

NOTICE OF PREPARATION

TO: State Clearinghouse
Governor's Office of Planning and Research
1400 Tenth Street
Sacramento, CA 95812

FROM: Joseph Dargel, Planner
Santa Barbara County
Planning & Development
123 East Anapamu Street
Santa Barbara, CA 93101

SUBJECT: Notice of Preparation of a Draft Environmental Impact Report

PROJECT NAME: PetroRock UCCB Production Plan Project

PROJECT LOCATION: North of Dominion Road, south of Orcutt-Garey Road, west of Palmer Road

PROJECT CASE #: 15PPP-00000-00002 & 16DVP-00000-00015

PROJECT APPLICANT: PetroRock, LLC

The County of Santa Barbara will be the Lead Agency and will prepare an environmental impact report for the project identified above. We need to know the views of your agency as to the scope and content of the environmental information which is germane to your agency's statutory responsibilities in connection with the proposed project. Your agency will need to use the EIR prepared by our agency when considering your permit or other approval for the project.

The project description, location and the potential environmental effects are contained in the attached materials. A copy of the Scoping Paper is attached.

A Scoping Meeting has been scheduled for **Monday, June 18 at 6:00 pm**. For the convenience of property owners and residents in the project area, the scoping meeting will be held in the **Betteravia Government Center Board of Supervisor's Conference Room, 511 East Lakeside Parkway, Santa Maria, CA 93455**. The Scoping Meeting discussion will be limited to understanding the proposed project and associated environmental concerns, including potential mitigation measures and possible alternatives to the project. The attached project overview and scope of analysis identified by P&D staff will be used as a starting point for discussion during the scoping meeting, but other environmental concerns may be raised by the public at this meeting.

For current project information, the following page has been established on the County's website: <http://sbcountyplanning.org/energy/projects/PetroRockUCCB.asp>

Due to the time limits mandated by State law, your response must be received at the earliest possible date, but not later than 30 days after receipt of this notice.

Please send your response to Joseph Dargel, case planner, at the address shown above.

Date: May 25, 2018

Planner: Joseph Dargel

Division: Energy & Minerals

Telephone: (805) 568-3573

cc: Clerk of the Board (please post for 30 days)

Encl: Project Overview and Scope of Analysis

PROJECT OVERVIEW AND SCOPE OF ANALYSIS

A. APPLICANT

Erik Vasquez
PetroRock, LLC
PO Box 13550
Bakersfield, CA 93389
(661) 616-0600

B. LOCATION

The site for the PetroRock United California, California and Bradley (UCCB) Production Plan project (Project) is located in the north central portion of the Cat Canyon Oil Field, which has been used for oil production purposes for more than 100 years. The Cat Canyon Oil Field is a State-designated oil field with boundaries defined by the California Department of Conservation, Division of Oil, Gas and Geothermal Resources (DOGGR), which covers over 26,440 acres and includes nearly 1,600 active and idle oil wells. The application involves numerous properties located along Dominion Road and Orcutt-Garey Road in the County's Fifth Supervisorial District, near the communities of Garey and Sisquoc. The Project site consists predominantly of rolling hills with some steep slopes.

The Project is located within the Agricultural II (AG-II-100) zone district. In accordance with the County Land Use and Development Code Table 2-1 and Section 35.5, oil and gas extraction is an allowed use within the AG-II zone district. No change in existing land use designation and/or zone district is proposed as part of the Project. Land uses surrounding the Project site include oil and gas production; and grazing to the north, south, and west; vineyards to the south and east; and a residence on a large agricultural parcel to the east. Current uses on the property include existing oil pads, cattle grazing, and vineyard operations.

The following figures show where the Project site is located within Santa Barbara County, its location within an existing oil field, and an overview of the existing and proposed components of the Project.

The project lands encompass approximately 710 gross acres, of which the project development footprint would be limited to approximately 28 acres (4.0% of gross area). The entirety of the project is located on existing drill pads or currently disturbed ground, and would use existing public or private roads for operations and transportation. The project is made up on three oil and gas leases, the United California, California Trust and Bradley Leases. Two of the proposed pads (RM-1 and RM-2) are not located on the leased lands, however would be drilled into the leased lands from an adjacent property.

Figure 1. Vicinity Map

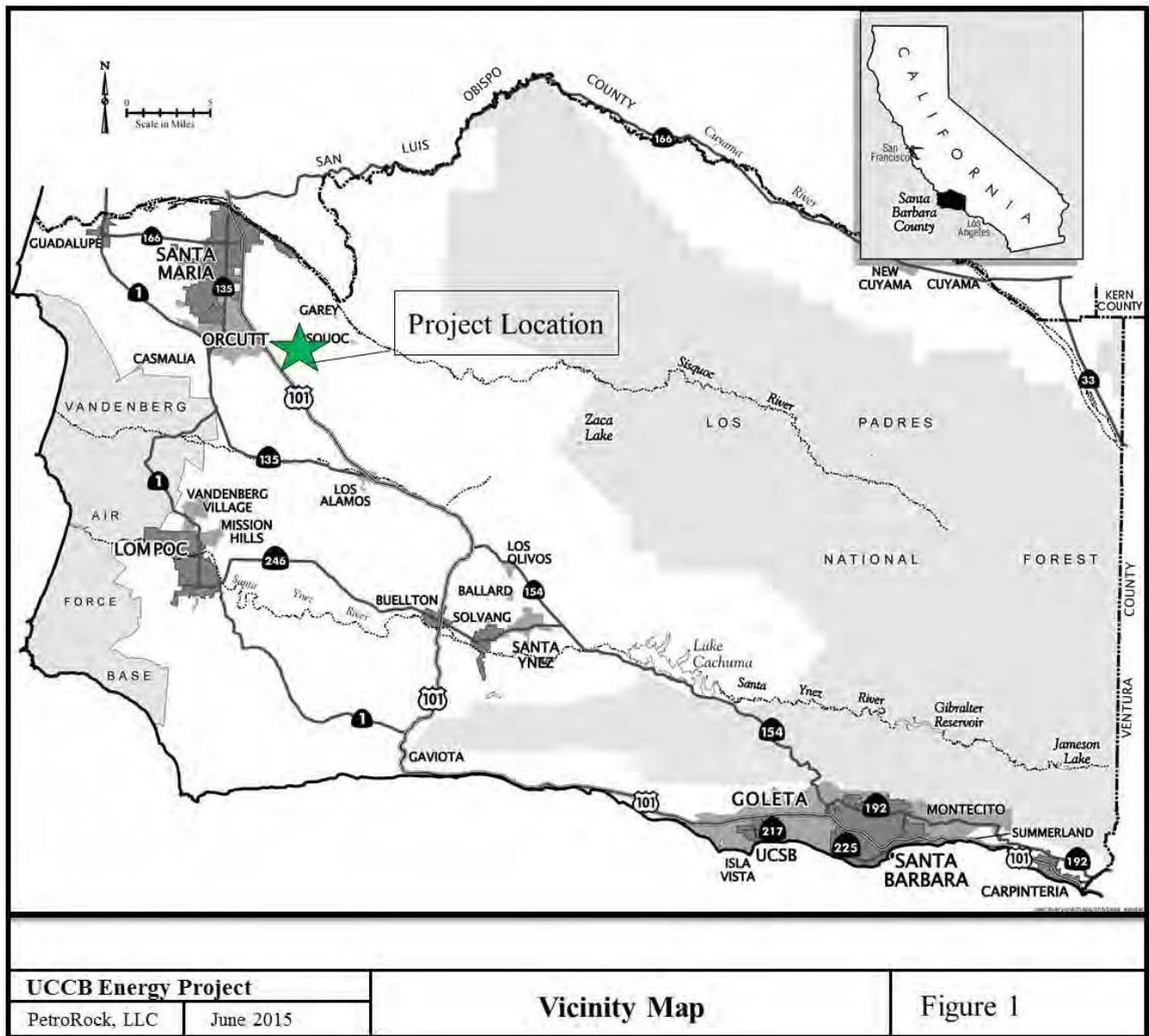


Figure 2. Locality Map

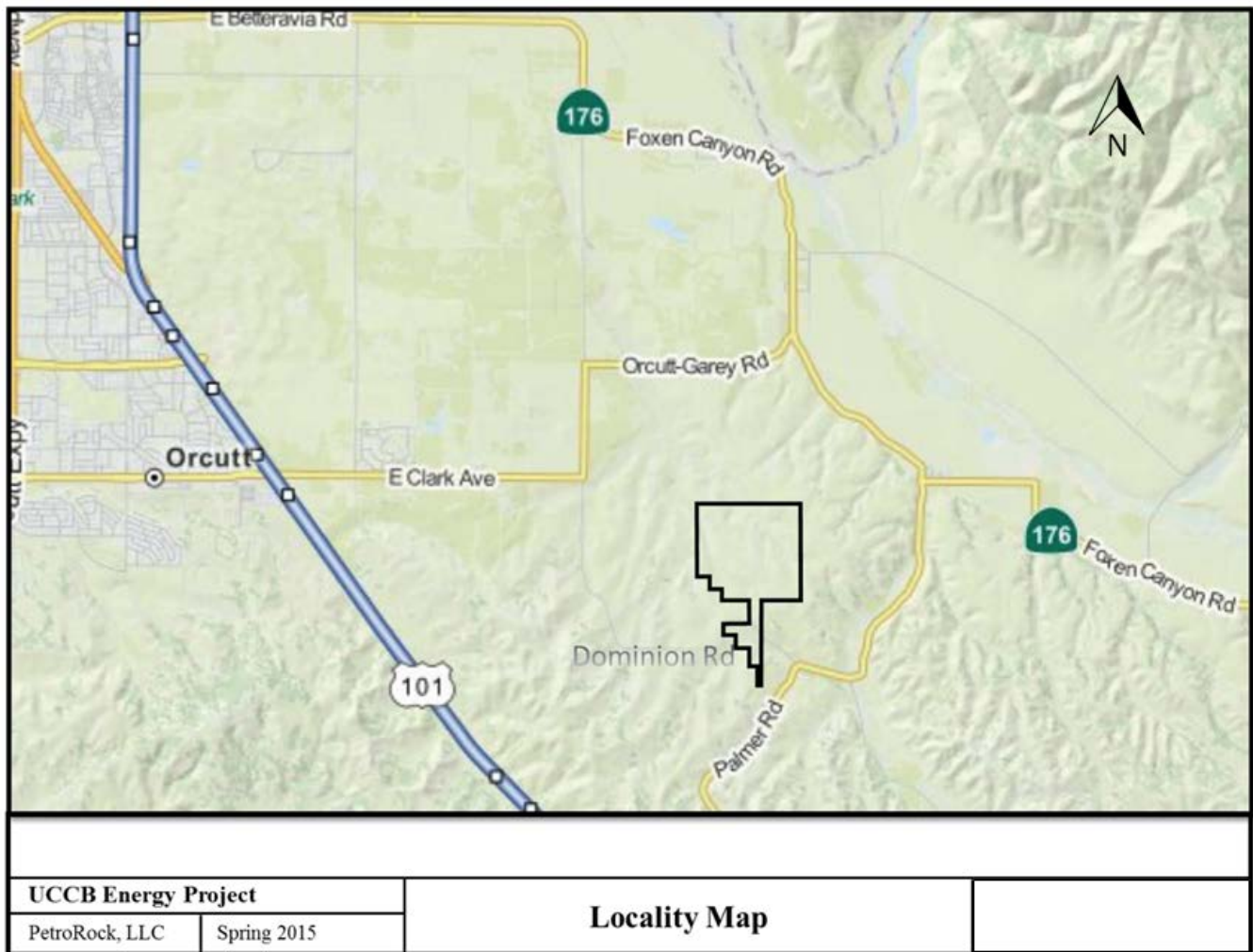


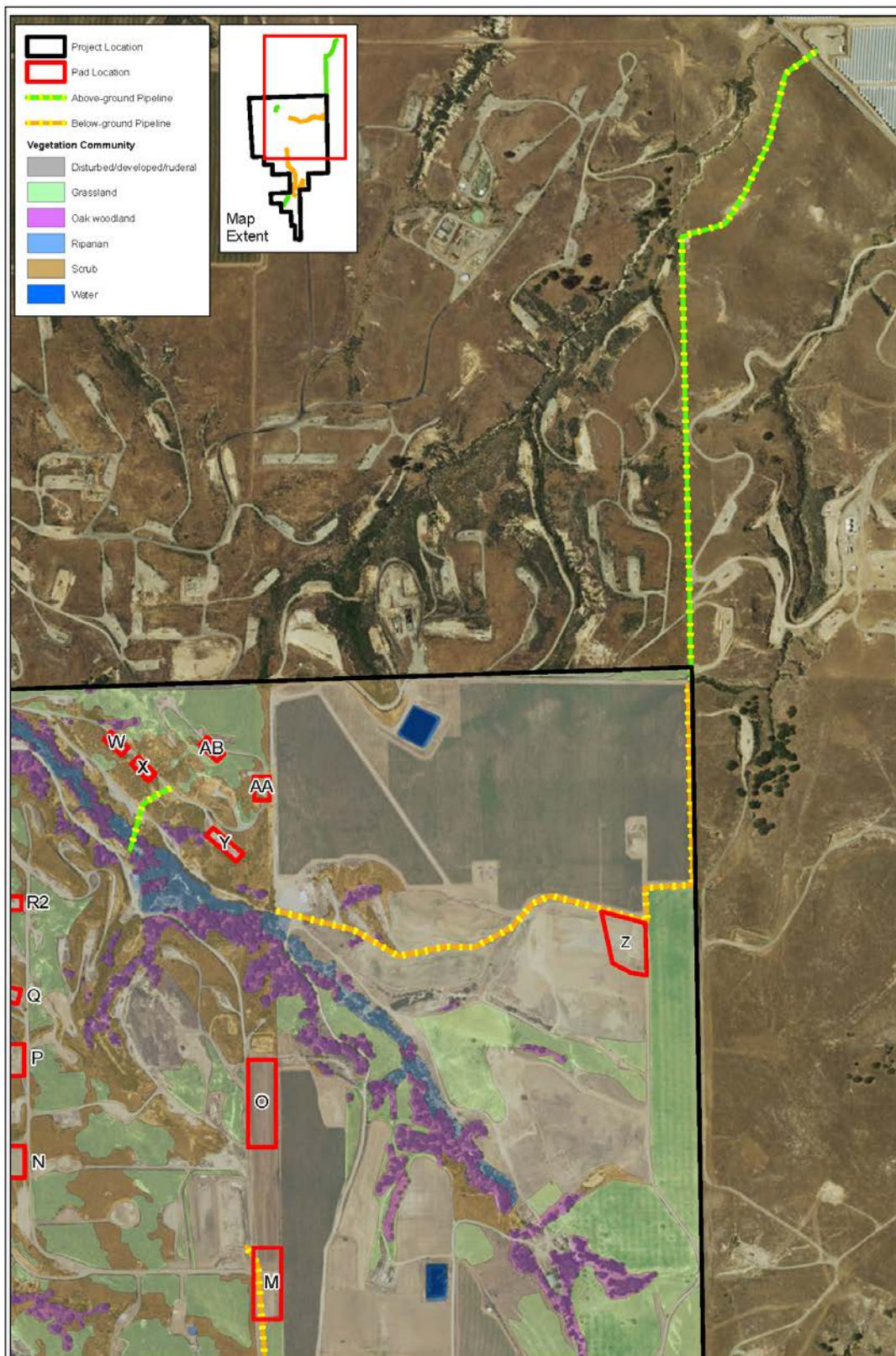
Figure 3. Oil Field Lease Boundaries



Figure 4. Project Overview, Oil Development Site



Figure 5. Overview of Proposed Natural Gas Pipeline



C. REQUEST/DESCRIPTION

Overview of the Project: PetroRock, LLC (PetroRock) is proposing the United California, California and Bradley (UCCB) Production Plan project (Project) to reactivate oil production in the north central portion of the State designated Cat Canyon Oil Field through a thermally enhanced oil recovery process built out in two phases. In total, 231 new oil, injection, and water wells located on 29 well pads, a centralized tank battery, pipelines and ancillary equipment are proposed. It is expected that the project could produce up to 4,000 barrels of native oil per day at peak production. The entirety of the project is located on existing drill pads or currently disturbed ground, and would use existing public or private roads for operations and transportation. The project lands encompass approximately 710 gross acres, of which the project development footprint would be limited to approximately 28 acres (4.0% of gross area). Current uses on the property include existing oil pads, cattle grazing, and vineyard operations. The project would be developed over several years and phases, summarized in Table 1 below.

Table 1 – Project Phasing

Year	Activity			
Year 1*	Operations	Drill 5-10 Wells	Site Development	Tank Facility Construction
Year 2	Operations	Drill 10-30 Wells	Site Development	Tank Facility Construction
Year 3	Operations	Drill 10-30 Wells	Site Development	
Year 4	Operations	Drill 10-30 Wells	Site Development	
Year 5	Operations	Drill 10-30 Wells	Site Development	
Year 6	Operations	Drill 10-30 Wells		
Year 7	Operations	Drill 10-30 Wells		
Year 8	Operations	Drill 10-30 Wells		
Year 9	Operations	Drill 10-30 Wells		
Year 10	Operations	Drill 10-30 Wells		
Year 11	Operations	Drill 10-30 Wells		
Year 12	Operations	Drill 10-30 Wells		
Year 13	Operations	Drill 10-30 Wells		
Year 14	Operations	Drill 10-30 Wells		
Year 15	Operations	Drill 10-30 Wells		
Year 16	Operations	Drill 10-30 Wells		
Year 17	Operations	Drill 10-30 Wells		
Year 18	Operations	Drill 10-30 Wells		
Year 19	Operations	Drill 10-30 Wells		
Year 20	Operations	Drill 10-30 Wells		

* From receipt of final permits

The project is expected to be developed over a fifteen to twenty year period, with operations continuing until the resource is not capable of economically producing or operations are deemed undesirable by the owner. The proposed Project includes the following components:

- **Well Pads** – The project consists of a total of 29 wellpads, of which 28 are existing. One new pad would be developed in a location that is currently farmed and was chosen in consultation with the farmer to limit disruptions to agricultural operations. Total acreage of the well pads is approximately 20 acres. A summary of the pads is shown in Table 2 below and range in size from 0.22 to 4.6 acres (0.63-acre average) and have between 3 and 50 wells per pad:

Table 2 – Well Pads

Pad	Length (ft)	Width (ft)	Acres	# of Wells	Use	Current Condition	Distance to Lease Boundary (ft)
Site I	200	95	0.44	5	Production*	Existing Pad	248
Site J	150	85	0.29	5	Production*	Existing Pad	244
Site K	175	100	0.4	5	Production*	Existing Pad	638
Site L	175	100	0.4	5	Production*	Existing Pad	930
Site M	450	175	1.81	40	Production*	Existing Pad	1,320
Site N	200	140	0.64	6	Production*	Existing Pad	930
Site O	550	175	2.21	40	Production*	Existing Pad	2,295
Site P	200	140	0.64	6	Production*	Existing Pad	938
Site Q	125	90	0.26	3	Production*	Existing Pad	924
Site Q1	150	80	0.28	3	Production*	Existing Pad	786
Site R	180	85	0.35	3	Production*	Existing Pad	895
Site R1	150	75	0.26	3	Production*	Existing Pad	789
Site S	140	85	0.27	3	Production*	Existing Pad	612
Site S1	140	85	0.27	3	Production*	Existing Pad	293
Site T	150	65	0.22	3	Production*	Existing Pad	262
Site U	150	105	0.36	3	Production*	Existing Pad	248
Site V	175	70	0.28	3	Production*	Existing Pad	294
Site W	150	65	0.22	4	Production*	Existing Pad	268
Site X	150	65	0.22	4	Production*	Existing Pad	429
Site Y	250	65	0.37	8	Production*	Existing Pad	883
Site Z	470	430	3.23	50	Production*	Farmed	325
Site AA	140	90	0.29	4	Production*	Existing Pad	560
Site AB	150	65	0.22	4	Production*	Existing Pad	317
Site B-1	185	80	0.34	3	Production*	Existing Pad	140
Site B-2	185	80	0.34	3	Production*	Existing Pad	81
Site B-3	115	70	0.18	3	Production*	Existing Pad	63
Site RM-1	145	80	0.27	6	Production*	Existing Pad	294
Site RM-2	200	85	0.39	3	Production*	Existing Pad	235
Tank Battery	N/A	N/A	4.6	0^	Oil Processing and transportation	Existing Pad	1,611
Roads	23,760	15	8.2	0	Roads	Existing	Varies

* Oil, water/gas injection, and/or water wells

^ May have water well(s) at this location

- **Wells** – Development and operation of up to 231 wells, including oil/gas production wells, steam injection wells, non-potable water production wells, water injection wells, and fresh groundwater wells. No hydraulic fracturing would be used for this Project. Table 3 below shows a breakdown of the proposed well types:

Table 3 – Well Types

Well Type	Number
Class II UIC Cyclic Steam Injection & Heavy Oil Production Wells	205
Class II UIC Water Injection Wells	10
Potable/non-potable Water Production Wells	16
TOTAL	231

- **Processing Facilities** – Construction of new processing facilities including oil storage tanks, water storage tanks, a water recycling plant, a fire suppression system, heater treaters, boilers, gas separators, a vapor recovery system, loading racks, compressors, pumps, flares, and other ancillary equipment. Tables 4 and 5 below include a detailed list of equipment associated with two phases of the Project. Note that Table 5 for the Development Phase includes equipment from the Exploratory Phase as well.

Table 4 – Exploratory Phase Equipment

Equipment Category	Description	Size	Units	Capacity	Units	hr	day	qtr	year
Tanks	3000 bbl Stock Tanks (2)	30.4 'D x 24.583' H	-	3,000	bbl	1.0	24	2,190	8,760
	1500 bbl Cone Tanks (2)	21 .5' D x 24' H	-	1,500	bbl	1.0	24	2,190	8,760
	3000 bbl Blend Oil Tank	30.4' D x 24.583' H	-	3,000	bbl	1.0	24	2,190	8,760
	500 bbl Blend Oil Tank	30.4 'D x 24.583' H	-	500	bbl	1.0	24	2,190	8,760
	1500 bbl Produced Tanks (2)	182	-	1,500	bbl	1.0	24	2,190	8,760
Crude Loading Rack	Crude Loading Rack	100	bbl/hr	-	-	1.0	24	1,825	7,300
Fugitive Components	Gas- Valves Category G	200	comp-lp	-	-	1.0	24	2,190	8,760
	Gas- Flanges/Connections Category G	1,667	comp-lp	-	-	1.0	24	2,190	8,760
	Gas- Compressor Seals to Atm	4	comp-lp	-	-	1.0	24	2,190	8,760
	Gas- PSV to VRS	4	comp-lp	-	-	1.0	24	2,190	8,760
	Oil- Valves Category G	200	comp-lp	-	-	1.0	24	2,190	8,760
	Oil- Flanges/Comnections Category G	1,767	comp-lp	-	-	1.0	24	2,190	8,760
	Oil- PSV to VRS	4	comp-lp	-	-	1.0	24	2,190	8,760
	Oil- Pump Seals - Single	75	comp-lp	-	-	1.0	24	2,190	8,760
Combustion Equipment: Boilers and Steam Generators	25 MMBtu/hr Steam Generator	25	MMBtu/hr	25	MMBtu/hr	1.0	24	2,190	8,760
	5.4 MMBtu/hr Heater Treaters (2)	5	MMBtu/hr	5	MMBtu/hr	1.0	24	2,190	8,760
	2 MMBtu/hr Boilers (2)	2	MMBtu/hr	2	MMBtu/hr	1.0	24	2,190	8,760
	0.4 MMBtu/hr Line Heaters (3)	0	MMBtu/hr	0	MMBtu/hr	1.0	24	2,190	8,760
Combustion Equipment: Flares	17 MMBtu/hr Flare	17	MMBtu/hr	17	MMBtu/hr	1	24	2190	8,760

Table 5 – Development Phase Equipment

Equipment Category	Description	Size	Units	Capacity	Units	hr	day	qtr	year
Tanks	3000 bbl Stock Tanks (4)	30.4 'D x 24.583' H	-	3,000	bbl	1.0	24	2,190	8,760
	1500 bbl Cone Tanks (2)	21 .5' D x 24' H	-	1,500	bbl	1.0	24	2,190	8,760
	3000 bbl Blend Oil Tank	30.4' D x 24.583' H	-	3,000	bbl	1.0	24	2,190	8,760
	500 bbl Blend Oil Tank	30.4 'D x 24.583' H	-	500	bbl	1.0	24	2,190	8,760
	1500 bbl Produced Tanks (2)	182	-	1,500	bbl	1.0	24	2,190	8,760
Crude Loading Rack	Crude Loading Racks (4)	100	bbl/hr	-	-	1.0	24	1,095	4,380
Fugitive Components	Gas- Valves Category G	600	comp-lp	-	-	1.0	24	2,190	8,760
	Gas- Flanges/Connections Category G	5,000	comp-lp	-	-	1.0	24	2,190	8,760
	Gas- Compressor Seals to Atm	12	comp-lp	-	-	1.0	24	2,190	8,760
	Gas- PSV to VRS	12	comp-lp	-	-	1.0	24	2,190	8,760
	Oil- Valves Category G	600	comp-lp	-	-	1.0	24	2,190	8,760
	Oil- Flanges/Connections Category G	5,300	comp-lp	-	-	1.0	24	2,190	8,760
	Oil- PSV to VRS	8	comp-lp	-	-	1.0	24	2,190	8,760
	Oil- Pump Seals - Single	224	comp-lp	-	-	1.0	24	2,190	8,760
Combustion Equipment: Boilers and Steam Generators	85 MMBtu/hr Steam Generator	85	MMBtu/hr	85	MMBtu/hr	1.0	24	2,190	8,760
	25 MMBtu/hr Steam Generators (3)	25	MMBtu/hr	25	MMBtu/hr	1.0	24	2,190	8,760
	50 MMBtu/hr Steam Generator	50	MMBtu/hr	50	MMBtu/hr	1.0	24	2,190	8,760
	5.4 MMBtu/hr Heater Treaters (6)	5	MMBtu/hr	5	MMBtu/hr	1.0	24	2,190	8,760
	2 MMBtu/hr Boilers (6)	2	MMBtu/hr	2	MMBtu/hr	1.0	24	2,190	8,760
	2 MMBtu/hr Line Heaters (3)	2	MMBtu/hr	2	MMBtu/hr	1.0	24	2,190	8,760
0.4 MMBtu/hr Line Heaters (21)	0	MMBtu/hr	0	MMBtu/hr	1.0	24	2,190	8,760	
Combustion Equipment: Flares	17 MMBtu/hr Flares (2)	17	MMBtu/hr	17	MMBtu/hr	1	24	2190	8,760

- **Field Systems** – Construction of intra-field pipelines for oil and gas (gathering lines) and water which would interconnect each well pad to adjacent leases and the Tank Battery.
- **Support Infrastructure** – Construction of a new two-story 2,400 square foot office, a 3,200 square foot workshop, and 960 square foot operator building. The buildings would require power and water (provided by an existing onsite water well) and be served by a private septic system.
- **Natural Gas Pipeline** – Construction of a new dry gas line from the Southern California Gas main line along Foxen Canyon Road and a future connection to a Department of Transportation (DOT) regulated sales pipeline at Foxen Canyon Road that would be installed during the Development Phase.
- **Electrical Interconnection** – Construction of new power poles and additional overhead lines to bring electricity from the existing PG&E high voltage lines to each pad. New transformers (pole mounted and pad mounted) would be installed at various locations throughout the project site.
- **Tanker Truck Transportation Program** – Light crude would be imported from facilities located approximately 180 miles from the Project. Produced oil would be shipped either via tanker trucks to refineries or via pipeline to the future oil sales line at/near Foxen Canyon Road.

Background and Historic Operations: The Cat Canyon Oil Field contains approximately 1,600 active and idle oil wells. The Project is a redevelopment of a previously active oil property, developed by Conoco and most recently operated by California Resources Production Corporation (CRPC) and known formerly as Vintage Petroleum. Oil company activity on the property dates back to 1910, with a majority

of the ±249 wells drilled on the lands between the 1960's and 1990's. The property was developed with wellpads, wells, a Tank Battery, offices, roadways, pipelines and utilities. The primary production method employed at the project site was cyclic steam and the field was productive through 2008. Since 2008, the wells have predominantly been shut-in, the tank battery and pipelines dismantled and an extensive remediation, plug and abandonment program executed by CRPC, who remains responsible for abandonment and cleanup relating to previous operations. The majority of the roads, wellpads and several pumping units remain on the property. Discussions with the surface owners and review of aerial photographs indicate that grazing and farming operations have been conducted continuously on the property since at least 1960.

Thermal Oil Recovery Process: The targeted formations are the Foxen, Sisquoc Sand, and Monterey Shale, which produce oil with an API gravity between 9 and 16 degrees and range in depth from 2,500 to 5,000 feet below ground surface. Typical resources recovered from the wells in these formations include oil, gas, and water. One of the primary uses of the produced oil, due to its low gravity, would be for asphalt, the majority of which may be produced and used locally. The Project would use steam injection, a thermally enhanced oil recovery technique commonly utilized throughout the Cat Canyon Oil Field due to high oil viscosity. Steam injected into the formation would heat the production zone and liquefy the highly viscous oil within the target formation so that it could be produced. Additionally, to assist with the extraction of the lower gravity oil, a lighter gravity crude oil (LCO) would be mixed with the native crude to help bring it to the surface. Each well would have an associated electric pumping unit to produce the wells and deliver produced fluids and gas to the Tank Battery for separation and storage.

Construction and Operational Personnel and Traffic: Equipment and personnel requirements would vary throughout the course of any given year and across the life of the Project with the peak construction workforce anticipated during Phase I. At full build-out (Phase II), the Project would require an estimated 12 full time employees plus two contractors. An additional skeleton crew of operators would be onsite nights, weekends and holidays for 24/7 coverage. Onsite parking would be provided within the Tank Battery area. Table 6 below shows the estimated number of trips associated with construction and operations. The project would generate up to 320 average daily trips (ADT) and 68 AM and PM peak hour trips during the first three development (construction) years and up to 144 ADT and 29 AM and PM peak hour trips during the majority of the project life (Project Year 4-15).

Table 6 – Estimated Construction and Operations Traffic

DEVELOPMENT					
Component	# of Vehicles	Primary Route	Vehicle Type	Project Years	# of Days/Year
Rig Crew	6	Betteravia Rd	Heavy/light Truck	Years 1-15	183
Roustabouts	6	Better. Rd/Clark Ave	Light Truck	Years 1-3	251
Electricians	4	Better. Rd/Clark Ave	Light Truck	Years 1-3	251
Welders	4	Better. Rd/Clark Ave	Light Truck	Years 1-3	251
Other Contractors	20	Better. Rd/Clark Ave	Light Truck	Years 1-3	251
Deliveries	10	Betteravia Rd	Heavy Truck	Years 1-3	251
OPERATIONS					
Component	# of Vehicles	Primary Route	Vehicle Type	Project Years	Days/year
Light Crude Import	4	Betteravia Rd	Tanker Truck	Year 2 >>	365
Crude Export	28	Betteravia Rd	Tanker Truck	Year 2 >>	365
Contractors	4	Better. Rd/Clark Ave	Light Truck	Year 2 >>	251
Employees	24	Better. Rd/Clark Ave	Passenger	Year 2 >>	251

Site Access, Access Roads and Staging Areas: Access to the site is proposed via one existing driveway (primary) located on Orcutt-Garey Road adjacent to the power distribution plant and one existing driveway (secondary) located on Dominion Road approximately 3,500 feet north of Palmer Road. Based on Caltrans corner sight distance and stopping sight distance criteria, adequate sight distance is provided at both driveways for trucks to enter the roadway.

The oil field is private property, and would not be open to the general public – the entirety of the project area is fenced, gated and secured. Access to individual well pads will be via existing private all weather roads (remaining from previous oil operations and current agricultural operations). Approximately five miles of existing private roadways would be utilized as part of the project. There are no proposed improvements to the public or private roads proposed as part of the project. Construction staging for the processing facilities and field infrastructure (including well drilling program) would occur entirely on the Project site.

Proposed Grading and Site Development: The Project area encompasses approximately 710 acres and the development footprint would be equivalent to approximately 28 acres. Of the 29 proposed pads, including the Tank Battery pad, 28 currently exist at the project site and 26 would require only new bases and no additional grading. Pad locations were selected to minimize disturbance by reusing existing well pads, where feasible, and to most effectively produce oil from the subsurface reservoir. The well pads range in size from 0.22 to 4.6 acres (0.63-acre average), and have between 3 and 50 wells per pad,

which would be directionally drilled to reach the targeted formation. The layout of wells on each pad have been designated, however, the applicant is proposing that wells may be relocated to other pads depending on geological and engineering discoveries during development. Neither the number of well pads or total wells would increase beyond those proposed.

The 4.5 acre Tank Battery pad is currently undergoing soil remediation by the previous operator. Although the proposed pad would not require expansion beyond the existing limits, approximately 30,380 cubic yards of cut and 36,120 cubic yards of fill would be required to level the pad and over excavate areas beneath the tanks and structures. Approximately 1,000 cubic yards of grading may be required for buried pipeline segments. Additionally, if necessary, a dry gas line from the Southern California Gas main line on Foxen Canyon Road to the tank battery (approximately 2.7 miles) would be installed but would be above ground and would not require grading. No improvement or grading would be required for the existing access roads and cut and fill quantities would be balanced onsite. Proposed quantities of cut and fill are listed in the table below:

Table 7 – Grading Quantities

	Cut (CY)	Fill (CY)	Net (CY)
Facility Pad	16,590	13,790	2,800 Cut
M Pad	2,135	2,040	95 Cut
O Pad	3,165	2,835	330 Cut
Z Pad	11,930	9,415	2,515 Cut
Tank Battery	30,380	36,120	5,740 Fill
Underground pipelines	1,000	1,000	0
Dry Gas Line	UNK	UNK	0
Bridge	100	100	0
TOTAL	65,300	65,300	0

**Quantities provided are derived from the submitted application materials*

Proposed Well Drilling and Operation: A drilling rig that is an estimated 100-foot tall and capable to drill to at least 5,000 feet will be utilized for drilling the wells. Each well may take an average of six days to drill and once commenced, drilling of a well will continue until completed (e.g.: 24 hours/day). Drilling crews typically work in two 12-hour shifts, one starting at noon and one starting at midnight. Drilling crews consist of six to seven contractors who would be on-site for each 12-hour shift. Positions include pumper, laborer, maintenance staff, mud engineer, and drilling manager. Metal storage containers located either on the well pad or Tank Battery will be utilized during drilling to temporarily store drill cuttings. Drilling fluids shall be separated from the drill cuttings and trucked off site. Drill cuttings will be mixed with Solibond (a non-hazardous agent that dehydrates and solidifies drill cuttings) and either used for berm material or hauled to a landfill that accepts nonhazardous material. A temporary tank holding water dedicated for a fire emergency will be on location while drilling. No sumps will be dug or used as part of the drilling process and no cellars will be used for the wells. Upon completion of drilling, steel casing will be cemented into the wellbore to maintain integrity and protect the non-oil producing zones following Division of Oil, Gas and Geothermal Resources’ (DOGGR) specifications.

Each well will be equipped with tubing, rods and either a conventional counter balance pumping unit or linear rod pump which will be painted a neutral color to blend in with the natural surroundings. The applicant is proposing a maximum of 30 wells drilled per year. No Project wells of any type would be hydraulically fractured.

Water Use: At peak production, the project may require up to 300 acre feet of water per year, the majority of which would be provided from recycled, non-potable water obtained from oil operations and wells producing from non-potable water aquifers. The produced non-potable water would be processed via an onsite water recycling plant. An existing on-site water well would also be used for freshwater production and is not located within 250 feet of a proposed oil or water injection well. Up to 16 additional potable or non-potable water wells may be drilled at the well pads as required by the project. New potable water wells would be completed in either the Paso Robles or Careaga formations. New non-potable water wells would be completed in the Foxen or Sisquoc formations.

Included in the 300 acre feet, up to 23 acre feet of fresh water may be utilized annually by the project which would be used for initial operations, domestic uses, drilling, dust control and fire suppression. The majority of the water would be used for steaming operations while approximately 2 AFY would be used for domestic purposes, dust control and fire and would be static through the life of the project. A temporary use of approximately 2 AFY would be used at the beginning of the project during construction (note: steaming is either not conducted or low usage during this time). A one-time use of fresh water would occur during drilling averaging approximately 33,000 gallons per well (0.011 AF). Fresh water will be required for drilling as the recycled brine water is not suitable for the drilling mud. Each well would require approximately 33,000 gallons of water during drilling. Water used for drilling will be from potable water sources.

Processing Facilities: The Project as proposed incorporates a central Tank Battery which would include oil storage tanks, water storage tanks, a water recycling plant, a fire suppression system, heater treaters, boilers, gas separators, a vapor recovery system, loading racks, compressors, pumps, flares, and other ancillary equipment. Produced fluids and gas would be gathered from the production wells and routed to an oil and gas separator at the Tank Battery. Gas stripped from the fluids via gas separator would be sent to a vapor recovery compressor. The remaining fluids would pass through a Heater Treater and/or Free Water Knock Out to further separate the oil, gas and water. Separated oil would be sent from the heated vessels to the oil stock tanks for shipping. Produced water would be collected in the onsite water tanks and any remaining gas would be captured by the vapor recovery compressor. Produced oil would be shipped either via tanker trucks to processing facilities or via pipeline to the future oil sales line at/near Foxen Canyon Road. Use of the future oil sales line would be subject to construction of the pipeline, capacity, and commercially acceptable terms for delivery and sales. Produced water would be recycled for use as feed water for steam and/or reinjection by a DOGGR approved Class II UIC injection well into a US EPA approved aquifer. The EIR will include a detailed list of facilities, equipment and their respective locations.

Field Systems: Intra-field pipelines for oil and gas (gathering lines) and water would interconnect each well pad to adjacent leases and the Tank Battery. The lines would range from 2- to 8-inches and would be constructed of steel or HDPE. The majority of the pipelines would be located above ground on sleepers along existing roadways. Small segments of gathering lines may be buried within existing, private paved roadways to limit disruption to agricultural activities. In the Development Phase, gathering

lines would traverse the intermittent blue-line creek in Bradley Canyon either through trenches or a 200-foot pipeline suspension bridge connecting several pads to the Tank Battery and the oil sales line. The footings for the bridge would be located outside the creek ‘top-of-bank’ and would not require construction within the confines of the creek. The suspension bridge would include two high grade steel conduits and associated berms to serve as containment for all fluids in the pipeline in case of catastrophic pipeline failure to prevent spills into the creek.

Support Infrastructure: The Project proposes to construct a new two-story 2,400 square foot office, a 3,200 square foot workshop, and 960 square foot operator building to support operations. The buildings would require power and water (provided by an existing onsite water well) and be served by a private septic system. The onsite septic system would be designed by a qualified environmental professional and would satisfy all County requirements for soils analysis, percolation testing, groundwater testing, design, and construction/installation.

Natural Gas Pipeline: A new dry gas line would be required from the Southern California Gas main line along Foxen Canyon Road to supply natural gas fuel to meet the Project’s demand for steam generation. The new 2.7-mile gas line would extend from Foxen Canyon Road, over ground, to the Tank Battery. The project would also allow for a future connection to a Department of Transportation (DOT) regulated sales pipeline at Foxen Canyon Road that would be installed during the Development Phase.

Electrical Interconnection: Existing PG&E high voltage lines and private above-ground lines remain onsite from previous operations and bisect the property. New 40-foot tall above-ground power lines would be installed alongside existing oilfield and agricultural roads to extend the existing high voltage power system to the new Tank Battery and pumping units at each well pad. The new power poles would be placed approximately 200 feet apart and additional overhead lines would be strung across the power poles. Total lineal footage of the new power lines is approximately 25,000 feet. The new lines would bring electricity to each pad to power the electric well pumps and SCADA system. New transformers (pole mounted and pad mounted) would be installed at various locations throughout the project site.

Produced Oil Transport: Light crude would be imported from existing facilities located approximately 180 miles from the Project. Adding light crude oil to the produced oil would facilitate oil transportation by lowering the viscosity of the produced oil. Produced oil would be shipped either via tanker trucks to refineries or via pipeline to the future oil sales line at/near Foxen Canyon Road. The refinery destination has not been disclosed as this time. Use of the future oil sales line would be subject to construction of the pipeline, capacity, and commercially acceptable terms for delivery and sales.

Construction Timing: The Project is proposed to be implemented in two phases, an Exploratory Phase and a subsequent Development Phase. The Exploratory Phase would be developed over an approximate 5 year period and include the construction of portions of the Tank Battery, one 25 MMBtu steam generator and oil and steam pipelines, as well as the installation and operation of up to 30 wells on Sites O and M. At peak production, the Exploratory Phase could produce up to 545 barrels of native oil per day and require up to 41 acre feet of water per year (based on an assumed number of 28 oil production wells, one water injection well and one water production well). The Development Phase would follow if the Exploratory Phase proved successful and would include the installation and operation of the remaining 201 oil production, water injection and water production wells and four additional steam generators including one 85 MMBtu stationary, one 50 MMBtu stationary, and two 25 MMBtu portable

units. At peak production in the Development Phase, it is expected that the project could produce up to 4,000 barrels of native oil per day and require up to 300 acre feet of non-potable water per year (AFY) and 16 water production wells for steam injection and site operations. It is anticipated that build-out of the Development Phase would occur during years 6 through 20 of the project life cycle.

Well Abandonment/Well Substitution Activities: Production from the Project would be expected to continue for more than 30 years after initial production unless or until it is deemed uneconomic or undesirable to continue operation. At that time, any wells not previously abandoned would be permanently plugged and abandoned (including the removal of surface wellheads); equipment, facilities and infrastructure would be removed; and restoration of the property would be completed in accordance with applicable laws and regulations.

The Project would include the ability to re-drill replacement wells, if necessary, on a 1:1 basis for all 231 production wells. Replacement wells would be installed on the same pad as the well being replaced, after the original well is plugged and abandoned in accordance with local, state and federal requirements. The total number of production wells would not exceed the proposed 231 wells at any time throughout the duration of the Project. No hydraulic fracturing would occur as part of the proposed Project.

Spill Contingency Plan, Safety and Security: Appropriate safety programs that would comply with existing regulations would be developed and implemented, and include preparation of a Hazardous Materials Business Plan; a Spill Prevention, Control, & Countermeasures Plan; a worker's safety program; an emergency response plan; a plant safety program; facility standard operating procedures; and a Control of Work Process. Additionally, the Project would require Land Use Approval for Construction Permits, DOGGR oversight, and compliance with regulations including Assembly Bill 1960 (spill prevention). Public access to the Project site would be restricted due to the presence of a locked gates at the two site entrances (Orcutt-Garey Road and Dominion Road).

D. ISSUES

Each specified impact area warrants an objective and systematic discussion that identifies the baseline environmental setting; thresholds of significance; impacts and their severity; and, where the impact is potentially significant, the mitigation measures to avoid, reduce or eliminate the impact.

Existing Conditions

The subject site is located within the State-designated Cat Canyon Oil Field that includes nearly 1,600 active and idle oil wells. Oil company activity on the property dates back to 1910, with a majority of the ±249 existing wells drilled on the lands between the 1960's and 1990's. The property was previously developed with wellpads, wells, a Tank Battery, offices, roadways, pipelines and utilities. The primary production method employed at the project site was cyclic steam and the field was productive through 2008. Since 2008, the wells have predominantly been shut-in, the tank battery and pipelines dismantled and an extensive remediation, plug and abandonment program executed by CRPC, who remains responsible for abandonment and cleanup relating to previous operations. The majority of the roads, wellpads and several pumping units remain on the property. These existing facilities constitute the baseline for environmental review. The EIR's resource/issue area-specific baseline discussions would include descriptions of the Project area's geography and topography, climate, transportation network,

aesthetic qualities, land use patterns and practices, biological and cultural resources, geology and hydrology.

Air Quality/Greenhouse Gases

The air quality/greenhouse gas (GHG) analyses will include criteria air pollutants, air toxics and potential health risks, odors, and consistency of the Project with the regional air quality management plan. The primary criteria air pollutants of concern are: ozone, particulate matter (PM₁₀/PM_{2.5}), and the precursors, including nitrogen oxides and volatile organic compounds. Increases in emissions would be caused by: the site preparation, drilling, and operation of 231 new wells; installation of various facilities for oil and gas processing, offices, power lines, pipelines, and storage vessels; the addition of up to five new steam generators, six heater treaters, six boilers, 24 line heaters, and two flares; and the on-highway transport of crude via heavy-duty vehicles to and from sites within 180 miles of the project.

Air quality and GHG thresholds of significance established by the County Board of Supervisors and shown in the Environmental Thresholds and Guidelines Manual (revised July 2015) will be presented and followed. These significance criteria will include criteria pollutant quantitative thresholds and a bright-line GHG threshold of 1,000 metric tons of carbon dioxide equivalent per year. The potential for odor impacts, namely due to hydrogen sulfide (H₂S), will also be assessed.

Biological Resources

The UCCB Production Plan Project consists of the redevelopment of previously active oil properties on portions of three leases by the same names in the Cat Canyon Oil Field in northern Santa Barbara County. The project proposes 231 new oil wells located on 28 drilling pads, a centralized tank facility, pipelines, and ancillary equipment. The entirety of the project is located on existing drill pads or currently disturbed ground, and would use existing public or private roads for operations and transportation. The project lands encompass approximately 700 gross acres, yet the project development footprint is limited to approximately 25 acres (3.5% of gross area).

Biological resources of the proposed Project are described in detail in a Biological Assessment and a Biological Assessment Addendum, both prepared by Garcia and Associates. Two oak trees would likely need to be trimmed but not completely removed. The full implementation of the project would result in direct, permanent disturbance of 10.53 acres of already impacted areas. In addition, 14,068 square feet of direct, permanent disturbance will occur due to installation of the pipeline (the total area used for Bradley Canyon Creek crossing footings and sleepers along the roads). The current land uses composing this acreage are existing well pads, biotreatment area for remediating petroleum-affected soils, and existing oilfield/agricultural roads (pipelines will be placed along the roads). Therefore, all areas subject to permanent impacts have had extensive disturbance in the past.

The vegetation types located within undeveloped portions of the project area that would be subject to disturbance consist of annual grassland, coastal scrub, oak woodland and riparian. Oak woodlands support a variety of sensitive species and are afforded special protection by local ordinances and the CDFW; however, most of the project-related disturbance would occur on existing well pads and roads and impacts to common wildlife species would likely be minor. With the exception of Sites AA, AB, M, and O, the sites lack vegetation to be considered more than marginal habitat for common wildlife species.

Biological Resources issues that have been identified and will be addressed in the EIR include:

- Temporary and permanent impacts to vegetation and habitat, including special-status species habitat
- Impacts to oak trees and/or oak woodlands
- Potential impacts to wetlands or jurisdictional waters, such as from the proposed span of pipeline that would cross Bradley Canyon Creek
- Potential impacts to rare, threatened and endangered species, such as California tiger salamander and California red-legged frog
- Potential impacts to nesting and migratory birds
- Potential direct or indirect effects to wildlife and habitat from spills or oil seepage

An objective, science-based impact analysis for biological resources resulting from the redevelopment and operation of the Project will be prepared. This analysis will reflect the most recent baseline data and ensure the inclusion of any local special-status species that may have been overlooked by the Applicant's Biological Assessments.

Cultural/Historic Resources

The project location is in the Cat Canyon area of Santa Barbara County about two miles southwest of the small community of Sisquoc. The project area is located on a wide, gently sloping ridgeline along the northeastern edge of the Solomon Hills that is dissected by intermittent drainages of Bradley Canyon which are tributary to the Santa Maria River. The area has been moderately disturbed by numerous oil well pads and other support facilities, both active and inactive, along with associated pipelines and a network of access roads. The proposed facilities are mostly located on existing drill pads and other more level areas away from the intermittent drainages. Site restoration activity, primarily bioremediation of soils, is currently taking place at various locations throughout the project area. The entire project is also used for cattle grazing and is bounded by developed vineyards on its east and south sides.

During the late prehistoric period and early in historic times, the proposed Project area was part of the territory occupied by the Purismeno branch of Chumash speaking people. At the time of early Spanish exploration of this area, several Chumash villages were located within a few miles of the project site in all directions. It is likely that inhabitants of some or all of these villages utilized portions of the project area from time to time. During the Spanish Mission Period and subsequent Mexican Rancho Period, the area was used for grazing livestock. In the early 20th Century, agriculture increased and intensified with the advent of irrigation from wells and the introduction of modern farm equipment. Petroleum production and the mining of sand and gravel also became important in the general area of the project during this same period.

The cultural/historic resources analysis will determine whether the Project may adversely affect the significance of a cultural/historic resource. Project specific impacts include direct impacts that may result from grading caused by the construction, landscaping, operation, or maintenance of a facility. Indirect impacts may also occur as a result of a specific project, but do not result from intentional ground disturbance. Common indirect impacts include erosion, unauthorized artifact collecting, and vandalism.

Geologic Processes/Geologic Hazards

The project area encompasses approximately 710 acres and the development footprint would be equivalent to approximately 28 acres. Of the 29 proposed pads, including the Tank Battery pad, 28 currently exist at the project site and 26 would require only new bases and no additional grading. Pad locations were selected to minimize disturbance by reusing existing well pads, where feasible, and to most effectively produce oil from the subsurface reservoir. The well pads range in size from 0.22 to 4.6 acres (0.63-acre average), and have between 3 and 50 wells per pad, which would be directionally drilled to reach the targeted formation. No improvement or grading would be required for the existing access roads and cut and fill quantities would be balanced onsite. Proposed quantities of cut and fill are listed in the Table 7 above.

Although the anticipated cyclic steam injection would not require great pressures and the target production zones in the Sisquoc Sands and Monterey Shale formations are below 3,000 feet deep, seepage pathways could develop along faults or nearby wells. In coordination with the Risk of Upset analysis, an assessment will be conducted of spills/seepage related to well failures and address claims that steam injection pressures could potentially induce seismic activity. Other potential issues that will be evaluated include geologic hazards such as erosion, slope instability, unsuitable soil conditions and liquefaction. Although seismic hazards such as strong seismic groundshaking are unlikely to occur in the Project area, the potential for these impacts will be addressed. The EIR section will also address existing environmental conditions in the affected area, identify and analyze environmental impacts of construction and operation of the proposed Project, and will include recommended measures to reduce or avoid adverse geologic impacts anticipated from Project construction and operation.

Hazardous Materials/Risk of Upset

The main objectives of the Risk of Upset analysis are to disclose the following to the public and decision-makers: the potential for serious accidents, the risks of hydrogen sulfide (H₂S) exposure, the safety and environmental risks of spill events, and the mitigation measures that could reduce these risks. Aspects of the Project that can increase the potential for an accident, or the consequences from an accident, include the existing land uses, pipeline network, seismic faults, terrain, and atmospheric conditions (stability and wind speed). Heavy equipment and machinery could potentially result in an accidental release of hazardous materials. Fire hazards and the potential for explosions may also be potential hazards that need to be addressed.

The Risk of Upset evaluation will consider the potential for risks using existing available information and Risk of Upset studies provided by the Applicant, including a Quantitative Risk Assessment (QRA) that will assess risks to the public from the proposed crude oil and gas processing facilities, the proposed natural gas pipeline, and the on-site loading and shipment of light crude oil and on-site produced heavy oil using tanker trucks. If needed, mitigation will be designed to clearly delineate recommendations for process safety and controls.

Noise

The noise and vibration analysis will focus on potential adverse impacts from temporary construction-type noise (including well drilling and vehicle noise), impacts from truck traffic along off-site travel routes, and permanent stationary noise sources. The EIR will also address noise associated with construction of the proposed natural gas pipeline. In assessing noise impacts from proposed activities,

details such as predicted decibel levels, duration, etc., for each construction and operation activity will be compared against the County’s Community Noise Equivalent Level (CNEL) thresholds in locations of adjacent noise sensitive receptors. The noise and vibration analysis will identify specific recommendations and noise mitigation components to reduce adverse impacts to the extent feasible.

Surface/Groundwater Quality and Water Resources

Local residents and agricultural activities rely on groundwater as their sole source of fresh potable water. Shallow and deep water wells tap aquifers in the Santa Maria Groundwater Basin for domestic and extensive agricultural uses in the Sisquoc Valley and surrounding hills. The Santa Maria Valley Management Area (SMVMA) monitors the Santa Maria Groundwater Basin that includes a network of shallow and deep monitoring wells. Golden State Water Company supplies water to the community of Sisquoc with locally produced groundwater. SMVMA monitors two deep groundwater wells and three shallow wells in the Sisquoc Valley area. The Paso Robles Formation aquifer is the primary source of potable water to area ranches and farming operations.

Drilling, grading and excavation activities may result in erosion and sedimentation across the Project site, particularly if precipitation effects occur. Pipelines proposed to traverse the intermittent blue-line creek in Bradley Canyon either through trenches or a 200-foot pipeline suspension bridge to interconnect multiple pads to the Tank Battery and the sales line pose a potential risk for release of hazardous materials to the creek. Additionally, heavy equipment and machinery could potentially result in an accidental release of hazardous materials. Nearby wells could be impacted if oil seeps or spills to the ground contaminate stream channels and groundwater recharge areas. In addition, fresh aquifers could be contaminated if steep injection results in steam-oil-water mixtures following geologic pathways or leak from damaged oil well casings and seals. The water resources section of the EIR will assess the Project’s potential to affect surface and groundwater resources.

Traffic/Transportation

The redevelopment of previously active oil properties in the existing Cat Canyon Oil Field would introduce new traffic volumes that have not been part of local baseline traffic conditions for some time. The Project would include temporary trip generation associated with construction and long-term trip generation associated with operations including the importation of light crude for blending and exportation of produced, blended crude. Therefore, the analysis will focus on the incremental contribution of new traffic volumes from proposed activities (current baseline plus Project construction and operational trips). In addition, construction of a natural gas pipeline would create additional temporary traffic volumes.

As described in the Applicant’s traffic study, the traffic analysis indicates that the project would not generate any significant project-specific impacts at the study area roadways and intersections. The project would generate a cumulative impact by adding peak hour trips to the U.S. 101/Clark Avenue Interchange, which is forecast to operate at LOS E under cumulative conditions. The Orcutt Transportation Improvement Program (OTIP) includes a project to realign and signalize the interchange. The improvements are expected to be constructed in the near future and will result in LOS A operations under cumulative conditions. To address the potential for traffic congestion, the assessment will rely on the traffic study to quantify the number of daily trips generated and their distribution and routes, and then consider how “with project” traffic will effect before and after conditions on study area roadways

and intersections (i.e., conditions with and without proposed Project). If deemed necessary during this review process, an evaluation of the potential increased wear and damage to study area roadway segments will be conducted, along with the potential need for mitigation ensuring fair-share contribution of the Project. In addition, the traffic/transportation analysis will consider potential impacts to traffic flow from temporary lane or roadway closures related to the installation of the natural gas pipeline, as well as discuss motorist and bicycle safety related to oversize vehicle and other heavy truck movements. If necessary, potential mitigation may include the Applicant working with the County to develop and approve a traffic control plan to mitigate potential impacts.

Project Alternatives

Alternatives will be designed to avoid and/or substantially reduce any impacts that cannot otherwise be mitigated to a level below significance. At this time, Air Quality/GHG, Biological Resources, Hazardous Materials/Risk of Upset, Transportation/Circulation, and Geologic Processes/Geologic Hazards are considered the primary issue areas that may need to be addressed. Other potentially significant impacts could be identified during evaluation of the Applicant's Noise, Historic/Cultural Resources, and Surface/Groundwater Quality assessments. This analysis will consider the No Project Alternative, Reduced Alternative(s), and other alternatives found to be appropriate through the CEQA process. The alternatives discussion will include an analysis of environmental impacts of each alternative considered, along with a comparative analysis (matrix) to distinguish the relative effects of each alternative and its relationship to Project objectives. The alternatives analysis will also identify the "environmentally superior alternative" from among the alternatives.

**SANTA BARBARA COUNTY SCOPING MEETING FOR THE
PETROROCK UCCB PRODUCTION PLAN PROJECT**

DATE: June 18, 2018
TIME: 6:00 PM
LOCATION: Betteravia Government Center Board of Supervisor's Conference Room, 511 East Lakeview Parkway, Santa Maria, CA 93455

Planning & Development has deemed PetroRock LLC's application for 15PPP-00000-00002 and 16DVP-00000-00015 to be complete and begun environmental review pursuant to the California Environmental Quality Act (CEQA) for the PetroRock United California, California, Bradley (UCCB) Production Plan project located east and north of Dominion Road and south of Orcutt-Garey Road in the Santa Maria area. A scoping meeting will be held at the time and location identified above to gather public comment on the scope of environmental review for the project.

PetroRock LLC has proposed to reactivate oil production in the north central portion of the State designated Cat Canyon Oil Field through a thermally enhanced oil recovery process built out in two phases. The proposed Project includes the following:

- Oil Drilling and Production Plan (ODPP) (County Case No. 15PPP-00000-00002) to allow for establishment of oil and gas production operations as described below:
 - Development of approximately 29 pads (including new construction and redevelopment of existing well pads and a Tank Battery pad), field access roads and the installation of up to 231 oil production, injection and water wells.
 - Construction of new processing facilities including tanks, loading racks, separators, heater treaters, five (5) steam generators, and other associated equipment.
 - Construction of field pipeline and water systems including a production gathering network, steam distribution network, and a supervisory control and data acquisition (SCADA) system to monitor wells and equipment.
 - Construction of project infrastructure would also include a new office building, workshop and operator building.
 - Addition of utility/electric lines to well pads.
- Development Plan (County Case No. 16DVP-00000-00015) to allow for construction of an approximately 2.7-mile private natural gas line which would extend from an existing Public Utilities Commission gas pipeline to bring additional gas to the project site and an oil sales pipeline to a connection with the Foxen Canyon Pipeline along Foxen Canyon Road.

P&D invites you and other interested persons and organizations to comment on our preliminary assessment of the environmental issues to be evaluated as we proceed with environmental review of the project. The scoping meeting discussion will be limited to environmental concerns, the focus of the project environmental document, feasible ways

in which project impacts may be minimized (mitigation measures) and potential alternatives to the project. Any environmental concerns may be raised by the public at the meeting. P&D staff encourages your participation in this process; please pass on this information to others you feel would be interested in attending this meeting.

We look forward to your participation on Monday, June 18, 2018 at 6:00 PM at the Betteravia Government Center Board of Supervisor's Conference Room, 511 East Lakeview Parkway, Santa Maria, CA 93455.

Please contact Joseph Dargel at (805) 568-3573 or by email at jdargel@countyofsb.org for additional information.

