

4.0 ENVIRONMENTAL IMPACT ANALYSIS

This RSEIR evaluates the potential environmental effects of proposed changes to the existing Carbon California Company oil and gas facility that is currently authorized by CUP 3543. The RSEIR evaluates proposed changes to the previously approved project and changed circumstances under which the proposed project would be undertaken. The proposed project includes a request to drill two new oil wells to an existing well pad, to re-drill an existing oil well, to allow the use of Koenigstein Road by project-related trucks, and to allow the full-time use of an existing flare. Changed environmental conditions consist of the inability to use an access road by project-related trucks as required by CUP 3543 because the access road was destroyed by flooding in 1995.

Impacts that would result from the approval and implementation of the proposed project are classified in this RSEIR as follows:

- Class I:** A significant and unavoidable impact.
- Class II:** A potentially significant impact that can be reduced to a less than significant level by implementing feasible mitigation measures.
- Class III:** An adverse impact but less than significant impact. No mitigation is required.
- Class IV:** An environmentally beneficial impact.

4.1 AIR QUALITY

The analysis of the proposed project's air quality impacts is based on the results of two reports prepared by Sespe Consulting Inc. An evaluation of the project's air quality impacts is provided in a report titled *Air Quality Impact Assessment, Carbon California Company, Agnew Oilfield Lease*, January 2, 2019. After the January 2, 2019 report was prepared the project was revised by the project applicant to eliminate one of the proposed new oil wells, thereby reducing the number of proposed wells from three to two. An *Updated Air Quality Impact Assessment*, May 29, 2019, was prepared to evaluate the air quality impacts of the revised project. The January 2 and May 29, 2019 reports are attached to this RSEIR as Appendix B.

4.1.1 Background

Regional Air Quality Conditions. Air quality in Ventura County is directly related to emissions and regional topographic and meteorological factors. The California Air Resources Board (CARB) has divided the state into regional air basins according to topographic air drainage features. The Agnew lease project site is located in the South-Central Coast Air Basin, which encompasses the counties of Ventura, Santa Barbara and San Luis Obispo.

The U.S. Environmental Protection Agency (USEPA) and CARB classify air basins as attainment, unclassified, or nonattainment depending on whether the monitored ambient air quality data shows compliance, insufficient data available, or non-compliance with the ambient air quality standards, respectively. Ventura County has been designated by the CARB and USEPA as unclassified or in attainment of all criteria air pollutant standards with the exception of:

- Federal 2008 8-hour ozone standard: non-attainment, classified as “serious.”
- California 1-hour ozone standard: non-attainment.
- California particulate matter less than 10 microns (PM₁₀) standard: nonattainment.

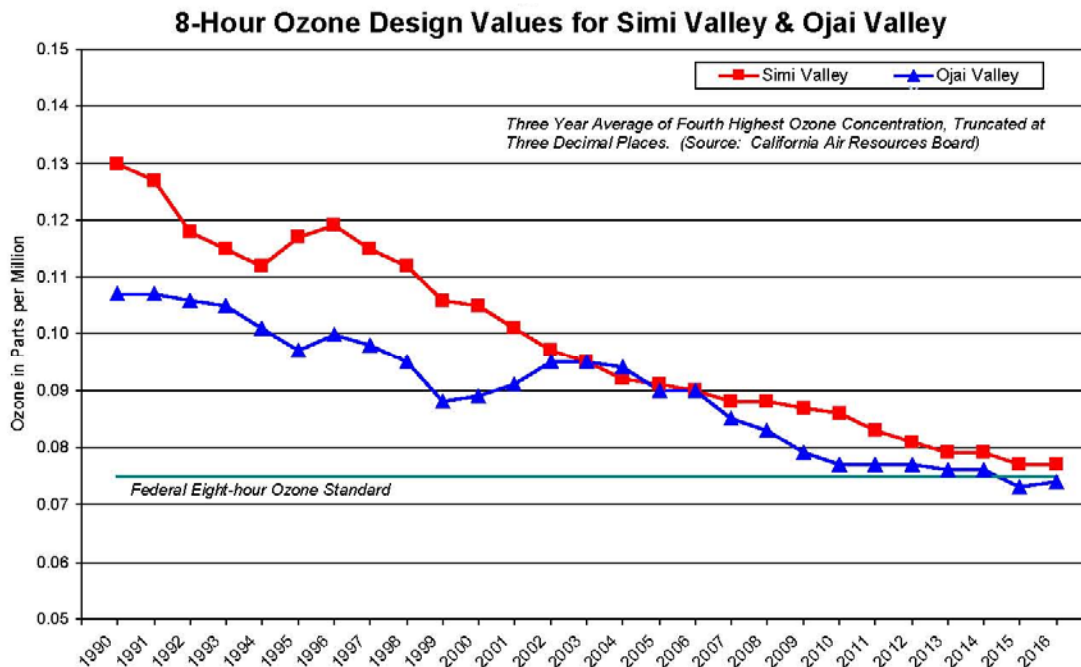
According to the air pollutant emissions inventory presented in the Ventura County Air Pollution Control District (VCAPCD)'s 2016 Air Quality Management Plan, mobile sources (on-road vehicles, trains, aircraft, marine vessels, farm equipment) account for about 45 percent of the reactive organic compound (ROC) emissions and 88 percent of the oxides of nitrogen (NO_x) emissions in the County.

Ventura County Air Quality Management Plan. The Ventura County Air Pollution Control Board adopted the 2016 Ventura County Air Quality Management Plan (AQMP) on February 14, 2017. The 2016 AQMP presents Ventura County's strategy to attain the 2008 federal 8-hour ozone standard by 2020, as required by the federal Clean Air Act Amendments of 1990 and applicable U.S. EPA clean air regulations. Building on previous Ventura County AQMPs, the 2016 AQMP presents a combined local and state clean air strategy based on concurrent reactive organic gases (ROG) and nitrogen oxides (NO_x) emission reductions to bring Ventura County into attainment of the 2008 federal 8-hour ozone standard. The 2016 AQMP is hereby incorporated by reference and is available at the following website:

<http://www.vcapcd.org/pubs/Planning/AQMP/2016/Final/Final-2016-Ventura-County-AQMP.pdf>

Ventura County continues to make progress towards meeting federal clean air standards for ozone by a steady decades-long decrease in countywide ozone levels. In 1990, Ventura County had 18 days over the now revoked federal 1-hour (0.12 ppm) ozone standard. However, by 2003 there were only two days over that standard, and none in 2004 and 2005. Consequently, on May 27, 2009, the EPA formally found that Ventura County had attained the federal 1-hour ozone standard by its applicable attainment date of November 15, 2005. Likewise, all areas of the county have experienced similar reductions in 8-hour ozone levels.

Chapter 1 of the 2016 AQMP includes a subsection entitled “Progress in Improving Ventura County Air Quality.” The subsection states that since 1990, all areas of the county have experienced reductions in ozone levels, and “*despite a population increase of 28 percent, there were 117 days countywide over the current federal 8-hour ozone standard of 0.75 ppm in 1990, but only four in 2015 and 2016.*” As shown in the graph presented below, in 2015 and 2016 ozone levels in the Ojai Valley area were below the Federal 8-hour ozone standard.



Source: 2016 AQMP

Project-Related Baseline Conditions. The operation of the oil and gas production facilities that have been developed at the project site is considered to be the baseline condition for air emission sources. There are currently three (3) oil wells at the project site. Emissions associated with oil production operations from the wells were estimated using historical oil, water, and gas production data from the Division of Oil, Gas, and Geothermal Resources (DOGGR) well finder

online data tool for Agnew Wells No. 1, 2, and 3. Existing on-site equipment that would continue to be used over the next 25 years includes:

- Three (3) oil wells (Agnew Wells No. 1, 2, and 3)
- One (1) 500 barrel crude oil storage tank
- One (1) 500-barrel wash tank
- Two (2) 250 barrel produced water tanks
- One (1) oil loading facility
- One (1) 0.8 MMBTU/hour Agnew Lease Flare.

Operation of the three existing oil wells on the project site results in the production of fluids (oil and water) that are transported from the project site by tanker truck. As depicted on Table 3.2-1 (Estimated Existing Large Truck Trips: 2015-2017), under baseline (2015) conditions the transportation of produced fluids from the project site required approximately 0.12 to 0.22 one-way truck trips per day depending on the size of the tanker truck used. The two proposed new oil wells would be served by the same truck that currently serves the three existing oil wells at the project site. Due to the low volume of fluid produced by the three existing oil wells at the project site, one truck (one trip in and one trip out) per day to remove produced fluids from the site is typically adequate. The same truck that serves the proposed project site would also serve other oil wells located along Koenigstein Road that are operated by the project applicant. For analysis purposes it was assumed that the transport of fluids produced by the proposed project would result in a maximum of 8 tanker truck loads (16 one-way trips) per week, which is the maximum number of truck trips that are requested by the project. In addition, baseline employee vehicle trips to operate the existing on-site wells were assumed at two visits per day (4 trips/day, 28 trips per week). Estimates of project-related air emissions are provided in Section 4.1.3.

Analysis Methodology

Assessment Guidelines. The Air Quality Impact Assessment (Appendix B) prepared for the proposed project follows methodologies and guidance presented in the Ventura County Air Pollution Control District's (VCAPCD) October 2003 *Ventura County Air Quality Assessment Guidelines*. These Guidelines provide a framework and uniform methods for preparing air quality evaluations for environmental documents and recommend specific criteria and threshold levels for determining whether a proposed project may have a significant adverse air quality impact. The County's General Plan also requires that the VCAPCD Guidelines be used when evaluating the air quality impacts of discretionary projects. Section 1.2.2, Policy 2 of the Resources Chapter of the General Plan states "*The air quality impact of discretionary development shall be evaluated by use of the Guidelines for the Preparation of Air Quality Impact Analysis.*"

There are various principles within the VCAPCD Guidelines that are important to the evaluation of the proposed project:

- a. *The Guidelines are not applicable to equipment or operations required to have Ventura County APCD permits (Authority to Construct or Permit to Operate). APCD permits*

- are generally required for stationary and portable (non-vehicular) equipment or operations that may emit air pollutants. This permit system is separate from CEQA and involves reviewing equipment design, followed by inspections, to ensure that the equipment will be built and operated in compliance with APCD regulations. (Guidelines page 1-1)*
- b. The emissions from equipment or operations requiring APCD permits are not counted towards the air quality significance thresholds. This is for two reasons. First, such equipment or processes are subject to the District's New Source Review permit system, which is designed to produce a net air quality improvement. Second, facilities are required to mitigate emissions from equipment or processes subject to APCD permit by using emission offsets and by installing Best Available Control Technology (BACT) on the process or equipment. (Guidelines page 1-2)*
- c. Construction-related emissions (including portable engines and portable engine-driven equipment subject to the ARB's Statewide Portable Equipment Registration Program, and used for construction operations or repair and maintenance activities) of ROC and NOx are not counted towards the two significance thresholds, since these emissions are temporary. However, construction-related emissions should be mitigated if estimates of ROC and NOx emissions from the heavy-duty construction equipment anticipated to be used for a particular project exceed the 5 pounds per day threshold in the Ojai Planning Area, or the 25 pounds per day threshold in the remainder of the county. (Guidelines page 5-3)*

In regard to item “b” above, the District’s New Source Review (NSR) is a permitting program required by the Clean Air Act Amendments of 1990 to help ensure that new or modified equipment and facilities (e.g., boilers, turbines, crude oil storage tanks, power plants, and factories) do not significantly degrade air quality or slow progress towards meeting air quality objectives. NSR permits are legally binding documents that specify what can be constructed, what emission limits must be met, and how emission sources must be operated. The primary components of NSR are BACT and emission offsets.

A Permit to Operate has been issued by the VCAPCD for the existing Agnew lease project, and that Permit addresses the existing wells, tanks, flaring equipment and local pipelines that have been installed at the project site. The Permit also addresses the other oil and gas facilities located in the project area operated by the project applicant (Carbon California). A copy of the most recent Permit to Operate for the existing Agnew lease project is included in RSEIR Appendix D. The Permit to Operate identifies all permitted equipment, applicable VCAPCD Rules the project must comply with, and identifies required BACT measures. The Permit to Operate specifies that reactive organic emissions from all equipment included in the Permit is limited to 86.16 tons/year, and that nitrogen oxides emissions from all equipment is limited to 21.03 tons per year. These emissions are maximum permitted emissions from stationary sources and not estimates of actual emissions. The total emissions included in the Permit to Operate do not specify permitted stationary source

emission associated with the existing oil production operations conducted at the proposed project site (the Agnew Lease). Based on the estimated baseline emissions shown on Table 4.1-5 below, existing emissions from stationary sources located at the project site are approximately 6.23 pounds per day of reactive organic compounds and approximately 0.07 pounds per day of nitrogen oxides. The existing emissions from the project site are a small component of the total emissions permitted by the existing Permit to Operate. An Authority to Construct and revised Permit to Operate would be required if the proposed project were to be approved and implemented. The revised Permit would include the additional project-related equipment that is subject to VCAPCD permitting requirements (i.e., the new oil wells). As indicated above, the Permit to Operate for the Agnew Lease and the larger Ojai Fee Leases (the other oil facilities in the project area operated by Carbon California) identifies the VCAPCD rules and CARB regulations applicable to the proposed project. The applicable rules include, but are not limited to, the following:

- Rule 10- Permits Required
- Rule 26- New Source Review (BACT and emission offsets)
- Rule 29- Conditions on Permits
- Rule 50- Opacity
- Rule 51- Nuisance
- Rule 54- Sulfur Compounds
- Rule 55- Fugitive Dust
- Rule 64- Sulfur Content of Fuels
- Rule 71- Crude Oil and Reactive Organic Compound Liquids
- Rule 71.1- Crude Oil Production and Separation
- Rule 71.3- Transfer of Reactive Organic Compound Liquids
- Rule 71.4- Petroleum Sumps, Pits, Ponds, and Well Cellars
- Rule 74.10- Components at Crude Oil and Natural Gas Production and Processing Facilities
- Rule 74.16- Oilfield Drilling Operations
- CARB Greenhouse Gas Emission Standards for Crude Oil and Natural Gas Facilities- *(Note, this regulation has vapor recovery requirements similar to Rule 71.1 and leak detection and repair requirements similar to Rule 74.10. This regulation is enforced via the VCAPCD permitting system but does not result in any new permitting requirements. Oilfield permit holders are required to register the subject equipment with CARB on an initial and annual basis as specified in Appendix A – Table A6 of the Regulation.)*

FLARES

- VCAPCD Rule 71.1 requires that the emissions of produced gas be controlled at all times using a properly maintained and operated system that directs all produced gas,

except gas used in a tank battery vapor recovery system, to one of the following 1) A fuel or sales gas system 2) A flare that combusts reactive organic compounds or 3) A device with an ROC destruction or removal efficiency of at least 90 percent by weight (Rule 71.1.C.1). VCAPCD Rule 71.1 therefore prohibits the uncontrolled “venting” of produced gas to the atmosphere.

Flares have been a proven technology for many years and are very efficient at combusting and destructing oilfield gases as noted below in EPA AP-42 13.5-2 dated February 2018:

“Combustion efficiency is the percentage of hydrocarbon in the flare vent gas that is completely converted to CO₂ and water vapor. Destruction efficiency is the percentage of a specific pollutant in the flare vent gas that is converted to a different compound (such as CO₂, CO or other hydrocarbon intermediate). The destruction efficiency of a flare will always be greater than the combustion efficiency of a flare. It is generally estimated that a combustion efficiency of 96.5 percent is equivalent to a destruction efficiency of 98 percent. Properly operated flares achieve at least 98 percent destruction efficiency in the flare plume, meaning that hydrocarbon emissions amount to less than 2 percent of the hydrocarbons in the gas stream.”

It is important to note that the VCAPCD has required “electric oil fields” for many years. Therefore, smaller oil fields in the County with electric-powered pumping units, and without a gas sales pipeline, may not have a “fuel gas system” described in Rule 71.1. Therefore, most oil fields in the County will use the flare compliance option of Rule 71.1.

The “electric oilfield” concept is a very important ozone/NO_x-reduction strategy in Ventura County. For example, according to Table 13-5.1 of EPA AP-42 (February 2018) the NO_x emission factor for an industrial flare is 0.068 pounds NO_x per million BTU (lb./MMBTU). As a comparison, according to EPA AP-42 Tables 3.2-2 and 3.2-3, NO_x emissions from an uncontrolled natural gas-fired rod pump engine (that is less than 50 BHP and exempt from Rule 74.9) range from 0.847 to 4.08 lbs. NO_x/MMBTU. Therefore, the NO_x emissions from an exempt rod pump engine are 12.5 to 60 times the NO_x emissions from a flare showing that the electric oilfield concept greatly reduces NO_x emission in Ventura County.

An oil and gas air permit contains conditions which require monthly recordkeeping of the amount of gas flared and to differentiate if the gas flared was for emergency or planned events. Inspectors make sure the leases are in compliance with the flare recordkeeping requirements during their compliance inspections. In addition to monthly flare combustion records, the permits require the operator to inspect the flare’s

ignition system monthly, be equipped with a totalizing gas meter, be equipped with a continuous pilot or pilotless electronic ignition system, and annual source testing of the H₂S content of the flare gas prior to combustion to ensure compliance with Rule 54 “Sulfur Compounds”.

WELLS

- Oil wells are subject to the leak and repair requirements of VCAPCD Rule 74.10. This includes operating requirements, operator inspection requirements, Operator Management Plan requirements, and Operator Repair requirements.

TANKS

- Tanks are subject to the vapor recovery requirements of Rule 71.1 and certain components are subject to the leak requirements of Rule 74.10.

Based on the requirements described above, Table 4.1-1 compares the applicability of the proposed project’s emission sources to the air quality impact assessment requirements VCAPCD’s Air Quality Assessment Guidelines. Based on the VCAPCD Guidelines, only the impact from additional truck trips generated from hauling increased produced fluids (oil and water) are to be counted towards the air quality significance thresholds described in Section 4.1.2. However, the air quality impact analysis presented in Section 4.1.3 below also evaluates impacts from the proposed drilling of two proposed wells, plus emissions from all production, storage, flaring and transport associated with the two proposed wells even though the majority of project-related emissions would fall under VCAPCD’s permitting authority and would not be subject to the adopted significance thresholds.

In its review of the 2016 FSEIR prepared for the Agnew Lease project, the Court ordered that this RSEIR’s analysis of project-related air quality impacts compare all project-related emissions of NO_x and ROC (ozone precursors) to the five pounds per day thresholds of significance adopted for the Ojai Valley by Policy 1.1.2-1 of the Ojai Valley Area Plan. The threshold requirements of the Ojai Area Plan policy have also been incorporated into the County of Ventura Initial Study Assessment Guidelines (April 26, 2011) and the Ventura County Air Pollution Control District Air Quality Assessment Guidelines (November 2003). The requirement to compare all project-related NO_x and ROC emissions to the Ojai Valley Area Plan significance thresholds exceeds the analysis methodology requirements specified by the VCAPCD’s Air Quality Assessment Guidelines and Section 1.2.2, Policy 2 of the Resources Chapter of the Ventura County General Plan. The VCAPCD Guidelines require that only unpermitted emissions (mobile sources) be compared to the adopted significance thresholds, and the General Plan Resources Chapter requires that CEQA evaluations of air quality impacts be conducted using the analysis methodology included in the VCAPCD Guidelines. However, in compliance with the Court’s analysis requirements, Table 4.1-1 also identifies the additional project-related emission sources that have been compared to the air quality thresholds adopted for the Ojai Valley. The impact analysis in Section 4.1.3 compares the significance of project-related emissions based on

the analysis methodology included in the VCAPCD’s Air Quality Assessment Guidelines (mobile emission only), and the requirements specified by the Court (all project-related emissions).

**Table 4.1-1
Emissions Sources vs CEQA Significance Thresholds**

Emission Source	Emission Type	Requires VCAPCD Permit?	Do VCAPCD and County CEQA Significance Thresholds Apply?	Does the Ojai Valley Area Plan Threshold Apply	Does the Court’s Significance Threshold for this Project Apply?
Continued flaring of produced gas from 3 existing wells, including authorization required for the full time use of the existing flare	long-term	Yes	No	No Existing flare emissions are part of baseline conditions	No Existing flare emissions are part of baseline conditions
Operation of 2 new wells including flaring of produced gas and additional 2 lbs/day of ROC emissions per well	long-term	Yes	No	Yes	Yes
Vehicle travel for the offsite transport of oil and wastewater (additional trips for new well oil production)	long-term	No	Yes	Yes	Yes
Drilling 2 new wells	short-term construction	No	No	No Ozone precursor emissions from temporary mobile construction equipment use are not counted against the adopted air quality significance thresholds (VCAPCD CEQA Guidelines, page 7-5)	No Ozone precursor emissions from temporary mobile construction equipment use are not counted against the adopted air quality significance thresholds (VCAPCD CEQA Guidelines, page 7-5)
Re-drilling 1 well	short-term construction	No	No		
Vehicle travel for the transport of drilling equipment	short-term construction	No	No		
Vehicle travel for the transport of additional driller employees	short-term construction	No	No		

Proposed Project Impact Assessment Scenarios and Assumptions. The following air emission impact scenarios and assumptions were used to evaluate the proposed project’s air quality impacts.

Construction Phase. The activities required to drill the two proposed oil wells and re-drill one existing well were considered in calculating construction phase emissions for the project. These activities include:

- Transportation of a diesel-powered drill rig and support equipment to and from site.
- Drilling of new oil wells. It was assumed it would take 10 days to drill each new well.

- The analysis assumed that during drilling, two 12-hour shifts with 10 employees each shift would drive light duty gasoline powered trucks (pickups) to and from the project site during the 10 days of drilling. A total of 40 trips per day, or 400 trips per each well drilled.

For health risk impact assessment purposes it was assumed that one well per year would be drilled over four consecutive years (i.e., 3 new wells, one re-drill). The analysis assumption that the project would result in drilling three new wells was made before the project applicant revised the project to eliminate one of the previously proposed wells (i.e., the project now proposes to drill and operate two new wells and to re-drill one well). By assuming that three new wells would be drilled and operated, the health risk assessment provides a conservative (over-estimation) of potential project-related health impacts. In addition, by evaluating the entire project's construction emissions over a four year period, rather than a 10-15 year project implementation period as was described in RSEIR Section 2.3 (Project Characteristics), the evaluation of the project's potential health risks have again been conservatively evaluated (i.e., the results of the health risk analysis over-estimate the project-related impacts).

Other assumptions used in the construction phase emissions analysis included:

- Kenai Rig 4, or a similar rig, would be used to drill the wells. A total of 16 heavy heavy-duty trucks, eight trucks per day for two days would be required to bring the rig on-site during daylight hours (1 truck per hour). The same assumption would apply to taking the rig away.
- Kenai Rig 4 on average uses 400 gal/day of diesel fuel. To yield the most impactful analysis it was assumed this fuel was burned in the highest emitting engine for each pollutant emitted.

Operation Phase. Proposed project operation criteria and toxic air contaminant (TAC) emissions associated with the project were calculated for the three previously proposed new wells and associated activities/equipment. When applied to the current proposal for two new wells, the criteria and TAC emissions include:

- The additional four pounds/day in ROC emissions from the two proposed oil wells. The proposed oil well emissions rate of two pounds per day for each well is a standard emission rate used by the VCAPCD and is described in the APCD's PEETS Emission Factors List (Appendix E).
- Emissions from full time gas flaring associated with the two proposed wells.
- Emissions from processing and storage of crude oil for new wells using the existing on-site equipment.

- Emissions from transport of oil and water from the new and existing wells. This analysis assumes all emissions related to offsite hauling of fluids is project related. The project includes a maximum of eight tanker truck loads (16 one-way trips) per week for fluids transport, occurring during daylight hours Monday through Friday, between 7:30 am and 6:30 pm.

Existing and Proposed Project Analysis. This scenario included emissions and associated health risk impacts from all sources including existing and proposed project VCAPCD permitted sources, temporary construction, transportation, etc.

Health Risk Evaluation. The evaluation of potential project-related health risk impacts includes emissions from all vehicle travel for the off-site transport of oil and wastewater produced at the project site. All vehicle travel is conservatively evaluated instead of only evaluating the incremental increase in vehicle travel due to increased production from the two proposed oil wells for the following reasons:

- The CUP 3543 prohibits the use of Koenigstein Road by heavy trucks for project-related operations.
- Evaluating impacts from all vehicle travel for the off-site transport of oil and wastewater would evaluate potential impacts resulting from existing plus proposed project conditions.

Comparison to CEQA Significance Thresholds: Analysis per the Court's Analysis Requirements. This scenario includes emissions from all project-related vehicle travel for the off-site transport of oil and wastewater, flare emissions from the operation of two new wells, tank and loading facility emissions resulting from the operation of two additional wells, and emissions from the operation of two new oil wells.

Comparison to CEQA Significance Thresholds: Temporary Construction Emissions. Although temporary construction-related emissions are not counted towards the VCAPCD's CEQA significance thresholds, this RSEIR compares these emissions to the adopted significance thresholds to determine if construction emission reduction measures should be identified to minimize construction-related emissions.

4.1.2 Thresholds of Significance

Air Emissions. Table 4.1-2 presents the criteria pollutant impact significance thresholds from the VCAPCD Guidelines and the Ventura County Initial Study Assessment Guidelines. The Ventura County Air Pollution Control Board has determined that exceedances of these thresholds will individually and cumulatively jeopardize attainment of the federal one-hour ozone standard, and thus have a significant adverse impact on air quality in Ventura County. As the proposed project is located in the Ojai Planning Area, significance thresholds for that area were used.

**Table 4.1-2
Ojai Planning Area Criteria Pollutant Significance Thresholds**

ROC (lbs/day)	NO _x (lbs/day)
5	5

The VCAPCD Guidelines only include numeric thresholds for the ozone precursors oxides of nitrogen (NO_x) and reactive organic compounds (ROC). According to the VCAPCD Guidelines, these thresholds are only applied to unpermitted sources of emissions. Emissions from equipment requiring VCAPCD permits, specifically stationary equipment, are not counted towards these air quality significance thresholds. Significance thresholds are meant to be applied to the impacts associated with the proposed project only. However, emissions from stationary sources have been quantified for informational purposes and for comparison to the Court order that this RSEIR’s analyses of project-related air quality impacts compare all project-related emissions of NO_x and ROC to the five pounds per day thresholds of significance adopted for the Ojai Valley.

Health Risk. Impacts from toxic air contaminant (TAC) emissions are estimated by conducting a health risk assessment (HRA). Table 4.1-3 presents the significance thresholds for health risk impacts, which are from the VCAPCD Guidelines.

**Table 4.1-3
Health Risk Significance Thresholds**

Source	Cancer Risk	Chronic Risk	Acute Risk
All Project Sources	10 cases in a million	1.0 hazard index	1.0 hazard index

Other Requirements. In addition to the criteria pollutant and TAC quantitative thresholds presented above, the VCAPCD Guidelines also require that the project’s consistency with the Ventura County Air Quality Management Plan (AQMP) be evaluated. A project is consistent with the AQMP if it does not cause population growth beyond the population forecasts in the most recent AQMP.

4.1.3 Impact Analysis

Construction Phase Emissions

Estimated construction phase emissions that would result from proposed drilling operations are presented in this section. Construction emission calculations and additional detail regarding the calculation methodologies and assumptions are provided in the air quality impact assessment prepared for the proposed project (Appendix B). Table 4.1-4 presents the project-related

construction emissions on a pounds per day basis and compares them to the Ojai Planning Area thresholds of significance.

As described in the VCAPCD Guidelines and Ojai Valley Area Plan Policy 1.1.2-1, ozone precursor emissions from mobile construction equipment are not counted against the adopted air quality significance thresholds (VCAPCD CEQA Guidelines, page 7-5). However, an effort should be made to reduce construction emissions if the emissions exceed the significance thresholds presented in Table 4.1-2. As shown on Table 4.1-4, short-term construction NOx (ozone precursor) emissions would exceed the five (5) lbs/day Ojai Planning Area criteria pollutant significance threshold. Although construction activities for the project would be relatively short in duration (i.e., two weeks per year over a period of approximately four years) and not a significant impact (Class III), it is recommended that the project implement ozone precursor reduction measures as suggested by the VCAPCD.

**Table 4.1-4
Maximum Day Construction Phase (Short-Term) Emissions**

PHASE¹	ROC (lbs/day)	NOx (lbs/day)	CO (lbs/day)	PM10 (lbs/day)	PM2.5 (lbs/day)	SOx (lbs/day)
Drilling	3.7897	112.4274	22.7381	2.1475	1.6093	0.1016
Vehicle Travel for the Transport of Additional Driller Employees	0.0000	0.0002	0.0020	0.0000	0.0000	0.0000
Total	3.7897	112.4276³	22.7402	2.1475	1.6093	0.1016
Significance Threshold ²	5	5	--	--	--	--
Emission Reduction Measures Recommended?	No	Yes	--	--	--	--

Source: Sespe Consulting, Inc., January, 2019

1 – Rig transport and drilling do not occur on the same day so emissions from vehicle travel for transport of drilling equipment is not included in the maximum day calculation. Max day emissions were during drilling days.

2 – Significance thresholds are from Ojai Valley Area Plan Policy 1.1.2-1 and Section 3.3.1a, Ojai Planning Area ROC and NOx Criteria Pollutants, from the Ventura County Air Quality Assessment Guidelines.

3 - Ozone precursor emissions from mobile construction equipment are not counted against the air quality significance thresholds included in the Ojai Area Plan. Therefore, this is not a significant impact.

Operation Phase Emissions

Estimated project-related operation phase emissions that would result from proposed project are presented in this section. The significance of the emission impacts is determined by comparison to the criteria pollutant significance threshold presented in Section 4.1.2. Additional detail regarding the calculation methodologies and assumptions are provided in the air quality impact assessment prepared for the proposed project (Appendix B).

The results of the following emission evaluations are presented on the referenced tables:

- Table 4.1-5 presents the total baseline emissions and project-related criteria pollutant

emissions that would result if the proposed project were to be implemented and operated.

- Table 4.1-6 presents estimates of project-related emissions from all project-related emission sources. As depicted in Table 4.1-1 and described in Section 4.1.1: Analysis Methodology, all project-related emissions are compared to the adopted air quality CEQA significance thresholds described in Section 4.1.2. This impact assessment methodology is consistent with the requirements of the Court after its review of the 2016 SEIR prepared for the project.

**Table 4.1-5
Baseline and Project-Related Criteria Pollutant Emissions (lbs/day)**

EMISSION SOURCE	ROC (lbs/day)	NOx (lbs/day)	CO (lbs/day)	PM10 (lbs/day)	SOx (lbs/day)
Project-Related Emissions					
Full time Flare	0.3460	0.4845	2.5609	0.0692	0.4845
Tanks	0.1896	--	--	--	--
Loading Facilities	0.0221	--	--	--	--
Oil Wells ¹	4.0000	--	--	--	--
Vehicle Miles (transport oil and wastewater)	0.0002	0.0083	0.0008	0.0000	0.0000
Project Total	4.5579	0.4928	2.5617	0.0692	0.4845
Baseline Emissions					
Emergency Flare	0.0425	0.0595	0.3144	0.0085	0.0595
Tanks	0.1826	--	--	--	--
Loading Facilities	0.0101	--	--	--	--
Oil Wells	6.0000	--	--	--	--
Vehicle Miles (transport oil and wastewater)	0.0004	0.0138	0.0014	0.0001	0.0000
Employee vehicle trips to operate wells	0.0000	0.0000	0.0002	0.0000	0.0000
Baseline Total	6.2355	0.0733	0.3160	0.0086	0.0595

Source: Sespe Consulting Inc, January, 2019 and May, 2019

1 – Includes 2 lbs/day ROC emissions for each new well

Table 4.1-6
Court-Ordered Air Quality Impact Assessment Methodology
Project-Related Criteria Pollutant Emissions vs Thresholds (lbs/day)

EMISSION SOURCE	ROC (lbs/day)	NOx (lbs/day)	CO (lbs/day)	PM10 (lbs/day)	SOx (lbs/day)
Project-Related Emissions					
Flare	0.3460	0.4845	2.5609	0.0692	0.4845
Tanks	0.1896	--	--	--	--
Loading Facilities	0.0221	--	--	--	--
Oil Wells ¹	4.0000	--	--	--	--
Vehicle Miles (transport oil and wastewater) ²	0.0002	0.0083	0.0008	0.0000	0.0000
Project Total	4.5579	0.4928	2.5617	0.0692	0.4845
Significance Threshold ³	5	5	--	--	--
Significant?	No	No	--	--	--

Source: Sespe Consulting Inc., May, 2019

1 – Includes 2 lbs/day ROC emissions for each new well

2 – Assumes 8 trucks per week (16 trips per week)

3 – Significance thresholds from Section 3.3.1a, Ojai Planning Area ROC and NOx Criteria Pollutants, from the Ventura County Air Quality Assessment Guidelines.

As depicted on Table 4.1-6, using the impact assessment methodology specified by the Court after review of the 2016 SEIR prepared for the project, all project-related ozone precursor emissions are compared to the VCAPCD’s and the County’s adopted air quality significance thresholds. As shown, project-related emissions would not exceed the significance thresholds of five (5) lbs/day that have been adopted for the Ojai Valley. Therefore, the proposed project would not result in a significant air quality impact (Class III) and no mitigation measures are required.

Toxic Air Emissions and Health Risk Impacts

Toxic air contaminants (TACs) are pollutants that cause a health risk impact to exposed populations. Additional detail regarding TAC emissions from project sources are provided in the air quality impact assessment prepared for the project (Appendix B).

Air dispersion modeling is conducted to determine offsite concentrations of TAC emissions. For this Project, dispersion modeling was conducted using the Lakes AERMOD View implementation of the industry standard AERMOD dispersion model. After determining offsite TAC concentrations, health risk impacts were calculated using California Air Resources Board’s (CARB) Hotspots Analysis and Reporting Program 2 (HARP 2). Residential cancer, chronic, and acute risk levels were calculated based on 30-year exposure (per HRA protocols) and the “OEHA Derived Method” intake rate percentile; worker risk levels were calculated based on 25-year exposure and the “OEHHA Derived Method” intake rate percentile; and cancer burden was calculated based on a 70 -year exposure, using the “OEHHA Derived Method” intake rate

percentile. Additional information regarding the dispersion modeling parameters used is provided in Appendix B.

The following scenarios were modeled when evaluating impacts for health risk:

Analysis per VCAPCD’s Guidelines: This scenario includes emissions and associated health risk impacts from all vehicle travel for the offsite transport of oil and wastewater, including:

- Fugitive dust emissions from on-site and local off-site truck travel, and,
- Diesel particulate matter from on-road truck engines during onsite travel and local off-site travel.

Existing + Proposed Project Analysis. This scenario includes emissions and associated health risk impacts from all emission sources, including:

- Existing and Project proposed VCAPCD permitted sources such as:
 - combustion products from oil well flaring, and
 - fugitive volatile emissions from wells, piping, flanges, tanks, and loading racks.
- Temporary construction emissions from diesel engines associated with well drilling.
- Transportation emissions associated with both existing Project processes and temporary construction processes, including:
 - fugitive dust emissions from on-site and local off-site truck travel, and,
 - diesel particulate matter from on-road truck engines during onsite travel and local off-site travel.

The Existing + Proposed Project Analysis is broken into two (2) periods. The first period modeled emissions for years 1 – 4, of the project, and assumes one new well would be drilled per year. As described in the “Analysis Methodology” subsection of Section 4.1.1 (Background) above, the health risk assessment prepared for the project assumed all proposed oil wells would be drilled over a four year period. By evaluating the entire project’s construction emissions over a four year period, rather than a 10-15 year project implementation period as was described in RSEIR Section 2.3 (Project Characteristics), the evaluation of the project’s potential health risks have been conservatively evaluated (i.e., the results of the health risk analysis over-estimate the project-related impacts). The second period modeled emissions for years 5 – 30 of the project, and does not contain construction-related emissions sources. Construction based emissions were calculated using information from Kenai drilling, assumed Kenai Rig 4 was utilized, and that the rig used 400

gallons of diesel fuel per day. For more information regarding the quantification of emissions, please refer to RSEIR Appendix B.

A total of 200 grid receptors, 77 fence-line receptors, and 13 discreet residential receptors were modeled. Modeled Receptors and sources are illustrated on Figures 4.1-1 and 4.1-2 respectively. Health risk results at local residential receptors, and at the Acute Hazard Point of Maximum Impact (PMI) are presented in Table 4.1-7 and Table 4.1-8 for the VCAPCD based Analysis and the Existing + Proposed Project Analysis, respectively.

To evaluate cancer burden, a 70-year cancer risk model was run and the geographical bounds of the 1 in one million cancer risk isopleth was determined. Based on modeling results, the isopleth was conservatively represented as a circle with a radius of 1 km, and the census receptor module of HARP2 was utilized to determine that the population within the bounds of the circle was 208. The cancer MEIR for the 70-year run demonstrated a risk level of 0.00000523, which was multiplied by the population of 208, resulting in a cancer burden result of 0.0011, well below the ARB Health Risk Assessment Guidelines threshold of 1.0. Therefore, the project would result in a less than significant (Class III) health risk impact.

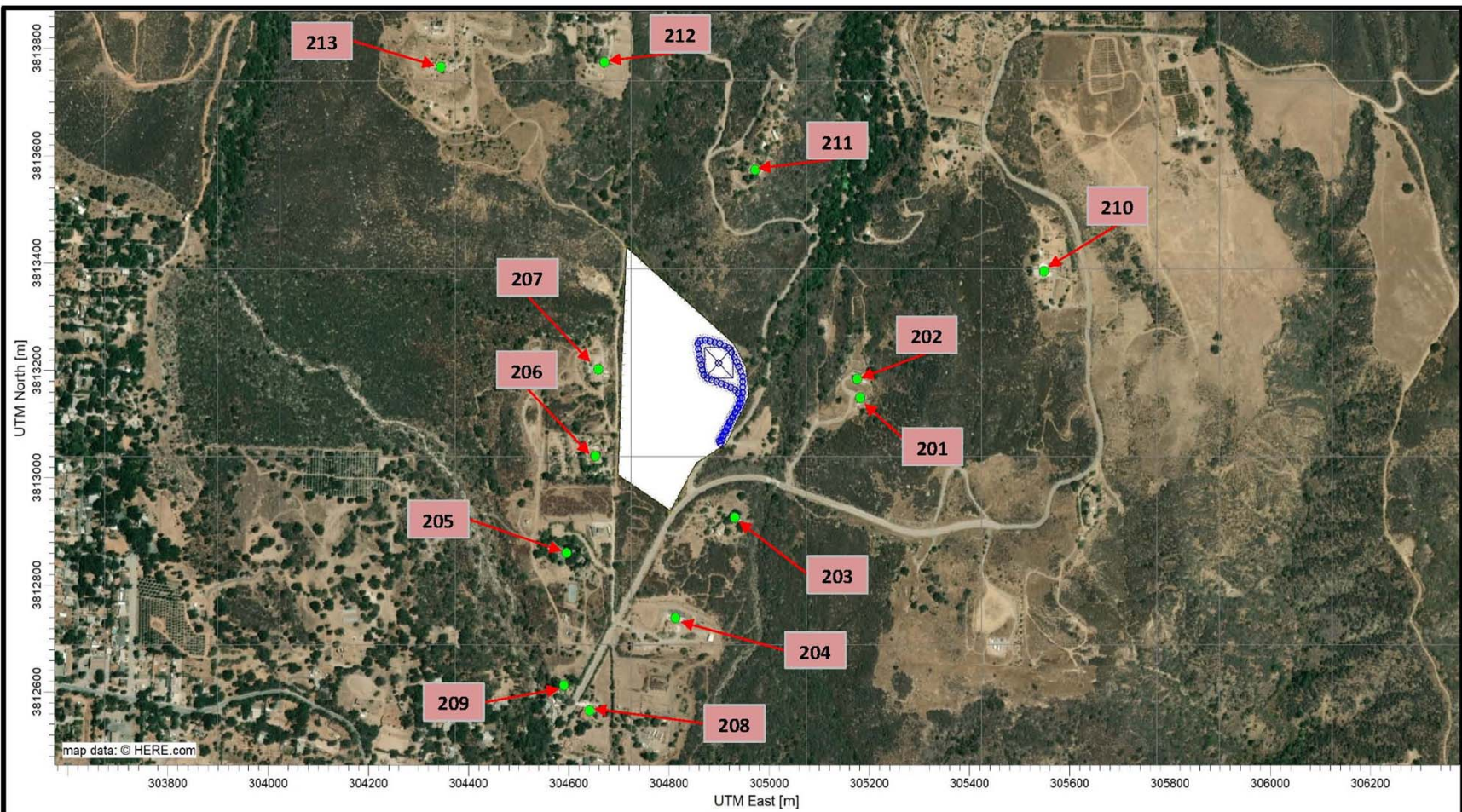
Worker health risk was also evaluated. In order to conservatively represent possible worker receptor locations, residential receptors were assumed to be possible locations for work to take place and were incorporated into the worker risk model, which also determined the facility posed less than significant health risk (Class III).

**Table 4.1-7
Risk per VCAPCD Guidelines Analysis**

Receptor ID	Receptor Type	UTM Location (m East)	UTM Location (m North)	Cancer Cases per Million Exposed	Chronic Hazard Index	Acute Hazard Index
201	Residential	305181	3813150	0.014	0.0010	0.000018
202	Residential	305175	3813184	0.011	0.00081	0.000011
203	Residential	304931	3812926	0.015	0.0011	0.000074
204	Residential	304812	3812740	0.006	0.00045	0.000035
205	Residential	304596	3812860	0.011	0.00083	0.000028
206	Residential	304653	3813041	0.019	0.0014	0.000030
207	Residential	304658	3813202	0.010	0.00076	0.000032
208	Residential	304641	3812566	0.0039	0.00028	0.000021
209	Residential	304590	3812613	0.0047	0.00034	0.000021
210	Residential	305548	3813385	0.00049	0.000036	0.0000016
211	Residential	304971	3813575	0.00032	0.000023	0.0000037
212	Residential	304670	3813774	0.00021	0.000015	0.0000034
213	Residential	304345	3813766	0.000077	0.0000056	0.0000026
224	Off-Site PMI	304899	3813053	N/A	N/A	0.00017
Sig. Threshold	N/A	N/A	N/A	10	1	1
Significant?	N/A	N/A	N/A	No	No	No

MEIR: Maximum Exposed Individual Receptor

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Grey grid represents a subset of total cartesian grid receptors
 Green circles represent individual residential receptors
 Red boxes contain receptor number labels
 White area represents facility boundaries

Source: Sespe Consulting, Inc. (2019)

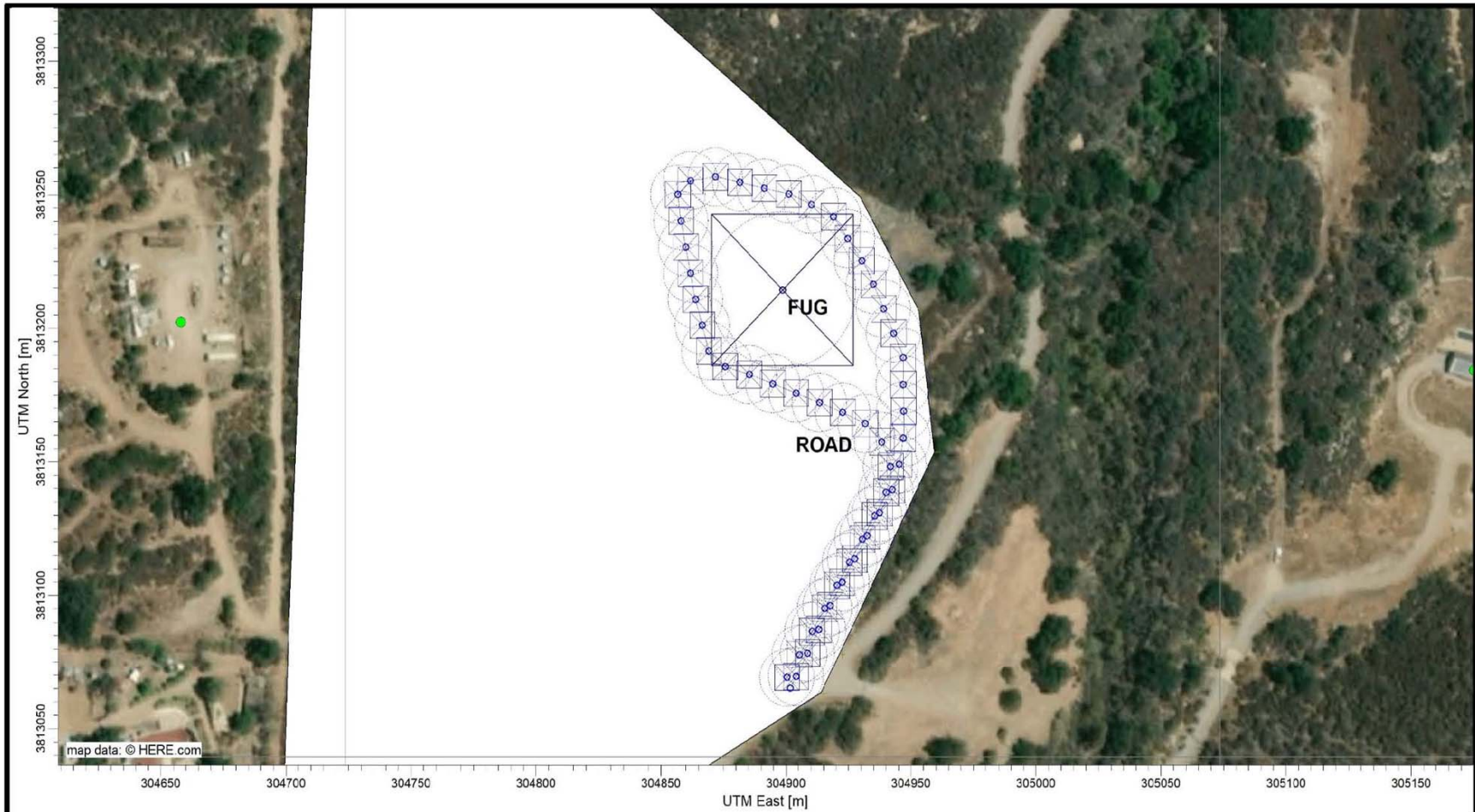
County of Ventura

Carbon California Company Agnew Lease LLC Oil and Gas Project

Figure 4.1-1

Health Risk Assessment Receptor Map

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ROAD - Line Volume Source

FUG - Volume Source

Source: Sespe Consulting, Inc. (2019)

County of Ventura

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Figure 4.1-2

Health Risk Assessment Source Map

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**Table 4.1-8
Risk per Existing + Proposed Project Analysis**

Receptor ID	Receptor Type	UTM Location (m East)	UTM Location (m North)	Cancer Cases per Million Exposed	Chronic Hazard Index	Acute Hazard Index
201	Residential	305181	3813150	4.7	0.021	0.014
202	Residential	305175	3813184	4.1	0.017	0.0083
203	Residential	304931	3812926	2.2	0.020	0.0099
204	Residential	304812	3812740	1.1	0.0085	0.0068
205	Residential	304596	3812860	2.4	0.016	0.0071
206	Residential	304653	3813041	4.9	0.027	0.0087
207	Residential	304658	3813202	2.7	0.015	0.010
208	Residential	304641	3812566	0.8	0.0055	0.0050
209	Residential	304590	3812613	1.0	0.0066	0.0050
210	Residential	305548	3813385	0.15	0.00074	0.00057
211	Residential	304971	3813575	0.10	0.00048	0.0013
212	Residential	304670	3813774	0.06	0.00030	0.00090
213	Residential	304345	3813766	0.02	0.00011	0.00053
275	Off-Site PMI	304873	3813298	N/A	N/A	0.038
Sig. Threshold	N/A	N/A	N/A	10	1	1
Significant?	N/A	N/A	N/A	No	No	No

MEIR: Maximum Exposed Individual Receptor

Consistency with the Ventura County Air Quality Management Plan

To demonstrate consistency with the AQMP, a project must demonstrate consistency with the population forecasts contained therein. Due to its industrial nature, relatively low expected oil production rates, and short-term construction characteristics, the proposed project would not cause an increase in the population of Ventura County. Since the project would not cause population forecasts used to prepare the AQMP to be exceeded, it is consistent with the AQMP. Furthermore, the project would be consistent with the air emission control strategies outlined in the AQMP by complying with stationary source regulations and BACT requirements included in the project's Permit to Operate issued by the VCAPCD.

4.1.4 Cumulative Impacts

The Ventura County Air Quality Assessment Guidelines (2003) state:

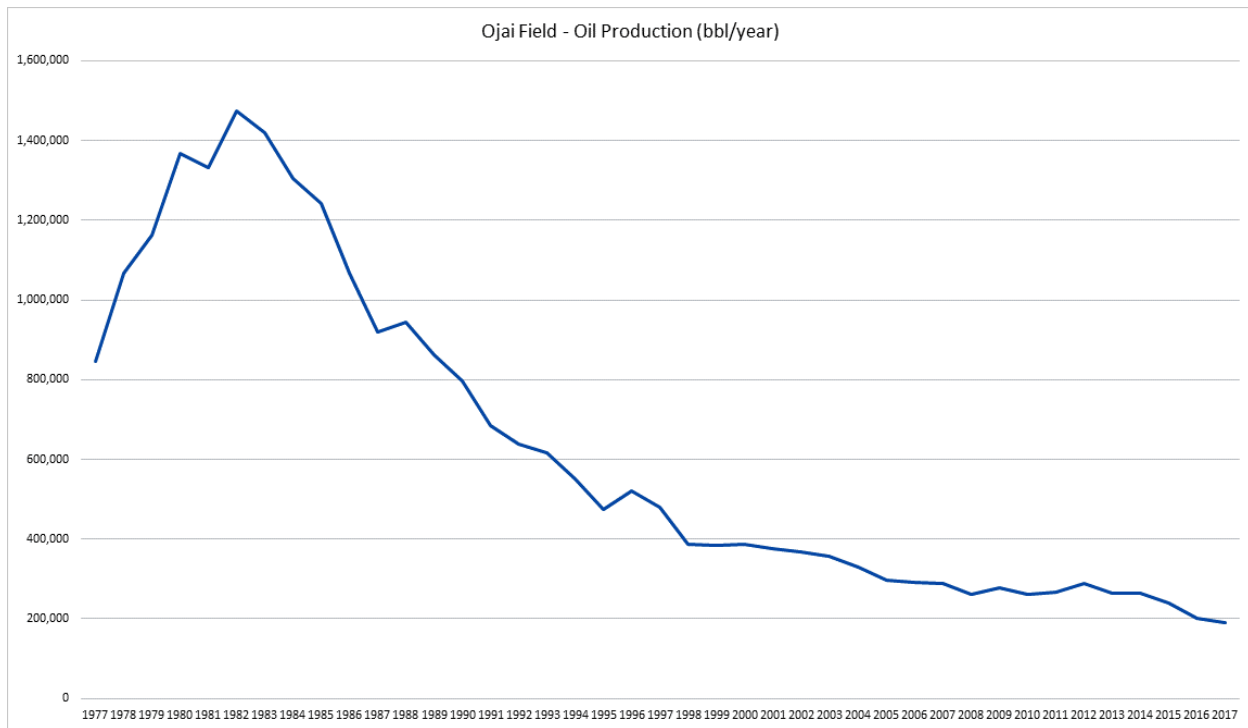
“A project with emissions of two pounds per day or greater of ROC, or two pounds per day or greater of NOx that is found to be inconsistent with the AQMP will have a significant

cumulative adverse air quality impact. A project with emissions below two pounds per day of ROC, and below two pounds per day of NOx, is not required to assess consistency with the AQMP. Inconsistent projects are usually those that cause the existing population to exceed the population forecasts contained in the most recently adopted AQMP.”

As depicted on Table 4.1-6, when project-related emissions are evaluated using the methodology specified by the Court after its review of the 2016 SEIR prepared for the project (all project-related emissions are compared to the adopted significance thresholds) the project’s emissions of ROC would be greater than two pounds per day, however, NOx emission would be well below two (2) pounds per day. However, as evaluated above, the proposed project would be consistent with the AQMP because it would not cause population forecasts used to prepare the AQMP to be exceeded. Therefore, under the Court’s emission evaluation methodology the project’s cumulative air quality impact would not be cumulatively considerable and would be less than significant.

The potential for significant cumulative air quality impacts of the proposed project plus other new oil and gas projects within the immediate airshed can also be analyzed. Recent contact with County Planning Division staff indicated that the Bentley Oil and Gas Project, Case No. PL15-0187, is the only new oil and gas project within the immediate airshed. In that project, the applicant was granted a modification to allow the continued use of nine existing oil wells and to allow full time flaring of all produced natural gas due to the loss of access to a gas sales pipeline. Another cumulative oil and gas project in the project area is the Nesbitt and Harth (PL15-0060) project. These two projects also resulted in air emissions that did not exceed the 5 pounds per day threshold of significance. Emissions from all of the identified cumulative oil and gas production projects would require a permit from the VCAPCD, and associated stationary emissions are not subject to adopted CEQA impact significance thresholds. Also similar to the proposed project, it is not expected that emissions from mobile sources (i.e., tanker trucks) generated by the cumulative oil and gas projects would be cumulatively considerable due to the generally low volumes of fluids expected to be produced. As a result, the cumulative impact of the identified cumulative oil and gas projects would not be significant.

Lastly, the increased production of oil from the proposed two new wells would bring overall oil production in the Ojai Oil Field back to conditions that existed in the 2015-2016 timeframe which is the project’s baseline year condition (baseline conditions are those that existed at the time the Notice of Preparation is published – in this case February 19, 2015). The following figure shows the Ojai Oil Field production from 1977 through 2017 based on DOGGR production records:



The evaluation of project-related air quality impacts assumed 20 barrels/day of oil production per each proposed well. This would equal 21,900 barrels/year by the time all three of the originally proposed wells were drilled and producing. In 2015 the Ojai Field produced 238,334 barrels of oil. By 2017 production was 190,154 barrels. Assuming field production levels remain steady after 2017, addition of the project-related oil production would result in annual field oil production of 212,054 barrels which is below 2015 levels, suggesting that the addition of the proposed wells would not cause a substantial increase in area production and the project's additional emissions would not result in a cumulatively considerable increase.

4.1.5 Mitigation Measures

The impact analyses provided above indicate that the proposed project would not result in significant construction phase or operation phase air quality or health risk impacts. Therefore, no mitigation measures are required to reduce project-related air quality impacts to a less than significant level.

As described in the *Ventura County Air Quality Assessment Guidelines*, ozone precursor emissions from mobile construction equipment are not counted against the adopted impact significance thresholds (VCAPCD CEQA Guidelines, page 7-5). However, an effort should be made to reduce construction emissions if the emissions exceed the applicable significance threshold. Project-related construction NO_x (ozone precursor) emissions would exceed the 5 lbs/day Ojai Planning Area criteria pollutant significance threshold. Implementation of the following condition of approval would reduce ozone precursors to the extent possible during oil well construction periods. Implementation of the following condition of approval would also

reduce project-related diesel particulate matter emissions. The following recommended condition of approval is not required to reduce the project's short-term construction emission impacts to a less than significant level.

Recommended Condition of Approval

Construction Equipment

Purpose: To reduce ozone precursor and diesel particulate emissions from mobile construction equipment to the greatest amount feasible.

Requirement: The Permittee shall comply with the provision of applicable VCAPCD ROC and NO_x construction emission reduction measures, which include but are not limited to provisions of Section 7.4.3 of the Ventura County Air Quality Assessment Guidelines.

- a. Construction equipment shall not have visible emissions, except when under load.
- b. Construction equipment shall not idle for more than five (5) consecutive minutes. The idling limit does not apply to: (1) idling when queuing; (2) idling to verify that the vehicle is in safe operating condition; (3) idling for testing, servicing, repairing or diagnostic purposes; (4) idling necessary to accomplish work for which the vehicle was designed; (5) idling necessary to bring the machine system to operating temperature; and (6) idling necessary to ensure safe operation of the vehicle.
- c. Maintain equipment engines in good condition and in proper tune as per manufactures' specifications.
- d. Use alternative fueled construction equipment, such as compressed natural gas, liquefied natural gas, or electric, if feasible.
- e. Use a drilling rig equipped with newer Tier 3 or Tier 4 engines, if available at the time of drilling.

Documentation: The Lead Agency shall ensure that the applicant provides a written idling policy that is made available to operators of vehicles and equipment and informs them that idling is limited to five consecutive minutes or less. The applicant shall also provide to the Lead Agency written verification of efforts made to use a drilling rig equipped with a Tier 3 or 4 engine at the project site. The project applicant shall provide written documentation to the Lead Agency of actions taken to determine the feasibility of using a drilling rig equipped with a Tier 3 or 4 engine prior to moving a drill rig onto the project site.

Timing: The project-specific idling requirements required by item "b" above shall be submitted to VCAPCD staff prior to construction for review and approval. All requirements of this condition of approval shall be implemented throughout the construction phases of the project.

Reporting and Monitoring: The Lead Agency shall refer to the VCAPCD approved project-specific idling requirements to ensure compliance. The Lead Agency will site inspect to ensure a drilling rig equipped with Tier 3 or 4 engines is in use if it was determined that drilling rigs with such engines were available.

4.2 TRAFFIC CIRCULATION and SAFETY

The evaluation of project-related traffic circulation and safety impacts is based on a report titled *Agnew Oil Lease Development Modified CUP, Ventura County, California*, prepared by Associated Transportation Engineers (ATE, 2019). This report is attached to this RSEIR as Appendix C.

4.2.1 Background

Previous Environmental Review. The traffic impact analysis included in the 1983 FEIR prepared for the previously proposed Modification No. 4 of CUP 3543 evaluated potential impacts that that may result from that project’s use of State Route 150 and Koenigstein Road by large vehicles (e.g. drill rigs, tanker trucks). The 1983 FEIR’s traffic impact analysis concluded:

Both Bridge #326 on Koenigstein Road and the road itself are adequate to carry heavy equipment. Since the road is inadequate to accommodate two passing trucks, one truck would be required to pull over to the shoulder. This condition would create an inconvenience; however, it would not be characterized as unsafe due to the small volume of traffic currently occurring on the road.

The movement of large vehicles at the intersection of State Route 150 and Koenigstein Road could create unsafe conditions.

Appendix B of the 1983 FEIR includes the Board Agenda Letter for the November 15, 1977 hearing. In this document, the County Public Works Agency (PWA) describes the intersection of Koenigstein Road and State Highway 150 as having a “seriously deficient intersection configuration.” This document also questioned the adequacy of the bridge at this intersection due to “basic minimum road geometrics.” Consistent with these comments, the 1983 FEIR concluded that the movement of large vehicles at the intersection of State Route 150 and Koenigstein Road could create unsafe conditions.

The Planning Commission adopted the following finding in its November 17, 1983 decision regarding the CUP 3543 Modification No. 4 project:

Significant traffic impacts could occur due to movement of large vehicles at the intersection of Highway 150 and Koenigstein Road creating unsafe conditions. This potential impact could be reduced to an insignificant level by imposition of Condition 52 which would require that all trucks over ¾ ton avoid the use of Koenigstein Road by utilizing a private access road through Ojai Oil Company property.

The Planning Commission also adopted the following finding regarding traffic circulation in its November 17, 1983 decision:

Access to the drill site for small vehicles would be via Koenigstein Road, thence several hundred feet north along private access roads to the subject drillsite. Truck traffic would

access the site via Highway 150 one half mile west of Koenigstein Road, thence north and east along an unpaved private access road through the Ojai Oil Company property (CUP 293 A). Condition 52 would prohibit truck traffic (over ¾ ton) on Koenigstein Road. This prohibition is necessary because of a narrow bridge on Koenigstein Road immediately adjacent to Highway 150 which results in poor turning radii for large vehicles.

As part of the 1983 decision to approve the previously proposed Modification No. 4 to CUP 3543, the Planning Commission imposed Condition No. 52. This condition reflects the above environmental findings and generally prohibits the use of Koenigstein Road by heavy trucks associated with the operation of the oil and gas facility. Condition No. 52 reads as follows:

52. Truck Access Prohibited

That in conjunction with drilling operations, the permittee shall be prohibited from utilizing Koenigstein Road as a primary access road with ¾-ton and over trucks, except for secondary emergency traffic.

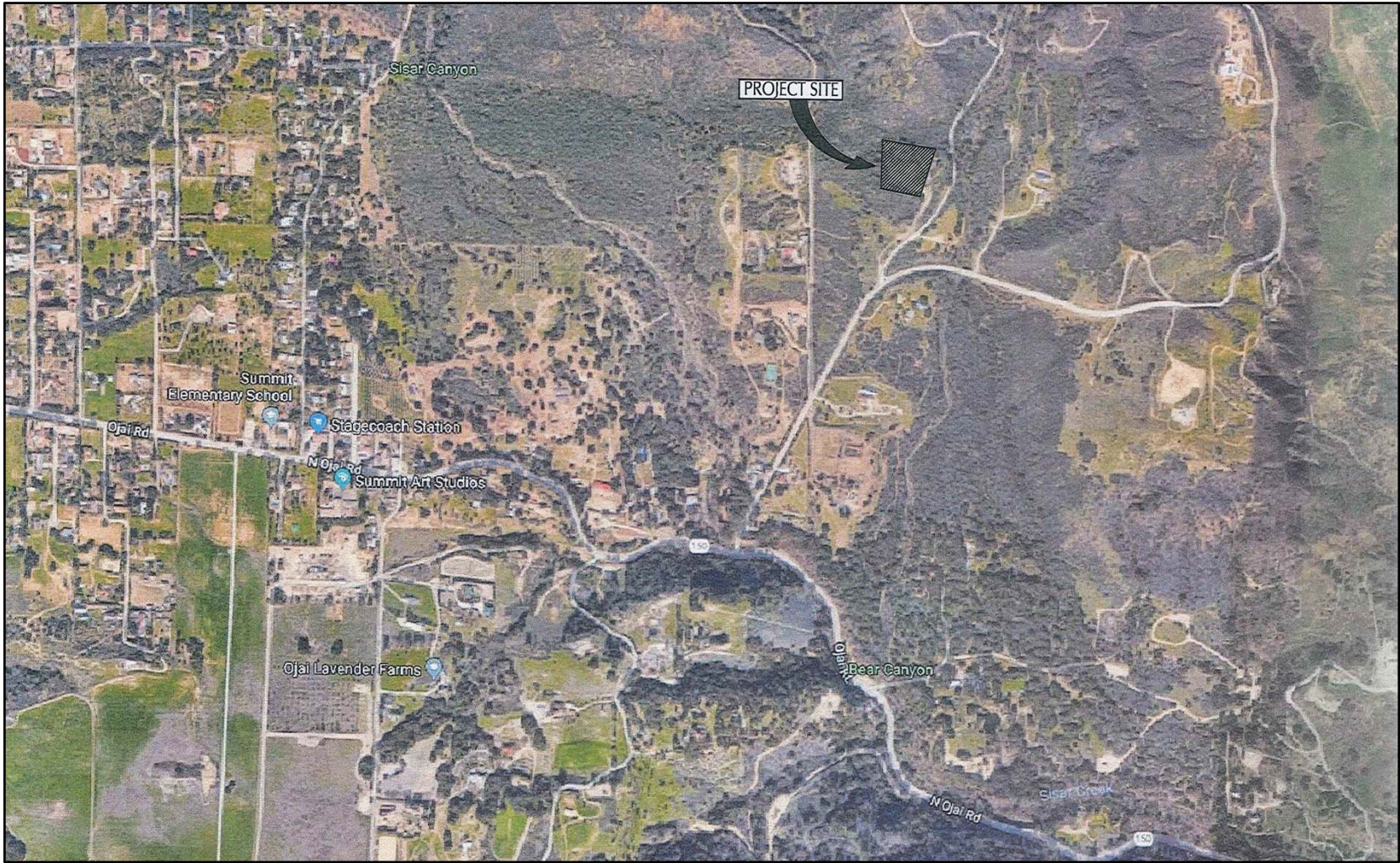
The term “drilling operations” in the above condition of approval, when read in the context of the findings made by the Planning Commission, refers to all large truck traffic associated with both drilling and production operations.

CUP 3543 currently requires that large trucks access the project site by using a private road that intersects with State Route 150 at a location approximately one-half mile west of Koenigstein Road. That road, however, relied on a dry weather crossing (i.e., an “Arizona crossing”) over Sisar Creek. The crossing was destroyed by flooding in 1995 and has not been replaced. The 2016 SEIR prepared for the proposed project concluded that the reconstruction of the destroyed access road across Sisar Creek was not feasible because the site of the former road crossing is now an active stream channel that supports sensitive wildlife habitat.

Existing Conditions

Street Network. The project site is served by a circulation system comprised of highway and local roads, which are illustrated on Figure 4.2-1 and described below.

State Route 150, located south of the project site is a 2-lane conventional highway that connects U.S. Highway 101 in Santa Barbara County to State Route 126 in Ventura County, linking the cities of Carpinteria, Ojai and Santa Paula. State Route 150 (Ojai Avenue) is a principal east-west arterial through the City of Ojai. The unsignalized State Route 150/Koenigstein Road intersection would provide access to the project site.



Source: ATE, 2019

County of Ventura

Carbon California Company LLC Agnew Lease Oil and Gas Project

Figure 4.2-1

Existing Street Network/Project Site Location

Koenigstein Road, is a 2-lane north-south roadway that extends north from State Route 150. Koenigstein Road provides access to several private residences and existing oil and gas leases in the Ojai Oil Field. A private road connection to Koenigstein Road would continue to provide direct access to the project site.

Roadway Operations

Existing average daily traffic (ADT) volumes for the study-area roadway segments are illustrated on Figure 4.2-2. The roadway segment volumes were collected by ATE in May of 2018. In determining the operational characteristics of these roadway segments, “Levels of Service (LOS) “A” through “F” are applied, with LOS “A” indicating very good operations and LOS “F” indicating poor operations.

Levels of Service for the study-area roadway segments were determined based on Ventura County roadway engineering design capacities. The results are presented in Table 4.2-1.

**Table 4.2-1
 Existing Roadway Segment Levels of Service**

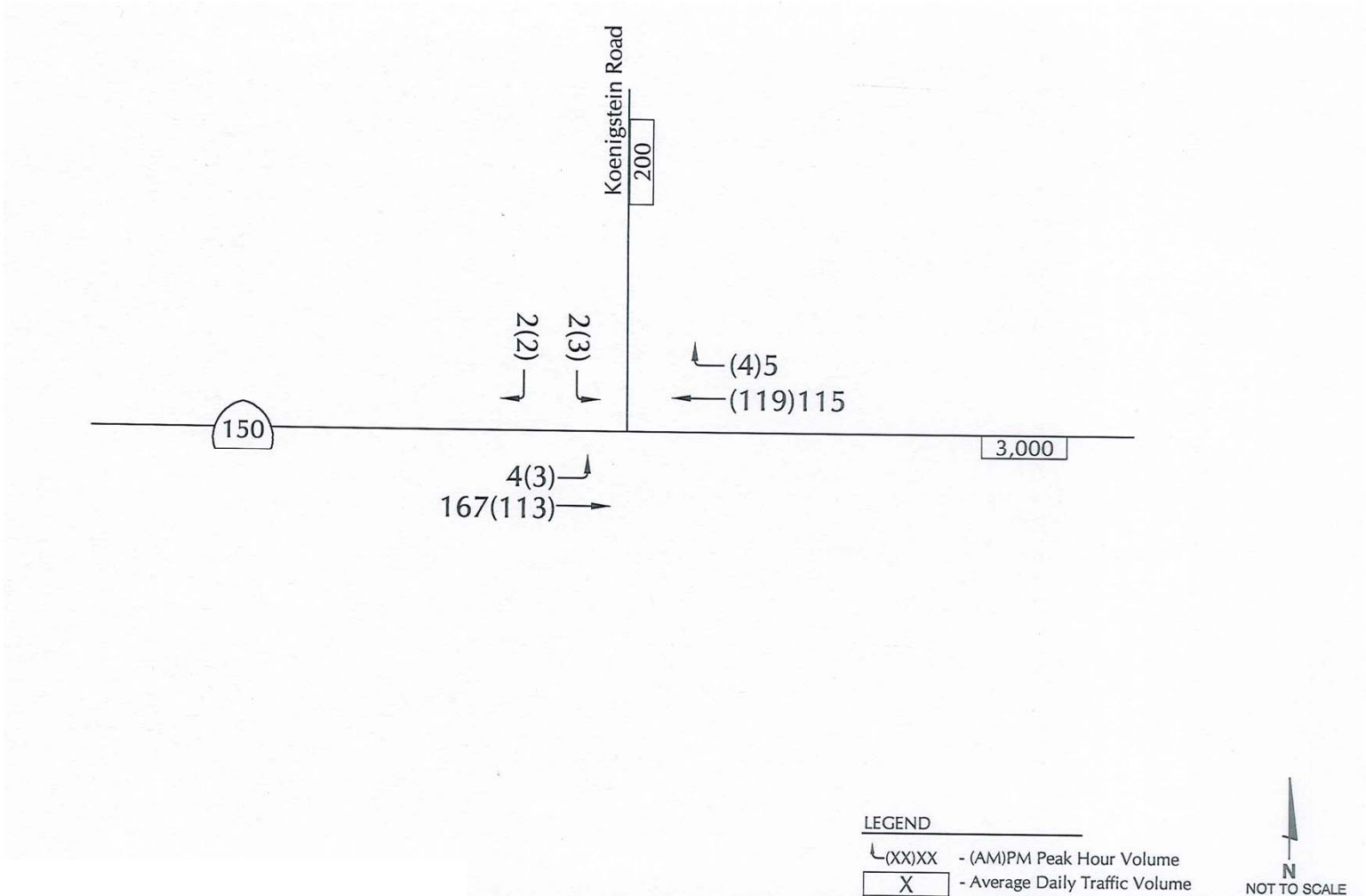
Roadway	Classification	Geometry	ADT	LOS E Capacity	LOS
State Route 150	Class II	2-lane	3,000	21,000	LOS B
Koenigstein Road	Class III	2-lane	200	16,000	LOS A

The data presented in Table 4.2-1 indicate that the study-area roadway segments currently operate in the LOS “A” - “B” range based on the County’s level of service criteria. Note that the 2015 baseline conditions presented in the 2016 SEIR utilized 2015 ADT traffic volumes of 2,900 on State Route 150, and 250 on Koenigstein Road. The 2018 traffic counts utilized by ATE indicate that the baseline conditions have not changed relative to roadway levels of service.

Intersection Levels of Service

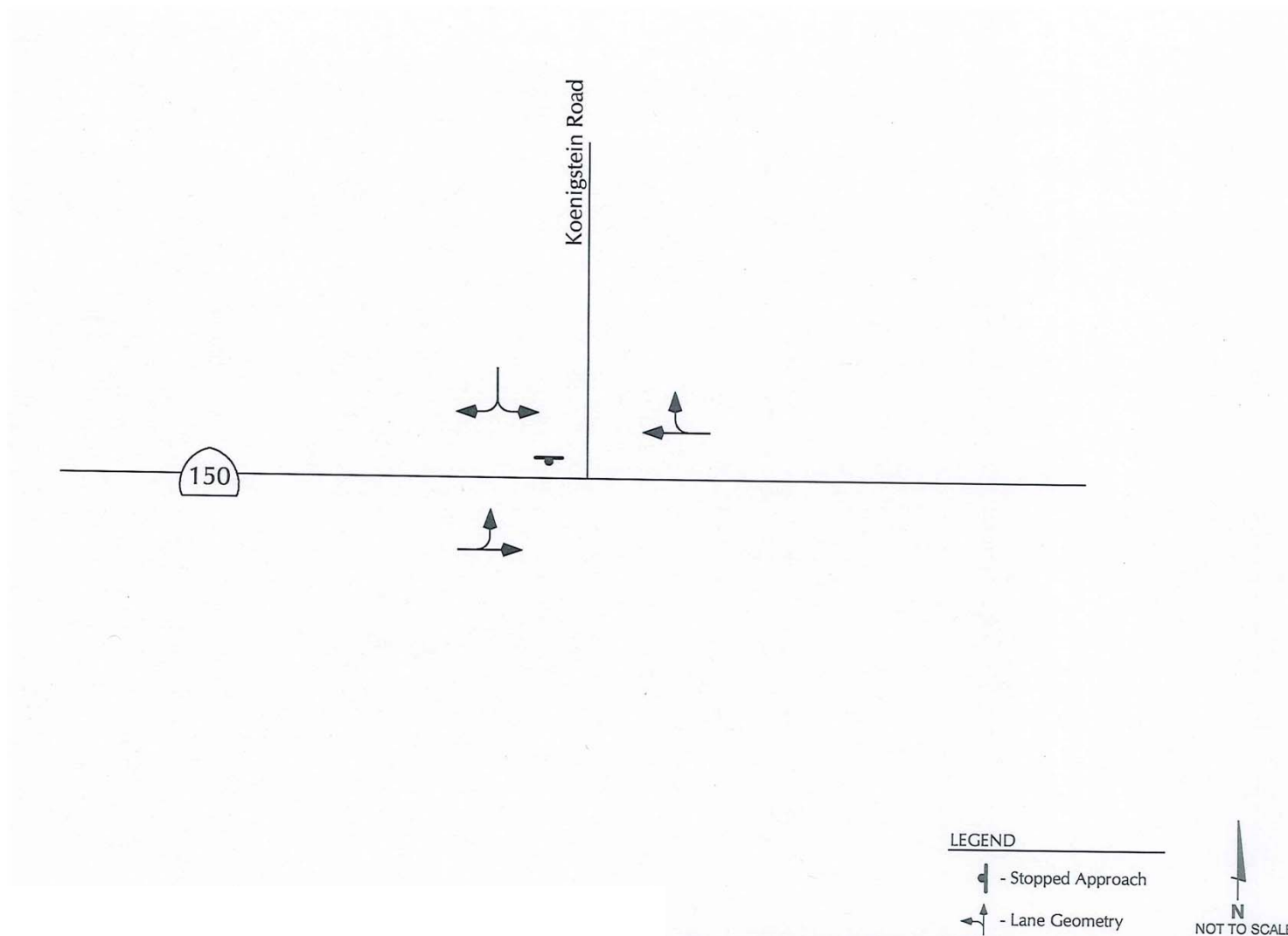
Because traffic flow on urban arterials is most restricted at intersections, a detailed analysis of traffic flow must examine the operating conditions of critical intersections during peak flow periods. As with roadway segments "Levels of Service" (LOS) “A” through “F” are used to rate intersection operations.

Existing A.M. and P.M. peak hour turning volumes for the study-area intersection are shown on Figure 4.2-2. The peak hour turning volumes were collected by ATE in May of 2018. Figure 4.2-3 illustrates the study-area intersection existing traffic control and the intersection geometry.



Source: ATE, 2019

Figure 4.2-2
 Existing Traffic Volumes



Source: ATE, 2019

County of Ventura

Carbon California Company LLC Agnew Lease Oil and Gas Project

Figure 4.2-3

Existing Lane Geometry and Traffic Controls

The level of service for the State Route 150/Koenigstein Road intersection was calculated using the Highway Capacity Manual unsignalized intersection methodology. Table 4.2-2 lists the type of traffic control and the existing A.M. and P.M. peak hour levels of service for the intersection.

**Table 4.2-2
 Existing Intersection Levels of Service**

Intersection	Control Type	A.M. Peak Hour		P.M. Peak Hour	
		Delay	LOS	Delay	LOS
State Route 150/Koenigstein Road	Stop Sign				
Eastbound left-turn		7.5 sec.	LOS A	7.5 sec.	LOS A
Southbound approach		9.6 sec.	LOS A	9.7 sec.	LOS A

The data presented in Table 4.2-2 indicate that the State Route 150/Koenigstein Road intersection delayed movements currently operate at LOS “A” or better during the A.M. peak hour and P.M. peak hour periods, which meets the County’s LOS “C” standard.

4.2.2 Thresholds of Significance

Ventura County General Plan Policies

Roadways

The thresholds established by Ventura County¹ that are outlined in Table 4.2-3 were used to assess the significance of roadway and intersection impacts associated with project-generated traffic.

¹ *Ventura County Initial Study Assessment Guidelines*, County of Ventura, April 26, 2011.

**Table 4.2-3
Minimum Acceptable Level of Service For Roadway Segments and Intersections**

Minimum LOS	County of Ventura - Description
C	All County maintained local roads.
D	All County thoroughfares and state highways within the unincorporated area of the County, except as provided below
E	<ol style="list-style-type: none"> 1. State Route 33 between the end of the Ojai freeway and the City of Ojai. 2. State Route 118 between Santa Clara Avenue and the City of Moorpark. 3. State Route 34 (Somis Road) north of the City of Camarillo. 4. Santa Rosa Road between Camarillo city limit line and Thousand Oaks city limit line. 5. Moorpark Road north of Santa Rosa Road to Moorpark city limit line.
Varies	The LOS prescribed by the applicable city for all state highways, city thoroughfares, and city maintained local roads located within that city, if the city has formerly adopted General Plan policies, ordinances or a reciprocal agreement with the County, pertaining to development in the city that would individually or cumulatively affect the LOS of state highways, county thoroughfares and county-maintained local roads in the unincorporated area of the County.
	County LOS standards are applicable for any city that has not adopted its own standards or has not executed a reciprocal agreement with the County pertaining to impacts to County roads.
At any intersection between two roads, each of which has a prescribed minimum acceptable LOS, the less stringent LOS of the two shall be the minimum acceptable LOS of that intersection.	

Project-Specific Impacts. A significant adverse project-specific traffic impact is assumed to occur on any road segment if any one of the following results from the project:

- a. If the project would cause the existing LOS on a roadway segment to fall to an unacceptable level as defined in Table 4.2-3.
- b. If the project would add one or more peak hour trip (PHT) to a roadway segment that is currently operating at an unacceptable LOS as defined in Table 4.2-3.

Cumulative Impacts. A potentially significant adverse cumulative traffic impact is assumed to occur on any road segment if any one of the following results from the project:

- a. If the project would add one or more PHT to a roadway segment that is part of the regional road network and the roadway segment is currently operating at an unacceptable LOS as defined in Table 4.2-3.
- b. If the project would add 10 or more PHT to a roadway segment that is part of the regional road network and is projected to reach an unacceptable LOS as defined in Table 4.2-3 by the Year 2020.

The County of Ventura's traffic impact analysis thresholds for the Ojai area also focus on the segment of State Route 33 in the Casitas Springs community, located south of the City of Ojai.

The threshold states that a project would contribute to significant cumulative impacts if it adds one or more southbound trips during the A.M. peak period or adds one or more northbound trips during the P.M. peak period to State Route 33 in Casitas Springs (Ventura County Public Works, 2018).

Intersections

A potentially significant adverse project-specific traffic impact is assumed to occur at any intersection in the Regional Road Network if the project would exceed the thresholds established in Table 4.2-4.

**Table 4.2-4
Threshold of Significance for Changes in Level of Service at Intersections**

Significant Changes in LOS	
Intersection Level of Service (Existing)	Increase in V/C or Trips Greater Than
LOS A	0.20
LOS B	0.15
LOS C	0.10
LOS D	10 Trips*
LOS E	5 Trips*
LOS F	1 Trip*
*To critical movements. These are the highest combination of left and opposing through/right-turn peak hour turning movements	

If the project involves County General Plan land use designation changes, zone changes or intensification of use, such that the project’s impacts could not have been anticipated and were not included in either analysis for the current General Plan or TIMF Program, or the project is located within the boundaries of the Ojai Area Plan, additional cumulative impact analysis and mitigation measures may be required at the discretion of the Director, County PWA - Transportation Department.

4.2.3 Impact Analysis

Project Trip Generation

Proposed oil production operations would include tanker truck transport of produced oil and wastewater from the project site to off-site oil refining and wastewater disposal facilities. All tanker truck operations would occur between the hours of 7:30 A.M. to 6:30 P.M. Monday through Friday.

Truck traffic that would be generated by the proposal to operate two additional wells and a re-drilled well at the Agnew lease project site can be estimated based on existing and projected fluid production volumes, as the fluid produced at the project site would be removed using tanker trucks. Based on the fluid production rates that occurred in 2015 (baseline conditions) and that

are summarized on Table 3.2-1 (Estimated Existing Large Truck Trips: 2015-2017) it is estimated that fluid produced by the existing oil wells at the project site require an average of 0.12 to 0.22 one-way truck trips per day. The number of truck trips required to remove fluid produced by the proposed two new wells and one re-drilled well has been estimated to be the same as the traffic generated by the three existing wells located at the project site. Table 4.2-5 provides a summary existing and potential project-generated truck trips based on recent and projected fluid production volumes and various haul truck capacities.

**Table 4.2-5
Existing and Estimated Project-Generated Truck Trips**

Haul Truck Capacity (barrels)	Baseline (2015) One-Way Truck Trips		Proposed Project Generated One-Way Truck Trips		Baseline Plus Proposed Project One-Way Truck Trips	
	Trips Per Day (1)	Trips Per Week (2)	Trips Per Day	Trips Per Week (2)	Trips Per Day	Trips Per Week
100	0.22	1.1	0.22	1.1	0.44	2.2
150	0.14	0.70	0.14	0.70	0.28	1.4
180	0.12	0.6.0	0.12	0.60	0.24	1.2

- (1) Truck trips based on fluid production and truck trip estimates on Table 3.2-1.
(2) Truck trips would occur Monday through Friday, or five days per week.

CUP 3543 currently allows up to 12 tanker truck loads per week (24 truck trips per week). However, as described in RSEIR Section 2.0 (Project Description) the proposed project would reduce the authorized number of project-related large truck trips to a maximum of eight (8) tanker truck loads (16 one-way trips) per week. The proposed renewal of CUP 3543 includes a request to allow a maximum of eight tanker loads per week to accommodate potential fluid production volumes that are greater than anticipated, or occasional truck trips required for operations such as removing rainwater that collects within the secondary containment berms that are maintained around the on-site fluid storage tanks. The analysis of potential traffic-related impacts is based on the maximum number of tanker truck trips (i.e., eight tanker loads/16 trips per week) that would be allowed if the CUP renewal is approved.

The existing CUP does not limit the number of vehicle trips associated with maintenance and operation of the existing oil production facilities. Also as described in RSEIR Section 2.0, the proposed project would limit maintenance and operation traffic to 14 maintenance visits per week (i.e. 28 one-way trips). Maintenance-related vehicle trips would typically be by a standard pickup truck. Table 4.2-6 summarizes the peak daily traffic generation characteristics of the proposed project.

For analysis purposes it was assumed that the project could result in a total of four (4) A.M. peak hour trips and four (4) P.M. peak hour trips on a particular day. This analysis of the project’s traffic-related impacts reflects estimated peak traffic generation characteristics. As described in RSEIR Section 2.0, the proposed project could generate up to eight (8) large truck loads per week, which would typically result in one truck load per day, or two (2) average daily truck trips per day

(i.e., one truck trip in and one truck trip out). With a maximum of eight tanker trucks per week, however, the project would have the potential to result in two tanker trucks traveling to/from the project site on one day.

**Table 4.2-6
Project-Related Peak Vehicle Trip Generation**

Trucks	ADT	A.M. Peak Hour			P.M. Peak Hour		
		Trips	In	Out	Trips	In	Out
Tanker Trucks	4 (1)	2	1	1	2	1	1
Maintenance Trucks	4 (2)	2	1	1	2	1	1
Total Trip Generation	8	4	2	2	4	2	2

- (1) Tanker Truck Daily Trips: 2 in and 2 out
(2) Maintenance Truck Daily Trips: 2 in and 2 out

The two proposed new oil wells would be served by the same truck that has historically served the three existing oil wells at the project site. Due to the low volume of fluid produced by the three existing oil wells, one truck (one trip in and one trip out) per day to remove produced fluids from the site is typically adequate. The same truck that would serve the proposed project site would continue to serve other oil leases located along Koenigstein Road that are operated by the project applicant. There are three additional oil leases operated by Carbon California that obtain access from Koenigstein Road and are served by the same tanker truck that would serve the proposed Agnew Lease project, including: 1) Nesbitt Lease (PL15-0060); 2) ADP Federal (this project operates under a Federal lease); and 3) MP Lane (this project operates under a Federal lease). The tanker truck that would be used to transport produced fluid from the proposed project site and nearby leases must be either a truck/trailer combination that is no more than 56 feet long and eight (8) feet wide; or a truck (without a trailer) that is no more than 24 feet long and eight (8) feet wide. This requirement is specified by Condition of Approval No. 58 of PL15-0060, which was approved for the Nesbitt lease.

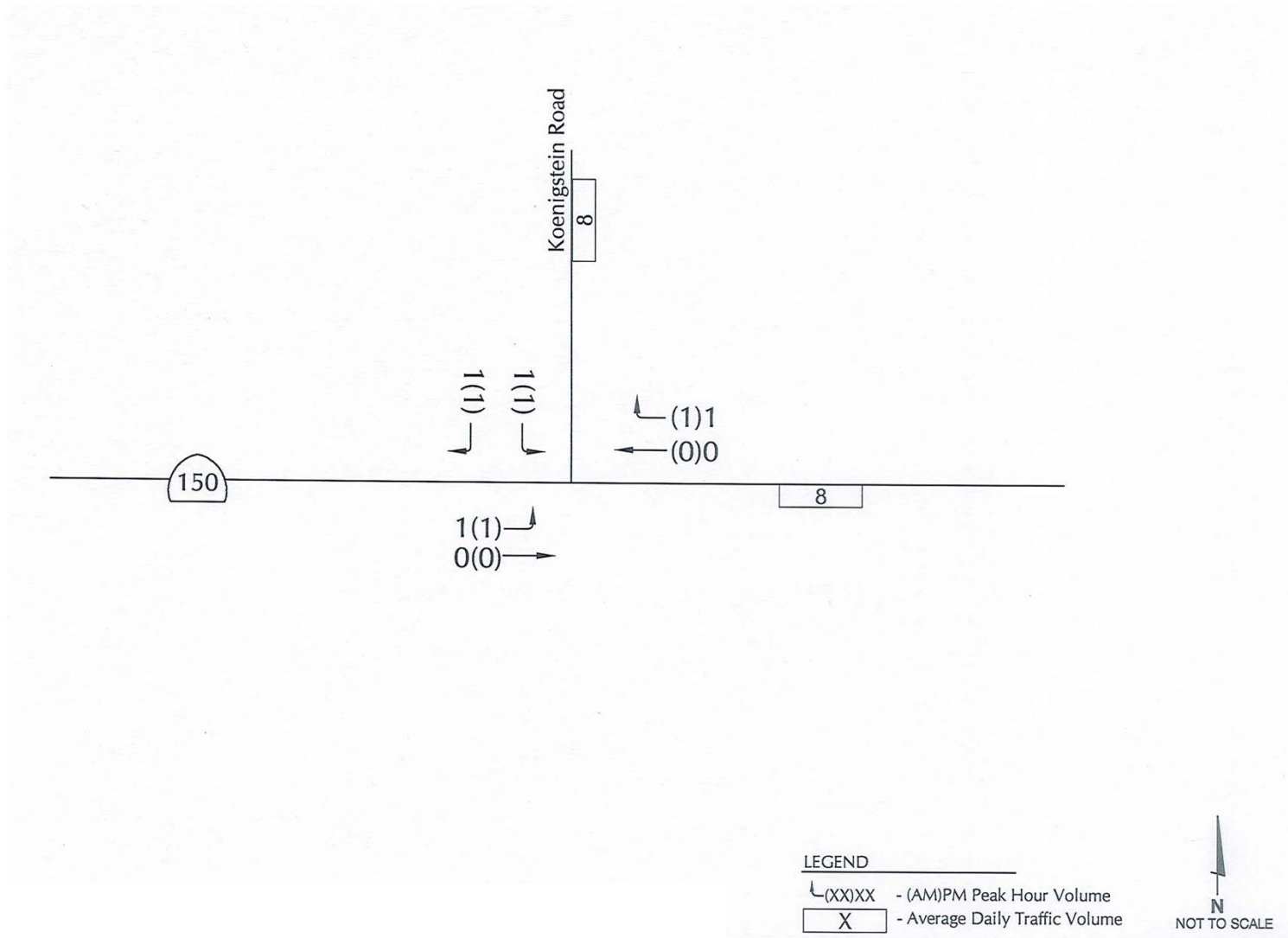
As described above, CUP-3543 limits the existing project to 12 truckloads per week (24 truck trips per week). However, this truck trip limitation is not applicable to the use of Koenigstein Road as the use of that roadway by large trucks is currently prohibited by CUP-3543.

Project Trip Distribution and Assignment

The proposed project vehicle trip distribution is based on truck route information presented in the 2016 SEIR. Trucks associated with the proposed project would be routed to and from the east towards the City of Santa Paula. Figure 4.2-4 illustrates the distribution pattern used to assign the truck trips associated with the operation of the proposed project.

Existing + Project Roadway Operations

Existing + Project average daily traffic (ADT) volume for the study-area roadway segment is illustrated on Figure 4.2-5. Levels of Service for the study-area roadway segment



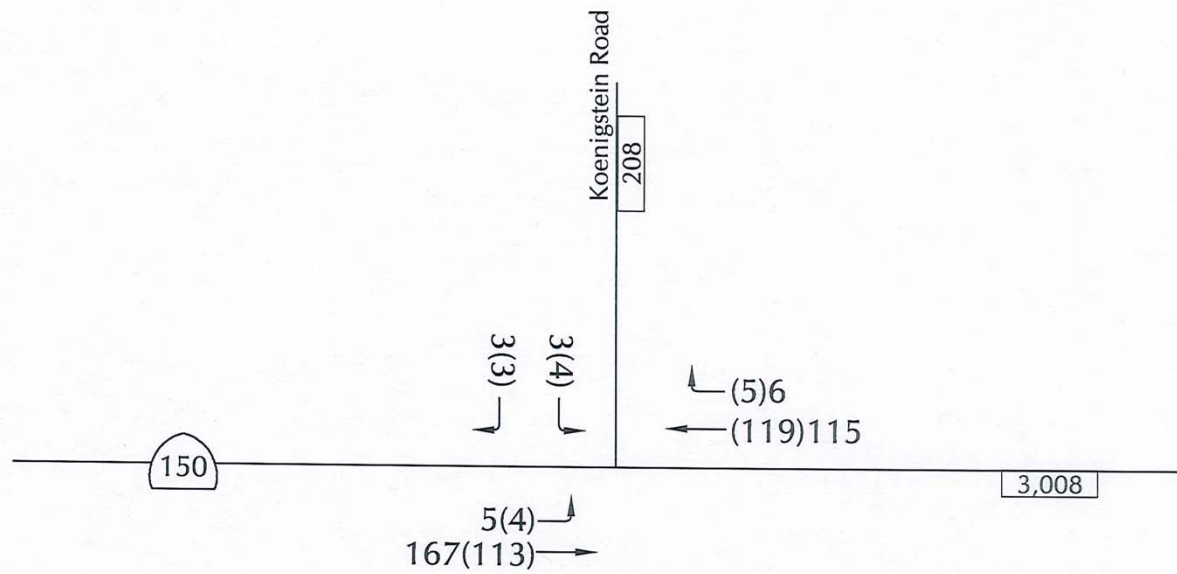
Source: ATE, 2019

County of Ventura

Carbon California Company LLC Agnew Lease Oil and Gas Project

Figure 4.2-4

Project Trip Distribution and Assignment



LEGEND

└(XX)XX - (AM)PM Peak Hour Volume

└ X - Average Daily Traffic Volume



Source: ATE, 2019

County of Ventura

Carbon California Company LLC Agnew Lease Oil and Gas Project

Figure 4.2-5

Existing + Project Traffic Volumes

were determined based on Ventura County roadway engineering design capacities, and the results are presented in Table 4.2-7.

**Table 4.2-7
Existing + Project Roadway Levels of Service**

Roadway Segment	Existing Geometry	Roadway Classification	Existing + Project ADT	LOS D Capacity	LOS
State Route 150	2-lanes	Class II	3,008	21,000	LOS B
Koenigstein Road	2-lanes	Class III	208	16,000	LOS A

The data presented in Table 4.2-7 indicate that the study-area roadway segments would continue to operate in the LOS “A” - “B” range with project-generated traffic based on the County’s level of service criteria. Therefore, the project would have a less than significant (Class III) impact to project area roadway operations.

Existing + Project Intersection Levels of Service

Levels of service for the State Route 150/Koenigstein Road intersection were calculated assuming the Existing + Project traffic volumes shown on Figure 4.2-5. Table 4.2-8 lists the results of the calculations and Existing + Project level of service ratings.

**Table 4.2-8
Existing + Project Intersection Levels of Service**

Intersection	Control Type	A.M. Peak Hour		P.M. Peak Hour		
		Delay	LOS	Delay	LOS	
State Route 150/Koenigstein Road	Stop-Sign					
		Eastbound left-turn	7.5 sec.	LOS A	7.5 sec.	LOS A
		Southbound approach	9.6 sec.	LOS A	9.7 sec.	LOS A

The data presented in Table 4.2-8 indicate that the project would not affect vehicle delay times at the State Route 150/Koenigstein Road intersection, and would not result in a significant impact during weekday peak hour periods. The study area unsignalized intersection delayed movements would continue to operate in the LOS “A” range with the addition of project-generated traffic volumes. Therefore, the project would have a less than significant (Class III) impact to the operation of the State Route 150/Koenigstein Road intersection.

Route 150/Koenigstein Road Project Potential Safety Impacts

The proposed project would authorize the use of Koenigstein Road by large project-related tanker trucks travelling to and from the project site. This access route for project-related trucks has been requested because, in 1995, the previously permitted access road was destroyed by flooding. The 2016 SEIR concluded that the reconstruction of the destroyed access road across Sisar Creek was not feasible because the site of the former road crossing is now an active stream channel that supports sensitive wildlife habitat. In addition, the construction of a new at-grade crossing or bridge spanning the creek would result in potentially significant impacts on the biological resources.

The 2016 EIR prepared for the proposed project also included an estimate of the amount of oil well-related truck traffic that currently uses Koenigstein Road. That analysis determined that between 1995 and 2014, a total of 247,141 barrels of produced fluid were exported from the Koenigstein Road area. The transportation of that fluid would have required approximately 1,373 to 2,471 tanker loads depending upon truck capacity, or between 2,746 and 4,942 truck trips (i.e., one load results in two truck trips). Using the highest estimated number of truck trips, approximately 0.7 truck trips (4,942 truck trips/7,300 days = 0.67 truck trips per day) occurred on Koenigstein road per day between 1995 and 2014.

The following is an evaluation for the State Route 150/Koenigstein Road intersection as it relates to its daily use by project-related tanker trucks, and occasional (i.e., a total of three times over the life of the project) use of the intersection to transport a drill rig to the project site. The evaluation of project-generated traffic impacts is based on the project traffic report included in Appendix C. To prepare that report, ATE conducted a field review of the intersection to determine sight distances, and evaluated collision data on State Route 150. The evaluation of the intersection was based on its use by oil tanker trucks that do not exceed the legal vehicle length limits as defined in Section 35401 of the State of California Vehicle Code. Any oversized trucks (i.e., a drill rig) that would use the State Route 150/Koenigstein Road intersection would be required to have a valid Transportation Permit issued by the California Department of Transportation (Caltrans) to use State Route 150; and a Transportation Permit issued by Ventura County would be required to use Koenigstein Road. A Transportation Permit would specify information such as: the number of vehicle trips requested, the time and date the trips would occur, and the proposed transportation route. A Transportation Permit may also require safety measures such as the use of front and rear pilot cars, requirements that the oversize vehicles be moved during daylight hours only, California Highway Patrol escort, lane closure/control measures, and the use of flagmen.

Project-Specific Long-Term Impacts

Potential long-term traffic safety impacts of the project were evaluated using threshold criteria included in Section 27a(2) *Transportation & Circulation – Roads and Highways – Safety and Design of Public Roads* of the Ventura County *Initial Study Assessment Guidelines* (April, 26, 2011). The proposed project's traffic characteristics were compared to each of the traffic safety criteria included in the Guidelines, and the results of the evaluation are presented below.

1. ***A project that impacts Public Roads or intersections will have a less-than-significant impact on the design of the Public Road system or intersections only if the existing Public Road or intersection complies with current County Road Standards and the proposed Public Road or intersection improvement or encroachment associated with by the project or required by the CEQA lead agency also complies with County Road Standards.***

The Ventura County *Initial Study Guidelines* includes the following description of roads in the County that do not comply with current road standards:

“Many existing roads in the County do not comply with current Road Standards, because many existing County roads were built prior to the existence or modern road standards and were often simply “farm to market” roads or rural access roads (often in remote, mountainous or otherwise rugged areas), intended for limited traffic. The fact that existing roads do not comply with current standards does not imply that existing roads are unsafe, nor does it mandate the initiation of improvement projects. However, additional or new development can place an additional burden on such roads and create expectations of increased or municipal levels of services.”

The County of Ventura Public Works Agency Transportation Department (Transportation Department) has reviewed the proposed project and in a memorandum dated November 21, 2019 (Appendix I), stated that from the location of the bridge to the location of the private access road used by the project, the pavement width of Koenigstein Road is approximately 32 feet, with one twelve-foot wide travel lane in each direction. The pavement width at the Koenigstein Road bridge over Sisar Creek is 24 feet, with two travel lanes. As reported by the Transportation Department, the Koenigstein Road widths are wider than what was reported by the 1980 EIR, which states “Koenigstein Road is a 14-foot-wide paved road with graded dirt shoulders.” Although Koenigstein Road north of the project site (approximately ½ mile to the north) has a pavement width less than 32 feet, the narrower roadway does not affect the trucks traveling to and from the proposed project site. The Transportation Department concluded that the statement in the 1980 EIR of trucks having to pull over to allow another truck to pass is not a factor for this project on Koenigstein Road. In addition, as indicated by the *Initial Study Guidelines*, the fact that the Koenigstein Road bridge over Sisar Creek does not meet existing design standards does not imply that the bridge is unsafe, and ATE (2019) concluded that the project-related use of the bridge would not create a safety hazard due to low traffic volumes that utilize the bridge.

As described in Project Description Section 2.3, the existing project CUP (CUP 3543) authorizes up to 12 tanker truck loads (24 one-way trips) of produced fluid to be exported from the project site per week. As proposed by the current project, the authorized number of large project-related truck trips using Koenigstein Road would be reduced to a maximum of eight (8) tanker truck loads (16 one-way trips) per week. In addition, the actual number of tanker truck trips generated by the proposed project would likely be lower than the proposed maximum number of permitted trips because the two proposed oil wells would be served by the same truck that currently serves the three existing oil wells at project site. Therefore, the proposed project would not place “an additional burden” on Koenigstein Road or the bridge

over Sisar Creek. Also, the project does not propose and has not been required to provide road improvements. Therefore, the project does not exceed the significance threshold related to road standards or required road improvements and would not result in a significant impact under Criterion No. 1.

2. *A project that either individually impacts a Public Road intersection so that the intersection exceeds any one of the traffic signal warrants established by the Manual for Uniform Traffic Control Devices, as supplemented and adopted by the State of California (MUTCD/CA), has the potential to cause a significant impact.*

A signal warrant analysis was conducted for the State Route 150/Koenigstein Road intersection (ATE, 2019). The traffic signal warrant analysis was completed based on the Manual on Uniform Traffic Control Devices (MUTCD), California Supplement, 8-Hour, 4-Hour, Crash and Average Daily Traffic vehicular volume warrant criteria. The Rural Warrants were used. Table 4.2-9 summarizes the results of the signal warrant analysis.

**Table 4.2-9
Signal Warrant Results – State Route 150/Koenigstein Road**

Warrant	Type	Warrant Satisfied?		
		Existing	Existing + Project	Cumulative + Project
No. 1	8-Hour Condition “A” Condition “B” (1)	No	No	No
		No	No	No
No.2	4-Hour	No	No	No
No.3	Peak Hour	Does Not Apply		
No.4	Pedestrian Volume	Does Not Apply		
No.5	School Crossing	Does Not Apply		
No.6	Coordinated Signal System	Does Not Apply		
No.7	Crash	No	N/A	N/A
No.8	Roadway Network	Does Not Apply		
No.9	Intersection Near a Grade Crossing	Does Not Apply		
ADT	ADT Condition “A” Condition “B” (1)	No	No	No
		No	No	No

Condition “A” = Minimum Traffic Volume
Condition “B” = Interruption of Continuous Traffic

The approach volumes on the minor street at the State Route 150/Koenigstein Road intersection do not satisfy the 8-Hour and the 4-Hour vehicular volume warrants under the Existing, Existing + Project and Cumulative + Project scenarios. To satisfy the 8-Hour warrant, a minimum of 53 vehicles per hour are necessary on the minor street approach with one lane. To satisfy the 4-Hour warrant, a minimum of 60 vehicles per hour are necessary on the minor street approach with one lane. The Cumulative + Project traffic volumes are below

53 vehicles per hour during both the 8-Hour and the 4-Hour periods. Neither Condition “A” nor “B” of the 8-Hour volumes warrant is 80 percent satisfied.

The approach volumes on the minor street at the State Route 150/Koenigstein Road intersection do not satisfy the ADT vehicular volume warrants under the Existing, Existing + Project and Cumulative + Project scenarios. To satisfy the ADT warrant, a minimum of 850 vehicles per day in one direction are necessary on the minor street approach with one lane. The estimated Cumulative + Project traffic volumes is 119 (238 ADT/2) vehicles per day.

Therefore, the project does not meet applicable signal warrants and would not result in a significant impact under Criterion No. 2.

3. ***A project that impacts Public Roads or intersections will have a less-than-significant impact on the safety and design of the Public Road System only if the existing Public Road or intersection complies with current County Road Standards, and if the affected Public Road or intersection has a collision or incident rates at or below state wide averages for similar facilities.***

As described in response No. 1 above, between the Koenigstein Road bridge over Sisar Creek and the project site access road, Koenigstein Road has a pavement width of approximately 32 feet, which complies with the Ventura County road standard of 32 feet. The bridge over Sisar Creek has a width of 24 feet, which does not comply with the County road width standard of 32 feet, however, in their November 21, 2019 memo (Appendix I) the Transportation Department concluded that the statement in the 1980 EIR ‘of trucks having to pull over to allow another truck to pass is not a factor for this project on Koenigstein Road’. Therefore, the proposed project would not place “an additional burden” (i.e., a substantial increase in truck traffic) on Koenigstein Road or the existing bridge over the creek.

Vehicle collision data for State Route 150/Koenigstein Road was obtained from Caltrans by making a public records request. The data provided shows that from 2016 to 2019 no collisions were reported at the intersection (ATE, 2019). Therefore, based on recent recorded collision data, the collision rate at the State Route/Koenigstein Road intersection is zero.

In addition, the Public Works Agency Transportation Department concluded that in order to analyze an intersection for safety concerns, the accepted method is to review collision history in the area and at the intersection. Typically, the data that is used is a minimum of three years and a maximum of five years of available collision data. However, for the proposed project the Transportation Department considered much more data. In the 20 years that the oil and gas company has been using Koenigstein Road there has been no evidence of tanker truck related collisions. Since there is no evidence that there have been collisions within that timeframe, the Transportation Department concluded that there is no nexus to require the project applicant to consider alternative routes of travel for the tanker truck related trips for the site (November 21, 2019 Public Works Agency Transportation Department Memorandum, Appendix I).

Therefore, the project does not exceed the collision rate significance threshold and the project would not result in a significant impact under Criterion No. 3.

4. ***A project has a potentially significant adverse project-specific traffic impact on any road segment if the roadway segment has been identified by SWITRS as experiencing a high incident rate.***

Collision data for the State Route 150/Koenigstein Road intersection has been obtained from Caltrans rather than SWITRS, which is a collision database maintained by the California Highway Patrol. Vehicle collision data recorded by Caltrans for State Route 150/Koenigstein Road shows that from 2016 to 2019 no collisions were reported at the intersection (ATE, 2019). In addition, the 2016 SEIR prepared for the project found that from 2002 to 2013 only two collisions occurred at the intersection and neither involved oil tanker trucks. In addition, since there is no evidence that there have been collisions with in that timeframe, the Transportation Department concluded that there is no nexus to require the project applicant to consider alternative routes of travel for the tanker truck related trips for the site. Therefore, the State Route 150/Koenigstein Road intersection does not have a high incident rate and the project would not result in a significant impact under Criterion No. 4.

5. ***A project has a potentially significant adverse project-specific traffic impact on the affected road segment if that road segment is identified as being a part of an existing road system that is noncompliant with current County road standards.***

As described in response No. 1 above, between the Koenigstein Road bridge over Sisar Creek and the project site access road, Koenigstein Road has a pavement width of approximately 32 feet, which complies with the Ventura County road standard of 32 feet. The bridge over Sisar Creek has a width of 24 feet, which does not comply with the County road width standard of 32 feet, however, the Transportation Department has concluded that the statement in the 1980 EIR ‘of trucks having to pull over to allow another truck to pass is not a factor for this project on Koenigstein Road’. In addition, access to the project site is not located within a “Substandard Impact Area” identified by the *Initial Study Assessment Guidelines*. Therefore, the project would not result in a significant impact under Criterion No. 5.

6. ***A proposed project located in the unincorporated area where the existing road systems were developed prior to any road safety engineering standards will have a significant adverse impact on road safety.***

ATE conducted a field review to determine if sufficient sight distance exists for tanker trucks at the State Route 150/Koenigstein Road intersection. The Caltrans Highway Design Manual² sight distance standards were used for the sight distance analysis. The segment of State Route 150 near the project site has rolling topography and has a posted 35 MPH speed limit. Based

² Highway Design Manual, Caltrans, 6th Edition.

on Caltrans criteria, the minimum required sight distance standard for a 35 MPH design speed is 250 feet.

The sight distance looking east along State Route 150 was measured at 350 feet, in excess of the 250-foot minimum. The sight distance looking west along State Route 150 was measured at 500, which also exceeds the 250-foot minimum.

The measured sight distances at the State Route 150/Koenigstein Road intersection exceeds the minimum site distance standard, therefore, the existing sight distance conditions would be adequate to serve the proposed project-generated truck traffic. Therefore, the road system that would serve the project would comply with this road safety engineering standard.

The project proposes to decrease the maximum allowable traffic volumes currently allowed by the project's existing CUP from 12 tanker truck loads per week (24 truck trips per week) to a maximum of eight (8) tanker truck loads (16 one-way trips) per week. The two proposed new oil wells would be served by the same truck that has historically served the three existing oil wells at the project site. Due to the low volume of fluid produced by the three existing oil wells, one truck (one trip in and one trip out) per day to remove produced fluids from the site is typically adequate. The same truck that would serve the proposed project site would continue to serve other oil leases located along Koenigstein Road that are operated by the project applicant. There are three additional oil leases operated by Carbon California that obtain access from Koenigstein Road and are served by the same tanker truck that would serve the proposed Agnew Lease project, including: 1) Nesbitt Lease (PL15-0060); 2) ADP Federal (this project operates under a Federal lease); and 3) MP Lane (this project operates under a Federal lease). The tanker truck that would be used to transport produced fluid from the proposed project site and nearby leases must be either a truck/trailer combination that is no more than 56 feet long and eight (8) feet wide; or a truck (without a trailer) that is no more than 24 feet long and eight (8) feet wide. This requirement is specified by Condition of Approval No. 58 of PL15-0060, which was approved for the Nesbitt lease.

Due to the low volumes of fluid produced by the existing on-site wells and the expected low volume of fluid to be produced by the proposed oil wells, total truck traffic generated by the existing and proposed project would likely be similar to existing truck traffic volumes generated by the existing oil wells at the project site and other existing oil leases operated by the project applicant that use Koenigstein Road for access.

Previous testimony before the Ventura County Planning Commission regarding other oil well projects located along Koenigstein Road have expressed concerns that due to the configuration of the State Route 150/Koenigstein Road intersection, trucks traveling westbound on State Route 150 must cross the highway's yellow dividing line before turning right onto Koenigstein Road. Specifically, this concern was raised during the Commission's consideration of the Nesbitt and Harth (PL15-0060) project that is located approximately one mile east of the Agnew lease project site (see RSEIR Section 3.5, Cumulative Projects).

During a July, 28, 2016, Planning Commission hearing regarding the Nesbitt and Harth project, Mr. David Fleisch, Director of the Ventura County Public Works Agency Transportation Department, answered questions from planning commissioners regarding the issue of trucks turning onto Koenigstein Road from State Route 150 and crossing over the highway dividing line. An excerpt from Mr. Fleisch's testimony is provided below and his complete testimony is included in RSEIR Appendix H.

“There isn't a county standard for safety and can somebody drive or not drive over a line. We have a design standard for roads that was in effect at the time the roads were built. And there's no requirement to update that to current standards, just because the standards change. So the road, at the time it was built, was appropriate for the traffic, and with the volumes of traffic that are on both of those roads [State Route 150 and Koenigstein Road] today, the road is still more than acceptable for the traffic that's there.”

Because of the low volume, and you can even see this at the corner right out here at Victoria and Telephone, that trucks frequently turn wide and cross a line. That, in and of itself, does not make the road dangerous or does not make the traffic dangerous. They have to watch what's there. And in that area up there, as low volume as the traffic is, they would wait until the lane cleared before they made their turn. That's a perfectly safe operation. Yes, they're crossing the line, but that, in and of itself, doesn't make it unsafe.

In a memorandum dated November 21, 2019 (Appendix I), the Transportation Department stated that “the project, as proposed, will generate additional traffic on the local public roads and the Regional Road Network, but does not have the potential to alter the level of service (LOS) of the roadways that will be used by the project.” The November 21, 2019, memo also states that “the project, as proposed, does not have the potential to alter the level of safety of roadways and intersections near the project. Therefore, impacts related to safety/design of County roads will be ‘Less than Significant.’”

RSEIR Section 3.5 (Cumulative Projects) describes the Nesbitt well lease, which is operated by the Carbon California Company and obtains access from State Route 150 and Koenigstein Road. Fluids produced by the Nesbitt lease is removed and transported offsite by the same truck that historically served the existing Agnew Lease project, and that same truck would also serve the proposed Agnew Lease project. In their review of the environmental impact analysis prepared for the Nesbitt project, the California Department of Transportation (Caltrans) submitted a letter dated September 28, 2015, that stated in part: “*The nearest State facility to the proposed project is State Route 150. Caltrans does not expect project approval to result in a direct adverse impact to the existing State transportation facilities.*” The entire September 28, 2015, Caltrans letter is included as Appendix J. In addition, as a condition of approval for the Nesbitt well project (CUP No. 15-0060), the Board of Supervisors approved a condition of approval requiring the project applicant (Carbon California) to install a flashing warning light along State Route 150 that will alert on-coming traffic that a large vehicle (i.e., the oil tanker that serves the Nesbitt project as well as the existing and proposed Agnew lease project) is turning onto the highway.

The proposed project would not substantially increase traffic on State Route 150 or Koenigstein Road, and based on correspondence and previous testimony from the Transportation Department and Caltrans, truck turning movements at the State Route 150/Koenigstein Road intersection would not result in a significant traffic safety impact. Therefore, the project would not “place an additional burden” on the State Route 150/Koenigstein Road intersection, and the project would not result in a significant impact under Criterion No. 6.

7. ***A project will have a potentially significant adverse project-specific traffic impact at any un-signalized intersection on the Public Road system if the project-specific impacts result in any of the warrants established by the MUTCD-CA being met.***

As described by the analysis of Criterion No. 2, the project does not meet applicable signal warrants and would not result in a significant impact under Criterion No. 7.

8. ***A project with project-specific impacts to any intersection that has been identified in the Substandard Impact Areas Vicinity, Upper Ojai Substandard Impact Area, Santa Susana Area Substandard Impact Area, Ventu Park Area Substandard Impact Area, Yerba Buena Area Substandard Impact Area, or the Santa Susana Knolls Area Substandard Impact Area Maps shall be considered significant unless mitigated.***

Access roads that would serve the project site (State Route 150 and Koenigstein Road) are not located in a designated Substandard Impact Area. Therefore, the project would not result in a significant traffic safety impact under Criterion No. 8.

In conclusion, based on the information provided above, the risk of future accidents at the State Route 150/Koenigstein Road intersection cannot be eliminated, but based on the evaluation of traffic safety criteria included in the Ventura County *Initial Study Assessment Guidelines*, it could be concluded that the project would have a less than significant long-term traffic safety impact. However, in the Writ of Mandate (RSEIR Appendix A) issued for the 2016 SEIR prepared for the proposed Agnew Lease project, the Court concluded that based on the previous traffic safety analysis included in the 1983 EIR prepared for the Agnew Lease project; the analysis included in the 2016 SEIR prepared for the proposed project, and comments on that EIR submitted by Caltrans; and testimony provided at the June 21, 2016 hearing before the Board certified the 2016 SEIR “...substantial evidence in the record supports only a conclusion under CEQA of significant traffic safety impacts at the intersection of the Koenigstein Road bridge and State Highway 150...” In recognition of the Court’s decision, this RSEIR has identified feasible traffic safety mitigation measures to minimize the potential for a significant adverse long-term traffic safety impact that may result from the continued use of the Koenigstein Road bridge over Sisar Creek by oil tanker trucks that serve the proposed project site and other nearby oil leases. The proposed mitigation measures require: a) the installation of truck crossing signs along State Route 150; and b) that project-related oil tanker trucks used for the routine operation of the project site shall only use the Koenigstein Road bridge during daylight hours. The proposed mitigation measures also require that Caltrans approve the design, location, and installation of the truck crossing sign. Based on: a) the impact analysis provided above; b) the number of oil lease serving tanker trucks using Koenigstein Road would not be increased when compared to baseline

conditions; and c) additional feasible traffic safety measures would be implemented by the proposed project, the potentially significant long-term traffic safety impacts of the proposed Agnew Lease project can be reduced to a less than significant level (Class II).

Short-Term Project Construction Impacts

The proposed project would result in the drilling of two new oil wells and re-drilling of one existing oil well. These operations would be conducted using a separate drill rig that may require the approval of a Transportation Permit from the County and Caltrans, as described in Section 4.2.5 below. One new well is proposed to be drilled within five years of the effective date of the requested CUP modification approval. The other new/re-drilled wells are proposed to be drilled within 10 years of the effective date of the requested CUP modification approval. The drilling period for each new or re-drilled well would occur over a period of approximately two weeks. Drilling operations would require approximately 20 workers and 16 trucks that would deliver and remove drilling equipment. Over a two day period 16 truck trips (8 trucks per day) would bring drilling equipment to the site. Over a separate two day period 16 trucks (8 trucks per day) would remove drilling equipment from the site.

Drilling is proposed to occur 24 hours per day, and truck trips to and from the project site would occur during daylight hours generally between the hours of 7:00 A.M. and 6:00 P.M. The traffic generated during a drilling period would include truck traffic hauling drilling equipment to the site and worker trips to and from the site. Access to the project site would be via Koenigstein Road. The following summarizes the maximum daily traffic that may be generated during project-related drilling periods:

Drilling Equipment Daily Trucks Trips:	16 trips per day for 2 days (8 in and 8 out each day)
Employee Daily Trips:	40 light duty truck trips per day over approximately two weeks (20 in and 20 out each day)

Traffic generated by the drilling of wells at the project site would be limited in duration and would not result in a substantial increase in traffic. The short-term construction-related traffic would occur in addition to traffic that results from the operation of existing wells on the project site. As shown in Table 4.2-6, a maximum of eight (8) project-generated average daily vehicle trips would occur in addition to project-related construction traffic. As stated in RSEIR Section 2.3 (Project Characteristics) at minimum the traffic control measures to be implemented by the project when a drill rig is moved onto and from the project site would include the use of warning signs and flagmen on State Route 150 and Koenigstein Road in the vicinity of the intersection.

In a memorandum dated November 21, 2019 (Appendix I), the Transportation Department stated that “the project, as proposed, will generate additional traffic on the local public roads and the Regional Road Network, but does not have the potential to alter the level of service (LOS) of the roadways that will be used by the project.” The November 21, 2019, memo also states that

“the project, as proposed, does not have the potential to alter the level of safety of roadways and intersections near the project. Therefore, impacts related to safety/design of County roads will be ‘Less than Significant.’”

Based on the temporary nature of potential drill rig transportation impacts, compliance with required permits, the implementation of proposed and other traffic safety measures that may be required, and the good operating conditions that exist on state Route 150 and Koenigstein Road, and the evaluation conducted by the Transportation Department, potential safety impacts resulting from drill rigs travelling to and from the project site would be substantially reduced and would result in a less than significant (Class III) short-term traffic safety impact. To provide specific and enforceable traffic safety requirements regarding the use of oversized or heavy vehicles on County Roadways, and to minimize potential safety impacts that may result from project-related large vehicle (i.e., drilling rig) turning movements at the State Route 150/Koenigstein Road intersection, a suggested condition of approval for the project is provided in EIR Section 4.2.5.

4.2.4 Cumulative Impacts

There is little proposed development in the study area given the constraint on development resulting from the County’s General Plan policy regarding cumulative traffic impacts to State Route 33 (see Section 4.2.2, Thresholds of Significance). Based on historical (2011 to 2017) Caltrans traffic count data a 15 percent growth factor was applied to the existing traffic volumes in the project area to account for ambient traffic growth. The following evaluates a Year 2030 cumulative traffic condition scenario, and includes the traffic that would be generated by the proposed project.

Cumulative Roadway Operations

Cumulative daily traffic (ADT) volume for the study-area roadway segments are illustrated on Figure 4.2-6. Levels of Service for the study-area roadway segments were determined based on Ventura County roadway engineering design capacities. The results are presented in Table 4.2-10.

**Table 4.2-10
Cumulative Roadway Levels of Service**

Roadway Segment	Existing Geometry	Roadway Classification	Cumulative ADT	LOS D Capacity	LOS
State Route 150	2-lanes	Class II	3,500	21,000	LOS B
Koenigstein Road	2-lanes	Class III	230	16,000	LOS A

The data presented in Table 4.2-10 indicate that the study-area roadway segments would operate in the LOS “A” - “B” range under cumulative conditions based on the County’s level of service criteria.

Cumulative + Project daily traffic (ADT) volumes for the study-area roadway segments are illustrated on Figure 4.2-7. Levels of service for the study-area roadway segment were determined based on Ventura County roadway engineering design capacities, the results are presented in Table 4.2-11.

**Table 4.2-11
Cumulative + Project Roadway Levels of Service**

Roadway Segment	Existing Geometry	Roadway Classification	Cumulative + Project ADT	LOS D Capacity	LOS
State Route 150	2-lanes	Class II	3,508	21,000	LOS B
Koenigstein Road	2-lanes	Class III	238	16,000	LOS A

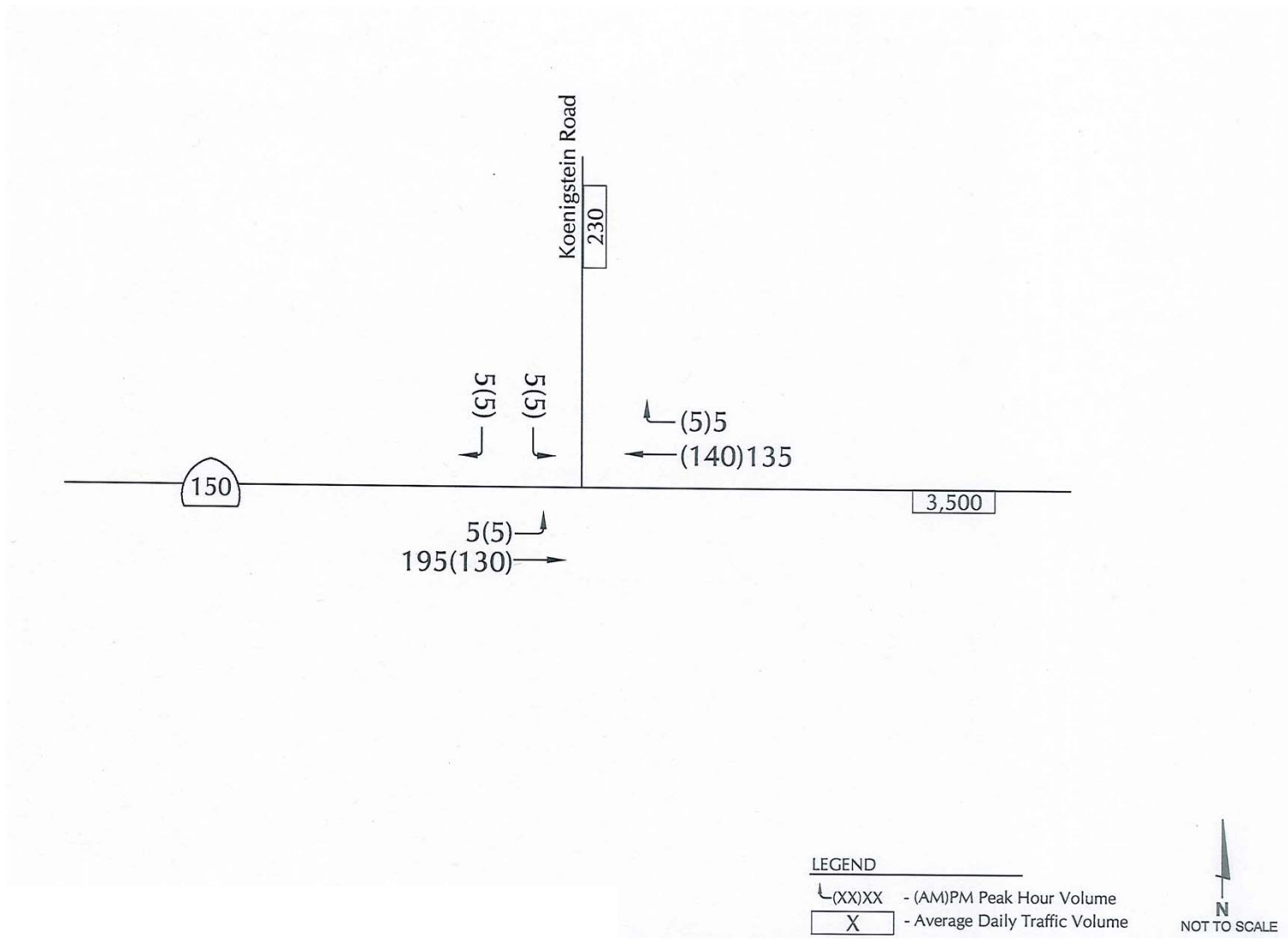
The data presented in Table 4.2-11 indicate that the study-area roadway segments would continue to operate in the LOS “A” - “B” range under Cumulative + Project traffic conditions based on the County’s level of service criteria. Therefore, the project would have a less than significant (Class III) cumulative impact to project area roadway operations.

Cumulative Intersection Levels of Service

Figures 4.2-6 and 4.2-7 illustrate the Cumulative and Cumulative + Project traffic volumes, respectively. Tables 4.2-12 and 4.2-13 show the A.M. and P.M. peak hour intersection levels of service for the cumulative scenario with and without project-generated traffic volumes.

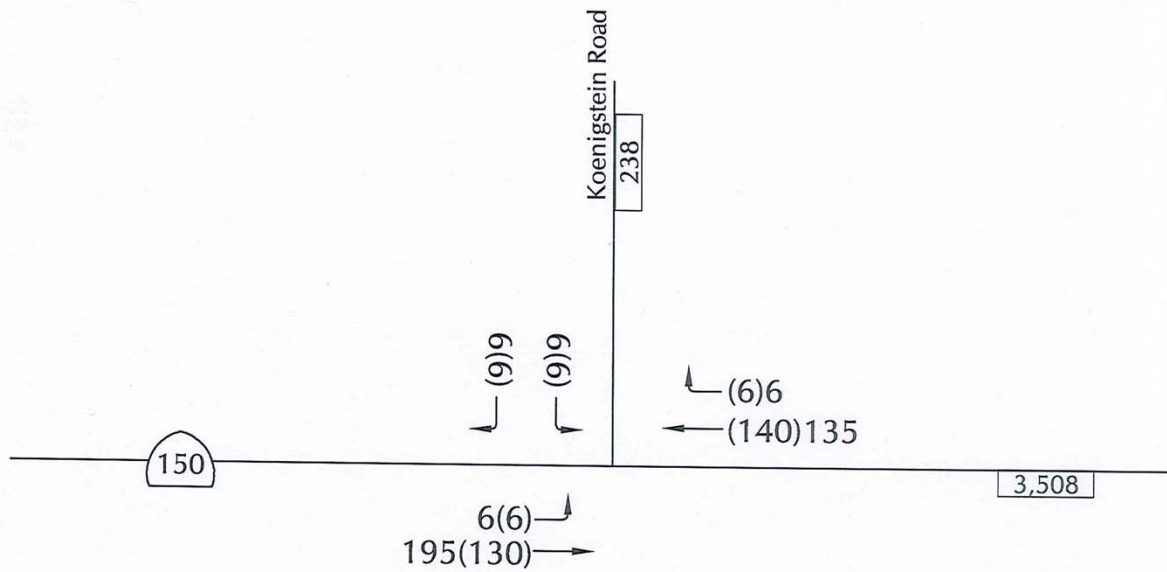
**Table 4.2-12
Cumulative Intersection Levels of Service – A.M. Peak Hour**

Intersection	Delay - Level of Service			
	Cumulative		Cumulative + Project	
	Delay	LOS	Delay	LOS
State Route 150/Koenigstein Road				
Eastbound left-turn	7.6 sec.	LOS A	7.6 sec.	LOS A
Southbound approach	9.7 sec.	LOS A	9.8 sec.	LOS A



Source: ATE, 2019

Figure 4.2-6
 Cumulative Traffic Volumes



LEGEND
 ↳ (XX)XX - (AM)PM Peak Hour Volume
 X - Average Daily Traffic Volume



Source: ATE, 2019

**Table 4.2-13
Cumulative Intersection Levels of Service – P.M. Peak Hour**

Intersection	Delay - Level of Service			
	Cumulative		Cumulative + Project	
	Delay	LOS	Delay	LOS
State Route 150/Koenigstein Road				
Eastbound left-turn	7.5 sec.	LOS A	7.6 sec.	LOS A
Southbound approach	10.0 sec.	LOS A	10.0 sec.	LOS A

Tables 4.2-12 and 4.2-13 show that the State Route 150/Koenigstein Road intersection is forecast to operate at the LOS “A” range during the peak hour periods with General Plan Buildout volumes. Therefore, the project would have a less than significant (Class III) cumulative impact to the operation of the State Route 150/Koenigstein Road intersection operation.

As described in Section 3.5 (Cumulative Projects) there are two cumulative oil and gas production projects located in the vicinity of the Agnew Lease project site:

- The Bentley (PL15-0187) project was granted to authorize the continued use and maintenance of nine existing oil wells, and allow full time flaring of all oil well produced natural gas due to the loss of access to a gas sales pipeline, and a limitation on truck trips from unlimited to six (6) truckloads in any one week (or one roundtrip per day). This project would not result in any additional oil and gas-related traffic on Koenigstein Road or State Route 150.
- The Nesbitt and Harth (PL15-0060) project was granted to allow the testing, drilling, production, reworking and maintenance of nine proposed oil and gas wells and two existing wells on the Harth drilling pad; and the testing production, reworking and maintenance of two oil production wells located on the Nesbitt Lease. Only access to the Nesbitt project site is from Koenigstein Road. The SEIR prepared for the Nesbitt project estimated that it would generate 0.13 one-way tanker truck trips per day, or approximately one truckload every 16 days.

The use of the State Route 150/Koenigstein Road intersection by tanker trucks was evaluated by a separate report (ATE, 2016) prepared for the Nesbitt Lease oil and gas project. The Nesbitt and the proposed Agnew Lease projects would both be operated by Carbon California, and access to the Nesbitt project site is also from Koenigstein Road. The project applicant has indicated that due to the small size of the proposed Agnew and Nesbitt Lease projects, both would be serviced by the same tanker truck trip and same tanker truck. The traffic safety evaluation for the Nesbitt project is included as RSEIR Appendix G, and Caltrans comments stating that it does

not expect the project to result in a direct adverse impact to the existing State transportation facilities are provide in Appendix J.

The 2016 evaluation of the State Route 150/Koenigstein Road intersection reported sight distance, collision data, and roadway operation characteristics that are similar to what was reported in the 2019 evaluation prepared for the Agnew Lease project (RSEIR Appendix C). The 2016 evaluation provided the following conclusion:

“It is ATE's staff conclusion that the intersection will continue to operate satisfactorily based upon the accident record data, where there were two accidents noted (neither involved tanker trucks), over a 12-year period, Koenigstein Road has a low traffic volume, the sight distance at the intersection in both directions, as measured, meets or exceeds the Caltrans value for the prevailing speed. ATE also reviewed the intersection geometry. The proposed addition of less than 3 one-way tanker trips per day through this intersection will not alter this condition. The expected tanker trucks utilized by the project will not exceed the legal limits. Oversized trucks would be required to have a valid Transportation Permit.”

The 2016 evaluation prepared for the Nesbitt project was reviewed by the Ventura County Public Works Agency, Transportation Department (RSEIR Appendix G). That review concluded that the Transportation Department concurred with the findings of the evaluation.

Similar to the proposed Agnew lease project, it is anticipated that long-term vehicle traffic generated by routine maintenance activities at the cumulative oil and gas production project sites would be very low. Based on the good existing and cumulative operation characteristics of Koenigstein Road and State Route 150 (Level of Service A and B, respectively), truck and vehicle traffic generated by cumulative oil and gas production projects would not be cumulatively considerable and would not result in a significant traffic volume impact. Also similar to the proposed project, construction-related traffic generated by the cumulative oil and gas production projects would be limited in volume and duration, and would likely require the issuance of a Transportation Permit by Caltrans and Ventura County. It is also unlikely that construction operations at the Agnew lease and other cumulative oil and gas production project sites would occur simultaneously or result in cumulative short-term impacts at or near any of the proposed project sites.

Cumulative Long-Term Safety Impacts

Potential long-term cumulative traffic safety impacts of the project were evaluated using threshold criteria included in the Ventura County *Initial Study Assessment Guidelines* (April, 26, 2011) and the assessment criteria included in Section 27a(2) *Transportation & Circulation – Roads and Highways – Safety and Design of Public Roads*. Each of the Guidelines cumulative safety assessment criteria are presented below along with an evaluation to determine if the proposed project would have the potential to result in a safety impact based on the requirements of each criterion.

1. ***A project will have a potentially significant adverse cumulative traffic impact on any road segment if the affected road segment has been identified as experiencing a high incident rate.***

As described by the response for *Initial Study Assessment Guidelines* project-specific evaluation criterion No. 4, the State Route 150/Koenigstein Road intersection does not have a high incident rate. Therefore, the proposed project would not result in a significant cumulative traffic safety impact under Criterion No. 1.

2. ***A project that individually impacts an Public Road intersection so that the intersection exceeds any one of the traffic signal warrants established by the Manual for Uniform Traffic Control Devices, as supplemented and adopted by the State of California (MUTCD/CA) has the potential to cause a significant cumulative impact.***

As described by the response for *Initial Study Assessment Guidelines* project-specific evaluation criterion No. 2, and Table 4.2-9 above, the Agnew Lease project would not exceed signal warrants at the State Route 150/Koenigstein Road intersection under existing plus project or cumulative plus project traffic conditions. Therefore, the proposed project would not result in a significant cumulative traffic safety impact under Criterion No. 2.

3. ***A proposed project, along with past, present or probable future projects, that uses existing substandard public roads in the areas shown on the Substandard Impact Areas Vicinity, Upper Ojai Substandard Impact Area, Santa Susana Area Substandard Impact Area, Ventu Park Area Substandard Impact Area, Yerba Buena Area Substandard Impact Area, or the Santa Susana Knolls Area Substandard Impact Area Maps (see attachments) is considered to have cumulative impacts on the operational safety of the public road system in these areas.***

The Agnew Lease, Bentley, and Nesbitt oil well projects are not located in the Substandard Impact Areas identified above. Therefore, the project would not result in a significant cumulative traffic safety impact under Criterion No. 3.

4. ***A project will have a potentially significant adverse cumulative traffic impact to any un-signalized intersection on the Public Road System if the project-specific impacts, along with other past, present or probably future projects result in any of the warrants established by the MUTCD-CA being met.***

As described by the response for *Initial Study Assessment Guidelines* project-specific evaluation criterion No. 2, and Table 4.2-9 above, the Agnew Lease project would not exceed signal warrants at the State Route 150/Koenigstein Road intersection under existing plus project or cumulative plus project traffic conditions. Therefore, the proposed project would not result in a significant cumulative traffic safety impact under Criterion No. 4.

5. *Any proposed project, along with other past, present or probably future projects, that causes impacts at any intersection that has been identified in the Substandard Impact Areas Vicinity, Upper Ojai Substandard Impact Area, Santa Susana Area Substandard Impact Area, Ventu Park Area Substandard Impact Area, Yerba Buena Area Substandard Impact Area, or the Santa Susana Knolls Area Substandard Impact Area Maps will also be considered cumulatively significant.*

The Agnew Lease, Bentley, and Nesbitt oil well projects are not located in the Substandard Impact Areas identified above. Therefore, the project would not result in a significant cumulative traffic safety impact under Criterion No. 5.

The risk of future accidents at the State Route 150/Koenigstein Road intersection cannot be eliminated, but based on the evaluation of traffic safety criteria included in the Ventura County *Initial Study Assessment Guidelines*, it could be concluded that the project would have a less than significant cumulative traffic safety impact. However, in the Writ of Mandate (RSEIR Appendix A) issued for the 2016 SEIR prepared for the proposed Agnew Lease project, the Court concluded that based on the previous traffic safety analysis included in the 1983 EIR prepared for the Agnew Lease project; the analysis included in the 2016 SEIR prepared for the proposed project, and comments on that EIR submitted by Caltrans; and testimony provided at the June 21, 2016 hearing before the Board certified the 2016 SEIR “...substantial evidence in the record supports only a conclusion under CEQA of significant traffic safety impacts at the intersection of the Koenigstein Road bridge and State Highway 150...” In recognition of the Court’s decision, this RSEIR has identified feasible traffic safety mitigation measures to minimize the potential for a significant adverse long-term traffic safety impact that may result from the continued use of the Koenigstein Road bridge over Sisar Creek by oil tanker trucks that serve the proposed project site and other nearby oil leases. The proposed mitigation measures require: a) the installation of truck crossing signs along State Route 150; and b) that project-related oil tanker trucks used for the routine operation of the project site shall only use the Koenigstein Road bridge during daylight hours. The proposed mitigation measures also require that Caltrans approve the design, location, and installation of the truck crossing sign. Based on: a) the impact analysis provided above; b) the number of oil lease serving tanker trucks using Koenigstein Road would not be increased when compared to baseline conditions; and c) additional feasible traffic safety measures would implemented by the proposed project, the potentially significant cumulative traffic safety impacts of the proposed Agnew Lease project can be reduced to a less than significant level (Class II).

4.2.5 Mitigation Measures

The impact analyses provided above indicate that the proposed project would not result in significant project-specific or cumulative traffic circulation (i.e., traffic volume) impacts. Therefore, no mitigation measures are required to reduce project-related circulation impacts to a less than significant level.

In recognition of the Court’s ruling regarding the 2016 SEIR prepared for the proposed project, the project would have the potential to result in a significant but mitigable (Class II) long-

term and cumulative traffic safety impact at the Koenigstein Road/State Route 150 intersection. This potential impact would be reduced to a less than significant level with the implementation of proposed mitigation measure TRAFFIC-1.

The analysis provided above concluded that the proposed project would not result in a potentially significant impact when a drill rig is moved onto or off of the project site. Implementation of the following condition of approval would further reduce potential short-term project-related safety impacts resulting from the use of oversized or heavy vehicles on County roadways, and minimize potential safety impacts that may result from project-related large vehicle (i.e., drilling rig) turning movements at the State Route 150/Koenigstein Road intersection. The following recommended condition of approval is not required to reduce the project's short-term construction impacts to a less than significant level.

Required Mitigation Measures

With the implementation of mitigation measure TRAFFIC-1, potentially significant project-specific and cumulative long-term traffic safety impacts at the State Route 150/Koenigstein Road intersection will be reduced to a less than significant level (Class II).

TRAFFIC-1. Tanker Truck Safety

Long-Term Traffic Safety

Purpose. To reduce to the extent feasible potential traffic safety hazards associated with project-related tanker truck turning movements at the State Route 150/Koenigstein Road intersection.

Requirements:

- a. Project-related oil tanker trucks used for the routine operation of the project site shall only travel through the State Route 150/Koenigstein Road intersection during daylight hours.
- b. The permittee shall install two "truck crossing" signs at locations along State Route 150 at appropriate sites east and west of the State Route 150/Koenigstein Road intersection. If feasible, the truck crossing signs shall be equipped with a flashing yellow solar-powered light that operates during daylight hours.

Documentation:

- a. The Permittee shall report to the County Planning Division any incidents (e.g., emergencies; accidents; excess accumulated oil, produced water, rainwater, etc.) that required large trucks to travel through the State Route 150/Koenigstein Road intersection during nighttime hours within two (2) days of the event.

- b. The Permittee shall provide to the County Transportation Department and Planning Division all approved plans and permits (e.g., a Caltrans-approved encroachment permit) required to install the required truck crossing warning signs. The project plans shall specify the approved sign locations and design characteristics.
- c. The permittee shall submit photo-documentation of the installation of the required truck crossing warning signs to the Planning Division within ten (10) days of sign installation.

Timing: The approved plans and permits for the truck crossing warning signs shall be submitted to the County Transportation Department and the County Planning Division prior to Zoning Clearance for use inauguration.

Monitoring and Reporting. The Planning Division shall review all reports of required nighttime use of the State Route 150/Koenigstein Road intersection by project-related tanker trucks to ensure the nighttime operations were consistent with applicable County requirements.

Recommended Condition of Approval

Trucks, Oversized Loads, and Traffic Control Plan Requirements

Purpose: To comply with County regulations on the use of oversized or heavy vehicles on County Roadways, and to minimize potential safety impacts that may result from project-related large vehicle (i.e., drilling rig) turning movements at the State Route 150/Koenigstein Road intersection. Oversized or heavy vehicles are any vehicles that require a Transportation Permit from the County.

Requirements:

- a. If required, the Permittee shall obtain a Transportation Permit from the County prior to the operation of any oversized vehicles on County roadways.
- b. Prior to moving a drilling rig onto or off of the project site, the Permittee shall prepare and implement a Traffic Control Plan for the State Route 150/Koenigstein Road intersection. At minimum the Traffic Control Plan shall include the use of warning signs and flagmen at State Route 150 and Koenigstein Road in the vicinity of the intersection. Also prior to moving a drilling rig onto or off of the project site, the Permittee shall obtain any Transportation Permit required by the California Department of Transportation (Caltrans) to authorize the transport of a drilling rig on State Route 150.

Documentation:

- a. The Permittee shall provide specifications (i.e., vehicle length and fluid hauling capacity) for each tanker truck to be used as part of production operations at the project site. The tanker truck that would be used to transport produced fluid from the project site must be

either a truck/trailer combination that is no more than 56 feet long and eight (8) feet wide; or a truck (without a trailer) that is no more than 24 feet long and eight (8) feet wide. Specifications for the tanker truck(s) to be used by the project shall be submitted to the County Transportation Department and the County Planning Division prior to Zoning Clearance for use inauguration.

- b. The Permittee shall provide specifications (i.e., overall vehicle height and length) for the drill rig to be used as part of the proposed oil drilling operations conducted at the project site. Drill rig specifications shall be submitted to the County Transportation Department and the County Planning Division prior to Zoning Clearance for construction of new or re-drilled wells.
- c. The Permittee shall submit a drilling rig Traffic Control Plan for the State Route 150/Koenigstein Road intersection to the County Transportation Department and County Planning Division for review and approval prior to Zoning Clearance for construction of new or re-drilled wells.

Timing. Transportation Permits required for drilling rigs shall be provided to the Planning Division prior to the issuance of the Zoning Clearance for construction of new or re-drilled wells.

Monitoring and Reporting. The County Transportation Department maintains a record of all Transportation Permits issued by the County. The Planning Division shall review any Transportation Permits submitted by the Permittee for adequacy. The Planning Division shall maintain copies of the Transportation Permits in the project file. County staff has the authority to inspect tanker truck and drilling rig operations, and to monitor the implementation of approved Traffic Control Plan requirements.

4.3 BIOLOGICAL RESOURCES

4.3.1 Background

The 1983 FEIR describes biological resource conditions at and near the project site prior to the implementation of the oil production operations authorized by CUP 3543. The EIR also identified the plant and animal species observed and expected to occur at and in the vicinity of the project site. As described by the 1983 FEIR, the project site is located near the southern boundary of the Los Padres National Forest, which provides extensive undisturbed wildlife habitat. The project site is located in an area that supports mature chaparral habitat that contains a variety of native plant species, such as chamise, laurel sumac, wild buckwheat, scrub oak, elderberry, toyon, squaw bush, and poison oak. Riparian habitat associated with an ephemeral stream in Bear Canyon is located approximately 400 feet east of the project site. Due the presence of relatively undisturbed habitat in the project area, the 1983 FEIR concluded that the project area provides high quality wildlife habitat that is likely used by a large number of large and small mammals, birds, reptiles, and invertebrates.

The portion of the existing well pad that would be used for the installation of the two proposed oil wells is devoid of vegetation. Sparse native vegetation is located around the perimeter of the well pad. Areas in the vicinity of the well pad recently burned during the Thomas Fire.

The 1983 FEIR's evaluation of potential impacts to biological resources resulting from the implementation of CUP 3543 concluded that the project would remove approximately two acres of native vegetation. Additional impacts to wildlife could result from a project-related increase in noise and human presence. However, these impacts would be less than significant because no rare or threatened plant or animal species were observed at or near the project site. The EIR acknowledged that the project site is within the flying range of the California condor, but is not a likely nesting or foraging area.

The 1983 FEIR identified one potentially significant impact that may result from the implementation of CUP 3543: the potential for wildlife to be harmed by open temporary sumps used to contain drilling fluids. A mitigation measure was identified by the FEIR requiring that sumps on the project site be fenced to exclude wildlife. A potential impact to wildlife resulting from the use of an on-site sump is no longer an issue associated with the proposed project because earthen sumps will not be used to contain drilling fluids. Instead, drilling fluids would be contained within temporary tanks located on the project site. Therefore, a "sump fencing" mitigation measure is no longer required.

4.3.2 Thresholds of Significance

The County's Threshold of Significance for biological resources includes the following criteria:

A project will have a direct or indirect physical impact to a plant or animal species if a project, directly or indirectly:

- (a) Reduces a species population
- (b) Reduces a species habitat
- (c) Increases habitat fragmentation
- (d) Restricts reproductive capacity

The determination of whether a project's impacts are significant or not shall be based on both the current conservation status of the species affected and the severity or intensity of impact caused by the project.

4.3.3 Impact Analysis

The proposed modification to CUP 3543 would result in the continued use of an existing two-acre well pad that includes three oil pumping units and related accessory facilities such as tanks, night lighting, a flare, and other related equipment. The portion of the existing well pad where the proposed oil wells would be located is devoid of vegetation and is extensively disturbed. Sparse native vegetation is located around the perimeter of the well pad. Overall, the project site provides no to very little habitat or foraging value. Access to the project site is provided by existing paved roads and a graded dirt driveway. No modifications to the access roads or driveway are proposed.

The proposed addition of two new oil wells (i.e. two new electrically-powered pumping units) to the existing well pad, and the re-drilling of an existing oil well, would not substantially change the use of the existing oil and gas production facility or the footprint of the existing well pad. The installation of two small concrete pads (approximately 300 square feet each) to support two new oil pumping units would not substantially increase stormwater runoff from the project site. Fluids produced during well construction and operation would be stored in enclosed tanks, which would minimize the potential for an accidental release of water and hazardous substances to surface water sources near the project. Therefore, the project would not adversely affect downstream water resources or associated habitat.

No other substantial alterations or grading would occur at the project site or along existing access roads, and the project would not result in additional nighttime lighting. Therefore, the project would not result in the removal or disturbance of existing vegetation or habitat, and would not adversely affect wildlife movement through the project area. Due to the minor changes to the existing oil and gas production facility that would result from the proposed project, it would not substantially reduce species population, reduce habitat area, or increase habitat fragmentation. Therefore, the proposed project would result in less than significant direct (i.e., removal) impacts to plants, wildlife, and sensitive habitats (Class III).

Drilling two new wells and the re-drilling of an existing well would increase short-term noise conditions at and near the project site. Proposed long-term operations at the project site

would not result in a substantial increase in existing noise conditions (see RSEIR Section 4.6, Noise). A short-term increase in noise conditions may have the potential to result in a significant impact to nesting birds located near the drilling pad, such as causing birds to abandon an active nest. Therefore, the project may have the potential to result in significant short-term impacts that restrict the reproductive capacity of birds that have active nests near the project site. This potential impact can be reduced to a less than significant level (Class II) with the implementation of a mitigation measure proposed by the 2016 SEIR, and that is included in this RSEIR as mitigation measure BIO-1. The mitigation measure requires that drilling activities be conducted outside the nesting season, or that pre-construction nest surveys be conducted prior to the start of drilling activities.

The project site is located approximately 2.6 miles west of the southwest corner of the California condor critical habitat area established by the United States Fish and Wildlife Service. Possible effects of oil and gas operations on California condor may include birds becoming entangled in machinery; ingesting fluids located at the project site; and feeding small items of trash (referred to as microtrash) to chicks, which can significantly reduce breeding success. (Walters, et al, 2008). Standard best management practices (BMP's) have been developed to minimize these types of potentially significant impacts to California condor. Proposed mitigation measures included in the 2016 SEIR identified these BMP's, and the previously proposed measures are included in this RSEIR as mitigation measures BIO-2 and BIO-3. With the implementation of the specified BMPs, potential impacts to California condor would be reduced to a less than significant level (Class II).

4.3.4 Cumulative Impacts

The proposed project would not result in any disturbance of native habitat as existing roads and an existing drill pad would be used. Other reasonably foreseeable development projects near the project site (i.e., project numbers 1-3 identified in Section 3.5, Cumulative Projects) would generally be located in previously developed areas and/or result in very small areas of project-related disturbance. Cumulative oil and gas production projects identified in Section 3.5 would not result in substantial disturbances to native habitat areas. The Bently (PL15-0187) project would result in the expanded use of a gas flare and would not result in habitat removal or disturbance; the Harth project (PL15-0060) would result in the development of nine new oil and gas well and the use of two existing wells on the existing Harth well pad; and the Nesbitt project (also PL15-0060) would result in the reactivation of two existing wells. Given that the identified cumulative oil well projects would be located on existing well pads; that the proposed Agnew lease project would not affect native habitat; and that identified mitigation measures would reduce impacts to nesting birds and California condor to less than significant levels, the proposed project would not result in a cumulatively considerable contribution to a cumulative impact on biological resources and its cumulative biological resource impacts would be less than significant (Class III).

4.3.5 Mitigation Measures

With the implementation of mitigation measures BIO-1, BIO-2 and BIO-3, potentially significant project-specific impacts on nesting birds and California condor will be reduced to a less than significant level (Class II).

BIO-1. Avoidance of Nesting Birds

Purpose. To prevent impacts to birds protected under the Migratory Bird Treaty Act, land clearing and construction activities shall be regulated.

Requirement. The Permittee shall conduct all demolition, tree removal/trimming, vegetation clearing, and grading activities (collectively, “land clearing activities”), and construction in such a way as to avoid nesting native birds. This can be accomplished by implementing one of the following options:

- a. Timing of land clearing or construction: Prohibit land clearing or construction activities during the breeding and nesting season (February 1 – September 1), in which case the following surveys are not required; or
- b. Surveys and avoidance of occupied nests: Conduct site-specific surveys prior to land clearing or construction activities during the breeding and nesting season (February 1 – September 1) and avoid occupied bird nests. A County-approved biologist shall conduct surveys to identify any occupied (active) bird nests in the area proposed for disturbance. Occupied nests shall be avoided until juvenile birds have vacated the nest.

The County-approved biologist shall conduct an initial breeding and nesting bird survey 30 days prior to the initiation of land clearing or construction activities. The County-approved biologist shall continue to survey the Project site on a weekly basis, with the last survey completed no more than 3 days prior to the initiation of land clearing activities. The nesting bird survey must cover the development footprint and 300 feet from the development footprint. If occupied (active) nests are found, land clearing activities within a setback area surrounding the nest shall be postponed or halted. Land clearing activities may commence in the setback area when the nest is vacated (juveniles have fledged) provided that there is no evidence of a second attempt at nesting, as determined by the County-approved biologist. Land clearing activities can also occur outside of the setback areas. Pursuant to the recommendations of the California Department of Fish and Wildlife, the required setback is 300 feet for most birds and 500 feet for raptors. This setback can be increased or decreased based on the recommendation of the County-approved biologist and approval from the Planning Division.

Documentation. The Permittee shall provide to the Planning Division a Survey Report from a County-approved biologist documenting the results of the initial nesting bird survey and a

plan for continued surveys and avoidance of nests in accordance with the requirements set forth in this condition (above). Along with the Survey Report, the Permittee shall provide a copy of a signed contract (financial information redacted) with a County-approved biologist responsible for the surveys, monitoring of any occupied nests discovered, and establishment of mandatory setback areas. The Permittee shall submit to the Planning Division a Mitigation Monitoring Report from a County-approved biologist following land clearing activities documenting actions taken to avoid nesting birds and results.

Timing. If land clearing or construction activities will occur between February 1 – September 1, the County-approved biologist shall conduct the nesting bird surveys 30 days prior to initiation of land clearing or construction activities, and weekly thereafter. The last survey for nesting birds shall be conducted no more than 3 days prior to initiation of land clearing or construction activities. The Permittee shall submit the Survey Report documenting the results of the first nesting bird survey and the signed contract to the Planning Division prior to issuance of a zoning clearance for construction. The Permittee shall submit the Mitigation Monitoring Report within 14 days of completion of the land clearing or construction activities.

Monitoring and Reporting. The Planning Division reviews the Survey Report and signed contract for adequacy prior to issuance of a Zoning Clearance for construction. The Planning Division maintains copies of the signed contract, Survey Report, and Mitigation Monitoring Report in the Project file.

BIO-2. California Condor Protection BMPs

Purpose. To minimize potentially significant effects during construction and operation and ensure compatibility with conservation efforts outlined in the *Recovery Plan for California Condor* (April 19, 1996), and direction provided by United States Fish and Wildlife Service (USFWS) for oil and gas facilities within the range of the California Condor in Ventura County (USFWS, 2013).

Requirement. During construction and operation, the Permittee shall adhere to the following USFWS California condor Best Management Practices (BMPs):

Landing Deterrents

- a. All power lines, poles, and guy wires shall be retrofitted with raptor guards, flight diverters, and other anti-perching or anti-collision devices to minimize the potential for collision or electrocution of condors. Landing deterrents (e.g. Daddi Long Legs or porcupine wire) shall be attached to the walking beams on pumping units.
- b. All surface structures that are identified by the USFWS or County-approved qualified biologists as a risk to California condors, shall be modified (e.g. to include installation of raptor guards, anti-perching devices, landing deterrents) or relocated to reduce or eliminate the risk.

Microtrash

- c. All construction debris, food items, and other trash including micro-trash (e.g. small items as screws, nuts, washers, nails, coins, rags, small electrical components, small pieces of plastic, glass, or wire, and anything that is colorful or shiny) will be covered or otherwise removed from a project site at the end of each day or prior to periods when workers are not present at the site.
- d. All hoses or cords that must be placed on the ground due to drilling operations that are outside of the primary work area (immediate vicinity of the drilling rig) will be covered to prevent California condor access. Covering will take the form of burying or covering with heavy mats, planks, or grating that will preclude access by California condors.
- e. All equipment and work-related materials (including, but not limited to, loose wires, open containers, rags, hoses, or other supplies or materials) shall be contained in closed containers either in the work area or placed inside vehicles.
- f. Poly chemical lines shall be replaced with stainless steel lines to preclude condors from obtaining and ingesting pieces of poly line.
- g. Prior to issuance of a Zoning Clearance for drilling activities or construction, informational signs describing the threat that micro-trash poses to condors, and the cleanup or avoidance measures being implemented, shall be posted at the site.
- h. Prior to conducting work on-site, employees and contractors shall be made aware of the California condor, and how to avoid impacts on them. Special emphasis shall be placed on keeping the well pad site free of micro-trash and other hazards.
- i. Wells pads shall be inspected closely for micro-trash on a daily basis.

Chemicals

- j. Ethylene glycol based anti-freeze or other ethylene glycol based liquid substances shall be avoided, and propylene glycol based antifreeze will be encouraged. Equipment or vehicles that use ethylene glycol based anti-freeze or other ethylene glycol based liquid substances shall be inspected daily for leaks, including (but not limited to) areas below vehicles for leaks and puddles. Standing fluid (e.g. a puddle of anti-freeze) will be remediated (e.g. cleaned up, absorbed, or covered) immediately upon discovery. Leaks shall be repaired immediately. The changing of antifreeze of any type shall be prohibited onsite.
- k. Open drilling mud, water, oil, or other liquid storage or retention structures shall be prohibited. All such structures must have netting or other covering that precludes entry or other use by condors or other listed avian species.

1. The design and location of any flaring equipment shall subject to review and approval by the Planning Director in consultation with the US Fish and Wildlife Service.

The Permittee shall implement the BMPs listed above throughout the entire life of the project, unless waived by USFWS or a County-approved qualified biologist in consultation with USFWS, California Department of Fish and Wildlife (CDFW), and the Planning Division. A County-approved qualified biologist shall confirm and photo-document the installation of the BMPs.

Documentation. The application shall prepare photo documentation of the complete installation of the signage and above BMPs.

Timing. Prior to the issuance of a Zoning Clearance for drilling activities, the Permittee must take the following actions:

- Install signage.
- Submit photo-documentation of the installation of the signage to the Planning Division.

Prior issuance of a Zoning Clearance for construction (i.e. the Zoning Clearance for the drilling of first well), the Permittee must provide the Planning Division with photo documentation of the implementation of the above requirements.

Monitoring and Reporting. Planning Division staff will review the submitted reports. The Planning Division has the authority to conduct site inspections to ensure ongoing compliance with this condition consistent with the requirements of § 8114-3 of the *Ventura County Non-Coastal Zoning Ordinance*.

BIO-3. Additional California Condor Protection BMPs

Purpose. To minimize potential adverse effects during construction and operation and ensure compatibility with conservation efforts outlined in the *Recovery Plan for California Condor* (April 19, 1996) and direction provided by United States Fish and Wildlife Service (USFWS) for oil and gas facilities within the range of the California Condor in Ventura County (USFWS, 2013).

Requirement. During construction and operation, the Permittee shall adhere to the following additional USFWS recommended California condor Best Management Practices (BMPs):

- a. All food items and associated refuse shall be placed in covered containers that preclude access or use by California condors.

- b. All equipment and work-related materials (including loose wires, open containers, rags, hoses, or other supplies) will be placed in closed containers or inside vehicles.
- c. No dogs or other potentially predatory domesticated animals shall be allowed on the drill site unless on a leash or otherwise contained at all times.
- d. All construction equipment, staging areas, materials, and personnel shall remain within the perimeter of the disturbed area authorized under the applicable permit.
- e. The discharge of firearms at the project site or vicinity by any employee or contractor of the Permittee shall be prohibited.
- f. Feeding of wildlife by any employee or contractor of the Permittee shall be prohibited.
- g. Access to the project site shall be made available to the representatives of the State and Federal wildlife agencies (California Department of Fish and Wildlife, U.S. Fish and Wildlife Service) upon reasonable notice to the Permittee and compliance with all required drill site safety measures. Access to the site shall be provided within 24 hours of the receipt of the notice.

The Permittee shall implement the BMPs listed above throughout the entire life of the project, unless waived by USFWS or a County-approved qualified biologist in consultation with USFWS, California Department of Fish and Wildlife (CDFW), and the Planning Division. A County-approved qualified biologist shall confirm and photo-document the installation of the BMPs. The Permittee shall place signage on the project site to inform personnel and visitors of the above requirements.

Documentation. The application shall prepare photo documentation of the complete installation of the signage and implementation of the above BMPs.

Timing. Prior to the issuance of a Zoning Clearance for drilling activities, the Permittee must take the following actions:

- Install signage.
- Submit photo-documentation of the installation of the signage to the Planning Division.

Prior issuance of a Zoning Clearance for Use Inauguration (i.e. the Zoning Clearance for the drilling of first well), the Permittee must provide the Planning Division with photo documentation of the implementation of the above requirements.

Monitoring and Reporting. Planning Division staff will review the submitted reports. The Planning Division has the authority to conduct site inspections to ensure ongoing compliance

with this condition consistent with the requirements of § 8114-3 of the *Ventura County Non-Coastal Zoning Ordinance*.

4.4 CLIMATE CHANGE

4.4.1 Background

Causes and Effects of Climate Change. Climate change is the observed increase in the average temperature of the Earth's atmosphere and oceans along with other substantial changes in climate (such as wind patterns, precipitation, and storms) over an extended period of time. The term "climate change" is often used interchangeably with the term "global warming," but "climate change" is preferred because it indicates that there are other related effects in addition to rising temperatures. The baseline against which these changes are measured originates in historical records identifying temperature changes that have occurred in the past, such as during previous ice ages. The global climate is continuously changing, as evidenced by repeated episodes of substantial warming and cooling documented in the geologic record. The rate of change has typically been incremental, with warming or cooling trends occurring over the course of thousands of years. The past 10,000 years have been marked by a period of incremental warming, as glaciers have steadily retreated across the globe. However, scientists have observed acceleration in the rate of warming during the past 150 years. As reported by the United Nations Intergovernmental Panel on Climate Change (IPCC, 2007), the understanding of anthropogenic warming and cooling influences on climate has led to a high confidence that the global average net effect of human activities since 1750 has been one of warming. The prevailing scientific opinion on climate change is that most of the observed increase in global average temperatures since the mid-20th century is likely due to the observed increase in anthropogenic greenhouse gas (GHG) concentrations (IPCC, 2007).

Gases that absorb and re-emit infrared radiation in the atmosphere are called greenhouse gases (GHGs). GHGs are 1) present in the atmosphere naturally, 2) are released by natural sources, or 3) are formed from secondary reactions taking place in the atmosphere. The gases that are widely seen as the principal contributors to human-induced climate change include carbon dioxide (CO₂), methane (CH₄), nitrous oxides (N₂O), fluorinated gases such as hydrofluorocarbons (HFCs) and perfluorocarbons (PFCs), and sulfur hexafluoride (SF₆). Water vapor is excluded from the list of GHGs because it is short-lived in the atmosphere and its atmospheric concentrations are largely determined by natural processes, such as oceanic evaporation.

GHGs are emitted by both natural processes and human activities. Of these gases, CO₂ and CH₄ are emitted in the greatest quantities from human activities. Emissions of CO₂ are largely by-products of fossil fuel combustion, whereas CH₄ results from off-gassing associated with agricultural practices and landfills. Man-made GHGs, many of which have greater heat-absorption potential than CO₂, include fluorinated gases and sulfur hexafluoride (SF₆). Different types of GHGs have varying global warming potentials (GWPs). The GWP of a GHG is the potential of a gas or aerosol to trap heat in the atmosphere over a specified timescale (generally, 100 years). Because GHGs absorb different amounts of heat, a common reference gas (CO₂) is used to relate the amount of heat absorbed to the amount of the gas emissions, referred to as "carbon dioxide equivalent" (CO₂E), and is the amount of a GHG emitted multiplied by its GWP. Carbon dioxide

has a GWP of one. By contrast, CH₄ has a GWP of 21, meaning its global warming effect is 21 times greater than carbon dioxide on a molecule per molecule basis.

There is a substantial body of scientific evidence that climate change is occurring due to an increase in the concentration of greenhouse gases in the Earth's atmosphere. California's Fourth Climate Change Assessment (2018) summarizes the current understanding of climate impacts in California. The Assessment concludes that there is very high scientific confidence that temperatures in the State are warming and snow pack is declining; and there is very high scientific evidence that sea levels are rising. There is also medium-high confidence that the number of heavy precipitation events, the occurrence of drought, and area burned by wildfire is increasing.

Regulatory Framework

A brief summary of some of the legislation that addresses both climate change and greenhouse gas emissions is provided below.

International Authority. The foremost international climate change initiative is the United Nations Framework Convention on Climate Change (UNFCCC), commonly known as the Kyoto Protocol. Signed on March 21, 1994, the Kyoto Protocol calls for governments to gather and share information on GHG emissions, national policies, and best practices; launch national strategies for addressing GHG emissions and adapting to expected impacts, including the provision of financial and technological support to developing countries; and cooperate in preparing for adaptation to the impacts of climate change. There have been several international summits since Kyoto, that seek to advance climate change goals and programs.

At the 2015 United Nations Climate Change Conference in Paris, a global agreement was initiated that represented a consensus of the representatives of the 196 parties in attendance. On April 22, 2016 (Earth Day), 174 countries signed the Paris Agreement in New York, and began adopting it within their own legal systems. As of November 2016, 193 United Nations Climate Change Conference members have signed the agreement, 114 of which have ratified it.

Federal Authority. On September 22, 2009, the USEPA released its final GHG Reporting Rule (Reporting Rule), in response to the fiscal year 2008 Consolidated Appropriations Act (H.R. 2764; Public Law 110-161) that required the USEPA to develop "... mandatory reporting of GHGs above appropriate thresholds in all sectors of the economy". The Reporting Rule applies to most entities that emit 25,000 metric tons (MT) CO₂e or more per year. On September 30, 2011, facility owners were required to submit an annual GHG emissions report with detailed calculations of facility GHG emissions. The Reporting Rule mandates recordkeeping and administrative requirements for the USEPA to verify annual GHG emissions reports but does not regulate GHG as a pollutant.

The Clean Air Act defines the USEPA's responsibilities for protecting and improving the nation's air quality and the stratospheric ozone layer. On May 13, 2010, USEPA set greenhouse gas emissions thresholds to define when permits under the New Source Review Prevention of

Significant Deterioration and Title V Operating Permit programs are required for new and existing industrial facilities. This final rule "tailors" the requirements of these CAA permitting programs to limit covered facilities to the nation's largest greenhouse gas emitters: power plants, refineries, and cement production facilities.

California Regulations and Programs. California climate change regulations most applicable to the proposed project are summarized below.

Executive Order S-3-05. This Executive Order provides that by 2010, emissions of greenhouse gases shall be reduced to 2000 levels; by 2020, emissions shall be reduced to 1990 levels; and by 2050, emissions shall be reduced to 80 percent of 1990 levels.

Assembly Bill 32. The California Global Warming Solutions Act of 2006 (AB 32) requires the California Air Resources Board to adopt regulations to evaluate statewide greenhouse gas emissions, and then create a program and emission caps to limit statewide emissions to 1990 levels. The program is to be implemented in a manner that achieves emissions compliance by 2020. AB 32 did not directly amend CEQA or other environmental laws, but it did acknowledge that emissions of greenhouse gases cause significant adverse impacts to human health and the environment.

Senate Bill (SB) 97. Signed in August 2007, this bill acknowledged that climate change is an environmental issue that requires analysis in California Environmental Quality Act (CEQA) documents. In March 2010, the California Resources Agency (Resources Agency) adopted amendments to the State CEQA Guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions. The adopted guidelines give lead agencies the discretion to set quantitative or qualitative thresholds for the assessment and mitigation of GHGs and climate change impacts.

Executive Order B-30-15. This order was signed by Governor Brown in April 2015 and established a greenhouse gas reduction target of 40 percent below 1990 levels by 2030. The order also directed state agencies with jurisdiction of greenhouse gas emission sources to implement measures to achieve the interim 2030 goal, as well as the existing 2050 goal established by Executive Order S-3-05.

Senate Bill 32. This bill was signed in 2016 and established a greenhouse gas emissions reductions target of at least 40 percent below 1990 levels by 2030.

Executive Order B-55-18. This executive order established a statewide goal to achieve carbon neutrality as soon as possible and no later than 2045.

Scoping Plans. In June 2008, the California Air Resources Board (CARB) developed a Draft Scoping Plan for Climate Change, pursuant to AB-32. The Scoping Plan was approved on December 12, 2008. The Scoping Plan proposed a comprehensive set of actions designed to reduce overall carbon emissions in California, improve our environment, reduce dependence on oil,

diversify energy sources, save energy, and enhance public health while creating new jobs and enhancing the growth in California’s economy. The Climate Change Scoping Plan was updated in May 2014, and confirmed that California is on target for meeting the 2020 greenhouse gas emissions reduction goal. On December 14, 2017, CARB approved the 2017 Final Scoping Plan Update. The Plan outlines CARB's programs to achieve a 40 percent reduction in greenhouse gas emissions from 1990 levels by 2030, as required by the passage of SB 32 in 2017.

4.4.2 Thresholds of Significance

According to the CEQA Guidelines, impacts related to greenhouse gas emissions would be significant if a project would:

- a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; or
- b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

The *Ventura County Air Quality Assessment Guidelines* (2003) have not yet been updated to include a significance threshold for greenhouse gas emissions. The Ventura County Air Pollution Control District (VCAPCD) has used the South Coast Air Quality Management District’s (SCAQMD) threshold for greenhouse gas emission from industrial projects, as presented in Table 4.4-1.

**Table 4.4-1
Greenhouse Gas Significance Threshold**

Source	CO ₂ e (MT/yr.) ¹
All Project Sources	10,000

1 – Metric tons per year of carbon dioxide equivalent emissions

4.4.3 Impact Analysis

Emissions of greenhouse gases that would result from the operation of the Agnew Lease project (the previous proposal to drill three new wells on the project site) were previously evaluated in the 2016 SEIR. That evaluation utilized emission factors from a 2015 VCAPCD evaluation of greenhouse gas emissions for another oilfield project that proposed to drill 19 new oil wells. The 2016 SEIR evaluation determined:

- A project has a cumulatively considerable impact on global climate change if it would cause an increase in GHG emissions in excess of 10,000 metric tons of CO₂e (MTCO₂e) per year.

- The proposed project would result in annual direct and indirect greenhouse gas emissions of 1,196 MTCO_{2e} per year, which is well below the 10,000 metric tons of CO_{2e} per year significance threshold

The 2016 SEIR evaluation of project-related greenhouse gas emissions did not include an evaluation of short-term construction emissions. Estimates of the proposed project’s total construction-related emissions of greenhouse gases are summarized in Table 4.4-2 and are based on emission data included in the project’s air quality analysis (Sespe, 2019), which is provided as RSEIR Appendix B. Following the SCAQMD recommended methodology, the total estimated project-related construction emissions are amortized over the proposed 25-year life of the project, resulting in an annualized emission rate of 6.99 metric tons of CO₂ equivalents per year.

**Table 4.4-2
Construction-Related Greenhouse Gas Emissions**

Source	CO _{2e} (MT/yr.)
Transportation of Drilling Rig to the Project Site	0.039
Fuel Based Emissions (drilling rig operation for 10 days)	43.67
Drilling Emissions for one well	43.71
Drilling Emissions for four wells (1)	174.84
Annualized Emissions of 25 years	6.99

(1) The currently proposed project would only drill two new wells and re-drill one new well. Actual annualized project-related construction emissions of greenhouse gases would be lower than 6.99 metric tons per year.

The combined short- and long-term project-related emissions of greenhouse gases would result in total annual emissions of approximately 1.203 metric tons of CO₂ equivalents per year (1,196 MTCO_{2e} + 6.99 MTCO_{2e}), which remains well below the significance threshold of 10,000 metric tons per year. Therefore, the proposed project would result in a less than significant (Class III) climate change impact.

4.5.4 Cumulative Impacts

The greenhouse gas threshold of 10,000 metric tons of CO₂ equivalents per year is a numeric emissions level below which a project’s contribution to global climate change would be less than cumulatively considerable. Therefore, the project would result in a less than significant (Class III) cumulative climate change impact.

4.5.5 Mitigation Measures

The proposed project would not result in significant project-specific or cumulative climate change impacts and no mitigation measures are required.

4.5 WATER RESOURCES

4.5.1 Background

Sisar Creek is located approximately 1,800 feet west and 2,800 feet south of the project site. Sisar Creek originates in the Topatopa Mountains north of the project site, and the creek flows into Santa Paula Creek approximately two miles east of the project site. Sisar Creek is an ephemeral stream, meaning it has long periods with little or no flow, and short periods of flow in response to storm events. A smaller ephemeral stream in Bear Canyon is located approximately 300 feet east of the project site.

The 1983 Final EIR determined that the previously proposed oil production project at the project site would have the potential to result in impact to groundwater quality resulting from the use of a sump to contain drilling fluids. The currently proposed project would not rely on the use of a sump to contain drilling fluids. All project-generated waste materials and other pollutants would be managed consistent with the requirements of Section 8107-5.6.4 of the *Ventura County Non-Coastal Zoning Ordinance*, which requires that such materials be contained on-site in a manner that prevents them from reaching surface or subsurface waters. This standard is typically achieved by implementing best management practices such as storing produced fluids in above ground tanks, providing secondary containment berms around fluid storage tanks, and conducting regular inspections of the project site facilities including storage tanks, pipelines, and containment berms.

4.5.2 Thresholds of Significance

Groundwater Quantity

Any land use or project which would result in 1.0 acre-feet, or less, of net annual increase in groundwater extraction is not considered to have a significant project or cumulative impact on groundwater quantity.

Surface Water Quantity

Any project-related reduction in surface flow that would substantially reduce the potential for the affected waterbody to support identified beneficial uses is considered a significant impact.

Groundwater Quality

Any project-related exceedance of the water quality objectives of the Water Quality Control Plan is considered a significant impact. By complying with this Plan, it is expected that groundwater is protected for designated beneficial uses.

Surface Water Quality

Any land use or project proposal that would individually or cumulatively degrade surface water quality causing an exceedance of the water quality objectives of the Water Quality Control Plan is considered to have a significant impact.

The Los Angeles Region Water Quality Control Plan (Basin Plan) is intended to preserve and enhance water quality and protect the beneficial uses of all regional waters. The Basin Plan identifies beneficial uses for water bodies, including Sisar Creek, which is located adjacent to the project site. Beneficial uses identified for Sisar creek include agricultural and industrial uses, groundwater recharge, and various habitat- and biological resource-related uses.

4.5.3 Impact Analysis

Water Quantity

It is estimated that approximately 3,500 barrels (147,000 gallons) of water would be required to drill each of the two proposed oil wells, and to re-drill one of the existing oil wells located on the project site. Water used to drill and re-drill oil wells on the project site would be supplied by using groundwater. The proposed project would not result in a demand for surface water resources. In total, approximately 10,500 barrels (441,000 gallons) would be required for proposed oil well drilling and re-drilling operations. In addition, approximately 20,000 gallons of water would be temporarily stored on-site for fire suppression purposes during drilling operations. Therefore, a total of approximately 461,000 gallons, or 1.41 acre feet of groundwater would be used for well construction purposes.

Amortized over the proposed project's requested 25-year operation period, it is estimated that the project would use approximately 0.06 acre feet of groundwater per year. The project would not result in a substantial long-term demand of groundwater for oil well operations. Therefore, the proposed project's groundwater use over the requested 25 year operation period would be substantially below the 1.0 acre foot per year impact significance threshold, and the project would result in a less than significant (Class III) groundwater use impact.

Water Quality

As described in Section 4.5.1 above, Section 8107-5.6.4 of the *Ventura County Non-Coastal Zoning Ordinance* requires that that all project-generated waste materials and other pollutants be contained on-site in a manner that prevents them from reaching surface or subsurface waters. In addition to local oil well drilling and operation requirements, the proposed oil wells must be constructed and operated in accordance with established engineering standards enforced by the California Division of Oil and Gas and Geothermal Resources (DOGGR). These standards include requirements related to oil well construction, leak detection, corrosion prevention and

testing, tank inspection and cleaning, valve and gauge maintenance, secondary containment maintenance, and other facility maintenance.

The proposed well sites would be surrounded by a low earthen berm (i.e., secondary containment) that is designed to retain oil, contaminated water, or other substances that may be accidentally released at the project site. This berm would reduce the likelihood of such substances that may be accidentally released from contaminating surface water resources located adjacent to the project site. Additionally the project's existing Spill Prevention Control and Countermeasure Plan (SPCC), which describes procedures, methods and equipment to assist in preventing the accidental discharge of oil and other oil-containing substances, would be updated, approved, and submitted to DOGGR. The project would also be required to implement the requirements of an approved Construction Storm Water Pollution Prevention Plan.

Existing regulatory requirements for the construction and operation of oil wells have successfully prevented groundwater quality impacts that could result from well leakage and the contamination of water bearing geologic formations. Existing regulations also substantially reduce the potential for oil drilling operations to result in a release of hazardous materials that may adversely affect the quality of surface water sources. As a result, the proposed project has a low potential to result in significant impacts to the beneficial uses of Sisar Creek or other surface waters located in the project area. Therefore, the proposed project's potential water quality-related impacts would be less than significant (Class III).

Stormwater Drainage

The project site is a relatively level graded dirt pad that is approximately two acres in size. The proposed project would not increase the size of the well pad, but would result in the construction of two small concrete pads that would support the proposed oil well pumping units. Each concrete pad would be approximately 300 square feet in size. The addition of approximately 600 square feet of impervious surface area to the two-acre well pad would not substantially alter existing stormwater runoff conditions at the project site. Therefore, the proposed project's stormwater runoff impacts would be less than significant (Class III).

4.5.4 Cumulative Impacts

The proposed project would not result in significant water quantity or quality impacts, or substantially change existing stormwater runoff conditions. Other reasonably foreseeable development projects near the project site would not be potentially significant sources of substances that may result in significant ground or surface water quality impacts; would be required to implement best management practices to contain fluids at the project sites; result in a substantial demand for groundwater resources; or result substantial increases in stormwater runoff. Therefore, the proposed project would not result in a cumulatively considerable contribution to future surface or ground water resource impacts and its cumulative water resource impacts would not be significant (Class III).

4.5.5 Mitigation Measures

The proposed project would not result in significant project-specific or cumulative water resource impacts and no mitigation measures are required.

4.6 NOISE

4.6.1 Background

Characteristics of Noise

Noise is generally defined as unwanted sound. Noise level (or volume) is generally measured in decibels (dB) using the A-weighted sound pressure level (dBA). The A-weighting scale is an adjustment to the actual sound pressure levels to be consistent with that of human hearing response. One of the most frequently used noise metrics that considers both duration and sound power level is the equivalent noise level (Leq). The Leq is defined as the single steady A-weighted level that is equivalent to the same amount of energy as that contained in the actual fluctuating levels over a period of time. Typically, Leq is summed over a one-hour period.

Because of the nature of the human ear, a sound must be about 10 dB greater than a reference sound to be judged as twice as loud. In general, a 3 dBA change in community noise levels is noticeable, while 1-2 dBA changes generally are not perceived. Quiet suburban areas typically have noise levels in the range of 40 to 50 dBA, while those along arterial streets are in the 50 to 60+ dBA range. Normal conversational levels are in the 60-65 dBA range.

The time period in which noise occurs is also important since noise that occurs at night tends to be more disturbing than noise that occurs during the day. The Community Noise Equivalent Level (CNEL) is a measure of the cumulative noise exposure in a community, and consists of a weighted average of the hourly Leqs over a 24-hour period. The weighting includes a 5 dB penalty added to evening (7 p.m. to 10 p.m.) and a 10 dB addition to nocturnal (10 p.m. to 7 a.m.) noise levels to account for the greater disturbance associated with noise during these periods.

Existing Noise Conditions

Existing noise sources at the project site include the operation of three oil wells. The oil well pumping units operate using electric motors and are not a substantial noise source. Noise measurements were taken in the vicinity of the project site (Sespe Consulting, 2013; SEIR Attachment B, Appendix C), which indicate that the project area has low ambient noise conditions. Measured noise levels in the vicinity of the project site are summarized on Table 4.6-1.

**Table 4.6-1
Project Area Ambient Noise Levels (dBA)**

Parameter	Day 6 a.m. to 7 p.m.	Evening 7 p.m. to 10 p.m.	Night 10 p.m. to 6 a.m.	Overall
Average Noise Level (Leq)	47.5	38.1	38.1	45.2
Peak Hour Noise Level (Leq1H)	51.5	46.6	45.0	51.5

Source: Sespe Consulting, 2013

Koenigstein Road is the local road that provides access to the project site. Recent traffic counts (ATE, 2019; RSEIR Appendix C) indicate that 200 average daily vehicle trips occur on Koenigstein Road. Existing traffic on Koenigstein Road results in an average traffic noise level of approximately 44.5 dBA CNEL at a distance of 50 feet from the center of the road.

4.3.2 Thresholds of Significance

The adopted threshold of significance for noise impacts is found in Policy 2.16.2 of the County General Plan. The relevant sections of this policy are provided below.

- (4) Noise generators, proposed to be located near any noise sensitive use, shall incorporate noise control measures so that ongoing outdoor noise levels received by the noise sensitive receptor, measured at the exterior wall of the building, does not exceed any of the following standards:
- a. Leq1H of 55dB(A) or ambient noise level plus 3dB(A), whichever is greater, during any hour from 6:00 a.m. to 7:00 p.m.
 - b. Leq1H of 50dB(A) or ambient noise level plus 3dB(A), whichever is greater, during any hour from 7:00 p.m. to 10:00 p.m.
 - c. Leq1H of 45dB(A) or ambient noise level plus 3dB(A), whichever is greater, during any hour from 10:00 p.m. to 6:00 a.m.

Section 2.16.2(4) is not applicable to increased traffic noise along any of the roads identified within the 2020 Regional Roadway Network (Figure 4.2.3) Public Facilities Appendix of the Ventura County General Plan (see 2.16.2-1(1)). In addition, State and Federal highways, all railroad line operations, aircraft in flight, and public utility facilities are noise generators having Federal and State regulations that preempt local regulations.

- (5) Construction noise shall be evaluated and, if necessary, mitigated in accordance with the County Construction Noise Threshold Criteria and Control Plan.

The *County Construction Noise Threshold Criteria and Control Plan* establishes the following threshold limits for construction noise.

**Table 4.6-2
Construction Noise Thresholds of Significance**

Daytime Construction Activity		
Construction duration	Noise threshold shall be the greater of these noise levels at the nearest receptor area or 10 feet from the nearest noise-sensitive building	
	Fixed Leq(h), dBA	Hourly Equivalent Noise Level (Leq), dBA
0 to 3 days	75	Ambient Leq(h) + 3 dB
4 to 7 days	70	Ambient Leq(h) + 3 dB
1 to 2 weeks	65	Ambient Leq(h) + 3 dB
2 to 8 weeks	60	Ambient Leq(h) + 3 dB
Longer than 8 weeks	55	Ambient Leq(h) + 3 dB
Evening Construction Activity		
Receptor Location	Evening noise threshold shall be the greater of these noise levels at the nearest receptor area or 10 feet from the nearest noise-sensitive building	
	Fixed Leq(h), dBA	Hourly equivalent Noise Level (Leq), dBA
Residential	50	Ambient Leq(h) + 3 dB
Nighttime Construction Activity		
Receptor Location	Evening noise threshold shall be the greater of these noise levels at the nearest receptor area or 10 feet from the nearest noise-sensitive building	
	Fixed Leq(h), dBA	Hourly equivalent Noise Level (Leq), dBA
Resident, Live-in Institutional	45	Ambient Leq(h) + 3 dB

Sec. 8107-5.6.13 of the County Non-Coastal Zoning Ordinance provides noise standards applicable to oil and gas production operations. The section states that drilling, production, and maintenance operations associated with an approved oil permit shall not produce noise, measured at a point outside of occupied sensitive uses such as residences, schools, health care facilities, or places of public assembly, that exceeds the following standards. The maximum allowable average sound levels are shown on Table 4.6-3.

**Table 4.6-3
One Hour Average Noise Levels (Leq)**

Time Period	Drilling and Maintenance Phase	Production Phase
Day (6:00 a.m. to 7:00 p.m.)	55 dB(A)	45 dB(A)
Evening (7:00 p.m. to 10:00 p.m.)	50 dB(A)	40 dB(A)
Night (10:00 p.m. to 6:00 a.m.)	45 dB(A)	40 dB(A)

4.6.3 Impact Analysis

Short-Term Noise Impacts

Drilling Operation Noise. Potential short-term noise impacts resulting from the drilling and re-drilling of proposed oil and gas wells at the project site were evaluated by a noise impact assessment (Sespe Consulting, 2013). The assessment evaluated noise impacts resulting from the operation of a drill rig at the project site and estimated drilling-related noise levels at three receptor sites located nearest to the project site. Drill rig operations were estimated to result in a noise level of 85 dBA at a location 50 feet from the drill rig. Noise receptor No.1 is located approximately 950 feet east of the project site; noise receptor No. 2 is approximately 985 feet to the southwest; and receptor No. 3 is approximately 885 feet to the south. No new noise receptors located closer to the project site have been developed since the noise impact assessment was prepared in 2013. Estimated noise levels from proposed drilling operations at the identified sensitive receptor locations are summarized on Table 4.6-4. Drilling operations for each proposed well would be conducted over a period of approximately two weeks and on a 24-hour basis. Since drilling operations would occur at night, the nighttime (10:00 p.m. to 6:00 a.m.) threshold of significance was used for the impact analysis. As depicted on Table 4.6-4, the proposed drilling operations would result in a significant short-term (approximately two weeks for each proposed well) noise impact at receptor sites 2 and 3.

**Table 4.6-4
Drilling Noise Impacts**

Receptor	Estimated Drilling Noise at Receptor (dBA)	Drilling Noise Threshold of Significance (dBA)	Significant Impact? (Yes/No)
Receptor 1	44.4	45	No
Receptor 2	54.9	45	Yes
Receptor 3	55.0	45	Yes

Source: Sespe Consulting, 2013

The noise impact assessment identified a mitigation measure that would reduce drilling-related noise impacts at Receptors 2 and 3 to a less than significant level. Noise mitigation measure NOI-1 requires the installation of a temporary noise barrier at the project site. The required barrier

is expected to provide at least 10 dBA of noise attenuation at Receptors 2 and 3. The estimated noise conditions at the receptor sites after the installation of a noise barrier is summarized on Table 4.6-5. With the implementation of the noise attenuation requirements identified by mitigation measure NOI-1, potential short-term drilling noise impacts to nearby receptors would be reduced to a less than significant level (Class II).

**Table 4.6-5
Mitigated Drilling Noise Impacts**

Receptor	Unmitigated Noise at Receptor (dBA)	Mitigated Noise Impact (dBA)	Drilling Noise Threshold of Significance (dBA)	Significant Impact? (Yes/No)
Receptor 1	44.4	34.4	45	No
Receptor 2	54.9	Less than 44.9	45	No
Receptor 3	55.0	Less than 45.0	45	No

Source: Sespe Consulting, 2013

Construction Traffic Noise. Another project-related temporary noise source would be construction/drilling vehicle traffic on Koenigstein Road between Highway 150 and the project site. The arrival and departure of temporary drilling rig equipment and personnel would involve up to 40 vehicle trips per day, and drilling operations for each well are expected to occur over a period of approximately two weeks. With the addition of temporary construction-related traffic, it is estimated that average daily traffic on Koenigstein Road would increase from 200 trips to approximately 240 trips. With the addition of project-related construction traffic, noise levels along Koenigstein Road at a location 50 feet from the center of the road would increase from 44.5 dBA CNEL to 45.3 dBA CNEL. The short-term, project-related increase in traffic along Koenigstein Road would be less than one decibel, which would generally not be perceptible to receptors located adjacent to the roadway. Therefore, short duration (approximately two weeks for each well) noise increases resulting from well construction-related traffic would be less than significant (Class III).

Long-Term Impacts

Production Operation Noise. As shown on Table 4.6-1, peak daytime noise conditions in the vicinity of the project site were measured to be 51.5 dBA, and peak nighttime noise levels were measured to be 45.0 dBA. For this analysis, it was assumed that the operation of the three existing oil well pumping units at the project site was the predominant noise source that was measured.

Noise is measured using a logarithmic scale, therefore, a doubling of sound energy will result in a measured noise level increase of three decibels. The proposed project would not double the number of electric-powered pumps operating on the project site (i.e., there are three existing pumps and if the project is fully implemented there would be five pumps). Therefore, upon full buildout of the project, existing peak daytime and nighttime noise conditions at the project site would be increased by less than three decibels. The resulting peak daytime noise level at the

project site would be less than 54.5 dBA, and peak nighttime noise conditions at the project site would be less than 48.0 dBA. Using a noise attenuation rate of six decibels for every doubling of distance, project-related peak noise levels at the receptor location closest to the project site (approximately 885 feet from the site) would be less than 29.5 dBA during the daytime and less than 23 dBA during nighttime hours. These noise levels are substantially below the production phase significance thresholds of 45 dBA for daytime hours and 40 dBA for evening and nighttime hours depicted on Table 4.6-3. Therefore, the proposed oil and gas production activities at the project site would result in a less than significant noise impact (Class III).

Long-Term Traffic. As described in Traffic Circulation and Safety Section 4.2.3, above, the peak traffic volumes resulting from the proposed project would generate approximately eight (8) additional vehicle trips along Koenigstein Road per day. With the addition of project-generated traffic, average daily trips on Koenigstein Road would increase from 200 to 208 trips per day. An increase of eight additional daily vehicle trips would not result in a perceptible increase in traffic noise at receptors located adjacent to the roadway. Therefore, long-term noise increases resulting from project-generated traffic would be less than significant (Class III).

4.6.4 Cumulative Impacts

The proposed project would result in a minor (less than three decibels) long-term increase in noise conditions at the project site. Other reasonably foreseeable development projects near the project site (i.e., project numbers 1-3 identified in Section 3.5, Cumulative Projects) would not result in construction operations, long-term activities, or traffic that would increase existing noise levels in the area surrounding the Agnew lease area (the proposed project site). Cumulative oil and gas production projects identified in Section 3.5 would also not result in substantial increases in ambient noise conditions at the Agnew lease project site. The Bently (PL15-0187) project would result in the expanded use of a gas flare, which would not be a substantial source of noise. The Nesbitt and Harth (PL15-0060) project sites are located approximately one mile east of the Agnew lease project site and would not result in cumulative short- or long-term noise-related impacts in the vicinity of the proposed project. The Nesbitt and Harth projects would not be a substantial noise source or generate a substantial amount of traffic along Koenigstein Road that would increase ambient traffic-related noise. Given that the proposed project would have a minor long-term effect on existing noise conditions, the project would not result in a cumulatively considerable contribution to noise conditions that exist in the project area, and its cumulative noise impacts would not be significant (Class III).

4.6.5 Mitigation Measures

With the implementation of mitigation measure NOI-1, the significant project-specific noise impacts from proposed drilling operation will be reduced to a less than significant level (Class II).

NOI-1. Drilling Noise Reduction Requirements

Purpose. To comply with § 8107-5.6.16, § 8107-5.6.17 and §8107-5.6.18 of the *Ventura County Non-Coastal Zoning Ordinance* and to reduce project-related noise from drilling operations at receptors near the project site to below levels of significance.

Requirement. Prior to initiating well drilling operations, the Permittee shall erect a sound barrier around the drilling rig. Such soundproofing shall include any or all of the following: acoustical blanket coverings, sound walls, or other soundproofing materials or methods that ensure drilling operations do not exceed 45 dBA at the nearby receptor locations. The sound barrier shall be in place for the entire duration of drilling activities. The sound barrier must be sufficiently tall and located to break the line of sight between the primary drilling rig noise sources and the nearby receptors. The primary drilling rig noise sources are assumed to be located between ground level (0 feet) and the drilling rig floor (about 20 feet).

All acoustical blankets or panels used for required soundproofing shall be of fireproof materials and shall comply with California Industrial Safety Standards and shall be approved by the Ventura County Fire Protection District prior to installation.

Documentation. The Permittee shall submit photo-documentation, that the soundproofing is installed.

Timing. The Permittee shall install soundproofing prior to the commencement of drilling activities, and shall maintain the soundproofing until the operations are complete. The Permittee shall provide photo evidence that the sound proofing is in place prior to the commencement of drilling. In addition, the Permittee shall arrange for a site inspection by County staff to confirm that the soundproofing has been installed in accordance with specified requirements. Drilling may not commence until the County has confirmed in writing that the terms of this mitigation measure have been satisfied.

Monitoring and Reporting. The Planning Division shall maintain in the project file the photo evidence that the soundproofing was installed. The Planning Division has the authority to conduct periodic site inspections to ensure ongoing compliance with this condition pursuant to the requirements of § 8114-3 of the *Ventura County Non-Coastal Zoning Ordinance*.

4.7 ENVIRONMENTAL ISSUE AREAS ADDRESSED IN THE 1983 FINAL EIR

The 1983 Final EIR prepared for the previously proposed CUP 3543 Modification No. 4 evaluated potential environmental impacts of a request to drill and operate one exploratory well, and to drill and operate five additional oil wells on the proposed project site. The 1983 Final EIR is incorporated by reference into this RSEIR. The 1983 FEIR evaluated project-specific environmental impacts in the following issue areas: Air Quality, Grading, Geology, Hydrology, Traffic, Plantlife, Wildlife, Noise, Archaeology, Fire Protection, Visual, and Pipeline. Table 4.7-1 provides a summary of how each of the environmental issue areas evaluated in the 1983 Final EIR are addressed in this RSEIR.

The 1983 Final EIR also includes a separate section that evaluates the cumulative environmental impacts of the previously proposed CUP 3543 Modification No. 4. Cumulative impacts were evaluated for the Aesthetics/Visual, Air Quality, Biological Resources, Groundwater, Traffic, and Noise environmental issue areas. Table 4.7-2 provides a summary of how each of the cumulative environmental issue areas evaluated in the 1983 Final EIR are addressed in this RSEIR.

**Table 4.7-1
Project-Specific Environmental Issues Evaluated in the 1983 Final EIR**

Issue Area	RSEIR Analysis
Air Quality	Potential impacts on air quality that would result from the proposed project are evaluated in Section 4.1 (Air Quality) of this RSEIR. That analysis concluded that the proposed project would not result in significant air quality impacts.
Grading	This section of the 1983 Final EIR evaluates the potential grading-related impacts that may result from the construction of a well site and access road at the proposed project site. No additional evaluation of this issue is included in this RSEIR as the now-existing well site and access road would be used by the proposed project and no new grading is proposed. For this issue area, no new impacts or impacts different from what was evaluated by the certified 1983 Final EIR would result from the implementation of the currently proposed project.
Geology	This section of the 1983 Final EIR evaluates the potential for degradation of groundwater quality resulting from proposed drilling operations of the proposed oil wells. Potential groundwater quality impacts of the proposed project are evaluated in Section 4.5 (Water Resources) of this RSEIR. That analysis concluded that the proposed project would not result in significant groundwater quality impacts.
Hydrology	This section of the 1983 Final EIR evaluates the potential for the use of an on-site sump that would have been used to contain drilling fluids to result in water quality impacts. The analysis included a recommendation that the drilling fluid sump be lined to prevent groundwater degradation. As explained in Section 4.5

Issue Area	RSEIR Analysis
	<p>(Water Resources) of this RSEIR, this is not an issue associated with the proposed project because the proposed project does not include the use of an on-site sump.</p> <p>For this issue area, no new impacts or impacts different from what was evaluated by the certified 1983 Final EIR would result from the implementation of the currently proposed project.</p>
Traffic	<p>Potential traffic-related impacts that would result from the proposed project are evaluated in Section 4.2 (Traffic Circulation and Safety) of this RSEIR. That analysis concluded that the proposed project would not result in significant traffic or traffic safety impacts.</p>
Plantlife and Wildlife	<p>Potential impacts on plants and animals that would result from the proposed project are evaluated in Section 4.3 (Biological Resources) of this RSEIR. That analysis concluded that the proposed project’s potential impacts to nesting birds and California condor can be reduced to a less than significant level with the implementation of proposed mitigation measures.</p>
Noise	<p>Potential noise impacts that would result from the current project are evaluated in Section 4.6 (Noise) of this SEIR. That analysis concluded that the proposed project’s short-term oil drilling noise impacts can be reduced to a less than significant level with the implementation of proposed mitigation requirements.</p>
Archaeology	<p>This section of the 1983 Final EIR evaluated the potential for project-related impacts on archaeological resources during the creation of a graded pad and access road on the project site. No additional evaluation of this issue is included in this RSEIR because the now-existing graded pad and access road would be used to construct and operate the proposed oil well project. No new grading is proposed that would have the potential to impact archaeological resources.</p> <p>To implement the tribal consultation requirement of AB 52, the Barareño-Ventureño Mission Indians were informed of the proposed project by a letter from the Planning Division dated November 20, 2018 (Appendix F). No response to the letter was received. Therefore, it is concluded that the requirements of AB 52 have been met.</p> <p>For this issue area, no new impacts or impacts different from what was evaluated by the certified 1983 Final EIR would result from the implementation of the currently proposed project.</p>
Fire Protection	<p>This section of the 1983 Final EIR evaluates potential fire-related impacts of the oil and gas facility, which is located in a high fire hazard area. The analysis concluded that the project would need to store adequate water supplies for fire suppression in accordance with applicable regulations. No additional evaluation of this issue is included in this RSEIR as the now-existing facility would continue to be operated in accordance with applicable VCFPD regulations. The addition of two new wells would not alter the previously identified fire safety requirements.</p>

Issue Area	RSEIR Analysis
	For this issue area, no new impacts or impacts different from what was evaluated by the certified 1983 Final EIR would result from the implementation of the currently proposed project.
Visual	<p>This section of the 1983 Final EIR evaluates the potential effects of the previously proposed oil and gas facility on visual resources. No additional evaluation of this issue is included in this SEIR as the visual character of the now-existing facility would not be substantially changed with the addition of three new oil wells. Furthermore, the existing facility is not prominently visible from public viewing locations such as Koenigstein Road, and State Route 150, which is located approximately 2,800 feet south of the project site.</p> <p>For this issue area, no new impacts or impacts different from what was evaluated in the certified 1983 FEIR would result from the implementation of the currently proposed project.</p>
Pipeline	<p>This section of the 1983 Final EIR evaluates the potential environmental effects of a new pipeline that may be constructed to transport produced crude oil from the oil and gas facility. CUP 3543 requires the installation of a pipeline in the event that project-related production reaches 350 barrels of oil per day.</p> <p>As shown in RSEIR Table 3.2-1 (Estimated Existing Large Truck Trips: 2015-2017), between 2015 and 2017 the existing oil production operations at the project site produced a total of 11,893 barrels of fluid (oil and water), which results in an average daily fluid production rate of approximately 11 barrels per day. Future oil production rates from the proposed new and re-drilled wells are uncertain. However, as described in RSEIR Section 4.2.3, for analysis purposes it has been estimated that fluids (oil and wastewater) produced by the proposed project would be 1.33 times the volume of fluid produced by the existing operations at the project site. At the assumed production rate, the proposed new and re-drilled wells would produce approximately 15 barrels of fluid per day. Combined with existing fluids produced at the project site (approximately 8 barrels per day produced by the two existing wells that would not be re-drilled), the entire project would produce approximately 23 barrels of fluid per day. Even if initial oil production from the proposed new and re-drilled wells is somewhat higher than existing production rates, total oil production by the entire Agnew lease project would be substantially lower than the 350 barrels per day that would require the construction of a project-related pipeline. Therefore, further evaluation of potential pipeline construction and operation impacts was not included in this RSEIR.</p>

**Table 4.7-2
 Cumulative Environmental Issues Evaluated in the 1983 Final EIR**

Issue Area	RSEIR Analysis
Aesthetics/Visual	<p>This section of the 1983 Final EIR describes potential effects on the visual character of the Upper Ojai Valley due to “proposed and probable oil drilling sites, equipment, and access roads.” This issue is not discussed in this RSEIR as the visual character of the now-existing facility would not substantially change with the addition of two new oil wells. The current proposed project would not involve the creation of any new drilling sites or access roads. Furthermore, the existing facility is not prominently visible from public viewing locations such as Koenigstein Road, and State Route 150, which is located approximately 2,800 feet south of the project site. Therefore, the proposed project would not have a cumulative considerable effect on existing visual resources.</p> <p>For this issue area, no new impacts or impacts different from what was evaluated by the certified 1983 FEIR would result from implementation of the currently proposed modified project.</p>
Air Quality	<p>Potential cumulative impacts on air quality that would result from the proposed project are evaluated in Section 4.1 (Air Quality) of this RSEIR. That analysis concluded that the proposed project would not result in significant cumulative air quality impacts.</p>
Biological Resources	<p>Potential cumulative impacts on biological resources that would result from the proposed project are evaluated in Section 4.3 (Biological Resources) of this RSEIR. That analysis concluded that the proposed project would not result in a cumulatively considerable contribution to a cumulative impact on biological resources.</p>
Groundwater	<p>This section of the 1983 Final EIR evaluates potential impacts on the quality of groundwater and concludes that contamination of surface water or groundwater “<i>is not considered likely</i>” because;</p> <p>“(a) the limited quantities of fresh groundwater in the formations; (b) the drilling fluids utilized would prevent fluid loss; (c) the wells would be drilled with fresh water; and (d) as necessary, the annular space would be sealed from ground surface to the base of the freshwater zone.”</p> <p>Potential cumulative impacts on water resources are evaluated in Section 4.5 (Water Resources) of this RSEIR. Similar to the conclusions of the 1983 Final EIR, this RSEIR does not identify a significant cumulative impact on water resources.</p>

Issue Area	RSEIR Analysis
	For this issue area, no new impacts or impacts different from what was evaluated in the certified 1983 Final EIR would result from implementation of the currently proposed project.
Traffic	Potential cumulative impacts on traffic conditions in the project area that would result from the proposed project are evaluated in Section 4.2 (Traffic Circulation and Safety) of this RSEIR. That analysis concluded that the proposed project would not result in significant cumulative traffic-related impacts.
Noise	Potential noise impacts that would result from the current project are evaluated in Section 4.6 of this SEIR. That analysis concluded that the proposed project would not result in a cumulatively considerable contribution to noise conditions that exist in the project area.

