

1 Department of Conservation, Division of Oil, Gas, and Geothermal Resources  
2 STATE OIL AND GAS SUPERVISOR  
3 801 K Street, MS 24-03 (Legal Office)  
4 Sacramento, California 95814-3530  
5 Telephone (916) 323-6733  
6 Facsimile (916) 445-9916  
7

8 **STATE OF CALIFORNIA**  
9 **NATURAL RESOURCES AGENCY**  
10 **DEPARTMENT OF CONSERVATION**  
11 **DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES**

12  
13 **THIRD AMENDED ORDER TO:**  
14 **STOP INJECTION,**  
15 **REMEDiate PROJECT ISSUES, TAKE**  
16 **PREVENTATIVE MEASURES, AND IMPOSE A CIVIL**  
17 **PENALTY AND "LIFE-OF" BOND**  
18

19 **NO. 1119C**

20 **Dated: January 31, 2019**

21 **Operator: HVI CAT CANYON, INC.**  
22 **(DBA: GREKA OIL & GAS; G3515)**  
23

24 **BY**

25 **Kenneth A. Harris Jr.**

26 **STATE OIL AND GAS SUPERVISOR**  
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## I. Introduction

The State Oil and Gas Supervisor (Supervisor), acting through the Division of Oil, Gas, and Geothermal Resources (Division) and under the authority of Division 3 of the Public Resources Code (PRC; **commencing with PRC section 3000**) and title 14 of the California Code of Regulations (Regulations), ensures, among other things, that an oil and gas operator timely performs the required injection well mechanical integrity tests, timely submits accurate injection well data, timely submits accurate Underground Injection Control (UIC) project data, and uses its injection wells at appropriate, approved pressures. These testing, reporting, and monitoring requirements are in accord with the Supervisor's authority in **PRC section 3106** to prevent "damage to life, health, property, and natural resources" since they ensure that injection wells are not leaking pollutants into the air, water (including, primarily, underground sources of potential drinking water), or oil and gas deposits. The reporting requirements also address the water that certain wells extract during oil and gas production (since the unused water is usually placed back underground) as well as the water put into injection wells to help produce oil and gas.<sup>1</sup> (See, **PRC section 3227**.)

Based on the Division's records, at all times relevant to this order, HVI Cat Canyon, Inc., dba Greka Oil & Gas (G3515) (Greka or Operator) was and is the oil and gas operator (as defined in **PRC section 3009**) who has the Division's approval to operate a subsurface injection project in the Richfield Oil Field (UIC Project No. 598-00-004 [Exhibit A, incorporated herein]). As such, Greka must comply with all laws applicable to such projects as well as the conditions of the controlling UIC project approval letter.

Greka's subject UIC project contains 54 wells approved for underground injection. Significantly, many of wells at issue in this Third Amended Order, as well as this UIC project facility, are in close proximity to sensitive receptors such as residential structures, schools, and parks, and also near water supply wells and groundwater recharge basins. Parque de los Ninos is convenient to the houses and apartment buildings in this neighborhood of Placentia,

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<sup>1</sup> Approximately 90% of the liquid extracted by an oil well is water. An injection well allows the operator to replace the water after the oil and gas are separated from it.

1 California. This city park has a softball field, picnic areas, playground equipment, basketball  
2 court, a swimming pool, and a community center likely to have family events. This city park  
3 also has one of the injection wells (ZW9) which Greka operates in the Richfield Oil Field  
4 (Field). This Field spans close to a square mile in Placentia, Yorba Linda, and Mira Loma and  
5 has wells that are close to schools, medical clinics, and houses.

6 This order addresses 46 wells where Greka failed to comply with the Division's statutes  
7 and regulations. (Exhibit B [Chart of wells indicating types of allegation, number of violations,  
8 and the specific penalty amounts accorded to each well], incorporated herein.) Although the  
9 Supervisor notified Greka of its failure to comply, Greka has not resolved all failures. Greka  
10 had filed more than a thousand monthly pressure reports over a 12-plus-year period that are  
11 deficient. Over time, Greka has failed to provide mechanical integrity test results, failed to  
12 install required meters and gauges on their wells, and violated a host of other requirements.

13 To protect the residents of Placentia, Yorba Linda, and Mira Loma, the Supervisor  
14 ordered Greka to "shut in" all project injection wells – that is, to stop all injections until Greka  
15 has corrected the deficient reports, submitted any missing reports, safety-tested its wells,  
16 installed proper gauges, and demonstrated that the wells can continue injecting without damage  
17 to life, health, property, and natural resources. The original remediation order (No. 1119) that  
18 the Supervisor served on December 13, 2017, included notice that civil penalties would be  
19 ordered (Exhibit C; incorporated herein; withdrawn as superseded by this and previous amended  
20 orders). Since then, Greka has admitted some of the allegations and attempted to correct some  
21 of the violations. However, reports are still missing and wells are still untested.

22 Fundamental legal requirements of the Division's continuing approval of the project  
23 require Greka to, among other things, maintain accurate project data and establish that no  
24 damage to life, health, property, or natural resources is occurring by reason of the project. (See  
25 **Regulations section 1724.10, subd. (h).**) Failing to perform well integrity tests, deficient  
26 reporting of accurate and timely injection well data to the Division, and using injection wells at  
27 inappropriate pressures are all actions that run directly counter to the requirements of the permits  
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1 under which Greka operates. As such, based on the Division's records, including the  
2 Supervisor's Order No. 1119 and Greka's Answer to the Supervisor's Order No. 1119  
3 allegations wherein Greka makes admissions to many of its alleged failures (Exhibit D,  
4 incorporated herein), and the allegations below, the Supervisor hereby orders Greka to stop all  
5 water injection until it remediates the identified project compliance issues for UIC Project No.  
6 598-00-004.

7 In addition, within his discretion under **PRC sections 3236.5 and 3270.4, and**  
8 **Regulations section 1722.8**, the Supervisor considered the relevant mitigating and extenuating  
9 circumstances described below, including Greka's admissions and total violation history, and is  
10 imposing, at this time, a civil penalty of **\$5,076,420** for violations which occurred in 2017, and a  
11 "life-of-production facility and well" bond in the amount of **\$38,975,463**.

12 Therefore, pursuant to **PRC sections 3013, 3106, 3222, 3224, 3226, 3227, 3236.5 and,**  
13 **3270.4, Regulations sections 1714, 1722, subdivisions (a) and (g), 1722.8, 1723.9, 1724.6,**  
14 **1724.7, and 1724.10**, and as set forth below, the Supervisor is ordering Greka to stop all  
15 injections approved under UIC Project No. 598-00-004 (as soon as it is safe to do so) and to  
16 address the items identified in **Section XI** below (Operator's Required Actions), which include  
17 paying the civil penalty of **\$5,076,420** and filing an appropriate bond for **\$38,975,463**. Greka is  
18 also required to disconnect all injection wells per **Regulations section 1777, subdivision (c)(4)**,  
19 unless otherwise directed by the Division.

## 20 **II. Definitions**

21 **PRC section 3008, subdivision (a)**, defines "Well" to include "... any well drilled for  
22 the purpose of injecting fluids or gas for stimulating oil or gas recovery. . ."

23 **PRC section 3009** defines "Operator" to mean "a person who, by virtue of ownership, or  
24 under the authority of a lease or any other agreement, has the right to drill, operate, maintain, or  
25 control a well or production facility."

26 **Regulations section 1760, subdivision (f)**, defines "Production facility" to mean any  
27 equipment attendant to oil and gas production or injection operations. . ."

1                   **III.    State Oil and Gas Supervisor and Division Authority**

2           **PRC section 3013** states that the oil and gas law (Division 3 of the PRC, commencing  
3 with section 3000) “shall be liberally construed to meet its purposes” and grants the Supervisor  
4 “all powers” that may be necessary to carry out those purposes.

5           **PRC section 3106, subdivision (a)**, authorizes the Supervisor to “supervise the drilling,  
6 operation, maintenance, and abandonment of wells and the operation, maintenance, and removal  
7 or abandonment of tanks and facilities attendant to oil and gas production ... so as to prevent, as  
8 far as possible, damage to life, health, property, and natural resources[.]”

9           **PRC section 3222** states, in part, that the “operator of any well shall, at the request of the  
10 supervisor, demonstrate that water from any well is not penetrating oil-bearing or gas-bearing  
11 strata or that detrimental substances are not infiltrating into underground or surface water  
12 suitable for irrigation or domestic purposes.”

13           **PRC section 3224** mandates that “The supervisor shall order such tests or remedial work  
14 as in his judgment are necessary to prevent damage to life, health, property, and natural  
15 resources. . .”

16           **PRC section 3226** authorizes the Supervisor, based on the Supervisor’s final or affirmed  
17 order, to appoint agents who may enter the well premises and perform necessary work if the  
18 operator did not complete the work as ordered. Any amount the Supervisor expends to complete  
19 the necessary work constitutes a lien against the operator’s real or personal property according  
20 to **PRC section 3423**.

21           **PRC section 3236.5** authorizes the Supervisor to impose a civil penalty on a person who  
22 violates any provision in Chapter 1 of Division 3 of the PRC or any regulation that implements  
23 Chapter 1.

24           **PRC section 3270.4** authorizes the Supervisor to impose a “life-of-well or life-of-  
25 production facility bond” on “an operator with a history of violating this chapter or that has  
26 outstanding liabilities to the state associated with a well or production facility.”

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1       **Regulations section 1714**, requires “[w]ritten approval of the Supervisor . . . prior to . . .  
2 injection. . .”

3       **Regulations section 1722, subdivision (a)**, requires that Operator conduct all operations  
4 “in accordance with good oilfield practice.”

5       **Regulations section 1722, subdivision (g)**, demands that Division-approved operations  
6 “shall not deviate from the approved program without prior Division approval, except in an  
7 emergency.”

8       **Regulations section 1722.8** addresses the factors the Supervisor considers when  
9 determining whether to order a life-of-well and/or a life-of-production facility bond and the  
10 factors to consider to establish the bond amount.

11               **IV. Operator Requirements for Continued Project Approval**

12       **PRC section 3227, subdivision (a)(4)**, requires an operator to report, among other  
13 things, “the amount of fluid or gas injected into each well used for enhanced recovery [of oil.]”

14       **Regulations section 1723.9** requires an operator to test idle wells and notify the  
15 appropriate Division district office so a Division inspector may witness the tests.

16       **Regulations section 1724.6** requires Division approval before any subsurface injection  
17 project can begin and that “[t]he operator requesting approval for such a project must provide  
18 the appropriate Division district deputy with any data that, in the judgment of the Supervisor, are  
19 pertinent and necessary for the proper evaluation of the proposed project.”

20       **Regulations section 1724.7** describes the subsurface injection project data which  
21 operators must file with the District Deputy to get, and maintain, injection project approval.

22       **Regulations section 1724.10** identifies, among other things, an operator’s injection  
23 project requirements to: (1) notify the Division about injection pressure increases (**subd. (a)**);  
24 (2) file injection reports (**subd. (c)**); (3) have an accurate pressure gauge or pressure recording  
25 device available (**subd. (e)**); (4) determine a maximum allowable surface pressure (**subd. (i)**);  
26 and (5) perform mechanical integrity testing (**subd. (j)**).  
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1       **Regulations section 1724.10, subdivision (h)**, requires that “[d]ata shall be maintained  
2 to show performance of the project and to establish that no damage to life, health, property, or  
3 natural resources is occurring by reason of the project.” It also requires that “[i]njection shall  
4 be stopped if there is evidence of . . . damage, or loss of hydrocarbons, or upon written notice  
5 from the Division. (Emphasis added.)

6       **Regulations section 1777, subdivision (c)(4)**, requires an operator to disconnect  
7 injection lines from injection wells unless there is current approval from the Division to inject.

8               **V. Failure to Accurately Report Injection Pressures**

9       While Greka had been timely reporting much of its monthly injection statistics, a  
10 Division forensic analysis of Greka’s reports, which included information from Division project  
11 site visits as well as the Division’s scientific calculations, indicated that Greka has been  
12 deficient in reporting its monthly injection pressures and/or volumes. The Division’s analysis  
13 revealed at least 1,825 incorrect monthly reports for injection wells at the project (from the time  
14 it began operating the project in June 2004, until the 2017 analysis) where Greka must have  
15 been deficient in reporting injection pressures because it was physically impossible to reconcile  
16 the injection pressures and the injection rates.

17       In addition, Greka supplied to the Division a November 2005 Netherland, Sewell &  
18 Associates, Inc. study of the Richfield East Dome Unit that indicates that the consulting firm  
19 discovered “discrepancies. . . between injection data maintained by operations personnel and  
20 those data reported to the California Department of Conservation.”

21       Most important, Division field engineers observed deficient injection reporting during a  
22 radioactive injection survey and during injection well inspections.

23       On or about June 15, 2017, a Division engineer witnessed a radioactive injection survey  
24 mechanical integrity test (MIT) for active injection well YW22 (API 05920692). The engineer’s  
25 inspection report indicated: “Well shut in on arrival. Contractor (WAC) asked operator to turn  
26 on injection, and bring pressure to approx. 500 psi. Operator on site (Greka) stated that it would  
27 likely not be possible to maintain an injection pressure of 500 psi or above. Survey performed at  
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1 500 psi.” For 13 years, the injection pressure Greka had been reporting for that well was 950  
2 psi<sup>2</sup>, yet Greka’s employee stated that it would be difficult to maintain a 500 psi injection  
3 pressure. In addition, the Division engineer indicated that the surveying personnel from Greka’s  
4 contractor (WAC) told him that the well had zero pressure prior to the start of the survey. The  
5 statements which Greka’s and its agent’s personnel made imply that the reservoir was unable to  
6 support a column of injection liquid at the time of the June 15, 2017 test because the formation  
7 would absorb the liquid faster than it was injected. If true, this physical situation (less injection  
8 pressure needed over time to do the same work) does not support Greka’s reports indicating that  
9 pressures have been constant for 13 years. This too, indicated that Greka must have been  
10 deficient in reporting pressures.

11 In addition, Division engineers were present at Greka’s Richfield injection project site on  
12 June 27, 28, and July 6,7, and 13, 2017, to record the injection pressures. At those times, the  
13 Division engineers found discrepancies between the pressures the engineers observed and the  
14 monthly values Greka had been reporting. Compounding the issues, the Division engineers  
15 noted that there were no injection flow meters on any of the wells they inspected. Apparently,  
16 Greka determines injection volumes by inserting a portable measuring device in the injection  
17 lines and taking injection readings. Greka’s on-site representative, Dan Boyd, stated that they  
18 take volume readings once a week, on Fridays, with this portable measuring device. Even  
19 though the injection well readings are weekly, a pressure change month after month should still  
20 be captured in these weekly readings yet it was not. Thus, Greka must be deficient in reporting  
21 pressures.

22 The Division included such deficient reporting allegations in the Supervisor’s December  
23 13, 2017 Order (#1119; Exhibit C) to which Greka responded in its February 5, 2018 Answer by  
24 admitting “*Upon review by HVICC in December 2017, there was discovered an unintentional*  
25 *omission in the transfer of REDU's well data from the field personnel to the administrative clerk*  
26 *in that the monthly spreadsheet utilized did not contain a column for inserting the injection well*  
27 \_\_\_\_\_

28 <sup>2</sup> Or psig (pounds per square inch, gauge).



1 pressures. As a result, the administrative clerk did not change those values in the reports to  
2 DOGGR and pressures for the active injectors inadvertently appeared to remain constant.”  
3 (Exhibit D; Emphasis added.)

4 The significant amount of inaccurate data, over a significant period of time, largely  
5 increases the potential for harm to life, health, property, and natural resources from incorrect  
6 well and project management. As such, based on the above, and **PRC sections 3227 and**  
7 **3236.5**, among others, for 360 reporting violations, on thirty (30) wells, between January 2017  
8 and December 2017, the Supervisor is imposing a **\$936,815** civil penalty on Greka.

9 **VI. Failure to Comply with Testing and Operating Requirements for UIC Projects**

10 **Regulations section 1724.10** contains specific testing and operating requirements for all  
11 underground injection wells. These include requirements for mechanical integrity testing, and  
12 accurate operating tubing pressure gauges. Greka has violated these regulatory requirements  
13 multiple times, as described below.

14 **a. Failure to Perform Mechanical Integrity Testing**

15 **Regulations section 1724.10, subdivision (j)**, requires a two-part MIT regime designed  
16 to ensure that the well is not leaking and that the injected fluid is confined to the appropriate  
17 subterranean zone(s) and is not contaminating underground sources of drinking water. First, a  
18 standard annulus pressure test (SAPT) is required prior to the commencement of injection  
19 operations, and it must be repeated at least once every five years. Second, a Radioactive Tracer  
20 Survey (RA Survey) must be conducted within three months after injection has commenced, and  
21 it must be repeated at least once every two years.

22 Division records show that, between January 1, 2017 and December 31, 2017, Greka  
23 failed to conduct its required Mechanical Integrity Testing. The omissions included seventeen  
24 (17) overdue RA Surveys and fifteen (15) overdue SAPT's. Greka has repeatedly violated  
25 **Regulations section 1724.10, subdivision (j)**, because it has not performed the required tests.  
26 These tests are required to ensure that there are no breaches to the wells which could allow the  
27 migration of fluids (liquid and gas) into the ground and air where they could do harm.  
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1 Greka responded to this allegation in its February 5, 2018 Answer by admitting, by  
2 implication (i.e., Greka finally conducted overdue tests), that some of the MIT's were not timely  
3 performed. (Exhibit D; p. 3.)

4 Based on the above, and **PRC section 3236.5**, for Greka's failure to conduct timely MIT's, the  
5 Supervisor is imposing a total civil penalty of **\$2,760,202**.

6 **b. Failure to Maintain Accurate, Operating Pressure Gauges**

7 During June and July 2017 inspections of injection wells at Greka's Richfield operation,  
8 Division personnel discovered that wells either did not have operating tubing pressure gauges or  
9 had broken gauges. Because accurate, operating tubing pressure gauges were not available for  
10 project wells, Greka violated **Regulations section 1724.10, subdivision (e)**. In accord with well  
11 integrity testing, such pressure gauges are required to ensure that there are no breaches to the wells  
12 which could allow the migration of liquid and gas into the ground and air where they could do  
13 harm.

14 Based on the above, and **PRC section 3236.5**, for Greka's failure to maintain accurate,  
15 operating pressure gauges at 26 wells, the Supervisor is imposing a civil penalty of **\$810,464**.

16 **c. Failure to Conduct Operations in Accord with Good Oilfield Practice.**

17 As of December 2017, upon information and belief, Operator did not address idle well test  
18 failures, that occurred in July 2014 and February 2016 on 5 wells and 2 wells, respectively. The  
19 Division considers Operator's failure to "follow-through" on these test failures to not be in accord  
20 with good oilfield practices in violation of **Regulations section 1722, subdivision (a)**, because,  
21 among other things, the failed tests signal an issue with the well and is contrary to Operator's  
22 mandate to maintain data to show performance of the project and to establish that no damage to  
23 life, health, property, or natural resources is occurring per **Regulations section 1724.10,**  
24 **subdivision (h)**.

25 Based on the above, and **PRC section 3236.5**, for Greka's failure to conduct operations in  
26 accord with good oilfield practice concerning failed idle well tests at 7 wells, the Supervisor is  
27 imposing a civil penalty of **\$480,624**.

1                   **VII. Failure to Comply with Project Approval Letter (PAL) Requirements**

2           Each injection project has an associated PAL. In addition to reminding an operator about  
3 important statutory and regulatory injection project requirements, the PAL specifies the  
4 individualized conditions and specifications within the Division's discretion which the operator  
5 must follow for continued injection project approval. Greka has not complied with the  
6 requirements specified in PAL items 5, 8, and 9 (Exhibit A), which, at a minimum, violates  
7 **Regulations section 1714 and Regulations section 1722, subdivision (g).**

8           The PAL item deficiencies are detailed as follows:

9           **a. PAL Item 5**

10          This PAL condition requires a fluid injection survey MIT "for each injection well within  
11 three months after injection has commenced, at least once every year thereafter, after any  
12 significant anomalous rate or pressure change, or as requested by this office to confirm that the  
13 injection fluid is confined to the intended zones." (Emphasis added.) The PAL condition also  
14 requires Greka to file all MIT data with the Division "within two months after being  
15 performed." Since Greka took over the project in 2004, Greka repeatedly violated this PAL  
16 condition because it did not perform and report the required tests at the required intervals. And,  
17 as indicated above, Greka admitted, by implication, that it failed to conduct timely MIT's.  
18 (Exhibit D; see also, **Section VI, subsection a**, above.)

19           **b. PAL Item 8**

20          This PAL condition requires that Greka have an accurate, operating pressure gauge or  
21 pressure recording device available at all times, and that all injection wells must be equipped for  
22 installation and operation of such gauge or device. In addition, a gauge or device used for  
23 injection pressure testing, which is permanently affixed to the well or any part of the injection  
24 system, shall be calibrated at least every six months. Evidence of such calibration must be  
25 available to the Division upon request. However, during Division inspections the Division  
26 found that wells had either no gauge or a broken tubing gauge and Greka could not furnish the  
27 calibration date(s) of the portable pressure device. (See **Section VI, subsection b.**) Broken and  
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1 missing gauges are not compliant with PAL Item 8. Nor is the inability to furnish the  
2 calibration date(s) of portable pressure devices.

3 **c. PAL Item 9**

4 This PAL condition requires Greka to file a monthly injection report with the Division  
5 listing the amount of fluid injected, pressure required, and source of injection fluid. Based on  
6 the Division's records and forensic analysis detailed above in **Section V, subsection a**, the  
7 Division determined that Greka continuously reported deficient monthly pressures in its wells,  
8 with deficient reports in 29 wells going back to the initial date Greka became responsible to  
9 operate the project (June 17, 2004). In addition, MITs performed in June 2014 for wells "Redu"  
10 YW19 (API 05906112) and "Redu" ZW14 (API 05906232) indicate injection pressures much  
11 higher than the monthly reported values for June of 2014. Most important, as indicated above,  
12 Greka admitted to deficient reporting (Exhibit D). As such, Greka continuously violated this  
13 PAL condition.

14 **VIII. Failure to Provide Required Project Data for Project Review**

15 As indicated above, **Regulations section 1724.7** describes the injection project data  
16 requirements which operators must file with the District Deputy to get, and maintain, injection  
17 project approval. From a letter sent December 23, 2015, the Division transmitted to Greka a list  
18 of items which the Division needed to complete its review of Greka's injection project. Greka  
19 did not provide all the required information for the Division's injection project review. The  
20 following deficiencies were noted:

21 **a. Missing Engineering Study Data**

- 22 i. The reservoir characteristics of each zone.  
23 ii. An analysis of the reservoir fluid (required by the Notice to Operators "Water  
24 Sampling Protocols and Analyses of Injection and Formation Waters" dated May  
25 18, 2015 and amended June 8, 2015.)  
26 iii. A planned well-drilling and abandonment program.  
27 iv. Almost all of the required updated casing diagrams.  
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1       **b. Missing Geologic Study Data**

- 2           i.    A structural contour map of each zone.
- 3           ii.   Legible isopach maps.
- 4           iii.   A representative electric log.

5       **c. Missing Injection Plan Data**

- 6           i.    The operator did not specify the method of injection (e.g., tubing and packer).
- 7           ii.   The operator did not provide information for the source of injection fluid and the
- 8               analysis of the injection fluid required by the Notice to Operators entitled “Water
- 9               Sampling Protocols and Analyses of Injection and Formation Waters” dated May
- 10              18, 2015 and amended June 8, 2015.

11       The Division sent “follow-up” letters requesting the required injection project data on

12       December 23, 2015, and January 20, 2017. As of the date of the Supervisor’s December 13,

13       2017 Order (#1119; Exhibit C), Greka had still not fully complied. Greka responded to this

14       allegation in its February 5, 2018 Answer by admitting, by implication, that all the data had not

15       been sufficiently and timely supplied. (Exhibit D; pages 4-5.)

16       Project data, including the configuration of wells and the condition of the subsurface,

17       allow the Division to monitor Greka’s management of the project and could help prevent any

18       project upsets, such as the unwanted migration of fluids, before it happens. As such, based on

19       the above, and **PRC section 3236.5**, for Greka’s failure to timely provide the required project

20       data, the Supervisor is imposing a civil penalty of **\$88,315**.

21                               **IX. Civil Penalty Assessment**

22       Pursuant to **PRC section 3236.5**, when the Supervisor establishes a civil penalty amount,

23       “the supervisor shall consider, in addition to other relevant circumstances, all of the following:

24       (1) The extent of harm caused by the violation; (2) The persistence of the violation; (3) The

25       pervasiveness of the violation; (4) The number of prior violations by the same violator; (5) The

26       degree of culpability of the violator; (6) Any economic benefit to the violator resulting from the

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violation; (7) The violator's ability to pay the civil penalty amount, as determined based on information publicly available to the division; and (8) The supervisor's prosecution costs."

The Supervisor determines whether a violation qualifies as a "major" or "minor" violation in accordance with PRC section 3236.5. A "major violation" is a violation that is not a well stimulation violation and that is one or more of the following: (i) A violation that results in harm to persons or property or presents a significant threat to human health or the environment; (ii) a knowing, willful, or intentional violation; (iii) A chronic violation or one that is committed by a recalcitrant violator (based on whether there is evidence indicating that the violator has engaged in a pattern of neglect or disregard with respect to applicable requirements); (iv) A violation where the violator derived significant economic benefit, either by significantly reduced costs or a significant competitive advantage. The civil penalty amount for a major violation shall be not less than two thousand five hundred dollars (\$2,500) per violation and not more than twenty-five thousand dollars (\$25,000) per violation. A "minor violation" is a violation that is neither a well stimulation violation nor a major violation. The civil penalty amount for a minor violation shall not be more than two thousand five hundred dollars (\$2,500) per violation. At the Supervisor's discretion, each day a major or minor violation continues or is not cured may be treated as a separate violation.

Based on the above allegations and Greka's admissions, at this time, the Supervisor hereby imposes a civil penalty of **\$5,076,420**. The amount is primarily based on a subset of major violations in 2017. A breakdown of the civil penalty amounts imposed for each type of violation is as follows:

- Deficient Injection Reporting (January 2017 to December 2017):  
\$936,815
- Failure to Perform Mechanical Integrity Tests (RA Tracer Surveys/SAP tests (January 2017 to December 2017): \$2,760,202
- Failure to Maintain Accurate, Operating Pressure Gauges (January 2017 to December 2017): \$810,464

- Failure to Conduct Operations in Accord with Good Oilfield Practice. (2014-2017):  
\$480,624
- Failure to Provide Required Project Data (2017):  
\$88,315

The civil penalty amounts are based on the review of factors for violations in **PRC section 3236.5**. The Supervisor reserves his right to add prosecution costs as appropriate under **PRC section 3236.5, subdivision (a)(8)**.

#### **X. "Life-of" Bonding**

Pursuant to **PRC section 3270.4**, when an operator has a history of violating Division 3 of the Public Resources Code or has outstanding liabilities to the state associated with a well or production facility, the Supervisor may require a life-of-well or life-of-production facility bond in an amount adequate to ensure all of the following:

- (1) The proper plugging and abandonment of each well.
- (2) The safe decommissioning of each production facility.
- (3) The financing of spill response and incident cleanup.

As detailed above, Greka has a history of violating Division 3 of the Public Resources Code. In addition, Greka has outstanding liabilities to the state, some of which have led to existing state tax liens. (See **PRC section 3423**).

Among other things, **Regulations section 1722.8** addresses the factors the Supervisor considers when establishing a life-of-well and/or a life-of-production facility bond amount. Two factors include the cost to plug and abandon all wells and site restoration (See **Regulations section 1722.8, subdivision (c)**.)

According to Division records, Greka operates 153 wells as part of the project. The Supervisor considered an estimated plugging and abandonment cost of \$125,171 per well so the total estimated cost to plug and abandon all wells is \$19,151,163. Greka also operates one production facility under the subject UIC approval addressed herein. The estimated cost to decommission the production facility and restore the lease is \$19,643,600. The estimated cost

for potential spill response and incident cleanup is \$180,700. As such, the Supervisor determined that the proper amount per **PRC section 3270.4** and **Regulations section 1722.8** is **\$38,975,463**.

#### **XI. Operator's Required Actions**

Based on the above, and pursuant to **3013, 3106, 3222, 3224, 3226, 3227, 3236.5 and, 3270.4, Regulations sections 1714, 1722, subdivisions (a) and (g), 1722.8, 1723.9, 1724.6, 1724.7, and 1724.10**, the Supervisor hereby orders Greka to stop all injections approved under UIC Project No. 598-00-004 (as soon as it is safe to do so) and to address the items identified below. They include paying the civil penalty of **\$5,076,420** and filing an appropriate bond for **\$38,975,463**. Greka is also required to disconnect all injection wells per **Regulations section 1777, subdivision (c)(4)**, unless otherwise directed by the Division.

##### **Operator is required to:**

- 1. Correct all deficient injection reporting;**
- 2. Submit all missing injection reports;**
- 3. Bring all injection wells into compliance concerning required RA surveys;**
- 4. Bring all injection wells into compliance concerning SAPT's;**
- 5. Retest and/or repair its idle wells where the idle well tests failed;**
- 6. Supply all data requested for injection project review and approval;**
- 7. Pay a civil penalty of \$5,076,420; and**
- 8. File an appropriate bond for \$38,975,463.**

#### **XII. Operator's Appeal Rights**

Operator may appeal this Order by filing a timely, written, notice of appeal with the Director as described in Article 6 (Appeals and Review) of Division 3 of the PRC, **commencing with PRC section 3350. (PRC, § 3225, subd. (d).)** A written notice of appeal may be mailed to the following address:

Department of Conservation  
Director's Office of Appeals  
801 K Street, MS 24-03 (Legal Office, Chief Counsel)  
Sacramento, California 95814-3530



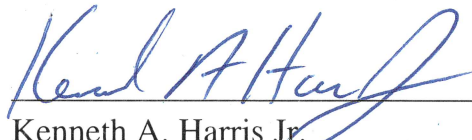
1 If Operator does not submit a timely, written, notice of appeal, Operator waives the right  
2 to challenge this Order and this Order will become a final order. At such time, pursuant to **PRC**  
3 **section 3226**, the Division may contract for the performance of all work required to disconnect  
4 all injection project injection wells if, within 30 days of this Order, Operator has not, in good  
5 faith, commenced the disconnection of such wells. Any costs incurred by the Supervisor to  
6 obtain compliance with this Order will constitute a lien against Operator's real or personal  
7 property per **PRC section 3423**.

8 The Division acknowledges that Operator has submitted a timely written notice of appeal  
9 of this order. The date, time, and place of that appeal hearing is set forth in the notice that the  
10 Division transmitted to Operator on November 30, 2018. Following the hearing, Operator will  
11 receive a written decision that affirms, sets aside, or modifies the appealed order.

12 **XIII. Other Potential Actions to Enforce This Order**

13 Failure to comply with **Section XI** (Operator's Required Actions) of this Order  
14 could subject Operator to further enforcement action, including the possibility that the  
15 Supervisor may request prosecution of a criminal action under **PRC section 3236**, which makes  
16 failing, neglecting, or refusing to comply with applicable provisions of the PRC, a misdemeanor  
17 punishable by a fine of \$100 (one hundred dollars) to \$1,000 (one thousand dollars),  
18 imprisonment of up to six (6) months or both.

19  
20 DATED: January 31, 2019

21   
22 Kenneth A. Harris Jr.  
23 State Oil and Gas Supervisor  
24  
25  
26  
27  
28

**DECLARATION OF SERVICE BY E-MAIL and U.S. Mail**

Case Name: DOGGR v. Greka Oil & Gas - Admin Enforcement Action  
No.: 1119  
OAH No.: 2018070292

I declare:

I am employed in the Office of the Attorney General, which is the office of a member of the California State Bar, at which member's direction this service is made. I am 18 years of age or older and not a party to this matter. I am familiar with the business practice at the Office of the Attorney General for collection and processing of correspondence for mailing with the United States Postal Service. In accordance with that practice, correspondence placed in the internal mail collection system at the Office of the Attorney General is deposited with the United States Postal Service with postage thereon fully prepaid that same day in the ordinary course of business.

On January 31, 2019, I served the attached **THIRD AMENDED ORDER TO: STOP INJECTION, REMEDIATE PROJECT ISSUES, TAKE PREVENTATIVE MEASURES, AND IMPOSE A CIVIL PENAL TY AND, 'LIFE-OF" BOND** by transmitting a true copy via electronic mail. In addition, I placed a true copy thereof enclosed in a sealed envelope, in the internal mail system of the Office of the Attorney General, addressed as follows:

Randall Fox  
Reetz, Fox & Bartlett, LLP  
116 East Sola Street  
Santa Barbara, CA 93101  
<mailto:rbfox@reetzfox.com>

Susan Whalen  
The Law Office of Susan M. Whalen 2806 Alta Street  
Los Olivos, CA 93441  
<mailto:Susan@whalenattorney.com>

I declare under penalty of perjury under the laws of the State of California the foregoing is true and correct and that this declaration was executed on January 31, 2019, at Los Angeles, California.

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Alfred Palma  
Declarant

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/s/ *Alfred Palma*  
Signature