MEETING DATE: 08/13/2008

AGENDA ITEM: Adoption of a Resolution Transmitting to the County of Los Angeles Department of Regional Planning the Official City Response to the June 2008 Draft Environmental Impact Report for the Proposed Baldwin Hills Community Standards District.

ATTACHMENTS

		Pages
1.	Proposed Resolution No. 2008 R0__, including Exhibit "A" containing detailed comments on the Draft EIR	1-160
2.	Public Draft Environment Impact Report Baldwin Hills Community Standards District, June 2008 – delivered to the City Council on June 23, 2008	n/a

ATTACHMENT 1

RESOLUTION NO. 2008-R___

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF CULVER CITY, CALIFORNIA, TRANSMITTING TO THE COUNTY OF LOS ANGELES DEPARTMENT OF REGIONAL PLANNING THE OFFICIAL CITY RESPONSE TO THE JUNE 2008 DRAFT ENVIRONMENTAL IMPACT REPORT FOR THE BALDWIN HILLS COMMUNITY STANDARDS DISTRICT.

WHEREAS, the County of Los Angeles is proposing to adopt a Community Standards District (CSD) to establish oil drilling regulations for a portion of the Inglewood Oil Field located in the unincorporated Baldwin Hills area; and

WHEREAS, there is the potential that over the next 20 years an average of approximately 53 wells per year could be drilled in the Inglewood Oil Field, a portion of which is within the City of Culver City; and

WHEREAS, the proposed CSD will abut the border of Culver City, and Culver City residents and business will be directly affected by oil and gas drilling operations within the CSD; and

WHEREAS, in July of 2007, Culver City provided written comments to the Notice of Preparation of a Draft Environmental Impact Report (Draft EIR) which, in addition to other comments, requested that issues relating to possible future drilling and operational activities, impacts on the areas surrounding the CSD, and impacts to air quality, water, geological resources, and emergency services be analyzed in the Draft EIR; and

WHEREAS, the County of Los Angeles has prepared a Draft EIR dated June 2008 to analyze the potential environmental impacts of the Plains Exploration & Production Company's proposed CSD, which was released for public review and comment on June 19, 2008; and

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WHEREAS, a City staff team consisting of various City Departments and consultants, and a City Council subcommittee, was established to evaluate and comment on the adequacy of the Draft EIR in addressing potential impacts to Culver City; and

WHEREAS, the City Council of the City of Culver City, accepted public comments and considered the Draft EIR at public meetings on July 14, 2008, and August 13, 2008.

NOW THEREFORE, the City Council of the City of Culver City, California, DOES HEREBY RESOLVE as follows:

1. Determines that the Draft EIR is substantially inadequate for certification by the Lead Agency and that a complete and proper level of environmental data and analysis must be incorporated into the Draft EIR to address the identified deficiencies.

2. Establishes that this Resolution, including attached Exhibit A, constitutes the City of Culver City's official comments on the June 2008 Draft EIR that was prepared for the proposed Baldwin Hills Community Standards District.

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3. Directs and authorizes staff to transmit comments of the City of Culver City on the Draft IER to the County of Los Angeles Department of Regional Planning.

APPROVED and ADOPTED this 13th day of August, 2008.

SCOTT MALSIN, Mayor
City of Culver City, California

ATTEST:

MARTIN R. COLE
City Clerk

APPROVED AS TO FORM:

CAROL A. SCHWAB
City Attorney

EXHIBIT "A" TO RESOLUTION NO. 2008-R_____

SUMMARY DOCUMENT TO COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT REPORT FOR THE BALDWIN HILLS COMMUNITY STANDARDS DISTRICT DATED JUNE 19, 2008

I. INTRODUCTION.

This summary document, including the attached detailed comments on the Draft Environmental Impact Report for the Baldwin Hills Community Standards District Dated June 19, 2008 ("DEIR"), is submitted on behalf of the City of Culver City ("Culver City"). Culver City is a charter city with a current population of approximately 40,000 residents, many of whom are located within close proximity to the proposed Community Standards District (the "CSD") project boundaries. Three Culver City neighborhoods immediately abut the CSD project area: Culver Crest, Blair Hills and the Raintree complex. Culver City Park is also located adjacent to the project area. Moreover, much of the project area falls within the Culver City viewshed.

Culver City appreciates the steps Los Angeles County has taken to ensure that the environmental impacts from Plains Exploration and Production's ("PXP") oil and gas operations within the Baldwin Hills area are appropriately addressed. Culver City shares the County's concern. We are uniquely familiar with PXP's oil and gas operations in the area and have been actively involved in seeking stricter regulation and environmental review of its existing and future operations in the project area.

II. BACKGROUND.

Culver City and its residents have experienced the consequences of three significant incidents arising from PXP's operations resulting in substantial releases. Some of the events resulted in the release of significant petroleum and rotten egg odors (indicative of hydrogen sulfide), causing various physiological harm. These events, occurring within the space of about two years, are indicative of the types of releases that we believe will continue to occur.

The first of these incidents occurred on January 10, 2006 and resulted in the significant release of gases and odors to surrounding neighborhoods with some reporting noxious odors as far as two miles away. PXP reported that it had unexpectedly hit a pressurized pocket of methane gas that expelled drilling muds and gases to the surface. Nearby residents reported petroleum and rotten egg odors, indicative of hydrogen sulfide. Residents reported suffering from headaches, nausea, ear, eye, nose and throat irritation. Another gas release occurred thereafter on February 6, 2006. The third of these incidents occurred on March 22, 2008, during which a pipeline leak resulted in a release of crude oil that reached the Culver City storm drain system, threatening to enter the Ballona Creek. As was the case with the previous two incidents, this event resulted in an emergency response by the Culver City Fire Department. In addition, due to the threat to the storm drain system, this event also required an emergency response from both Culver City and

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Los Angeles County Public Works crews. In sharp contrast to Culver City's actual experiences with PXP's operations, the DEIR does not sufficiently address these events and suggests that they will rarely if ever occur in the future. Indeed, according to the DEIR, an oil spill that would affect the area/creek beds outside of the oil field would only occur once every 5,200 years. (DEIR 4.1.1.5). However, the three incidents in Culver City, including the March 2008 oil spill, occurred within a period of only two years, requiring an emergency response from the Culver City Fire Department, costing Culver City significant resources and causing its residents considerable discomfort and concern. More importantly, they are indicative of the failure of the DEIR to address the very risks with which Culver City is concerned.

These are the types of events that Culver City's residents are concerned they may face in the future as a result of continued oil operations in Baldwin Hills. Culver City's residents are frequently subjected to the odors from PXP's daily operations. It is clear that additional odors will be generated through current and future oil operations. With those odors, our residents are concerned about whether the air they breathe is contaminated with diesel particulates, benzene, hydrogen sulfide and other toxic contaminants, which may cause cancer or other long-term health impacts for themselves and their children. Our residents also question whether future oil spills and releases will force them to leave their homes and whether acute exposure will cause injury or worse. In addition to their health concerns, Culver City residents are concerned that continued drilling and water injection practices will cause subsidence, seismic instability or additional gas seeps. They are further concerned the hillsides surrounding their homes and Culver City will be increasingly marked by the oil drilling operations. Instead of seeing open space, our residents will view oil pads, pumpers, tanks, roads, etc.

As a result of these incidents, Culver City made inquiry to the Department of Oil Gas and Geothermal Resources ("DOGGR") and discovered it was issuing permits to PXP without any CEQA review. This practice was of great concern to Culver City and Los Angeles County and resulted in discussion of revising the County's existing zoning ordinance to enable it, and not DOGGR, to be the lead agency with respect to all future oil operation approvals and CEQA compliance. The County passed urgency legislation and ultimately a moratorium of all drilling operations pending the County's development of a CSD) for oil drilling operations and corresponding environmental review. It should be noted, however, that the DEIR evaluates a CSD that has been developed and prepared by the CSD applicant, PXP. As proposed, the CSD does not provide the County with discretionary review for future projects, which does not provide for continued environmental review. CAL. PUB. RES. CODE § 21080(a); CAL. CODE REGS. TIT. 14 § 15060(c) (action is not subject to CEQA if it does not involve discretionary review by the public agency). Thus, if the CSD was adopted as proposed, DOGGR would continue to be the lead agency for purposes of CEQA review and not Los Angeles County. The residents of Los Angeles County deserve better.

While the City appreciates the County's efforts to develop stricter regulations to protect public health and the environment from the impacts of oil operations, the DEIR fails to:

1. Adequately address and/or identify a number of significant environmental impacts;

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2. Propose feasible mitigation measures that would mitigate significant environmental impacts; and
3. Provide sufficient information for the public and the County to understand the grounds upon which the DEIR concludes that environmental impacts are not significant and or would be adequately mitigated.

The DEIR must include sufficient technical information, and not just conclusions, to enable the public to review and provide comment. This is a basic requirement of CEQA. *Laurel Heights Improvement Ass'n v. Regents of Univ. of Cal.*, 47 Cal.3d 376, 404 (1988) ("[c]onclusory comments in support of environmental conclusions are generally inappropriate"). The DEIR fails to meet these requirements.

The DEIR must not only fairly consider, evaluate and answer each of these issues, it must show how these adverse impacts can be mitigated. CAL. PUB. RES. CODE §§ 21002.1(a) and 21061. The "purpose of an environmental impact report is to identify the significant effects on the environment of a project, identify alternatives to the project, and to indicate the manner in which those significant effects can be mitigated." CAL. PUB. RES. CODE §§ 21002.1(a). Thus, CEQA mandates that the County fully consider the environmental impacts from potentially one of the largest oil and gas productions to take place in a confined urban setting. Despite this mandate, the DEIR fails to adequately consider even the most basic questions regarding the project's impact on public health, the environment, aesthetics and surrounding uses.

Given Culver City's concerns, it has retained Aspen Environmental Group ("Aspen") to provide third party expert review of the DEIR. Aspen's comments, questions and concerns are attached to this Exhibit "A" to Resolution No. 2008-R___ as Attachment 1 and incorporated fully herein. The qualifications and expertise of those who prepared the comments are also included as Attachment 2 to this Exhibit "A."

III. ANAYLSIS.

This summary document sets forth and elaborates on some of the more significant comments on behalf of Culver City.

A. Project Description

An accurate project description is an essential component to assessing whether a proposed project may have a significant effect on the environment. CAL. CODE REGS. TIT. 14 § 15124. "An accurate project description is necessary for an intelligent evaluation of the potential environmental effects of a proposed activity." *San Joaquin Raptor/Wildlife Rescue Ctr. v. County of Stanislaus*, 27 Cal.App.4th 713, 730 (1994)(citations omitted).

The Project Description fails to adequately define plans for the future development of the oil field, the operation and abandonment of existing wells, the biofarms and the other ancillary projects. The Project Description also fails to adequately identify the types of equipment that will be used by PXP for drilling, pumping or workovers. Without

understanding the nature of the equipment that will be used, it is impossible for the DEIR to address the impacts except in an overly general and inadequate basis.
The DEIR also fails to address the locations and depths of oil formations that will be accessed through future drilling. Without this information, the DEIR cannot adequately address the impacts from operations occurring in close proximity to residences and other sensitive receptors. Drilling a single well near a neighborhood necessarily has a much different impact than drilling multiple wells over a prolonged period of time near the same neighborhood. Impacts such as noise, vibration, aesthetics and exposure to toxics cannot be adequately considered without knowing where the wells and equipment will be located. As discussed below, the health risk assessment is useless unless it is based on accurate assumptions regarding the quantity and location of sources near sensitive receptors. Impacts relating to geological resources, including the potential for subsidence and seismic events, also cannot be adequately assessed without considering which geological formations the drilling will impact.

The DEIR did not analyze the impacts of any activity within the Active Surface Field Boundary that lies outside of the Proposed CSD Boundary. The Active Surface Field Boundary includes areas within Culver City's jurisdiction. The DEIR should address any future drilling and operations contemplated within Culver City's boundaries. *See San Joaquin Raptor/Wildlife Rescue Ctr.*, 27 Cal.App.4th at 739 (EIR that fails to list "past, present and reasonably anticipated future projects" is inadequate). Even though such operations will be outside the jurisdiction of the Proposed CSD Boundary, they are within the Active Surface Field Boundary and part of PXP's overall plans. As required by CEQA, a careful assessment of the impacts from operations occurring within Culver City's boundaries is necessary to fully understand the cumulative impacts of the project in its entirety. It is clear from the DEIR that impacts arising from Culver City wells have not been considered.

The DEIR implies that the sole environmental review for this project will be conducted through this EIR process. However, the DEIR acknowledges that the full scope of future activities is unknown and speculative. Under these circumstances, the DEIR is defective because it cannot adequately assess the impacts from future operations if the scope, nature and magnitude of future activities are not fully characterized. Although the DEIR suggests that it accounts for this deficiency by considering the information that PXP provided, it does not adequately limit the extent or amount of future operations that will occur within the Proposed CSD Boundary. At a minimum, the CSD must limit future operations to the maximum contemplated in the DEIR.

B. Baseline

Establishing an accurate baseline is critical to assessing the environmental impacts from a proposed project. *Save our Peninsula Comm. v. Monterey County Bd. of Supervisors*, 87 Cal.App.4th 99, 119 (2001).

The DEIR seems to view all current conditions at the site as the baseline from which future changes to the environment must be measured. Conditions which are not in

current compliance with applicable laws, however, cannot be considered as part of the baseline. Current County zoning regulations, for example, prohibit operations and drilling that result in the creation of a "public nuisance." Los Angeles County Code 22.24.120.D.12. The California Civil Code defines nuisances to include anything which is "injurious to health" or "offensive to the senses, or an obstruction of the free use of property, so as to interfere with comfortable enjoyment of life or property." CAL. CIV. CODE § 3479. A public nuisance is one which affects an "entire community, neighborhood or any considerable number of persons, although the extent of the annoyance... inflicted upon individuals may be unequal." CAL. CIV. CODE § 3480. Noise, vibrations, odors and emissions of toxic contaminants from existing operations have created such a nuisance. There is no "right" to maintain operations which result in nuisance, irrespective of how long those operations have been in existence. The DEIR must mitigate both existing and future operations to eliminate any nuisances resulting from those operations. Moreover, the County is required to enact any regulations that are reasonably necessary to protect the public health and the environment, even if those regulations impact existing operations.

C. Air Quality - Public Health

The present and future activities at the oilfield will generate a number of toxic air contaminants, including diesel particulates, benzene and hydrogen sulfide. The DEIR has failed to adequately address the risks from such contaminants. The risk assessment as presented in the DEIR is entirely inadequate. CEQA prohibits the DEIR from simply presenting conclusions, without providing the County and public with any means to determine whether the risk assessment was adequately performed. "An EIR must include detail sufficient to enable those who did not participate in its preparation to understand and to consider meaningfully the issues raised by the proposed project." Laurel Heights Improvement Ass'n, 47 Cal.3d at 405.

One of Culver City's greatest concerns is the health impacts to its residents from oil drilling operations. For instance, to what extent do the oil operations currently expose Culver City's residents to toxic chemicals that can cause cancer, disease, injury or death? These are all questions that should be addressed by an adequate DEIR. Unfortunately, the DEIR fails to present any information to support a conclusion that these risks are not significant.

The DEIR also fails to provide the public with any means to evaluate the real risks associated with future oil operations. For example, in assessing the baseline risk from existing operations, Marine Research Specialists ("MRS"), the consultant the was retained by the County to prepare the DEIR, relied solely on data provided by PXP to the South Coast Air Quality Management District ("SCAQMD"). If PXP inaccurately reported the information, used erroneous emission factors, undercounted the number of sources, or made other mistakes, the results, including the cumulative impacts of existing equipment and future equipment, would be inaccurate. MRS should conduct an independent review or audit of PXP's emissions inventory, rather than asking the County and the public to place blind trust in PXP's emission reporting and use of emission

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factors. The complete results of the audit should be included in an appendix to enable the public to assess the basis for the estimates. *See* CAL. CODE REGS. TIT. 14 § 15147 (technical data required to be included).

More importantly, it is impossible to determine how MRS estimated future emissions. The DEIR simply states that "Emissions factors from the SCAQMD were used to calculate the emissions" for construction related activities. CEQA "requires the EIR to include underlying technical detail so that the conclusions of the report can be evaluated by its reading audience." *San Franciscans for Reasonable Growth v. City & County of San Francisco*, 193 Cal.App.3d 1544, 1549 (1987); *see* also CAL. CODE REGS. TIT. 14 § 15147. However, MRS fails to disclose how it estimated PXP's emissions from its operations and construction activities except to state that it relied on PXP's reporting for tank working losses and PXP's reporting to the SCAQMD. (DEIR 4.2.4.2). It is impossible to determine if the number of sources is accurate. The risk assessment fails to set forth the assumptions that were made regarding the duration considered. For example, did the risk assessment assume emissions twenty years from now, with over 1000 operating wells, or sooner, with numerous drilling rigs operating? By relying on PXP's reporting, and blind assumptions regarding the number of sources and/or timing, errors that PXP may have made, in conjunction with incorrect assumptions, may be compounded with respect to estimating future emissions. These errors may vastly underestimate the real risk to Culver City residents and others.

Appendix D only provides a spreadsheet with various sources, emission factors and contaminants. However, there is no information regarding where these sources are located. The Health Risk Assessment ("HRA") is dependent on the location of the oil operations to residences and other sensitive receptors. Without this information, it is impossible to evaluate the HRA, including its accuracy and the accuracy of its conclusions. Similarly, the cumulative impact of different construction activities in any given location may result in a downward spike of toxics. Even the HRA's conclusion that fugitive emissions from existing equipment will remain the same is unsubstantiated because there is no way to determine whether existing equipment is operating at maximum capacity. If the equipment is not operating at maximum capacity, any additional output would cause additional emissions. Also, it appears that no estimates have been made for fugitive emissions from well casings, purged drilling muds, gas seeps or any type of upset events.

The DEIR fails to provide a complete technical analysis as to how it arrived at the HRA risk values to enable the County and public to assess whether the risk assessment was done properly. For example, the DEIR fails to include any underlying modeling data and does not describe how the emissions were allocated to the various area sources. If the emissions were allocated equally, it may not correctly identify toxic "hot-spots" along the project area. Moreover, the cumulative risk from the project may not be accurately portrayed. The DEIR utilizes the MATES study information to determine the cumulative risk. However, the MATES study information may not accurately portray the local characteristics. Estimating cumulative risk in this way increases the probability of error.

It is insufficient to merely rely on emission factors. Emission factors are merely estimates based on industry wide characteristics and averages. PXP's operations could result in higher emissions. The DEIR must establish that the emission factors used for the MATES study are accurate for each potential emission source considered. Even a simple error in calculating an emission rate when multiplied by 1000 new wells could result in substantial impacts to nearby residents. These impacts may not be known for years until after our residents have already begun developing health issues.

The HRA also fails to adequately deal with the past emissions and resulting health risks from the oil operations before there were any regulations. For example, someone who has lived within the area for the past 50-years may have been exposed to greater impacts that could cause chronic health impacts. The DEIR only considers current and future impacts, which necessarily assumes a level of control technology that did not previously exist.

The information is not developed to an extent to enable the public to determine which specific chemicals are causing the risk. Without knowing this information, it is impossible to develop mitigation measures to address the actual risk. The risks presented by toxic air contaminants may be severe, resulting in cancer, disease or injury, and must be thoroughly analyzed and understood by the County and the public.

Finally, the County should adopt a much higher threshold of significance for cancer than what is stated in the DEIR. The HRA establishes a significance threshold for cancer of 10 in one million, which translates to a cancer threshold of one in one hundred thousand. We do not believe that this is an adequate risk threshold. The DEIR also underestimates, without any apparent support, the actual cancer risk. The HRA concludes that the potential cancer impacts to residents if the mitigation measures are implemented will be approximately 5 in one million. DEIR 4.3-22. Based on the threshold of significance for cancer of 10 in one million, the HRA concludes that the cancer risk is "less than significant." It is not "insignificant" that one, two or more people who are exposed to these emissions will contract cancer in their lifetime.

Some of the toxic air contaminants of concern include the following:

1. *Diesel Particulates*

The DEIR fails to adequately address cancer and other risks from diesel particulates and other PM 10 emissions that will affect local neighborhoods. For example, it is unclear whether the emissions are properly apportioned. Moreover, the emissions are not accurately estimated, because they underestimate the size of the engines for drilling. The DEIR uses emissions for samples that are much smaller than the rigs set forth in Appendix A.
According to U.S. EPA:

"Acute exposure to diesel exhaust may cause irritation to the eyes, nose, throat and lungs, some neurological effects such as lightheadedness. Acute exposure

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may also elicit a cough or nausea as well as exacerbate asthma. Chronic exposure in experimental animal inhalation studies has shown a range of dose dependent lung inflammation and cellular changes in the lung and there are also diesel exhaust immunological effects. Based upon human and laboratory studies, there is considerable evidence that diesel exhaust is a likely carcinogen. Human epidemiological studies demonstrate an association between diesel exhaust exposure and increased lung cancer rates in occupational settings."

In order to avoid chronic exposure to diesel particulates, the DEIR should require the electrification of all pumps, drilling rigs and other heavy equipment. To the extent electrification is not feasible for heavy equipment, such as graders, alternative fuels or fuel cell technology must be employed. The use of such mitigation will not only mitigate diesel particulate emissions (and PM 10 emissions as a criteria pollutant), but also VOCs and greenhouse gases.

2. *Hydrogen Sulfide*

The DEIR identifies hydrogen sulfide as a toxic air contaminant associated with the current and future oil operations, but fails to adequately consider the potential impact of hydrogen sulfide emissions on public health. Acute exposure can lead to death and chronic exposure is continuing to be studied. According to the Department of Health and Human Services, Agency for Toxic Substances and Disease Registry's (the "ATSDR") public health statement for hydrogen sulfide, exposure to hydrogen sulfide can have varying health affects from irritation to the eyes, nose and throat to permanent and long-term effects depending upon the exposure amount and duration of exposure:

"Exposure to low concentrations of hydrogen sulfide may cause irritation to the eyes, nose, or throat. It may also cause difficulty in breathing for some asthmatics. Brief exposure to high concentrations of hydrogen sulfide (greater than 500 ppm) can cause a loss of consciousness. In most cases, the person appears to regain consciousness without any other health effects. However, in some individuals, there may be permanent or long-term effects such as headaches, poor attention span, poor memory and poor motor function... Deaths due to breathing in large amounts of hydrogen sulfide have been reported in a variety of different work settings, including ... oil and gas well drilling sites."
Available at http://www.atsdr.cdc.gov/toxprofiles/phs114.html.

California's Office of Environmental Health Hazard Assessment ("OEHHA") has determined that the chronic risk exposure level for hydrogen sulfide is only 8 parts per billion (ppb). *See* http://www.oehha.ca.gov/air/chronic_rels/AllChrels.html. Only concentrations below that level pose no significant chronic health risk to the public. The County is obligated to find that such concentrations would create a significant risk to the public. There is no evidence that the HRA described in the DEIR

considered the chronic effects of hydrogen sulfide and if it did consider those effects, whether it considered 8 ppb as a threshold of significance.

The DEIR acknowledges that produced gas contains hydrogen sulfide concentrations as high as 10 parts per million(ppm) to 20 ppm -- or thousands of times higher than the significance threshold established by OEHHA. With hundreds of wells producing gas at a rate of thousands of cubic feet of natural gas per day, the risk that residents located downwind would be exposed to levels over 8 ppb per day appears clear. The DEIR, however, fails to address the risk or even acknowledge that chronic low level concentrations present any risk. Therefore, the DEIR entirely fails to address a potentially significant environmental impact, which could threaten the lives and health of children, elderly and others living near the oil fields.

The DEIR also fails to properly consider the risk of acute exposure to hydrogen sulfide. In January and February 2006, the residents of Culver Crest were exposed to the release of gases from PXP's nearby drilling operations. According to PXP it had hit a pocket of pressurized gas; a risk that the DEIR says does not exist in the project area. Those residents reported the smell of rotten eggs and many reported nausea, headaches and nose, eye and throat irritation. *See* Attachment 3 to this Exhibit "A" to Resolution No. 2008-R___. The rotten egg smell is indicative of a hydrogen sulfide release. SCAQMD also reported that hydrogen sulfide had been released. *See* Attachment 3. The DEIR only considered these incidents for purposes of their odor impacts and not from the standpoint of acute exposure to hydrogen sulfide. *See* DEIR 4.2-13 and 4.1-9.

OEHHA has established an acute Reference Exposure Level (REL) for hydrogen sulfide at 42 ug/m3 or about 30 ppb. This means even short term exposure of such small concentrations may cause acute physiological effects, including headache and nausea. As the odor threshold for many people is within the same range, if the hydrogen sulfide can be smelled it can cause physiological harm. The DEIR, on the other hand, suggests that acute exposure is only at or above 2 ppm (DEIR 4.2-11) and that concentrations below that amount would be merely "annoying" and generate "odor complaints." The DEIR then dismisses hydrogen sulfide as a risk because it is not present in "appreciable quantities."

As the DEIR fails to adequately consider the significant health effects on the public from acute exposure to hydrogen sulfide, it has failed to consider a potentially significant environmental impact. This is not merely a hypothetical impact, it is one that has already occurred as a result of deep drilling, causing significant public health impacts. Moreover, it is likely that this event could occur again. Indeed, in failing to consider, discuss or recognize the impacts from the 2006 incidents, events which are known, how can the County or the public trust that the DEIR has fairly considered the risks of future unknown or hypothetical events? A careful analysis of the circumstances that led to the 2006

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incidents is necessary in order to understand how it can be prevented in the future. The DEIR did not do this.

The mitigation measures proposed to address gases released from drilling operations are limited to using a portable flare which would only "reduce the frequency of odor events associated with mud vapors and drilling gases." DEIR 4.2-28. Given the dramatically increased drilling activity at significant depths (such as where hydrogen sulfide was released in 2006), it is likely that odor events will increase. The DEIR fails to provide any evidence that a "flare" will reduce these types of events. As such releases can lead to acute physiological impacts on nearby residents, reducing the frequency of such events is insufficient. The EIR must establish that these events cannot occur through feasible mitigation measures. Even the possibility of one event must be considered significant.

In addition to failing to properly consider hydrogen sulfide emissions from incidents such as the 2006 incidents, the DEIR also fails to consider emissions from gas seeps, abandoned wells or upsets. The DEIR also appears to only consider the fugitive emissions large enough to be reportable. The DEIR does not consider the thousands of emissions that are too small to be reportable, but in the aggregate may contribute to significant environmental and health impacts. DEIR 4.2-12.

In order to properly assess the risk, ambient air sampling should be conducted to determine the levels of hydrogen sulfide that currently exist and the current exposure concentration to understand the cumulative effects of additional hydrogen sulfide emissions from PXP's future operations. Periodic ambient air monitoring should also be conducted in the future to understand and address increased concentrations from operations. Most importantly, air monitoring at all drilling operations should be conducted to determine if potentially harmful hydrogen sulfide or other gases are being emitted to ensure that immediate measures to curtail such emissions be implemented.

3. *Benzene*

The DEIR also does not adequately address benzene. OEHHA has established a chronic reference exposure level for benzene at 20 ppb. The Minimum Risk Level established by the ATSDR is 3 ppb.

The ATSDR has also issued a public health statement for benzene. Available at http://www.atsdr.cdc.gov/toxprofiles/phs3.html). According to the health statement, both the "International Agency for Cancer Research and the EPA have determined that benzene is carcinogenic to humans." "Brief exposure (5-10 minutes) to very high levels of benzene in the air (10,000-20,000 ppm) can result in death." "Lower levels (700-3,000 ppm) can cause drowsiness, dizziness, rapid heart rate, headaches, tremors, confusion, and unconsciousness." Long-term

exposure to benzene can cause leukemia, especially a particular type of leukemia called "acute myeloid leukemia."

For the reasons discussed above relating to the HRA, the DEIR fails to adequately assess the risk of exposure to benzene.

D. Odors

The DEIR fails to adequately consider the impact of odors on Culver City residents. The DEIR only considered occurrences of odors that were reported to the SCAQMD. A quick survey of residents in the neighborhood would have disclosed that nuisance odors are a common occurrence. Comments from the Culver Crest Neighborhood Association to the Notice of Preparation advised of "weekly" odor occurrences and requested that neighbors be contacted directly so that the EIR could fully assess the frequency and impact of the odors. *See* Appendix K to DEIR (Letter from CCNA dated July 24, 2007). This was not done. Merely walking though the project area would have disclosed more odors than the DEIR acknowledges ever occurring. Although the DEIR acknowledges that many of Culver City's residents will be impacted if odors do occur, it fails to acknowledge all of the potential sources of odors. For example, the DEIR fails to acknowledge that any odors would be generated by hydrogen sulfide emissions, as clearly occurred in early 2006.

Culver City's residents have had to live with these odors for many years. The proposed oil operations threaten to further add to these odors without resolving the nuisance that already exists. The DEIR must be amended to fully consider the odors that are occurring now so that it can adequately assess the odors that will occur in the future. The proposed mitigation measures to address the release of gases during drilling operations would only "reduce the frequency of odor events." DEIR 4.2-28. However, reducing the frequency of the events would not mitigate the impacts to less than significant, because any one odor event that creates a nuisance would be significant.

Mitigation measures must be implemented that will reduce all odor events. The DEIR states that PXP has ceased downhole testing for pressurized gases because they are unlikely to be present. As pressurized gases caused the most significant odor event in the recent past (and likely released hydrogen sulfide gases), all necessary steps must be taken to avoid such pressurized gases. Air sampling for sulfides must be conducted at the wellhead at detection limits well below 1 ppm and cease operations until it can be determined that no sulfides will be released. Site specific emission factors should be established for all emitted toxic compounds, such as benzene.

E. Seismic Risk, Subsidence and Gas Seeps

The Baldwin Hills project is located on top of the active Newport-Inglewood Fault Zone. A portion of this fault zone, including portions within the project area, have been included within the Alquist-Priolo Fault Zone, which requires special geologic studies before any structures used for human occupancy can be built. The potential for small or

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large earthquakes caused by water injection is not adequately addressed in the DEIR. The DEIR acknowledges that water injection in oil fields has caused earthquakes, but concludes, without providing a reference, that this has not occurred at the Inglewood Oil Field. Moreover, there is not an acknowledgment by the DEIR that past experience with water injection may not be indicative of what will occur in the future as much deeper formations are used for water injection.

There is no evaluation of the risks of earthquake created by deeper water injection. The DEIR needs to establish that future water injection will not cause a risk of earthquakes. Nor is there any evaluation of the scope of damage, injury and environmental harm that would be caused by an earthquake. These evaluations are necessary. The potential for man-caused earthquakes is clearly a significant impact which must be mitigated to zero probability. There cannot be any overriding consideration for an event that could cause significant property damage, bodily injury and environmental harm.

Subsidence has also been identified as potentially significant impact. Subsidence is typically triggered from the depletion of oil reserves beneath the ground surface. The project area has experienced significant subsidence historically and such subsidence is believed to have created vertical and horizontal faults and earthcracking. The subsidence has also been linked to the failure of the Baldwin Hills dam in 1963, resulting in multiple deaths. Therefore, although water injection is believed to have helped stem the subsidence, there is no clear evidence that water injection will continue to mitigate subsidence over the decades to come. The DEIR needs to include far more analysis than is provided before it can be definitively determined that subsidence is not a significant impact in the near term or future. The DEIR must also determine whether the possible "solution" for subsidence may result in even more significant harm itself.
The DEIR also acknowledges that gas seeps have plagued oil fields in the Los Angeles Basin, including presumably the project area:

"Oil field gases have a propensity to migrate to the surface along faults and poorly completed and/or abandoned wellbores. Furthermore, the upward migrating gases will accumulate in the near-surface collector zones, often trapped and concealed within the permeable gravel and sand lenses." (DEIR 4.4.1.7).

The DEIR identified a number of pathways by which these gas seeps, which can include methane, ethane, and toxic gases such as hydrogen sulfide, can find their way to the surface. While water injection may help stem subsidence, the DEIR notes that studies indicate that water injection may increase the occurrence of gas seeps, presumably by creating sufficient pressure to force the gas upward. When combined with the faults and cracks created by historical subsidence, and the pathways created by hundreds, if not thousands, of abandoned, idle, or dry wells, the risk of gas seeps to the surface can be no less than significant. Any new well and continued or expanded water injection could trigger a significant release of such gases creating a risk of explosion and toxic exposure to employees and nearby residents.

In addition to natural pathways, such as cracks or porous sediments, the DEIR also identified abandoned oil and gas wells or dry holes, undocumented wells and dry holes, deteriorated annular cement seals, and water extraction and injection wells as potential conduits for gas migration. The HRA failed to consider the risks from toxic emissions from all of the other sources of gas seeps that are identified in the DEIR, including cracks, porous sediments, dry holes, deteriorated cement seals and water extraction and injection wells and active wells. There is no data or assessment regarding the number of gas seeps in the project area, how many additional seeps may be created as a consequence of future operations and construction or the estimated emissions (toxic and otherwise) that may be generated from those seeps. The DEIR only makes note of a limited soil vapor study conducted in the area of some abandoned wells. However, even the DEIR does not suggest that the limited soil vapor study provides any basis to conclude that seeps are now, or in the future, not a matter of significant environmental concern. Indeed, as the DEIR acknowledges, produced gas may have levels of hydrogen sulfide as high as 10 or 20 ppm, it must evaluate the risk of gases escaping as fugitive emissions through gas seeps.

The referenced soil vapor survey is deficient because it failed to report concentrations of even the most toxic gases unless those gases exceeded 0.2 ppm. Widespread release of toxic gases, such as benzene and hydrogen sulfide, at low levels can cumulate with other fugitive emissions resulting in an exceedance of chronic and acute reference exposure levels. These are significant impacts which must be avoided.

F. Visual and Aesthetic Resources

Culver City is significantly concerned with the impact of existing and additional oil facilities, well drilling rigs and construction equipment to the visual and aesthetic resources of its residents. The DEIR should recognize the impacts of the visual degradation from further development in the area designated as the Culver City viewshed, as well as the views from Culver Crest, Blair Hills and Raintree neighborhoods.

The Baldwin Hills is one of the most prominent geographic features in the region. PXP plans to place 233 wells in the Culver City viewshed alone. The landscape will be dramatically changed from not only the pumping equipment, but the proliferation of drill rigs over 100 feet high for at least 2,330 days or 6.4 years in the aggregate (at 10 days per well). The defacement of the hills will be visible from miles around. The impact of future development will impact almost the entire City as the hillsides become saturated with wells and the ridgelines marked with protruding equipment. Culver City supports the mitigation measures recommended by the DEIR because they go much further than the CSD. However, more can and needs to be done.

As discussed above, all wells should be relocated and consolidated out of the public view to the extent technically feasible through the use of slant drilling. If not technically feasible, low-profile or underground pumping units must be used to the extent feasible. These measures are commonly used and are practicable. Landscaping plans must either

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include mature, native species capable of shielding the equipment immediately or planted far enough in advance of any construction activities to shield such work at the time it occurs. As discussed above, forestation of the hillsides with native species consistent with the natural environment will yield other benefits as well, such as offsetting greenhouse gas emissions by acting as carbon sinks.

G. Noise and Vibration

The DEIR fails to acknowledge that current noise levels are already significant. The DEIR chart at Table 4.9.5 demonstrates that current levels exceed those prescribed by Los Angeles County Code. The DEIR suggests mitigating future noise impacts by limiting such noise to an increase of 5 db from the baseline. However, allowing 5 db to be added to the current baseline will cause a significant impact. As the decibel scale is logarithmic a 5 db increase is one which is significantly louder than the baseline. For example, a 6 db increase is considered to be twice as loud as the baseline. *See* http://www2.sfu.ca/sonic-studio/handbook/Decibel.html.

While not quite twice as loud, an increase of 5 db magnitude must be considered significant. The addition of drilling rigs, thousands of new pumping units, the attendant maintenance and workovers will significantly degrade the quality of life by causing noises to intrude into nearby neighborhoods 24 hours a day. Even a 1 db increase will be a perceptible and a significant increase in the baseline. Thus, additional average noise should not be permitted at all. Likewise, any vibration that can be felt by nearby residents must not be permitted.

Electrification of all existing and future pumping units, drilling rigs and other equipment is at least one method to feasibly mitigate noise. Soundproofing, as is already required on drill rigs within 500 feet of residences, should be required on rigs within 1500 feet of residences. Radio headsets should be used to mitigate the noise from yelling of directions. Additionally, the use of temporary sound blankets can mitigate noise impacts. Other mitigation measures must be implemented. The DEIR has also failed to consider the noise and vibration that will occur from the flare.

H. Compatibility with Surrounding Uses and Recreation

The DEIR fails to adequately consider the Baldwin Hills Conservancy Master Plan which contemplates the future recreational use of the project area. The Baldwin Hills is a unique resource that provides much needed recreational uses in the region. The Master Plan was drawn up to address this resource.

I. Enforcement

It has been Culver City's experience that PXP has not always complied with minimal requirements that currently apply to them. For example, in 2006 PXP performed substantial grading operations, including leveling a ridgeline above West L.A. College, without obtaining a permit. Existing regulations require PXP to implement proven

technology to reduce annoyance and nuisance to the surrounding community. PXP has failed to do so. The 2006 releases are a result of PXP's failure to implement proven technology, such as flares, down-hole testing and on-site air monitoring. Although Culver City's experiences with PXP's compliance may be anecdotal, they raise serious concerns regarding PXP's willingness to voluntarily comply with applicable laws and regulations. These experiences underscore that even with requiring the appropriate mitigation measures, the CSD must provide for a rigorous enforcement mechanism, which includes frequent inspections and audits.

CEQA requires all adopted mitigation measures to be enforceable through "permit conditions, agreements, or other measures." CAL. PUB. RES. CODE § 21081.6(b); *see* also CAL. CODE REGS. TIT. 14 § 15126.4(a)(2)("[m]itigation measures must be fully enforceable through permit conditions, agreements, or other legally-binding instruments."). Even if all of the mitigation measures are required, the CSD must assure compliance with those measures and adequate penalties if PXP fails to comply.

J. Mitigation Measures

First, we note the following significant issues that must be addressed through specific mitigation measures to feasibly mitigate the significant impacts arising from current and future oil operations:

1. Consolidation of Existing and Future Oil Wells: The location of existing and future oil wells must be consolidated to the extent feasible to ensure that the wells are not within the view of the surrounding neighborhoods and the public. This measure could be accomplished by slant drilling, which PXP and others have previously used. Employing this mitigation measure would have several beneficial impacts, including minimizing visual and aesthetic impacts, mitigating odor and toxic emissions by placing operations further away from sensitive receptors and minimizing the impact on future recreation uses. This would also help mitigate any inconsistencies between the drilling operations and the Baldwin Hills Master Plan by creating open space for future use. Tanks or other ancillary equipment should also be located outside of public view to the extent feasible.

2. Low Profile Pumping Units Should be Used: The wells that cannot be feasibly relocated, should be replaced with low profile, residential or underground pumping units. The use of such pumping units is feasible and frequently employed in practice. Low profile drilling rigs should be used if and when such technology becomes feasible.

3. Develop a Comprehensive Landscaping Plan for the Project Area: A comprehensive landscaping plan should be developed for the entire project area in consultation with the Baldwin Hills Parks Conservancy. The plan should include provisions for shielding all equipment from current and future public users through the prompt planting of mature or semi-mature trees, shrubs and other plants. This measure will help mitigate visual, aesthetic and noise impacts,

impacts to future recreational uses and inconsistency with the Baldwin Hills Master Plan. Finally, the forestation of the project area will help mitigate the direct and indirect greenhouse gas ("GHG") emissions from the project because the trees will act as carbon sinks, thus offsetting some of the carbon emissions. *See* California Air Resource's Board Discussion http://www.arb.ca.gov/cc/forestry/forestry.htm. The DEIR should also consider whether such measures will help to mitigate odors and toxic exposure by filtering and dispersing the odorous and toxic airborne contaminants.

4. Electrification of all Drilling Rigs and Heavy Equipment: All heavy equipment and drilling rigs should be powered with electricity. This is technically feasible and has been achieved in practice for drilling rigs. Indeed, electrification is required on various public lands, such as the Los Padres National Forest, where even less concern exists about impacts on nearby residents. *See* e.g., Standard Lease Agreement for Los Padres National Forest available at http://www.fs.fed.us/r5/lospadres/projects/oil-gas/doc-pdfs/ap-files/22-feis-apndx-b-stips-slts.pdf ("if onsite electricity is available, electric drill rigs will be used."). If this is not technically feasible for heavy equipment such as earthmovers, alternative fuels, such as natural gas, should be used. This measure will mitigate impacts to the public health and the environment from diesel particulate emissions. It will also mitigate impacts caused by noise and greenhouse gas emissions.

5. Baseline Comprehensive Health Assessment: A comprehensive health assessment of the communities immediately surrounding the oil fields must be conducted to establish a baseline from which to measure the effects of current and future oil drilling operations. Periodic reassessments, approximately every five years, must be conducted to determine if the mitigation measures in place have in fact reduced health risks to a less than significant level. This is a crucial part of the mitigation monitoring program.

6. The Los Angeles County Department of Planning Must have Discretionary Review of Oil Drilling Operations: The CSD must be revised to clarify that the Los Angeles County Department of Regional Planning (the "DRP") has "discretionary" and not "ministerial" review over development plans submitted under the CSD. An oil operation of this magnitude should not be considered solely in a conceptual form without providing for future CEQA review as more detailed plans are submitted for DRP approval. Indeed, the DEIR makes only certain assumptions regarding future activities, the number of wells, general location of wells, equipment to be used and the like. The CSD places very few limitations on such future activities. Thus, future projects could entail activities with impacts that exceed even those contemplated in any "worse case scenario" that the DEIR considered. Future CEQA review would allow DRP to consider the specific activities relating to any given project, the impacts of such activities and the residual impacts that occur despite the implementation of the mitigation measures. As these projects are implemented, DRP will be in a far better position

than it currently is to determine the effectiveness of such measures. Future discretionary review would also allow DRP to require state of the art technology as it becomes available to better mitigate the significant impacts and any unforeseen circumstances that occur over twenty (20) years of this project. Even the County's current zoning regulations require the operator to use the best available proven technology, something that the CSD does not. *See* Los Angeles County Code 22.24.120.D. At a minimum, the current EIR should be considered a program EIR from off of which future EIRs could tier. *See* CAL. CODE REGS. TIT. 14 § 15168(a). This will enable the County to focus subsequent environmental review on the new environmental effects that were not considered in the current EIR. CAL. CODE REGS. TIT. 14 § 15168(d)(3).

7. CSD Must Require Continuous Air Monitoring: The CSD must provide for continuous air monitoring throughout the project area and specifically at wellheads where any drilling is occurring. Whenever toxic air contaminants exceed established significance criteria levels, the CSD should provide for notification to appropriate agencies, including the Culver City Fire Department, and require immediate steps be taken to curtail the emissions until DRP, Culver City and others can be assured that appropriate steps have been taken to ensure future emissions will not occur.

8. Enforcement Procedures Must Be Included: The CSD must provide for an effective monitoring, enforcement and audit process to demonstrate continued compliance with the CSD and all required mitigation measures.

9. The CSD's Jurisdiction Should be Definitively Delineated: The CSD must make clear that it covers only drilling within the CSD. Any slant drilling from the CSD into other jurisdictions, such as Culver City, will be subject to the ordinances, regulations and permitting requirements of such jurisdictions. The DEIR has not considered risks, such as seismic risks, associated with any subsurface drilling, wells or water injection that extends beyond the CSD boundaries.

IV. CONCLUSION.

We trust that the County will carefully consider and adequately address Culver City's comments in the Final EIR and, if necessary, recirculate the DEIR. Further, the City looks forward to reviewing the revised CSD prepared by the County and expects to see the City's and community's concerns and issues addressed in the final CSD that is adopted by the Los Angeles County Board of Supervisors.

Attachments: 1. Technical Comments prepared by Aspen
2. Aspen's Statement of Qualifications and resumes
3. SCAQMD Air Quality Complaint Reports

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Aspen
Environmental Group

Attachment 1 to Exhibit "A"
of Resolution No. 2008R_____

August 6, 2008

Ms. Sherry Jordan
City of Culver City
9770 Culver Boulevard
Culver City, CA 90232-0507

Re: Comments on the Public Draft Environmental Impact Report (EIR) for the Baldwin Hills Community Standards District, June 2008

Dear Ms. Jordan:

Enclosed are Aspen's comments on the Public Draft EIR for the Baldwin Hills Community Standards District (CSD). Based on our review of the Draft EIR, the document does not provide sufficient explanation for the identified impact findings especially for those issues that are important to the City of Culver City (i.e. risk of upset, public health, noise, and air quality). Also, the Draft EIR does not provide sufficient technical detail/analysis to serve as the environmental basis for issuing ministerial permits if the County of Los Angeles adopts the CSD. At this time, there are too many unanswered questions to deem the Draft EIR adequate. Some of the key issues are summarized below. However, Aspen's detailed comments are provided in the attachment.

- **CSD.** There is limited information on how the mitigation measures will be applied to the CSD and the process for implementing the CSD. The CSD should include the construction and operating limitations identified in Section 3 and in the impact analyzes.
- **Risk of Upset.** Given past incidents in 2006 and 2008, additional mitigation measures are needed to address the potential release of H_2S and to require odor risk analysis and periodic facility audits.
- **Air Quality.** The significance criteria used in the Draft EIR is not based on current SCAQMD accepted criteria. The baseline emissions and significance criteria need to be revised to accepted SCAQMD methodology. Well drilling emission estimates are significantly underestimated and need to reflect a maximum number of drilling rigs used per day and use of equipment horsepower as identified in Appendix A.
- The significance determination for odor impacts is based on reducing the number of odor events, which is not a correct approach because the proposed increase in well drilling and operating wells would increase the potential for odor events.
- **Public Health.** The Draft EIR has not established that all sources at the site use Best Available Control Technology for Toxics (TBACT). If TBACT cannot be established then the finding of no significant impact could change. The Draft EIR needs to include past and future risk to long-term area residents based on the historic air toxic emissions when there would have been significantly lower emission control requirements and significantly higher emitting equipment. The Health Risk Assessment documentation is deficient and therefore cannot be evaluated to determine whether the assessment was performed correctly.
- **Noise.** The Draft EIR does not evaluate the project with regard to construction noise thresholds. A quantitative analysis is needed to support the conclusion of less than significant impact with mitigation.
- **Land Use and Recreation.** The Draft EIR should evaluate the proposed project for consistency with the Baldwin Hills Park Master Plan due to its regional and local importance.

30423 Canwood Street, Suite 215, Agoura Hills, CA 91301 • Phone (818) 597-3407 • Fax (818) 597-8001
E-mail: Aspen@AspenEG.com • http://www.AspenEG.com

If you have any questions or need any clarification with regard to these comments, please do not hesitate to contact me at (562) 947-5259 or at salopez@aspeneg.com or you may contact Jon Davidson at (818) 597-3407, ext 343 or at jdavidson@aspeneg.com.

Sincerely,
ASPEN ENVIRONMENTAL GROUP

Sandra Alarcon-Lopez

Sandra Alarcón-Lopez
Senior Associate

Attachment: Comments on Draft EIR
Statement of Qualifications

30423 Canwood Street, Suite 215, Agoura Hills, CA 91301 • Phone (818) 597-3407 • Fax (818) 597-8001
E-mail: Aspen@AspenEG.com • http://www.AspenEG.com

Comments on the Public Draft EIR
Baldwin Hills Community Standards District

General Comments

- The Draft EIR does not explain how the mitigation measures will be applied to the Community Standards District (CSD). Because a revised CSD has not been included in the review of the Draft EIR, there are no assurances that the mitigation measures identified in the document will be adopted as part of the CSD. Additionally, the CSD should include construction and operating maximums such as the major construction projects allowed to occur concurrently, maximum number of wells drilled per year, maximum number of drill rigs in operation during any one day, and production maximums.
- The CSD boundary only encompasses lands within the jurisdictional boundaries of the County of Los Angeles (Figure 4.8-1), and lands falling within the jurisdictional boundaries of the City of Culver City are excluded. If any future drilling within the "Culver City Area" drilling area (Figure 3-2) is possible, even conceptually, in the City of Culver City it should be stated in the Draft EIR and the City of Culver City should be noted as having jurisdiction within this area. Otherwise, the Draft EIR should explicitly state that future activities undertaken in the "Culver City Area" drilling area require approval from the City of Culver City and compliance with City requirements.
- No explanation for the extended CSD boundary south and southwest of the "Active Field Boundary" and south of the Southern California Edison (Edison) facility (Figure 4.8-2) is provided, although no future drilling or related production facilities appear to be proposed within this area (Figures 3-2 and 3-4).
- As related to the CSD boundary extension south and southwest of the Edison facility, the Draft EIR must state if any future activities are proposed in this area. Without explanation, the extension raises the question as to whether Plains Exploration & Production Company (PXP) plans to request an extension of DOGGR's productive field limit and surface field boundaries. As noted in the last paragraph of Draft EIR Section 2.1, DOGGR's boundaries are not fixed and can be modified (e.g., expanded) via ministerial actions which are not subject to review and approval under the California Environmental Quality Act (CEQA). If such future plans are foreseeable, which they appear to be, they must be included as part of the proposed project to reflect the "whole of the action." CEQA expressly prohibits project segmenting (or "piecemealing') (CEQA Section 15378 [a], [c] and [d]).
- For the purposes of confirming the proposed project's full objectives, intent and need for the proposed project area, a description of what criteria (or factors) were used to establish the boundary of the CSD must be provided.
- The Draft EIR analysis needs to be clear on how it defines construction and operation activities and provide supporting information to justify why certain construction activities have been identified as operational activities. The Draft EIR identifies well drilling as an operational activity and assesses impacts based on this classification. However, well drilling should be considered construction or defined/regulated based on distance from sensitive receptors. As currently defined, the impacts are not adequately assessed and therefore impact findings are not appropriate because of this definition. Also see comments in air quality and noise regarding construction versus operational activities.
- The City of Culver City residents are very concerned with past odor releases, noise, and other nuisance activities from the oil field. The CSD and the Draft EIR do not address how existing operations will be dealt with in light of past odor releases and spills. Please address how existing

nuisance factors will be controlled and addressed through the CSD and identify mitigation measures specific to existing operations.

Executive Summary

Page ES-14 Oil Spill Risk. 3rd Paragraph
The 110% containment identified in the Draft EIR may not be adequate according to current regulations. Secondary containment as required by NFPA 30 and 40 CFR Part 112 should be the entire contents of the largest single tank plus sufficient free board to accommodate precipitation or firefighting water. For example, Santa Barbara County requires 100% of the largest tank volume plus 24-hour, 25-year rainfall. Please address how the project meets these requirements.

Page ES-16, R.2-1 Secondary Containment
As discussed above, the CSD must ensure that the containment volume is adequate as required by NFPA-30 and 40 CFR Part 112.

Section 2.0 Project Description

General Comment – Bioremediation Farm Description

The County of Los Angeles should include a more detailed description of the Bioremediation Farm because this onsite activity will create air quality and risk-related emissions including odor. This additional information should include the types of contaminated soils that would be treated, whether soils would be from onsite sources or imported from other sites/facilities, quantities treated, odor control effectiveness, and other applicable environmental and health-related issues.

Page 2-4, Figure 2-3 and Page 2-5, Table 2.1
Figure 2-3 and Table 2.1 list the Inglewood Oil Field Parcel Ownership. Is PXP the current owner and operator of all of these leases? Is PXP the sole operator of the Inglewood Oil Field? Please clarify.

With regard to the lease owners listed on Table 2.1, is the 53 wells per year estimate for all potential development on the oil field or just the potential wells to be drilled by PXP?

Section 2.2 Inglewood Oil Field Current Operations

Page 2-8, 1st Paragraph and page 2-9 Figure 2-5
Discuss the processing details and capacities of the Gas Plant, Crude Oil Treating Plant and the Water Treatment Plant. Discuss the details of the Compression Unit, Amine Unit (including details of the design inlet concentrations of H_2S and CO_2 concentrations, Acid Gas disposal, and other details) Glycol Unit, and the Gas Liquids Removal Unit.

Section 2.2.5 Current Operations Gas Gathering/Gas Processing

Page 2-13, 2nd Paragraph
Discuss the "worst case" H_2S contents in the gas and the crude oil. Since the gas plant has the amine H_2S removal system, the gas could have been sour in the past. Please provide and discuss historical H_2S content in the gas.

Section 2.2.6 Current Operations Well Drilling, Maintenance, and Workover

Page 2-15, 1st Paragraph
Please define the well types identified in this paragraph. Discuss the difference between the "shut-in wells" and "abandoned wells."

Section 2.2.7.4 Current Operations Ancillary Systems

Page 2-21, 2nd Bullet
Figure 2-6 (on page 2-10) shows Basin 2a and Basin 2b, in addition to Basin 2. Basin 2a and Basin 2b are not discussed in this section.

Pages 2-21 and 2-22, Table 2.2 Retention Basins and Table 2.3 Secondary Basin Containment
The capacities provided in this table for Retention Basins do not match with capacities provided in Table 2.2. For example, Table 2.3 shows 33,860 bbls capacity for LAI Tank Farm and Table 2.2 shows 1,281,000 gals (30,500 bbls) for LAI.

Section 2.2.9 Current Operations Employees and Scheduling

Page 2-23, 4th Paragraph
It states, "There are also estimated five visitors to the site each day." As per Table 2-5, there are total of 11 visitors. Please reconcile.

Page 2-25, Table 2.5 Peak Day Employees and Truck Visits
Are the "weekend day shift" and "night shift" personnel in addition to the 200 for the "day shift" and 15 for the "night shift"? They should be included in the "day shift" and "night shift" count.

Section 2.2.10 Current Operations Chemical Usage and Wastes

Page 2-28, 1st Paragraph
Correct reference in the text from "Table 2.5" to "Table 2.6."

Page 2-28, Table 2.6 Current Chemicals at Inglewood Oil Field
The Table does not show Amine and Anhydrous Ammonia Storage inventory. Please include Amine and Ammonia storage quantities. Also, explain use of anhydrous Ammonia in the text.

The table lists H_2S Scavenger for H_2S removal from gas. Please provide details about the use of the scavenger. Is Formaldehyde removed? What is the concentration of the H_2S in the gas that is treated by the scavenger? Is the H_2S removal process in addition to or in conjunction with the Amine H_2S removal system in the gas plant? If the gas is sweet (i.e., no H_2S) then why are these H_2S removal processes in use?

Various Sections
Please add definitions for terms such as AWT and PH in this section and in the acronym list in the front of the report.

Section 2.4 Applicant Proposed Baldwin Hills Community Standards District CSD

General Comment – CSD and Mitigation Measures

- The CSD should include all of the recommended mitigation measures identified in Section 4 (Analysis of Environmental issues). If these mitigation measures are not included in the CSD then issues such as safety, noise, air quality, traffic, visual, and potentially other significance findings must be revised from less than significant impacts with mitigation to significant unavoidable impacts.
- As currently prepared and when the CSD is adopted, any future development of the field will be a ministerial action. However, the Draft EIR does not provide sufficient detail as explained in this comment letter or sufficient justification for the less than significant impact determinations. Therefore, all permits should be discretionary and subject to CEQA analysis. Issues such as noise, air quality, public health and safety, and traffic have the potential to cause significant environmental impacts even with mitigation. Please incorporate further language in the CSD and in the Draft EIR to require discretionary permits and project-specific environmental review.

- CSD is a dynamic document, which the County of Los Angeles should update on a consistent basis. Please incorporate in the CSD a requirement that the County of Los Angeles update the CSD (or revalidate) every two years (or sooner if warranted by significant facility modifications) to reflect modifications made at the facility or changes in the regulations.
- The County of Los Angeles must establish a framework for how all of the various studies and requirements will be evaluated and reviewed as part of the permitting process. In some cases, the County will require a third-party reviewer to assess the adequacy of the plan studies. This issue is important because as currently planned, permits will require no further environmental review. To reduce potential impacts as discussed in the Draft EIR, the County will need to have third party review of operator submitted plans to ensure that public safety, health and environmental resources are protected as proposed in the Draft EIR.
- The CSD is not clear on whether the identified studies and plans will be applied field-wide (program-wide) or on a project-by-project basis. The CSD should distinguish between those measures that are field-wide (or program-wide) and must be applied prior to any construction in the field, and those measures that are project specific and only apply to certain project facilities or operation.
- Roles of permitting agencies should be clearly defined.
- CSD includes the need for a performance bond. However, there should be additional measures such as insurance requirements in the event of an oil spill or gas leak.
- Page 2-46, Item d Maintenance. Specify that all measures required to reduce noise, odor, and other environmental impacts shall be employed during maintenance. Also, in case of emergencies please add: " All reasonable measures shall be taken to protect public safety, health and the environment during an emergency."

Section 3.0 Potential Future Inglewood Oil Field Development

General Comment – Development Options Discussion

This section discusses only one potential development scenario with specific maximum production values. Other development scenarios and technologies (such as CO_2 sequestration and injection) should be discussed or should be eliminated through CSD limiting conditions. Additionally, the production maximums should be part of a CSD limiting condition, as the findings in this Draft EIR are based on those production assumptions.

Section 3.1 Potential Future Drilling of New Wells

Page 3-2, Paragraph 1 and sentence 4, Number of Rigs

The peak annual activity of 1190 well days will mean that a minimum of four, not three rigs will be required to complete the drilling activities (1190/365 = 3.26), three drill rigs can only have a maximum of 1095 rig days. This issue also relates to the air quality calculations, which used three drill rigs as a basis, as noted in a later comment.

What is the maximum depth required for the deeper wells drilled by the larger rig? Please provide details.

Page 3-2, Paragraph 4 and sentence 2, preparation time for drilling pad

The number of days required to prepare a drilling pad (i.e., surface grading) is specified as "seven to 14" days. This conflicts with the 4-day value used in the air quality calculations (Appendix C, page C-9 assumption 3).

Pages 3-2 and 3-3, Kenai Drill Rigs
The discussion of the use of the much larger Kenai Drill Rigs is not clear. It is unclear if these rigs will in fact be necessary for the Sentous wells. The air quality calculations have not assumed the use of these large drill rigs for worst-case daily or annual emissions estimation.

Section 3.6 Potential Future Employees and Scheduling

Page 3-11, 3rd Paragraph
Specify how many contractors per workover-day would be required for the workover rigs. Also, include and discuss the number of contractors required for the operations.

Page 3-12, 2nd Paragraph
It states, "There also would be an estimated five visitors to the site each day." Table 3.4 shows a total of 11 visitors. Please reconcile.

Page 3-13, Table 3.4 Future Operations Peak Day Employees and Truck Visits
Are the "weekend day shift" and "night shift" personnel in addition to the 200 for the "day shift" and 15 for the "night shift"? These personnel should be included in the "day shift" and "night shift" count.

Page 3-14, Table 3.5 Future Construction Peak Day Employees and Truck Visits
Table 3-5 lists the construction requirements for a new water treatment plant and steam drive plant. It is unclear if the former is the water treatment plant identified as part of the steam drive facility on page 3-14, or the water processing facility listed in Table 3.3. Description of what construction actions are being described in Table 3.5 is necessary. If Table 3.5 is describing the requirements for two of the four elements listed on page 3-14 for the steam drive facility, then the construction requirements for the other two elements (gas treatment and water softening plants) should be added to Table 3.5.

Section 3.9.2 Steam Drive – Gas Treatment Plant

Page 3-16, 1st Paragraph

Since the gas would be sent to the existing gas plant for further treatment, provide and discuss details of processing in the existing gas plant units including the acid gas (H_2S and CO_2) removal.

Page 3-16, 4th Paragraph
What is the H_2S content in the Vapor Recovery Gas? Provide and discuss the H_2S content. How is the H_2S treated in the scrubber vessel? Discuss the H_2S removal system in detail.

Page 3-16, 5th Paragraph
Based upon the discussion provided, it appears that this gas would not be sold to the Gas Company since it would either be re-injected into the produced field or used. How is this gas kept separate from the other gas streams coming into the gas plant that are treated and sent to the Gas Company?

Section 3.9.4 Steam Drive – Water Softening

Page 3-17, 1st Paragraph
Does the produced water quality meet the boiler feedwater specifications?

What does production of 8,000 bbls of steam per day mean? The steam rate is measured in lbs/hr at a specified pressure.

Section 3.9.5 Steam Drive – Steam Plant

Page 3-17, 2nd Paragraph
Discuss the steam production rate and specify the pressure for the steam.

Section 3.9.7 Steam Drive – Construction Requirements

Page 3-19, Section 3.9.7
This section provides identical information to the discussion in Section 3.8 (Potential Future Construction Requirements, Page 3-12). Please correct or provide further explanation.

Section 4.0 Analysis of Environmental Issues

While the text provides a discussion of the approach for determining the project baseline, additional detail and explanation is needed. The text refers to some issue areas where new wells or well deepening was not included. However, the discussion does not provide sufficient justification for this approach and does not fully explain why this approach would capture "the full impacts of new well drilling and well redrills." In addition, while the City understands CEQA guidelines regarding establishing the baseline as the time the Notice of Preparation is released, there is not sufficient explanation for why the average levels from 2006/2007 were used as baseline and no supporting information was provided to demonstrate that this time frame provides the most representative data for the oil field. Because the baseline is important for determining the impacts associated with the adoption of the CSD and future well exploration and production, the rationale for the baseline must be justified and explained in detail.

Section 4.1 Safety and Risk of Upset

Page 4.1-3, 1st Paragraph
Please clarify the last sentence that states: Nitrogen, sulfur-and oxygen-containing compounds *are mostly* nitrogen, sulfur, and oxygen because these compounds *are not mostly* nitrogen, sulfur, and oxygen.

Page 4.1-3, 3rd Paragraph
Include discussion for Olefins that are one of the major components of the hydrocarbon constituents.

Discuss the "worst case" and historical H_2S contents in the Inglewood Oil Field for the gas as well as the crude oil.

Discuss public health and toxic hazards of H_2S, including IDLH (Immediate Danger to Life and Health), Emergency Response Planning Guidelines (ERPG) including ERPG-1 (0.1 ppm H2S - odor), ERPG-2 (30 ppm H_2S - without any serious health effects), ERPG-3 (100 ppm H_2S – life threatening health effects), and other potential critical effects of H_2S based upon H_2S exposure standards and physiological responses.

Page 4.1-10, Table 4.1.2 Scenarios
There are two different Scenario 9s in Table 4.1.2.

Discuss the second Scenario 9: Release of Crude Oil with spill outside containment. Please note that Appendix B shows this as Scenario 13. Update the table and description as appropriate.

Page 4.1-15, 1st Paragraph
Provide details of the PXP's maintenance program. Does it qualify as "highest standards of maintenance"?

Page 4.1-18, Table 4.1.4 Second Scenario 9
Appendix B shows this second Scenario 9: Release of Crude Oil with spill outside containment, field wide as Scenario 13. Update the table and text as appropriate.

Page 4.1-29, Table 4.1.7
On Table 4.1.7, explain the toxic event listed in the table. Was the toxic event for H_2S? If so, please specify what toxic event occurred.

Page 4.1-30, 2nd Paragraph (Section 4.1.1.4.5)
Figure 4.1-2 (on page 4.1-31) shows the injuries footprint of about 3,200 ft and not 2,900 ft as stated in the text.

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Page 4.1-37, last Paragraph (Section 4.1.1.4.6) and Page 4.1-38, Figure 4.1-3
Discuss the risk profile curves provided in Figure 4.1-3. Define the Green, Amber and Red Regions including criteria for establishing these regions used by Santa Barbara County and explain why this criteria is used and how it applies to the project/CSD.

Section 4.1.2 Regulatory Settings

Page 4.1-40
The regulations and standards discussed in this section appear to be "boilerplate" off-the-shelf description of the standards not specific to the project. Please update this section to include (or identify) the codes, regulations and standards applicable to this proposed project. For example, the CSD does not include the pipelines.

Section 4.1.2.4 Other Applicable Guidelines, National Codes and Standards

Page 4.1-53
Update all codes and standards to the current latest edition. For example, the current latest edition for ASME B31.4 is 2006 and not 1989. Delete reference to the revision date for all codes and standards.

Mitigation Measures

Page 4.1-58
The EIR does not discuss two incidents that occurred during January and February 2006 (releases of a magnitude to cause verified odor complaints). The odors and emissions from these incidents resulted in complaints from residents. According to the SCAQMD complaint report, the Los Angeles County Fire Department, Culver City Fire Department and Los Angeles County Health and Hazardous Materials Department were onsite to confirm there were no hazards to the community. A third incident occurred on March 2008 when a crude oil release made its way into the storm drain system. The release was stopped before it reached Ballona Creek. Los Angeles County Health and Hazardous Materials Department personnel and the State Department of oil and gas were at the oil field in response to the release. Given these three known events, the Draft EIR should identify measures that directly address the potential for odor and emissions from the site.

To effectively reduce impacts due to potential releases or incidents, the County of Los Angeles should add the following mitigation measures to the CSD and incorporate in the Draft EIR. In addition, there is no guarantee that the produced gas would remain sweet because the field contains sufficient quantities of sulfur (the current crude oil is sour with <1% sulfur content) and this produced gas could turn sour in the future. Therefore, mitigation measures have been identified to require the preparation and approval for a H_2S contingency plan, H_2S detectors, and an odor risk analysis. For recommended Mitigation Measure R.1-10 see the table of H_2S Exposure and Physiological Responses at the end of this letter.

R.1-5 Prior to site plan approval[1], the County of Los Angeles shall review and approve the operator's plan for meeting the requirements of the safety elements in the Process Safety Management (PSM) Criteria of OSHA 1910.119 and CCR Title 8 Section 5189. The gas plant, as identified in the EIR, has flammable liquids (propane) storage exceeding 10,000 lb triggering these requirements. Since the oil or gas well drilling and servicing operations are exempted from the PSM requirement, the safety elements of these regulations should be addressed. They include:

[1] As noted in an earlier comment, the City of Culver City recommends discretionary permits for oil and gas drilling and exploration projects. This mitigation measure references the site plan approval to coincide with the current approach in the CSD. However, this reference should be changed to CUP or other discretionary permit, if a discretionary process is ultimately approved by the County of Los Angeles. As applicable, this comment applies to all mitigation measures.

- Process Safety Information
- Process Hazard Analysis
- Operating Procedures
- Training
- Contractors
- Pre-Startup Safety Review
- Mechanical Integrity
- Hot Work Permit
- Management of Change
- Incident Investigation
- Emergency Planning and Response
- Injury and Illnesses Prevention Program
- Employer Participation

R.1-6 The operator shall develop a Safety Inspection Maintenance and Quality Assurance Plan (SIMQAP) delineating the inspection frequencies, procedures and plans meeting the requirements of governing codes, standards and regulations. The SIMQAP shall be reviewed and approved by the County of Los Angeles or its representative prior to issuance of any permits. This SIMQAP document being a dynamic document should be updated (or revalidated) every two years (or sooner if warranted by significant facility modifications).

R.1-7 Prior to issuing permits, the County of Los Angeles shall review and approve the operator's plan for meeting the following requirements:

A. The pressure vessels shall be inspected as per CCR, Title 8, Section 6551 implementing requirements of API 510, Pressure Vessel Inspection Code.

B. The piping systems shall be inspected as per CCR, Title 8, Section 6533 implementing requirements of API 570, Piping Inspection Code.

C. The storage tanks shall be inspected as per API 653, Tank inspection, Repair, Alteration and Recommendation Standard.

D. The Pressure Relieving Devices shall be inspected and maintained as per CCR, Title 8, Section 6552. Based upon the service, the relief valves need to be inspected and calibrated at least annually.

R.1-8 The County of Los Angeles shall appoint an Oversight Committee consisting of representatives from affected local and permitting agencies to conduct an annual audit of the Baldwin Hills Oil Field. The audit will ensure implementation of the inspections delineated in the SIMQAP (Mitigation Measure R.1-6) and the Safety Element requirements discussed in Mitigation Measure R.1-5. All the action items generated from the audit shall be documented in a brief report and compliance dates established to address action items in a timely manner. Follow-up shall also be identified in the brief report.

R.1-9 Prior to site plan approval, the County of Los Angeles shall require the preparation of a Transportation Risk Management and Prevention Program (TRMPP) to address public safety as it relates to the transportation of the propane, butane and NGLs. The elements of this TRMPP shall include:

- Provisions for conducting biennial comprehensive audits of the carriers to assure satisfactory records, driver hiring practices, driver training programs, programs to control drug and alcohol abuse, safety incentive program, satisfactory vehicle inspections and maintenance procedures and emergency notifications.

- Provisions for allowing only carriers, which receive a satisfactory rating under the above audit.
- Truck loading procedures and checklist for ensuring that the loading rack operator and the truck driver both conduct and document in writing, a visual inspection of the truck before loading and after completing the loading.
- Provisions for requiring shippers to use carriers with vehicle monitoring system for governing or monitoring vehicle speed.
- Provisions for requiring shippers to use carriers with cellular phones for shipments.

The results of the audit shall be made available to all adjacent and affected agencies including the City of Culver City and City of Los Angeles.

R.1-10 Prior to site plan approval, the oil field operator shall prepare and receive approval of an H_2S Contingency Plan. The Contingency Plan shall address odor and the potential for increased odor with future well operations as well as the potential toxic effects if the gas turns sour. The plan shall identify the existing and potential levels of H_2S exposure and the physiological responses and identify additional measures that can be implemented to further reduce impacts. The plan shall incorporate monitoring and complaint resolution as required by other mitigation measures.

R.1-11 In order to minimize the hazard (flammable and toxic) release footprints, the H_2S detectors and flammable gas detectors shall be placed throughout the facility in all critical areas prior to operation. The H_2S detectors shall be set to alarm at 10 ppm to warn the operator and alarm/shutdown at 50 ppm. The shutdown should be cross zoned so that the shutdown occurs only if two detectors go off to provide protection for the false alarms and shutdowns. Similarly, the flammable gas detectors shall be set to alarm at 25% LEL and alarm/shutdown at 50% LEL, again, cross zoned.

R.1-12 Prior to project approval, a detailed odor risk analysis shall be conducted. Hydrogen sulfide is not the only constituent that could cause odors. The odor causing chemicals in the oil fields are hydrogen sulfide, other sulfides such as carbon disulfide, mercaptans, benzene, xylene, toluene, volatile organic compounds, etc. Release scenarios need to be developed that could cause odor incidents. Probability of the odor incidents occurring based upon the equipment failure rates for the existing facility and the proposed project needs to be estimated and the incremental increase needs to be mitigated to the maximum extent feasible.

Page 4.1-61 and Mitigation Measure R.2-1

The 110% containment as identified in the Draft EIR may not be adequate as required by current regulations. The current NFPA 30 and 40 CFR Part 112 require secondary containment to contain at least 100% of the largest tank volume plus sufficient free board to accommodate precipitation or fire fighting water. For example, Santa Barbara County requires 100% volume of the largest tank plus 24-hour, 25-year rainfall. Table 4.1.10 may also need to be modified to address the adequacy of the secondary containment.

Please delete the phrase "where physically possible" in the mitigation measure. Using this phrase weakens the measure and does not reduce the impact to the extent possible.

Page 4.1-61, Table 4.1.1.0

Butane+ includes butane and heavier gas liquids; therefore the recommended modification noted in the table is not required. Please clarify in the table.

Section 4.2 Air Quality

General Comment – Air Quality Calculation and Modeling Files

The information presented in this section is incomplete and no verification of the results can be made. The following incomplete items need to be fully documented:

- The air quality emission calculation files (URBEMIS) noted in this section should be provided for review.
- The emission estimation methods regarding the total number of emission sources included and/or excluded and their assumed emission control assumptions and bases are not discussed. For example, this discussion should include emissions from drilling gas releases and other events, which based on available information occur either as a normal part of the well drilling process or otherwise fairly frequently as evidenced by the three incidents that occurred during January and February 2006 (releases of a magnitude to cause verified odor complaints) and March 2008 (crude oil release that made it to the storm drain system). It does not appear that these non-permitted fugitive emission sources have been properly accounted for in the HRA.
- The derivation of the emission factors for the existing and future equipment are not documented (only the emissions are given); it is not clear if the emission factors used from the SCAQMD Annual Emission Reporting (AER) forms are facility specific or industry averages that while they may be sufficient for SCAQMD annual report may not reflect actual emissions at the facility. Additionally, it is unclear if the emission factors used for the future emission sources will accurately portray the future emissions from the facility.
- The air quality dispersion input and output files, performed for air quality and public health risk sections, should be provided for review. The one air dispersion file hardcopy that is attached to Appendix C is not representative of the modeling methods as described in this section or Section 4.3.

Without a critical review of the emission calculation and dispersion modeling methods and assumptions the findings of this section cannot be verified.

General Comment – SCAQMD Permits

The appendices should include the RECLAIM permit for the facility. Many of the assumptions and findings are based on the fact that the facility is in the RECLAIM program, but a critical review of all of those assumptions cannot be made without a copy of the RECLAIM permit.

General Comment – Pollutant Acronyms

Pollutant acronyms need to be made consistent throughout the section and general conventions for the pollutant acronyms are as follows: NO_2, NOx or NO_x (but use just one consistently), SO_2, SOx or SO_x (but use just one consistently), PM10, and PM2.5. Subscripts should be used for chemical names but not for PM10 and PM2.5.

Section 4.2.1 Environmental Setting

Page 4.2-1
Propose the following corrections/clarifications:
...(referred to hereafter as SCAQMD or the district)...South Coast Air Basin (referred to hereafter as the Basin)....

Section 4.2.1.1 Meteorological Conditions

Page 4.2-1, paragraph 1, 1st sentence
The term "sparse", a synonym of meager, is not the best term to describe the winter precipitation in Southern California. Please provide a better description of the winter precipitation in Southern California.

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Section 4.2.1.4 Existing Air Quality

Page 4.2-2, next-to-last line
There are only 32 monitoring stations in the Basin, not 34, two of the 34 SCAQMD monitoring stations are outside of the Basin.[2]

Page 4.2-2, last line
A critical review indicates the West Los Angeles Monitoring Station is located closer to 3 to 3.2 miles north of the Inglewood Field as opposed to 2.5 miles north.

Page 4.2-4, Table 4.2.2
Several AAQS are incorrect in the table.[3] The following corrections need to be made:

1. State 1-hour NO_2 standard is 0.18 ppm
2. State has annual NO_2 standard of 0.03 ppm
3. Federal PM10 annual standard was revoked and should be removed from the table.

Pages 4.2-2 and 4.2-3 and Table 4.2.3, Page 4.2-5 (ambient monitoring station)
On pages 4.2-2 and 4.2-3 it notes that Table 4.2.3 is based on SCAQMD monitoring station located north of the site (Northwest Coastal LA County station); however, Table 4.2.3 notes that the data is from the Southwest Coastal LA County station. The source of the data needs to be clarified and the incorrect notation fixed.

Additionally, a case for the representativeness of the station used versus using the Source Receptor Area 1 station in Los Angeles needs to be made. It is noted later in the section that the site is partially within Source Receptor Areas 1 and 3, so some analysis of which monitoring station is most appropriate for the site should be included in the text, particularly if a monitoring station from an SRA (as SRA 2 is claimed to be used in Table 4.2.3) away from the site location is used.

Section 4.2.1.5 Inglewood Oil Field Criteria Pollutant Emissions

Page 4.2-9, paragraph 1, sentence 1
It is noted that Table 4.2.4 shows two years of AER data (2004/5 and 2005/6); however the table only shows one year (2005/6).

Page 4.2-10, Tables 4.2.4 – Well Drilling as Operating Emission Source
Table 4.2.4 categorizes well drilling as an operating emission source. While well workovers would appear to be an operating activity as a maintenance operation for existing wells, new well drilling would certainly seem to be better classified as a construction activity. Also, the AERs for the site do not include well drilling operations, which further support the case that these emissions are not considered onsite operating emissions. Therefore, the well drilling emissions, unless they can be clearly established by appropriate references (such as SCAQMD letter) to be an operating activity should be moved into the construction emissions baseline and the construction emissions impact discussion.

Page 4.2-10, Tables 4.2.4 – Drill Rig and Workover Rig Emissions Estimate
The drill rig emission estimate, as shown in Appendix C, does not seem to conform to the drill rig specifications given in Appendix A. These emissions should be corrected to use the proper horsepower and equipment types listed in Appendix A for the Caza 516 and Kenai drill rigs. Other comments on this topic will be made for Table 4.2.10 and Appendix C.

The workover rig horsepower estimate (200 hp) seems low compared with online data for workover rigs that shows horsepower ranging from 250 to 500.

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[2] SCAQMD monitoring stations are provided here http://www.aqmd.gov/smog/AQSCR2007/aq07card.pdf.

[3] Current ambient air quality standards can be found here: http://www.arb.ca.gov/research/aaqs/aaqs2.pdf.

Page 4.2-10, Tables 4.2.4 and 4.2.5 – Representativeness of Baseline Emissions
Additional discussion of the representativeness of the baseline emissions presented in these two tables needs to be made. Additional years of emissions data need to be presented to ensure that the baseline emissions are not being overstated. A review of AER data indicates that there was considerable emission variability from AER year 2002 to AER year 2006. Additionally, a review of Figure 2-8 shows that the well drilling in 2006 was the highest of any of the past 40 years. Therefore, it would appear that the baseline emissions presented are not representative of average conditions at the site.

Additionally, correspondence with SCAQMD staff counsel indicates that their current policy for establishing baseline for RECLAIM facilities is to use the highest two emission years of the past five years for RECLAIM pollutants, in this case NOx, and to use permitted emissions for non-RECLAIM pollutants if it can be established that the facility has emitted at the permitted levels, and if not, then use the highest two years of the past five years for the non-RECLAIM pollutants.

Correcting to appropriate baseline emissions would almost certainly show that the future increase in pollutant emissions from the site are significant per SCAQMD regional emission thresholds.

Page 4.2-10, Table 4.2.5
The table notes that the well pad grading is assumed to take 4 days, while Section 3.1 page 3-2 indicates a duration of 7 to 14 days for well pad preparation. This discrepancy needs to be corrected.

Section 4.2.1.6 Inglewood Oil Field Odor Emissions

Page 4.2-12, Paragraph 3 and 4, Leak Detection Inspection and Maintenance Plan
The facilities' Leak Detection Inspection and Maintenance Plan should be discussed, including the frequency of inspection for different components.

Page 4.2-13, Paragraph 6, Meteorological Data Discussion
The specific meteorological data source should be provided, and the representativeness of that versus other nearby meteorological data sources should be discussed.

Section 4.2.2 Regulatory Setting

Page 4.2-16, Paragraph 2, Ozone and CO Attainment Classification
It should be noted in this paragraph that the SCAQMD has requested that it be reclassified as an extreme ozone nonattainment area. Additionally, this paragraph should be corrected to note that CO was redesignated as attainment in 2007.

Page 4.2-16, Paragraph 3, Management Plan Discussion
The SCAQMD AQMP includes PM10 as well as ozone and PM2.5 that are discussed in this paragraph. This paragraph should make some mention of the PM10 control strategy.

Pages 4.2-16 and 4.2 -17, Portable Equipment Registry – Drill Rig Discussion
Some discussion of the drill rigs used onsite in regards to their having local permits or being part of the CARB Portable Equipment registration should be mentioned. It is unclear if the drill rigs used on site are contract rigs or are site-owned rigs with SCAQMD permits or registered with CARB.

Page 4.2-17, Local Authority, SCAQMD Rule and Regulations
A discussion of the applicable SCAQMD rules and regulations, and the project's compliance with these rules and regulations, should be provided in this section. The Draft EIR does not provide this critical information.

Section 4.2.3 Significance Criteria

Page 4.2-17, Table 4.2.8, Localized Significance Thresholds
The localized significance thresholds were recently updated by SCAQMD.[4] These updates include significant reductions for the NOx LSTs in SRA 1 and 3. These revised LST values should now be used.

Page 4.2-19, paragraph 2, RECLAIM Baseline
This discussion indicated that the RECLAIM allocation should be used for baseline. However, this is not the current SCAQMD policy. A recent lawsuit, that is still not completely resolved and is now at the California Supreme Court, has changed SCAQMD's policy on establishing RECLAIM facility baseline for CEQA purposes. According to SCAQMD's Principal Deputy District Counsel, Ms. Barbara Baird, the District's current policy is to use the highest two of the past five years for RECLAIM pollutants, in this case NOx, and to use permitted emissions for non-RECLAIM pollutants if it can be established that the facility has emitted at the permitted levels, and if not, then to use the highest two years of the past five years for the non-RECLAIM pollutants.

Also, an apparent error is the inclusion of the well drilling emissions in the RECLAIM allocation, without any substantiation that well drilling emissions are subject to RECLAIM, or considered operating emissions by SCAQMD. In fact, based on the AER emission data, and the RECLAIM allocation noted on page 4.2-20, well drilling emissions would not appear to be included in RECLAIM and are not part of the site's RECLAIM allocation. Therefore, the baseline and future emissions needs to be revised to the current SCAQMD policy, and doing so would almost certainly show that the future increase in pollutant emissions from the site are significant per SCAQMD regional emission thresholds.

Section 4.2.4.1 Potential Construction

Page 4.2-21, Table 4.2.9, LST Emissions
Table 4.2.9 needs to clearly separate the onsite and offsite emissions for LST comparison. LST analysis only includes onsite emissions.

Page 4.2-21, Table 4.2.9, SCAQMD Localized Significance Thresholds
The localized significance thresholds used in Table 4.2.9 are based on a construction site size of 1 acre and a distance to receptor of 200 meters. There is no discussion of how this distance to receptor was developed. The site is essentially adjacent to a number of residential communities, so a description of how construction will be limited to no closer than 200 meters to any residence, such as by mitigation measure, needs to be addressed. If construction were to occur as close as 50 to 100 meters to a residence then the LSTs for PM10 and PM2.5 would be exceeded and there would be significant localized emission impacts.

It should be noted that the distance to receptor assumed in Section 4.3, particularly in terms of Mitigation Measure PH.2-1, only requires a drill rig to be 400 feet from a receptor.

Page 4.2-22, Significance Determination
The significance determination made is based on implementation of Mitigation Measures AQ.1-1 and AQ.1-2. However, Mitigation Measure AQ.1-1 is not implemented in the proposed CSD. Additionally, considering other issues regarding construction emission estimates as identified in this comment letter, the construction emissions would be above SCAQMD thresholds. Therefore, the finding of less than significant impacts cannot be made even with the identified mitigation measures. Construction emission impacts would be significant.

Page 4.2-22, Mitigation Measure AQ.1-2
Compliance with SCAQMD Rule 403 is not a mitigation measure, and this opinion is shared by SCAQMD. However, if Mitigation Measure AQ.1-2 is maintained as a mitigation measure then the specific activities noted should be at least as stringent as the measures noted in Rule 403. For example, it

[4] SCAQMD approved LST values can be found here: http://www.aqmd.gov/ceqa/handbook/LST/appC.pdf.

is noted that the maximum speed on unpaved roads should be 25 miles per hour, while the Rule 403 measure is a maximum of 15 miles per hour. Therefore, if this mitigation measure is retained all of the bullet items should be checked against Rule 403 measures and corrected as necessary.

Additionally, control measures as applicable from the SCAQMD CEQA website tables XI-A through XI-E (http://www.aqmd.gov/ceqa/handbook/mitigation/fugitive/MM_fugitive.html) should be added to the mitigation measure or noted to be required as applicable in the fugitive dust control plan.

Page 4.2-22, Mitigation Measures – Off-road Equipment Standards
For compliance with the SIP a mitigation measure should be added requiring diesel-fueled construction equipment to meet or exceed CARB/USEPA Tier 2 emission standards. This would be similar to the Mitigation Measure AQ.2-4 proposed for the drill rigs.

Section 4.2.4.2 Potential Operations Criteria Emissions

Page 4.2-24, Paragraph 6, Workover Rigs
For clarity it should be stated that the maximum number of concurrent workover rigs increases from one for the baseline to two for potential development.

Pages 4.2-24 and 4.2-25, Maximum Drill Rig Assumption
As noted in a comment for Section 3.0, the maximum number of drill rig days of 1190 ensures that at least four drill rigs would have to be used at a time for periods of the year. Considering the maximum number of annual wells proposed (85) is approximately 300 percent greater than the recent average number of wells (2000 to 2007) and 75 percent greater than the recent peak well drilling activity that was used to establish the baseline maximum daily number rigs at three, it is likely that the future peak would be as high as or higher than 5 or 6 rigs per day. This means that the assumption of no increase from the baseline maximum of 3 drill rigs is incorrect. Therefore, there would be incremental drill rig emissions, unless a drill rig limiting mitigation measure were proposed and implemented in the CSD, which needs to be identified in the emission calculation in Appendix C and presented in Table 4.2-10. However, as noted in earlier comments it appears that the drill rig emissions belong with construction rather than operation.

Page 4.2-25, Table 4.2-10, LST Emissions
Table 4.2-10 needs to clearly separate the onsite and offsite emissions for LST comparison. LST analysis only includes onsite emissions.

Page 4.2-25, Table 4.2-10, Offset Requirements
Table 4.2-10 should clearly show the SCAQMD operating baseline, which would not be the same as the baseline shown in Table 4.2.4, and the amount of emissions that would require offsets, including RECLAIM credits, under SCAQMD rules. This is important as the significance findings identify offsets as the means to lowering the regional emissions below the significance thresholds. However, it has not been established how much of the daily regional emission increase will actually require offsets. For example, well workover and well drilling (if not moved to construction) would not require offsets under SCAQMD rules.

Page 4.2-26, Paragraph 2, PM10/PM2.5 Modeling Results
The significance assumption is based on modeling results that were not provided for review. Therefore, the findings for localized PM10 and PM2.5 impacts cannot be confirmed.

Page 4.2-26, Mitigation Measure AQ.2-1
The offset and RECLAIM requirement is a regulatory requirement and as such is not a mitigation measure.

Page 4.2-26, Mitigation Measure AQ.2-4
Electrification of drill rig engines, both workover rigs and new well rigs, should be considered as a mitigation measure to eliminate the very high NOx emissions that are forecast to occur from well drilling, and the toxic diesel particulate emissions from the drill rig engines.

Page 4.2-26, Mitigation Measures – Operating Limits
Operating limits, including well drilling limits, should be established in the mitigation measures to ensure that the actual future emissions do not exceed those evaluated in the Draft EIR.

Page 4.2-27, Residual Impacts – NOx Significance Finding Unconfirmed
The significance assumption for NOx has not clearly been demonstrated through an emission accounting that the mitigated NOx emission will in fact be below the regional or localized significance thresholds.

Page 4.2-27, Residual Impacts – VOC Significance Finding Missing
While the first paragraph on Page 4.2-26 notes that the emission increase for VOC would be significant, there is no later discussion of VOC, such as there is for NOx, under residual impacts. Therefore, the Class II impact as shown on the top of Page 4.2-26 has not been established for VOC.

Section 4.2.4.3 Potential Operations Odor Emissions

Page 4.2-28, Residual Impacts – Significance Finding
The significance finding of less than significant after mitigation has not been established. In fact, the modeling has clearly shown odor impacts and the description in this section only notes that the mitigation "would reduce the frequency of odor events." A reduced frequency of odor impacts is not sufficient for the finding of less than significant; therefore odor impacts would remain significant.

This finding is particularly troublesome given the number of odor complaints that have occurred from this facility, including major odor release incidents in January and February 2006, and the significant crude oil release that occurred on March 22, 2008.

Page 4.2-28, Drilling H_2S Mitigation Measure
In order to mitigate significant odor impacts from well drilling, H_2S emissions should be monitored in the air space immediately downwind of the drilling location, with a warning sounding at 0.1 ppm and shutdown of drilling operations at 1.0 ppm. This shutdown value should help protect the public from significant odor impacts.

Page 4.2-28, Odor Complaint Resolution Mitigation Measure
A protocol for handling odor complaints should be added to the mitigation measures. The protocol should include: conducting odor surveys in the affected communities after a compliant, keeping a log of the characteristic of the odors in each compliant and during the survey, and an identification of the odor source if one can be made. Additionally, odor complaint contact information should be provided on fence line signs.

Page 4.2-28, Odor Impact Minimization Plan
An Odor Impact Minimization Plan is required by California Integrated Waste Management for any facility or operation that handles or processes compostable material. The bioremediation farm may or may not be subject to this regulation. More information on this new regulation can be found at http://www.ciwmb.ca.gov/regulations/Title14/ch31.htm#article3 or refer to 14CCR Section 17863.4. The applicability and compliance demonstration with this regulation should be discussed and then implemented as necessary for the site.

Section 4.2.5 Analysis of Proposed CSD

General Comment - Significance Findings
As noted in previous comments we agree with the contention of this section that the air quality mitigation measures recommended in this section, with exceptions and additions noted in other comments, should be included in the CSD. We also note that the significance findings in this section must be revised accordingly if the air quality mitigation measures are not included in the CSD, as then there would be no way to guarantee that they would be implemented.

Section 4.2.6 Cumulative Analysis of Proposed CSD

General Comment – Depth of Analysis for Construction Impacts
The cumulative analysis does not appear complete as there is no identification that there would likely be concurrent construction and operating emission increases. The fact that the known cumulative project list does not extend far enough in the future to show projects that would be concurrent with onsite construction is not a valid argument. Additionally, it seems likely that well drilling (which as noted earlier should be considered a construction activity) will resume earlier than the new onsite facilities construction with its additional requirements for well pad construction. Therefore, there is the potential for construction cumulative impacts.

Page 4.2-31, line 7 – Attainment Date
The attainment date of 2010 should be revised to at least 2020 based on realistic projections for PM and ozone attainment.

Section 4.2.7.1 Background

Page 4.2-34 Table 4.2-12
Please explain the significance of 20-year, 100-year and 500-year Global Warming Potential (GWP). For example, if the life of methane in the atmosphere is 12 years then what is the implication of 20-, 100-, and 500-year GWP?

Page 4.2-35, 2nd paragraph, Calculation of Greenhouses Gases – Indirect Emissions
For this project indirect emissions should include CO_2 emission from the produced petroleum products.

Page 4.2-35, end of page, Calculation of Greenhouse Gases – Greenhouse Gases from Electricity
It should be noted that California regulations such as SB 1368 and utility renewable energy requirements will further reduce the CO_2-eq emissions from electricity.

Page 4.2-36 Table 4.2-13
Define Non-renewables, Renewables and Non-hydro Renewables.

Section 4.2.7.2 Affected Environment

Page 4.2-40, Section 4.2.7.2 Last Paragraph
Table 4.2.14 shows 82,951 tons/yr that is different than 80,429 tons/yr stated in the paragraph. Please reconcile.

Page 4.2-41, Table 4.2-14, Indirect Emissions
For this project indirect emissions shown in the table should include CO_2 emission from the produced petroleum products.

Page 4.2-41, Table 4.2-14, Construction Emissions
Construction GHG emissions should be included in this table.

Page 4.2-44, Section 4.2.7.4, 3rd Paragraph
Delete reference to CPF (Carpinteria Facility). Ensure that the discussion is relevant to the proposed site.

Section 4.2.7.3 Regulatory Setting

Page 4.2-43, California Senate Bill 1368
The description here is dated and should be updated as regulations per 1368 have been approved.

Section 4.2.7.4 Potential Future Development Contribution to Greenhouse Gas Emissions

Page 4.2-44, 2nd paragraph, Construction Emissions
The description of construction emissions being short-term is not correct for this site. Construction emissions will occur throughout most of the life of the site, including well pad grading, and as previously commented new well drilling should be considered a construction activity.

Page 4.2-45, Table 4.2-15, Indirect Emissions
For this project indirect emissions shown in the table, and not just described below the table, should include CO_2 emission from the produced petroleum products.

Page 4.2-45, Table 4.2-15, Construction Emissions
Construction GHG emissions should be included in this table.

Page 4.2-47, Potential Greenhouse Gas Emissions Mitigation Measures

Mitigation measures such as CO_2 injection, in supplement to or in place of steam injection should be included as a potential mitigation measure. Combined CO_2 sequestration/steam generation/power technologies such as the proposed Kimberlina project should be included in the discussion (see http://www.cleanenergysystems.com/kimberlina.html).

Use of onsite renewable energy such as photovoltaics should also be discussed.

Page 4.2-48, bottom of page – SB 1368 Discussion
This discussion is not quite correct. First, the 1,100 lb CO_2/MWh value is a requirement for new base load long-term contracts to utilities, and second describing this value as comparable to a combined cycle unit is not correct as a combined cycle unit should have GHG emission below 1,000 lbs/CO_2/MWh.

Page 4.2-49, Section 4.2.7.4 Green House Gases (GHG)
The impact should be changed as the project would produce higher greenhouse gas emissions and contribute to climate change (Significant, Class I). Other similar oil and gas development projects have been classified as Class I for GHG. The County of Los Angeles should require PXP to implement a program to reduce GHG emissions for project components and/or community sources to achieve a net zero increase in emissions from the project.

Additional Comments on Mitigation Measures
Please make the following revisions to the air quality mitigation measures:
AQ.2-2: Specify timing of installation of cogeneration-type system.
AQ.3-1: Specify alternative flare options if portable flares at subject wells contribute to exceeding the 5 dBA noise threshold.
AQ-3.2: Specify timing of installation of detection system.
AQ.3-3: Specify frequency of visual inspections. Also, include any vapor measurement tools that could be used in addition to visual inspections.
AQ.3-4: Specify threshold for odor suppressant (i.e., what extent odor is to be reduced).
AQ3-6: Specify timing of installation of meteorological station.

Section 4.3 Public Health Risks

General Comment – Original AB2588 Health Risk Assessment
It is unclear if an original AB2588 health risk assessment was performed for this site sometime in the 1990's. If such a risk assessment were performed the results of that risk assessment should be presented, or

an indication that the facility was not required to complete an AB2588 risk assessment should be included with reasons given, as the facility certainly would have had emissions high enough to trigger an AB2588 emission estimate to start the process towards requiring a risk assessment.

General Comment – Health Risk Analysis

The information presented for the health risk analysis (HRA) is incomplete and no verification of the results can be made. To confirm that the HRA was completed properly and that it truly reflects a conservative estimate of the current and future risks to the community from the facility the following incomplete items need to be documented fully:

- The emission estimation methods regarding the total number of emission sources included and/or excluded in the HRA and their assumed emission control bases are not discussed. For example, the discussion should include emissions from drilling gas releases and other such events, which based on available information occur either as a normal part of the well drilling process or otherwise fairly frequently as evidenced by the three incidents that occurred during January and February 2006 (releases of a magnitude to cause verified odor complaints) and March 2008 (crude oil release that made it to the storm drain system). It does not appear that these non-permitted fugitive emission sources have been properly accounted for in the HRA.
- The derivation of the emission factors for the existing and future equipment are not documented (only the emissions are given); it is not clear if the toxic air contaminate (TAC) emission factors used from the SCAQMD Annual Emission Reporting (AER) forms are facility specific or industry averages that while they may be sufficient for SCAQMD annual reports may not reflect actual emissions at the facility. Additionally, it is unclear if the emission factors used for the future emission sources will accurately portray the emissions from the facility.
- While some soil gas measurements were performed to determine emissions from gas seeps and well leaks, the regulatory acceptance of the methods and concurrence with the results and findings were not provided. Additionally, there was not a clear demonstration of why these current sampling results, if valid, should be used for all future activities, including the substantial increase in idled/abandoned wells that will occur with the increased potential of leakage.
- The modeling methodology description is incomplete and the findings and results of the modeling cannot be independently verified with the information presented in the Draft EIR.
- There is no third party (SCAQMD, ARB, OEHHA) acceptance noted for the HRA modeling methods and findings. Without proper third party review the results of the HRA cannot be verified and should not be used for any regulatory purpose, such as CEQA significance determination.
- There is no description of the specific source modeling assumptions, other than a note that the "sources… were addressed primarily as area sources."
- The modeling input/output files are necessary to review the adequacy of the modeling methods.

Section 4.3.1 Environmental Setting

Page 4.3-1

Propose the following corrections/clarifications:

…(referred to hereafter as SCAQMD or the district)…South Coast Air Basin (referred to hereafter as the Basin)….

Section 4.3.1.3 Inglewood Oil Field Toxic Emissions

General Comment – Toxic Emission Factors – Baseline Emissions

The air toxic emission factors are not detailed and cannot be confirmed to be valid. The source of the emission factors, the representativeness of the emission factors for the site, and the general acceptance of the emission factors by responsible air quality agencies must be provided.

General Comment - Baseline Operational Emissions
The emission estimate comments provided for Section 4.2 would also apply for the Toxic Air Contaminant emission estimation. These include comments related to proper establishment of baseline emissions and issues related to construction and well drilling emissions estimates.

Page 4.3-7, Table 4.3.2, Baseline Operational Emissions
It is unclear if the operational emissions presented in Table 4.3.2 reflect a long term average for the oil field that has been operating for over 70 years. Considering the implementation of air quality requirements over the past two decades the local historic risk may be much higher than that indicated using current emissions. A discussion of past emissions from the site, and the locations of potential long-term populations (i.e., older neighborhoods and houses) should be evaluated to determine worst-case health risks from the past, current, and future use of the site.

Section 4.3.1.4 Inglewood Oil Field Baseline Health Risk Assessment

Page 4.3-8, paragraph 3, Health Risk Modeling Description
The modeling methodology description is incomplete and the findings and results of the modeling cannot be independently verified with the information presented in the Draft EIR. The specific source assumptions, more than a simple note that the "sources... were addressed primarily as area sources" is needed. The specific source inputs or copies of the input/output files are needed to review the adequacy of the modeling methods.

Page 4.3-10, paragraph 5, Risk Percentages
It would seem a better comparison if the site risk were compared to the 600 to 800 excess cancer risk cases noted for the site area on page 4.3-3. This comment also applies to Section 4.3.6, page 4.3-26, paragraph 3.

Section 4.3.2.1 Federal

Page 4.3-13
A description of the federal hazardous air pollutant (HAPs) regulations, such as MACT and NESHAPS, should be included.

Section 4.3.2.2 State

Page 4.3-14, 1st paragraph, AB2588 Implementation
This paragraph describes the AB2588 regulation and notes that SCAQMD will ensure implementation. However, this is a mature regulation and implementation should have already occurred. A description of how this regulation was implemented for this facility should be provided here. Also, this paragraph should note that HSC 44300 is also known as the AB2588 Air Toxics Hot Spots and Assessment Act. This will allow readers to bridge the earlier discussion of AB2588 in Section 4.3.1.2.

Section 4.3.2.3 Regional

Page 4.3-14, 1st paragraph, SCAQMD AB2588 Implementation
This paragraph does not correctly portray how SCAQMD implemented AB2588 and should be revised. For example, SCAQMD Rule 1402 implements AB2588 as is noted on page 4.3-15.

Section 4.3.3 Significance Criteria/Section 4.3.4.3 Toxic Air Contaminant Emissions from Future Construction/Operations

General Comments – Minimal Risk Levels (MRLs)
The use of MRLs determined by the Agency for Toxic Substances and Disease Registry should be considered for determination of minimal acute and chronic risk for various substances, such as H_2S (with a chronic risk level of 0.001 ppm) and Benzene (with a chronic risk level of 0.003 ppm) to determine whether

the project will have adverse impacts to the local community. The MRLs can be found at http:// www.atsdr.cdc.gov/mrls/.

Page 4.3-16, 1st bullet, Cancer Risk Threshold/ Table 4.3.6, page 4.3-21
The significance criteria established on page 4.3-16 is based on whether a facility has Best Available Control Technology for Toxics (TBACT) or not, with a ten-fold increase in the risk allowed if TBACT is in place. Table 4.3.6 uses this higher risk value as the significance criteria, but nowhere in this section is it established that all of the emission sources at this facility in fact have TBACT. It can be assumed that new sources would likely be required to have TBACT but the facility is over 80 years old, so there is no guarantee that all of the older equipment has TBACT. A discussion of the applicability of the higher significance criteria and status of TBACT for all equipment needs to be included. Otherwise the lower risk threshold would need to be applied which would cause the health risk impacts to be reclassified as significant using the given significance thresholds.

Section 4.3.4.3 Toxic Air Contaminant Emissions from Future Construction/Operations

General Comment – Toxic Emission Factors – Baseline Emissions
The air toxic emission factors are not detailed and cannot be confirmed to be valid. The source of the emission factors, the representativeness of the emission factors for the site, the representativeness of the emission factors for the future operation in particular, and the general acceptance of the emission factors by responsible air quality agencies must be provided.

Page 4.3-19 Table 4.3.5, Stipulate to Urea as Future Source of SCR Ammonia
A mitigation measure should be added to specify the noted use of urea (page 4.2-24) as the source of ammonia in the SCR controls for the future heaters/steam generators. This eliminates the potential risk from ammonia spills that are not analyzed in this document.

Page 4.3-22, Mitigation Measure PH.1-1

The applicability of Mitigation Measure PH.1-1 is unclear and the emission reductions desired could be achieved through other means, such as the use of Tier 4 engines when they are available or the use of alternatively fueled engines or electric motors hooked to the grid. This mitigation measure should clearly specify whether it applies to workover drill rigs as well as new well drill rigs. This mitigation measure should also note that alternative means to obtaining the desired emission reduction, other than heavy duty diesel catalysts (i.e., equivalent technologies or emitting engines) are acceptable. A performance standard for the emissions might be a better approach for this mitigation measure.

Also, the emission reductions of this measure should be reflected in the air quality section, assuming that the measure is incorporated in the CSD.

Page 4.3-22, Residual Impact and Impact Determination
The significance determination made is based on implementation of Mitigation Measure PH.1-1. However, this mitigation measure is not implemented in the proposed CSD. Additionally, issues identified with the toxic emission analysis have not been resolved. Therefore, the finding of less than significant impacts cannot be made even with the identified mitigation measures. Public health impacts would be significant.

Page 4.3-24, paragraph 2
The air quality section uses 200 meters as the distance to a receptor for the LST threshold comparison, so it is inconsistent to note here that the emissions only need to be more than 400 feet (122 meters) from a receptor.

Page 4.3-25, Residual Impact and Impact Determination
The significance determination made is based on implementation of Mitigation Measure PH.2-1. However, this mitigation measure is not fully implemented in the proposed CSD. Additionally, issues identi-

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fied with the toxic emission analysis have not been resolved. Therefore, the finding of less than significant impacts cannot be made even with the identified mitigation measures. Public health impacts would be significant.

Section 4.3.5 Analysis of Proposed CSD

General Comment - Significance Findings
As noted in previous comments we agree with the contention of this section that the air quality mitigation measures recommended in this section, with exceptions and additions noted in other comments, should be included in the CSD. We also note that the significance findings in this section must be revised accordingly if the air quality mitigation measures are not included in the CSD and if the specific issues identified in other comments are not addressed, as then there would be no way to guarantee that the measures adequately mitigate impacts.

Section 4.3.6 Cumulative Analysis of Proposed CSD

General Comment – Depth of Analysis for Construction Impacts
The cumulative analysis does not appear complete as there is no identification that there would likely be concurrent construction and operating emission increases. The fact that the known cumulative project list does not extend far enough in the future to show projects that would be concurrent with onsite construction is not a valid argument. Additionally, it seems likely that well drilling (which has been commented should be considered a construction activity) will resume earlier than the new onsite facilities construction with its additional requirements for well pad construction. Therefore, there is the potential for construction cumulative impacts.

Appendix C – Air Emission Calculations

General Comment – Baseline Year Basis

The baseline year basis is confusing as presented. The basis of 2006 or 2007 is not clear, is not consistent, and the tables often note both years but only present one year. Additionally, as noted in previous comments on Section 4.2, the baseline emissions should be properly established based on currently approved SCAQMD guidelines (highest two years of the past five years).

Page C-1, Table A – Missing Information
This table provides rows for SCAQMD operational thresholds and for impact determination, but they are blank. They should be completed or deleted.

Page C-1, Table A – Drilling Emissions (construction activity not operation)
As commented on in Section 4.2, drilling emissions would logically seem to be a construction emission source rather than an operation emission source. Certainly the drilling emissions are not included as operating emissions in the SCAQMD AER and do not appear to be part of the site's RECLAIM permit.

Page C-6 – Well Workover Rig HP and Number Consistency
The horsepower assumed for the well workover rig (200) seems low in comparison to available on-line information on well workover rigs that seem to vary from 250 to 500 for onshore work. Additionally, the number of rigs in this table is 4, while the number of rigs noted in the AQ section (page 4.2-9, bottom of page) was 6. It appears that the emission estimates need to be revised based on the number of rigs and potentially the horsepower of the rigs.

Page C-6 – Off-Highway Truck HP Inconsistency
The horsepower for the off-highway truck is noted as 200 in the table and 250 in the footnotes below the table. This inconsistency should be resolved.

Page C-9 – Wellpad Grading Duration Conflict
The assumption of 4 days to grade a well pad, as noted in table footnote 3, appear to be in conflict with Section 3.0 that indicates 7 to 14 days to prepare a well pad. This inconsistency should be resolved.

Page C-10 – Emission Factor Calculations – SCAQMD Reference
It is unclear if the SCAQMD CEQA document reference is the 1993 CEQA Handbook or the currently available calculation on the SCAQMD website. The 1993 CEQA Handbook is now generally dated and should be replaced with their website resources or updated USEPA fugitive dust emission calculation procedures where available and appropriate.

Page C-10 – Assumed Silt Content Conflict
The surface silt loading in percent is noted to be 24 percent and later the silt content of the soil is noted to be 1.5 (no units given). These two assumptions appear to be inconsistent, and this needs to be resolved.

Page C-11 and C-26 – Well Drilling Horsepower Assumptions
The well drilling horsepower assumptions are significantly different, much less, than the drill rig information given in Appendix A. The rig engines horsepower assumed is 1,365, while the Caza 516 rig is shown to have approximately 3,300 hp of engines and the Kenai rig is shown to have 4,485 hp. Therefore, it appears that the well drilling emissions (baseline and future) may be significantly underestimated. Also, the emissions are stated to be based on actual engine certifications that have not been provided. The discrepancy between Section 3.0/Appendix A and Appendix C must be resolved.

Page C-21– Well Workover Rig HP and Number Consistency
As noted in comments for the table on page C-6, the horsepower assumed for the well workover rig (200) seems low in comparison to available information on well workover rigs that seem to vary from 250 to 500 for onshore work. Additionally, the number of rigs in this table is 8, which is an assumption of two times the baseline rigs. However, the number of baseline rigs noted in the AQ section (page 4.2-9, bottom of page) was 6, not 4, so the number of future rigs should be 12, not 8. It appears that the emission estimates need to be revised based on the number of rigs and potentially the horsepower of the rigs.

Appendix D – Toxic Air Contaminant Emission and Health Risk Assessment Results

Please note that the bulk of the comments on the Toxic Air Contaminant emission estimate and Health Risk Assessment are provided in the Section 4.3 comments.

General Comment – Maximum Risk Location Presentation

All of the maximum risk locations are noted to be boundary receptors. It is not clear if these boundary receptors are also locations with adjacent residential areas. This table should clearly present the location of the maximum residential impacts.

Section 4.4 Geological Resources

Section 4.4.1.6 Subsidence and Fault Activation

Page 4.4-11, Paragraph 5, Sentence 1/ Page 4.4-21, Paragraph 4, Sentence 1
Seismicity associated with injection (water or steam)
Provide reference for statement that "no evidence that waterflooding operations have activated earthquakes in the Baldwin Hills." Is there evidence of microseismicity (in contrast to major earthquakes) related to water or steam injection in Inglewood oil field or other nearby Newport-Inglewood fields?

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Section 4.4.1.7 Gas Seeps

Page 4.4-14, Paragraph 4, Pathway for leakage of gas includes ongoing corrosion of steel well casing and deterioration of cement seals
There is no discussion of the potential for increased gas migration along man-made and natural conduits due to increased injection (pressure, volume, and rate) of water and steam for secondary recovery.

Section 4.4.4 Analysis of Potential Future Oil Field Development (Impacts)

Page 4.4-18, Paragraph 2, last sentence
There is no reference or analysis to support the statement that "0.5g earthquake could reasonably result in 6 inches of downslope movement." Provide reference, analysis, or other evidence to support this statement.

Page 4.4-19, Mitigation Measure GR.1-1
The mitigation measure should include a reference to the professional qualifications, California Certified Engineering Geologist and Geotechnical Engineer, required to conduct the investigation and prepare the reports.

Page 4.4-19, Impact GR.2
The impact statement should include "uplift or mounding" as another result of secondary oil recovery activities (see page 4.4-20).

Page 4.4-22, Mitigation Measure GR.2-1
The measure should clearly state that the study of Ground Movement using Differential Interferometric Synthetic Aperture Radar (SAR) technology should develop an analysis of baseline conditions (oldest SAR data to recent) of ground movement (uplift and subsidence) in relation to oil field activities (production, steam injection, waterflooding). This analysis should identify activity within individual oil production zones, and injection schedules, rates, volume and pressure. The measure should identify the professional qualifications of the individuals conducting the analysis and that the Baseline Ground Movement Report will be submitted to DOGGR, LA County Public Works Department, City of Culver City Public Works Department, and City of Los Angeles Bureau of Engineering 90 days prior to the start of new secondary recovery efforts. The Baseline Ground Movement report should coincide with the submittal of the periodic update and DOGGR review of "fieldwide repressuring plan" (Page 4.4-20, Paragraph 2). These reports shall be reviewed by an independent expert retained by the County of Los Angeles and other adjacent and affected jurisdictions.

The Baseline Ground Movement report should identify the amount of ground movement (horizontal and vertical, uplift and subsidence) that would trigger a prompt review or be considered as "on-going ground movement" (see Mitigation Measure GR.2-4).

Page 4.4-22, Mitigation Measure GR.2-2
The measure should clearly state that the surveying (horizontal and vertical) shall be obtained with high precision GPS techniques (1 to 2 mm) and completed by a California Licensed Surveyor. A second ground movement survey shall utilize Differential Interferometric SAR data that is available on a monthly basis for the Los Angeles metropolitan area. In addition, the results of the high precision GPS and SAR surveys of ground movement will be analyzed by comparing oil field activities during the previous year (annual data collection, analysis, and report). The annual report shall be submitted to DOGGR, Los Angeles County Public Works Department, City of Culver City Public Works Department, and City of Los Angeles Bureau of Engineering. These reports shall be reviewed by an independent expert retained by the County of Los Angeles and other adjacent and affected jurisdiction(s).

Page 4.4-23, Mitigation Measure GR.2-4
The measure should include Differential Interferometric SAR monitoring in addition to the GPS monitoring. The measure should clearly state that on-going ground movement includes horizontal and vertical

(subsidence and uplift). The measure does not identify a trigger level; see comment on Mitigation Measure GR.2-1. Additionally, the measure should include a provision to continue the ground movement monitoring (Differential Interferometric SAR, high resolution GPS, and seismic activity (Measure GR.3-3)) for a specified period of time (e.g., 10 to 20 years) following the cessation of oil field operations.

Page 4.4-24, Mitigation Measure GR.3-2
The measure should state that a licensed Geotechnical Engineer, in addition to the Certified Engineering Geologist, complete the site-specific geotechnical investigation for all proposed permanent structures.

Page 4.4-24, Mitigation Measure GR.3-3
The measure should be modified, or an additional measure developed, to include an annual review of the seismic activity along faults that traverse across or near (Newport Inglewood fault zone, Charnock fault) the Inglewood Oil Field as measured from the new Caltech Seismological Laboratory accelerometer (seismometer) to be installed at the oil field. Microseismic activity of M 2.0 and larger should be evaluated and compared to historic regional data as well as correlation to new injection and oil production operations.

Page 4.4-25, Impact GR.4
The impact statement should include injection well casing and annular seals in the analysis of deterioration due to corrosion, fatigue, or erosion.

Page 4.4-25, Paragraph 4, Sentence 2 and 3
The scope of the PXP Pipeline Management Plan should be modified to include testing of injection well casing and seals for evidence of corrosion or erosion that could allow leakage of gas.

Additional Comments on Mitigation Measures
Please make the following additional comments on the mitigation measures:
GR.3-3: Specify timing of installation of accelerometer.
GR.3-4: Specify timing of seismic assessment and subsequent installation of assessment recommendations.
GR.5-1: Specify timing of SWPPP update.
GR.5-2: Specify timing of Erosion Control Plan preparation and approval.

Section 4.5 Biological Resources

Page 4.5-1, Paragraph 1 and bullets 1 and 2. Baseline Data and Previous Reports used in the preparation of the setting
Much of the information used in the preparation of the baseline data for the Draft EIR appears to be over six years old and does not provide an accurate description of existing conditions at the site today. The information used for this report was obtained by a two day site visit in April 2007, one of the driest years on record when many annual plants and grasses failed to germinate or lacked adequate expression for identification, and data collected in 2001 and 2002 during the primary report prepared by the Natural History Museum. A review of the Baldwin Hills Master Plan indicated the majority of the information collected for the 2002 Master Plan was obtained from a review of the 2001 Biota of Baldwin Hills prepared by the Natural History Museum of Los Angeles (CDPR and BHC 2002). While the reviewer believes the existing reports provide good information, they should not be used as the primary source of data as they do not accurately reflect nor support the assumptions presented in the Draft EIR.

While the reviewer recognizes that much of the site is disturbed and that historic land use practices in the Los Angeles area have greatly reduced the potential for sensitive plants and wildlife to occur, the report must present data, supported by surveys capable of identifying sensitive resources should they occur. The two-day reconnaissance survey of the 853.9-acre parcel would provide a very limited opportunity to identify and evaluate the potential for sensitive plants or wildlife to be present within existing areas not previously disturbed by oil field operations.

Section 4.5.1.1 Upland Plant Communities

Page 4.5-2, Paragraph 1 (Plant Community Descriptions)
The Draft EIR provides a list of the vegetation communities present in the project area and briefly characterizes the dominant plant species common to those community types. The terminology and classification terms used in the Draft EIR for plant communities are inconsistent and uneven. The plant community description should conform to a defined vegetation classification system, or where that classification system does not provide a clear description of the vegetation present, a description of how the unit was classified should be provided. Plant communities should be defined as native, non-native, and ornamental to clearly illustrate the varying levels of existing habitat.

Page 4.5-7, Paragraph 1 and sentence 6 (Coyote bush scrub)
While the reviewer agrees that coyote bush scrub has a different functional capacity than typical coastal sage scrub communities, it should not be characterized as lower quality habitat. Coyote brush scrub is considered a coastal scrub vegetation community in the California Terrestrial Natural Communities (CDFG 2003) and can support a broad array of wildlife. This species is often characterized as a native colonizer of disturbed areas that ultimately transitions to coastal scrub communities over time. Therefore it is an important successional plant community in the project area and should be considered so in the Draft EIR.

Page 4.5-9, Paragraph 1 (Native trees)
Descriptions of random or isolated native trees should be placed in an overview of the project area or described as a component of an existing classified vegetation community. As described for general plant communities, native trees including oaks should be classified as such rather than combined under a general category of "tree-dominated." This may undervalue the importance of remnant trees of native plant communities within the existing area.

Section 4.5.1.2 Wetlands and Riparian Plant Communities

General Comment
The general theme and tone of the Draft EIR regarding riparian resources understates the importance of even degraded riparian communities. While the reviewer concurs with the assessment that some of the project area supports highly degraded riparian habitat; even small isolated riparian communities play important functions for migratory birds. This may be even more important where urbanization has reduced natural stands of riparian habitat for many miles. These pockets of existing riparian habitat still act as resting and foraging areas for transient species. In addition, where good quality habitat has been removed, species are often left with degraded habitats for foraging and nesting.

Section 4.5.1.3 Wildlife

Page 4.5-11, Paragraph 1
Information used to establish the Draft EIR baseline conditions is over six years old and inadequate to evaluate potential impacts from future oil field development. While the two-day reconnaissance survey noted a variety of species, the site is over 800 acres in size and further studies would provide for a better understanding of the current biology at the site. In addition, there is no discussion of the timing or conditions of the surveys (i.e., time of day, weather conditions), and ongoing activity within the oilfield that may have limited the detection of wildlife.

Most of the species discussed in the Draft EIR rely on this data and it is both scientifically and professionally prudent to evaluate baseline conditions utilizing recent data collected during a time of year when the presence of sensitive wildlife could be detected. To rely on information that is several years old may either over- or underestimate the potential for sensitive species to occur. For example, the 2001 NHMLACF report indicates that white-tailed kite, a State fully protected species, has been reported in the area. While this information is extremely old, the potential presence of this species should warrant further investigation of potential nest sites in or adjacent to the project site. Currently, the presence of nesting for

this species is dismissed as low because of degraded nesting habitat; however, this species is commonly observed near open fields and agricultural areas in urbanized areas. While the reviewer is not suggesting this species is still present in the area, further field investigations would alleviate the concerns raised by only conducting limited surveys based on historic information.

Section 4.5.1.5 Special Status Species and Other Sensitive Biological Resources

Page 4.5-15, Paragraph 2 (Sensitive plant and wildlife species)
The Draft EIR does not present any scientific or survey based information supporting the claim that sensitive plants do not occur on the project site. The information presenting sensitive species is dismissive, inaccurate, and misleading. Use of the Natural Diversity Database alone and reports over six years old fail to support the conclusions provided in the Draft EIR. While the reviewer recognizes the sites are heavily disturbed and have been subject to ongoing disturbance for decades, rare plant species are routinely located in these types of areas. In addition, the databases are tools to assist in the evaluation of known or recorded species and cannot be relied upon to evaluate the presence of sensitive species.

The Draft EIR indicates that focused surveys for wildlife were conducted in the surrounding area over eight years ago. This information does not provide the reader or the decision maker with the information required to make an informed conclusion regarding sensitive wildlife.

Section 4.5.4 Analysis of Potential Future Oil Field Development

Pages 4.5-27 and 4.5-28, (Non-Sensitive plant and wildlife species)
The conclusion of the Draft EIR for non-sensitive plant communities, plants, and wildlife must be expanded and discussed in greater detail. Typically the removal of these habitat types does not result in adverse effects to biological resources as they are not rare or sensitive. However, these communities can be important foraging areas for raptors and other sensitive wildlife. Currently the Draft EIR does not provide a reasonable argument based on lack of existing biological data to conclude the effects would be minimal. The Draft EIR must address the use of disturbed habitats such as non-native grasslands, ruderal plant communities, and exotic trees as foraging and nesting habitat for a wide variety of both common and sensitive birds. White tailed kite, red-tailed hawks, various owls, and other birds rely on these areas as they support large numbers of small rodents and reptiles.

Impact BR.1

Page 4.5-28, Paragraph 4
The conclusion presented in the Draft EIR that less than eight acres of undisturbed habitat would be subject to oil exploration is speculative. In addition, the mitigation measures presented to reduce impacts to native or riparian habitats are vague, have no clear reporting procedures, do not specify timing, do not require regulatory oversight, and do not require specific remedial actions to be taken in the event of failure. Therefore, the following mitigation measures are recommended to replace the existing measures identified in the Draft EIR:

BR.1-1a. Provide restoration/compensation for impacts to native vegetation communities.

Prior to clearing and grading, the oil field operator shall have a qualified restoration biologist approved by the County document the community type and acreage of vegetation that would be subject to project disturbance. Impacts to trees greater than 3 inches diameter at breast height (DBH) and all sensitive trees (California walnut, oaks, or suitable non-native nest trees) will be documented by identifying the species, number subject to disturbance, and DBH.

The oil field operator shall prepare a Habitat Restoration and Revegetation Plan for the Project. Plans for restoration, enhancement/re-vegetation and/or acquisition of lands shall be prepared by a County approved biologist with expertise in southern California ecosystems and native plant re-vegetation techniques. The plan shall include at minimum: (a) the location of the mitigation site;

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