staging, turnaround points, and access are better described and mapped, impacts should be evaluated and mitigation measures developed to reduce levels of significance.

7. Section 4.2 Safety - Leak Detection

The existing 6-inch pipeline termination point is located 25 feet south of EOF fenceline and is a critical location from a safety standpoint. From this connection point, northeast into and within the EOF, the 3-inch flowline is unprotected from the existing 6-inch pipeline and therefore also unprotected from the leak detection system/switch (refer to page 4-78 lines 24-26). The safety risks associated with leaks along this portion of the flowline must be disclosed and evaluated accordingly. The opportunity for impact mitigation to be identified as part of this Significant and Unavoidable impact is important disclosure in this EIR. CG-13

8. Section 4.2 Safety - Spill Response

Impact S-4: Potential for Release of Oil or Hazardous Materials from Pier 421-2 include outdated worst-case discharge planning volume rates for the South Ellwood Field. The 3,000 barrels used in the RDEIR on page 4-87 lines 13 and 14 is outdated information and needs to be updated to accurately reflect 5,000 BOPD (page 2-22, line 1). The analysis should be updated and the facts verified to ensure that Venoco has the response resources capable of handling a shoreline cleanup that can accommodate the project. CG-14

9. Section 4.2 Safety - Emergency Response

Mitigation Measure MM S-5b. Develop Emergency Action Plan (EAP) on page 4-94 includes a sentence starting on line 24 about update notice for revisions that does not make sense. Delete the sentence and clarify that the City and the County Office of Emergency Management shall coordinate updates of the EAP with the operator on a regular basis or as conditions change that warrants review of emergency response protocols. CG-15

On page 4-101, lines 1-4 of the RDEIR, the approved South Ellwood Field EAP is referenced as the existing emergency response plan for the EOF. No mitigation is included for the proposed project under Impact S-7: Increased Processing of Oil and Gas at the EOF. The City points out that the proposed project includes modifications within the EOF, such as the interconnection of the PRC 421 oil with the Holly oil, and a new transformer, PLC cabinet, and VSD facility. These changes would necessitate changes to the South Ellwood Field EAP. As such, a new mitigation measure should be included to require an update to the EAP for the South Ellwood Field. CG-16

On page 4-94, line 33 under MM S-5c. Safety, Inspection, and Maintenance of Oil and Gas Pipelines, include wording that requires the City and the operator to update the Safety Inspection, Maintenance, and Quality Assurance Program (SIMQAP) biennially or sooner if conditions change that warrant SIMQAP review. CG-17

10. Section 4.2 Safety - Increased Processing of Oil and Gas at the EOF

The Impact S-7: Increased Processing of Oil and Gas at the EOF overlooks safety-related impacts at the EOF based on an incorrect assumption that control system improvements at the EOF are the extent of the changes within the EOF (page 4-98, lines 32-33). As stated in previous comments, backup oil storage at the EOF is currently limited to less than one day of production at Platform Holly. Any added production from a new source places a burden on the EOF backup storage facility and related safety risks. This impact needs to be disclosed and evaluated accordingly. Additionally, the new transformer, PLC cabinet, and VSD facility with a 3 foot by 8 foot by 6 foot dimension, all located adjacent to the Bell Creek ESHA should not be dismissed from analysis. The transformer may create a fire hazard at a new location in the EOF, for example. These impacts must be analyzed and related mitigation measures identified. CG-18

11. Section 4.2 Risk of Fire at the EOF, Pipelines, or Piers

Impact S-8: Increased Risk of Fire utilizes an older Quantitative Risk Assessment (QRA) prepared for the EOF to identify the crude oil fire thermal exposure distance (page 4-101, line 32). A distance of 150 feet is presented in the RDEIR utilizing the QRA. The City points out that the 150 foot distance provided in the 2000 QRA is based upon the Platform Holly crude oil fires having gravity of 22.4 percent API. The PRC 421 crude oil is much lighter with 35 API gravity and will have a much larger footprint than CG-19

150 feet. The risk of fire needs to be re-calculated based upon the PRC 421 crude oil gravity. The fire risk is understated in the text and must be re-evaluated with this new information and from the perspective that the 421 piers, access road, and EOF interconnection are not accessible except from Hollister Avenue, a dead-end road. Additionally, the evaluation would benefit from consideration of the adjacent land uses such as the Bacara Resort and Spa, Sandpiper Golf Course, and residential development that could be impacted if fire were to ignite as a result of the project. Eucalyptus trees and other flammable vegetation exist along the pipeline corridor between the piers and the EOF and within the adjacent Bell Canyon drainage. Adding a new ignition source at these locations that are difficult to access should not be overlooked in the EIR analysis.

CG-19 cont

12. 4.3 Hazardous Material - Soil Sampling Mitigation

To reduce impacts related to potential hazardous materials released during Project construction and operation and during decommissioning and removal of Pier 421-1, Mitigation Measure MM HAZ-1c. Soil Sampling is required in the RDEIR (page 4-114, line 36). The mitigation measure requires that all soils removed from the pier caisson be considered contaminated and removed as such. The remainder of the project construction is subject to "Venoco" monitoring and soil contamination determination (page 4-114, line 41). The City points out that the remainder of the project area is located within the City's jurisdiction, and we have specific requirements for City-retained monitors and soil inspections. On page 4-114, line 41, make the following edits:

CG-20

"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."

13. 4.3 Hazardous Material - Decommissioning and Abandonment Securities

To reduce impacts related to potential hazardous materials exposure and ensure timely decommissioning and abandonment of Well 421-1 and Pier 421-2, Mitigation Measure MM HAZ-1e. Performance Securities is required in the RDEIR (page 4-115, lines 29-35). The mitigation measure requires that the permittee provide the securities and agreements, in the estimated amount for the decommissioning/abandonment work, to the CSLC prior to return to production of the PRC 421 well. The City requires similar performance securities and agreement for the portion 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. We also require the timing of the securities and agreement prior to the

CG-21

issuance of the Land Use Permit, not prior to the return to production of the PRC 421 well. CG-21 cont

14. Section 4.7 Terrestrial Biological Resources - Construction Impacts

The existing setting presented in Section 4.7 Terrestrial Biological Resources is based upon reconnaissance level field surveys and literature review and does not include the survey methods, the surveyor names and qualifications, or the dates and times of the surveys (refer to page 4-205, line 11). Given that the literature review resulted in an abundance of ESHA and special-status species within and adjacent to the project footprint, it is best to conduct special-status species surveys, habitat surveys, and wetland delineations as part of the environmental analysis, in order to properly characterize the existing conditions from which the impacts can be evaluated and accurate mitigation measures can be developed.

The approach in Section 4.7 Terrestrial Biological Resources is to defer the survey work after the EIR is certified and after the permit entitlements are granted (refer to page 4-218, lines 11-39 for an example of deferred survey and delineation work). The City has a practice of conducting survey work during environmental review in order to understand and quantify the impacts of the project and develop project-specific mitigations that can be agreed-upon by the project applicant before project approval. In the case of the PRC 421 Project, wetlands and ESHA will be directly/indirectly impacted as a result of the project. CG-22

It will be challenging to move forward without quantifying the impacts and related mitigation measures as suitable sites for the restoration of wetlands and ESHA may be difficult to locate and also potentially costly for the applicant. We recommend that it is disclosed in the EIR that the applicant does not own the property where the impacts would occur and the restoration may necessitate offsite locations as a result. The City's General Plan requires that all Coastal Zone wetland and ESHA impacts be mitigated within the City's Coastal Zone boundary. If offsite restoration were an outcome, the mitigation would be required to occur within the City's Coastal Zone boundary and would also be subject to the Coastal Commission's review and approval.

15. Section 4.7 Terrestrial Biological Resources - Pipeline Repair Using the Beach for Access

Impact TBIO-1: Short-Term Construction Impacts to Biological Resources should specifically include a reference to the repair of the repair of a 25-foot section of existing, in ground, pipeline (refer to Figure 2-2 on page 2-8 of the RDEIR and to page 2-19 lines 16-21). This repair will include construction equipment on the beach, west of the existing access road. In order to access this repair site, construction equipment will utilize the beach, creating impacts that are not evaluated in Impact TBIO-1. Related mitigation measures need to be included. CG-23

16. Section 5.2: Alternatives Eliminated from Further Consideration

Under the Condensed Production Schedule Alternative (page 5-6, lines 22-33), it is assumed that there would be a need for another well to condense the schedule. The City suggests that the CSLC consider another alternative to increase the pump-rate out of the existing well, resulting in an expedited extraction process. Consequently, the environmental impacts would be lessened as this section suggests, but there would not be the added short-term impacts associated with drilling a new well. If this is not a feasible alternative, it should be explained and documented in this section of the EIR. CG-24

17. Section 5.3.1: No Project Alternative

The project description for the No Project Alternative is inconsistent and needs to be clarified and corrected for the impacts and mitigation to be accurate. For example, the Pier 421-2 Layout inset in Figure 5-1 (page 5-13) shows two, 2-inch flowlines in the existing 6-inch pipeline. However, the detail included on page 5-14, lines 30-31 describe only one, 2-inch flowline in the existing 6-inch pipeline. Please reconcile this inconsistency. CG-25

Based on the project description starting on page 5-14, line 22, this alternative does not appear to include decommissioning of the PRC 421 Piers and Wells. However, in the analysis of Aesthetic/Visual Resources there is reference to a second round of construction including decommissioning Pier 421-1 (page 5-21, line 26). If no decommissioning will occur, references to decommissioning should be removed from the analysis and the Aesthetic/Visual Resource impact re-evaluated without decommissioning. In particular, Impact VR-4 (page 5-21, line 38 and page 5-22, lines 1-2) should be re-assessed as it appears to include decommissioning and/or other conflicting project description details. CG-26

As documented in the project description for this alternative (page 5-14, lines 24-25), new oil separation equipment will be installed on Pier 421-2. The Noise analysis (page 5-21, lines 11-20) does not include operational noise impacts associated with this equipment. These impacts should be quantified and evaluated in the EIR. CG-27

18. Section 5.3.2: No Production/Quitclaim State Oil and Gas Lease PRC 421

The description of the "No Production/Quitclaim" alternative (page 5-22 starting on line 21) assumes that in the course of a quitclaim, CSLC would not conduct pressure-testing using the infrastructure of PRC 421. Given that this RDEIR notes the likelihood and environmental threat that repressurization presents, it does not seem reasonable to assume that after a quitclaim the State would simply leave the wells shut-in without first pressure testing. CG-28

This alternative also does not consider decommissioning of the existing PRC 421 infrastructure. In the January 2014 Final EIR, the CSLC explained that "[e]xisting lease CG-29

conditions stipulate that if production is no longer allowed, Venoco must prepare and submit a decommissioning plan and upon approval commence decommissioning." (Response to Comment, page II-46). This explanation in the response to comments supports the assumption that decommissioning would occur even under the Quitclaim Alternative. Add additional supporting information about the 421 lease agreement and the quitclaim terms and requirements. Also, include any obligations under the existing 421 lease agreement that would transfer to the future lease holder under a quitclaim and their obligations related to decommissioning. As we have previously requested, the 421 lease agreement should be included in the EIR as the terms of the lease are essential to the evaluation of this alternative. If the lease agreement is a large file, include it as an appendix to the EIR. CG-29 cont

The project description for this alternative needs to include both pressure-testing and decommissioning and the impacts of this alternative should be analyzed considering those inclusions.

19. Section 5.3.4 Processing PRC 421 Oil at Las Flores Canyon

The City appreciates the CSLC's changes to the RDEIR's Alternatives analysis, in particular, the evaluation of Processing PRC 421 Oil at Las Flores Canyon Alternative. This alternative is important from a Goleta General Plan policy direction perspective. Consolidating oil and gas processing facilities at Las Flores Canyon has long been the vision of the County's, as articulated in the South Coast Oil and Gas Consolidation Policies

In support of the CSLC's full evaluation of this alternative, the City provides additional comments and requests for changes. First, this alternative incorrectly includes the EOF facilities in the project description. As previously stated in this comment letter, the EOF has long been a legal non-conforming use and it is the City's intent, as authorized under the municipal code, to phase out the use and restore the use to the Recreation zoning designation. For this alternative to be viable, the CSLC must alter the project description to exclude all use of the EOF parcel. Revise the project description and re-evaluate the impacts accordingly. CG-30

The City requests that the RDEIR evaluate an offshore route for the Las Flores Canyon Alternative so as to avoid the conflict with the Goleta General Plan policies, land use designations, ESHA's, and land uses within the City of Goleta. An offshore route would also remove the uncertainties of future oil and gas projects that may or may not have EOF components that trigger the expansion, enlargement, or extension of the non-conforming use. CG-31

The City also requests that the decommissioning of Pier 421-1 and Well 421-1 be a mandatory part of the project description for this alternative. Currently, Well 421-1 may be used for water disposal if the produced water from the project cannot be disposed of at Las Flores Canyon (page 5-35, lines 17-22). Well 421-1 water disposal is an CG-32

unacceptable option for this alternative. Other back-up options for produced water should be explored. For example, produced water can be trucked from Las Flores Canyon to an off-site disposal site. CG-32 con

The Processing PRC 421 Oil at Las Flores Canyon Alternative assumes that there is a lack of capacity at the existing Las Flores Canyon facilities without evidence to support this claim (page 5-40, line 24). Include this detail in the EIR and modify the analysis as appropriate. CG-33

The environmental impact analysis (starting on page 5-43) for this alternative incorrectly assumes that changes to the EOF will be allowed. As previously stated in this comment letter, changes cannot be allowed and the therefore the impacts and mitigation analysis will need to be updated to reflect alternative routes, such as an offshore route. CG-34

20. Section 6.4 Environmentally Superior Alternative (ESA)

The proposed project and alternatives comparisons are based on faulty presumptions and assumptions. The RDEIR identifies the risk of re-pressurization as "significant", and subsequent releases of oil due to improper abandonment procedures yet provides no factual support for this wholly conclusionary statement. This argument needs to be substantiated with evidence. The RDEIR information conflicts with this assumption about repressurization. Data is presented to show that the wells were abandoned in the 1940's and 1950's and that no leaks have been reported during that 60 – 70-year period. If repressurization were occurring, leaks should have occurred. Further, the 421 wells have been shut in for 20 years yet repressurization leaks have not been documented. These conflicting messages must be reconciled, particularly when the subject of repressurization is used to justify many conclusions in the EIR. The RDEIR correctly states that an agency "cannot foresee the unforeseeable" (p. 4-64, lines 9-12), and yet this completely speculative "unforeseeable" pressure build-up serves as the basis for the assertion that 421 should be returned to production. CG-35

21. Section 6.4.2 ESA - No Project Alternative

The No Project Alternative is also based upon faulty assumptions, primarily that the EOF is in fact an available facility for processing the 421 product. The capacity of the facility is not the governing factor here. Rather, the legal status as a non-conforming use and the possibility that that status would be terminated as a result of the proposed project modifications must be directly addressed in all of the alternative analyses. Further, at Page 6-6 lines 27-29, there is a statement that the No Project Alternative is inconsistent with the General Plan. This is incorrect. The policy referred to is a regional planning policy that is for wells located outside of the City limits and doesn't apply here. The RDEIR should be applying the State's policies for policy consistency, not the City's policies, for the portion of the project in the State's jurisdiction. There is no question that the City of Goleta has consistently and continually adopted policies in support of removal, decommissioning and termination of all onshore or surf zone oil and gas CG-36

facilities. The City has consistently supported and prefers consolidated processing at Las Flores Canyon. CG-36 cont

22. Section 6.4.3 ESA - No Production/Quitclaim Alternative

It is reasonable to conclude that based on our comments provided in this letter, the No Production/Quitclaim Alternative would be the Environmentally Superior Alternative. This is especially true if field re-pressurization is not occurring, as minimal pressure testing would occur over a very short timeframe followed by decommissioning. This outcome would clearly be environmentally superior to the Proposed Project. If pressure testing revealed field re-pressurization, the field would be drained within a reasonably foreseeable timeframe at a CSLC-controlled pumping rate, rather than a market-driven pumping rate, with decommissioning immediately following. Although this second outcome would share many of the same impacts as the Proposed Project, a more expeditious conclusion of processing activities at the 421 piers and at the EOF (when compared to the proposed project) would make this alternative environmentally superior. CG-37

Conclusion

The CSLC's successful resolution of these issues will aid the City's processing of the Project as a Responsible Agency. The City respectfully requests that the necessary changes and additions, as identified and described in this letter are included in the Final EIR.

Please do not hesitate to contact me with any questions regarding the above comments. Thank you again for the opportunity to provide comments.

Sincerely,

Anne Wells

Anne Wells
Advance Planning Manager

C: Alison Dettmer, Coastal Program Chief, California Coastal Commission

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RESPONSE TO COMMENT SET 1: CITY OF GOLETA

CG-1 See master response MR-2.

CG-2 Pursuant to State CEQA Guidelines section 15124, subdivision (b), the EIR provides "a statement of objectives sought by the proposed project" as set forth by Venoco, the Project Applicant. The objective also includes the "underlying purpose of the project" consistent with State CEQA Guidelines section 15124, subdivision (b), as proposed by Venoco. This underlying purpose is also consistent with and required by the State's lease agreement with Venoco. Venoco's objective in implementing this Project is "To return State Oil and Gas Lease PRC 421 to production and process the production at the EOF." This production would result in the added temporary benefit of reducing the pressure in the Vaqueros Reservoir, as well as the long-term benefit of obtaining pressure measurements during the operable life of PRC 421-2, which would help inform future planning for the repressurization issue (see master response MR-3). Providing pressure testing is not a stated objective of this Project, but rather an added benefit that Venoco would include as part of the Project to enable the CSLC to obtain repressurization data in order to manage repressurization in the future. The Project would also result in decommissioning and abandonment of PRC 421-1 in the near term, with Venoco applying for the decommissioning and removal of Well and Pier 421-1 within 90 days of receiving permits to recommission PRC 421-2. This is also an added benefit of the Project, but not part of Venoco's objective in proposing this Project.

CG-3 Figures 2-2 and 2-3 have been revised to display all new pipeline segments and improvements within the EOF as requested. When preparing the Recirculated Draft EIR, CSLC required submittal of sufficient information to allow for detailed environmental analysis to be performed regarding issues such as oil spills and air quality emissions. However, code-level information regarding detailed designs of minor changes within the developed areas of the EOF or internal to EOF buildings was not requested at the early stage of analysis. This is a typical standard employed in environmental documents where details, such as the exact composition of the door of a utility box, are not needed to support adequate environmental analysis. However, although not required for environmental analysis, many of these details have been added to support the City of Goleta's permit-level of review to make a determination regarding continued use of the EOF. Specifically, the variable speed drive and transformer would be stand-alone electrical equipment, fabricated out of steel. The variable speed drive would be 82.5 inches high, by 38.8 inches wide and 44.5 inches deep, while the transformer would be approximately 53 inches high by 56 inches wide by 27 inches deep (see Appendix G for engineered drawings of these features). The programmable logic controller would be placed in an upgraded electrical cabinet, which is currently near the pig receivers. This equipment would be located within the existing developed footprint of the EOF. Venoco has confirmed that no major

disturbance of vegetation or substantial grading would be required to install this equipment and no additional lighting adjacent to Bell Canyon Creek or overhead lines to the EOF are required.

CG-4 The new 3-inch flowline would be protected within a 6-inch pipeline for the full length that lies outside of the EOF and would not exit the protective 6-inch pipeline until after it is inside the EOF. The Recirculated Draft EIR stated on page 2-13, lines 25-26, that "a new 25-foot long piping connection would be constructed to the EOF fenceline." This text has been revised to convey that the new segment of 6-inch pipeline would be approximately 50 feet long and would extend into the EOF beyond the fenceline. There is a small portion of the 3-inch flowline that would be uncovered within the EOF. Figure 2-3 has been updated accordingly.

CG-5 The EIR text has been updated to reflect that there would be less than one day of available backup storage for oil produced from PRC 421 and Platform Holly at the EOF. The discussion in Impact S-7 was also updated to address the existing level of backup storage and to note that, if required, production from PRC 421-2 may have to cease for part of a day or longer due to lack of storage. As discussed under Impact S-7, short-term cessation of production is not anticipated to create new impacts to safety.

CG-6 The 50-foot segment of 6-inch pipeline that would be constructed between the abandoned interconnection with the old Line 96 to the EOF pipeline has been labeled as "new/repaired" pipeline in Figure 2-3. Additionally, the alignment of the 6-inch pipeline south of the EOF has been corrected in Figure 2-2 to show the proper alignment, which is within the Platform Holly right-of-way. Although this alignment passes along the eastern edge of the Bell Creek Environmentally Sensitive Habitat Area (ESHA), this section of the pipeline is an existing facility and would not be disturbed. The section of pipeline between the repair location south of the 12th tee of the Sandpiper Golf Course and the abandoned interconnection for Line 96 outside of the EOF would not be accessed from the exterior. The only changes through this section would be the addition of the plastic liner and 3-inch flowline through the pipeline; this work would be performed through access points at either end of the existing pipeline in order to pull the liner and flowline through the pipeline Therefore, there would be no direct disturbances to the Bell Creek ESHA associated with use of this pipeline; potential impacts associated with oil spills are addressed in appropriate sections of the Final EIR. The 25-foot section of 6-inch pipeline needing repair has also been relabeled in Figure 2-2 as new/repaired pipeline. The discussion in Section 2.3.4 has been updated to explain which sections of 6-inch pipeline would be newly installed in order to provide protection to the 3-inch flowline between PRC 421-2 and the EOF and to include these segments in the discussion regarding trenching.

Construction staging for the repair of the 25-foot pipeline section, as well as the installation of new pipeline sections by the EOF and between PRC 421-1

and PRC 421-2, would be the same as for the other construction activities associated with this Project. Staging areas would be located within existing already developed areas of the EOF, east of the existing fence that demarcates the boundary between the EOF and Bell Canyon Creek, including the helipad, if needed. The existing already developed access road between the two piers would also be used for staging, as described in Section 2.3.2 on page 2-17.

CG-7 Construction equipment would be used on the beach to repair the 25-foot section of 6-inch pipeline. The potential impacts associated with use of this equipment on the beach were added to the discussion regarding construction equipment that would be located on the beach to perform other Project-associated activities, such as caisson repairs. This activity was added to the impact analysis under Impacts MBIO-1 and MBIO-3.

CG-8 The text in the Final EIR has been revised as suggested.

CG-9 See master response MR-1.

CG-10 See master response MR-1.

CG-11 See master response MR-2.

CG-12 Section 2, Project Description, provides details regarding the location of construction and staging activities. In relation to roadway width, trenching, and staging, Venoco provided information regarding traffic management. Along the roadway, a moving construction spread and traffic control procedures would be implemented during trenching to minimize “open hole” length and traffic congestion. A traffic control person would be stationed on the road at the rear gate of the EOF, at the existing gate on the beach, and at Pier 421-1. All construction equipment would be selected so as to fit within existing roadway width, and would be staged in a linear fashion so as to minimize interference. See also CG-6 and CG-7 above.

CG-13 The 3-inch flowline would be protected within a new section of 6-inch pipeline between the EOF and the abandoned interconnection with Line 96 where the existing 6-inch pipeline currently terminates. The discussion regarding this 50-foot section of new 6-inch pipeline has been updated for clarity in Section 2, Project Description (see Section 2.3.4)

CG-14 The worst-case oil discharge planning volume rates for the South Ellwood Field, as well as oil spill response and clean-up information, has been updated with newer information from Venoco’s Oil Spill Contingency Plan (OSCP), updated in June 2014, and subject to review and approval by the California Department of Fish and Wildlife (CDFW) Office of Spill Prevention and Response (OSPR) and Santa Barbara County Office of Emergency Management (OEM). The OSCP also identifies Venoco’s available resources to address a shoreline cleanup. Venoco will rely on Clean Seas for on-water

containment and recovery of all spills. Clean Seas has demonstrated its ability to meet the OSPR daily recovery capability standards for the Santa Barbara Channel Onshore oil spill response and cleanup will be provided by NRC Environmental Services. This discussion is included in Impact S-4.

CG-15 The text has been revised as suggested.

CG-16 MM S-5b has been revised to include a requirement for Venoco to update the existing South Ellwood Field Emergency Action Plan (EAP) for proposed modifications within the EOF.

CG-17 The text has been revised as suggested.

CG-18 The text has been revised as suggested, including reference to the revised MM S-5b. The discussion in Impact S-7 was also updated to address the existing level of backup storage. As noted in master response MR-2 above, the EOF is permitted and designed to process 13,000 BOPD and the facility is operated under a rigorous inspection schedule by multiple local and state agencies to ensure that oil is processed safely consistent with existing regulations and permitted flows. The EOF currently processes approximately 5,000 BOPD, or less than 39 percent of its permitted capacity. The increase in processing of an average of 150 BOPD, which is equivalent to an increase of 3 percent over existing flows or less than 2 percent of existing remaining permitted capacity of 8,000 BOPD, is not significant enough to affect existing systems, such as storage tanks. Total average daily production from PRC 421 would be 150 BOPD, or less than 4 percent of the available capacity of 4,000 barrels of the storage tanks, which were designed to address permitted flows of 13,000 BOPD. If required, PRC 421 production can also be shut down in less than 5 minutes (refer to page 4-84), with an estimated 1.7 barrels sent on into the EOF, which would not exceed onsite storage capacity or affect the overall safety of operations at the EOF. Finally, the new transformer, variable speed drive, and upgraded electrical cabinet containing the programmable logic controller would all be located within existing developed areas of the EOF, set back from the western edge of the facility and Bell Canyon Creek by 25 to 50 feet. While these facilities would be within the 100-foot buffer from Bell Canyon Creek, they would be located amidst existing industrial facilities and operations and would not substantially alter existing operations by increasing noise, adding light, or increasing potential for spills that could affect the Bell Canyon Creek ESHA; however, additional discussion has been added to Impact T-BIO-1 to address these improvements.

CG-19 The EIR text has been revised to recognize the potential higher risk of fire due to the lighter weight of PRC 421 oil versus Platform Holly oil, PRC 421's location off of Hollister Avenue, and the potential impacts at adjacent land uses.

CG-20 The text has been revised as suggested.

CG-21 MM HAZ-1e has been revised to include a security and agreement with the City of Goleta for the decommissioning and removal of the portions of the Project located in the City's jurisdiction.

CG-22 Please refer to Section 4.7, Terrestrial Biological Resources, which has been revised to further address these issues. The existing setting discussion is based upon a range of documents, including a previously prepared wetland delineation survey approved by Santa Barbara County and several Mitigated Negative Declarations (MNDs) prepared by both Santa Barbara County and the City of Goleta. Most applicably, in 2001, the County approved MND 01-ND-34 which assessed in detail the potential impacts to three wetlands located along the PRC 421 access road and required installation of offsite mitigation for impacts to such wetlands (Santa Barbara County, 01-ND-34). Two of the wetlands were filled and more than 100 tons of road base overlying 3 inches of float rock were laid down as part of prior road repairs, along with other major improvements in this area. Required wetland restoration of 7,000 square feet of riparian/wetland habitat along the PRC 421 access road and Bell Canyon Creek was completed in 2005 as mitigation for impacts related to the road repair. Follow-up monitoring by Santa Barbara County confirmed successful implementation of this offsite wetland restoration (Watershed Environmental 2003; City of Goleta 2005). The wetland mitigation plan and the review of this mitigation by the City of Goleta have been included in Appendix L. Because PRC 421 recommissioning improvements would be confined to existing developed areas that have been subject to both historic and relatively recent major disturbance and previous offsite habitat restoration, the existing level of information within the document appears adequate for impact assessment.

No additional wetland delineations are proposed to address project impacts as these wetlands have been previously delineated and altered. Project-related improvements adjacent to wetland areas would consist of a narrow trench constructed in previously disturbed roadbed and would be confined to the existing roadbed. No special status species surveys were required as all improvements would be confined to existing developed areas and biological monitors would be used to avoid or minimize offsite disturbances. Substantial areas are available for habitat mitigation or restoration on or around the City's Sperling Preserve and Ellwood-Devereux Open Space. Many coastal canyons and tributaries to Devereux Creek support similar often degraded wetland habitats similar to those potentially impacted by the proposed Project.

CG-23 The text in the impact analysis for Section 4.7, Terrestrial Biological Resources, has been revised to include discussion of the 25-foot section of 6-inch pipeline that would be repaired and extensions of this pipeline at both ends. As discussed in CG-7, construction equipment would be used on the beach to repair the 25-foot section of 6-inch pipeline, as well as to recommission PRC 421-2 and decommission PRC 421-1. This activity is analyzed under Impact MBIO-1 and MBIO-3.

CG-24 CSLC considered an accelerated pumping schedule under the Condensed Production Schedule Alternative; however, accelerated pumping was found to be infeasible due to reservoir characteristics, issues associated with increasing or variable water cut, and resultant required changes in project operation (e.g., disposal of increased amounts of produced water). Further, given reservoir characteristics, accelerated pumping may not provide efficient access to all field resources, leaving unrecovered oil in place, which may be inconsistent with PRC 421 lease terms. Leaving unrecovered oil in place may also incrementally increase both the chance and the volume of oil that could potentially be released due to repressurization.

CG-25 Figure 5-1 has been revised to more clearly depict where the 2-inch flowlines are located. There are a total of three 2-inch flowlines: one 2-inch flowline in the existing/new 6-inch pipeline that would run from PRC 421-2 to the EOF, and two 2-inch flowlines that would be located within a separate 6-inch pipeline that would run between PRC 421-1 and PRC 421-2. These additional 2-inch flowlines would be required to transport oil and produced water and gas between PRC 421-1 and PRC 421-2.

CG-26 References to decommissioning Pier 421-1 under the No Project Alternative have been removed and Impact VR-4 has been updated accordingly.

CG-27 A discussion of operational noise associated with new processing equipment on Pier 421-2 under the No Project Alternative was added, as suggested.

CG-28 In order to test the pressure in the Vaqueros Reservoir, the well at PRC 421-2 would need to be reactivated. As discussed under project history, reactivation even for the purposes of pressure testing would require completion of a number of major improvements, including potential road improvements and installation of oil production and transport facilities, as well as processing of produced oil at the EOF, with potential for improvements at that facility. Obtaining meaningful pressure testing results would likely require several years of data collection, which would extend oil production beyond a shorter testing period, which in turn would require installation of more robust longer-term improvements with associated impacts. Because this well is currently shut-in and its reactivation for pressure testing alone would entail impacts similar to, although of shorter duration than, the proposed Project, the CSLC would not reactivate the well under the No Production/Quitclaim State Oil and Gas Lease PRC 421 Alternative. (See also master response MR-3.)

CG-29 Quitclaim of the lease would eventually require adherence to the terms of the lease, which generally require the Lessee to surrender the premises with all permanent improvements thereon or, at the option of the State and as specified by the State, remove such structures, fixtures, and other infrastructure and equipment that have been put on the leased lands by the Lessee, and otherwise restore the premises. All removal and restoration costs would be borne by the Lessee, subject to the Lessee's right to remove his

equipment as provided in the statutes. The No Production/Quitclaim State Oil and Gas Lease PRC 421 Alternative acknowledges eventual decommissioning and describes likely cost apportionment to agencies or other outcomes (refer to Section 5.3.2). Thus, under the No Production/Quitclaim State Oil and Gas Lease PRC 421 Alternative, Venoco would eventually be required to file a decommissioning plan for all PRC 421 facilities. As disclosed in the EIR, this would be subject to future decommissioning permits. Consistent with requirements for alternatives analysis in State CEQA Guidelines section 15126.6 and the requirement for future permitting for decommissioning, this analysis is programmatic in nature. The impacts of future decommissioning activities are discussed programmatically throughout the EIR, particularly for PRC 421-1, as well as within the Alternatives.

CG-30 The description of the Alternative remains accurate and is based on transferring and processing oil/water/gas emulsion at LFC. This alternative was considered because processing at the EOF would require minor improvements at the EOF, which may or may not be found by the City to be consistent with adopted ordinance provisions for legal nonconforming uses. As with all production alternatives, some use of the EOF would be required, including new control and security monitoring equipment within the EOF control room. The goal of this Alternative is to produce oil at PRC 421 while avoiding use of the EOF for processing, not to facilitate phasing out the EOF. See also response CG-31 and master response MR-2.

CG-31 The Line 96 Pipeline Modification Project EIR fully examined an offshore oil pipeline alternative route from the EOF to LFC and it was determined to be more environmentally damaging compared to the onshore route. Therefore, evaluating an offshore route is not consistent with the intent of the alternative analysis of this EIR, which is to reduce potential environmental impacts associated with the Project.

CG-32 Please see master response MR-4 regarding the use of trucking wastewater.

CG-33 Text has been revised as suggested. Also see master response MR-4 for a discussion regarding limitations to commingling PRC 421 production with ExxonMobil's production at LFC. Further, analysis of alternatives need not include every possible option, but is required to provide a sufficient range of alternatives and information to allow informed decision-making. The EIR discloses challenges and impacts associated with processing of PRC 421 production at LFC, and summarizes the facility's limitations based on consultations with the operator. The EIR is not required to explore all possible details of each alternative, but rather set forth brief descriptions of the potential alternative and its associated impacts to allow comparison with the proposed Project. The analysis within this alternative meets this standard.

CG-34 Please see master response MR-2. The EIR evaluates the Processing PRC 421 Oil at LFC Alternative and its associated impacts, and recognizes that the

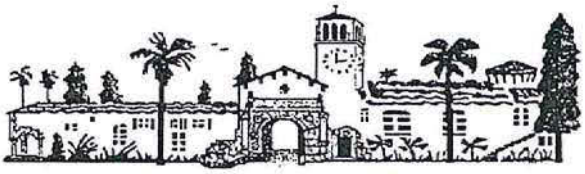
City of Goleta will need to decide if required changes at the EOF are consistent with adopted City ordinances.

CG-35 The EIR provides the best available information on repressurization. The alternatives analysis is crafted to meet the basic Project objective of resuming oil production at PRC 421 while providing a reasonable range of alternatives for consideration. The project objective is not to address repressurization, an ongoing natural phenomenon, but partially alleviating the adverse potentially consequences of repressurization is a potential benefit of the proposed Project. The EIR properly does not engage in speculation as to why no identified leaks, aside from the gas leaks at PRC 421, have occurred to date, but provides information regarding this issue. Although this information is related to the Project, it is separate from the Applicant's request to recommission PRC-421. See also master response MR-3.

CG-36 The EIR recognizes that the City of Goleta will need to decide if required changes at the EOF are consistent with adopted City ordinances. Should the City elect to find that use of the EOF does not comport with City policies and ordinances, the EIR has provided a range of alternatives that do not require processing at the EOF, including surf zone processing at PRC 421 and processing at LFC. For a discussion regarding use of the EOF, see master response MR-2. The text regarding policy consistency has been revised as suggested.

CG-37 The commenter provides no evidence or detailed analysis to support the conclusion that repressurization is not occurring. In contrast, based on available data and best available information regarding known repressurization and abandonment techniques employed on older offshore wells, the CSLC staff has determined that repressurization of the Vaqueros Reservoir has occurred in the past and has the potential to result in a release of oil from a natural seep or failure of a previously capped well that was not abandoned using today's standards. Producing oil from PRC 421-2 would reduce pressure in the reservoir for the short- to mid-term, reducing potential for a leak from a previously capped well or a natural seep. Additionally, over the long term, draining oil from this reservoir would leave less oil in the formation subject to potential leaking. The Project would also enable the collection of pressure monitoring data by Venoco over the productive life of PRC 421. Therefore, the CSLC maintains that the No Production/Quitclaim Lease Alternative is not the environmentally superior alternative and has the reasonably foreseeable potential to result in future releases of oil and gas into the marine environment. For further discussion on repressurization, see master response MR-3.

COMMENT SET 2: COUNTY OF SANTA BARBARA



County of Santa Barbara
Planning and Development
Glenn S. Russell, Ph.D., Director
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September 24, 2014

Mr. Eric Gillies
Assistant Chief
Division of Environmental Planning and Management
California State Lands Commission
100 Howe Avenue Suite 100-South
Sacramento, CA 95825

RE: Comments on the Revised PRC 421 Recommissioning Draft EIR, SCH# 2005061013, CSLC EIR #732

Dear Mr. Gillies:

Thank you for the opportunity to comment on the Revised Draft EIR. I was pleased to see that the comments I provided in my December 19, 2013 comment letter were included, particularly the more robust analysis of the Las Flores Canyon (LFC) Alternative. The following comments focus primarily on the LFC Alternative and suggest how the current analysis can be further enhanced.

The LFC Alternative is extremely important because it is the alternative that is consistent with the County's South Coast Oil and Gas Consolidation Policies (SCCP). When the County Board of Supervisors adopted the SCCP in 1987, its intention was to phase out older oil and gas processing, storage and transportation facilities with the primary goal of minimizing industrialization along the South Coast by optimizing consolidation of oil and gas facilities and sites. At that time the Gaviota and Las Flores Canyon sites were designated as the two consolidation sites; today only Las Flores Canyon remains so designated. SBC-1

As part of the Consolidation process, seven oil and gas facility sites were rezoned to either agricultural or recreational zoning designations, making the existing operations legal non-conforming uses. The intent of the rezones was to disallow additional industrial expansion, while still allowing the current operations to continue within their permitted rights. The Venoco Ellwood Onshore Processing Facility (EOF) and site were affected by these rezones, making the EOF a legal non-conforming use and the site rezoned to recreation. Of the seven sites which were rezoned, only Venoco remains in operation.

The preparers of the EIR have expanded the analysis of the LFC Alternative, but additional critical details are still missing which are necessary to make an informed decision on the project.

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The following comments provide specific recommendations for additional detail and accuracy within the LFC Alternatives analysis.

1. The analysis states that if a water reinjection well for PRC-421 is infeasible at LFC, then a water pipeline to carry the produced water back to PRC-421 for injection at PRC 421-1 would be necessary. This would keep the PRC-421-1 in indefinite operations, with all of the associated potential impacts. Other alternatives to dispose the produced water need to be explored. The worst case scenario would be to truck the produced water from LFC to a disposal site. SBC-2

2. The LFC Alternative does not provide details for the transportation of the crude oil to The Plains pipeline. The oil should be able to be readily injected into the ExxonMobil Oil Discharge Line to avoid building a new pipeline. SBC-3

3. Processing capacity at the POPCO gas plant should be more than adequate to handle the PRC-421 production. POPCO processing capacity is approximately 90 MMSCFD, and the current throughput rate is approximately 33 MMSCFD. The PRC-421 gas production would not be a significant contribution to the POPCO plant. SBC-4

4. The identified three phase flow in the new pipeline would reduce the reliability of a leak detection system. Leak detection reliability and response are critical factors in determining pipeline integrity and risk mitigation. The proposed three phase flow needs to be evaluated in greater detail, including a thorough analysis of specific leak detection systems that would affectively monitor this type of flow. SBC-5

5. The Alternative does not discuss how the produced oil would be handled at LFC. There is no discussion of a storage tank at LFC to store and send oil to the Plains pipeline. SBC-6

I offer an additional comment on the Quitclaim Alternative. The Alternative does not adequately address the re-pressurization of the Ellwood field if well 421-2 well is shut in, which is the only active well that can be used to depressurize the system. The potential affect of elevating the pressure in the field knowing that there are improperly abandoned wells offshore needs to be clearly analyzed. Failure of any of those offshore wells could result in oil releases into the marine environment. SBC-7

Finally, I ask that you include in the cumulative analysis Venoco's recent request to the CSLC to expand the boundaries of State lease PRC-3242 and drill six new wells. The project would add an estimated 3,800 barrels of oil for processing at the Venoco EOF, resulting in potentially significant project specific and cumulative impacts, and along with the PRC-421 proposal, encourage the continued operations of the legal non-conforming EOF processing facility. SBC-8

If you have any questions or comments regarding this letter, or would like to discuss my comments further, please call Kevin Drude at (805) 568-2519.

Sincerely,

Diane M. Black

for Glenn S. Russell, Ph.D., Director

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RESPONSE TO COMMENT SET 2: COUNTY OF SANTA BARBARA

SBC-1 The history and relevance of the South Coast Oil and Gas Consolidation Policies adopted in 1987 by the County is acknowledged.

SBC-2 In accordance with State CEQA Guidelines section 15126.6, subdivision (b), "the discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project." Due to the additional environmental impacts associated with the trucking of wastewater for disposal, this Alternative would not substantially lessen significant environmental impacts of the proposed Project. While alternatives do not need to be discussed at a similar level of detail to the proposed Project or provide exhaustive analysis of every option, the Processing PRC 421 Oil at LFC Alternative currently provides a relatively detailed analysis of produced wastewater disposal issues; however, in the interest of full disclosure, issues associated with trucking are briefly discussed in master response MR-4.

SBC-3 Although specified in the Recirculated Draft EIR on page 5-41 (lines 1-3), the text in Section 5.3.4 in the Final EIR has been revised to provide more details on delivery. Under the Processing PRC 421 Oil at LFC Alternative, PRC 421 oil from the LFC facility would be routed alongside existing ExxonMobil pipelines to the Plains All American Pipeline, LP (PAAPLP) Coastal Pipeline pump station, and then directly injected into the PAAPLP Coastal Pipeline.

SBC-4 As stated in Section 5.3.4, gas separated from the oil/gas/water emulsion would be transferred to ExxonMobil's Pacific Offshore Pipeline Company (POPCO) facility for processing, thereby slightly increasing throughput at this facility. These existing facilities would continue to be operated consistent with industry standards and local, State, and Federal regulations.

SBC-5 There are multiple leak detection system vendors of three-phase modeling programs with transient response features available (e.g., "OLGA"). All leak detection system vendors the Applicant has communicated with, including OLGA (Schlumberger), ATMOS, and EFA (Ed Farmer Associates), stated that the compositional changes expected from the well source, as well as inherent phase changes that would occur along the route, make leak detection with a three-phase flow a particularly challenging application. The use of real-time transient models has the potential to offer better accuracy, but at this time no vendor has agreed to furnish a specific quantitative estimate. The EIR states in Section 2.5.2, Maintenance and Safety of Line 96, that the existing Line 96 leak detection accuracy is estimated to fall in the +/- 5 percent range over a 4-hour period, and +/- 1 percent range over a 24-hour period. For the PRC 421 emulsion line, the pipeline pressure/composition is much more variable. As such, the maximum accuracy of the leak detection system is expected to be +/- 15 percent over a 4-hour period. Flow upsets (including slug flows) could

further reduce accuracy to +/- 40 percent until flow equilibrium is reestablished.

SBC-6 Section 5.3.4, Processing PRC 421 Oil at LFC Alternative, describes the storage and transfer of produced oil from the LFC facility to the PAAPLP. Oil that is separated during this process would be stored, tested, and then injected into the PAAPLP Coastal Pipeline for transfer. The oil would first be deposited and stored in a 5,000 barrel capacity tank at the Receiving Station. The oil would then run through a Lease Automatic Custody Transfer (LACT) unit to measure the volume and quality of the oil. If the oil does not meet the specifications for basic sediment and water (BS&W), it would be processed a second time through the dehydration plant or batch treated until it passes these composition inspections. Once the oil meets specified standards it would be transferred to the transportation terminal facility via a new pipeline that would be routed alongside existing ExxonMobil pipelines to the PAAPLP pump station, and then directly injected into the PAAPLP Coastal Pipeline. Please refer to Figure 5-4, which depicts a 5,000 barrel capacity oil tank, and Section 5.3.4 of the Final EIR, which describes oil processing, storage and transport.

SBC-7 The No Production/Quitclaim State Oil and Gas Lease PRC 421 Alternative discusses the implications and impacts of repressurization, as does the body of the EIR. Please also refer to MR-3 for discussion of repressurization under this Alternative.

SBC-8 The South Ellwood Field Project proposal has been incorporated into the list of cumulative projects, and relevant cumulative discussion. Please see Section 3.0, Cumulative Impacts Methodology, of the Final EIR.

COMMENT SET 3: SANTA BARBARA COUNTY AIR POLLUTION CONTROL DISTRICT (APCD)

From: Joseph E. Petrini [PetriniJ@sbcapcd.org]
Sent: Monday, September 08, 2014 2:06 PM
To: Comments, CEQA@SLC
Cc: Molly M. Pearson
Subject: Revised PRC 421 Recommissioning Recirculated Draft EIR Comments

September 8, 2014

Eric Gillies, Project Manager
California State Lands Commission
100 Howe Avenue, Suite 100-South
Sacramento, CA 95825

Dear Mr. Gillies,

The Santa Barbara County Air Pollution Control District (APCD) appreciates the opportunity to provide comments on the Recirculated Draft Environmental Impact Report (EIR) for the PRC 421 Recommissioning Project. Venoco proposes to reactivate oil Well 421-2 on Pier 421-2 and decommission Well 421-1 on Pier 421-1. Also proposed at Pier 421-2 are a new downhole electric submersible pump, a pig receiver, and new decking and handrails. Decommissioning of Well 421-1 will include complete removal of the existing pier structure and shutting-in the well, soil remediation, and restoration of the beach and seawall. A new 3-inch flowline will be installed in an existing 6-inch pipeline and would be reconfigured to Well 421-2 to the Ellwood Onshore Facility (EOF) for processing produced oil. The total throughput at the EOF would remain below permitted production limits. A new electric motor control panel, transformer, oil meter, and power cable connections and other improvements will be installed at the EOF. Electricity will be provided to the pier through two cables buried within a 30-inch deep and 2,500 foot-long trench.

A recirculated draft EIR has been prepared for the PRC 421 Recommissioning Project. The recirculated draft EIR replaces the final EIR for the project that was published during January 2014. The major revision to the January 2014 final EIR is the analysis of an alternative to process oil from PRC 421 at Las Flores Canyon (LFC). The alternative project would require the construction of new pipeline between the city of Goleta and LFC.

The proposed project is subject to APCD permit requirements and prohibitory rules, and an APCD permit will be required for modifications to the EOF and recommmissioning of the well. Therefore, APCD is a responsible agency under the California Environmental Quality Act (CEQA), and will rely on the EIR when evaluating APCD permits for proposed equipment. The EIR should include the air pollutant emissions and impact analysis for all proposed equipment to avoid additional CEQA documentation requirements related to APCD permit issuance.

APCD staff offer the following comments on the Draft Recirculated EIR:

1. **Health Risk Assessment**: This project is considered a part of the Ellwood Onshore Facility stationary source. APCD will require that a health risk assessment (HRA) be conducted for the modified stationary source prior to issuance of an APCD permit for the new production well and associated equipment. If an HRA is prepared prior to finalizing the EIR, the HRA results should be incorporated into the final EIR. The requirement for an HRA was previously identified in APCD's April 22, 2013 letter in response to the NOP and in the December 19, 2013 APCD letter containing comments on the draft EIR. APCD-1

2. **Air Quality and Greenhouse Gases Section, Table 4.4-6, Page 4-135**: Table 4.4-6 erroneously presents NOx as a pollutant associated with fugitive emissions from component leak paths. NOx is a product of combustion and would not be emitted from any sources of fugitive emissions. It is unclear whether the NOx emissions identified as "fugitive" are misplaced in the table or whether this is a typographical error. Please correct Table 4.4-6 accordingly. APCD -2

If you or the project applicant have any questions regarding these comments, please feel free to contact me at (805) 961-8894 or via email at jep@sbcapcd.org.

Thank you.

Joe Petrini
Emission Inventory/Planning Specialist III
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Santa Barbara, CA 93110
Phone: (805) 961-8894
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RESPONSE TO COMMENT SET 3: SANTA BARBARA COUNTY APCD

APCD-1 Section 1.3.1 of the Final EIR, Responsible and Coordinating Agencies/Permitting, has been revised to include the Health Risk Assessment (HRA).

APCD-2 Table 4.4-6 and related text has been corrected.

COMMENT SET 4: CALIFORNIA DEPARTMENT OF CONSERVATION, DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES (DOGGR)

NATURAL RESOURCES AGENCY EDMUND G. BROWN JR., GOVERNOR

DEPARTMENT OF CONSERVATION

Managing California's Working Lands

DIVISION OF OIL, GAS, & GEOTHERMAL RESOURCES

195 S. BROADWAY • SUITE 101 • ORCUTT, CALIFORNIA 93455-4655

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August 26, 2014

Mr. Eric Gillies, Project Planner
California State Lands Commission
100 Howe Avenue, Suite 100-South
Sacramento, CA 95825

Dear Mr. Gillies:

SCH#2005061013 REVISED PRC 421 RECOMMISSIONING PROJECT

The Division of Oil, Gas, and Geothermal Resources (Division) has previously reviewed and submitted a letter dated April 22, 2013 with comments on the Notice of Preparation document. As previously indicated the Division is mandated by Section 3106 of the Public Resources Code (PRC) to supervise the drilling, operation, maintenance, and abandonment of oil and gas wells. This is for the purposes of preventing: 1) damage to life, health, property, and natural resources; 2) damage to underground and surface waters suitable for irrigation or domestic use; 3) loss of oil, gas, or reservoir energy; and 4) damage to oil and gas deposits by infiltration of water and other causes.

Under Section 1.3.1 Responsible and Coordinating Agencies/Permitting in the above document, the Division would also be responsible for reviewing and approving proposed plugging and abandonment operations considered for the idle injection well, in addition to the Notice of Intention to Rework for the reactivation of the idle producer. DOGGR-1

Along with the Division's mandate under Section 3106 of the PRC to supervise the drilling, operation, maintenance, and abandonment of oil and gas wells, the Division oversees the operation, maintenance, and removal or abandonment of tanks and facilities attendant to oil and gas production, including pipelines. The Division has regulations under the California Code of Regulations (CCR) §1774 - §1774.2 that address pipeline construction, maintenance, inspection, testing and required pipeline management plans. The district office must also be notified to witness any pressure testing of the 3" flowline. Surface and subsurface safety valves must also be tested monthly and documentation filed with the Division within 5 days. A Division engineer will also witness quarterly testing of safety devices as required in CCR §1747.

If you have any questions, please contact our district office at 805 937-7246

Sincerely,

Patricia A. Abel
District Deputy

cc: Chrono/CEQA Unit/CEQA file

The Department of Conservation's mission is to balance today's needs with tomorrow's challenges and foster intelligent, sustainable, and efficient use of California's energy, land, and mineral resources.

RESPONSE TO COMMENT SET 4: DOGGR

DOGGR-1 Section 1.3.1 of the Final EIR, Responsible and Coordinating Agencies/Permitting, has been revised to list additional requirements. Text relating to DOGGR regulations and requirements on pressure testing and testing of safety valves and devices has also been incorporated in Section 2.0, Project Description, of the Final EIR.

COMMENT SET 5: UNITED STATES ARMY CORPS OF ENGINEERS (USACE)

From: Huerta, Crystal L. SPL [crystal.huerta@usace.army.mil]
Sent: Wednesday, July 30, 2014 11:15 AM
To: Comments, CEQA@SLC
Subject: Revised PRC 421 Recommissioning Project NOA Draft EIR (Corps File No. 2014-00453) (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Dear Eric Gillies:

This email is in response to the public review recirculated Draft EIR that was receive by our office on July 25, 2014. The activities stated in this public review indicate that impacts proposed may impact waters of the U.S.

An application for a DA permit is available on our website: http://www.spl.usace.army.mil/Missions/Regulatory/PermitProcess.aspx. If you have any questions, please contact me at 805-585-2143 or via e-mail at crystal.huerta@usace.army.mil. Please refer to this letter and SPL-2014-00453 in your reply.

USACE -1

Thank you.

Crystal L. M. Huerta
Senior Project Manager, North Coast Branch Regulatory Division U.S. Army Corps of Engineers, Los Angeles District
2151 Alessandro Drive, Suite 110, Ventura, CA 93001
Tel: (805) 585-2143, Fax: (805) 585-2154 Loyalty*Duty*Respect*Selfless Service*Honor*Integrity*Personal Courage

email: crystal.huerta@usace.army.mil
website: http://www.spl.usace.army.mil/Missions/Regulatory.aspx

Assist us in better serving you!
You are invited to complete our customer survey, located at the following link: http://corpsmapu.usace.army.mil/cm_apex/f?p=regulatory_survey.
Note: If the link is not active, copy and paste it into your internet browser.

Classification: UNCLASSIFIED
Caveats: NONE

RESPONSE TO COMMENT SET 5: USACE

USACE-1 Section 1.3.1 of the Final EIR, Responsible and Coordinating Agencies/Permitting, has been revised to include the USACE and the Department of the Army Permit as a responsible and coordinating agency and required permit, respectively.

COMMENT SET 6: CENTER FOR BIOLOGICAL DIVERSITY (CBD)

Via Electronic and First Class Mail

September 24, 2014

Eric Gilles, Project Manager
California State Lands Commission
100 Howe Ave., Suite 100-South
Sacramento, CA 95825
Email: CEQAcomments@slc.ca.gov
Fax: (916) 574-1885

Re: Comments on the Recirculated Draft Environmental Information Report for Revised PRC 421 Recommissioning Project, CSLC EIR Number: 732

The Center for Biological Diversity (the "Center") submits the following comments on the Recirculated Draft Environmental Impact Report ("RDEIR") prepared for the California State Lands Commission ("CSLC") for the Recommissioning of Oil and Gas Lease PRC 421 (the "Project").[1] The Center is a non-profit environmental organization dedicated to the protection of imperiled species, their habitats, and the environment through science, policy, and environmental law. Given the significant environmental impacts from the Project, and the fact that the facility is a non-conforming use, the CSLC should reject the Project in its entirety, irrespective of any contractual obligations the CSLC might have outside of the environmental review process. The CSLC should instead adopt the No Production Alternative (RDEIR 5.3.2) in order to adequately protect public health and the environment.

CBD-1

If, however, the CSLC does not reject the Project, it cannot approve the Project unless and until it revises the RDEIR to meet all applicable legal standards. *See* Cal. Pub. Res. Code § 21061. While the RDEIR has some improvements over the 2013 Draft EIR, it is still deficient in several respects. First, the RDEIR fails to expressly prohibit fracking and other unconventional well stimulation techniques; consequently, the CSLC cannot defer the analysis of the environmental impacts of such practices to some future date. Second, the RDEIR fails to address several environmentally relevant issues including the project's effect on water quality, air quality, and increased risk of earthquakes. Finally, the RDEIR fails to include an acceptable mitigation plan in the event of an oil spill and for greenhouse gas emissions. Accordingly, the RDEIR fails to comply with the California Environmental Quality Act ("CEQA"). *See id*.

[1] On December 19, 2013, the Center submitted comments on the original Draft Environmental Impact Report for Revised PRC 421 Recommissioning Project. The Center hereby incorporates those comments by reference.

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1. The CSLC Must Expressly Prohibit Fracking and Other Enhanced Recovery Techniques as a Permit Condition or Mitigation Measure

a. Fracking and Other Unconventional Well Stimulation Techniques Can Cause Significant Environmental Harm

Before the CSLC can approve the Project, it must expressly prohibit fracking, acidization, acid fracturing, and gravel packing techniques as a permit condition or mitigation measure. As the CSLC is aware, the legislature enacted CEQA in order to, *inter alia*, "[d]evelop and maintain a high-quality environment now and in the future, and take all action necessary to protect, rehabilitate, and enhance the environmental quality of the state." Cal. Pub. Res. Code § 21001(a). To accomplish this objective, CEQA contains both procedural and substantive requirements with which all agencies must comply. In particular, CEQA requires the CSLC to not only publically identify and analyze the environmental impacts of a proposed project, but also "to mitigate *or avoid* the significant effects on the environment of projects that it…approves whenever it is feasible to do so." Cal. Pub. Res. Code § 21002.1 (emphasis added). As Venoco – the Project proponent – has indicated that it can accomplish the Project without engaging in fracking, acidization, or acid fracturing techniques, *see* RDEIR at ES-8; 2-16, it is certainly "feasible" for CSLC to prohibit Venoco from conducting such activities. *See* Cal. Pub. Res. Code § 21061.1 (defining "feasible" as "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and technological factors"). And given the significant environmental hazards inherent in the practice fracking and other unconventional well stimulation techniques, it is incumbent upon the CSLC to expressly prohibit such practices. CBD-2

Water contamination is a significant risk of fracking because of the hundreds of toxic chemicals used in fracking fluid. While the oil and gas industry has (until very recently) successfully evaded any requirements to disclose all of the chemicals used in fracking operations, what is known is cause for great alarm. For example, a 2013 Congressional Report that sampled data from incomplete industry self-reports found that "[t]he oil and gas service companies used fracking products containing 29 chemicals that are (1) known or possible human carcinogens, (2) regulated under the Safe Water Drinking Act, or (3) listed as hazardous air pollutants under the Clean Air Act."[2] A peer-reviewed study that examined fracking fluid products determined that more than 75 percent of the chemicals could affect the skin, eyes, and other sensory organs, and the respiratory and gastrointestinal systems; approximately 40 to 50 percent could affect the brain/nervous system, immune system, cardiovascular system, and the kidneys; 37 percent could affect the endocrine system; and 25 percent could cause cancer and

[2] United States House of Representatives, Committee on Energy and Commerce Minority Staff, et al., Human health risk assessment of air emissions from development of unconventional natural gas resources, Sci. Total Environ. (2012), at 8; *see also* Letter from Center for Biological Diversity to CSLC, December 12, 2013 at 3-11 (detailing detrimental impacts from fracking and other enhanced recovery techniques).

mutations.[3] Another recent study found increased arsenic and heavy metals in groundwater near fracking sites in Texas.[4]

Moreover, recent information indicates that fracking also releases toxic air pollutants.[5] For example, one year after the South Coast Air Quality Management District began requiring the oil and gas industry to report the use of chemicals in certain well operations in the South Coast Air Basin, records show that oil companies have used 44 different air toxic chemicals more than 5,000 times in Los Angeles and Orange counties in the past 12 months.[6] These data also indicate that the oil industry has used more than 45 million pounds – or 22,500 tons – of air toxics in 477 fracking, acidizing and gravel packing operations in Los Angeles and Orange counties alone since mandatory reporting began in June of 2013.[7] The known air toxics most frequently used by oil companies in the Los Angeles air basin include crystalline silica, hydrofluoric acid, and formaldehyde.[8] Air toxics are those chemicals considered to be among the most dangerous air pollutants because they have been proven to cause significant health harms, illness, and death. Formaldehyde, for example, harms the eyes and respiratory system and is classified as a cancer- causing substance by the International Agency for Research on Cancer and the California Air Resources Board.[9] Similarly, crystalline silica, classified a hazardous substance under the Occupational Safety and Health Act and the Comprehensive Environmental Response, Cleanup, and Liability Act, causes eye and skin burns, is harmful if swallowed, causes respiratory tract irritation, and is a cancer hazard.[10]

CBD-2 cont.

In addition to posing a significant health risk to humans, fracking can kill or harm a wide variety of marine life, including some of California's most iconic wildlife species. Scientific research has indicated that 40 percent of the chemicals added to fracking fluids have been found to have ecological effects, indicating that they can harm aquatic animals and other wildlife.[11] Such problems can be exacerbated when fracking chemicals break down, or are combined with other chemicals and environmental stressors. For example, some of the chemicals used in fracking operations can break down into nonylphenol, a very toxic substance with a wide range of harmful effects that include the development of intersex fish and altered sex ratios at the

[3] Colborn, Theo, et al. Natural Gas Operations for a Public Health Perspective, 17 Human and Ecological Risk Assessment 1039 (2011).
[4] Fontenot, Brian E, et al. 2013. An evaluation of water quality in private drinking water wells near natural gas extraction sites in the Barnett Shale Formation. *Environmental Science & Technology;* U.S. GAO (2012) *Information on Shale Resources, Development, and Environmental and Public Health Risks.*
[5] McKenzie, L. et al. 2014. Birth outcomes and maternal residential proximity to natural gas development in rural Colorado. Environmental Health Perspectives, doi:10.1289/ehp.1306722.
[6] An Analysis from the Center for Biological Diversity, Physicians for Social Responsibility – Los Angeles, Communities for a Better Environment, and the Center on Race, Poverty and the Environment et al. *Air Toxics One-Year Report: Oil Companies Used Millions of Pounds of Air-Polluting Chemicals in Los Angeles Basin Neighborhoods*, June 2014.
[7] *Id.*
[8] *Id.*
[9] *Id.*
[10] 78 Fed. Reg. 56,274 (Sept. 12, 2013).
[11] California Council on Science and Technology. 2014. Advanced Well Stimulation Technologies in California: An Independent Review of Scientific and Technical Information. August 28, 2014, available at http://ccst.us/publications/2014/2014wst.pdf ("CCST").

population level.[12] Nonylphenol can also inhibit the development, growth, and survival of marine invertabraes, and has been shown to bioaccumulate in sea otters – a species listed as threatened under the federal Endangered Species Act.[13] But overall, far too little is known about the detrimental impacts of many fracking chemicals, which has lead the California Council on Science and Technology to recognize the necessity of "[a]n evaluation of eco-toxicological effects, including the potential impacts of these chemicals on aquatic organisms."[14]

These are but a sampling of the myriad of detrimental environmental impacts from fracking.[15] Thus, "in order to avoid the significant effects on the environment of [the] project" as required by CEQA, Cal. Pub. Res. Code § 21002.1, the CSLC must expressly prohibit fracking and other unconventional well stimulation techniques. The CSLC's reliance on the promises of Venoco in a letter that it will not engage in such practices is insufficient. *See Neighbors for Smart Rail v. Exposition Metro Line Construction*, 57 Cal. 4th 439, 465 (2013) (noting that CEQA "allows an agency to approve or carry out a project with potential adverse impacts *if binding mitigation measures* have been 'required in, or incorporated into' the project …") (emphasis added, citing Cal. Pub. Res. Code § 21081(a)).[16] Venoco's promises that it will not engage in certain practices are not part of the mitigation measures encompassed within the RDEIR and therefore cannot be considered binding. Therefore, the CSLC cannot approve the project unless and until it expressly prohibits fracking and other unconventional well stimulation techniques as a permit condition or mitigation measure.

CBD-2 cont.

b. The CSLC Cannot Segment its Analysis in Absence of an Express Prohibition

Absent an express permit condition or mitigation measures prohibiting fracking and other unconventional well stimulation techniques, the CSLC must analyze the environmental impacts of each of these practices prior to approving the project. Under CEQA, the CSLC must analyze the environmental impacts of a future action if "(1) it is a reasonably foreseeable consequence of the initial project; and (2) the future expansion or action will be significant in that it will likely change the scope or nature of the initial project or its environmental effects." *Laurel Heights Improvement Ass'n of San Francisco v. Regents of University of Cal.*, 47 Cal. 3d 376, 396 (1998). Such a requirement helps ensure that "environmental considerations do not become submerged by chopping a large project into many little ones." *Id.* (citations omitted). The potential for fracking and other unconventional well stimulation techniques to occur under the Project clearly meet this test – because the CSLC has not expressly prohibited such practices, they are a foreseeable consequence of the Project, and their impacts on the environment would be significant.

[12] Diehl, J., et al. 2012. The distribution of 4-nonylphenol in marine organisms of North American Pacific Coast estuaries. Chemosphere 87:490-497.
[13] *Id*.
[14] CCST at 193.
[15] *See* Letter from Center for Biological Diversity to CSLC, December 12, 2013 at 3-11 (detailing detrimental impacts from fracking and other enhanced recovery techniques).
[16] The statement in the RDEIR that Venoco would be required to get additional approvals in the future in order to engage in fracking and other enhanced recovery techniques suggests that the CSLC is not expressly prohibiting such practices as a mitigation measure and/or permit condition. *See* RDEIR at ES-8; 2-16.

Due to recent technological advancements, such as new horizontal drilling technology, the use of fracking in oil and gas extraction is a growing practice.[17] In fact, according to the Bureau of Land Management, *90 percent* of oil and gas wells on federal and Indian lands are fracked today,[18] and a study of data self-reported by industry reveals that nearly 2,000 wells have been fracked in California since January 2, 2011.[19] Other reports suggest that offshore fracking has occurred more than 200 times in California.[20] Moreover, the proponent of this particular project has fracked other offshore oil wells in the past, including at least one well in 2010, and at least 20 wells in 2011 and 2012.[21] As these data were based on voluntary self-reporting they are almost surely an underestimate. And, as articulated above, fracking will change the nature and scope of the environmental impacts of the proposed project. The evidence demonstrating that fracking and other unconventional well stimulation techniques are harmful to water quality, air quality, public health, and wildlife certainly render the impacts from such practices "significant." As such, the CSLC must analyze all of the direct, indirect, and cumulative impacts of fracking and other unconventional well stimulation techniques. But instead of doing so, the RDEIR simply states that it will conduct such analysis in the future if the Venoco seeks to undertake such practices. RDEIR at ES-8. But "[b]y deferring environmental assessment to a future date, the [RDEIR] run[s] counter to that policy of CEQA which requires environmental review at the earliest feasible stage in the planning process." *Sundstrom v. County of Mendocino*, 202 Cal. App. 3d 296, 307 (1988).

CBD-2 cont.

Moreover, even if Venoco's promises were somehow sufficient to absolve the CSLC from analyzing the impacts of fracking (which they are not), these promises only apply to certain practices. Specifically, Venoco's promises apply to "well stimulation techniques…within the meaning of California Public Resources Code Section 3157." RDEIR at ES-8; 2-16 (referencing the company's letter). This statute defines well stimulation as "any treatment of a well designed to enhance oil and gas production or recovery by increasing the permeability of the formation" and *specifically exempts* other recovery techniques, including "steam flooding, water flooding, or cyclic steaming." Cal. Pub. Res. Code § 3157(a), (b). However, as indicated in the Center's December 2013 comments on the DEIR, steam injection is a highly hazardous recovery technique that can cause "surface expressions" which has led to the death of at least one oil worker, and can also cause spills of hazardous chemicals.[22] Thus, the CSLC should expressly prohibit this enhanced recovery technique. If it does not do so, the CSLC's failure to address and mitigate the environmental impacts of steam injection in its current analysis violates its duties under CEQA. *See* CEQA Guidelines § 15126.2 ("[a]n EIR shall identify and focus on the significant environmental effects of the proposed action.").

[17] U.S. Dept. of the Interior, Bureau of Land Mgmt, Proposed Rule: Oil and Gas; Well Stimulation, Including Hydraulic Fracturing, on Federal and Indian Lands, 77 Fed. Reg. 27,691, 27,693 (May 11, 2012).
[18] *Id.*
[19] FracFocus, Home Search Page, www.fracfocus.org (last visited Sept 23, 2014).
[20] California Finds More Instances of Offshore Fracking, Oct. 19, 2013, http://www.usatoday.com/story/money/business/2013/10/19/calif-finds-more-instances-of-offshore-fracking/3045721.
[21] FracFocus, Home Search Page, www.fracfocus.org (last visited Sept 23, 2014).
[22] California Department of Conservation Division of Oil, Gas and Geothermal Resources, Executive Summary of Report of Occurrences: The Chevron Fatality Accident June 21, 2011 and Area Surface Expression Activity, Pre and Post Accident, Sections 21 & 22 T.32S./R.23E., Midway-Sunset Oil Field, Kern County (May 2012).

2. The RDEIR Fails to Address Numerous Environmental Impacts

In addition to entirely failing to properly analyze and mitigate the significant environmental impacts from fracking and other well stimulation techniques, the RDEIR fails to analyze and properly mitigate other detrimental environmental impacts, including the project's impacts on air quality, water quality, and increased risk of earthquakes. Such failures run afoul of the basic requirements of CEQA. *See Laurel Heights Improvement Ass'n of San Francisco v. Regents of the University of California*, 6 Cal. 4th 1112, 1123 (1993) (noting that an EIR must "inform the public and its responsible officials of the environmental consequences of their decisions *before* they are made… [to] protect[] not only the environment but also informed self-government").

For example, the RDEIR fails to properly analyze and mitigate against certain emissions that will result from the operation itself. *See* RDEIR 4-131-140. Air toxins emitted during oil and gas development and operations included volatile organic compounds and polycyclic aromatic hydrocarbons.[23] The study found that harmful chemicals were emitted throughout the drilling process, and air sampling detected many chemicals known to have harmful human health effects, including acetaldehyde, benzene, formaldehyde, isoprene, naphthalene, and many more.[24] Health effects associated with benzene include "acute and chronic nonlymphocytic leukemia, acute myeloid leukemia, chronic lymphocytic leukemia, anemia, and other blood disorders and immunological effects."[25] Yet there is no discussion of the project's potential to emit many of these toxins, including benzene. The CSLC must disclose, discuss, and mitigate the direct and cumulative impacts of these emissions on human health and the environment, and all other air pollutants emitted as a result of the Project in its EIR; the failure to do so violates CEQA. *Sundstrom*, 202 Cal. App. 3d at 307. CBD-3

Moreover, while the RDEIR discusses and mitigates the emissions of greenhouse gases, it does not specifically discuss what types of greenhouse gases will be emitted by the project, such as methane. But oil and gas operations are known to emit large amounts of methane – a potent greenhouse gas with a global warming potential more than 30 times that of carbon dioxide over a 100-year timeframe.[26] The failure to specifically discuss methane emissions is particularly troubling considering that methane also contributes to increased concentrations of ground-level ozone, the primary component of smog,[27] and this particular well has had methane leaks in the past. RDEIR at 2-2.

Nor does the RDEIR properly analyze the significant and deleterious impacts offshore oil and gas operations can have on water quality. While the RDEIR states that wastewater will be disposed of via injection into WD-1, RDEIR at ES-13, the RDEIR fails to analyze the potential impacts that adding the volume of waste and chemicals generated by the project will have. This is a rather glaring omission given the harmful sludge of wastewater chemicals produced by oil CBD-4

[23] Theo Colborn, et al., "An Exploratory Study of Air Quality near Natural Gas Operations," Human and Ecological Risk Assessment: An International Journal (November 26, 2012).
[24] *Id.* at 29-32, Table 4.
[25] McKenzie 2012, Food & Water Watch (2012) *The Case for a Ban on Fracking.*
[26] Myhre, G. et al. 2013. Anthropogenic and Natural Radiative Forcing, in Climate Change 2013: The Physical Science Basis. .
[27] 76 Fed. Reg. 52,738 (Aug. 23, 2011).

and gas drilling operations, including benzene, arsenic, lead, hexavalent chromium, barium, chloride, sodium, sulfates, and boron,[28] and that such practices have been known to cause groundwater contamination, and drinking water contamination, among other problems. Rather than incorporating an analysis of the impacts of such chemicals on human health and the environment into the RDEIR itself, the CSLC requires Venoco to perform a study to determine the potential for the Project to release previously unknown hazardous materials. RDEIR at 4-114. Such deferral of analysis is unlawful. *Sundstrom*, 202 Cal. App. 3d at 307.

CBD-4 cont.

The RDEIR also fails to discuss ocean acidification and the project's contribution to this increasing problem. Ocean acidification – caused by the absorption of CO_2 into seawater – has already caused the pH of our oceans to change by 30 percent since industrial times.[29] The primary impacts of such acidification is that it strips seawater of chemicals that animals require to build their shells and skeletons,[30] and has been found to have negative consequences for almost every type of animal with impacts on survival, reproduction, metabolism and growth.[31] Ocean acidification is also exacerbated by the emission of SOx and NOx.[32] As all three of these pollutants will be emitted by the project, RDEIR at 4-132, 4-135, 4-137, 4-140, the CSLC must disclose and analyze such impacts.

CBD-5

Finally, the RDEIR fails to address the fact that offshore oil and gas drilling can induce earthquakes. Scientists have long known that oil and gas activities are capable of triggering earthquakes, with records of the connection dating back to the 1920s.[33] More recent studies have drawn a strong connection between the recent rise in wastewater injection – the disposal method that would be adopted under the Project – and increased earthquake rates.[34] The USGS recently recognized that wastewater disposal from fracking is a "contributing factor" to the six-fold increase in the number of earthquakes in Oklahoma.[35] Another recent study also found that wastewater injection is responsible for the dramatic rise in the number of earthquakes in Colorado and New Mexico since 2001.[36] Wastewater injection has been scientifically linked to

CBD-6

[28] Mall, Amy, Petition for Rulemaking Pursuant to Section 6974(a) of the Resource Conservation and Recovery Act Concerning the Regulation of Wastes Associated with the Exploration, Development, or Production of Crude Oil or Natural Gas or Geothermal Energy (Sept. 8, 2010), at 7.

[29] James C Orr et al., "Anthropogenic Ocean Acidification over the Twenty-First Century and its Impacts on Calcifying Organisms," 437 *Nature* 681-86 (2005).

[30] Alan Barton et al., "The Pacific Oyster, Crassostrea Gigas, Shows Negative Correlation to Naturally Elevated Carbon Dioxide Levels: Implications for Near-Term Ocean Acidification Effects," 57 *Limnology and Oceanography* 698-710 (2012).

[31] Kristy J. Kroeker, et al., "Impacts of Ocean Acidification on Marine Organisms: Quantifying Sensitivities and Interaction with Warming." 19 *Global Climate Change Biology* 1884-1896 (2013).

[32] S.C. Doney et al., "Impact of Anthropogenic Atmospheric Nitrogen and Sulfure Deposition on Ocean Acidification and the Inorganic Carbon System," 104 *Proc. of the Nat. Academy of Sciences* 14580 (2007).

[33] National Research Council (2012) *Induced Seismicity Potential in Energy Technologies* at 3.

[34] Van de Elst, Nicholas J. et al., Enhanced Remote Earthquake Triggering at Fluid-Injection Sites in the Midwestern United States, 341 *Science* 164 (2013).

[35] Sumy, D. F.*, et al.* 2014. Observations of static Coulomb stress triggering of the November 2011 *M*5.7 Oklahoma earthquake sequence*, J. Geophys. Res. Solid Earth,* 119*,* 1904–1923*, DOI:10.1002/2013JB010612; USGS, Record Number of Oklahoma Tremors Raises Possibility of Damaging Earthquakes, http://earthquake.usgs.gov/regional/ceus/products/newsrelease_05022014.php (May 2, 2014).*

[36] Justin L. Rubinstein, et al. 2014. The 2001 – Present Induced Earthquake Sequence in the Raton Basin of Northern New Mexico and Southern Colorado. *Bulletin of the Seismological Society of America*, 2014 DOI: 10.1785/0120140009.

earthquakes of magnitude three and greater in at least six states: Arkansas,[37] Colorado,[38] Ohio,[39] Oklahoma,[40] Texas,[41] and New Mexico.[42] The largest of these earthquakes occurred near Prague, Oklahoma and had a magnitude of 5.7 – the biggest in the state's history.[43] It destroyed 14 homes, damaged a federal highway, injured two people, and was felt in 14 states.[44] The risk that oil and gas drilling in California will cause an earthquake is a real threat, as over half of California's 1,553 active and new wastewater injection wells are within ten miles of recently active faults, and at least 30 of California's offshore wastewater injection wells are located within three miles of a fault. Dozens more wastewater injection wells line the southern California coast, often located close to one or more faults.[45]

CBD-6 cont.

By failing to consider each of these potential impacts, the RDEIR fails to "present information in such a manner that the foreseeable impacts of pursuing the project can actually be understood and weighed" and fails to given the public "an adequate opportunity to comment on that presentation before the decision to go forward is made" as required by CEQA. *See Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova*, 40 Cal. 4th 412, 449-50 (2007). The CSLC cannot approve the proposed project unless and until it considers these impacts and provides the public with the opportunity to comment on such impacts.

3. The RDEIR Fails to Include Adequate Mitigation Measures for Significant Environmental Impacts from the Project

a. The RDEIR Fails to Include Mitigation Measures in the Event of an Oil Spill

The RDEIR fails to include adequate mitigation measures in the event of an oil spill from PRC 421, in violation of CEQA. Pursuant to CEQA, an EIR must include "mitigation measures…to minimize the [project's] significant effects on the environment." Cal. Pub. Res. Code § 21100(b)(3). The mitigation of a project's significant impacts has been described as one of the "most important" functions of CEQA. *Sierra Club v. Gilroy City Council*, 222 Cal. App. 3d 30, 41 (1990). The RDEIR acknowledges that there are significant impacts from potential oil spills resulting from the project. *See e.g.*, RDEIR at 4-103 (noting that the project "may have cumulatively considerable impacts related to oil spill risk"). Nevertheless, the RDEIR fails to

CBD-7

[37] E&E News, USGS, Okla. warn of more drilling-related earthquakes in State, Mike Soraghan. Oct. 25, 2013.
[38] *Id.*
[39] Ohio Dept. of Nat. Resources (2012) *Executive Summary: Preliminary Report on the Northstar 1 Class II Injection Well and the Seismic Events in the Youngstown, Ohio Area*; Fountain, Henry, Disposal halted at well after new quake in Ohio, *New York Times*, Jan. 1, 2012.
[40] Holland, Austin, Examination of possibly induced seismicity from hydraulic fracturing in the Eola Field, Garvin County, Oklahoma, Oklahoma Geological Survey Open-File Report OF1-2011 (2011).
[41] Frohlich, Cliff (2012) Two-year survey comparing earthquake activity and injection-well locations in the Barnett Shale, Texas. *Proceedings of the National Academy of Sciences*.
[42] Rubinstein, J. L, et al. 2012. The 2001-present triggered seismicity sequence in the Raton Basin of southern Colorado/Northern New Mexico, Abstract S34A-02 presented at 2012 Fall Meeting, AGU, San Francisco, Calif. Dec. 3-7, 2012.
[43] Kearnen, K.M. et al. 2013. Potentially induced earthquakes in Oklahoma, USA: links between wastewater injection and the 2011 M_w 5.7 earthquake sequence. Geology 41:699-702.
[44] *Id.*
[45] FracTracker.org, http://maps.fractracker.org/latest/?webmap=99ae030fd5844eadb3d14398cbcdafbd

mitigate such impacts. Instead, the RDEIR simply requires Venoco to develop a plan in the future. Specifically, MBIO-4a and MBIO-4b call for Venoco to update its Emergency Action Plan and Oil Spill Contingency Plan to mitigate impacts to sensitive biological resources and to consult with wildlife experts to develop a plan to protect cormorants and pelicans in the event of a spill. RDEIR at 4-199–4-200.

But as CEQA guidelines make perfectly clear, "mitigation measures should not be deferred until some future time." CEQA Guidelines § 15126.4(a)(1)(B); *see also Sundstrom*, 202 Cal. App. 3d at 307 (a "requirement that the applicant adopt mitigation measures recommended in a future study is in direct conflict with the guidelines implementing CEQA"). In other words, a mitigation plan "formulated…later outside the EIR process, does not satisfy CEQA's requirements." *Communities for a Better Environment v. City of Richmond*, 184 Cal. App. 3d 70, 96 (2010). The mitigation measures for an oil spill from PRC 421 that constitute nothing more than a requirement to develop a plan at some unspecified future date fail to comply with CEQA. This is a significant omission given the fact that there was an oil spill at the facility in 1994 – the last time the well was active. *See* RDEIR at ES-3. The CSLC therefore cannot approve the project unless and until it includes specific conditions to mitigate the impacts of an oil spill from PRC 421 as part of its EIR for the Project.

CBD-7 cont.

In addition, the RDEIR fails to discuss new information regarding the detrimental impacts of oil spills revealed by the BP oil spill in the Gulf of Mexico. For example, the RDEIR fails to consider a study that found that common bottlenose dolphins exposed to the oil spill were five times more likely to have moderate to severe lung disease than dolphins that were not in the heavily oiled area.[46] Another study found serious impacts on killfish.[47] The RDEIR is legally deficient for failing to disclose and analyze these significant impacts. *See Laurel Heights Improvement Ass'n*, 6 Cal. 4th at 1123.

CBD-8

b. The RDEIR Fails to Include Adequate Mitigation Measures for the Emissions of Greenhouse Gases

The RDEIR finds that there will be significant impacts from the emissions of greenhouse gases, but fails to include proper mitigation measures to address such impacts. Specifically, rather than including specific mitigation measures within the RDEIR itself, the RDEIR requires Venoco to develop and implement a program to reduce net greenhouse gas emissions to zero. RDEIR at 4-138. But as courts have made perfectly clear, "the novelty of greenhouse gas mitigation measures is one of the most important reasons 'that mitigation measures timely be set forth, that environmental information be complete and relevant, and that environmental decisions be made in an account-able arena.'" *Communities for a Better Environment*, 184 Cal. App. 3d at 90 (quoting *Oro Fino Gold Mining Corp. v. County of El Dorado*, 225 Cal. App. 3d 872, 885 (1990)). In other words, greenhouse gas mitigation measures may not be put off for future study, but must be incorporated into a project and fully effective before approval is granted. Accordingly, the RDEIR's greenhouse gas mitigation measure – that Venoco develop a plan in

CBD-9

[46] Lori Schwake, et al., Health of common bottlenose dolphins (*Turiops trunactus)* in Bataria Bay, Louisiana, following the *Deepwater Horizon* oil spill, *Environmental Science and Technology* (2013).
[47] Andrew Whitehead, et al. Geonomic and physiological footprint of the Deepwater Horizon spill on resident marsh fishes. 109 PNAS 20775 (2012).

the future – violates CEQA. *See id.*; CEQA Guidelines § 15126.4(c). Indeed, the greenhouse gas mitigation measure contained within the RDEIR is the exact mitigation measure that was rejected in *Communities for a Better Environment*. 184 Cal. App. 3d at 91-96. The CSLC cannot approve the Project unless and until specific mitigation measures are formulated within the EIR to mitigate and reduce greenhouse gas emissions to zero.

CBD-9 cont.

Conclusion

In sum, given the significant environmental impacts from the Project, the CSLC should reject the Project and adopt the No Production Alternative (RDEIR 5.3.2). If, however, the CSLC decides to approve the Project, it cannot do so unless and until it remedies the RDEIR's legal deficiencies. These deficiencies include the fact that the RDEIR fails to expressly prohibit fracking, acidization and other hazardous well stimulation practices and improperly segments its analysis of such impacts; fails to address several environmental impacts; and fails to require adequate mitigation in the event of an oil spill and for the emissions of greenhouse gases.

Sincerely,

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RESPONSE TO COMMENT SET 6: CBD

CBD-1 Comment acknowledged. Venoco has explicitly stated that fracking is not a part of this Project, as discussed further below. Please refer to responses to specific concerns in responses to comments CBD-2 through CBD-9 below.

CBD-2 Use of hydraulic fracturing and other well stimulation techniques are specifically excluded from this Project and would require additional permitting in the unlikely event such techniques were considered necessary. The CSLC is sensitive to the concerns among the public, environmental organizations, and State agencies regarding the recent information about use of hydraulic fracturing offshore of California. Based on a growing awareness of the potential harm associated with hydraulic fracturing, and pending regulatory changes (e.g., new regulations proposed by the Department of Conservation, and Measure P, the Santa Barbara County Fracking Ban Initiative), the CSLC required Venoco to revise its Recommissioning Plan to clearly state that no hydraulic fracturing will occur at the PRC 421 wells.

Section 2.2 of the EIR, Proposed Project, states that as a condition of approval for the PRC 421 Recommissioning Plan, Venoco will not conduct any well stimulation techniques within PRC 421 using hydraulic fracturing, matrix acidization, or acid fracturing techniques, within the meaning of Public Resources Code section 3157 (Venoco letter to CSLC, dated April 14, 2014). Venoco will be required to seek approval from the CSLC, among other necessary agency approvals, prior to any well stimulation operation within PRC 421. As a result, hydraulic fracturing or other well stimulation techniques are "expressly prohibited" from use as part of this Project and are therefore not included in the analysis of potential impacts of this Project.

Further, the need for hydraulic fracture stimulation is determined by the type of reservoir rock and its ability to flow hydrocarbons to the well bore (permeability). In tight reservoirs, such as shale (unconventional reservoirs), the ability of the rock to flow oil is limited (low permeability), thus requiring stimulation in order to flow at high enough rates to be economic. Production from PRC 421 is from the Vaqueros Formation, which is a conventional sandstone reservoir. This reservoir (as with most sandstones) has the natural ability to flow fluid at high rates (high permeability) and thus does not require stimulation. Simply stated, Venoco will not use hydraulic fracture stimulation as part of this Project because it is not necessary.

Steam flooding, water flooding, and cyclic steaming are not planned as part of the proposed Project and would not be possible with the infrastructure that would be installed under the proposed Project. These recovery techniques would require retaining PRC 421-1, a major change in the Project, and/or physical changes to Pier 421-2; additionally, conveyance infrastructure may be required in order to deliver water to one of the piers, depending on the recovery technique under consideration. Steam flooding and water flooding

would require the use of an injection well in order to inject steam or water into the reservoir; however, the proposed Project includes decommissioning and removal of PRC 421-1, which was previously used as an injection well, and injection of wastewater at the EOF using Injection Well WD-1. The location of WD-1 precludes its use as a steam flooding or water flooding injection well because it is geologically isolated from the Ellwood Oil Field; therefore, injection at this location would not affect the pressure at Well 421-2 and would be ineffective as an enhanced recovery technique. See page 4-59 of the Final EIR for further discussion regarding Injection Well WD-1. Because there is no injection well that could be used for steam flooding or water flooding to increase production at PRC 421-2, the Applicant does not have access to either of these oil recovery techniques unless a new injection well was drilled from PRC 421-2 or if PRC 421-1 was retained. Both of these actions would constitute a major change in the description of the Project and would require additional permitting and environmental review. Further, additional equipment in the form of a steam generator, water storage and/ or recycling equipment would also be required on PRC 421-2, which would constitute additional major changes to the Project requiring permitting and environmental review.

Cyclic steaming entails injection of steam into the reservoir via the existing oil production well, rather than a neighboring injection well. The process includes three phases: the injection phase, during which steam is generated and injected into the well; the soak phase, during which the well is shut in to allow the heat to distribute through the formation and thin the oil; and the production phase, during which the newly thinned oil is produced through the same well. This process would require installation of equipment (e.g., heaters, compressors) that would be used to heat water and inject steam into the well. Additionally, either water storage and or recycling equipment would need to be added to PRC 421-2 to employ produced water in this process or a new pipeline would be required to transport water to Pier 421-2 for use in this process. Steam injection equipment and a new water pipeline are not proposed as part of the Project; therefore, PRC 421-2 would not have the necessary equipment or infrastructure to use the cyclic steaming process, and this process would not be used as part of the proposed Project. Any application for such steam injection would require additional permitting and environmental review.

CBD-3 Section 4.4, Air Quality and Greenhouse Gases, includes an assessment of reactive organic compounds (ROCs; also known as volatile organic compounds), toxic air contaminant emissions and associated health risks. Benzene and polycyclic aromatic hydrocarbons fall under the category of ROCs; benzene is also a toxic air contaminant, as well as acetaldehyde, formaldehyde, isoprene and naphthalene. Impact AQ-2 discusses operational emissions resulting from the Project, and Table 4.4-6 identifies the estimated level of ROC emissions. All these emissions are well below the stringent thresholds of significance adopted by the Santa Barbara County APCD. PRC 421, associated pipelines, and the EOF are also subject to rigorous and

ongoing inspections by the APCD. In the past, these inspections have resulted in safety related improvements and emissions monitoring or reduction improvements at the EOF and PRC 421. For further detail on specific air quality emissions, please refer to the Technical Air Quality study in Appendix D.

Please also note that although occupied residents and other habitable structures are present from 2,000 to 4,000 feet from these facilities, MM S-4e in Section 4.2 requires a Quantitative Risk Assessment for potential risks to sensitive receptors, including health risks, as well as preparation of an EAP for the PRC 421 facilities, prior to issuance of any Land Use Permit for the Project.

GHG emissions, which encompass fugitive emissions from methane leakages and ground level ozone, are discussed in Section 4.4, Air Quality and Greenhouse Gases. Impact AQ-4 describes the types and sources of GHG emissions. Methane is addressed under fugitive emissions. Emissions described under Impact AQ-4 use CO_2 equivalents, which provide a summary of all GHGs, taking into account their relative global warming and climate change potential (refer to Table 4.47, footnote 1). Please also see MR-5 for further discussion on GHGs.

CBD-4 This comment refers to water quality impacts related to oil and gas exploration and drilling operations. The Project entails the return to service of an existing well into existing oil reserves; no drilling of new wells or extension of the existing well is involved with this Project. Rather, a workover rig would be used to rework the existing Well 421-2 and install the electrical submersible pump (ESP). Impacts to water quality associated with the Project-related activities and operations are covered in Section 4.5, Hydrology, Water Resources, and Water Quality.

CBD-5 Ocean acidification is a result of CO_2 released into the atmosphere that dissolves into the ocean. CO_2 is considered a GHG and CO_2 emissions are discussed in Section 4.4, Air Quality and Greenhouse Gases. MM AQ-4 requires Venoco to implement a GHG reduction program to reduce net GHG emissions to zero. This would result in no net increases to GHG emissions into the atmosphere, and therefore would not contribute to ocean acidification.

CBD-6 Similar to response to comment CBD-4, the comment refers to potential impacts related to oil and gas drilling activities. The Project does not propose any new drilling or extension of existing wells. Further, studies identifying linkages between oil and gas activities and earthquake activity relate only to enhanced recovery techniques, such as hydraulic fracturing and the large volumes of wastewater disposal associated with these techniques. These are not included as part of the Project. Please refer to CBD-2 regarding the use of hydraulic fracturing and other enhanced recovery techniques. Offshore oil and gas production in existing State leases in the Ellwood area (PRC 421, PRC

3242, and PRC 3120) has been occurring continuously since the 1930s. There is no known link between regular oil production and increased earthquake generation.

CBD-7 State CEQA Guidelines section 15126.4, subdivision (a)(1)(B), states "Formulation of mitigation measures should not be deferred until some future time. However, measures may specify performance standards which would mitigate the significant effect of a project and which may be accomplished in more than one specified way." Several layers of mitigation measures are applied to address potential oil spill impacts, which constitutes future events that may or may not occur. These include: project design measures, some embedded in established regulations, and others recommended as part of the EIR; preparedness measures, which entail ensuring that producers and agencies are prepared to respond to an oil spill; and clean up or remediation measures, which address the after effects of an oil spill. By nature, the latter two types of measures require preparation of response plans by producers, regulatory or trustee agencies; this approach is recognized in adopted regulations that authorize or require OSCPs and other types of response planning. This Final EIR includes all three types of measures.

This EIR has formulated 16 mitigation measures related to oil spill prevention or response, including performance standards that would reduce the risk of oil spills and improve cleanup efforts in the event of an oil spill. These mitigation measures set forth clear detailed requirements for oil spill containment, response drills and planning, pressure testing for the well casing, regular facility inspection, and preparation of a Quantified Risk Assessment to identify any deficient facilities and require corrective actions. In addition, pipeline monitoring and regional coordination with and funding for the City of Goleta and Coal Oil Point Reserve are also required. Further, the required update of the South Ellwood Oil Field OSCP also sets forth detailed standards that must be addressed with key plans required to be completed prior to operation of the facility. The timing and implementation of these mitigation measures are detailed in Section 7.0, Mitigation Monitoring Program. As stated in mitigation measures MBIO-4a and MBIO-4b, these updates must be completed prior to Project completion and operation.

CBD-8 The studies referenced in Comment CBD-8 have now been included in the discussion for Impact MBIO-4 in Section 4.6, Marine Biological Resources, which describes adverse effects of oil spills on marine organisms, including bottlenose dolphins and fish species, and the list of references for this EIR. Further discussion of adverse effects of oil spills on sensitive biological resources present at the Project site and in the vicinity can be found in Section 4.6. However, the maximum projected spill from PRC 421 facilities into the marine environment is 1.7 barrels, with resultant limited potential for adverse impacts to marine organisms.

CBD-9 Please refer to MR-5 for discussion on mitigation for GHGs.