## State of California Office of Administrative Law

In re:

**Department of Conservation** 

NOTICE OF APPROVAL OF REGULATORY ACTION

**Regulatory Action:** 

**Government Code Section 11349.3** 

Title 14, California Code of Regulations

Adopt sections:

1751, 1761, 1777.4, 1780, 1781, 1782, 1783, 1783.1, 1783.2, 1783.3, 1784, 1784.1, 1784.2, 1785,

1785.1, 1786, 1787, 1788,

1789

Amend sections: Repeal sections:

OAL File No. 2014-1114-04 S

This rulemaking by the Department of Conservation, Division of Oil, Gas and Geothermal Resources (Division) adopts permanent regulations relating to well stimulation in California and will replace the emergency regulations adopted in OAL File No. 2013-1219-01E and readopted in OAL File No. 2014-0619-01EE. Senate Bill 4 (Statutes 2013, Chapter 313) was signed into law on September 20, 2013. The intent of Senate Bill 4 is to provide for a comprehensive regulatory framework for well stimulation treatments in California, including procedures and processes relating to permitting, testing, monitoring, environmental and public disclosure. The proposed regulations are intended to supplement the Division's current regulatory framework with regulations specific to well stimulation treatment to meet the goals of Senate Bill 4.

OAL approves this regulatory action pursuant to section 11349.3 of the Government Code. This regulatory action becomes effective on 7/1/2015.

Date:

12/30/2014

Kevin D. Hull Senior Attorney

For:

DEBRA M. CORNEZ

Director

Original: Mark Nechodom Copy: Justin Turner

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#### **SB 4 WELL STIMULATION TREATMENT REGULATIONS**

#### FINAL TEXT OF REGULATIONS

#### Added text is shown in underline:

## CHAPTER 4. DEVELOPMENT, REGULATION, AND CONSERVATION OF OIL AND GAS RESOURCES

#### **Subchapter 2. Environmental Protection**

#### Article 1. General.

#### 1751. Single-Project Authorization.

- (a) For the purposes of this section, "single-project authorization" shall mean a single Division approval for multiple applications for permits to perform well stimulation treatments under Public Resources Code section 3160, subdivision (d), and/or notices of intent to drill or rework wells under Public Resources Code section 3203.
- (b) A request for a single-project authorization shall include:
  - (1) Identification of each of the applications and notices that are part of the request;
- (2) The applications and notices that comprise the request for a single-project authorization.
- (c) The Division will review each application and notice submitted for single-project authorization in the same manner as it would had the application or notice been submitted individually. A single-project authorization shall specify which of the application or notices have been approved and the conditions of each approval.
- (d) Operations approved by a single-project authorization that have not commenced within one year shall not be commenced without first obtaining a new approval for those operations from the Division.

NOTE: Authority cited: Sections 3013 and 3160, Public Resources Code. Reference: Sections 3106, 3160 and 3203, Public Resources Code.

#### Article 2. Definitions

#### 1761. Well Stimulation and Underground Injection Projects.

- (a) The following definitions are applicable to this subchapter:
- (1) "Well stimulation treatment" means a treatment of a well designed to enhance oil and gas production or recovery by increasing the permeability of the formation.
- (A) Well stimulation is a short term and non-continual process for the purposes of opening and stimulating channels for the flow of hydrocarbons. Examples of well stimulation treatments include hydraulic fracturing, acid fracturing, and acid matrix stimulation.
- (i) Except for operations that meet the definition of "underground injection project" under Section 1761(a)(2), a treatment at pressure exceeding the formation fracture gradient shall be presumed to be a well stimulation treatment unless it is demonstrated to the Division's satisfaction that the treatment, as designed, does not enhance oil and gas production or recovery by increasing the permeability of the formation.
- (ii) Except for operations that meet the definition of "underground injection project" under Section 1761(a)(2), a treatment that involves emplacing acid in a well and that uses a volume of fluid equal to or greater than the Acid Volume Threshold for the operation shall be presumed to be a well stimulation treatment unless it is demonstrated to the Division's satisfaction that the treatment, as designed, does not enhance oil and gas production or recovery by increasing the permeability of the formation. For the purpose of determining whether a treatment is greater than the Acid Volume Threshold, the volume of fluid used in a treatment does not include the volume fluid used for a preflush that does not use acid or an overdisplacement that does not use acid.
- (iii) The searchable index maintained by the Division under Section 1777.4(e) will clearly indicate each submission for a treatment that exceeds the formation fracture gradient or emplaces acid in the well and exceeds the Acid Volume Threshold, and such submissions shall include the Division's determination that the treatment is not a well stimulation treatment and the basis for the determination.
- (B) Well stimulation treatment does not include routine well cleanout work; routine well maintenance; routine treatment for the purpose of removal of formation damage due to drilling; bottom hole pressure surveys; routine activities that do not affect the integrity of the well or the formation; the removal of scale or precipitate from the perforations, casing, or tubing; a gravel pack treatment that does not exceed the formation fracture gradient; or a treatment that involves emplacing acid in a well and that uses a volume of fluid that is less than the Acid Volume Threshold for the operation and is below the formation fracture gradient.

- (2) "Underground injection project" or "subsurface injection or disposal project" means sustained or continual injection into one or more wells over an extended period in order to add fluid to a zone for the purpose of enhanced oil recovery, disposal, or storage.

  Examples of underground injection projects include waterflood injection, steamflood injection, cyclic steam injection, injection disposal, and gas storage projects.
- (3) "Acid Volume Threshold" means a volume, in US gallons, per treated foot of well stimulation treatment, calculated as follows:

(((Size of the drill bit diameter in inches that was used in the treated zone / 2 + 36 inches)<sup>2</sup> - (bit diameter in inches / 2)<sup>2</sup>) x 3.14159 x 12 inches x treated formation porosity) / 231 (inches<sup>3</sup>/gallon).

The lowest calculated or measured porosity in the zone of treated formation shall be the treated formation porosity used for calculating the Acid Volume Threshold.

- (b) Well stimulation treatments and underground injection projects are two distinct kinds of oil and gas production processes. Unless a regulation expressly addresses both well stimulation and underground injection projects.
- (1) Regulations regarding well stimulation treatments do not apply to underground injection projects; and
- (2) Regulations regarding underground injection projects do not apply to well stimulation.
- (3) If well stimulation treatment is done on a well that is part of an underground injection project, then regulations regarding well stimulation treatment apply to the well stimulation treatment and regulations regarding underground injection projects apply to the underground injection project operations.

NOTE: Authority cited: Sections 3013 and 3160, Public Resources Code. Reference: Sections 3106, 3157 and 3160, Public Resources Code.

#### Article 3. Requirements

#### 1777.4. Well Maintenance and Cleanout History.

- (a) Unless already addressed by an approved aggregation plan under subdivision (d), within 60 days of completing an operation on a well that involves emplacing fluid containing acid in the well, the operator shall submit the following information to the Division for inclusion in the well history:
- (1) A description of the nature and purpose of the operation;

- (2) The volume of fluid emplaced in the well in the course of the operation, including specification of the gallons per treated foot; and
  - (3) Calculation of the Acid Volume Threshold for the operation.
- (b) Within 60 days of completing an operation on a well that involves application of pressure to the formation that exceeds formation pore pressure, the operator shall submit the following information with the Division for inclusion in the well history:
  - (1) A description of the nature and purpose of the operation; and
  - (2) The bottom-hole pressure applied to the formation; and
  - (3) Calculations used to determine bottom-hole pressure, if any.
- (c) This section does not apply to the following operations:
  - (1) Well stimulation treatments regulated under Article 4 of this subchapter;
- (2) Underground injection project operations regulated under Sections 1724.6 through 1724.10 or Sections 1748 through 1748.3;
- (3) Drilling, redrilling, reworking, plugging, or abandonment operations permitted under Public Resources Code section 3203 or 3229; and
- (4) Replacement of equipment in the well, including but not limited to packers, pumps, and tubing.
- (d) Subject to approval by the Division, an operator may propose a plan for submitting aggregated information regarding a specific type of repeated operation that involves emplacing fluid containing acid in the well yet clearly does not meet the definition of a well stimulation treatment. An aggregation plan shall provide for annual submission of the aggregated volume of fluid containing acid used in an oilfield for the type of operation, a list of the wells subject to the operation during the year, and, if the operation is performed multiple times on the same well, the number of time the operation was performed on each well. An aggregation plan may be terminated at the Division's sole discretion.
- (e) The Division will maintain a searchable index of submissions made under this section, and the index will be made available on the Division's public internet website.

  The searchable index will clearly indicate each submission for a treatment that exceeds the formation fracture gradient or emplaces acid in the well and exceeds the Acid Volume Threshold, and such submissions shall include the Division's determination that the treatment is not a well stimulation treatment and the basis for the determination.

#### **Article 4. Well Stimulation Treatments**

#### 1780. Purpose, Scope, and Applicability.

- (a) The purpose of this article is to set forth regulations governing well stimulation treatments, as defined in Section 1761(a)(1), for wells located both onshore and offshore.
- (b) Well stimulation treatments are not subsurface injection or disposal projects and are not subject to Sections 1724.6 through 1724.10 or Sections 1748 through 1748.3. This article does not apply to underground injection projects. If well stimulation treatment is done on a well that is part of an underground injection project, then regulations regarding well stimulation treatment apply to the well stimulation treatment and regulations regarding underground injection projects apply to the underground injection project operations.
- (c) For purposes of this article, a well stimulation treatment commences when well stimulation fluid is pumped into the well, and ends when the well stimulation treatment equipment is disconnected from the well.

NOTE: Authority cited: Sections 3013 and 3160, Public Resources Code. Reference: Sections 3106 and 3160, Public Resources Code.

#### 1781. Definitions.

The following definitions shall govern this article:

- (a) "Acid fracturing" means a well stimulation treatment that, in whole or in part, includes the pressurized injection of acid into an underground geologic formation in order to fracture the formation, thereby causing or enhancing, for the purposes of this division, the production of oil or gas from a well.
- (b) "Acid matrix stimulation treatment" means an acid treatment conducted at pressures lower than the applied pressure necessary to fracture the underground geologic formation.
- (c) "Acid well stimulation treatment" means a well stimulation treatment that uses, in whole or in part, the application of one or more acids to the well or underground geologic formation. The acid well stimulation treatment may be at any applied pressure and may be used in combination with hydraulic fracturing treatments or other well stimulation treatments. Acid well stimulation treatments include acid matrix stimulation treatments and acid fracturing treatments.
- (d) "Acid stimulation treatment fluid" means one or more base fluids mixed with physical and chemical additives for the purpose of performing an acid well stimulation treatment.

- (e) "Additive" means a substance or combination of substances added to a base fluid for purposes of preparing well stimulation treatment fluid, including, but not limited to, acid stimulation treatment fluid and hydraulic fracturing fluid. An additive may serve additional purposes beyond the transmission of hydraulic pressure to the geologic formation. An additive may be of any phase and may include proppants.
- (f) "ADSA" or "axial dimensional stimulation area" means the estimated axial dimensions, expressed as maximum length, width, height, and azimuth, of the area(s) stimulated by a well stimulation treatment.
- (g) "Base fluid" means the continuous phase fluid used in the makeup of a well stimulation treatment fluid. The continuous phase fluid may include, but is not limited to, water, and may be a liquid or a hydrocarbon or nonhydrocarbon gas. A well stimulation treatment may use more than one base fluid.
- (h) "Chemical Disclosure Registry" means the chemical registry Internet Web site known as fracfocus.org developed by the Ground Water Protection Council and the Interstate Oil and Gas Compact Commission.
- (i) "Designated Contractor for Water Sampling" means an independent third-party person or entity designated by the State Water Board to sample water well and surface water in accordance with Public Resources Code section 3160, subdivision (d)(7).
- (j) "Flowback fluid" means the fluid recovered from the treated well before the commencement of oil and gas production from that well following a well stimulation treatment. The flowback fluid may include materials of any phase.
- (k) "Hydraulic fracturing" means a well stimulation treatment that, in whole or in part, includes the pressurized injection of hydraulic fracturing fluid into an underground geologic formation in order to fracture the formation, thereby causing or enhancing, for the purposes of this division, the production of oil or gas from a well.
- (I) "Hydraulic fracturing fluid" means one or more base fluids mixed with physical and chemical additives for the purpose of hydraulic fracturing.
- (m) "Independent third party" means a person or entity responsible to an operator, but who is not an employee of the operator, is not under the ownership or direct control of the operator, and does not have a direct financial interest in the production activities of the operator.
- (n) "Proppants" means materials inserted or injected into the underground geologic formation that are intended to prevent fractures from closing.
- (o) "Regional Water Board" means the Regional Water Quality Control Board with jurisdiction over the location of a well subject to well stimulation treatment.
- (p) "State Water Board" means the State Water Resources Control Board.
- (q) "Surface property owner" means the owner of real property as shown on the latest equalized assessment roll or, if more recent information than the information

contained on the assessment roll is available, the owner of record according to the county assessor or tax collector.

- (r) "Tenant" means a person or entity with a possessory interest in and right to occupy a legally recognized parcel, or portion thereof.
- (s) "Well stimulation treatment fluid" means a base fluid mixed with physical and chemical additives, which may include acid, for the purpose of a well stimulation treatment. A well stimulation treatment may include more than one well stimulation treatment fluid. Well stimulation treatment fluids include, but are not limited to, hydraulic fracturing fluids and acid stimulation treatment fluids.

NOTE: Authority cited: Sections 3013 and 3160, Public Resources Code. Reference: Sections 3106, 3150, 3151, 3152, 3153, 3154, 3156, 3158, 3159 and 3160, Public Resources Code.

#### 1782. General Well Stimulation Treatment Requirements.

- (a) When a well stimulation treatment is performed, the operator shall ensure that all of the following conditions are continuously met:
- (1) Casing is sufficiently cemented or otherwise anchored in the hole in order to effectively control the well at all times;
- (2) Geologic and hydrologic isolation of the oil and gas formation are maintained during and following the well stimulation treatment;
- (3) All potentially productive zones, zones capable of over-pressurizing the surface casing annulus, or corrosive zones be isolated and sealed off to the extent that such isolation is necessary to prevent vertical migration of fluids or gases behind the casing:
  - (4) All well stimulation treatment fluids are directed into the zone(s) of interest;
  - (5) The wellbore's mechanical integrity is tested and maintained;
- (6) The well stimulation treatment fluids used are of known quantity and description for reporting and disclosure as required pursuant to this article; and
- (7) The well stimulation treatment will not damage the well casing, tubing, cement, or other well equipment, or would not otherwise cause degradation of the well's mechanical integrity during the treatment process;
- (8) Well breach occurring during well stimulation treatment will be reported as required in Section 1785, subdivision (d); and
- (9) Well stimulation treatment operations are conducted in compliance with all applicable requirements of the Regional Water Board, the Department of Toxic Substances Control, the Air Resources Board, the Air Quality Management District or Air Pollution Control District, the Certified Unified Program Agency, and any other local agencies with jurisdiction over the location of the well stimulation activities.

- (b) In addition to specific methods set forth in these regulations, to achieve the objectives of this section, the operator shall follow all applicable well construction requirements, use good engineering practices, and employ best industry standards.

  (c) The operator shall terminate well stimulation treatment as soon as it is safe to do so after it determines, or is informed by the Division, that any of the conditions of subdivision (a) are not being met.
- NOTE: Authority cited: Sections 3013 and 3160, Public Resources Code. Reference: Sections 3106 and 3160, Public Resources Code.

#### 1783. Application for Permit to Perform Well Stimulation Treatment.

- (a) A well stimulation treatment or repeat well stimulation treatment shall not commence without a valid permit approved by the Division and shall be done in accordance with the conditions of the Division's approval. All well stimulation treatment permits approved by the Division shall include the condition that the well stimulation treatment shall not commence until the State Water Board or the Regional Water Board has provided written approval that the well stimulation treatment is covered under Water Code section 10783.
- (b) An application for a permit to conduct well stimulation operations shall include all of the information listed in Section 1783.1 and shall be submitted electronically to the Division on a digital form specified by the Division and available on the Division's public internet Web site at http://www.conservation.ca.gov/DOG/Pages/Index.aspx.
- (c) Upon receipt of a complete application for a permit to conduct well stimulation treatment, the Division will provide a copy of the permit application, including information in the application designated as trade secret or confidential, to the Regional Water Board, the Department of Toxic Substances Control, the Air Resources Board, and the local air district where the well stimulation treatment may occur, provided that the manner and timing of providing copies of permit applications has been specified in a written agreement between the Division and the receiving agency.
- (d) The operator shall notify the Division at least 72 hours prior to commencing well stimulation so that Division staff may witness. Between three and fifteen hours prior to commencing, the operator shall confirm with the Division that the well stimulation treatment is proceeding. Upon receipt of 72-hour notice from an operator, the Division will relay the notice to the Regional Water Board, the Department of Toxic Substances Control, the Air Resources Board, and the local air district where the well stimulation treatment may occur, provided that the manner and timing of relaying the notice has been specified in a written agreement between the Division and the receiving agency.

(e) If a well is drilled, redrilled, or reworked after the Division approves a permit for a well stimulation treatment on the well, then, when providing the 72-hour notice under subdivision (d), the operator shall indicate what, if any, variance there was from the original notice of intent to drill, redrill, or rework the well.

NOTE: Authority cited: Sections 3013 and 3160, Public Resources Code. Reference: Sections 3106 and 3160, Public Resources Code.

#### 1783.1. Contents of Application for Permit to Perform Well Stimulation Treatment.

- (a) An application for a permit to perform a well stimulation treatment shall include the following:
  - (1) Operator's name;
  - (2) Name and telephone number of person filing the form;
  - (3) Name of person to contact with technical questions regarding operations;
- (4) Telephone number and email address of person to contact with technical questions regarding operations;
- (5) Lease name and number of the well;
- (6) Location of the well, submitted as a six-digit decimal degrees, non-projected, Latitude and Longitude, in the Geographic Coordinate System (GCS) NAD83.
- (7) API number assigned to the well by the Division;
- (8) Type of well;
- (9) Name of the oil field;
- (10) County in which the well is located;
- (11) The estimated two-week time period during which the well stimulation treatment is planned to occur;
- (12) Estimated measured and estimated true vertical depth of the well, and a description of the wellbore path that is specific enough to identify the location of the well stimulation treatment;
- (13) Formation name and vertical depth of the top and bottom of the productive horizon where well stimulation treatment will occur;
  - (14) The maximum number of stages in the well stimulation treatment;
- (15) For each stage of the well stimulation treatment, the estimated measured and estimated true vertical depth of the planned interval of the well stimulation treatment on the well bore;
  - (16) The ADSA for each stage;
- (17) For each stage of the well stimulation treatment, the anticipated volume, rate, and pressures of fluid to be injected;

- (18) Identification of all wells that have previously been subject to well stimulation treatment in the same production horizon within the area of twice the ADSA;
- (19) Identification of where in the operator's Spill Contingency Plan handling of well stimulation fluid and additives has been addressed;
- (20) The operator's plan for completing the cement evaluation required under Section 1784.2(a), or a request for approval of an alternate cement evaluation plan under Section 1784.2(c);
- (21) The information required for the well stimulation treatment area analysis under Section 1784(a);
  - (22) The well stimulation treatment design required under Section 1784(b):
  - (23) A water management plan that includes all of the following:
  - (A) An estimate of the amount of water to be used in the treatment;
  - (B) An estimate of water to be recycled following the well stimulation treatment;
- (C) A description of how and where the water from a well stimulation treatment will be recycled, including a description of any treatment or reclamation activities to be conducted prior to recycling or reuse;
- (D) The anticipated source of the water to be used in the treatment, including any of the following:
- (i) The well or wells, if commingled, from which the water will be produced or extracted;
  - (ii) The water supplier, if it will be purchased from a supplier;
  - (iii) The point of diversion of surface water; and
- (E) The anticipated disposal method that will be used for the recovered water in the flowback fluid from the treatment that is not produced water that would be reported pursuant to Section 3227;
- (24) A description of anticipated procedures to comply with the Hazardous Waste Control Law (Health and Safety Code §§ 25100 et seq.) and implementing regulations pertaining to the activities and information provided under this article;
- (25) The anticipated source, amount, and composition of the base fluids to be used in the treatment, including pH, flash point, and any constituents listed in California Code of Regulations, title 22, section 66261.24, subdivision (a)(2)(A) and (B);
- (26) The estimated amount of treatment-generated waste materials that are not addressed by the water management plan, and the anticipated disposal method for the waste materials;
- (27) Documentation from either the State Water Board or the Regional Water Board that the well subject to the well stimulation treatment is covered by a regional groundwater monitoring program pursuant to Water Code section 10783, subdivision (h)(1), or indication that the operator is working with the State Water Board or the

Regional Water Board to ensure that the well subject to well stimulation treatment is covered in accordance with Water Code section 10783;

- (28) A complete list of the names, Chemical Abstract Service numbers, and estimated concentrations, in percent by mass, of each and every chemical constituent of the well stimulation fluids anticipated to be used in the treatment (if a Chemical Abstract Service number does not exist for a chemical constituent, another unique identifier may be used, if available);
- (29) Whether it is anticipated that radiological components or tracers will be injected during the well stimulation treatment;
- (30) The State Clearinghouse Number or other identification of all documents prepared under the California Environmental Quality Act that relate to the proposed well stimulation treatment; and
  - (31) Other information as requested by the Division.
- (b) A claim of trade secret protection for the information required under this section shall be handled in the manner specified under Public Resources Code section 3160, subdivision (j).
- (c) Notwithstanding any claim of trade secret protection, the Division shall not approve as complete an application for a permit to perform a well stimulation treatment unless all of the information specified in this paragraph has been provided to the Division.

NOTE: Authority cited: Sections 3013 and 3160, Public Resources Code. Reference: Sections 3106 and 3160, Public Resources Code; Section 10783, Water Code.

#### 1783.2 Neighbor Notification, Duty to Hire Independent Third Party.

- (a) The operator of any oil or gas well receiving a permit to conduct well stimulation treatment from the Division shall hire an independent third party to perform the following actions:
- (1) Identify surface property owners and tenants, other than the operator of the well subject to well stimulation treatment, of legally recognized parcels of land situated within a 1500-foot radius of the wellhead receiving well stimulation treatment, or within 500 feet of the surface representation of the horizontal path of the subsurface parts of such well;
- (2) Provide all surface property owners and tenants so identified, or their duly authorized agents, with neighbor notification that shall include and must be limited to both of the following:
  - (A) A copy of the approved well stimulation treatment permit; and
- (B) A completed Well Stimulation Treatment Neighbor Notification Form (7/15 version), hereby incorporated by reference; and

- (3) Compile and mail to the Division a declaration of notice pursuant to subdivision (i).
- (b) Neighbor notification is not required if the independent third party determines that there are no surface property owners or tenants as described in subdivision (a)(1).
- (c) A well stimulation treatment subject to the neighbor notification requirements of this section shall not commence until 30 calendar days after all required notices are provided, as defined in subdivision (e). If the independent third party has made a determination under subdivision (b) that neighbor notification is not required, then the well stimulation treatment shall not commence until at least 72 hours after the operator provides the Division with a signed written statement from the independent third party certifying that determination.
- (d) The notice required under subdivision (a)(2) may be given by any of the following means:
  - (1) Personal delivery;
  - (2) Overnight delivery by an express service carrier;
- (3) Registered, certified, or express mail;
- (4) Electronic mail or facsimile, but only if the person to be notified has agreed in writing prior to the notice to accept notice by electronic mail or facsimile. The prior written agreement shall contain the email address or facsimile number of the person to be notified, which address or number shall be used until otherwise instructed by the person to be notified.
- (e) The notice required under this section is deemed to have been provided at the following times:
  - (1) If given by personal delivery, when delivered;
- (2) If given by overnight delivery by an express service carrier, 2 calendar days after the notice is deposited with the carrier;
- (3) If given by registered, certified or express mail, 5 calendar days after the notice is deposited in the mail;
- (4) If given by electronic mail or facsimile, 2 calendar days after the notice is transmitted.
- (f) Any notice that is given to surface property owners by overnight delivery by an express service carrier or by registered, certified, or express mail shall be addressed to the address of record for that person, or his/her duly authorized agent, as shown on the latest equalized assessment roll, county assessor or tax collector records. In addition, if the owner's address of record is different from the physical address of the property within the notification radius, and if that property is capable of receiving mail, a copy of the notice shall also be delivered or mailed to that property.

- (g) Notice to a tenant shall not be considered deficient for lack of a named individual.

  Notice to any tenant can be addressed generally to "current resident," "current occupant," or such other non-specific addressee, as may be appropriate.
- (h) In addition to the means set forth in subdivision (d), tenants of a residential or commercial property that has 10 or more individual units for lease may be provided notice by leaving the copy of the permit and Well Stimulation Treatment Neighbor Notification Form at each individual residential or commercial unit within the residential or commercial property between the hours of eight in the morning and six in the evening, with some person not less than 18 years of age who provides a signature acknowledging receipt of the notice. Notice given in accordance with this subdivision shall be treated as a personal delivery for purposes of determining when such notice is deemed provided under subdivision (e).
- (i) The independent third party hired by the operator to provide notice under this section shall, within 5 calendar days of all required notices having been provided for a well stimulation treatment, submit to the Division in a text-searchable electronic format, directed to the email address "NeighborNotificationWST@conservation.ca.gov" a declaration of notice that provides all of the following:
- (1) Identifying information for the well receiving well stimulation treatment and the operator of that well;
- (2) A list of all notices provided, itemized by the County Assessor's Parcel Number for the property within the notification radius that corresponds to each notice provided;
- (3) The name of each surface property owner and tenant notified, or indication that the addressee was unspecified, as allowed under subdivision (g):
- (4) The specific method of providing each notice, including the physical or electronic address to which each notice was sent;
- (5) The date each notice was personally delivered, deposited with an express carrier or mail service, or transmitted electronically;
- (6) The date each notice is deemed to have been provided in accordance with subdivision (e); and
- (7) Representative copies of the completed Well Stimulation Treatment Neighbor Notification Form that were provided.
- (j) If any additional surface property owners or tenants are notified after the original declaration of notice is provided to the Division, then the independent third party shall within 5 calendar days submit to the Division a supplemental declaration of notice that contains the information listed in subdivision (i).
- (k) Each independent third party hired by the operator to provide notice under this section shall retain copies of all of the following:

- (1) A representative copy of the well stimulation treatment permits provided to surface property owners and tenants;
- (2) Representative copies of the completed Well Stimulation Treatment Neighbor Notification Form provided to surface property owners and tenants;
- (3) Documentation demonstrating that the notices required under this section were provided, including documentation from the United States Postal Service or express service carrier such as proof of payment records, return receipts, delivery confirmations, and tracking records; and
- (4) Records relied upon to identify surface property owners and tenants who must receive notice under this section.
- (I) Records specified for retention under subdivision (k) shall be made available to the Division promptly upon request, and shall be maintained for at least 5 years from the date that the declaration of notice required under subdivision (h) is submitted to the Division.

#### 1783.3 Availability of Water Testing, Request for Water Testing.

- (a) A surface property owner notified pursuant to Section 1783.2 may request water quality testing on any existing water well or surface water located on the parcel that is suitable for drinking or irrigation purposes.
- (b) When a surface property owner makes a request for water quality testing on any water well or surface water pursuant to subdivision (a), sampling and testing shall be in accordance with the following:
- (1) Water quality testing shall be performed by a Designated Contractor for Water Sampling.
- (2) Water quality testing shall be conducted in accordance with the standards and protocols specified by the State Water Board pursuant to Public Resources Code section 3160, subdivision (d)(7)(B).
- (3) Water quality testing shall include baseline measurements prior to the commencement of the well stimulation treatment, and follow-up measurements after the well stimulation treatment is completed.
- (4) Any written request for water testing shall specify whether the surface property owner elects to select the Designated Contractor for Water Sampling and communicate directly with the contractor to arrange for testing, or, alternatively, elects to have the operator select the Designated Contractor for Water Sampling and arrange for testing.

- (A) If the surface property owner elects to have the operator select and contract with the Designated Contractor for Water Sampling, the well stimulation treatment may not commence until the requested baseline water sampling is completed, provided that the request is made in writing and postmarked to the operator within 20 calendar days from the date notice is provided under section 1783.2(e) and the surface property owner makes necessary accommodations to enable the collection of baseline measurements without undue delay.
- (B) If the surface property owner elects to select the Designated Contractor for Water Sampling and communicate directly with the contractor to arrange for testing, the surface property owner is responsible for scheduling baseline measurements to be taken prior to the commencement of the well stimulation treatment. The operator shall immediately inform the surface property owner when the well stimulation treatment is completed so that follow-up measurements can be collected.
- (5) The operator shall pay for all reasonable costs of water quality testing under this subdivision regardless of whether the surface property owner or the operator selects and coordinates with the Designated Contractor for Water Sampling.
- (6) The results of any water quality testing shall be provided to the Division, the appropriate Regional Water Board, the State Water Board, the surface property owner, and any tenant notified pursuant to Section 1783.2 to the extent authorized by the tenant's lease.
- (7) The Regional Water Board shall be notified at least two working days prior to collecting a sample under this section so that Regional Water Board staff may witness the sampling.
- (c) Water quality data collected under subdivision (b) shall be submitted to the Regional Water Board in an electronic format that follows the guidelines detailed in California Code of Regulations, title 23, chapter 30.
- (d) A tenant notified pursuant to Section 1783.2 that has lawful use of any existing water well or surface water located on the parcel that is suitable for drinking or irrigation purposes may independently contract with a Designated Contractor for Water Sampling for water quality testing of such water. A tenant that contracts for such testing is responsible for scheduling baseline measurements to be taken prior to the commencement of the well stimulation treatment. A tenant that contracts for water testing pursuant to this section is not entitled to reimbursement from the operator for the costs of such testing. If the operator is made aware of the tenant's contracting for water quality testing, then the operator shall immediately notify the tenant when the well stimulation treatment is completed so that follow-up measurements can be collected.

#### 1784. Well Stimulation Treatment Area Analysis and Design.

- (a) As part of an application for a permit to conduct well stimulation, the operator shall conduct a well stimulation treatment area analysis to ensure the geologic and hydrologic isolation of the oil and gas formation during and following well stimulation treatment.
- (1) The operator shall utilize modelling, or other analysis, approved by the Division that will effectively estimate the ADSA. The operator shall submit the ADSA and information supporting the modeling or analysis to the Division.
- (2) The well stimulation treatment area analysis shall include identification and review of all well bores located completely or partially within two times the ADSA to ensure the geologic and hydrologic isolation of the oil and gas formation during and following well stimulation. The Division may allow modification of the review area based on modeling and analysis provided by the operator that demonstrates geologic and hydrologic isolation of the oil and gas formation during and following well stimulation treatment.

  For each well bore within the review area the well stimulation treatment area analysis shall include the following information:
  - (A) Casing diagrams clearly indicating:
  - (i) Sizes and weights of casing;
  - (ii) Depths of shoes, stubs, and liner tops;
- (iii) Depths of perforation intervals, water shutoff holes, cement port, cavity shots, cuts, casing damage, and top of junk or fish left in well;
  - (iv) Diameter and depth of hole;
- (v) Cement plugs inside casings, including top and bottom of cement plug, with indication of method of determining;
- (vi) Cement fill behind casings, including top and bottom of cement fill, with indication of method of determining;
  - (vii) Type and weight (density) of fluid between cement plugs;
- (viii) Depths and names of the formations, zones, and sand markers penetrated by the well, including the top and bottom of the zone where well stimulation treatment will occur;
  - (ix) All steps of cement yield and cement calculations performed;
- (x) All information used to calculate the cement slurry (volume, density, yield), including but not limited to, cement type and additives, for each cement job completed in each well; and
- (xi) All of the information listed in this paragraph for all previous redrilled or sidetracked well bores.
- (B) For directionally drilled wells, a wellbore path giving both inclination and azimuth measurements.

- (3) The well stimulation treatment area analysis shall include a review of all geologic features, including known faults (active or inactive), within five times the ADSA to ensure the geologic and hydrologic isolation of the oil and gas formation during and following well stimulation. For all such geologic features, the operator shall provide:
- (A) An evaluation of whether the geologic feature may act as a migration pathway for injected fluids or displaced formation fluids; and
- (B) An assessment of the risk that the well stimulation treatment will communicate with the geologic feature.
- (4) If five times the ADSA extends beyond the productive horizon being evaluated for possible well stimulation treatment, then the well stimulation treatment area analysis shall include a review of the geological formations adjacent to the productive horizon. The operator shall assess the mechanical rock properties, including permeability, relative hardness (using Young's Modulus), relative elasticity (using Poisson's Ratio), and other relevant characteristics of the geological formations to determine whether the geological formations will ensure the geologic and hydrologic isolation of the oil and gas formation during and following well stimulation.
- (5) The well stimulation treatment area analysis shall include identification of all water within two times the ADSA.
- (b) Utilizing the well stimulation treatment area analysis conducted pursuant to subdivision (a), the operator shall design the well stimulation treatment so as to ensure that the well stimulation treatment fluids or hydrocarbons do not migrate and remain geologically and hydrologically isolated to the hydrocarbon formation. A well stimulation treatment shall not be designed to employ pressure exceeding 80% of the API rated minimum internal yield on any casing string in communication with the well stimulation treatment.

#### 1784.1. Pressure Testing Prior to Well Stimulation Treatment.

- (a) The operator shall conduct pressure testing not more than 30 days before commencing well stimulation treatment, but after all operations that could affect well integrity or the integrity of the equipment are complete. Pressure testing shall include the following:
- (1) All cemented casing strings and all tubing strings to be utilized in the well stimulation treatment operations shall be pressure tested for at least 30 minutes at a pressure equal to at least 100% of the maximum surface pressure anticipated during the well stimulation treatment, but not greater than the API rated minimum internal yield

- of the tested casing. The operator shall chart the pressure testing. If during testing, and after equilibrium has been reached, there is a pressure change of 10% or more from the original test pressure, then the operator shall immediately notify the Division, the operator shall provide the Division with copies of the charting of the pressure testing, and the tested casing or tubing shall not be used until the cause of the pressure drop is identified and corrected to the Division's satisfaction. No casing or tubing shall be used unless it has been successfully tested pursuant to this section.
- (2) All surface equipment to be utilized for well stimulation treatment shall be rigged up as designed. The pump, and all equipment downstream from the pump, shall be pressure tested at a pressure equal to 125% of the maximum surface pressure anticipated during the well stimulation treatment, but not greater than the manufacturer's pressure rating for the equipment being tested. If during testing there is a pressure change of 10% or more from the original test pressure, then the operator shall immediately notify the Division, and the tested equipment shall not be used until the cause of the pressure change is identified and corrected to the Division's satisfaction. No equipment shall be used unless it has been successfully tested pursuant to this section.
- (b) The operator shall notify the Division at least 24 hours prior to conducting the pressure testing required under subdivision (a) so that Division staff may witness. The charting of pressure testing required under subdivision (a)(1) shall be provided to the Division not less than 12 hours before commencing well stimulation treatment.

#### 1784.2. Cement Evaluation Prior to Well Stimulation Treatment.

- (a) In advance of conducting well stimulation treatment, but at least 48 hours after cement placement, the operator shall run a radial cement evaluation log or other cement evaluation method that is approved by the Division, and the cement evaluation shall demonstrate the following:
- (1) The well was and continues to be cemented in accordance with the requirements of Section 1722.4 if it is an onshore well, or Section 1744.3 if it is an offshore well; and
- (2) The quality of the cement is sufficient to ensure the geologic and hydrologic isolation of the oil and gas formation during and following well stimulation treatment.
- (b) Documentation of the cement evaluation shall be provided to the Division not less than 72 hours before commencement of the well stimulation treatment. If the Division identifies a concern with the cement evaluation, the well stimulation treatment shall not commence until the concern has been addressed to the Division's satisfaction.

(c) The Division may approve an alternate cement evaluation plan that waives the requirements of subdivisions (a) and (b) if the Division is satisfied that, based on geologic and engineering information available from previous drilling or producing operations in the area where the well stimulation treatment will occur, well construction and cementing methods have been established that ensure that there will be no voids in the annular space of the well. A request for approval of an alternate cement evaluation plan shall be submitted to the Division as part of the application for a permit to perform well stimulation treatment submitted under Section 1783.

NOTE: Authority cited: Sections 3013 and 3160, Public Resources Code. Reference: Sections 3106 and 3160, Public Resources Code.

#### 1785. Monitoring During Well Stimulation Treatment Operations.

- (a) The operator shall continuously monitor and record all of the following parameters during the well stimulation treatment, if applicable:
- (1) Surface injection pressure;
- (2) Slurry rate;
- (3) Proppant concentration;
- (4) Fluid rate; and
- (5) All annuli pressures.
- (b) The operator shall terminate the well stimulation treatment and immediately provide the collected data to the Division if any of the following occurs:
- (1) A pressure change in the annulus between the tubing or casing through which well stimulation treatment fluid is conducted and the next larger tubular or casing more than 20% or greater than the calculated pressure increase due to pressure and/or temperature expansion;
- (2) Pressure exceeding 90% of the API rated minimum internal yield on any casing string in communication with the well stimulation treatment, if the pressure testing under Section 1784.1(a)(1) was done at a pressure equal to 100% of the API rated minimum internal yield of the tested casing:
- (3) Pressure exceeding 80% of the API rated minimum internal yield on any casing string in communication with the well stimulation treatment, if the pressure testing under Section 1784.1(a)(1) was done at a pressure equal to less than 100% of the API rated minimum internal yield of the tested casing; or
- (4) The operator has reason to suspect a potential breach in the cemented casing strings, the tubing strings utilized in the well stimulation treatment operations, or the geologic or hydrologic isolation of the formation.

- (c) If any of the events listed in subdivision (b) occurs, then the operator shall perform diagnostic testing on the well to determine whether a breach has occurred. Diagnostic testing shall be done as soon as is reasonably practical. The Division shall be notified when diagnostic testing is being done so that Division staff may witness the testing. All diagnostic testing results shall be immediately provided to the Division.
- (d) If diagnostic testing reveals that a breach has occurred, then the operator shall immediately shut-in the well, isolate the perforated interval, and notify the Division and the Regional Water Board with all of the following information:
  - (1) A description of the activities leading up to the well breach.
- (2) Depth interval of the well breach and methods used to determine the depth interval.
- (3) An exact description of the chemical constituents of the well stimulation treatment fluid, or of the fluid that is most representative of the fluid composition in the well at the time of the well breach.
- (e) The operator shall not resume operation of a well that has been shut-in under subdivision (d) without first obtaining approval from the Division.
- (f) Groundwater quality data submitted under subdivision (d) shall be in an electronic format that follows the guidelines detailed in California Code of Regulations, title 23, chapter 30.
- (g) If the surface casing annulus is not open to atmospheric pressure, then the surface casing pressures shall be monitored with a gauge and pressure relief device. The maximum set pressure on the relief device shall be the lowest of the following and well stimulation treatment shall be terminated if pressures in excess of the maximum set pressure are observed in the surface casing annulus:
- (1) A pressure equal to: 0.70 times 0.433 times the true vertical depth of the surface casing shoe (expressed in feet);
- (2) 70% of the API rated minimum internal yield for the surface casing; or
- (3) A pressure change that is 20% or greater than the calculated pressure increase due to pressure and/or temperature expansion.

## 1785.1. Monitoring and Evaluation of Seismic Activity in the Vicinity of Hydraulic Fracturing.

- (a) From commencement of hydraulic fracturing until 10 days after the end of hydraulic fracturing, the operator shall monitor the California Integrated Seismic Network for indication of an earthquake of magnitude 2.7 or greater occurring within a radius of five times the ADSA.
- (b) If an earthquake of magnitude 2.7 or greater is identified under subdivision (a), then the following requirements shall apply:
- (1) The operator shall immediately notify the Division and inform the Division when the earthquake occurred relative to the hydraulic fracturing operations.
- (2) The Division, in consultation with the operator and the California Geological Survey, will conduct an evaluation of the following:
- (A) Whether there is indication of a causal connection between the hydraulic fracturing and the earthquake;
- (B) Whether there is a pattern of seismic activity in the area that correlates with nearby hydraulic fracturing; and
- (C) Whether the mechanical integrity of any active well within the radius specified in subdivision (a) has been compromised.
- (3) No further hydraulic fracturing shall be done within the radius specified in subdivision (a) until the Division has completed the evaluation under subdivision (b)(2) and is satisfied that hydraulic fracturing within that radius does not create a heightened risk of seismic activity.

NOTE: Authority cited: Sections 3013 and 3160, Public Resources Code. Reference: Sections 3106 and 3160, Public Resources Code.

#### 1786. Storage and Handling of Well Stimulation Treatment Fluids and Wastes.

- (a) Operators shall adhere to the following requirements for the storage and handling of well stimulation treatment fluid, additives, and produced water from a well that has had a well stimulation treatment:
- (1) Fluids shall be stored in compliance with the secondary containment requirements of Section 1773.1, except that secondary containment is not required under this section for production facilities that are in one location for less than 30 days. The operator's Spill Contingency Plan shall account for all production facilities outside of secondary containment and include specific steps to be taken and equipment available to address a spill outside of secondary containment.

- (2) Operators shall be in compliance with all applicable testing, inspection, and maintenance requirements for production facilities containing well stimulation treatment fluids.
  - (3) Fluids shall be accounted for in the operator's Spill Contingency Plan.
  - (4) Fluids shall be stored in containers and shall not be stored in sumps or pits.
- (5) In the event of an unauthorized release, the operator shall immediately implement the Spill Contingency Plan; notify the Regional Water Board and any other appropriate response entities for the location and the type of fluids involved, as required by all applicable federal, state, and local laws and regulations; and shall perform clean up and remediation of the area, and dispose of any cleanup or remediation waste, as required by all applicable federal, state, and local laws and regulations.
- (6) Within 5 days of the occurrence of an unauthorized release, the operator shall provide the Division a written report that includes:
  - (A) A description of the activities leading up to the release;
  - (B) The type and volumes of fluid released;
  - (C) The cause(s) of release;
  - (D) Action taken to stop, control, and respond to the release; and
- (E) Steps taken and any changes in operational procedures implemented by the operator to prevent future releases.
- (7) Operators shall conduct all activities that relate to storage and management of fluids in compliance with all applicable requirements of the Regional Water Board, the Department of Toxic Substances Control, the Air Resources Board, the Air Quality Management District or Air Pollution Control District, the Certified Unified Program Agency, and any other state or local agencies with jurisdiction over the location of the well stimulation activities.
- (8) An operator who generates a waste, as defined in Health and Safety Code section 25124 and California Code of Regulations, title 22, section 66261.2, in the course of conducting well stimulation activities, including but not limited to well stimulation treatment fluid, additives, produced water from a well, solids separated from well stimulation treatment fluid, remediation wastes, or any other wastes generated from the processing, treatment or management of these wastes, shall determine if the waste is a hazardous waste by sampling and testing the waste according to the methods set forth in California Code of Regulations, title 22, division 4.5, chapter 11, article 3 (section 66261.20 et seq.), or according to an equivalent method approved by the Department of Toxic Substances Control pursuant to California Code of Regulations, title 22, section 66260.21, except where the operator has determined that the waste is excluded from regulation under California Code of Regulations, title 22, section 66261.4 or Health and Safety Code section 25143.2. Notwithstanding any other section in this article, wastes

that are determined by the operator to be hazardous wastes shall be managed in compliance with all hazardous waste management requirements of the Department of Toxic Substances Control.

NOTE: Authority cited: Sections 3013 and 3160, Public Resources Code. Reference: Sections 3106 and 3160, Public Resources Code.

#### 1787. Well Monitoring After Well Stimulation Treatment.

- (a) Operators shall monitor each well that has had a well stimulation treatment as specified in subdivision (d) to identify any indication of a well breach. If monitoring indicates that a well breach may have occurred, then the operator shall perform diagnostic testing on the well to determine whether a breach has occurred. Diagnostic testing shall be done as soon as is reasonably practical. The Division shall be notified when diagnostic testing is being done so that Division staff may witness the testing. All diagnostic testing results shall be immediately provided to the Division.
- (b) If diagnostic testing reveals that a breach has occurred, then the operator shall immediately shut-in the well, isolate the perforated interval, and notify the Division and the Regional Water Board with all of the following information:
  - (1) A description of the activities leading up to the well breach.
- (2) Depth interval of the well breach and methods used to determine the depth interval.
- (3) An exact description of the chemical constituents of the fluid that is most representative of the fluid composition in the well at the time of the well breach.
- (c) The operator shall not resume operation of a well that has been shut-in under subdivision (b) without first obtaining approval from the Division.
- (d) Operators shall adhere to the following requirements for a well that has had a well stimulation treatment:
- (1) The production pressure of the well shall be monitored at least once every two days for the first thirty days after the well stimulation treatment and on a monthly basis thereafter. Information regarding production pressures shall be reported to the Division on a monthly basis.
- (2) The annular pressures of the well shall be reported to the Division annually, unless it has been demonstrated to the Division's satisfaction that there are no voids in the annular space. It shall be immediately reported to the Division if annular pressure exceeds 70% of the API rated minimum internal yield or collapse strength of casing, or if surface casing pressures exceed a pressure equal to: 0.70 times 0.433 times the true vertical depth of the surface casing shoe (expressed in feet).

- (3) The annular valve shall be kept accessible from the surface or left open and plumbed to the surface with a working pressure gauge unless it has been demonstrated to the Division's satisfaction that there are no voids in the annular space.
- (4) A properly functioning pressure relief device shall be installed on the annulus between the surface casing and the production casing, or, if intermediate casing is set, on the annuli between the surface casing and the intermediate casing and the production casing. This requirement may be waived by the Division, if the operator demonstrates to the Division's satisfaction that the installation of a pressure relief device is unnecessary based on technical analysis and/or operating experience in the area.
- (5) If a pressure relief device is installed, then all pressure releases from the device shall be immediately reported to the Division. The maximum set pressure of a surface casing pressure relief device shall be the lowest of the following:
- (A) A pressure equal to: 0.70 times 0.433 times the true vertical depth of the surface casing shoe (expressed in feet);
  - (B) 70% of the API rated minimum internal yield for the surface casing; or
- (C) A pressure change that is 20% or greater than the calculated pressure increase due to pressure and/or temperature expansion

#### 1788. Required Public Disclosures.

- (a) Except as provided in subdivision (c), within 60 days after the cessation of a well stimulation treatment, the operator shall publicly disclose all of the following information:
  - (1) Operator's name;
  - (2) API number assigned to the well by the Division;
  - (3) Lease name and number of the well;
- (4) Location of the well, submitted as a six-digit decimal degrees, non-projected, Latitude and Longitude, in the Geographic Coordinate System (GCS) NAD83.
  - (5) County in which the well is located;
- (6) Date that the well stimulation treatment occurred;
- (7) The measured and true vertical depth of the well;
- (8) Formation name and vertical depth of the top and bottom of the productive horizon where well stimulation treatment occurred;
- (9) The trade name, supplier, concentration, and a brief description of the intended purpose of each additive contained in the well stimulation fluids used;
  - (10) The total volume of base fluid used during the well stimulation treatment;

- (11) Identification of whether the base fluid is water suitable for irrigation or domestic purposes, water not suitable for irrigation or domestic purposes, or a fluid other than water;
- (12) The source, volume, and specific composition and disposition of all water associated with the well stimulation treatment, including all of the following:
- (A) The source of the water used as a base fluid for the well stimulation treatment, including any of the following:
- (i) The well or wells, if commingled, from which the water was produced or extracted;
  - (ii) The water supplier, if purchased from a supplier;
  - (iii) The point of diversion of surface water;
- (B) Composition of water used as base fluid, including all of the following: total dissolved solids; metals listed in California Code of Regulations, title 22, section 66261.24, subdivision (a)(2)(A); benzene, toluene, ethyl benzene, and xylenes; major and minor cations (including sodium, potassium, magnesium, and calcium); major and minor anions (including nitrate, chloride, sulfate, alkalinity, and bromide); and trace elements (including lithium, strontium, and boron);
- (C) Specific disposition of water recovered from the well following the well stimulation treatment, including method and location of disposal and, if the recovered water is injected into an injection well, identification of the operator, field, and project number of the injection project;
- (D) Composition of water recovered from the well following the well stimulation treatment, sampled after a calculated wellbore volume has been produced back but before three calculated wellbore volumes have been produced back, and then sampled a second time after 30 days of production after the first sample is taken, with both samples taken prior to being placed in a storage tank or being aggregated with fluid from other wells;
- (E) Composition of water recovered from the well following the well stimulation treatment shall be determined by testing the samples taken under paragraph (D) for all of the following: appropriate indicator compound(s) for the well stimulation treatment fluid; total dissolved solids; metals listed in California Code of Regulations, title 22, section 66261.24, subdivision (a)(2)(A); benzene, toluene, ethyl benzene, and xylenes; major and minor cations (including sodium, potassium, magnesium, and calcium); major and minor anions (including nitrate, chloride, sulfate, alkalinity, and bromide); and trace elements (including lithium, strontium, and boron); radium-226, gross alpha-beta, radon 222, fluoride, iron (redox), manganese (redox), H2S (redox), nitrate+nitrite (redox), strontium, thallium, mercury, and methane;

- (F) All testing results shall have a cover page briefly describing when and where sampling was done and the results of the testing;
- (G) Sampling and testing conducted under subdivision (a)(12) is separate from and in addition to any sampling or testing that may be required to make hazardous waste determinations under the requirements of the Department of Toxic Substances Control;
- (13) Identification of any reuse of treated or untreated water for well stimulation treatments and well stimulation treatment-related activities;
- (14) The specific composition and disposition of all well stimulation treatment fluids, including waste fluids, other than water;
- (15) Any radiological components or tracers injected into the well as part of the well stimulation treatment, a description of the recovery method, if any, for those components or tracers, the recovery rate, and specific disposal information for recovered components or tracers;
- (16) The radioactivity of the recovered well stimulation fluids, and a brief description of the equipment and method used to determine the radioactivity;
- (17) For each stage of the well stimulation treatment, the measured and true vertical depth of the location of the portion of the well subject to the well stimulation treatment and the extent of the fracturing or other modification, if any, surrounding the well induced by the treatment;
- (18) The estimated volume of well stimulation treatment fluid that has been recovered; and
- (19) A complete list of the names, Chemical Abstract Service numbers, and maximum concentration, in percent by mass, of each and every chemical constituent of the well stimulation treatment fluids used. If a Chemical Abstract Service number does not exist for a chemical constituent, the operator may provide another unique identifier, if available.
- (b) For hydraulic fracturing well stimulation treatments, the operator shall post the information listed in subdivision (a) to the Chemical Disclosure Registry, to the extent that the website is able to receive the information. For all well stimulation treatments, the operator shall provide all of the information listed in subdivision (a) directly to the Division on the Well Stimulation Treatment Disclosure Reporting Form. The Well Stimulation Treatment Disclosure Reporting Form is available on the Division's public internet website at ftp://ftp.consrv.ca.gov/pub/oil/forms/Oil%26Gas/OG110S.XLSX. The Well Stimulation Treatment Disclosure Reporting Form shall be submitted to the Division in an electronic format, directed to the email address "DisclosureWST@conservation.ca.gov". The Division will organize the information provided on Well Stimulation Treatment Disclosure Forms in a format, such as a

spreadsheet, that allows the public to easily search and aggregate, to the extent practicable, each type of information disclosed.

- (c) Except for the information specified in subdivision (a)(1) through (6), operators are not required to publicly disclose information found in a well record that the Division has determined is not public record, pursuant to Public Resources Code section 3234. If information listed in subdivision (a) is not publicly disclosed on this basis, then the operator shall inform the Division in writing, and provide the Division the information that is not being publicly disclosed. The Division will provide the information that is not publicly disclosed to other state agencies as needed for regulatory purposes and in accordance with a written agreement with the other state agency regarding sharing of confidential information. It is the operator's responsibility to publicly disclose the withheld information in the manner described in subdivision (b) as soon as the information becomes public record under Public Resources Code section 3234.
- (d) A claim of trade secret protection for the information required to be disclosed under this section shall be handled in the manner specified under Public Resources Code section 3160, subdivision (j).
- (e) Groundwater quality data reported under this section shall also be submitted to the Regional Water Board in an electronic format that follows the guidelines detailed in California Code of Regulations, title 23, chapter 30.
- (f) If for any reason information specified in subdivision (a) cannot be collected within 60 days after the cessation of a well stimulation treatment, then the information shall still be publicly disclosed as soon as possible in the manner described in subdivision (b).

NOTE: Authority cited: Sections 3013 and 3160, Public Resources Code. Reference: Sections 3106, 3160 and 3234, Public Resources Code.

#### 1789. Post-Well Stimulation Treatment Report.

- (a) Within 60 days after the cessation of a well stimulation treatment, the operator shall submit a report to the Division describing:
- (1) The pressures recorded during monitoring required under Section 1785(a) during the well stimulation treatment;
- (2) The pressures recorded during the first 30 days of production pressure monitoring under Section 1787(d)(1):
- (3) The date and time that each stage of the well stimulation treatment was performed;
- (4) How the actual well stimulation treatment differs from what was anticipated in the well stimulation treatment design that was prepared under Section 1784(b);

- (5) How the actual location of the well stimulation treatment differs from what was indicated in the permit application under Section 1783.1(a)(15); and
- (6) A description of hazardous wastes generated during the well stimulation activities and their disposition, including copies of all hazardous waste manifests used to transport the hazardous wastes offsite to an authorized facility.
- (b) If information found in a report submitted under this section is found in a well record that the Division has determined is not public record, pursuant to Public Resources

  Code section 3234, then the Division will provide the information to other state agencies as needed for regulatory purposes and in accordance with a written agreement with the other state agency regarding sharing of confidential information.

#### WELL STIMULATION TREATMENT NEIGHBOR NOTIFICATION

# NOTICE AND INFORMATION THAT WELL STIMULATION TREATMENT ACTIVITIES WILL OCCUR AND INFORMATION ON YOUR RIGHTS TO HAVE WATER ON YOUR PROPERTY TESTED

Under California law, operators of oil and gas wells are required to inform certain neighboring property owners or tenants before doing a hydraulic fracture treatment (commonly referred to as "fracking") or other forms of well stimulation treatment. (See Public Resources Code, § 3160, subd. (d).) This advanced notice may enable neighboring property owners or tenants to obtain water quality testing – both before and after the well stimulation treatment – for certain water wells or surface waters located on the property. Property owners may request that the operator of the oil or gas well arrange and pay for water quality testing, while tenants may arrange for such testing at their own expense. This Notice provides additional detail about the well stimulation treatment planned to take place near your property or lease, and also provides information about water quality testing. If you have questions about this notice please visit the California Department of Conservation's website for further information at http://www.conservation.ca.gov.

#### **Notice of Nearby Well Stimulation Treatment:**

	ı treatment activi			 operator]
	errament activi		· · · · <del>-</del>	
API Number:				
Field:				
County:				
Section	. Township,	Range,		

Any operator of an oil or gas well that intends to perform well stimulation activities at a well must contract with an independent third party to identify and notify all surface property

owners and tenants within a 1500 foot radius of the wellhead and a 500 foot radius of the surface representation of the horizontal path of the subsurface parts of such well. (See Public Resources Code, § 3160, subd. (d)(6).) You are receiving this Notice because you have been identified as a surface property owner or tenant of the following property:

[assessor's parcel number], [county], which is located within or on this radius.

Well stimulation treatment refers to various methods used to enhance oil and gas production by increasing the permeability of the subsurface oil or gas formation. Well stimulation treatments may include, but are not limited to hydraulic fracturing treatments and acid well stimulation treatments.

#### **Timing of Well Stimulation Treatment:**

The well operator may not commence well stimulation treatment until thirty (30) calendar days after you are provided this Notice and a copy of the approved well stimulation permit.

The date this Notice is deemed to have been "provided" depends on the method by which it was delivered, sent or transmitted to you. Specifically:

- If this Notice was delivered to you personally, notice is deemed to have been provided on the date of delivery.
- If this Notice was sent to you by overnight delivery service, notice is deemed to have been provided two (2) calendar days after this Notice was deposited with the carrier.
- If this Notice was sent to you by registered, certified or express mail, notice is deemed to have been provided five (5) calendar days after this Notice was deposited in the mail.
- If this Notice was transmitted to you by electronic mail or facsimile, notice is deemed to have been provided two (2) calendar days after transmission.
- If this Notice was left on the premises with a person of 18 years or older, notice is deemed to have been provided on the date it was left with such person.

This Notice was:
personally delivered
deposited with an express carrier for overnight delivery
deposited in the mail by registered/certified/express mail
transmitted by electronic mail or facsimile
left on the premises with a person of 18 years or older
On the following date:
THIS NOTICE IS DEEMED TO HAVE BEEN PROVIDED ON:
[calculate date based on the schedule described above and in California Code of Regulations, title 14, section 1783.2, subdivision (d)].
THE EARLIEST DATE WHEN WELL STIMULATION TREATMENT MAY COMMENCE IS:
este en stanting and angeles properties of the properties of the design of the subject of the subject of the s The control of the subject of
[calculate date that is 30 calendar days after the date notice is deemed to have been provided].
and the control of the first of the first of the state of the specification of the process of the control of the specific the state of the state of the specific the state of

#### **WATER TESTING**

You may be entitled to request water quality testing for certain water wells or surface waters located on the property. Different rules apply depending on whether you are a surface property owner or a tenant of the property identified in this Notice.

FOR SURFACE PROPERTY OWNERS: If you are the surface property owner of the property
identified in this Notice, you may request water quality testing on any existing water well or
surface water located within your property line that is suitable for drinking or irrigation
purposes. (See Public Resources Code, § 3160, subd. (d)(7)(A).)
[name of operator] will pay for the testing,
provided it is performed in accordance with standards and protocols of the State Water
Resources Control Board by a Designated Contractor for Water Sampling. The water quality
testing includes testing prior to the well stimulation treatment ("baseline testing"), as well as
testing after the well stimulation treatment has ceased ("follow-up testing").
If you are the surface property owner and you elect to request water quality testing, you must
make your request in writing, consistent with the additional directions below, and return it to:
[Operator Contact]
[Operator Street Address]
[City, State, Zip Code]
Or the following email address:
A template form that can be used to make a request for water quality testing is available on the
website of the Division of Oil, Gas and Geothermal Resources
(http://www.conservation.ca.gov/dog).
If you request water quality testing, you must decide whether you would prefer to have
[name of operator] select the Designated
Contractor for Water Sampling and arrange for that contractor to perform the water testing on
your property, or would rather select the Designated Contractor for Water Sampling and
arrange for such testing yourself. You must indicate your decision on your written request for
water quality testing.
If you decide to have [name of operator] arrange
for the water testing, [name of operator] will
contact you to arrange for baseline testing prior to the well stimulation treatment, and again
after the well stimulation treatment has ceased to arrange for follow-up testing to be done. If

you decide to have[nar	me of operator] arrange
for the water testing, the well stimulation treatment may not comme	
is complete, provided that you make the request within 20 days of re-	ceiving this notice and you
make necessary accommodations to enable the performance of base	line testing without undue
delay. You are responsible for providing copies of the results of the w	ater testing to any
tenant(s) on your property, to the extent authorized by the tenant's leaves	ease.
IF YOU WISH TO HAVE	[name of operator] <b>BE</b>
RESPONSIBLE FOR MAKING SURE BASELINE SAMPLING IS COMPLETE	
STIMULATION TREATMENT BEGINS, YOUR REQUEST FOR WATER QU	IALITY TESTING MUST BE
POSTMARKED OR TRANSMITTED BY EMAIL NO LATER THAN	[specify the
date that is 20 calendar days after the date identified above as the da	
have been provided].	
If you decide to arrange for the water testing yourself, you are response	onsible for scheduling and
taking any other steps necessary to ensure that the Approved Water	Quality Contractor
completes baseline testing prior to the commencement of the well st	imulation treatment
described in this Notice.	_[name of operator] is
not required to delay the well stimulation treatment beyond	
date identified above as the earliest date upon which the well stimula	그런 그들은 사람이 가는 사람들이 하는 사람들이 가는 사람들이 가는 그래요?
commence] to allow for baseline testing prior to well stimulation trea	tment.
[name of operator] will	notify you when well
stimulation treatment has ceased so that you may arrange for follow-	up testing. If you decide
to arrange for the water testing yourself, you are still entitled to reim	bursement from
[name of operator] for	the costs of such testing,
provided that the water testing is consistent with the standards and p	
State Water Resources Control Board under California Public Resource	es Code section 3160,
subdivision (d)(7), and provided further that the results of such testin	
the following: (1) the California Department of Conservation, Division	
Geothermal Resources; (2) the appropriate Regional Water Quality Co	
jurisdiction over your property; and (3) any and all tenant(s) on your	
authorized by his or her lease. (See Public Resources Code, § 3160, su	

IN ORDER FOR WATER QUALITY TESTING TO BE EFFECTIVE, BASELINE SAMPLING MUST BE COMPLETED BEFORE THE WELL STIMULATION TREATMENT HAS COMMENCED.

<u>FOR TENANTS</u>: If you are the tenant of the property identified in this Notice, you may independently contract for water quality testing on any existing water well or surface water located on the property that is suitable for drinking or irrigation purposes, and of which you

have lawful use. (See Public Resources Code, § 3160, subd. (d)(7)(C).) You are not entitled to
reimbursement from [name of operator] for the
costs of such testing. If you wish to independently contract for the testing of an existing water
well or surface water of which you have lawful use, you are encouraged to use a Designated
Contractor for Water Sampling approved by the State Water Resources Control Board. Please
be advised that you are responsible for scheduling and taking any other steps necessary to
ensure that the baseline testing is completed prior to the commencement of the well
stimulation treatment described in this Notice.
[name of operator] is not required to delay the well stimulation treatment beyond
[specify the date identified above as the earliest date upon which the well
stimulation treatment may commence] to allow for the baseline testing prior to well stimulation
treatment. Additionally, you are advised to inform
[name of operator] that you are contracting for
water quality testing, as this will require [name of
operator] to notify you when the well stimulation treatment has ceased so that you may
arrange for follow-up testing.
In addition to your ability to independently contract for water quality testing you are also
entitled, to the extent provided in your lease, to receive the results of any water testing that
may be requested by the surface property owner in response to this Notice.
Additional Information:
A list of Designated Contractors for Water Sampling approved by the State Water Resources
Control Board for purposes of the water quality testing described in this Notice is available on
the websites of either the State Water Resources Control Board
(http://www.waterboards.ca.gov/water_issues/programs/groundwater/sb4.shtml) or the
California Department of Conservation, Division of Oil, Gas and Geothermal Resources
(http://www.conservation.ca.gov/dog).
If you have any questions related to the matters described in this Notice, please contact
[name of operator contact] at
[direct phone] or[email
address].
You may also contact the California Department of Conservation, Division of Oil, Gas and
Geothermal Resources at (916) 445-9686 with any questions related to the matters described in
this Notice.

Independent Thi	<u>rd Party's Signature and Contact</u> :
By (signature):	
Printed Name:	
Address:	
Telephone Numb	er:
Email Address:	

# AVISO PARA VECINOS SOBRE EL TRATAMIENTO DE ESTIMULACIÓN DE POZO

# AVISO E INFORMACIÓN PARA INFORMAR A LOS VECINOS QUE SE LLEVARÁN A CABO ACTIVIDADES PARA EL TRATAMIENTO DE ESTIMULACIÓN DE POZO, E INFORMACIÓN ACERCA DE SU DERECHO A QUE SE SOMETA A PRUEBAS EL AGUA DE SU PROPIEDAD

De acuerdo con la ley de California, los operadores de pozos de petróleo y gas están obligados a informar a los dueños o inquilinos de ciertas propiedades vecinas previo a realizar un tratamiento de fractura hidráulica (que se conoce comúnmente como "fracking") u otros tipos de tratamiento de estimulación de pozo. (Ver Código de Recursos Públicos, § 3160, subd. (d).) El presente aviso anticipado podrá permitir que los dueños o inquilinos de las propiedades vecinas obtengan pruebas de calidad del agua (tanto antes como después del tratamiento de estimulación de pozo) en ciertos pozos de agua o superficie de agua existente ubicada dentro de los límites de la propiedad. Los dueños de la propiedad podrán solicitar que el operador del pozo de petróleo o gas haga los arreglos necesarios y se encargue del pago de las pruebas de calidad del agua, mientras que los inquilinos deberán enfrentar todos los gastos relacionados con las pruebas. El presente aviso contiene detalles adicionales acerca del tratamiento de estimulación de pozo que se llevará a cabo cerca de su propiedad o la propiedad que usted alquila, y también contiene información acerca de las pruebas de calidad del agua. Si tiene alguna pregunta acerca del presente Aviso, ingrese en el sitio web del Departamento de Conservación de California para obtener más información, <a href="http://www.conservation.ca.gov">http://www.conservation.ca.gov</a>.

#### 

Cualquier operador de gas o petróleo que desea llevar a cabo actividades de estimulación de pozo en un determinado pozo deberá contratar a un tercero independiente para identificar y notificar este hecho a la totalidad de propietarios e inquilinos que habitan en la superficie dentro de un radio de 1500 pies de la boca del pozo y un radio de 500 pies de la representación de la superficie del tramo horizontal de las áreas ubicadas debajo de la superficie de dicho pozo. (Ver Código de Recursos Públicos, § 3160, subd. (d)(6).) Usted está recibiendo el presente Aviso porque ha sido identificado como inquilino o propietario del siguiente terreno:

[assessor's parcel number], [county], ubicado dentro del radio o cerca de este.

El tratamiento de estimulación de pozo hace referencia a los diversos métodos utilizados para mejorar la producción de petróleo y gas mediante el aumento de la permeabilidad de la formación de gas o petróleo por debajo de la superficie. Los tratamientos de estimulación de pozo pueden incluir, entre otros, tratamientos de fractura hidráulica y tratamientos ácidos de estimulación de pozo.

#### Cronograma del tratamiento de estimulación de pozo:

El operador del pozo no podrá comenzar el tratamiento de estimulación hasta dentro de los treinta (30) días calendario después de que usted reciba el presente Aviso y reciba una copia aprobada del permiso de estimulación de pozo.

La fecha en la cual se considere que el presente Aviso fue entregado dependerá del método de entrega, envío o transmisión. Específicamente:

- Si el presente Aviso se le entregó personalmente, se considerará que se le dio aviso en la fecha de la entrega.
- Si el presente Aviso se le envió mediante un servicio de entrega en 24 horas, se considerará que se le ha dado aviso dentro de los dos (2) días calendario posteriores a la entrega del Aviso al transportista.
- Si el presente Aviso se le envió mediante un servicio de correo registrado, certificado o
  expreso, se considerará que se le ha dado aviso dentro de los cinco (5) días calendario
  posteriores a la entrega del Aviso al correo.

- Si el presente Aviso se transmitió por fax o correo electrónico, se considerará que se le ha dado aviso dentro de los dos (2) días calendario posteriores a la transmisión.
- Si el presente Aviso se dejó en las instalaciones a una persona mayor de 18 años, se considerará que se le ha dado aviso en la fecha en que se entregó a dicha persona.

El presente Aviso: A la companya de la companya de La companya de la co
se entregó personalmente
se depositó a un transportista expreso para entrega 24 horas
se depositó en el correo mediante correo registrado/certificado/expreso
se transmitió por fax o correo electrónico
se dejó en las instalaciones a una persona mayor de 18 años
En la siguiente fecha:
SE CONSIDERA QUE EL PRESENTE AVISO SE HA ENTREGADO EL:  [calculate date based on the schedule described above and in California Code of Regulations, title 14, section 1783.2, subdivision (d)].
LA FECHA MÁS CERCANA EN QUE PUEDE COMENZAR EL TRATAMIENTO DE ESTIMULACIÓN DE POZO ES:

#### PRUEBA DE CALIDAD DEL AGUA

Usted podrá tener derecho a solicitar pruebas de calidad del agua en ciertos pozos o superficies de agua ubicados dentro del límite de la propiedad. Podrán aplicarse normas diferentes según usted sea dueño de la propiedad ubicada sobre la superficie o inquilino de la propiedad que se identifica en el presente Aviso.

PARA LOS PROPIETARIOS DE TERRENOS SOBRE LA SUPERFICIE: Si usted es propietario de un
terreno sobre la superficie de los terrenos identificados en el presente Aviso, podrá solicitar
pruebas de calidad del agua sobre cualquier pozo o superficie de agua existente ubicada dentro
de los límites de su terreno y adecuada con fines de riego o consumo. (Ver Código de Recursos
Públicos, § 3160, subd. (d)(7)(A).)[name of
operator] pagará las pruebas, en tanto y en cuanto se realicen conforme a las normas y los
protocolos establecidos por el Comité de Control de Recursos de Agua Estatal por parte de un
Contratista Designado para el Muestreo de Agua. La prueba de calidad de agua comprende
pruebas previas a las actividades de estimulación del pozo ("prueba de línea de base"), así
como también pruebas realizadas una vez finalizado el tratamiento de estimulación del pozo
("pruebas de seguimiento").
Si usted es el dueño del terreno y opta por solicitar una prueba de calidad de agua, deberá
realizar su solicitud por escrito, conforme a las siguientes instrucciones a continuación y deberá
entregarlo a:
[Operator Contact]
[Operator Street Address]
[City, State, Zip Code]
O la siguiente dirección de correo electrónico:
Para realizar la prueba de calidad del agua, se podrá utilizar el formulario de plantilla disponible
en el sitio Web de la División de Petróleo, Gas y Recursos Geotérmicos
(http://www.conservation.ca.gov/dog).
Si usted solicita una prueba de calidad del agua, deberá indicar si desea que
[name of operator] elija al Contratista Designado
para el Muestreo de Agua y coordine con dicho contratista para que realice las pruebas de agua
en su terreno o si prefiere elegir al Contratista Designado para el Muestreo de Agua y usted
mismo coordinar la realización de dichas pruebas. Deberá indicar su decisión en su solicitud
escrita de prueba de calidad del agua.

Si decide que [name of operator] coordine la
prueba de calidad del agua, [name of operator]
se comunicará con usted para programar la prueba de línea de base previo al tratamiento de
estimulación del pozo, y una vez más luego de la finalización del tratamiento para programar la
prueba de seguimiento dentro del plazo de 30 a 60 días calendario tras finalizado el
tratamiento de estimulación del pozo. Si desea que
[name of operator] coordine la prueba de calidad
del agua, es posible que el tratamiento de estimulación del pozo no comience hasta después de
finalizada la prueba de línea de base, en tanto y en cuanto usted realice las coordinaciones
adecuadas para permitir la prueba de línea de base sin demoras innecesarias. Usted es
responsable por la entrega de copias de los resultados de las pruebas del agua a los inquilinos
de su terreno, en la medida que dicha acción esté autorizada en el contrato del inquilino.
A FIN DE QUE SU SOLICITUD DE PRUEBA DE CALIDAD DEL AGUA SEA CONSIDERADA VÁLIDA Y
SEA COORDINADA POR [name of operator], LA
MISMA DEBE SER ENVIADA POR CORREO Y LLEVAR EL SELLO POSTAL O BIEN SER ENVIADA
POR CORREO ELECTRÓNICO ANTES DEL [specify the date that is 20
calendar days after the date identified above as the date this Notice is deemed to have been
2016年,1917年,1918年,1918年,1918年,1918年,1918年,1918年,1918年,1918年,1918年,1918年,1918年,1918年,1918年,1918年,1918年,1918年,1
provided].
Si decide coordinar las pruebas de calidad del agua usted mismo, será responsable por
programar y hacer todo lo necesario para asegurarse de que el Contratista de Calidad del Agua
Aprobado concluya la prueba de línea de base previo al comienzo del tratamiento de
estimulación del pozo que se describe en el presente Aviso.
[name of operator] no estará obligado a retrasar
el tratamiento de estimulación del pozo más allá del [specify the date
identified above as the earliest date upon which the well stimulation treatment may commence]
para permitir la realización de pruebas de líneade base previo al tratamiento de estimulación
del pozo [name of operator] se comunicará con
usted cuando finalice el tratamiento de estimulación del pozo para que pueda coordinar las
pruebas de seguimiento. Si desea coordinar usted mismo las pruebas de calidad del agua, aún
estará facultado a recibir un reembolso de[name
of operator] por los gastos de dicha prueba, en tanto y en cuanto las pruebas de agua coincidan con las
normas y los protocolos especificados en el Comité Estatal de Control de Recursos de Agua conforme al
artículo 3160, inciso (d)(7) del Código de Recursos Públicos de California y en tanto y en cuanto los
resultados de dichas pruebas se distribuyan a las siguientes entidades y personas: (1) la División de
Petróleo, Gas y Recursos Geotérmicos del Departamento de Conservación de California; (2) el
Comité Regional de Control de Calidad del Agua que tenga jurisdicción sobre su terreno; y (3)

cualquiera y todos los inquilinos que se encuentren en su terreno, en la medida de lo que autorice el contrato de alquiler. (Ver Código de Recursos Públicos, § 3160, subd. (d)(7)(C).)

PARA QUE LA PRUEBA DE CALIDAD DEL AGUA QUE USTED COORDINA SEA CONSIDERADA VÁLIDA, TAL PRUEBA DEBE SER HECHA ANTES DEL COMIENZO DEL TRATAMIENTO DE ESTIMULACIÓN DEL POZO.

PARA LOS INQUILINOS: Si usted fuera inquilino del terreno identificado en el presente Aviso,
podrá solicitar de manera independiente pruebas de calidad del agua sobre cualquier pozo de
agua o superficie de agua existente ubicada dentro de los límites del terreno adecuada con
fines de riego o consumo y respecto de los cuales tenga derecho de uso. (Ver Código de
Recursos Públicos, § 3160, subd. (d)(7)(C).) No estará facultado a recibir un reembolso de
[name of operator] por los costos de dicha
prueba. Si desea contratar los servicios de prueba de calidad del agua en forma independiente
para un pozo o una superficie de agua existente respecto del cual tenga derecho de uso, se
recomienda contratar a un Contratista Designado para el Muestreo de Agua aprobado por el
Comité de Control de Recursos de Agua Estatal. Recuerde que usted es responsable de
programar y tomar las medidas necesarias para asegurarse de que se concluya la prueba de
línea de base previo al comienzo del tratamiento de estimulación del pozo que se describe en o
presente Aviso[name of operator] no estará
obligado a retrasar el tratamiento de estimulación del pozo más allá del
[specify the date identified above as the earliest date upon which the well stimulation treatmer
may commence] para permitir la realización de pruebas de línea de base previo al tratamiento
de estimulación del pozo. Además, se le recomienda informar a
[name of operator] que piensa contratar un
servicio de prueba de calidad del agua; en consecuencia
[name of operator] deberá notificarle cuando
finalice el tratamiento de estimulación del pozo para que usted coordine las pruebas de
seguimiento.
Además del derecho a contratar servicios de prueba de calidad del agua en forma

Además del derecho a contratar servicios de prueba de calidad del agua en forma independiente, usted tendrá derecho, en la medida en que lo permita el contrato de alquiler, a recibir los resultados de cualquier prueba de calidad del agua que pudiera ser solicitada por el propietario del terreno de la superficie en respuesta al presente Aviso.

#### Información adicional:

Los sitios web del Comité de Control de Recursos de Agua Estatal

(<a href="http://www.waterboards.ca.gov/water\_issues/programs/groundwater/sb4.shtml">http://www.waterboards.ca.gov/water\_issues/programs/groundwater/sb4.shtml</a>) o la División de Petróleo, Gas y Recursos Geotérmicos del Departamento de Conservación de California

(<a href="http://www.conservation.ca.gov/dog">http://www.conservation.ca.gov/dog</a>) contienen una lista de Contratistas Designados para el Muestreo de Agua aprobados por el Comité de Control de Recursos de Agua Estatal para llevar a cabo prueba de calidad del agua según se describe en el presente Aviso.

Si tiene preguntas relac comuníquese con					
address].					
<u>También puede llamar</u> presente Aviso <u>a</u> la Div Conservación de Califo	isión de Pet rnia al núme	róleo, Gas y Re ero (916) 445-	ecursos Geo 9686.	térmicos d	
Firma y método de con	<u>ntacto de ur</u>	<u>tercero inde</u>	<u>pendiente</u> :		
Por (firma):					
Aclaración de firma: _		a in a supplement		e dag basa ja	
Dirección:					
Número de teléfono:					
Dirección de correo el	ectrónico:			\$15.	i i i i i i i i i i i i i i i i i i i