CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
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MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

Los Angeles Regional Water Quality Control Board

February 19, 2016

Mr. Bret Lane, Chief Operating Officer
Southern California Gas Company
555 West Fifth Street, GT21C3
Los Angeles, CA 90013-1011

VIA CERTIFIED MAIL
RETURN RECEIPT REQUESTED
7014 2870 0001 4613 6523

CALIFORNIA WATER CODE SECTION 13267 ORDER TO SUBMIT INFORMATION – INVESTIGATIVE ORDER NO. R4-2016-0035 - SOUTHERN CALIFORNIA GAS COMPANY - STANDARD SESNON 25 LEASE IN LOS ANGELES COUNTY (GLOBAL ID NO. T10000008175)(REGIONAL BOARD NO. 03700776)

Dear Mr. Lane:

The California Regional Water Quality Control Board, Los Angeles Region (Regional Board), is the public agency with primary responsibility for the protection of ground and surface water quality within the major portions of Los Angeles and Ventura Counties, including the referenced site.

As part of our effort to protect water quality, pursuant to California Water Code section 13267, the Regional Board is investigating the unauthorized discharge of workover fluids and all other workover treatments associated with the "Standard Sesnon 25" well, which began on October 23, 2015.

By this Order, the Regional Board is requesting technical information regarding Southern California Gas's activities pertaining to the Standard Sesnon 25, including nearby well sites, which appear to have impacts or potential impacts to water quality.

Any questions regarding this matter should be directed to Mr. Adam Taing at (213) 576-6752 or by email at adam.taing@waterboards.ca.gov.

Sincerely,

Samuel Unger

Samuel Unger, P. E.
Executive Officer

Enclosure:

1. Order No. R4-2016-0035
2. Attachment A - Water Quality Sampling, Analysis and Reporting
3. Attachment B – GeoTracker Upload Instructions and Assigned Global Identification Number(s)
4. Attachment C – Summary Table of Suspected Discharge Activities

cc: Mr. Jonathan Bishop, State Water Resources Control Board
Mr. John Borkovich, State Water Resources Control Board
Mr. Kenneth Harris, California Department of Conservation, DOGGR Headquarters
Mr. John Geroch, California Department of Conservation, DOGGR Headquarters
Mr. Bruce Hesson, California Department of Conservation, DOGGR Coastal
Ms. Pat Abel, California Department of Conservation, DOGGR Coastal
Mr. Daniel Dudak, California Department of Conservation, DOGGR Southern

INVESTIGATIVE ORDER NO. R4-2016-0035 TO PROVIDE A TECHNICAL REPORT ON THE UNAUTHORIZED DISCHARGE OF WORKOVER FLUIDS AND FUTURE WORKPLANS ASSOCIATED WITH WELL STANDARD SESNON 25, ALISO CANYON OIL, AND GAS FIELD IN LOS ANGELES COUNTY, CALIFORNIA CALIFORNIA WATER CODE SECTION 13267

DIRECTED TO SOUTHERN CALIFORNIA GAS COMPANY 555 WEST FIFTH STREET LOS ANGELES, CALIFORNIA 90013-1011

The California Regional Water Quality Control Board, Los Angeles Region (Regional Board) makes the following findings and issues this Order pursuant to California Water Code section 13267:

1. Southern California Gas Company (SoCal Gas) is the owner and operator of a natural gas production well, designated as the Standard Sesnon No. 25 (Well) and identified by American Petroleum Institute (API) number 03700776, in Aliso Canyon Oil and Gas Field of Los Angeles County. The Well is located in Section 28, T3N, R16W, S.B. B&M; Latitude 34.315083, Longitude -118.564069, North American Datum (NAD)83 (Site). The Site is approximately one mile north of the community of Porter Ranch, with a population of 30,570 people. Porter Ranch is located within the City of Los Angeles.

2. The Well is part of the former Aliso Canyon Oil Field that was purchased and later converted to what is now called the Aliso Canyon Gas Storage Facility (Facility). The Facility is located at 12801 Tampa Avenue, Northridge and operated by SoCal Gas. The Facility is currently listed as one of the top 10 largest fields in the United States, and one of five currently operated by SoCal Gas. There are currently 89 injection/withdrawal wells, 16 storage zone oil-producing wells and 8 monitoring wells. The Facility has a capacity of approximately 160 billion cubic feet of storage, with an 86 billion cubic feet working capacity. Natural gas is imported from Midwestern states, such as Texas, Oklahoma, and New Mexico during the summer and fall seasons to accommodate for winter demand at rates approaching 2 billion cubic feet per day[1].

3. On October 23, 2015, SoCal Gas detected a natural gas leak from the Well at the Site. Early estimates from SoCal Gas state the gas vapor was impacting a third of an acre, without any indication of direction. At the time of the incident, SoCal Gas estimated a total of 77 billion cubic feet of gas was stored in the Facility. The California Division of Oil, Gas, and Geothermal Resources (DOGGR) was notified of the leak.

[1] Kunitomi Dale S.; Schroeder Thomas, 2001: Natural gas storage operations and the geology of the Aliso Canyon Field, Los Angeles County, California. Guidebook - Pacific Section, American Association of Petroleum Geologists 77: 75-84

4. The Regional Board initially received notification of the leak on October 26, 2015 at 1152 hours[2], through an email from the California Governor's Office of Emergency Services (Cal OES). SoCal Gas reported the incident to Cal OES, which in turn notified Regional Board staff and other agencies. Regional Board staff began to monitor the Site activities in regards to protecting water quality.

5. In the afternoon of November 13, 2015, SoCal Gas reported a "mist" being discharged from the Well[3]. The discharge appeared to be due to the workover treatments conducted at the Site. The mist was reported to have a similar composition to brine, mud and petroleum residue and traveling southwest, with a wind speed of 20 miles per hour (mph). At 1515 hours, an update from SoCal Gas stated no impact to areas offsite or into waterways.

6. In the evening of November 13, 2015, various news media outlets began coverage of the discharge and workover related activities, with some referring to the discharge as an "oily mist"[3].

7. On November 14, 2015, SoCal Gas discharged a similar substance as described in Paragraph (5) from the Well at 0430 hours and impacting nearby soils. The discharge appeared to be contained by 1300 hours according to the Cal OES report[3].

8. In the early morning of November 15, 2015, SoCal Gas discharged approximately 110 barrels of workover fluid, described as a "brine solution with an oily sheen" during workover treatments. The discharge was reported to be contained without any offsite impact or into waterways. A weather advisory noted light rains early in the day[3].

9. On November 17, 2015, SoCal Gas discharged an "oil-like substance" from the Well due to ongoing workover treatments at the Site. The discharged quantity was not reported, but mentioned that all liquids discharge were contained onsite[3].

10. On November 18, 2015, SoCal Gas discharged an estimated 70 barrels of a brine solution during workover treatments at 1010 hours. Fluids were suspected of flowing into a catch basin and collected using vacuum trucks. The discharge was reported to be contained without any offsite impact or into waterways[3].

11. On November 20, 2015, SoCal Gas discharged a "brine solution and oil residue" into the atmosphere. The cause was reported to be due to an ice block obstruction encountered during workover treatments, resulting in a "dark cloud over the mountain". The nearby community was advised to stay indoors until further assessments were made. Furthermore, symptoms including headaches and ear pain were reported by a resident of Porter Ranch[3].

12. Regional Board staff members (Staff) conducted an inspection of the Facility on November 23, 2015. Due to ongoing workover activities and safety concerns, Staff was prohibited from entering the Site, but were allowed to visit the surrounding areas. SoCal Gas has two primary settlement trap locations designated "East BMP" and "West BMP" in place to capture any unauthorized discharge of workover fluids (BMP is defined as a best

[2] Cal OES Report #15-6321

[3] Cal OES Report #15-6708

management practice). Fluid flow from the Well would be directed using sandbags toward catch basin inlets which lead toward the BMP sites. The West BMP location is approximately 1,000 feet to the west and down gradient from the Site. The main cleanup area consisted of an approximately 2,500 square foot polyethylene lined tarp, with a berm surrounding 3 of the 4 sides. Equipment from the Site would be routed to the West BMP location and rinsed off using a soybean oil-based surfactant. Oil drums are used to store liquid and solid waste. A super vacuum truck was also present near the West BMP on standby. The East BMP site contained one primary settlement trap and had two Patriot cleanup crew members on standby. There was no visible discharge or liquids in the surrounding area during the inspection.

13. Staff was briefed by DOGGR representatives during the inspection and understands the subsurface leak to be occurring through a hole in the 7" steel casing, which is approximately 450 to 500 feet below ground surface (bgs). The fluids associated with the compromised Well are potentially flowing between the annulus of the 7" casing and 11-3/4" casing to a depth of 990 feet bgs, migrating through unprotected soil and exiting through the surface. Based on historic electric log files recorded in 1953 obtained from the well record on DOGGR's website, an accurate assessment of Fresh Water and Underground Sources of Drinking Water (USDW) at the described depths cannot be made at this time. Additional information and data are necessary.

14. On November 24, 2015 at 1000 hours, SoCal Gas discharged approximately 600 barrels of workover fluid, described as a chloride and brine solution, while conducting workover treatments at the Site. The discharge was stopped by 1235 hours and cleanup was conducted. The discharge was reported to be contained without any offsite impact or into waterways[3].

15. On November 25, 2015 at 1015 hours, SoCal gas discharged approximately 750 barrels of workover fluid during workover treatments. The discharge was reported to impact Site soils, but not waterways. Cleanup was completed by 1415 hours[3].

16. On December 4, 2015, SoCal Gas began drilling a relief well, "Porter No. 39A" (API 03730471) to intercept the Standard Sesnon No. 25. Installation of the surface casing and Blowout Preventer equipment was completed on December 14, 2015. Currently, SoCal Gas is in the progress of completing the production casing for the Porter No. 39A and submitting a drilling application for another relief well, "Porter-Sesnon No. 20A" (API not yet assigned) to DOGGR.

17. A summarized table of the suspected discharge activities referenced in Paragraph 3 through 15 is provided in Attachment C to this Order.

18. "Workover treatment" is defined as the process of performing major maintenance or remedial treatments on an oil or gas well. Treatments may include, but are not limited to, neutralizing well conditions (well kill), breaking through ice plugs, deodorizing the site, circulating for debris, or repairing casing. Workover treatments may occur at the surface or subsurface depths.

19. "Workover Fluid" is defined as one or more base fluids mixed with physical and chemical additives for the purpose of performing a workover treatment.

20. "Base Fluid" is defined as the continuous phase fluid used in the makeup of a workover fluid. The continuous phase fluid may include, but is not limited to, water and brine, and may be a liquid or a hydrocarbon or nonhydrocarbon gas. A workover treatment may use more than one base fluid, either sequentially or in a mixture.

21. "Additive" is defined as a substance or combination of substances added to a base fluid for the purpose of preparing a workover fluid. An additive may be used in any phase and may include glycol, polymers, surfactants, biocides, or barite.

22. "Underground Sources of Drinking Water" is defined in the Code of Federal Regulations, Title 40, section 144.3 as an aquifer or part of an aquifer which supplies any public water system, or contains a sufficient quantity of ground water to supply a public water system and currently supplies drinking water for human consumption or contains fewer than 10,000 milligrams per liter (mg/L) of Total Dissolved Solids (TDS) and is not an exempted aquifer.

23. "Fresh water" is defined as underground sources of drinking water with less than 3,000 mg/L TDS.

24. "Relief well" is defined as a well drilled near and deflected into another well that is experiencing an uncontrolled flow of fluids for the purpose of being a conduit to inject workover fluid. Based on current public data, well Porter 39A is a relief well.

25. California Water Code section 13267 states, in part:

    (a) A regional board...in connection with any action relating to any plan or requirement authorized by this division, may investigate the quality of any waters of the state within its region.

    (b)(1) In conducting an investigation specified in subdivision (a), the regional board may require that any person who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge waste within its region...that could affect the quality of waters within its region shall furnish, under penalty of perjury, technical or monitoring program reports which the regional board requires. The burden, including costs, of these reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports. In requiring those reports, the regional board shall provide the person with a written explanation with regard to the need for the reports, and shall identify the evidence that supports requiring that person to provide the reports.

26. This Order identifies SoCal Gas as the responsible party for the discharges of fluids or suspected discharges of fluids identified in Paragraph 3 through 15, because SoCal Gas owns the Facility and operates the activities that resulted in the discharges or suspected discharges.

27. The Regional Board's "Water Quality Control Plan: Los Angeles Region" (Basin Plan) is designed to preserve and enhance water quality and protect the beneficial uses of all regional waters. The Basin Plan:

    (i) *designates beneficial uses for surface and ground waters,*

(ii) sets narrative and numerical objectives that must be attained or maintained to protect the designated beneficial uses and conform to the state's antidegradation policy, and

(iii) describes implementation programs to protect all waters in the Region.

28. According to Bulletin 118 produced by the California Department of Water Resources (DWR), the Site is not located within the boundaries of any groundwater basin. The San Fernando Valley (4-12) Basin is one mile south of and the Santa Clara River Valley East (4-4.07) Subbasin is three miles north of the compromised Well. Furthermore, the nearest active municipal supply well is located approximately 3.80 miles away from the Site. Therefore, the Regional Board requires a current assessment of the groundwater beneath the Site to determine if degradation has occurred due to discharges from the compromised Well.

29. In "California Oil & Gas Fields" Volume II, published by DOGGR in 1992, datasheets detailing information pertaining to the Aliso Canyon Oil and Gas Field note that the base of Fresh Water is located between 100 to 800 feet bgs. The base of USDW is unknown at this time.

30. In an Interoffice Memo labeled "Geochemical Analysis of Produced Waters from the Aliso Canyon Storage Field" obtained from the Department of Conservation website containing information on the gas leak, it is noted that the waters from the "Porter Storage FWKO (Fallout Water Knockout)" contains 1,100 mg/L TDS, which is less than the 3,000 mg/L criteria for Fresh Waters. The depth of the Porter Storage FWKO was not mentioned.

31. Due to the suspected nature of the subsurface release of fluids associated with the compromised Well at the described depths, and the historical presence of USDW and Fresh Waters in Aliso Canyon Oil and Gas Field, the Regional Board is concerned that that the water quality in the area may have been impacted by the discharge activities.

32. This Order requires SoCal Gas to prepare and submit a technical report to provide information, with details, about the nature of the discharges referenced in Paragraph 3 through 15.

33. The Regional Board requires current information to assess the potential threat to human health and potential impacts to water quality posed by the discharge during workover treatments into zones that may be suitable for use as a drinking water supply and other beneficial uses. As described herein, information tends to indicate that Fresh water may be only 100 feet below the ground of the Aliso Canyon Oil and Gas Field. The technical information and reports required by this Order are necessary to assess the potential threat to human health and potential impacts to water quality. The need to understand the potential threat to human health and potential impacts to water quality justifies the need for the information and reports required by this Order. Based on the nature and possible consequences of the discharge of workover fluids as described by this Order and in violation of the California Water Code and the Industrial General Permit 2014-0057-DWQ, Order No. CAS000001 as noted in the Notice of Violation issued on December 31, 2015, the burden of providing the required information, including reporting costs, bears a reasonable relationship to the need for the report, and the benefits to be obtained.

34. The issuance of this Order is an enforcement action by a regulatory agency and is categorically exempt from the provisions of the California Environmental Quality Act (CEQA) pursuant to section 15321(a)(2), Chapter 3, Title 14 of the California Code of Regulations. This Order requires submittal of technical and/or monitoring reports and work plans. The proposed activities under the work plans are not yet known. It is unlikely that implementation of work plans associated with this order could result in anything more than minor physical changes to the environment. If the implementation may result in significant impacts on the environment, the appropriate lead agency will address the CEQA requirements prior to implementing any work plan.

35. Any person aggrieved by this action of the Regional Board may petition the State Water Resources Control Board (State Board) to review the action in accordance with Water Code section 13320 and California Code of Regulations, Title 23, sections 2050 and following. The State Board must *receive* the petition by 5:00 p.m., 30 days after the date of this Order, except that if the thirtieth day following the date of this Order falls on a Saturday, Sunday, or state holiday, the petition must be received by the State Water Board by 5:00 p.m. on the next business day. Copies of the law and regulations applicable to filing petitions may be provided upon request or found on the internet at:

    http://www.waterboards.ca.gov/public_notices/petitions/water_quality

THEREFORE, IT IS HEREBY ORDERED that SoCal Gas pursuant to section 13267(b) of the California Water Code, is required to submit the following:

1) **By March 28, 2016**, the Regional Board requires the submission of a technical report for the Site that includes:

    A) A map of the Site and a two mile buffer surrounding the area, that shows, at a minimum, the following:
        a. Administrative boundary of the Gas Storage Field;
        b. Active or inactive produced water ponds;
        c. Active, inactive, idle or abandoned water supply wells (public, private domestic, irrigation, and industrial);
        d. Active, inactive, idle or abandoned oil and gas wells, with API numbers;
        e. At a minimum, two dip and one strike geologic cross sections that show all geologic formations from gas storage zones to surface;
        f. Waterways, watercourses, creeks and other surface waters;
        g. Surface features displayed on a topographic map legend, north arrow and bar scale;
        h. All available fault plane maps;

    B) At a minimum, provide cross-section maps showing the surface geology and subsurface hydrogeology of Aliso Canyon Gas Storage Field:
        a. All geologic units, formations, and structures clearly labeled;
        b. Elevation reference to mean sea level, with scale clearly shown;
        c. Depth ranges for the vadose zone and saturated zone(s) to include the identification of all fresh water aquifers and water-table information, if available;
        d. The distribution of Total Dissolved Solids (TDS) in groundwater along the stratigraphic section between the shallow water-table and gas storage

interval(s) citing the method of TDS determination (i.e by calculation or sample analysis);

e. Depths and extent of any aquifers classified as exempt by the U.S. EPA (pursuant to Code of Federal Regulations, Title 40, part 146.4);
f. All geophysical logs associated with the compromised Well (e.g. cement bond logs, Induction logs (that have gamma ray, caliper, conductivity, resistivity, spontaneous potential curves) and any Dual Density-Neutron logs);
g. All geophysical logs associated with well kill operations, including adjacent "relief wells";

C) Casing diagrams for the compromised Well, including the following:
   a. Depths of casing shoes, stubs and liner tops;
   b. Depths of perforation intervals;
   c. Diameter and depth of borehole;
   d. Cement plugs inside casings, including top and bottom of cement plug, with indication of method of determination;
   e. All other plugs inside casings, including top and bottom of plug, with indication of method of determination;
   f. Cement fill behind casings, including top and bottom of cement fill, with indication of method of determination;
   g. Notations of any and all mechanical obstructions, including tools unintentionally left in the hole;
   h. Depths and names of the formations, zones, and markers penetrated by the well, including the top and bottom of the zone where natural gas is suspected of escaping;
   i. Any casing damage;
   j. Wellbore path for compromised Well and any relief wells, giving both inclination and azimuth per well survey station;

D) All work-over treatment attempted from October 23, 2015 to the date of this Order. At a minimum, the treatment report contains:
   a. A description of the nature and purpose of the operation;
   b. If operation involves injection into the Well, provide:
      i. Total discharged volume at the end of each treatment attempt;
      ii. Total suction volume at the end of each treatment attempt;
      iii. Intended target zone(s) of injection;
      iv. All treatment pressures associated with wellbore hydraulics, including method of determination (calculated, gauged);
      v. Collect a representative sample of the work-over fluid and test in accordance to Attachment A to this Order;
      vi. A detailed record of volume of fluids discharged to the surface, if any:
         - If vacuum trucks were used to collect fluids, provide manifest tickets showing volume collected and disposal method;
         - If fluids were allowed to evaporate in a sump or evaporation pond, provide area map showing sump locations and permit;
         - Collect and analyze fluid samples discharged to surface in accordance with the water quality analysis and reporting requirements contained in Attachment A to this Order. If a

representative sample cannot be collected, include a detailed reasoning demonstrating that collection of a representative sample is not feasible and provide an alternative collection method;

c. A list of all chemical additives used in each treatment attempted with Material Safety Data Sheets (MSDS);
d. Volume and concentration of each additives used in work-over fluids;

E) A Spill Contingency Plan for the Site, as required per section 1722, Chapter 4, Title 14 of the California Code of Regulations;

F) A timeline or sequence with summary and description of all work-over treatment attempted from October 23, 2015 to the date of this Order;

G) All annual inspection reports, including mechanical integrity test(s), associated to the compromised Well to the date of this Order;

H) All diagnostic reports, including but not limited to, pressure, spinner survey, and temperature surveys associated to the Well to the date of this Order;

I) All Waste Manifest documents associated with cleanup to the date of this Order;

2) **By March 28, 2016,** the Regional Board requires the submission of a Workplan to test surface water contaminated or potentially be contaminated by the compromised Well. At a minimum, the Workplan should include the following:

A) Identify all surface water bodies within a three mile radius of the compromised Well.
B) Detail methods for collecting water samples from surface water bodies within a three mile radius of the compromised Well;
   a. In addition, water samples shall be collected from Van Norman Reservoir, Monteria Lake, and all tributaries to the Los Angeles River;
   b. Samples collected shall be analyzed in accordance to Attachment A to this Order;
C) A contingency plan for follow-up water sampling if the surface water body is determined to be impacted by discharges from the compromised Well.

To comply with the above referenced regulations, you are required to upload all technical reports, documents, sampling data, and well data the SWRCB's GeoTracker database by the due dates specified to you or for the Site. However, we may request that you submit hard copies of selected documents and data to the Regional Board in addition to electronic submittal of information to GeoTracker.

For your convenience, the GeoTracker Global ID for this case is T10000008175 and Regional Board Case No. 03700776.

The technical report is required to be submitted under the California Water Code section 13267 Order. Pursuant to California Water Code section 13267(a), any person who fails to submit reports in accordance with the Order is guilty of a misdemeanor. Pursuant to section 13268(b)(1) of the California Water Code, failure to submit the required technical report described above by the specified due date(s) may result in the imposition of administrative civil liability by the Regional Board in an amount up to one thousand dollars ($1,000) per day for

each day the technical report is not received after the above due date. These civil liabilities may be assessed by the Regional Board for failure to comply, beginning with the date that the violations first occurred, and without further warning.

The Regional Board, under the authority given by California Water Code section 13267, subdivision (b)(1), requires you to include a perjury statement in all reports submitted under the 13267 Order. The perjury statement shall be signed by a senior authorized Company Name representative (not by a consultant). The perjury statement shall be in the following format:

> *I, [NAME], certify under penalty of law that this document and all attachments were prepared by me, or under my direction or supervision, in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.*

SO ORDERED

Samuel Unger
Samuel Unger, P.E.
Executive Officer

Feb. 19, 2016
DATE

ATTACHMENT A
Water Quality Sampling, Analysis, and Reporting

Water Quality Sampling

All groundwater sampling is to be performed by a qualified person. A qualified person is any person with the knowledge and training in proper sampling methods, chain of custody, and quality assurance/quality control protocols. Any person conducting groundwater sampling, other than personnel from a certified laboratory, shall consult with the certified laboratory to ensure that the sampler understands and follows the proper sampling collection procedures and protocols. All procedures to sample groundwater supply wells shall be consistent with US EPA Science and Ecosystem Support Division Operating Procedure for Groundwater Sampling (March 2013) (available at http://www.epa.gov/region4/sesd/fbqstp/Groundwater-Sampling.pdf).

Water Quality Analysis

Groundwater samples collected from wells and injection zones shall be analyzed by a laboratory certified by the Environmental Laboratory Accreditation Program (ELAP), using current applicable USEPA-approved analytical methods. The methods of analysis and the detection limits used shall be appropriate for the expected concentrations. The analytical method having the lowest method detection limit (MDL) shall be selected from among those methods that would provide valid results in light of any matrix effects or interferences. Analyze samples for the following:

A. Total dissolved solids
B. Metals listed in California Code of Regulations, title 22, section 66261.24, subdivision (a)(2)(A)
C. Benzene, toluene, ethylbenzene, and xylenes (BTEX)
D. Total petroleum hydrocarbons (TPH) for crude oil
E. Polynuclear aromatic hydrocarbons (including acenaphthene, acenaphthylene, anthracene, benzo[a]anthracene, benzo[b]fluoranthene, benzo[k]fluoranthene, benzo[a]pyrene, benzo[g,h,i]perylene, chrysene, dibenzo[a,h]anthracene, fluoranthene, fluorene, indeno[1,2,3-cd]pyrene, naphthalene, phenanthrene, and pyrene)
F. Radionuclides listed under California Code of Regulations, title 22, Table 64442, which includes Gross Alpha particle activity (excluding radon and uranium), Uranium, Radium-226, and Radium-228.
G. Methane
H. Major and minor cations (including sodium, potassium, magnesium, and calcium)
I. Major and minor anions (including nitrate, chloride, sulfate, alkalinity, and bromide)
J. Trace elements (including lithium, strontium, boron, iron, and manganese)
I. pH testing

Water Quality Reporting

Work plans, and technical reports and associated data shall be uploaded in an electronic format compatible with the State's GeoTracker system.

Technical Report that includes

- Site plan with the location(s) of the wells sampled
- Description of field sampling procedures
- Copies of analytical laboratory reports, including quality assurance/quality control procedures and analytical test methods.
- Waste management and disposal procedures
- Table(s) of analytical results organized by well number (including API number).
- A list and location map of all the water supply wells located within a one mile radius of the injection well(s)

All GeoTracker uploads should consist of a GeoReport, GeoMap(s), and an EDF of laboratory data, if applicable.

Mr. Bret Lane
Southern California Gas Company

February 19, 2016

ATTACHMENT B
GeoTracker Upload Instructions and Assigned Global Identification Number(s)

Technical justifications included in correspondence letters/reports, work plans, and technical reports and associated data shall be uploaded in an electronic format compatible with the State's GeoTracker system. To begin the process:

- Log in or create a password
- Claim your site(s) (i.e. global ID)
- Add field point name(s)
- Upload the following:
    - Work plan/Technical report and associated data (GeoReport)
    - *laboratory report (EDF)
    - *Site Maps (GeoMAP)

For more information, please contact the GeoTracker Help Desk at Geotracker@waterboards.ca.gov or (866) 480-1028.

Injection Well	Assigned Global ID number	Regional Board Case No
03700776	T10000008175	03700776

*GeoTracker submittal may not be required for all document types.

Mr. Bret Lane
Southern California Gas Company

February 19, 2016

ATTACHMENT C
Summary Table of Suspected Discharge Activities

Event	Date	Report Time	Discharge Start Time	Fluid Description*	Quantity (barrels)	Area of Impact	Matrix
1	11/13/2015	13:56	13:17	Mist composed of brine, mud and petroleum	Not provided	Local Area near Site	Soil
2	11/14/2015	13:02	4:30	Mist composed of brine, mud and petroleum	Not provided	Local Area near Site	Soil
3	11/15/2015	14:10	4:00	Brine solution with oily sheen	Sum with Event 4	Local Area near Site	Soil
4	11/15/2015	14:10	10:38	Brine solution with oily sheen	110	Local Area near Site	Soil
5	11/17/2015	13:30	Morning	Oil-like substance	Not provided	Local Area near Site	Soil
6	11/18/2015	13:17	10:10	Brine solution	70	Local Area near Site	Soil
7	11/20/2015	18:59	Morning	Brine solution and oil residue	Not provided	Local Area near Site	Soil
8	11/24/2015	14:01	10:00	Chloride and brine solution	600	Local Area near Site	Soil
9	11/25/2015	14:15	10:15	Chloride and brine solution	750	Local Area near Site	Soil
				Total**	**1530 barrels**		

*As described in Cal OES Report 15-6708, accessed 12/20/2015
** Total does not include quantity from Events 1, 2, 5 and 7.