| 1<br>2   | WILLIAM B. ROSTOV, State Bar No. 184528<br>IRENE V. GUTIERREZ, State Bar No. 252927<br>EARTHJUSTICE        |  |
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| 6        | Center for Diological Diversity, and Sterra Clab   |  |
| 7        |  |  |
| 8        | IN THE SUPERIOR COURT FOR T<br>FOR THE COUNT   |  |
| 9        |  |  |
| 10       | ASSOCIATION OF IRRITATED RESIDENTS,<br>CENTER FOR BIOLOGICAL DIVERSITY,                                    | Case No.:  |
| 11       | and SIERRA CLUB, non-profit corporations,  | VERIFIED PETITION FOR WRIT OF                    |
| 12       | Petitioners,   | ) MANDATE  |
| 13       | vs.  | )<br>(Cal. Code of Civil Procedure §§ 1085,      |
| 14<br>15 | CALIFORNIA DEPARTMENT OF<br>CONSERVATION, DIVISION OF OIL, GAS,<br>AND GEOTHERMAL RESOURCES, and DOES I    | Cal. Public Resources Code §§ 21167 and 21168.5) |
|          | through V,   |  |
| 16       | Respondents.   |  |
| 17<br>18 | and  |  |
| 10       | AERA ENERGY, LLC, and DOES VI through C,   |  |
| 20       | Real Parties in Interest.  |  |
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Petitioners Association of Irritated Residents, Center for Biological Diversity and Sierra Club (collectively "Petitioners") bring this action on their own behalf, on behalf of their members, on behalf of the general public, and in the public interest and hereby allege as follows:

### I. INTRODUCTION

1. The California Division of Oil, Gas and Geothermal Resources ("DOGGR") has consistently failed to live up to its obligations pursuant to California Environmental Quality Act ("CEQA"), by permitting oil drilling projects in the South Belridge Oil Field without any kind of environmental review. This permitting is occurring as if CEQA never became law in 1970.

2. Since July 29, 2014, DOGGR has issued at least 214 individual permits to Aera Energy, LLC ("Aera Energy") to drill new wells in the South Belridge Oil Field, located in Kern County, California. Aera Energy intends to use hydraulic fracturing (commonly known as "fracking") techniques on at least 144 of these wells. DOGGR has permitted drilling of each of these wells without completing the environmental review required by CEQA. DOGGR simply posts after the fact final permit approvals on its website.

3. Allowing drilling without any environmental review flies in the face of CEQA. CEQA requires decision-makers and the public to be informed about the environmental impacts of a project. Here, DOGGR is individually permitting oil wells and not doing any environmental analysis on each individual permit. DOGGR also fails to consider the cumulative impacts of all of these new wells. DOGGR fails to consider that oil drilling and fracking release harmful air pollutants, greenhouse gases, and other toxic chemicals. These drilling activities also increase the risks of land and drinking water contamination. Exposure to the chemicals used in oil drilling and fracking has been linked to a range of adverse health effects, from respiratory, cardiovascular and neurological illnesses, to increased rates of birth defects and cancer.

4. Moreover, oil wells draw on scarce water resources during one of the worst droughts in the state's history. Water for drilling and operation of these wells can be supplied by the California Aqueduct which, among other things, provides drinking water to Southern California.

75.The South Belridge Oil Field is located in the San Joaquin Valley which has some of8the worst air pollution in California. The towns closest to the South Belridge Oil Field rank as

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amongst the most-polluted communities in the state, with extremely poor air quality and highly
 contaminated water sources. Residents of the area are burdened in other ways as well, and suffer
 from high levels of poverty and unemployment. By allowing drilling projects to go forward without
 environmental review, DOGGR's actions threaten to add to the burdens of already vulnerable
 communities.

6. Petitioners bring this petition for a writ of mandate to require DOGGR to stop rubberstamping permits to drill oil wells, study the environmental impacts of each of the wells it approves, and suspend the permits issued to Aera Energy until it completes the required environmental review.

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#### **II. JURISDICTION AND VENUE**

7. This Court has jurisdiction over this action pursuant to Code of Civil Procedure sections 1085 and Public Resources Code section 21167. Petitioners have performed all conditions precedent to filing suit and/or are excused from such conditions.

8. Venue is proper in this Court pursuant to Code of Civil Procedure section 393, since the cause of action arose in Kern County and the impacts of DOGGR's actions are felt in Kern County.

9. Petitioners have provided written notice of their intention to file this Petition toDOGGR, and are including the notice and proof of service as Exhibit A to this Petition.

10. Pursuant to Code of Civil Procedure section 388, Petitioners served the Attorney General with a copy of their Petition along with a notice of its filing, and are including the notice and proof of service as Exhibit B to this Petition.

### III. PARTIES

11. Petitioner ASSOCIATION OF IRRITATED RESIDENTS ("AIR") is a California non-profit corporation based in Kern County. AIR formed in 1991 to advocate for clean air and environmental justice in San Joaquin Valley communities. AIR has several dozen members who reside in Kern, Tulare, Kings, Fresno, and Stanislaus Counties. AIR members through themselves, their families, and friends, have direct experience with the many health impacts that arise from the type of pollution emissions associated with oil drilling in the South Belridge Oil Field.

12. Petitioner CENTER FOR BIOLOGICAL DIVERSITY (the "Center") is a non-profit corporation with offices in San Francisco and elsewhere in California and throughout the United States. The Center is actively involved in environmental protection issues throughout California and North America and has approximately 50,000 members. The Center's members and staff include individuals who live, work, and recreate in communities threatened by the oil drilling activities permitted by DOGGR. The Center has a long history of environmental protection through science, policy, education, and legal advocacy in California, and through this action seeks to protect public health, safety, and the environment by requiring DOGGR to comply with the requirements of CEQA.

10 13. Petitioner SIERRA CLUB is a national non-profit corporation with approximately 620,000 members, roughly 146,000 of whom live in California. Sierra Club's Kern-Kaweah chapter has approximately 650 members in Kern County. Its members are affected by the oil and gas 12 13 approvals at issue here. The Sierra Club is dedicated to exploring, enjoying, and protecting the wild places of the earth; to practicing and promoting the responsible use of the earth's ecosystems and 14 resources; to educating and encouraging humanity to protect and restore the quality of the natural 15 16 and human environment; and to using all lawful means to carry out these objectives. The Sierra 17 Club has been actively working in California and elsewhere to address the serious threats to public health and the environment related to the lack of oversight and safeguards for oil drilling and 18 19 fracking activities.

14. By this action, Petitioners seek to protect the health, welfare, environmental, conservation, economic and other interests of their members, which will be adversely affected by DOGGR's permitting of oil drilling and fracking operations, and continued activity at these operations. In addition, Petitioners and their members seek to enforce a public duty owed to them by DOGGR. Petitioners and their members have a right to, and a beneficial interest in, DOGGR's performance of its duties under CEQA. Unless the relief requested in this case is granted, they will continue to be adversely affected and irreparably injured by DOGGR's failure to comply with the law.

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15. Defendant DEPARTMENT OF CONSERVATION, DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES ("DOGGR") is an agency of the state of California located in 3 Sacramento, California. DOGGR is charged with the regulation of drilling, operation, maintenance, 4 and plugging and abandonment of onshore and offshore oil, gas, and geothermal wells within the state of California. DOGGR also acts as the CEQA lead agency in permitting oil and gas wells in Kern County.

16. Upon information and belief, Real Party in Interest AERA ENERGY LLC ("Aera Energy") is the owner and operator of the oil wells recently permitted by DOGGR and listed in Exhibit C to this Petition.

17. The true names and capacities, whether individual, corporate, or otherwise, of DOES I through C are unknown to Petitioners. Petitioners will amend this Petition to set forth the true names and capacities of said Doe parties when they have been ascertained. Petitioners allege that each of said Doe parties I through V has jurisdiction by law over one or more aspects of oil and gas operations in California and their approval. Petitioners allege that each of said Does parties VI through C are Real Parties in Interest.

18. Plaintiffs do not have a plain, speedy, or adequate remedy at law because Plaintiffs and their members will be irreparably harmed by the ensuing environmental damage caused by DOGGR's permitting of oil and gas wells in the South Belridge Oil Field in violation of CEQA.

#### IV. BACKGROUND

#### A. **The Environmental Setting**

19. The South Belridge Oil Field is located in Kern County, west of State Route 33, and between the junctions of State Route 46 to the north, and State Route 58 to the south. The South Belridge Oil Field is approximately ten miles long by two miles wide, an area covering 12,800 acres of land. As of 2012, it was the third most productive oil field in California, and the sixth most productive oil field in the United States, producing some 23.6 million barrels of oil. Since the passage of CEQA in 1970, DOGGR has not completed an EIR addressing the environmental effects of drilling in the South Belridge Oil Field.

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20. The South Belridge Oil Field sits in the southwestern sector of the San Joaquin Valley, which is plagued by a host of environmental and health problems. The San Joaquin Valley has some of the worst air quality in the nation – the area is in extreme non-attainment for federal ozone standards, and has high levels of particulate matter pollution. The area has one of the highest rates of childhood asthma in the state, and air pollution also results in other negative respiratory and cardiovascular effects. Water sources in the San Joaquin Valley are heavily contaminated – some 25% of small community water systems in the San Joaquin Valley are in violation of health-based drinking water standards, including standards for arsenic and nitrates. The San Joaquin Valley also has some of the highest rates of poverty and unemployment in the state of California.

21. McKittrick, Lost Hills and Buttonwillow are the towns closest to the South Belridge Oil Field, and are approximately 13, 10 and 16 miles (respectively) from the borders of the oil field. These towns are ranked as amongst the most-polluted communities in the state. According to the California Environmental Protection Agency's environmental health screening tool,

CalEnviroScreen, McKittrick, Lost Hills and Buttonwillow are ranked in the 95<sup>th</sup>, 88<sup>th</sup>, and 92<sup>nd</sup> percentiles for overall pollution burdens.<sup>1</sup> These communities already suffer from high levels of exposure to toxic chemicals from industrial facilities (McKittrick is in the 72<sup>nd</sup> percentile), exposure to hazardous waste (they are ranked, respectively, in the 94<sup>th</sup>, 92<sup>nd</sup> and 85<sup>th</sup> percentiles), and some of the most polluted drinking water in the state (they are ranked, respectively, in the 90<sup>th</sup>, 98<sup>th</sup>, and 96<sup>th</sup> percentiles).

22. These communities are also vulnerable due to socioeconomic factors. Some 70 percent of McKittrick is unemployed. The towns of Lost Hills and Buttonwillow have majority Latino populations (93 percent and 63 percent), a sizable proportion of whom live below the poverty line (96 percent and 60 percent), are considered linguistically isolated (99 percent and 73 percent), and have less than a high school education (100 percent and 86 percent).

<sup>&</sup>lt;sup>1</sup> CalEnviroScreen considers several factors (exposures and environmental effects of pollution burdens, sensitive populations, socioeconomic factors) when calculating a community's CalEnviroScreen score. "100" is the highest possible score, and the higher the percentage score, the worse the burdens in a community.

23. Operations in the Belridge Oil Field also affect other sensitive populations. The Belridge Elementary School sits on the western border of the South Belridge Oil Field. It has approximately 35 students, some 80 percent of whom are Hispanic and/or Latino. Children are especially susceptible to air pollution and its health consequences, and are more likely to be affected than adults by other environmental harms.

24. Like other communities in Kern County, the towns surrounding the Belridge Oil Field are also severely affected by California's ongoing drought. The state is entering its fourth year of drought, and 2014 is the driest year on record since 1977. In January 2014, Governor Jerry Brown declared a State of Emergency, calling upon state water agencies to develop coordinated water conservation and drought management plans, and asking residents to reduce water consumption by 20 percent. In an April 2014 press release regarding State Water Project ("SWP") allocations to Kern County, the Kern County Water Agency stated that even with additional water from the SWP, "water storage in the State's major reservoirs and runoff projections remain well below average," and that "the overall picture is still bleak."

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### **B.** Effects of Oil Production Activities

25. DOGGR's issuance of the drilling permit allows the well to be drilled and oil to be produced. Today production can include techniques like steam injection, fracking, and acidization, which DOGGR calls "enhanced oil recovery" and "well stimulation." Production activities create a host of environmental and health harms and risks, including air pollution, water pollution, and the need to dispose of the massive quantities of toxic wastewater that accompanies the production.

26. Steam injection is a method applied to heavy-oil reservoirs to boost oil recovery. During the process, the operator injects steam at very high temperature and pressure into the well. The well is then closed, allowing the steam to heat up the surrounding formation, which thins the heavy-oil so that it can more easily flow toward, through, and out of the well. Operators will often repeat this cycle of inject-soak-and-produce until the response becomes marginal. Repeated steam injection creates some of the harshest conditions to which a well can be subjected. The process is known to result in a particularly high rate of well failure and to cause the ground to shift and collapse. Upon information and belief, steam injection is commonly used in the Belridge Oil Field.
In fact, in April 2014, the San Joaquin Valley Unified Air Pollution Control District approved
permits which would allow Aera Energy to construct a 100 MMBtu/hr steam generator, and allow
the continued operation of other steam generators, to be used in steam injection of wells.

27. Fracking is a technique which pushes a mix of highly pressurized water, chemicals, and "proppants" (such as sand, ceramic pellets, or other particles used to keep fractures open) into wells, in order to induce fractures in the surrounding rock, allowing oil and gas to flow more freely into the production well. Other well stimulation techniques include: "matrix acidization," which uses water, sand, and high volumes of acid and other chemicals to corrode the rock surrounding a well and allow access to oil and gas; and "water injection" or "water flooding," which injects water in the well reservoir, to increase pressure and stimulate production in the well. Fracking is used in the Belridge Oil Field, as is water flooding.

28. Drilling, well stimulation, and other oil production activities all cause a range of harmful environmental and health effects.

29. Various aspects of oil drilling result in the release of air pollutants and greenhouse gases. The engines used during oil drilling, for processes such as pumping and steam generation, and the trucks used for transportation of materials used in the drilling process and extracted oil, all release harmful air pollutants and greenhouse gases. High amounts of methane – the gas traps 86 times more heat than carbon dioxide over 20 years – can leak into the atmosphere as oil and gas are pumped out of the ground. Oil drilling may also result in land and surface water contamination through spills, leaks, accidents, or improper handling of chemicals onsite.

30. Fracking a well creates additional sources of air pollution, including volatile organic compounds ("VOCs") and other hazardous air pollutants. VOCs can react in the atmosphere to form ozone and particular matter, which can cause respiratory ailments such as asthma and bronchitis, heart attacks, and even premature death. Such impacts are particularly acute in the San Joaquin Valley and Los Angeles air basins, which already experience some of the worse air pollution in the nation. EPA has found that some of the largest air pollution emissions in the natural gas industry occur as wells that have been fracked are prepared for production. During the flowback stage of

well completion, fracking fluids, water, and reservoir gas come to the surface at a high velocity and volume. This mixture includes a large amount of VOCs and methane along with air toxics such as benzene, ethylbenzene, and n-hexane. Ancillary equipment used in fracking operations, such as diesel trucks and generators, can also be a significant source of air pollution.

31. Oil drilling can also cause the release of toxic chemicals, such as benzene, toluene, ethylbenzene, xylene, radioactive materials, hydrogen sulfide, arsenic and mercury. The hydrocarbons extracted from the ground during oil production can contain heavy metals such as lead, mercury, and arsenic. The extracted petroleum also includes polycyclic aromatic hydrocarbons (PAHs), some of which are carcinogenic or otherwise harmful to human health. The water used during oil drilling and produced during the drilling process may contain salts, toxic metals and other substances, and must be disposed of properly to protect groundwater sources and prevent unwanted exposure to the contaminated water.

32. Exposure to toxic substances associated with oil and gas activity results in significant adverse health effects, including respiratory, cardiovascular, neurologic, and pulmonary illnesses, damage to the nervous system, immune system, and endocrine system, increased rates of birth defects and cancer, and harm to eyes, skin, and other sensory organs.

33. Fracking and other well stimulation techniques have also been linked with adverse environmental and health effects. According to an April 2011 report from the U.S. House of Representatives, oil and gas companies between 2005 and 2009 used fracking products containing 29 chemicals that are: (1) known or possible human carcinogens, (2) regulated under the federal Safe Drinking Water Act, 42 U.S.C. § 300f *et seq.*, for their risks to human health, or (3) listed as hazardous air pollutants under the federal Clean Air Act, 42 U.S.C. § 7401 *et seq.* In addition, at least one chemical used in the fracking operations at South Belridge Oil Field, ethylene glycol, is listed under California's Proposition 65 program based on its potential to cause reproductive and developmental harm. The sand used as a proppant in many of the Belridge Oil Field wells contains crystalline silica ("silica") a known health hazard. The transport and use of sand to stimulate wells produces clouds of silica dust which if inhaled by workers, can cause serious health effects, including lung cancer and silicosis. Finally, other well stimulation techniques, like matrix

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acidization, rely on toxic acids such as hydrofluoric and hydrochloric acid, which can cause inflammation of the respiratory tract, eye and skin damage, and can be fatal.

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34. Given the use of such chemicals, as well as the release of other naturally-occurring substances from rock formations, the contamination of domestic and agricultural water supplies from oil production is a major concern. Such contamination can occur through several different mechanisms. For example, if a well bore is not properly sealed and cased, chemicals and other materials can escape as they move through the well. Spills of chemicals used in production can occur on the surface during storage and transportation activities. Wastewater is often disposed of through underground injection wells, posing a further risk of contamination. In July 2014, DOGGR ordered the emergency shut-down of 11 oil and gas waste injection sites, and ordered the investigation of nearly 100 other sites, due to concerns about contamination of protected aquifers.

35. Oil production often requires use of large volumes of fresh water. Most of the water injected underground is either not recovered or is unfit for domestic or agricultural use when it returns to the surface, and must be treated and disposed of. Water usage is already a major issue in California, which is in the midst of a severe drought and suffers from water shortages. Not only can water withdrawals for oil production directly affect the availability of water for other uses, but it can also indirectly impact water supplies by mobilizing naturally-occurring contaminants, causing land subsidence, or promoting bacterial growth. At least 144 of Aera Energy's newly permitted wells in the South Belridge Oil Field draw water from fresh water supplied by the California Aqueduct, or from Aera's own wells.

36. The disposal of the vast quantities of wastewater left behind when the oil is extracted 22 poses additional risks and harms. As noted above, the wastewater is often injected into disposal 23 wells, where it can contaminate aquifers. Wastewater is also often stored in open pits, from which it 24 can leach into groundwater, and where it creates additional harmful air pollution, through the 25 evaporation of volatile organic compounds and other substances. On information and belief, these types of disposal pits are used to contain wastewater from the South Belridge Oil Field, and are 26 located on the southern border of the field.

37. Recent evidence has also found that the underground injection of wastewater resulting from drilling and fracking operations can induce seismic activity, a serious concern in California. In June 2012, the National Research Council of the National Academies of Science released a report finding that the injection of wastewater for disposal poses a risk of causing seismic events. In recent years, a number of earthquakes in Arkansas, Ohio, Oklahoma, and Texas have been linked to wastewater disposal associated with oil and gas production. In addition, a recent study from the British Columbia Oil and Gas Commission found that fluid injection during hydraulic fracturing in proximity to pre-existing faults resulted in dozens of seismic events in the Horn River Basin of northeast British Columbia between 2009 and 2011.

38. Oil production is an intense industrial activity which requires large number of vehicle trips, grading and disturbance of habitat, and creates many other environmental harms, including risks to wildlife. While the landscape of the South Belridge Oil Field has been severely damaged, it still provides habitat for the endangered San Joaquin kit fox and other plants and wildlife. In addition, the California Department of Fish and Wildlife, Lokern Ecological Reserve – an area intended to conserve rare plants, animals, and habitats, as well as to provide areas for education and scientific research – is located a few miles south of the field's southern border.

C.

#### DOGGR's Regulation of Oil and Gas Activity

39. DOGGR, an agency within the California Department of Conservation, has extensive authority to regulate activities associated with oil and gas production in California, including the subsurface injection of fluids, and issues permits for the drilling of new wells and reworking old ones.

40. Under Public Resources Code Section 3106(a), DOGGR is required to "supervise the drilling, operation, maintenance, and abandonment of wells and the operation, maintenance, and removal or abandonment of tanks and facilities attendant to oil and gas production...so as to prevent, as far as possible, damage to life, health, property, and natural resources; damage to underground oil and gas deposits from infiltrating water and other causes; loss of oil, gas, or reservoir energy, and

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damage to underground and surface waters suitable for irrigation or domestic purposes by the infiltration of, or the addition of, detrimental substances."

41. DOGGR is required by its regulations to "protect health, safety, welfare, and the environment." (Cal. Code Regs. Tit. 14, §1721). In order to further these goals, DOGGR has the authority to take measures such as requiring operators to put monitoring programs in place, to detect spills into the soil and water, and determine the optimal well-spacing needed to "protect health, safety, welfare, or the environment." (Pub. Res. Code §3106(c), Cal. Code Regs. Tit. 14 §§1721, 1721.7).

42. In order to drill or rework an oil or gas well in California, permits are typically needed from both DOGGR and a local agency, depending on where the well is located. Additional permits may also be needed from the U.S. Bureau of Land Management (for wells on federal lands), and the State Lands Commission (for wells on state lands). In addition, DOGGR serves as the lead agency for CEQA purposes for all wells located in Kern County, where some 80% of the oil wells in the state of California are located.

43. Where operators intend to use "well stimulation treatments" like hydraulic fracturing, they must also provide advance notice to DOGGR, and well stimulation may only commence after DOGGR has provided its approval. (Pub. Res. Code. §3160, §3161).

44. Enhanced oil recovery techniques, including steam injection and water flooding, also require an Underground Injection Control ("UIC") Program permit. The UIC Program regulates injection wells used in oil and gas production, and was intended to protect underground sources of drinking water. DOGGR regulates these wells in California, yet despite its discretionary authority over the program, it does not conduct CEQA review prior to issuing UIC permits.

D.

### **Required Environmental Review**

45. In permitting oil and gas wells in California, DOGGR has a nondiscretionary duty to comply with the statutory and regulatory requirements of the California Environmental Quality Act. (Pub. Res. Code §21080(a), Cal. Code Regs. Tit. 14 §§1681 *et seq.*)

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46. The California Environmental Quality Act, Public Resources Code §§ 21000-21177, is a comprehensive statute designed to provide for long-term protection of the environment. In enacting CEQA, the state Legislature declared its intention that all public agencies responsible for regulating activities affecting the environment give prime consideration "to preventing environmental damage, while providing a decent home and satisfying living environment for every Californian." (Pub. Res. Code § 21000(g).)

47. One of the fundamental purposes of the CEQA process is to provide the decisionmakers and the public in general with detailed information about the impacts a proposed project will likely have on the environment, in order to allow them to balance the project's benefits against its environmental costs, consider appropriate mitigation measures, and properly weigh other alternatives.

48. Public agencies approving a project that is not subject to an exemption must prepare an initial study to determine whether the project might have a significant impact on the environment. If agencies determine a project might have a significant impact, a full EIR is required; alternatively, if agencies determine that no significant impact will occur, a negative declaration may be issued. (CEQA Guidelines §§ 15365, 15363(c)(5).)

49. CEQA requires each state agency to prepare an EIR when it proposes to approve or carry out a discretionary project that may have a significant impact on the environment, and to mitigate or avoid those significant impacts whenever feasible to do so. (Pub. Res. Code §§ 21002.1, 21061, 21080(a).)

50. In preparing an EIR, agencies must define "project" in a manner that requires consideration of "the whole of an action," and may not divide a single project into individual subprojects to avoid responsibility for considering the environmental impact of the project as a whole. (CEQA Guidelines § 15378, Pub. Res. Code § 21605). The term "project" is given a broad interpretation in order to maximize protection of the environment.

In preparing an EIR, the discussion of significant environmental impacts "should
include relevant specifics of the area, the resources involved, physical changes, alterations to
ecological systems, and changes induced in population distribution, population concentration, the

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human use of the land (including commercial and residential development), health and safety problems caused by the physical changes, and other aspects of the resource base such as water, historical resources, scenic quality, and public services." (Cal. Code Regs. tit. 14, § 15126.2(a).)

52. An EIR must also identify feasible mitigation measures in order to substantially lessen or avoid otherwise significant environmental effects. (Pub. Res. Code §§ 21002, 21081(a); Cal. Code Regs. tit. 14, § 15126.4(a).)

53. In addition, CEQA requires DOGGR to consider and evaluate the cumulative impacts of a project when the project's incremental effects are "cumulatively considerable." (Pub. Res. Code § 21083(b)(2); Cal. Code Regs. tit. 14, § 15130(a).) "Cumulatively considerable" means that "the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects." (Pub. Res. Code § 21083(b)(2); Cal. Code Regs. tit. 14, § 15065(a)(3).)

54. California's Water Code has provisions which complement CEQA's requirements for conducting environmental review. The Water Code requires a lead agency performing CEQA review for any "industrial project" "occupying more than 40 acres of land, or having more than 650,000 square feet of floor area," or "that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500 dwelling unit project," to disclose the water supply for the project, and take measures to determine whether the water supply will be adequate to meet the projected needs of the project. (Water Code §10912, §10910).

55. Despite the great number of wells permitted in recent months, DOGGR has not complied with CEQA or the Water Code's requirements for conducting environmental review, for any of its recently issued permits in the South Belridge Oil Field.

## E. Recent Permit Approvals

56. From July 29, 2014 to the present date, DOGGR issued Permits to Conduct Well Operations to Aera Energy to drill 214 new wells in South Belridge Oil Field. DOGGR has approved Interim Well Stimulation Treatment Notices, allowing fracking, for 144 of these wells. A list of these wells, including their A.P.I. numbers, is attached as Exhibit C to this Petition.

57. DOGGR has not required environmental review of any of these wells. DOGGR has failed to consider, for example, how drilling and operation of these wells would affect local air quality, whether the wells would increase greenhouse gas emissions, whether they would release toxic chemicals, whether they would strain scarce water supplies, and whether they would harm protected species such as the San Joaquin kit fox.

58. The permits issued by DOGGR to Aera Energy authorize drilling in the Diatomite and Tulare zones of the South Belridge Oil Field. The permits allow for all types of extraction methods, including fracking, water flooding, and steam injection.

59. Aera Energy has provided Interim Well Stimulation Treatment Notices, as required by law, stating that it will be fracking at least 144 of its newly permitted wells. The water management plan provided along with these notices indicates that the water for hydraulic fracturing will be drawn from "either the California Aqueduct via Aera's connection to the Belridge Water Storage District or from Aera-owned water source wells." (See e.g., Interim Well Stimulation 14 Treatment Notice for Well A.P.I. No. 030-55641, referenced in Exhibit C). Aera Energy anticipates needing a maximum of 4,800 barrels (201,600 gallons) of fresh water for each well stimulation 16 treatment. (Id.) It does not intend to use recycled water for the well stimulation treatments. (Id.) The water remaining after the well stimulation treatment will be used for the next job, or passed through a water treatment facility and transported to Aera Energy's permitted Class II disposal wells. (*Id.*) According to these estimates, all together, fracking these wells could use 30,240,000 gallons or 20 approximately 93 acre feet of water, drawn from the California Aqueduct or local water resources.

60. Water will be used in other drilling and production activities (such as conventional drilling, water flooding, and steam injection), but DOGGR has not provided any information about the expected water use in these types of drilling permits.

61. DOGGR has the discretion to modify permit conditions in furtherance of environmental protection and public health and safety. Here, DOGGR has used this discretion to require distinct permit conditions for individual wells, including, but not limited to:

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The use of blowout prevention equipment meeting particular specifications; a.

| 1  | b. Requiring a mechanical integrity test of the well after drilling has                           |
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| 2  | commenced;  |
| 3  | c. Requiring a directional survey after the completion of drilling;                               |
| 4  | d. Requiring permission to be obtained before flaring or blowing gas;                             |
| 5  | e. Requiring additional safety precautions for areas with hydrogen sulfide gas                    |
| 6  | present;  |
| 7  | f. DOGGR has also revised permit conditions for the new wells, after receiving                    |
| 8  | Supplementary Notices of drilling from Aera Energy, changing the safety                           |
| 9  | specifications required for particular wells.   |
| 10 | 62. On September 24, 2014, Petitioners submitted a Public Records Act request to                  |
| 11 | DOGGR, seeking any documents pertaining to environmental review of permits for the South          |
| 12 | Belridge Oil Field, undertaken pursuant to the California Environmental Quality Act, from June 1, |
| 13 | 2014 to the present. On October 29, 2014, Petitioners were informed by DOGGR's chief counsel      |
| 14 | that there were no responsive documents. Based on this response, Petitioners understand that      |
| 15 | DOGGR has not conducted any CEQA review for the permits listed in Appendix C issued to Aera       |
| 16 | Energy in the South Belridge Oil Field.   |
| 17 | V. CAUSE OF ACTION  |
| 18 | (Violation of CEQA – Failure to Comply with CEQA)   |
| 19 | 63. Petitioners re-allege, as if fully set forth herein, each and every allegation contained      |
| 20 | in the preceding paragraphs.  |
| 21 | 64. DOGGR issues an approval prior to any drill, redrill, or rework of an oil or gas well.        |
| 22 | (14 Cal. Code Regs. § 1714.) The approval and issuance of a permit to drill is a "discretionary"  |
| 23 | action subject to the requirements of CEQA. (Pub. Res. Code §§ 20165, 21080.)                     |
| 24 | 65. Thus, in permitting oil and gas wells in California, DOGGR has a nondiscretionary             |
| 25 | duty to comply with the statutory and regulatory requirements of the California Environmental     |
| 26 | Quality Act. (Pub. Res. Code §21080(a), Cal. Code Regs. Tit. 14 §§1681 et seq.)                   |
| 27 | 66. No exemptions to CEQA are applicable.   |
| 28 |   |
|    |   |

67. Therefore, at a minimum, DOGGR must prepare an initial study to evaluate whether the project will have significant effects, including but not limited to: a description of the project's environmental setting, information identifying the project's environmental effects, and a discussion of ways to mitigate the project's significant effects. (CEQA Guidelines §§ 15063(d).)

68. DOGGR failed to conduct an initial study prior to approving and issuing each Notice of Intent to Drill for every one of Aera Energy's wells listed in Exhibit C. Further, DOGGR failed to consider the combined environmental effects of the drilling and operation of the newly permitted wells. The failure to conduct an initial study for each one of these wells, and the failure to consider the combined effects of these wells, is a violation of CEQA and constitutes a prejudicial abuse of discretion for failure to proceed in a manner required by law. (Pub. Res. Code § 21168.5.)

#### VI. REQUEST FOR RELIEF

Wherefore, Petitioners demand entry of judgment as follows:

1. Petitioners seek a writ of mandate issued under the seal of this Court directing DOGGR to:

a. Comply with CEQA for each and every drilling permit listed in Exhibit C;
b. Conduct and complete environmental review of the impacts of wells listed in Exhibit C, pursuant to the requirements of CEQA, including, but not limited to, considering air and toxics impacts, conducting a comprehensive analysis of the water needs of the wells, and considering the cumulative impacts of the wells;
c. Set aside and withdraw its approvals of the drilling permits issued to Aera Energy that are listed in Exhibit C;

Refrain from granting any further approvals to Aera Energy of well drilling, redrilling, or rework activity in the South Belridge Oil Field until DOGGR complies with CEQA for these wells. No new permits shall be issued for new proposed wells, until CEQA review is conducted for those wells.

| 1        | 2. Award Petitioners' fee | es and costs, including reasonable attorneys' fees and expert  |
|----------|---------------------------|--|
| 2        | witness costs, as autho   | rized by CCP § 1021.5 and any other applicable provisions of   |
| 3        | law.                      |  |
| 4        | 3. Grant such other legal | and equitable relief as this Court deems appropriate and just. |
| 5        |                           |  |
| 6        |                           | Respectfully submitted,  |
| 7        |                           |  |
| 8        | DATED: November 12, 2014  | William Roctar   |
| 9        | DATED: November 12, 2014  | IRENE V. GUTIERREZ<br>WILLIAM B. ROSTOV                        |
| 10<br>11 |                           | EARTHJUSTICE<br>50 California Street, Suite 500                |
| 12       |                           | San Francisco, CA 94111<br>T: (415) 217-2000                   |
| 13       |                           | F: (415) 217-2040  |
| 14       |                           | Attorneys for Petitioners                                      |
| 15       |                           |  |
| 16       |                           |  |
| 17       |                           |  |
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|          |                           |  |
|          |                           |  |

#### VERIFICATION

I, Gordon Nipp, hereby declare:

I am the Vice Chair of the Kern-Kaweah chapter of the Sierra Club, a non-profit corporation with offices in San Francisco, Clalifornia and elsewhere in the United States. The facts alleged in the above Petition are true to my personal knowledge and belief.

I declare under penalty  $\oplus$  f perjury under the laws of the State of California that the above is true and correct and that this verification is executed on this <u>11</u> th day of November 2014 at Bakersfield, California.

Gorden T. Tripp

# EXHIBIT A



EARTHJUSTICE ALASKA CALIFORNIA FLORIDA MID-PACIFIC NORTHEAST NORTHERN ROCKIES NORTHWEST ROCKY MOUNTAIN WASHINGTON, D.C. INTERNATIONAL

November 10, 2014

### VIA CERTIFIED MAIL, RETURN RECEIPT REQUESTED

Mr. Bruce Reeves Chief Counsel Department of Conservation 801 K Street, 24<sup>th</sup> Floor Sacramento, CA 95814 (916)323-6733

#### Re: Notice of Intent to File California Environmental Quality Act Petition

Dear Mr. Reeves:

PLEASE TAKE NOTICE, under Public Resources Code section 21167.5, that the Association of Irritated Residents, Center for Biological Diversity, and the Sierra Club ("Petitioners"), intend to file a verified petition for writ of mandate against the Department of Conservation, Division of Oil, Gas and Geothermal Resources ("DOGGR"), challenging DOGGR's recent approvals of Aera Energy LLC oil drilling permits in the South Belridge Oil Field.

The petition will be filed in Kern County Superior Court on November 12, 2014. It will allege that DOGGR violated the California Environmental Quality Act ("CEQA") in its recent approvals of oil drilling permits in the South Belridge Oil Field, and will seek a writ of mandate directing DOGGR to comply with CEQA, set aside the drilling permits recently issued to Aera Energy, and refrain from granting further approvals to Aera Energy until it complies with CEQA.

Sincerely,

Irene Gutierrez Will Rostov Counsel for Petitioners

#### **PROOF OF SERVICE**

I, John Wall, hereby declare:

I am over the age of 18 years, not a party to this action, and employed by Earthjustice in the County of San Francisco, State of California. My business and mailing address is 50 California Street, Suite 500, San Francisco, California 94111.

On November 10, 2014, I served a copy of the following document described as:

#### Notice of Intent to File California Environmental Quality Act Petition

by addressing the envelope as set forth below, placing a true and correct copy of the above mentioned document in a sealed envelope with postage affixed hereon fully prepaid in the United States mail following this organization's ordinary practices with which I am readily familiar.

Mr. Bruce Reeves Chief Counsel Department of Conservation 801 K Street, 24th Floor Sacramento, CA 95814

I declare under penalty of perjury of the laws of the California that the foregoing is true and correct and that this was executed on November 10, 2014 in San Francisco, California.

John W. Wall

# EXHIBIT B

| 1  | WILLIAM B. ROSTOV, State Bar No. 184528<br>IRENE V. GUTIERREZ, State Bar No. 252927                |  |
|----|--|--|
| 2  | EARTHJUSTICE   |  |
| 3  | 50 California Street, Suite 500<br>San Francisco, CA 94111   |  |
| 4  | T: (415) 217-2000<br>F: (415) 217-2040   |  |
| 5  | Attorneys for Petitioners, Association of Irritated Re   | sidents,   |
| 6  | Center for Biological Diversity, and Sierra Club   |  |
| 7  |  |  |
| 8  | IN THE SUPERIOR COURT FOR  |  |
| 9  | FOR THE COUN   | I Y OF KERN  |
| 10 | ASSOCIATION OF IRRITATED RESIDENTS,  | ) Case No.:  |
| 11 | CENTER FOR BIOLOGICAL DIVERSITY,<br>and SIERRA CLUB, non-profit corporations,                      |  |
| 12 | Petitioners,   | ) NOTICE TO ATTORNEY GENERAL<br>) OF THE STATE OF CALIFORNIA |
| 13 | VS.  | ) OF PETITION FOR WRIT OF<br>) MANDATE                       |
| 14 | CALIFORNIA DEPARTMENT OF   | )<br>)<br>) (Cal. Cala of Circil Drago down 88 1095          |
| 15 | CONSERVATION, DIVISION OF OIL, GAS,<br>AND GEOTHERMAL RESOURCES, and DOES I<br>through C inclusive |  |
| 16 | through C, inclusive,  | ) 21168.5)   |
| 17 | Respondents.   | )  |
| 18 |  | )  |
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1 || To the Attorney General of the State of California:

PLEASE TAKE NOTICE, under Public Resources Code § 21167.7 and Code of Civil Procedure § 388, that on November 12, 2014, the Association of Irritated Residents, Center for Biological Diversity, and the Sierra Club ("Petitioners"), filed a verified petition for writ of mandate against the Department of Conservation, Division of Oil, Gas and Geothermal Resources ("DOGGR"), challenging DOGGR's recent approvals of Aera Energy LLC oil drilling permits in the South Belridge Oil Field. A copy of the petition will be provided with this notice.

The petition alleges that DOGGR violated the California Environmental Quality Act ("CEQA") in its recent approvals of oil drilling permits in the South Belridge Oil Field, and will seek a writ of mandate directing DOGGR to comply with CEQA, set aside the drilling permits recently issued to Aera Energy, and refrain from granting further approvals to Aera Energy until it complies with CEQA.

Sincerely,

DATED: November 12, 2014

IRENE V. GUTIERREZ WILLIAM ROSTOV EARTHJUSTICE 50 California Street, Suite 500 San Francisco, CA 94111 T: (415) 217-2000 F: (415) 217-2040

Attorneys for Petitioners

#### **PROOF OF SERVICE**

I, John Wall, hereby declare:

I am over the age of 18 years, not a party to this action, and employed by Earthjustice in the County of San Francisco, State of California. My business and mailing address is 50 California Street, Suite 500, San Francisco, California 94111.

On November 12, 2014, I served a copy of the following documents described as:

#### Notice to Attorney General of the State of California of Petition for Writ of Mandate and Verified Petition for Writ of Mandate

by addressing the envelope as set forth below, placing a true and correct copy of the above mentioned document in a sealed envelope with postage affixed hereon fully prepaid in the United States mail following this organization's ordinary practices with which I am readily familiar.

Office of the Attorney General 1300 "I" Street Sacramento, CA 95814-2919

I declare under penalty of perjury of the laws of the California that the foregoing is true and correct and that this was executed on November 12, 2014 in San Francisco, California.

John W. Wall

# EXHIBIT C

| tem No   | API_No    | Permit to Operate | Supplemental Permit to Operate | Interim Well Stimulation<br>Treatment Notice |
|----------|-----------|-------------------|--------------------------------|--|
| 1        | 030-55554 | 7/29/2014         | 10/8/2014                      | N/A  |
| 2        | 030-55555 | 7/29/2014         | 10/8/2014                      | N/A  |
| 3        | 030-55556 | 7/29/2014         | 10/8/2014                      | N/A  |
| 4        | 030-55557 | 7/29/2014         | 10/8/2014                      | N/A  |
| 5        | 030-55558 | 7/29/2014         | 10/8/2014                      | N/A  |
| 6        | 030-55559 | 7/29/2014         | 10/8/2014                      | N/A  |
| 7        | 030-55560 | 7/29/2014         | 10/8/2014                      | N/A  |
| 8        | 030-55561 | 7/29/2014         | 10/8/2014                      | N/A N/A                                      |
| <u> </u> | 030-55562 | 7/29/2014         | 10/8/2014                      | N/A N/A                                      |
| 10       | 030-55610 | 7/30/2014         | N/A                            | 9/25/2014                                    |
| 10       | 030-55611 | 7/30/2014         | N/A N/A                        | 9/25/2014                                    |
| 11       | 030-55612 | 7/30/2014         | N/A N/A                        | 9/25/2014                                    |
|          |           |                   |                                |  |
| 13       | 030-55613 | 7/30/2014         | N/A                            | 9/25/2014                                    |
| 14       | 030-55614 | 7/30/2014         | N/A                            | 9/25/2014                                    |
| 15       | 030-55615 | 7/30/2014         | N/A                            | 9/25/2014                                    |
| 16       | 030-55616 | 7/30/2014         | N/A                            | 9/25/2014                                    |
| 17       | 030-55617 | 7/30/2014         | N/A                            | 9/25/2014                                    |
| 18       | 030-55618 | 7/30/2014         | N/A                            | 9/25/2014                                    |
| 19       | 030-55622 | 8/4/2014          | N/A                            | 9/25/2014                                    |
| 20       | 030-55623 | 8/4/2014          | N/A                            | 9/25/2014                                    |
| 21       | 030-55624 | 7/30/2014         | N/A                            | 9/25/2014                                    |
| 22       | 030-55625 | 8/4/2014          | N/A                            | 9/25/2014                                    |
| 23       | 030-55626 | 8/4/2014          | N/A                            | 9/25/2014                                    |
| 24       | 030-55627 | 8/4/2014          | N/A                            | 9/25/2014                                    |
| 25       | 030-55628 | 8/4/2014          | N/A                            | 9/25/2014                                    |
| 26       | 030-55629 | 7/30/2014         | N/A                            | 10/14/2014                                   |
| 27       | 030-55630 | 7/30/2014         | N/A                            | 8/26/2014                                    |
| 28       | 030-55631 | 7/30/2014         | N/A                            | 8/26/2014                                    |
| 29       | 030-55632 | 7/30/2014         | N/A                            | 8/26/2014                                    |
| 30       | 030-55633 | 7/30/2014         | N/A                            | 8/26/2014                                    |
| 31       | 030-55634 | 7/30/2014         | N/A                            | 8/26/2014                                    |
| 32       | 030-55635 | 8/4/2014          | N/A                            | 9/25/2014                                    |
| 33       | 030-55636 | 8/4/2014          | N/A                            | 9/25/2014                                    |
| 34       | 030-55637 | 8/4/2014          | N/A                            | 9/25/2014                                    |
| 35       | 030-55638 | 7/30/2014         | N/A                            | 8/26/2014                                    |
| 36       | 030-55639 | 8/4/2014          | N/A                            | 9/25/2014                                    |
| 37       | 030-55640 | 7/30/2014         | N/A                            | 8/26/2014                                    |
| 38       | 030-55641 | 8/4/2014          | N/A                            | 8/22/2014                                    |
| 39       | 030-55642 | 8/4/2014          | N/A                            | 8/22/2014                                    |
| 40       | 030-55643 | 8/4/2014          | N/A                            | 8/22/2014                                    |
| 41       | 030-55644 | 8/4/2014          | N/A                            | 8/22/2014                                    |
| 42       | 030-55645 | 8/4/2014          | 9/12/2014                      | 9/18/2014                                    |
| 43       | 030-55646 | 8/4/2014          | 9/12/2014                      | 9/18/2014                                    |
| 44       | 030-55647 | 8/4/2014          | 9/12/2014                      | 9/18/2014                                    |
| 45       | 030-55648 | 8/4/2014          | 9/12/2014                      | 9/18/2014                                    |
| 46       | 030-55649 | 8/4/2014          | 9/12/2014                      | 9/18/2014                                    |
| 47       | 030-55650 | 8/4/2014          | N/A                            | 8/22/2014                                    |
| 48       | 030-55651 | 8/4/2014          | N/A                            | 8/22/2014                                    |
| 49       | 030-55652 | 8/4/2014          | N/A                            | 8/22/2014                                    |
| 50       | 030-55653 | 8/4/2014          | N/A                            | 8/26/2014                                    |
| 51       | 030-55654 | 8/4/2014          | N/A                            | 8/26/2014                                    |
| 52       | 030-55657 | 7/30/2014         | 9/12/2014                      | 9/18/2014                                    |
| 53       | 030-55658 | 7/30/2014         | 9/12/2014                      | 9/18/2014                                    |
| 54       | 030-55659 | 7/30/2014         | 9/12/2014                      | 9/18/2014                                    |
| 55       | 030-55660 | 7/30/2014         | 9/12/2014                      | 9/18/2014                                    |
| 56       | 030-55661 | 7/30/2014         | 9/12/2014                      | 9/18/2014                                    |

| ltem No | API_No    | Permit to Operate | Supplemental Permit to Operate | Interim Well Stimulation<br>Treatment Notice |
|---------|-----------|-------------------|--------------------------------|--|
| 57      | 030-55683 | 8/11/2014         | 9/12/2014                      | 9/18/2014                                    |
| 58      | 030-55684 | Date Unknown      | N/A                            | 9/18/2014                                    |
| 59      | 030-55685 | 8/11/2014         | N/A                            | 9/18/2014                                    |
| 60      | 030-55686 | 8/11/2014         | 9/12/2014                      | 9/18/2014                                    |
| 61      | 030-55687 | 8/11/2014         | 9/12/2014                      | 9/18/2014                                    |
| 62      | 030-55688 | 8/11/2014         | 9/12/2014                      | 9/18/2014                                    |
| 63      | 030-55689 | 8/11/2014         | 9/12/2014                      | 9/18/2014                                    |
| 64      | 030-55690 | 8/11/2014         | 9/12/2014                      | 9/18/2014                                    |
| 65      | 030-55704 | 8/13/2014         | N/A                            | 8/26/2014                                    |
| 66      | 030-55705 | 8/13/2014         | N/A                            | 8/26/2014                                    |
| 67      | 030-55706 | 8/13/2014         | N/A                            | 8/26/2014                                    |
| 68      | 030-55707 | 8/13/2014         | N/A                            | 8/26/2014                                    |
| 69      | 030-55708 | 8/13/2014         | N/A                            | 8/26/2014                                    |
| 70      | 030-55709 | 8/13/2014         | N/A                            | 8/26/2014                                    |
| 70      | 030-55710 | 8/13/2014         | N/A                            | 8/26/2014                                    |
| 72      | 030-55711 | 8/13/2014         | N/A                            | 9/2/2014                                     |
| 73      | 030-55712 | 8/13/2014         | N/A                            | 9/2/2014                                     |
| 74      | 030-55713 | 8/13/2014         | N/A N/A                        | 9/2/2014                                     |
| 74      | 030-55714 | 8/13/2014         | N/A N/A                        | 9/2/2014                                     |
| 76      | 030-55715 | 8/13/2014         | N/A N/A                        | 9/2/2014                                     |
| 70      | 030-55716 | 8/13/2014         | N/A N/A                        | 9/2/2014                                     |
| 78      | 030-55717 | 8/13/2014         | N/A N/A                        | 9/2/2014                                     |
| -       |           |                   | N/A N/A                        |  |
| 79      | 030-55718 | 8/13/2014         |                                | 9/2/2014                                     |
| 80      | 030-55785 | 8/18/2014         | N/A                            | 9/8/2014                                     |
| 81      | 030-55786 | 8/18/2014         | N/A                            | 9/8/2014                                     |
| 82      | 030-55787 | 8/18/2014         | N/A                            | 9/8/2014                                     |
| 83      | 030-55788 | 8/18/2014         | N/A                            | 9/9/2014                                     |
| 84      | 030-55789 | 8/18/2014         | N/A                            | 9/9/2014                                     |
| 85      | 030-55790 | 8/18/2014         | N/A                            | 9/9/2014                                     |
| 86      | 030-55791 | 8/18/2014         | N/A                            | 9/9/2014                                     |
| 87      | 030-55792 | 8/18/2014         | N/A                            | 9/9/2014                                     |
| 88      | 030-55793 | 8/18/2014         | N/A                            | 9/9/2014                                     |
| 89      | 030-55794 | 8/18/2014         | N/A                            | 9/9/2014                                     |
| 90      | 030-55841 | 8/29/2014         | N/A                            | 9/17/2014                                    |
| 91      | 030-55908 | 8/28/2014         | 9/12/2014                      | N/A  |
| 92      | 030-55909 | 8/28/2014         | 9/12/2014                      | 9/17/2014                                    |
| 93      | 030-55910 | 8/28/2014         | 9/12/2014                      | 9/17/2014                                    |
| 94      | 030-55911 | 8/28/2014         | N/A                            | 9/17/2014                                    |
| 95      | 030-55927 | 8/28/2014         | 9/12/2014                      | 9/17/2014                                    |
| 96      | 030-55929 | 8/28/2014         | 9/12/2014                      | 9/17/2014                                    |
| 97      | 030-55932 | 8/28/2014         | N/A                            | 9/17/2014                                    |
| 98      | 030-55934 | 8/28/2014         | N/A                            | 9/17/2014                                    |
| 99      | 030-55935 | 8/28/2014         | N/A                            | 9/17/2014                                    |
| 100     | 030-55983 | 8/30/2014         | N/A                            | N/A  |
| 101     | 030-55984 | 9/3/2014          | N/A                            | 10/29/2014                                   |
| 102     | 030-55985 | 9/3/2014          | N/A                            | 10/29/2014                                   |
| 103     | 030-55986 | 9/3/2014          | N/A                            | 10/29/2014                                   |
| 104     | 030-55988 | 9/3/2014          | N/A                            | 10/29/2014                                   |
| 105     | 030-55989 | 9/3/2014          | N/A                            | 10/29/2014                                   |
| 106     | 030-55990 | 9/3/2014          | N/A                            | 10/29/2014                                   |
| 107     | 030-55991 | 9/3/2014          | N/A                            | 10/29/2014                                   |
| 108     | 030-55992 | 9/3/2014          | N/A                            | 10/29/2014                                   |
| 109     | 030-56004 | 9/3/2014          | N/A                            | 10/29/2014                                   |
| 110     | 030-56017 | 9/3/2014          | N/A                            | 10/16/2014                                   |
| 111     | 030-56018 | 9/3/2014          | N/A                            | 10/16/2014                                   |
| 112     | 030-56019 | 9/3/2014          | N/A                            | 10/29/2014                                   |

| Itom No         |                     | Downit to Operate             | Sumplemental Doumit to Operate        | Interim Well Stimulation |
|-----------------|---------------------|-------------------------------|---------------------------------------|--------------------------|
| Item No.<br>113 | API_N0<br>030-56020 | Permit to Operate<br>9/3/2014 | Supplemental Permit to Operate<br>N/A | 10/29/2014               |
| 115             | 030-56020           | 9/3/2014                      | N/A N/A                               | 10/29/2014               |
| 114             | 030-56021           | 9/3/2014                      | N/A N/A                               | 10/29/2014               |
|                 | 030-56022           | 9/3/2014                      | N/A N/A                               | 10/29/2014               |
| 116             | 030-56023           |                               | N/A N/A                               |                          |
| 117             |                     | 9/3/2014                      | N/A N/A                               | N/A<br>N/A               |
| 118             | 030-56025           | 9/3/2014                      | -                                     |                          |
| 119             | 030-56026           | 9/3/2014                      | N/A                                   | N/A                      |
| 120             | 030-56027           | 9/3/2014                      | N/A                                   | N/A                      |
| 121             | 030-56028           | 9/3/2014                      | N/A                                   | N/A                      |
| 122             | 030-56029           | 9/3/2014                      | N/A                                   | N/A                      |
| 123             | 030-56030           | 9/3/2014                      | N/A                                   | N/A                      |
| 124             | 030-56031           | 9/3/2014                      | N/A                                   | N/A                      |
| 125             | 030-56032           | 9/3/2014                      | N/A                                   | N/A                      |
| 126             | 030-56033           | 9/3/2014                      | N/A                                   | N/A                      |
| 127             | 030-56034           | 9/3/2014                      | N/A                                   | N/A                      |
| 128             | 030-56144           | 9/12/2014                     | N/A                                   | N/A                      |
| 129             | 030-56145           | 9/12/2014                     | N/A                                   | N/A                      |
| 130             | 030-56146           | 9/12/2014                     | N/A                                   | N/A                      |
| 131             | 030-56147           | 9/12/2014                     | N/A                                   | N/A                      |
| 132             | 030-56148           | 9/12/2014                     | N/A                                   | N/A                      |
| 133             | 030-56149           | 9/12/2014                     | N/A                                   | 10/29/2014               |
| 134             | 030-56150           | 9/12/2014                     | N/A                                   | 10/29/2014               |
| 135             | 030-56152           | 9/11/2014                     | N/A                                   | N/A                      |
| 136             | 030-56153           | 9/11/2014                     | N/A                                   | N/A                      |
| 137             | 030-56154           | 9/11/2014                     | N/A                                   | N/A                      |
| 138             | 030-56155           | 9/15/2014                     | N/A                                   | N/A                      |
| 139             | 030-56156           | 9/15/2014                     | N/A                                   | N/A                      |
| 140             | 030-56171           | 9/16/2014                     | N/A                                   | N/A                      |
| 141             | 030-56172           | 9/16/2014                     | N/A                                   | N/A                      |
| 142             | 030-56173           | 9/22/2014                     | N/A                                   | N/A                      |
| 143             | 030-56174           | 9/16/2014                     | N/A                                   | N/A                      |
| 144             | 030-56175           | 9/16/2014                     | N/A                                   | N/A                      |
| 145             | 030-56176           | 9/16/2014                     | N/A                                   | N/A                      |
| 146             | 030-56177           | 9/16/2014                     | N/A                                   | N/A                      |
| 147             | 030-56178           | 9/16/2014                     | N/A                                   | N/A                      |
| 148             | 030-56179           | 9/16/2014                     | N/A                                   | N/A                      |
| 149             | 030-56180           | 9/16/2014                     | N/A                                   | N/A                      |
| 150             | 030-56181           | 9/16/2014                     | N/A                                   | N/A                      |
| 151             | 030-56182           | 9/16/2014                     | N/A                                   | N/A                      |
| 152             | 030-56183           | 9/16/2014                     | N/A                                   | N/A                      |
| 153             | 030-56184           | 9/16/2014                     | N/A                                   | N/A                      |
| 154             | 030-56185           | 9/16/2014                     | N/A                                   | N/A                      |
| 155             | 030-56186           | 9/16/2014                     | N/A                                   | N/A                      |
| 156             | 030-56187           | 9/16/2014                     | N/A                                   | N/A                      |
| 150             | 030-56188           | 9/16/2014                     | N/A                                   | N/A                      |
| 158             | 030-56189           | 9/16/2014                     | N/A                                   | N/A                      |
| 150             | 030-56190           | 9/16/2014                     | N/A                                   | N/A                      |
| 160             | 030-56205           | 9/19/2014                     | N/A                                   | N/A                      |
| 161             | 030-56206           | 9/19/2014                     | N/A                                   | N/A                      |
| 162             | 030-56207           | 9/19/2014                     | N/A                                   | N/A N/A                  |
| 162             | 030-56208           | 9/19/2014                     | N/A N/A                               | N/A<br>N/A               |
| 163             | 030-56208           | 9/19/2014                     | N/A N/A                               | N/A<br>N/A               |
|                 |                     | 9/19/2014                     | N/A N/A                               | N/A<br>N/A               |
| 165             | 030-56210           |                               | N/A N/A                               |                          |
| 166             | 030-56211           | 9/19/2014                     |                                       | N/A                      |
| 167             | 030-56212           | 9/19/2014                     | N/A                                   | N/A                      |
| 168             | 030-56216           | 9/19/2014                     | N/A                                   | 10/10/2014               |

|          |           |                   |                                | Interim Well Stimulation |
|----------|-----------|-------------------|--------------------------------|--------------------------|
| Item No. |           | Permit to Operate | Supplemental Permit to Operate |                          |
| 169      | 030-56217 | 9/19/2014         | N/A                            | 10/10/2014               |
| 170      | 030-56218 | 9/19/2014         | N/A                            | 10/10/2014               |
| 171      | 030-56219 | 9/19/2014         | N/A                            | 10/10/2014               |
| 172      | 030-56220 | 9/19/2014         | N/A                            | 10/10/2014               |
| 173      | 030-56221 | 9/19/2014         | N/A                            | 10/10/2014               |
| 174      | 030-56222 | 9/19/2014         | N/A                            | 10/10/2014               |
| 175      | 030-56223 | 9/19/2014         | N/A                            | 10/10/2014               |
| 176      | 030-56224 | 9/19/2014         | N/A                            | 10/10/2014               |
| 177      | 030-56225 | 9/19/2014         | N/A                            | 10/10/2014               |
| 178      | 030-56226 | 9/19/2014         | N/A                            | 10/10/2014               |
| 179      | 030-56227 | 9/19/2014         | N/A                            | 10/10/2014               |
| 180      | 030-56236 | 9/22/2014         | N/A                            | 10/16/2014               |
| 181      | 030-56237 | 9/22/2014         | N/A                            | 10/16/2014               |
| 182      | 030-56238 | 9/22/2014         | N/A                            | 10/16/2014               |
| 183      | 030-56239 | 9/22/2014         | N/A                            | 10/17/2014               |
| 184      | 030-56240 | 9/22/2014         | N/A                            | 10/17/2014               |
| 185      | 030-56241 | 9/22/2014         | N/A                            | 10/17/2014               |
| 186      | 030-56242 | 9/22/2014         | N/A                            | 10/17/2014               |
| 187      | 030-56243 | 9/22/2014         | N/A                            | 10/17/2014               |
| 188      | 030-56244 | 9/22/2014         | N/A                            | 10/17/2014               |
| 189      | 030-56245 | 9/22/2014         | N/A                            | 10/17/2014               |
| 190      | 030-56246 | 9/22/2014         | N/A                            | 10/17/2014               |
| 191      | 030-56247 | 9/22/2014         | N/A                            | 10/17/2014               |
| 192      | 030-56248 | 9/22/2014         | N/A                            | 10/13/2014               |
| 193      | 030-56249 | 9/22/2014         | N/A                            | 10/10/2014               |
| 194      | 030-56250 | 9/22/2014         | N/A                            | 10/13/2014               |
| 195      | 030-56251 | 9/22/2014         | N/A                            | 10/13/2014               |
| 196      | 030-56252 | 9/20/2014         | N/A                            | 10/13/2014               |
| 197      | 030-56253 | 9/22/2014         | N/A                            | 10/15/2014               |
| 198      | 030-56258 | 9/30/2014         | N/A                            | N/A                      |
| 199      | 030-56259 | 9/30/2014         | N/A                            | 10/15/2014               |
| 200      | 030-56260 | 9/30/2014         | N/A                            | 10/15/2014               |
| 201      | 030-56261 | 9/30/2014         | N/A                            | 10/15/2014               |
| 202      | 030-56262 | 9/30/2014         | N/A                            | 10/15/2014               |
| 203      | 030-56263 | 9/30/2014         | N/A                            | 10/15/2014               |
| 203      | 030-56264 | 9/30/2014         | N/A                            | 10/15/2014               |
| 205      | 030-56287 | 10/3/2014         | N/A                            | N/A                      |
| 205      | 030-56298 | 10/6/2014         | N/A                            | N/A                      |
| 200      | 030-56299 | 10/6/2014         | N/A                            | N/A                      |
| 208      | 030-56300 | 10/6/2014         | N/A                            | N/A                      |
| 200      | 030-56301 | 10/6/2014         | N/A                            | N/A                      |
| 205      | 030-56302 | 10/6/2014         | N/A                            | N/A                      |
| 210      | 030-56303 | 10/6/2014         | N/A                            | N/A                      |
| 211      | 030-56304 | 10/6/2014         | N/A N/A                        | N/A                      |
| 212      | 030-56357 | 10/10/2014        | N/A N/A                        | 10/27/2014               |
| 213      | 030-56358 | 10/10/2014        | N/A N/A                        | N/A                      |