State of California • Natural Resources Agency
Department of Conservation
Division of Oil, Gas, and Geothermal Resources
801 K Street • MS 18-05
Sacramento, CA 95814
(916) 445-9686 • FAX (916) 319-9533

Edmund G. Brown Jr., *Governor*
Kenneth A. Harris Jr., *State Oil and Gas Supervisor*

January 3, 2017

SENT VIA EMAIL

Mr. Rodger Schwecke
Vice President
Transmission and Storage
Southern California Gas Company
RSchwecke@semprautilities.com

FINDING THAT WELL PORTER 69C (API NO. 03724128) PASSED TESTS REQUIRED TO ENSURE MECHANICAL INTEGRITY

Dear Mr. Schwecke:

I am writing in regard to the safety review test results for one of the 114 wells at the Aliso Canyon gas storage facility (Facility). Each of these wells are subject to the comprehensive safety review that State Oil and Gas Supervisor Order 1109 and SB 380[1] require to be completed before the Division of Oil, Gas, and Geothermal Resources (Division) may authorize resumption of injection operations at the Facility. Order 1109 describes two batteries of well tests. To complete the review, each well must (1) pass both batteries of tests, (2) pass the first battery of tests and be taken out of service and isolated from the underground gas storage reservoir, or (3) be properly plugged and abandoned.

The first battery of tests is an initial casing assessment that uses temperature and noise logs to ensure that there is no migration of fluids near the wellbore. The second battery of tests consists of a casing inspection using electromagnetic and ultra-sonic technologies, a multi-arm caliper inspection, a cement bond log, and a positive pressure test to ensure well integrity and the prevention of fluid and gas migration. The Division posts the current status and testing results for each of the 114 wells on its website at http://www.conservation.ca.gov/dog/AlisoCanyon/Pages/Well-Detail.aspx.

After receiving and evaluating all test results for the well, I find for purposes of Order 1109 and SB 380, that well Porter 69C (API No. 03724128) passed the first and second batteries of the comprehensive safety review testing regime and, as of July 29, 2016, the mechanical integrity of the well has been ensured. Accordingly, this well may be used for injection if and when I authorize injection operations to resume at the Facility, and if the well is in compliance with all other applicable requirements. I make this finding as of the date of this letter, and underscore that ongoing monitoring and testing are necessary to ensure the continued integrity of the well.

Sincerely,

Kenneth A. Harris Jr.,
State Oil and Gas Supervisor

[1] Senate Bill 380 (Pavley, Chapter 14, Statutes of 2016) codified in part at Public Resources Code section 3217.

NATURAL RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

Rec'd 12-12-16 DOGGR Ventura.

Workover SIMP
Start Date: 5/11/2016 - End Date: 7/27/2016

WELL SUMMARY REPORT

API No. 03724128

Operator	Well	
Southern California Gas Company	Porter 69 C	
Field (and Area, if applicable) Aliso Canyon	County Los Angeles	Section 28 T3N R16W SBBM
Location of well (Give surface location from property or section corner, street center line) N/S Dist (ft): , E/W Dist (ft):		Elevation of ground above sea level: 2,366
Lat./Long. in decimal degrees, to six decimal places, NAD 83 format: Lat: 34.31496169 Long: 118.55699283		

Was the well directionally drilled? ☐ Yes ☐ No If yes, show coordinates (from surface location) and true vertical depth at total depth.

Commenced drilling (date) 3/19/1992	Total depth (1st hole)	(2nd)	(3rd)	Depth measurements taken from top of: ☐ Derrick Floor ☐ Rotary Table ☒ Kelly Bushing
Completed drilling (date) 4/25/1992	** See attached report			Which is 23 feet above ground.
Commenced production/injection (date) ** See attached report	Present effective depth			GEOLOGICAL MARKERS / DEPTH
Production mode: ☐ Flowing ☐ Pumping ☐ Gas lift	Junk? Describe:			** See attached report
Name of production/injection zone(s) ** See attached report				Formation Name / Geologic Age / Base of fresh water

	Clean Oil (bbl per day)	API Gravity (clean oil)	Percent Water (including emulsion)	Gas (Mcf per day)	Tubing Pressure	Casing Pressure
Initial Production						
Production After 30 days						

CASING AND CEMENTING RECORD (Present Hole)

Size of Casing (Inches API)	Top of Casing	Depth of Shoe	Weight of Casing	Grade and Type of Casing	New (N) or Used (U)	Size of Hole Drilled	Number of Sacks or Cubic Feet of Cement	Depth of Cementing (if through perforations)	Top(s) of Cement in Annulus
** See attached report for CASING RECORD**									

PERFORATED CASING (Size, top, bottom, perforated intervals, size and spacing of perforations, and method.)

** See attached report

Logs/surveys run? ☐ Yes ☐ No If yes, list type(s) and depth(s).

** See attached report

In compliance with Sec. 3215, Division 3, of the *Public Resources Code*, the information given herewith is a complete and correct record of the present condition of the well and all work done thereon, so far as can be determined from all available records.

Name of person filing report	Telephone Number	Signature	Date
Tom McMahon	714-398-5020	Thomas J McMahon	11.14.16
Address		City/State	Zip Code
PO Box 2300, SC9365		Chatsworth, CA	91313-2300
Individual to contact for technical questions:	Telephone Number	E-Mail Address:	
Tom McMahon	714-398-5020		

OG100 (3/09)

SUBMIT IN DUPLICATE

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NATURAL RESOURCES AGENCY OF CALIFORNIA
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WELL SUMMARY REPORT

API No. 03724128

Operator	Well	
Southern California Gas Company	**Porter 69 C**	
Field (and Area, if applicable) **Aliso Canyon**	County **Los Angeles**	Section 28 T3N R16W SBBM

WELLBORES

Total Hole & Present Effective Depth

Wellbore Name	PBTD (All) (ftKB)
Original Hole	

Size (in)	Section Des	Act Btm (ftKB)	Act Btm (TVD) (ftKB)
17 1/2	Surface	1,043	1,043
12 1/4	Production	7,596	7,446
13	Open hole	7,881	

PRODUCTION METHOD

Method

PRODUCTION/INJECTION DETAILS

Start Date	Activity Type	Zone

ZONES

Zone Name	Wellbore	Top (ftKB)	Btm (ftKB)
MP	Original Hole	7,339	
S2	Original Hole	7,603	
S4	Original Hole	7,653	
S8	Original Hole	7,740	

FORMATIONS

Formation Name	Geologic Age	Final Top MD (ftKB)	Final Btm MD (ftKB)

CASING RECORD (Present Hole)

Csg Des	Run Date	OD (in)	ID (in)	Wt/Len (lb/ft)	Grade	Top Thread	Top (ftKB)	Set Depth (ftKB)	Set Depth (TVD) (ftKB)
Surface casing	3/22/1992	13 3/8	12.615	54.50	K-55	Buttress	24	1,043	1,043
Production casing	4/13/1992	9 5/8	8.681	47.00	N-80	LT&C	23	7,596	7,446
WWS liner	4/21/1992	5 1/2	4.892	17.00	J-55	LT&C	7,520	7,881	

PERFORATIONS

Nom Hole Dia (in)	Btm - Top (ftKB)	Top (ftKB)	Btm (ftKB)	Calculated Shot Total	Zone	Wellbore	Type

LOGS

Date	Run #	Type	Top (ftKB)	Btm (ftKB)	Wellbore
7/8/2016		Caliper	24	7,526	Original Hole
7/8/2016		Collar Locator / Gamma ray	6,000	7,850	Original Hole
7/8/2016		Gyro	125	7,873	Original Hole
7/9/2016		HRVRT	24	7,500	Original Hole
7/15/2016		USIT/CCL/GR/CCL/ND	24	7,500	Original Hole

SURVEYS

Wellbore Name	Description	Date	Definitive?	Job
Original Hole	Gyro	7/8/2016	Yes	SIMP, 5/11/2016 06:00

Survey Data

MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	Depart (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
125	0.68	53.08	125	0.50	0.74	0.45	0.59	0.54
150	0.68	66.08	150	0.73	1.04	0.59	0.85	0.62
175	0.71	70.85	175	0.98	1.33	0.71	1.13	0.26
200	0.80	71.56	200	1.27	1.65	0.81	1.44	0.36
225	0.45	79.47	225	1.52	1.92	0.88	1.70	1.44
250	0.61	89.19	250	1.74	2.13	0.90	1.93	0.73
275	0.44	104.53	275	1.96	2.33	0.88	2.16	0.88
300	0.46	123.26	300	2.15	2.47	0.80	2.34	0.59

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WELL SUMMARY REPORT

API No. 03724128

Operator
Southern California Gas Company

Well
Porter 69 C

Field (and Area, if applicable)
Aliso Canyon

County
Los Angeles

Section 28 T3N R16W SBBM

Survey Data

MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	Depart (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
325	0.36	154.40	325	2.29	2.55	0.68	2.45	0.96
350	0.42	175.60	350	2.36	2.55	0.52	2.49	0.62
375	0.50	195.15	375	2.37	2.49	0.32	2.47	0.70
400	0.54	203.71	400	2.34	2.40	0.11	2.40	0.35
425	0.55	203.70	425	2.28	2.30	-0.11	2.30	0.04
450	0.63	204.66	450	2.22	2.22	-0.35	2.20	0.32
475	0.91	193.64	475	2.18	2.19	-0.66	2.09	1.26
500	1.19	186.08	500	2.19	2.31	-1.12	2.02	1.25
525	1.41	186.41	525	2.23	2.58	-1.68	1.96	0.88
550	1.52	186.30	550	2.27	2.99	-2.31	1.88	0.44
575	1.54	190.12	575	2.30	3.47	-2.98	1.79	0.42
600	1.58	192.71	600	2.29	4.00	-3.64	1.65	0.32
625	1.57	193.66	625	2.25	4.56	-4.31	1.50	0.11
650	1.56	193.72	650	2.21	5.15	-4.97	1.34	0.04
675	1.51	190.14	675	2.20	5.76	-5.63	1.20	0.43
700	1.48	194.69	700	2.17	6.35	-6.27	1.06	0.49
725	1.46	195.44	725	2.12	6.94	-6.89	0.89	0.11
750	1.47	195.75	750	2.06	7.54	-7.50	0.72	0.05
775	1.48	195.19	775	2.01	8.14	-8.12	0.55	0.07
800	1.41	192.46	800	1.97	8.74	-8.73	0.40	0.39
825	1.30	201.33	825	1.90	9.30	-9.30	0.23	0.95
850	1.26	199.70	850	1.81	9.82	-9.82	0.03	0.22
875	1.22	200.64	875	1.71	10.33	-10.33	-0.16	0.18
900	1.30	201.06	900	1.61	10.85	-10.84	-0.35	0.32
925	1.34	205.91	925	1.48	11.38	-11.37	-0.58	0.47
950	1.27	205.41	950	1.33	11.91	-11.88	-0.83	0.28
975	1.21	206.17	975	1.19	12.42	-12.37	-1.06	0.25
1,000	1.24	203.90	1,000	1.06	12.92	-12.85	-1.29	0.23
1,025	1.21	211.48	1,025	0.90	13.41	-13.33	-1.54	0.66
1,050	1.14	214.25	1,050	0.70	13.88	-13.76	-1.81	0.36
1,075	1.20	217.60	1,075	0.48	14.33	-14.17	-2.11	0.36
1,100	1.13	219.26	1,100	0.24	14.77	-14.57	-2.43	0.31
1,125	1.17	217.36	1,125	0.01	15.21	-14.96	-2.74	0.22
1,150	1.21	219.53	1,150	-0.23	15.67	-15.37	-3.06	0.24
1,175	1.19	216.45	1,175	-0.48	16.14	-15.78	-3.39	0.27
1,200	1.22	219.77	1,200	-0.72	16.61	-16.19	-3.71	0.30
1,225	1.23	218.60	1,225	-0.98	17.09	-16.61	-4.05	0.11
1,250	1.16	219.94	1,250	-1.23	17.57	-17.01	-4.38	0.30
1,275	1.20	217.07	1,275	-1.47	18.04	-17.42	-4.70	0.29
1,300	1.13	214.87	1,300	-1.69	18.51	-17.83	-5.00	0.33
1,325	1.03	193.50	1,325	-1.81	18.97	-18.25	-5.19	1.65
1,350	1.18	182.19	1,350	-1.78	19.45	-18.72	-5.25	1.06
1,375	1.48	172.92	1,375	-1.65	19.99	-19.30	-5.22	1.47
1,400	1.65	165.46	1,400	-1.40	20.61	-19.97	-5.09	1.06
1,425	1.69	162.99	1,425	-1.08	21.24	-20.67	-4.89	0.33
1,450	1.90	160.58	1,450	-0.70	21.91	-21.41	-4.65	0.89
1,475	2.16	157.81	1,475	-0.24	22.66	-22.24	-4.33	1.11
1,500	2.29	153.66	1,500	0.31	23.46	-23.12	-3.93	0.83
1,525	2.62	148.55	1,525	0.99	24.30	-24.06	-3.41	1.58
1,550	3.37	144.74	1,550	1.90	25.29	-25.15	-2.69	3.10
1,575	3.98	143.16	1,575	3.06	26.50	-26.44	-1.75	2.47
1,600	4.88	141.90	1,599	4.50	27.98	-27.97	-0.57	3.62

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NATURAL RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

Rec'd 12-12-16 DOGGR Ventura.

Workover SIMP
Start Date: 5/11/2016 - End Date: 7/27/2016

WELL SUMMARY REPORT

API No. 03724128

Operator
Southern California Gas Company

Well
Porter 69 C

Field (and Area, if applicable)
Aliso Canyon

County
Los Angeles

Section 28 T3N R16W SBBM

Survey Data

MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	Depart (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
1,625	5.37	142.54	1,624	6.16	29.75	-29.74	0.80	1.97
1,650	6.14	143.84	1,649	8.00	31.83	-31.75	2.30	3.12
1,675	6.56	143.63	1,674	10.01	34.20	-33.98	3.93	1.68
1,700	6.78	144.10	1,699	12.12	36.76	-36.32	5.65	0.91
1,725	7.14	141.95	1,724	14.35	39.45	-38.74	7.47	1.78
1,750	7.37	141.95	1,749	16.71	42.29	-41.23	9.41	0.92
1,775	7.46	142.47	1,773	19.12	45.23	-43.78	11.39	0.45
1,800	7.65	142.14	1,798	21.56	48.27	-46.38	13.40	0.78
1,825	7.89	139.26	1,823	24.14	51.40	-48.99	15.54	1.83
1,850	8.10	136.21	1,848	26.91	54.57	-51.56	17.88	1.89
1,875	8.35	130.05	1,872	29.91	57.76	-54.00	20.49	3.66
1,900	8.93	127.03	1,897	33.23	61.01	-56.34	23.43	2.94
1,925	9.19	124.48	1,922	36.78	64.40	-58.64	26.62	1.91
1,950	9.80	121.43	1,946	40.59	67.90	-60.88	30.08	3.16
1,975	10.19	118.91	1,971	44.68	71.56	-63.05	33.84	2.34
2,000	10.43	116.90	1,996	48.94	75.31	-65.15	37.79	1.73
2,025	10.75	114.05	2,020	53.38	79.15	-67.12	41.94	2.45
2,050	10.74	113.65	2,045	57.91	83.04	-69.01	46.20	0.30
2,075	10.70	113.32	2,069	62.44	86.99	-70.86	50.46	0.29
2,100	10.56	113.76	2,094	66.93	90.98	-72.70	54.69	0.65
2,125	10.60	112.89	2,119	71.41	94.99	-74.52	58.91	0.66
2,150	10.76	112.97	2,143	75.93	99.08	-76.32	63.17	0.64
2,175	10.83	113.11	2,168	80.50	103.26	-78.16	67.48	0.30
2,200	11.06	113.69	2,192	85.12	107.55	-80.04	71.84	1.02
2,225	11.17	114.24	2,217	89.81	111.97	-82.00	76.24	0.61
2,250	11.46	114.24	2,241	94.57	116.50	-84.01	80.72	1.16
2,275	11.68	114.62	2,266	99.44	121.18	-86.09	85.28	0.93
2,300	11.90	114.88	2,290	104.39	125.97	-88.23	89.92	0.91
2,325	12.16	115.26	2,315	109.43	130.90	-90.43	94.64	1.09
2,350	12.38	115.63	2,339	114.56	135.96	-92.72	99.44	0.93
2,375	12.64	115.85	2,363	119.78	141.14	-95.07	104.32	1.06
2,400	12.86	116.07	2,388	125.10	146.44	-97.48	109.28	0.90
2,425	12.95	116.44	2,412	130.47	151.83	-99.95	114.28	0.49
2,450	13.35	116.72	2,437	135.93	157.34	-102.50	119.37	1.62
2,475	13.28	117.12	2,461	141.45	162.94	-105.11	124.50	0.46
2,500	13.61	117.56	2,485	147.01	168.61	-107.77	129.67	1.38
2,525	13.76	117.90	2,510	152.66	174.40	-110.53	134.90	0.68
2,550	14.15	118.52	2,534	158.40	180.32	-113.38	140.21	1.67
2,575	14.49	119.14	2,558	164.26	186.41	-116.36	145.63	1.49
2,600	14.72	119.29	2,582	170.23	192.63	-119.44	151.13	0.93
2,625	15.16	119.59	2,606	176.32	199.00	-122.60	156.75	1.79
2,650	15.33	120.01	2,630	182.52	205.51	-125.87	162.45	0.81
2,675	15.67	120.36	2,655	188.81	212.13	-129.23	168.22	1.41
2,700	16.12	121.18	2,679	195.23	218.93	-132.73	174.11	2.01
2,725	16.07	120.87	2,703	201.72	225.82	-136.31	180.05	0.40
2,750	16.26	121.40	2,727	208.23	232.75	-139.91	186.00	0.96
2,775	16.48	122.19	2,751	214.79	239.76	-143.62	191.99	1.25
2,800	16.56	122.59	2,775	221.38	246.85	-147.43	198.00	0.56
2,825	16.55	122.85	2,799	227.97	253.96	-151.28	203.99	0.30
2,850	16.60	123.01	2,823	234.56	261.08	-155.15	209.97	0.27
2,875	16.40	123.53	2,846	241.10	268.17	-159.05	215.91	0.99
2,900	16.49	123.39	2,870	247.61	275.24	-162.95	221.82	0.39

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Porter 69 C

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Aliso Canyon

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Section 28 T3N R16W SBBM

Survey Data

MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	Depart (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
2,925	16.54	122.61	2,894	254.18	282.33	-166.82	227.78	0.91
2,950	16.12	121.36	2,918	260.71	289.34	-170.54	233.74	2.19
2,975	15.67	119.56	2,942	267.14	296.15	-174.02	239.64	2.67
3,000	15.37	117.43	2,967	273.50	302.79	-177.21	245.51	2.58
3,025	15.33	115.58	2,991	279.86	309.32	-180.16	251.44	1.97
3,050	15.37	114.85	3,015	286.26	315.83	-182.98	257.42	0.79
3,075	15.20	112.21	3,039	292.67	322.28	-185.61	263.46	2.87
3,100	15.09	109.40	3,063	299.09	328.61	-187.93	269.57	2.97
3,125	15.03	105.88	3,087	305.54	334.82	-189.90	275.75	3.67
3,150	14.95	103.43	3,111	311.98	340.90	-191.54	282.01	2.55
3,175	14.68	101.73	3,135	318.37	346.85	-192.93	288.25	2.05
3,200	14.57	100.33	3,160	324.68	352.68	-194.14	294.44	1.48
3,225	14.25	98.35	3,184	330.90	358.37	-195.15	300.58	2.35
3,250	13.95	95.61	3,208	336.98	363.86	-195.89	306.62	2.93
3,275	13.99	95.32	3,232	342.99	369.24	-196.46	312.63	0.32
3,300	13.90	93.96	3,257	348.99	374.59	-196.95	318.64	1.36
3,325	14.02	93.83	3,281	354.98	379.94	-197.36	324.65	0.50
3,350	13.97	93.55	3,305	360.98	385.30	-197.75	330.69	0.34
3,375	13.93	94.22	3,329	366.97	390.68	-198.16	336.70	0.67
3,400	13.99	94.10	3,354	372.97	396.10	-198.60	342.72	0.27
3,425	13.73	93.90	3,378	378.92	401.49	-199.01	348.69	1.06
3,450	13.93	93.68	3,402	384.85	406.87	-199.41	354.65	0.83
3,475	13.76	93.84	3,427	390.79	412.27	-199.80	360.62	0.70
3,500	13.81	93.54	3,451	396.71	417.67	-200.18	366.57	0.35
3,525	13.77	93.01	3,475	402.62	423.06	-200.52	372.52	0.53
3,550	13.88	92.37	3,499	408.54	428.45	-200.80	378.48	0.75
3,575	13.67	92.50	3,524	414.44	433.83	-201.06	384.43	0.85
3,600	13.66	92.00	3,548	420.28	439.18	-201.29	390.33	0.47
3,625	13.52	92.13	3,572	426.10	444.50	-201.50	396.20	0.57
3,650	13.40	91.87	3,597	431.85	449.78	-201.70	402.02	0.54
3,675	13.43	91.68	3,621	437.59	455.05	-201.88	407.82	0.21
3,700	13.57	92.29	3,645	443.36	460.37	-202.09	413.65	0.80
3,725	13.31	91.93	3,669	449.11	465.69	-202.30	419.45	1.09
3,750	13.29	91.55	3,694	454.80	470.95	-202.47	425.20	0.36
3,775	13.35	91.49	3,718	460.49	476.22	-202.63	430.96	0.25
3,800	13.41	92.29	3,742	466.21	481.54	-202.82	436.74	0.78
3,825	13.37	91.88	3,767	471.94	486.88	-203.03	442.53	0.41
3,850	13.10	91.74	3,791	477.59	492.16	-203.21	448.25	1.09
3,875	13.24	91.43	3,815	483.22	497.42	-203.37	453.94	0.63
3,900	13.08	91.54	3,840	488.85	502.67	-203.51	459.63	0.65
3,925	13.11	91.77	3,864	494.44	507.92	-203.68	465.29	0.24
3,950	12.88	91.53	3,889	500.00	513.14	-203.84	470.91	0.94
3,975	12.70	91.77	3,913	505.47	518.28	-204.00	476.45	0.75
4,000	12.62	91.94	3,937	510.89	523.39	-204.18	481.92	0.35
4,025	12.58	92.14	3,962	516.28	528.49	-204.37	487.37	0.24
4,050	12.69	92.60	3,986	521.70	533.62	-204.60	492.84	0.60
4,075	12.24	93.14	4,010	527.05	538.70	-204.87	498.23	1.86
4,100	12.44	92.85	4,035	532.35	543.74	-205.15	503.56	0.84
4,125	12.37	93.38	4,059	537.67	548.82	-205.44	508.92	0.53
4,150	12.24	93.79	4,084	542.96	553.88	-205.77	514.24	0.63
4,175	12.34	93.52	4,108	548.25	558.94	-206.11	519.55	0.46
4,200	12.24	94.10	4,133	553.53	564.01	-206.46	524.86	0.64

**Continued from Page 1

NATURAL RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

Rec'd 12-12-16 DOGGR Ventura.

Workover SIMP
Start Date: 5/11/2016 - End Date: 7/27/2016

WELL SUMMARY REPORT

API No. 03724128

Operator
Southern California Gas Company

Well
Porter 69 C

Field (and Area, if applicable)
Aliso Canyon

County
Los Angeles

Section 28 T3N R16W SBBM

Survey Data

MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	Depart (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
4,225	12.43	93.76	4,157	558.84	569.10	-206.83	530.19	0.81
4,250	12.32	93.97	4,181	564.16	574.22	-207.19	535.53	0.48
4,275	12.40	93.98	4,206	569.48	579.33	-207.56	540.87	0.32
4,300	12.49	94.64	4,230	574.84	584.49	-207.97	546.25	0.67
4,325	12.52	95.28	4,255	580.23	589.70	-208.43	551.64	0.57
4,350	12.38	96.66	4,279	585.60	594.92	-208.99	557.00	1.32
4,375	12.43	98.35	4,304	590.96	600.15	-209.70	562.32	1.47
4,400	12.49	99.84	4,328	596.35	605.44	-210.55	567.65	1.31
4,425	12.31	101.31	4,352	601.72	610.73	-211.53	572.92	1.45
4,450	12.40	101.58	4,377	607.07	616.02	-212.60	578.17	0.43
4,475	12.27	101.66	4,401	612.41	621.30	-213.67	583.40	0.52
4,500	12.50	101.33	4,426	617.77	626.60	-214.74	588.65	0.96
4,525	12.25	101.55	4,450	623.13	631.90	-215.80	593.90	1.02
4,550	12.37	101.83	4,474	628.46	637.17	-216.88	599.12	0.54
4,575	12.43	101.65	4,499	633.82	642.49	-217.97	604.38	0.29
4,600	12.29	101.61	4,523	639.17	647.78	-219.05	609.62	0.56
4,625	12.48	101.57	4,548	644.53	653.09	-220.13	614.87	0.76
4,650	12.51	101.44	4,572	649.94	658.44	-221.21	620.17	0.16
4,675	12.56	101.61	4,597	655.37	663.82	-222.29	625.49	0.25
4,700	12.62	101.43	4,621	660.82	669.21	-223.38	630.83	0.29
4,725	12.62	101.24	4,645	666.28	674.62	-224.45	636.19	0.17
4,750	12.84	101.22	4,670	671.78	680.07	-225.53	641.59	0.88
4,775	12.53	101.07	4,694	677.27	685.51	-226.59	646.98	1.25
4,800	12.65	101.11	4,718	682.72	690.90	-227.64	652.32	0.48
4,825	12.74	100.99	4,743	688.22	696.34	-228.69	657.72	0.38
4,850	12.62	100.65	4,767	693.70	701.77	-229.72	663.11	0.57
4,875	12.71	100.61	4,792	699.19	707.19	-230.73	668.49	0.36
4,900	12.52	100.75	4,816	704.65	712.59	-231.74	673.86	0.77
4,925	12.82	100.25	4,840	710.13	718.02	-232.74	679.25	1.28
4,950	12.57	100.34	4,865	715.62	723.45	-233.72	684.66	1.00
4,975	12.72	100.82	4,889	721.10	728.87	-234.73	690.03	0.73
5,000	12.65	100.79	4,914	726.59	734.30	-235.76	695.43	0.28
5,025	12.73	100.68	4,938	732.08	739.74	-236.78	700.82	0.33
5,050	12.61	100.96	4,962	737.56	745.17	-237.81	706.21	0.54
5,075	12.67	101.05	4,987	743.03	750.60	-238.85	711.58	0.25
5,100	12.89	101.23	5,011	748.56	756.08	-239.92	717.00	0.89
5,125	12.74	101.21	5,036	754.10	761.58	-241.00	722.44	0.60
5,150	12.74	101.57	5,060	759.62	767.05	-242.09	727.85	0.32
5,175	12.95	100.89	5,084	765.17	772.57	-243.17	733.30	1.04
5,200	12.70	101.49	5,109	770.72	778.07	-244.25	738.74	1.13
5,225	13.08	100.71	5,133	776.30	783.61	-245.32	744.22	1.67
5,250	13.06	101.27	5,157	781.95	789.22	-246.40	749.77	0.51
5,275	12.94	101.72	5,182	787.58	794.80	-247.52	755.28	0.63
5,300	12.94	101.23	5,206	793.17	800.36	-248.63	760.76	0.44
5,325	12.97	101.54	5,231	798.78	805.93	-249.74	766.26	0.30
5,350	13.06	101.54	5,255	804.41	811.52	-250.87	771.77	0.36
5,375	13.09	101.36	5,279	810.06	817.14	-251.99	777.32	0.20
5,400	13.09	101.98	5,304	815.72	822.77	-253.14	782.86	0.56
5,425	13.21	101.76	5,328	821.41	828.43	-254.31	788.43	0.52
5,450	13.10	102.29	5,352	827.09	834.09	-255.49	793.99	0.65
5,475	13.11	102.00	5,377	832.76	839.73	-256.68	799.53	0.27
5,500	13.24	101.89	5,401	838.46	845.40	-257.86	805.11	0.53

**Continued from Page 1

NATURAL RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

Rec'd 12-12-16 DOGGR Ventura.

Workover SIMP
Start Date: 5/11/2016 - End Date: 7/27/2016

WELL SUMMARY REPORT

API No. 03724128

Operator
Southern California Gas Company

Well
Porter 69 C

Field (and Area, if applicable)
Aliso Canyon

County
Los Angeles

Section 28 T3N R16W SBBM

Survey Data

MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	Depart (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
5,525	13.19	102.18	5,425	844.17	851.08	-259.05	810.70	0.33
5,550	13.28	102.36	5,450	849.89	856.78	-260.27	816.29	0.40
5,575	13.33	102.19	5,474	855.64	862.51	-261.49	821.91	0.25
5,600	13.37	102.50	5,498	861.41	868.26	-262.73	827.55	0.33
5,625	13.28	102.73	5,523	867.17	874.00	-263.99	833.18	0.42
5,650	13.40	102.60	5,547	872.93	879.74	-265.25	838.80	0.49
5,675	13.45	101.42	5,571	878.73	885.52	-266.46	844.48	1.11
5,700	13.23	99.58	5,596	884.50	891.25	-267.51	850.15	1.91
5,725	13.34	97.42	5,620	890.24	896.92	-268.36	855.83	2.03
5,750	13.31	94.79	5,644	895.98	902.57	-268.97	861.56	2.43
5,775	13.09	92.18	5,669	901.65	908.11	-269.32	867.26	2.54
5,800	12.98	89.06	5,693	907.20	913.51	-269.38	872.89	2.85
5,825	12.93	86.33	5,717	912.67	918.80	-269.16	878.49	2.46
5,850	13.04	84.45	5,742	918.09	924.02	-268.70	884.09	1.75
5,875	13.05	84.05	5,766	923.51	929.23	-268.14	889.70	0.36
5,900	13.18	83.66	5,790	928.95	934.46	-267.53	895.34	0.63
5,925	13.18	83.31	5,815	934.41	939.70	-266.88	901.01	0.32
5,950	13.01	83.32	5,839	939.82	944.91	-266.23	906.63	0.68
5,975	12.94	83.41	5,863	945.19	950.08	-265.58	912.21	0.29
6,000	12.87	83.27	5,888	950.52	955.23	-264.93	917.75	0.31
6,025	12.84	83.68	5,912	955.84	960.36	-264.30	923.28	0.38
6,050	12.53	84.21	5,937	961.11	965.46	-263.72	928.74	1.32
6,075	12.45	84.40	5,961	966.30	970.49	-263.18	934.12	0.36
6,100	12.49	84.46	5,985	971.49	975.52	-262.66	939.49	0.17
6,125	12.41	85.32	6,010	976.69	980.56	-262.18	944.86	0.81
6,150	12.15	85.19	6,034	981.82	985.55	-261.74	950.16	1.05
6,175	12.21	85.24	6,059	986.91	990.50	-261.30	955.42	0.24
6,200	12.14	85.44	6,083	992.00	995.46	-260.87	960.67	0.33
6,225	11.93	85.58	6,108	997.04	1,000.37	-260.46	965.87	0.85
6,250	12.07	86.01	6,132	1,002.07	1,005.28	-260.08	971.05	0.66
6,275	12.11	85.99	6,156	1,007.14	1,010.23	-259.71	976.27	0.16
6,300	12.25	86.27	6,181	1,012.25	1,015.22	-259.36	981.54	0.61
6,325	12.04	86.46	6,205	1,017.35	1,020.22	-259.03	986.79	0.86
6,350	12.15	86.74	6,230	1,022.44	1,025.20	-258.71	992.02	0.50
6,375	12.36	86.65	6,254	1,027.59	1,030.25	-258.41	997.31	0.84
6,400	12.11	86.78	6,279	1,032.74	1,035.29	-258.11	1,002.60	1.01
6,425	12.41	86.82	6,303	1,037.90	1,040.35	-257.81	1,007.90	1.20
6,450	12.37	86.84	6,327	1,043.11	1,045.47	-257.51	1,013.26	0.16
6,475	12.29	87.36	6,352	1,048.31	1,050.57	-257.24	1,018.59	0.55
6,500	12.41	87.55	6,376	1,053.52	1,055.69	-257.00	1,023.93	0.51
6,525	12.52	87.48	6,401	1,058.78	1,060.87	-256.77	1,029.32	0.44
6,550	12.62	87.79	6,425	1,064.09	1,066.09	-256.55	1,034.76	0.48
6,575	12.61	88.15	6,450	1,069.42	1,071.34	-256.35	1,040.22	0.32
6,600	12.58	87.94	6,474	1,074.74	1,076.58	-256.17	1,045.66	0.22
6,625	12.69	88.13	6,498	1,080.08	1,081.85	-255.98	1,051.13	0.47
6,650	12.60	88.45	6,523	1,085.43	1,087.13	-255.82	1,056.60	0.46
6,675	12.61	88.17	6,547	1,090.77	1,092.39	-255.66	1,062.05	0.25
6,700	12.80	87.90	6,571	1,096.14	1,097.69	-255.47	1,067.55	0.80
6,725	12.79	88.30	6,596	1,101.55	1,103.03	-255.28	1,073.08	0.36
6,750	12.68	88.60	6,620	1,106.94	1,108.35	-255.13	1,078.59	0.51
6,775	12.64	88.34	6,645	1,112.30	1,113.65	-254.99	1,084.07	0.28
6,800	12.79	88.44	6,669	1,117.68	1,118.97	-254.83	1,089.57	0.61

**Continued from Page 1

NATURAL RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

Rec'd 12-12-16 DOGGR Ventura.

Workover SIMP
Start Date: 5/11/2016 - End Date: 7/27/2016

WELL SUMMARY REPORT

API No. 03724128

Operator
Southern California Gas Company

Well
Porter 69 C

Field (and Area, if applicable)
Aliso Canyon

County
Los Angeles

Section 28 T3N R16W SBBM

Survey Data

MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	Depart (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
6,825	12.79	88.53	6,693	1,123.10	1,124.33	-254.69	1,095.10	0.08
6,850	12.85	88.61	6,718	1,128.53	1,129.70	-254.55	1,100.65	0.25
6,875	12.96	88.68	6,742	1,133.99	1,135.11	-254.42	1,106.23	0.44
6,900	13.04	88.31	6,767	1,139.49	1,140.55	-254.27	1,111.85	0.46
6,925	12.96	88.76	6,791	1,145.00	1,146.00	-254.12	1,117.47	0.52
6,950	12.89	88.96	6,815	1,150.48	1,151.43	-254.01	1,123.06	0.33
6,975	13.05	89.21	6,840	1,155.98	1,156.88	-253.92	1,128.67	0.68
7,000	13.00	89.46	6,864	1,161.51	1,162.37	-253.86	1,134.31	0.30
7,025	12.96	89.20	6,888	1,167.02	1,167.83	-253.79	1,139.92	0.28
7,050	13.08	89.39	6,913	1,172.54	1,173.31	-253.72	1,145.55	0.51
7,075	13.30	89.82	6,937	1,178.15	1,178.88	-253.68	1,151.26	0.96
7,100	13.10	89.98	6,961	1,183.76	1,184.45	-253.67	1,156.97	0.81
7,125	13.05	89.93	6,986	1,189.32	1,189.97	-253.67	1,162.62	0.21
7,150	13.02	90.03	7,010	1,194.87	1,195.48	-253.67	1,168.26	0.15
7,175	13.09	90.28	7,034	1,200.43	1,201.01	-253.68	1,173.91	0.36
7,200	12.96	90.32	7,059	1,205.97	1,206.52	-253.71	1,179.54	0.52
7,225	12.77	90.80	7,083	1,211.46	1,211.97	-253.77	1,185.11	0.87
7,250	12.80	91.06	7,108	1,216.91	1,217.40	-253.86	1,190.64	0.26
7,275	12.70	91.25	7,132	1,222.36	1,222.82	-253.97	1,196.16	0.43
7,300	12.67	91.50	7,156	1,227.78	1,228.22	-254.10	1,201.64	0.25
7,325	12.62	91.33	7,181	1,233.19	1,233.60	-254.23	1,207.12	0.25
7,350	12.55	90.57	7,205	1,238.56	1,238.95	-254.33	1,212.56	0.72
7,375	12.49	89.40	7,229	1,243.89	1,244.25	-254.32	1,217.98	1.04
7,400	12.35	87.13	7,254	1,249.14	1,249.48	-254.16	1,223.35	2.03
7,425	12.18	85.55	7,278	1,254.29	1,254.60	-253.82	1,228.65	1.50
7,450	12.14	83.37	7,303	1,259.36	1,259.63	-253.32	1,233.89	1.84
7,475	12.09	81.89	7,327	1,264.35	1,264.59	-252.64	1,239.10	1.26
7,500	12.07	81.71	7,352	1,269.31	1,269.52	-251.90	1,244.28	0.17
7,520	12.00	81.55	7,371	1,273.26	1,273.44	-251.29	1,248.40	0.39
7,625	11.63	81.36	7,474	1,293.59	1,293.67	-248.10	1,269.66	0.35
7,725	11.27	80.85	7,572	1,312.33	1,312.35	-245.03	1,289.27	0.37
7,775	11.57	80.33	7,621	1,321.64	1,321.65	-243.41	1,299.04	0.63
7,825	11.49	79.99	7,670	1,331.02	1,331.02	-241.70	1,308.89	0.21
7,850	11.05	80.22	7,695	1,335.60	1,335.60	-240.86	1,313.70	1.77

**Continued from Page 1

NATURAL RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

Rec'd 12-12-16 DOGGR Ventura.

WELL SUMMARY REPORT

API No. 03724128

Operator	Well	
Southern California Gas Company	**Porter 69 C**	
Field (and Area, if applicable) **Aliso Canyon**	County **Los Angeles**	Section 28 T3N R16W SBBM

WELLBORES

Total Hole & Present Effective Depth

Wellbore Name	PBTD (All) (ftKB)
Original Hole	

Size (in)	Section Des	Act Btm (ftKB)	Act Btm (TVD) (ftKB)
17 1/2	Surface	1,043	1,043
12 1/4	Production	7,596	7,446
13	Open hole	7,881	

ZONES

Wellbore	Zone Name	Top (ftKB)	Btm (ftKB)
Original Hole	MP	7,339	
Original Hole	S2	7,603	
Original Hole	S4	7,653	
Original Hole	S8	7,740	

CASING RECORD (Present Hole)

Surface casing, Run Date: 3/22/1992

Wellbore	OD (in)	ID (in)	Wt/Len (lb/ft)	String Grade	Top Connection	Top Depth (ftKB)	Set Depth (ftKB)	Set Depth (TV...
Original Hole	13 3/8	12.615	54.50	K-55	Buttress	24	1,043	1,043

Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade	Len (ft)
Casing	13 3/8	12.615	54.50	K-55	976.50
Float collar	13 3/8				1.00
Casing	13 3/8	12.615	54.50	K-55	40.00
Shoe	13 3/8				2.00

Production casing, Run Date: 4/13/1992

Wellbore	OD (in)	ID (in)	Wt/Len (lb/ft)	String Grade	Top Connection	Top Depth (ftKB)	Set Depth (ftKB)	Set Depth (TV...
Original Hole	9 5/8	8.681	47.00	N-80	LT&C	23	7,596	7,446

Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade	Len (ft)
Casing	9 5/8	8.681	47.00	N-80	7,536.50
ECP	9 5/8	8.681	47.00	N-80	34.00
Shoe	9 5/8	8.681			2.00

WWS liner, Run Date: 4/21/1992

Wellbore	OD (in)	ID (in)	Wt/Len (lb/ft)	String Grade	Top Connection	Top Depth (ftKB)	Set Depth (ftKB)	Set Depth (TV...
Original Hole	5 1/2	4.892	17.00	J-55	LT&C	7,520	7,881	

Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade	Len (ft)
Lead Seal	8.681	6.875			2.56
Landing Nipple	5 1/2	4.892			2.15
Blank Liner	5 1/2	4.892	17.00	J-55	18.95
Slotted Liner	5 1/2	4.892	17.00	J-55	18.65
Slotted Liner	5 1/2	4.892	17.00	J-55	36.05
WWS	5 1/2	4.892	17.00	J-55	281.16
Bull Plug	5 1/2	4.892	17.00	J-55	1.94

CEMENT RECORDS - Casing

Wellbore	Start Date	Stg #	Des	Top (ftKB)	Btm (ftKB)
Original Hole	3/22/1992			24	1,043
Original Hole	4/13/1992			24	7,596

TUBING STRING (Present Hole)

Production Tubing, Run Date: 7/26/2016

Wellbore	Set Depth (ftKB)	String	Cut Pull Date	Depth Cut Pull (ftKB)
Original Hole	7,422	Production Tubing set at 7,458ftKB on 4/24/1992 12:30		

Tubing Components

Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade	Len (ft)
Tubing Hanger	11	2.441	6.50	L-80	0.50

**Continued from Page 1

NATURAL RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

Rec'd 12-12-16 DOGGR Ventura.

WELL SUMMARY REPORT

API No. 03724128

Operator	Well	
Southern California Gas Company	**Porter 69 C**	
Field (and Area, if applicable)	County	Section 28 T3N R16W SBBM
Aliso Canyon	**Los Angeles**	

Tubing Components

Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade	Len (ft)
Tubing Pup Joint	2 7/8	2.441	6.50	L-80	1.68
Tubing Pup Joint	2 7/8	2.441	6.50	L-80	10.11
Cross Over	3.68	2.441	6.50	L-80	1.82
Tubing	3 1/2	2.992	9.30	L-80	7,257.22
Cross Over	3 1/2	2.441	6.50	L-80	1.82
Tubing	2 7/8	2.441	6.50	L-80	29.85
Sliding Sleeve	2 7/8	2.313	6.50	L-80	4.05
Tubing	2 7/8	2.441	6.50	L-80	29.51
Profile Nipple	2 7/8	2.313	6.50	L-80	0.94
Tubing	2 7/8	2.441	6.50	L-80	30.46
Tubing Pup Joint	2 7/8	2.441	6.50	L-80	10.08
Cross Over	4.79	2.441	6.50	L-80	0.85
Packer	8 1/4	4.000	12.75	P-110	8.31
Cross Over	5.54	2.441	6.50	L-80	0.82
Tubing Pup Joint	2 7/8	2.441	6.50	L-80	10.51
No Go Sub	3.68	2.205	6.50	L-80	1.38
Wireline Guide	6.45	2.600	6.50	L80	0.54

Other In Hole

Wellbore	Des	Run Date	OD (in)	ID (in)	Top (ftKB)	Btm (ftKB)
Original Hole	Gravel packs	4/21/1992	8.681	5.500	7,520	7,596
Original Hole	Gravel packs	4/21/1992	13	5.500	7,596	7,881

LOGS

Wellbore	Date	Run #	Type	Top (ftKB)	Btm (ftKB)
Original Hole	4/12/1992		4 Arm Caliper 1043'-7566'		
Original Hole	4/12/1992		Density/Neutron/GR 1043'-7566'		
Original Hole	4/12/1992		DIL/GR/SP 1043'-7566'		
Original Hole	4/17/1992		DIL 7596'-7886'		
Original Hole	4/18/1992		GR/CNT/CDL 7596'-7882'		
Original Hole	4/21/1992		Caliper Log 7596'-7881'		
Original Hole	4/23/1992		Dual Spaced Neutron Log		
Original Hole	7/8/2016		Caliper	24	7,526
Original Hole	7/8/2016		Collar Locator / Gamma ray	6,000	7,850
Original Hole	7/8/2016		Gyro	125	7,873
Original Hole	7/9/2016		HRVRT	24	7,500
Original Hole	7/15/2016		USIT/CCL/GR/CCL/ND	24	7,500

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

Rec'd 10-10-16 DOGGR Ventura.

HISTORY OF OIL OR GAS WELL

Operator: Southern California Gas Company
Well: Porter 69 C
A.P.I. No. 03724128

Field: Aliso Canyon County: Los Angeles
Surface Location: Section 28 T3N R16W SBBM
Name: Tom McMahon Title: SIMP Project Manager
(President, Secretary, or Agent)

Date: 8/26/2016

Telephone Number: 714-398-5020

Address: PO Box 2300, SC9365, Chatsworth, CA, 91313-2300

Signature: Thomas D McMahon
(Person Submitting Report)

History must be complete in all detail. Use this form to report all operations during drilling and testing of the well or during redrilling or altering the casing, plugging, or abandonment, with the dates thereof. Include such items as hole size, formation test details, amounts of cement used, top and bottom of plugs, perforation details, sidetracked junk, bailing tests, and initial production data.

Start Date	Ops this Report (DOGGR)
5/11/2016	none
6/8/2016	Call DOGGR and give 24 hour notice of intention to rig up on Porter 69C. 6/8/16 @ 07:00 hrs. DOGGR on call: Mark S. Davis
6/24/2016	Hold safety meeting with crew. Perform scheduled maintenance and oil changes on rig and accompanying equipment.. Set up containments and run pump suction hoses. String out BOP lines. Reposition rig for raising the mast. Haul 950 bbls 8.5ppg, 55 vis, HEC polymer to location from GEO plant. General clean up at P69A. Ready for rig up and well kill. Secure location. SDFN. Call DOGGR (Cliff Knight) @ 11:00 hours to give 24 hours rig up notice on well. Production Casing: 9-5/8"/47# N-80 (0-7596') 9-5/8" x 3.25" SB Guiberson packer @ 7455' Liner: 5-1/2"/17# J-55 (7520-7881')
6/25/2016	Hold safety meeting with rig crew and service personnel. Service rig and equipment. Field pressure = 1204 psi / SITP= 1205 psi/ SICP =1205 psi. Strap tanks= 960 bbls, 8.5ppg, 64 vis, HEC polymer on location. R/U pump to tubing. Call Ops for wellhead unlock. MIRU ONYX to casing & withdraw line. Alert Ops that we will be sending gas down line. MIRU carbon canister. Open well and start pumping polymer down tubing / up casing @ 5.5 bpm/ 1000 psi. Kill well as per schedule with 600 bbls polymer- unable to establish circulation- (hole volume 548 bbls). Well dead - tubing and casing. RDMO flowback equipment. MIRU Cameron and install 2-7/8" Shaffer AJS tubing plug in hanger. MIRU stinger and N/D wellhead. Install TIW valve and remove BPV. N/U 11" 5M Class III BOPE: 11" 5M annular bag, 11" 5M double gate, 3" 5M steel braided line, and 2" 5M choke manifold, 2" 5M kill line. Pressure test pipe rams to 1000 psi/ 20 min on a digital gauge. Secure location. SDFN. Call DOGGR (Ernie Blevins) @ 12:00 hours to give notice of a BOPE inspection needed 6/27/16 @ 09:00 hrs and that we will be testing our BOPE 6/27/16 @ 06:00 hrs. Production Casing: 9-5/8"/47# N-80 (0-7596') 9-5/8" x 3.25" SB Guiberson packer @ 7455' Liner: 5-1/2"/17# J-55 (7520-7881')

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

Rec'd 10-10-16 DOGGR Ventura.

HISTORY OF OIL OR GAS WELL

Operator: Southern California Gas Company
Well: Porter 69 C
A.P.I. No. 03724128

Field: Aliso Canyon County: Los Angeles
Surface Location: Section 28 T3N R16W SBBM
Name: Tom McMahon Title: SIMP Project Manager
(President, Secretary, or Agent)
Telephone Number: 714-398-5020

Date: 8/26/2016

Address: PO Box 2300, SC9365, Chatsworth, CA, 91313-2300

Signature: _____
(Person Submitting Report)

History must be complete in all detail. Use this form to report all operations during drilling and testing of the well or during redrilling or altering the casing, plugging, or abandonment, with the dates thereof. Include such items as hole size, formation test details, amounts of cement used, top and bottom of plugs, perforation details, sidetracked junk, bailing tests, and initial production data.

Start Date	Ops this Report (DOGGR)
6/27/2016	Hold safety meeting with rig crew and service personnel. Service rig and equipment. Field pressure = 1209 psi / SITP= 282 psi/ SICP =0 psi. Strap tanks= 650 bbls, 8.5ppg, 64 vis, HEC polymer on location. R/U pump to tubing and pump 100 bbls polymer down tubing/ up casing. MIRU WFT test truck. Pressure test 11" 5M Class III BOPE as per SCG Standard 224.05, as follows: Annular Bag to 300 psi (low)/ 3500 psi (high) for 20 min. Pressure test all 3" 5M BOP casing valves and steel braided lines, all 2" 5M kill line valves, 2" 5M kill line, 2-7/8" TIW valves, 2-7/8" IBOP, 2-7/8" pipe rams, blind rams and 2" 5M choke manifold vales and chokes to 300 psi (low) / 5000 psi (high) for 20 min- chart all tests. DOGGR perform BOPE inspection @ 09:00 hrs.- pass inspection. Install 2-7/8" TIW and tubing swivel. Unlock 11" x 2-7/8" Shaffer tubing hanger and pick up on tubing. Halliburton hand onsite to release seal section from Guiberson 9-5/8"/47# x 3.25" SB Magnum Permanent Packer @ 7455'. L/D tubing hanger, 2-7/8" fatigue nipple and 2-7/8" x 10', 6',4',2' pups. L/D 60 joints x 2-7/8" / 6.5# N-80 production tubing. Leave EoT @ 5568' for overnight. DOGGR: Brian Norman Production Casing: 9-5/8"/47# N-80 (0-7596') 9-5/8" x 3.25" SB Guiberson packer @ 7455' Liner: 5-1/2"/17# J-55 (7520-7881')

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

Rec'd 10-10-16 DOGGR Ventura.

HISTORY OF OIL OR GAS WELL

Operator: Southern California Gas Company
Well: Porter 69 C
A.P.I. No. 03724128

Field: Aliso Canyon County: Los Angeles
Surface Location: Section 28 T3N R16W SBBM
Name: Tom McMahon Title: SIMP Project Manager
(President, Secretary, or Agent)
Telephone Number: 714-398-5020

Date: 8/26/2016

Address: PO Box 2300, SC9365, Chatsworth, CA, 91313-2300

Signature: _____
(Person Submitting Report)

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Start Date	Ops this Report (DOGGR)
6/28/2016	Hold safety meeting with rig crew and service personnel. Service rig and equipment. Field pressure = 1209 psi / SITP= 0 psi/ SICP =0 psi. Strap tanks= 860 bbls, 8.5ppg, 64 vis, HEC polymer on location. R/U pump to tubing and pump 52 bbls polymer down tubing/ up casing and establish circulation. Pull out with remainder of production string as follows: Remainder of 232 joints x 2-7/8"/6.5# N80 EUE tubing 2-7/8" GLM 1 jt x 2-7/8" tubing 2-7/8" x 2.31" 'XO' sliding sleeve 1 jt x 2-7/8" tubing 2-7/8" x 2.31" 'XN' nipple 1 jt x 2-7/8" tubing Halliburton 3.25" SB x 2-7/8" Anchor Latch for Guiberson Magnum packer Swap pipe trailers and spot in 256 joints x 2-7/8"/6.5# P110 CTR work string. P/U WFT 9-5/8"/47# x 2-7/8" EU scraper, 2-7/8" EU bumper sub, 2-7/8" x 6' L80 pup joint, and 2-7/8" Xover to CTR tubing. Change out hydraulic hose on the rig- down for 3 hrs. P/U, tally, and drift (1.75" OD) in hole with 52 joints x 2-7/8" CTR work string. Leave EoT @ 1656' for overnight. Close and secure well. SDFN. Production Casing: 9-5/8"/47# N-80 (0-7596') 9-5/8" x 3.25" SB Guiberson packer @ 7455' Liner: 5-1/2"/17# J-55 (7520-7881')

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

Rec'd 10-10-16 DOGGR Ventura.

HISTORY OF OIL OR GAS WELL

Operator: Southern California Gas Company
Well: Porter 69 C
A.P.I. No. 03724128

Field: Aliso Canyon County: Los Angeles
Surface Location: Section 28 T3N R16W SBBM
Name: Tom McMahon Title: SIMP Project Manager
(President, Secretary, or Agent)

Date: 8/26/2016

Telephone Number: 714-398-5020

Address: PO Box 2300, SC9365, Chatsworth, CA, 91313-2300

Signature: _____
(Person Submitting Report)

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Start Date	Ops this Report (DOGGR)
6/29/2016	Hold safety meeting with rig crew and service personnel. Service rig and equipment. Field pressure = 1209 psi / SITP= 0 psi/ SICP =0 psi. Strap tanks= 800 bbls, 8.5ppg, 64 vis, HEC polymer on location. R/U pump to tubing and pump 35 bbls polymer down tubing/ up casing and establish circulation. Continue RIH w/ 9-5/8"/47# casing scraper and bumper sub BHA. Continue P/U, tally, and drift in hole w/ remainder of 233 joints x 2-7/8"/6.5# P110 CTR tubing. Tag top of Guiberson 9-5/8"/47# x 3.25" 'SB' MAgnum packer @ 7455' (14' out on #233). L/D 1 joint and reverse circulate 66 bbls polymer (1.5 tubing volumes). POOH to 1500' for kill string. Close and secure well. SDFN. Production Casing: 9-5/8"/47# N-80 (0-7596') 9-5/8" x 3.25" SB Guiberson packer @ 7455' Liner: 5-1/2"/17# J-55 (7520-7881')

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

Rec'd 10-10-16 DOGGR Ventura.

HISTORY OF OIL OR GAS WELL

Operator: Southern California Gas Company
Well: Porter 69 C
A.P.I. No. 03724128

Field: Aliso Canyon County: Los Angeles
Surface Location: Section 28 T3N R16W SBBM
Name: Tom McMahon Title: SIMP Project Manager
(President, Secretary, or Agent)
Telephone Number: 714-398-5020

Date: 8/26/2016

Address: PO Box 2300, SC9365, Chatsworth, CA, 91313-2300

Signature: _____
(Person Submitting Report)

History must be complete in all detail. Use this form to report all operations during drilling and testing of the well or during redrilling or altering the casing, plugging, or abandonment, with the dates thereof. Include such items as hole size, formation test details, amounts of cement used, top and bottom of plugs, perforation details, sidetracked junk, bailing tests, and initial production data.

Start Date	Ops this Report (DOGGR)
6/30/2016	Hold safety meeting with rig crew and service personnel. Service rig and equipment. Field pressure = 1209 psi / SITP= 0 psi/ SICP =0 psi. Strap tanks= 760 bbls, 8.5ppg, 64 vis, HEC polymer on location. Fill hole with 62 bbls polymer. POOH with 2-7/8"/6.5# P110 CTR kill string. L/D 9-5/8" scraper. MIRU Stinger and P/U milling assembly as follows: 8-1/2" Hydril x 8-1/8" Mill shoe (T/C 8-1/2" x 7") 8-1/8" Hydril x 4-1/2" FH top sub 4-1/2" FH pin x 3-1/2" IF box Xover 4-3/4" daily jars (6) 4-3/4" drill collars 3-1/2" IF pin x 3-1/2" FH box Xover 3-1/2" FH pin x 2-7/8" IF box Xover 2-7/8" IF pin x 2-7/8" CTR box Xover RIH w/ BHA and 227 joints x 2-7/8"/6.5# P110 CTR tubing. Tag Guiberson Magnum 9-5/8"/47# x 3.25" packer @ 7455'. Install PGSR and P/U 3.5" power swivel. Establish circulation down casing/ up tubing @ 2.5 bpm / 500 psi. Engage packer and begin washing over @ 92 RPM. Mill a total of 28" in 5 hrs. P/U off of fish and circulate bottoms up. Close in and secure well. SDFN. Production Casing: 9-5/8"/47# N-80 (0-7596') 9-5/8" x 3.25" SB Guiberson packer @ 7455' Liner: 5-1/2"/17# J-55 (7520-7881')
7/1/2016	Hold safety meeting with rig crew and service personnel. Service rig and equipment. Field pressure = 1209 psi / SITP= 0 psi/ SICP =0 psi. Strap tanks= 890 bbls, 8.5ppg, 64 vis, HEC polymer on location. Fill hole with 24 bbls polymer. Break circulation down casing/up tubing @ 2.5bpm/ 500 psi/ 95 RPM and continue washing over 9-5/8" Guiberson packer @7455' with WFT 8-1/2" mill shoe BHA. Wash over packer and chase to 5-1/2"/17# liner top @ 7520'. L/D power swivel. Pull 2 stands. EoT @ 7400'. Close in and secure well. SDFN. Production Casing: 9-5/8"/47# N-80 (0-7596') Liner: 5-1/2"/17# J-55 (7520-7881')

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

Rec'd 10-10-16 DOGGR Ventura.

HISTORY OF OIL OR GAS WELL

Operator: Southern California Gas Company
Well: Porter 69 C
A.P.I. No. 03724128

Field: Aliso Canyon County: Los Angeles
Surface Location: Section 28 T3N R16W SBBM
Name: Tom McMahon Title: SIMP Project Manager
(President, Secretary, or Agent)

Date: 8/26/2016

Telephone Number: 714-398-5020

Address: PO Box 2300, SC9365, Chatsworth, CA, 91313-2300

Signature: _____
(Person Submitting Report)

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Start Date	Ops this Report (DOGGR)
7/5/2016	Hold safety meeting with rig crew and service personnel. Service rig and equipment. Field pressure = 1210 psi / SITP= 0 psi/ SICP =0 psi. Strap tanks= 810 bbls, 8.5ppg, 64 vis, HEC polymer on location. Fill hole with 72 bbls polymer. POOH w/ tubing and tools. Stand back 4-3/4" drill collars and L/D 8-1/2" mill shoe BHA. Mechanic repair air leak on rig clutch. M/U 3-1/2" Spear w/ 3.198" grapple, 5-3/8" stop sub, 2-3/8" REG pin x 3-1/2" IF box Xover, 4-3/4" bumper sub, 4-3/4" jars, 4 @ 4-3/4" drill collars, 4-3/4" slinger, 3-1/2" IF pin x 3-1/2" FH box Xover, 3-1/2" FH pin x 2-7/8" IF box Xover, and 2-7/8" IF pin x 2-7/8" CTR box Xover. RIH with BHA and 113 joints x 2-7/8"/6.5# P110 CTR tubing. Leave Eot @ 3725' for overnight. Close in and secure well. SDFN. BOP drill @ 16:30 hrs- well closed in 25 seconds. Production Casing: 9-5/8"/47# N-80 (0-7596') Liner: 5-1/2"/17# J-55 (7520-7881')
7/6/2016	Hold safety meeting with rig crew and service personnel. Service rig and equipment. Field pressure = 1210 psi / SITP= 0 psi/ SICP =0 psi. Strap tanks= 790 bbls, 8.5ppg, 64 vis, HEC polymer on location. Fill hole with 26 bbls polymer. Continue RIH w/ WFT spear BHA and remainder of 229 joints x 2-7/8"/6.5# P110 CTR tubing. Install TIW and record up/down weights(80/68k). Engage fish on top of 5-1/2"/17# liner top @ 7520'. Pull up to 125K and jar fish free. Had to work fish with the jars for the first 100' and then pulling free. POOH w/ tubing and tools. Install 9-5/8" casing stub across BOP to keep any loose pieces from falling back down hole. Stand back 4-3/4" drill collars and L/D spear, jars, bumper sub, and fish. Release fisherman. P/U 9-5/8"/47# casing scraper, 2-7/8" bumper sub, 2-7/8" x 2' L80 pup joint, and 2-7/8" EU P x CTR box Xover. RIH w/ BHA and 235 joints x 2-7/8" tubing. Tag 5-1/2"/17# liner top 6' deeper than recorded depth of 7520'. POOH to 4200' for overnight. Close in and secure well. SDFN. Production Casing: 9-5/8"/47# N-80 (0-7596') Liner: 5-1/2"/17# J-55 (7520-7881')

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

Rec'd 10-10-16 DOGGR Ventura.

HISTORY OF OIL OR GAS WELL

Operator: Southern California Gas Company
Well: Porter 69 C
A.P.I. No. 03724128

Field: Aliso Canyon County: Los Angeles
Surface Location: Section 28 T3N R16W SBBM
Name: Tom McMahon Title: SIMP Project Manager
(President, Secretary, or Agent)
Telephone Number: 714-398-5020

Date: 8/26/2016

Address: PO Box 2300, SC9365, Chatsworth, CA, 91313-2300

Signature: _____
(Person Submitting Report)

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Start Date	Ops this Report (DOGGR)
7/7/2016	Hold safety meeting with rig crew and service personnel. Service rig and equipment. Field pressure = 1215 psi / SITP= 0 psi/ SICP =0 psi. Strap tanks= 648 bbls, 8.5ppg, 64 vis, HEC polymer on location. Fill hole with 11 bbls polymer. POOH w/ tubing and tools from 4200'. L/D 9-5/8" casing scraper and bumper sub. P/U 14 joints x 2-3/8"/5.95# P110 PH-6 tubing with a 6' mule shoe on bottom and Xovers back to 2-7/8" CTR box. RIH w/ clean out BHA and 233 joints x 2-7/8"/6.5# P110 CTR tubing. Pass through 5-1/2"/17# liner top @ 7520' with no problems. Tag bottom of liner 3' deeper than recorded depth of 7881'. Reverse circulate 2 tubing volumes (90 bbls) @ 4bpm/ 600 psi and return no solids over the shaker. POOH with work string and L/D 2-3/8" clean out tail string. RIH w/ 24 stands x 2-7/8" tubing. Leave EoT @ 1540' for overnight. Close in and secure well. SDFN. Production Casing: 9-5/8"/47# N-80 (0-7596') Liner: 5-1/2"/17# J-55 (7520-7881')
7/8/2016	Hold safety meeting with rig crew and service personnel. Service rig and equipment. Field pressure = 1215 psi / SITP= 0 psi/ SICP =0 psi. Strap tanks= 548 bbls, 8.5ppg, 64 vis, HEC polymer on location. Fill hole with 32 bbls polymer. POOH w/ 24 stands x 2-7/8" tubing. N/U shooting flange. MIRU Western Wireline/ Gyro data. P/U 7" lubricator. P/U Gyro Data memory tool, GR, CCL. Pressure test lubricator to 500 psi/5min. RIH to 500' and set depth coefficient for gyro to line truck. Pull back up to surface and log down to 7873' with gyro @ 170 fpm. Log up from 7850' to 6000' with GR/CCL @ 60 fpm - correlate to Dual Induction log (04/12/92). POOH @ 200 fpm, stopping at 16 different (1min) intervals for gyro on the way out. L/D tools. Calibrate Probe 60 Arm caliper tool. M/U and RIH. Tag liner top and P/U @ 7526'. Log up @ 40fpm to surface- no repeat passes required. Perform 1 min time log inside 9-5/8"/47# casing near surface and 1 min time log inside 9-5/8"/40# casing stub on surface. L/D caliper tools. RDMO wireline. RIH w/ 24 stands x 2-7/8" tubing. Leave EoT @ 1540' for overnight. Close in and secure well. SDFN. Production Casing: 9-5/8"/47# N-80 (0-7596') Liner: 5-1/2"/17# J-55 (7520-7881')

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

Rec'd 10-10-16 DOGGR Ventura.

HISTORY OF OIL OR GAS WELL

Operator: Southern California Gas Company
Well: Porter 69 C
A.P.I. No. 03724128

Field: Aliso Canyon County: Los Angeles
Surface Location: Section 28 T3N R16W SBBM
Name: Tom McMahon Title: SIMP Project Manager
(President, Secretary, or Agent)

Date: 8/26/2016

Telephone Number: 714-398-5020

Address: PO Box 2300, SC9365, Chatsworth, CA, 91313-2300

Signature: _____
(Person Submitting Report)

History must be complete in all detail. Use this form to report all operations during drilling and testing of the well or during redrilling or altering the casing, plugging, or abandonment, with the dates thereof. Include such items as hole size, formation test details, amounts of cement used, top and bottom of plugs, perforation details, sidetracked junk, bailing tests, and initial production data.

Start Date	Ops this Report (DOGGR)
7/9/2016	Hold safety meeting with rig crew and service personnel. Service rig and equipment. Field pressure = 1215 psi / SITP= 0 psi/ SICP =0 psi. Strap tanks= 700 bbls, 8.5ppg, 64 vis, HEC polymer on location. Fill hole with 41 bbls polymer. POOH w/ 24 stands x 2-7/8" tubing. N/U shooting flange. MIRU Baker wireline. P/U 9-5/8" High Resolution Verti-log tools. Log down from surface to 5-1/2" liner top (7520') @ 140 fpm. Log up from 7500' to surface @ 120 fpm. Repeat up pass from 2000' to surface. Correlate to GR/CCL log dated 7/8/16. POOH and L/D HRVRT tools. RDMO wire line truck. P/U HES 9-5/8"/47# x 2-7/8" RTTS packer, 2-7/8"/6.5# L80 x 8' pup joint, 2-7/8" x 2.31" 'XN' nipple, and 2-7/8" EUP x CTR box Xover. RIH w/ BHA and 110 joints x 2-7/8"/6.5# P110 CTR tubing. Fill hole and set packer @ 3516' CoE. Pressure test casing from 3616' to surface to 1020 psi on a digital gauge for 20 min- good test. Bleed off test. Close in and secure well. SDFN. Production Casing: 9-5/8"/47# N-80 (0-7596') Liner: 5-1/2"/17# J-55 (7520-7881')
7/11/2016	Hold safety meeting with rig crew and service personnel. Service rig and equipment. Field pressure = 1215 psi / SITP= 0 psi/ SICP =0 psi. Strap tanks= 600 bbls, 8.5ppg, 64 vis, HEC polymer on location. Fill tubing with 13 bbls polymer. MIRU PROS testing. HES 9-5/8"/47# RTTS packer set @ 3516' CoE. Pressure test casing (3516' to surface) to 3678 psi and digitally record- pressure declined 17 psi to 3661 psi in 1 hour- DOGGR witness and pass test. Open unloader and let well equalize for 10 min. Unset packer and let elements relax and other 30 min. Start in hole w/ remainder of tubing to reach liner top @ 7520'- packer stopped high @ 7350'. Work packer several hours over 600' of casing- will come up/ wont come down- unable to get packer in the 'run' position. POOH and L/D tools. Visual inspection reveals lower slip retaining ring damaged, causing lower slips to prematurely engage. P/U new HES 9-5/8"/47# x 2-7/8" RTTS packer, 2-7/8"/6.5# x8' L80 pup joint, 2-7/8" x 2.31" 'XN' nipple, and 2-7/8" EUP x CTR box Xover. RIH w/ BHA and 28 stands x 2-7/8"/6.5# P110 CTR tubing. Set packer @ 1810' CoE and pressure test to 1030 psi for 20 min in a digital gauge. Bleed off and release packer. Let elements relax overnight. Close in and secure well. SDFN. Production Casing: 9-5/8"/47# N-80 (0-7596') Liner: 5-1/2"/17# J-55 (7520-7881') DOGGR: Mark Davis / John Truschel

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

Rec'd 10-10-16 DOGGR Ventura.

HISTORY OF OIL OR GAS WELL

Operator: Southern California Gas Company
Well: Porter 69 C
A.P.I. No. 03724128

Field: Aliso Canyon County: Los Angeles
Surface Location: Section 28 T3N R16W SBBM
Name: Tom McMahon Title: SIMP Project Manager
(President, Secretary, or Agent)
Telephone Number: 714-398-5020

Date: 8/26/2016

Address: PO Box 2300, SC9365, Chatsworth, CA, 91313-2300

Signature: _____
(Person Submitting Report)

History must be complete in all detail. Use this form to report all operations during drilling and testing of the well or during redrilling or altering the casing, plugging, or abandonment, with the dates thereof. Include such items as hole size, formation test details, amounts of cement used, top and bottom of plugs, perforation details, sidetracked junk, bailing tests, and initial production data.

Start Date	Ops this Report (DOGGR)
7/12/2016	Hold safety meeting with rig crew and service personnel. Service rig and equipment. Field pressure = 1215 psi / SITP= 0 psi/ SICP =0 psi. Strap tanks= 575 bbls, 8.5ppg, 64 vis, HEC polymer on location. Fill tubing with 7 bbls polymer. Continue to RIH w/ 9-5/8" x 2-7/8" RTTS packer BHA and remainder of 235 joints x 2-7/8"/6.5# P110 CTR tubing. Tag 5-1/2"/17# liner top 10' deeper than recorded depth of 7520'. Record up/down weights (80/60k). Set test packer @ 7521' CoE (MD). MIRU PROS testing. Pressure test casing (7521'- surface) to 2452 psi and digitally record- pressure declined 14 psi to 2438 psi in 1 hour- DOGGR witness and pass test. Bleed off casing, RDMO tester, and release packer. Let elements relax for 1 hour. POOH w/ tubing and tools. L/D tools. P/U HES 9-5/8"/47# x 2-7/8" Model 3L RBP, 9-5/8" x 2-7/8" RBP running tool, 2-7/8"/6.5# x 8' L80 pup joint, 2-7/8" x 2.31" 'XN' nipple, and 2-7/8" EUP x CTR box Xover. RIH w/ BHA and 32 stands x 2-7/8" CTR tubing. Set RBP @ 2054' CoE, pack off, and release from tool. Pressure test RBP to 1000 psi/20min on a digital gauge. Latch on, equalize, and release RBP. Let elements relax overnight. Close in and secure well. SDFN. Production Casing: 9-5/8"/47# N-80 (0-7596') Liner: 5-1/2"/17# J-55 (7520-7881') DOGGR: John Truschel
7/13/2016	Hold safety meeting with rig crew and service personnel. Service rig and equipment. Field pressure = 1215 psi / SITP= 0 psi/ SICP =0 psi. Strap tanks= 530 bbls, 8.5ppg, 64 vis, HEC polymer on location. Fill tubing with 10 bbls polymer. Continue RIH w/ Halliburton 9-5/8"/47# Model 3L RBP BHA and remainder of 234 joints x 2-7/8"/6.5# P110 CTR tubing. P/U tubing swivel and TIW valve on joint #235 and tag liner top 10' deeper than recorded depth of 7520'. Record up/down weights (80/60k). P/U 7' and set RBP @ 7519' CoE (MD) / 7523' bottom / 7512' top. Pack off and release from tool. L/D tubing swivel and stand back 2 stands. Pressure test RBP to 1070 psi for 30min on a digital gauge and chart. Bleed off and dump 4ft3 of sand down tubing and displace with 38 bbls polymer. Estimated top of sand @ 7502'. POOH w/ tubing and tools. L/D running tool. RIH w/ 6 @ 4-3/4" drill collars. MIRU Stinger and L/D collars. Remove work floor. N/D 11" 5M Class III annular bag. Close in and secure well. SDFN. Production Casing: 9-5/8"/47# N-80 (0-7596') Liner: 5-1/2"/17# J-55 (7520-7881')

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

Rec'd 10-10-16 DOGGR Ventura.

HISTORY OF OIL OR GAS WELL

Operator: Southern California Gas Company
Well: Porter 69 C
A.P.I. No. 03724128

Field: Aliso Canyon County: Los Angeles
Surface Location: Section 28 T3N R16W SBBM
Name: Tom McMahon Title: SIMP Project Manager
(President, Secretary, or Agent)
Telephone Number: 714-398-5020

Date: 8/26/2016

Address: PO Box 2300, SC9365, Chatsworth, CA, 91313-2300

Signature: _____
(Person Submitting Report)

History must be complete in all detail. Use this form to report all operations during drilling and testing of the well or during redrilling or altering the casing, plugging, or abandonment, with the dates thereof. Include such items as hole size, formation test details, amounts of cement used, top and bottom of plugs, perforation details, sidetracked junk, bailing tests, and initial production data.

Start Date	Ops this Report (DOGGR)
7/14/2016	Hold safety meeting with rig crew and service personnel. Service rig and equipment. Field pressure = 1218 psi / SICP =0 psi. Strap tanks= 530 bbls, 8.5ppg, 64 vis, HEC polymer on location. Well full. N/D 11" 5M Class III double gate and choke manifold lines. Obtain hot work permit from SCG ops. MIRU Cameron to de-energize secondary seals and bleed off voids.MIRU welder and use chop saw to cut tubing spool bolts. N/D 11" 5M tubing spool and 11"5M x 13-5/8" 3M DSA. Send to Cameron Bakersfield for refurbishing (5 day turn around). Remove and replace primary seal between 13-3/8"/54.5# K55 surface casing and 9-5/8"/47# N80 production casing. N/U 13-3/8" 3M x 11" 3M and 11" 3M x 11" 5M crossover spools. N/U 11" 5M Class III double gate BOP and choke manifold lines. Pressure test new primary seal, and blind rams, and broken BOP connections to 1000 psi on a digital gauge and chart for 30 min. N/U shooting flange. Perform rig maintenance on air tanks and air system under rig. Close in and secure well. SDFN. Production Casing: 9-5/8"/47# N-80 (0-7596') Liner: 5-1/2"/17# J-55 (7520-7881')
7/15/2016	Hold safety meeting with rig crew and service personnel. Service rig and equipment. Field pressure = 1218 psi / SICP =0 psi. Strap tanks= 530 bbls, 8.5ppg, 64 vis, HEC polymer on location. Well full. MIRU SLB wireline. P/U lubricator and pack off. M/U USIT/CBL/GR/CCL/ND tools. Start tools in hole and log down from surface to 7502' @ 8000 fph. Tag sand top @ 7502'. P/U and log up from 7500' to surface @ 2500 fph. Correlate to SLB Dual Induction Log dated 04/12/1992. Make repeat USITpasses from 3600-3400' and 2600-1950' @ 1000 fph (high resolution). POOH and L/D tools and lubricator. Initial CBL data indicates good cement bond across the MP zone. Close in and secure well. SDFN. Production Casing: 9-5/8"/47# N-80 (0-7596') Liner: 5-1/2"/17# J-55 (7520-7881')
7/18/2016	Hold safety meeting with rig crew and service personnel. Field pressure = 1218 psi / SICP =0 psi. Strap tanks= 530 bbls, 8.5ppg, 64 vis, HEC polymer on location. Well full. Service hoist and mud pump. Repack pump. Service BOP equipment and choke manifold. Police location and haul trash and metal to appropriate bins. Scrub rig. Secure location. SDFN. Production Casing: 9-5/8"/47# N-80 (0-7596') Liner: 5-1/2"/17# J-55 (7520-7881')

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

Rec'd 10-10-16 DOGGR Ventura.

HISTORY OF OIL OR GAS WELL

Operator: Southern California Gas Company
Well: Porter 69 C
A.P.I. No. 03724128

Field: Aliso Canyon County: Los Angeles
Surface Location: Section 28 T3N R16W SBBM
Name: Tom McMahon Title: SIMP Project Manager
(President, Secretary, or Agent)
Telephone Number: 714-398-5020

Date: 8/26/2016

Address: PO Box 2300, SC9365, Chatsworth, CA, 91313-2300

Signature: _____
(Person Submitting Report)

History must be complete in all detail. Use this form to report all operations during drilling and testing of the well or during redrilling or altering the casing, plugging, or abandonment, with the dates thereof. Include such items as hole size, formation test details, amounts of cement used, top and bottom of plugs, perforation details, sidetracked junk, bailing tests, and initial production data.

Start Date	Ops this Report (DOGGR)
7/20/2016	Hold safety meeting with rig crew and service personnel. Service rig and equipment. Field pressure = 1218 psi / SICP =0 psi. Strap tanks= 530 bbls, 8.5ppg, 64 vis, HEC polymer on location. Well full. MIRU Stinger and remove 11" 5M double gate and crossover spools from well. MIRU Cameron. Install 13-3/8" 3M x 11" 5M DSA and 11" 5M x 11" 5M Tubing spool- SCG representative present to confirm valve orientation. Use power unit to torque all connections. Energize seals and pressure test as follows: 300 psi (low) /3000 psi(high) charted for 20 min each between the primary seal and P-seal in the DSA. 300 psi (low)/3048 psi(high) charted for 20 mins each between the DSA P-seal and the tubing spool P-seal. RDMO Cameron. N/U 11" Class III 5M double gate, 11" 5M Annular bag, and choke manifold piping. RDMO Stinger. MIRU WFT test truck and retest broken seals on BOPE as follows: 300 psi (low)/3500 psi (high) charted for 20 mins each on the annular bag flanged connection. 300 psi(low)/ 5000 psi (high) charted for 20 mins each on the double gate flanged connection and choke manifold connections. RDMO WFT. DOGGR inspect BOPE @ 14:00 hrs (Randall Morlan) Close in and secure well. SDFN. Production Casing: 9-5/8"/47# N-80 (0-7596') Liner: 5-1/2"/17# J-55 (7520-7881')
7/21/2016	1) P/U HES 9-5/8" x 2-7/8" RBP pulling tool. 2) RIH w/ BHA and 235 jts x 2-7/8" tubing 3) Circulate off sand cap 4) Latch, equalize, and release RBP @ 7519' CoE. 5) POOH and L/D tools. 6) Run in open ended to kill string. 7) Close in and secure well. SDFN.
7/22/2016	1) Safety meeting. 2) Record pressures, fill, and open well. 3) Run in hole with 234 joints x 2-7/8" work string. 4) L/D 186 joints x 2-7/8" work string. 5) Change pipe rams to 3-1/2" and pressure test. 6)Shut in well.
7/23/2016	1) Safety meeting / service equipment. 2) Record pressures, open, and fill well. 3) L/D 48 jts x 2-7/8" tubing. 4) P/U 9-5/8" packer BHA and 2-7/8" flow control equipment. 5) Drift, tally, test, and seal lube 73 jts x 3-1/2" production tubing. 6) EoT @ 2368'-Shut in and secure well.
7/25/2016	1) Safety meeting with crew and service personnel / Service rig and equipment. 2) Record pressures, open and fill well. 3) RIH w/ 23 jts x 3-1/2" tubing 4) Shut down per engineering request 5) Shut in and secure well.
7/26/2016	1) Safety meeting. 2) Service rig and equipment, record pressures, open and fill well. 3) Continue P/U remainder of 3-1/2" production tubing and tubing hanger. 4) Spot packer fluid. 5) Set production packer, land tubing hanger, and test. 6) Shut in well.
7/27/2016	1) Safety meeting 2) Service rig/ equipment, record pressures, open well. 3) Set PXN plug in tubing @ 7420'. 4) Pressure test casing / tubing for DOGGR 5) N/D BOPE 6) Install & test wellhead 7) Rig down 8) SDFN.

JRAL RESOURCES AGENCY OF CALIFORN'
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS & GEOTHERMAL RESOURCES
1000 S. Hill Rd, Suite 116 Ventura, CA 93003-4458
Phone:(805) 654-4761 Fax:(805) 654-4765

No. T **216-0390**

REPORT ON OPERATIONS

GAS STORAGE PROJECT
"Sesnon-Frew" - Modelo (Miocene-Eocene) Formation

Amy Kitson
Southern California Gas Company (S4700)
12801 Tampa Ave., SC9382
Northridge, CA 91326

Ventura, California
September 12, 2016

Your operations at well **"Porter" 69C**, A.P.I. No. **037-24128**, Sec. **28**, T. **03N**, R. **16W**, **SB** B.&M., **Aliso Canyon** field, in **Los Angeles** County, were witnessed on **7/27/2016**, by **Hafiz Ali**, a representative of the supervisor.

The operations were performed for the purpose of **determining casing integrity**.

DECISION:

APPROVED

HAM/TKC

Kenneth A. Harris Jr.
State Oil and Gas Supervisor

By _____
Patricia A. Abel, *District Deputy*

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State of California
Department of Conservation
Division of Oil, Gas, and Geothermal Resources

Casing and Tubing Pressure Test

Operator: So. Cal. Gas Co. Well Designation: "Porter" 69C

Sec. 28, T. 03N, R. 16W, S. B. B.M. API No. 037-24128 Field: Aliso Canyon

County. Los Angeles Witnessed on: 27-Jul-2016. Hafiz Ali, representative of the supervisor, was present from 0800 to 1130 ~~0~~ ek.

Also Present were Jason Sike, So. Cal. Gas Co. Rep

Casing Record of the Well:
13-3/8", 45.5 lb., K-55 cemented at 1043'; 9-5/8",471 lb., N80 cemented at 7596'.
5-1/2", 17 lb., J 55 ld 7520'- 7881', slotted 7543'-7598', 2-7/8", screen from 7598'-7879',

The operations were performed for the purpose of Final Well Certification

Pressure Test of the Casing

Packer/ Bridge Plug at Packer at 7403'
Casing Pressured with 3% KCl
Casing Pressure Start PSI: 1090 psig
Casing Pressure End PSI: 1088 psig
Pressure Held 60 Min. Total drop in Pressure 2 psi 0.1 %.

Well Type Gas Storage
Volume
Start Time: 0840
End Time: 0940

Test Result: X Good ____ Not Good

Pressure Test of the Tubing

Packer/ Bridge Plug at Tubing plug at 7421'
Tubing Pressured with 3% KCl
Tubing Pressure Start PSI: 3760 psig
Tubing Pressure End PSI: 3744 psig
Pressure Held 60 Min. Total drop in Pressure 16 psi 0.4 %.

Well Type Gas Storage
Volume
Start Time: 1020
End Time: 1120

Test Result: X Good ____ Not Good

Remarks:

I JRAL RESOURCES AGENCY OF CALIFORN
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS & GEOTHERMAL RESOURCES
1000 S. Hill Rd, Suite 116 Ventura, CA 93003-4458
Phone:(805) 654-4761 Fax:(805) 654-4765

No. T **216-0284**

REPORT ON OPERATIONS

GAS STORAGE PROJECT
"Sesnon-Frew" - Modelo (Miocene-Eocene) Formation

Amy Kitson
Southern California Gas Company (S4700)
12801 Tampa Ave., SC9382
Northridge, CA 91326

Ventura, California
August 15, 2016

Your operations at well **"Porter" 69C**, A.P.I. No. **037-24128**, Sec. **28**, T. **03N**, R. **16W**, **SB** B.&M., **Aliso Canyon** field, in **Los Angeles** County, were witnessed on **7/20/2016**, by **Randall Morlan**, a representative of the supervisor.

The operations were performed for the purpose of **inspecting the blowout prevention equipment and installation**.

DECISION:

APPROVED

RM/TKC

Kenneth A. Harris Jr.
State Oil and Gas Supervisor

By _____
Patricia A. Abel, *District Deputy*

API No. 037-24128 DIV ON OF OIL, GAS, AND GEOTHERMAL RESC CES T 216-0284

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BLOWOUT PREVENTION EQUIPMENT MEMO

Operator Southern California Gas Co. Well "Porter" 69C Sec. 28 T. 03N R. 16W

Field Aliso Canyon County Los Angeles Spud Date

VISITS:	Date	Engineer	Time	Operator's Rep.	Title
1st	7/20/2016	Randall Morlan	(14:15 to 14:45)	Jason Fike	DSM
2nd			(to)		

Contractor Rival Rig # 6 Contractor's Rep. & Title

Casing record of well:

OPERATION: ~~Testing~~ (inspecting) the blowout prevention equipment and installation. Critical well? Y ☐ N ☒

DECISION: The blowout prevention equipment and its installation on the 9 5/8 " casing are approved.

Proposed Well Opns: . MACP: psi

Hole size: " fr. ' to ', " to ' & " to '

REQUIRED BOPE CLASS: III5M

CASING RECORD OF BOPE ANCHOR STRING					Cement Details	Top of Cement	
Size	Weight(s)	Grade(s)	Shoe at	CP at		Casing	Annulus

BOP STACK

API Symb.	Ram Size (in.)	Manufacturer	Model or Type	Vert. Bore Size (in.)	Press. Rtg.	Date Last Overhaul
A	cso	Hydril	GK	11	5M	
Rd	2 7/8	Shaffer	LXT	11	5M	
Rd	cso	Shaffer	LXT	11	5M	

TEST DATA

Gal. to Close	Recov. Time (Min.)	Calc. GPM Output	psi Drop to Close	Secs. to Close	Test Date	Test Press.
10						
3						
3						

ACTUATING SYSTEM

Accumulator Unit(s) Working Pressure 3000 psi

Total Rated Pump Output gpm Fluid Level

Distance from Well Bore >25 ft.

	Accum. Manufacturer	Capacity	Precharge
1	Koomey	80 gal.	1000 psi
2		gal.	psi

CONTROL STATIONS

		Elec.	Hyd.	Pneu
x	Manifold at accumulator unit		x	
	Remote at Driller's station			
	Other:			

EMERG. BACKUP SYSTEM

				Press.	Wkg.
	N_2 Cylinders	1	L=51 "	2500	7gal.
	Other:	2	L=51 "	2600	8gal.
		3	L=51 "	2800	9gal.
		4	L=51 "	2700	8gal.
		5	L=51 "	2800	9gal.
		6	L=51 "	2800	9gal.
		TOTAL: 36			gal

HOLE FLUID MONITORING EQUIPMENT	Alarm Type: Audible	Alarm Type: Visual	Class
Calibrated Mud Pit			A
Pit Level Indicator			
Pump Stroke Counter			B
Pit Level Recorder			
Flow Sensor			C
Mud Totalizer			
Calibrated Trip Tank			
Other:			

TOTAL: 16

AUXILIARY EQUIPMENT

		No.	Size (in.)	Rated Press.	Connections: Weld	Connections: Flange	Connections: Thread	Test Press.
	Fill-up Line							
x	Kill Line		2	5M		x		
x	Control Valve(s)	3		5M		x		
x	Check Valve(s)	1		5M		x		
x	Aux. Pump Connect.			5M		x		
x	Choke Line		3	5M		x		
x	Control Valve(s)	7		5M		x		
x	Pressure Gauge						x	
	Adjustable Choke(s)							
	Bleed Line							
	Upper Kelly Cock							
	Lower Kelly Cock							
	Standpipe Valve							
	Standpipe Press.							
x	Pipe Safety Valve		27/8	5M				
	Internal Preventer							

Hole Fluid Type	Weight	Storage Pits (Type & Size)
KCl water	8.6	100 bbl

REMARKS AND DEFICIENCIES:

JRAL RESOURCES AGENCY OF CALIFORN
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS & GEOTHERMAL RESOURCES
1000 S. Hill Rd, Suite 116 Ventura, CA 93003-4458
Phone:(805) 654-4761 Fax:(805) 654-4765

No. T **216-0332**

REPORT ON OPERATIONS

GAS STORAGE PROJECT
"Sesnon-Frew" - Modelo (Miocene-Eocene) Formation

Amy Kitson
Southern California Gas Company (S4700)
12801 Tampa Ave., SC9382
Northridge, CA 91326

Ventura, California
August 15, 2016

Your operations at well **"Porter" 69C**, A.P.I. No. **037-24128**, Sec. **28**, T. **03N**, R. **16W**, **SB** B.&M., **Aliso Canyon** field, in **Los Angeles** County, were witnessed on **7/12/2016**, by **Jack Truschel**, a representative of the supervisor.

The operations were performed for the purpose of **determining casing integrity**.

DECISION:

APPROVED

JPT/TKC

Kenneth A. Harris Jr.
State Oil and Gas Supervisor

By pf. E
Patricia A. Abel, *District Deputy*

State of California
Department of Conservation
Division of Oil, Gas, and Geothermal Resources

No. T216-0332
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MECHANICAL INTEGRITY TEST (MIT)

Operator: ***So. California Gas Co.***				Well: ***"Porter" 69C***	
Sec. ***28***	T. ***03N***	R. ***16W***	***SB*** B.&M.	API No.: ***037-24128***	Field: ***Aliso Canyon***
County: ***Los Angeles***				☒ Witnessed ☐ Reviewed on: ***7/11-12/2016***	

J. Truschel ,representative of the supervisor, was present from ***0720*** to ***0743***

Also present were: ***Mr. Jason Fike, consultant***

Casing record of the well:
13-3/8" cem. 1043', 9-5/8" cem. 7596', 5-1/2" ld. 7520'-7881', screen/slots 7543'-7879'. TD 7882'. Pkr @ 3516' & 7515"

Block test:

Lower: Start @ 0857 hrs, 2452 psig ***Upper: Start @ 0643 hrs, 3678 psig***
End @ 0957 hrs, 2438 psig ***End @ 0743 hrs, 3661 psig***

The MIT was performed for the purpose of demonstrating the mechanical integrity of the ***7"*** casing.

☐ The MIT is approved since the R/A tracer survey indicates that all of the injection fluid is confined to formations below at this time.

☒ The MIT is approved because the ***9-5/8""*** casing held a pressure of ***3600 & 2200 psig*** for ***60*** minutes.

☐ The MIT is approved since the temperature survey indicates no fluid migration between and the surface.

☐ The MIT is not approved due to the following reasons:

Comments:
Upper block tested conducted on 7/11/2016, lower block test conducted 7/12/16 from 0857 hrs to 0957 hrs.

Deficiencies Corrected:

Deficiencies to be Corrected:

Uncorrectable Deficiencies:

Contractor:

No. T
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STATE OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS AND GEOTHERMAL RESOURCES

PRESSURE BLOCK TEST

Operator So CA Gas Well Designation "Porter" 69C

Sec. 28 ,T. 03N ,R. 16 W B.& M. API No. 037-24128 Field Aliso Canyon

County Los Angeles Witnessed on 7-12-2016. Jack Truschel, representative

Supervisor, was present from 0850 to 1000.

Also present were Mr. Jason Fike - Consultant

Casing record of the well

The operation were performed for the purpose of Mechanical integrity of the 9 5/8" casing

Pressure Test Casing

Packer at 3516' Well Type Gas

Casing Pressured With Volume

Casing Pressure Start (psi) 2452 psi Time ~~End~~ Start 0857

Casing Pressure End (psi) 2438 ~~Start~~ End Time 0957

Pressure Held 60 minutes. Total change in pressure -14 psi psi .6 % %

Test results ✓ Good ~~No Good~~ X No Good ~~Inconclusive~~ X Inconclusive

Pressure Test Tubbing

Plug-Back to Well Type

Tubbing Pressured With Volume

Tubbing Pressure Start (psi) Start Time

Tubbg Pressure End (psi) End Time

Pressure Held minutes. Total drop in pressure psi %

Test results Good No Good Inconclusive

Remarks

NATURAL RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS & GEOTHERMAL RESOURCES
1000 S. Hill Rd, Suite 116 Ventura, CA 93003-4458
Phone:(805) 654-4761 Fax:(805) 654-4765

No. T **216-0233**

REPORT ON OPERATIONS

GAS STORAGE PROJECT
"Sesnon-Frew" - Modelo (Miocene-Eocene) Formation

Amy Kitson
Southern California Gas Company (S4700)
12801 Tampa Ave., SC9382
Northridge, CA 91326

Ventura, California
July 12, 2016

Your operations at well **"Porter" 69C**, A.P.I. No. **037-24128**, Sec. **28**, T. **03N**, R. **16W**, **SB** B.&M., **Aliso Canyon** field, in **Los Angeles** County, were witnessed on **6/27/2016**, by **Bryan Norman**, a representative of the supervisor.

The operations were performed for the purpose of **inspecting the blowout prevention equipment and installation**.

DECISION:

APPROVED

BWN/TKC

Kenneth A. Harris Jr.
State Oil and Gas Supervisor

By
Patricia A. Abel, *District Deputy*

API No. 037-24128 DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES T 16-0233

BLOWOUT PREVENTION EQUIPMENT MEMO #12 OK

Operator Sothern California Gas Co. Well Porter 69C Sec. 28 T. 03N R. 16W
Field Aliso Canyon County Los Angeles Spud Date

VISITS:	Date	Engineer	Time	Operator's Rep.	Title
1st	06/27/2016	Bryan Norman	(0900 to 1030)	Jason Fike	DSM
2nd			(to)		

Contractor Rival Rig # 6 Contractor's Rep. & Title
Casing record of well: 9 5/8 47# N-80 0'-7596'

OPERATION: Testing (inspecting) the blowout prevention equipment and installation. Critical well? Y ☐ N ☒
DECISION: The blowout prevention equipment and its installation on the 9-5/8 " casing are approved.

Proposed Well Opns: Rework . MACP: psi
Hole size: " fr. ' to ', " to ' & " to '

REQUIRED BOPE CLASS: III 5M

CASING RECORD OF BOPE ANCHOR STRING					Cement Details	Top of Cement	
Size	Weight(s)	Grade(s)	Shoe at	CP at		Casing	Annulus
9-5/8	47	N-80	7596				

BOP STACK

API Symb.	Ram Size (in.)	Manufacturer	Model or Type	Vert. Bore Size (in.)	Press. Rtg.	Date Last Overhaul
A	CSO	Hydrill	GK10	11"	5M	
PR	2-7/8	Shaffer	LXT	11"	5M	
BR	CSO	Shaffer	LXT	11"	5M	

TEST DATA

Gal. to Close	Recov. Time (Min.)	Calc. GPM Output	psi Drop to Close	Secs. to Close	Test Date	Test Press.
8.34						
2.98						
2.98						

TOTAL: 14.3

ACTUATING SYSTEM

Accumulator Unit(s) Working Pressure 3000 psi
Total Rated Pump Output gpm Fluid Level
Distance from Well Bore 50 ft. OK

	Accum. Manufacturer	Capacity	Precharge
1	Koomey	80gal.	1000psi
2		gal.	psi

CONTROL STATIONS	Elec.	Hyd.	Pneu.
Manifold at accumulator unit		X	
Remote at Driller's station			X
Other:			

EMERG. BACKUP SYSTEM			Press.	Wkg. Fluid
N_2 Cylinders	1	L= 55 "	2800	10.4gal.
Other:	2	L= 55 "	2800	10.4gal.
	3	L= 55 "	2800	10.4gal.
	4	L= 55 "	2900	10.6gal.
	5	L= 55 "	2900	10.6gal.
	6	L= 55 "	2850	10.5gal.
		TOTAL: 62.9		ga

HOLE FLUID MONITORING	Alarm Type: Audible	Alarm Type: Visual	Class
Calibrated Mud Pit			A
Pit Level Indicator			
Pump Stroke Counter			B
Pit Level Recorder			
Flow Sensor			C
Mud Totalizer			
Calibrated Trip Tank			
Other:			

AUXILIARY EQUIPMENT

				Connections: Weld	Flange	Thread
Fill-up Line						
Kill Line		2"	5M		X	
Control Valve(s)	2		5M		X	
Check Valve(s)	1		5M		X	
Aux. Pump Connect.			5M		X	
Choke Line		3"	5M		X	
Control Valve(s)	10		5M		X	
Pressure Gauge					X	
Adjustable Choke(s)	2	3"	5M		X	
Bleed Line		3"			X	
Upper Kelly Cock						
Lower Kelly Cock						
Standpipe Valve						
Standpipe Press. Gau.						
Pipe Safety Valve		2.87	5M			
Internal Preventer		2.87	5M			

Hole Fluid Type	Weight	Storage Pits (Type & Size)
Polymer fluid	8.5	1100 bbl mud pit , 600bbl fluid on site
		64 vis

REMARKS AND DEFICIENCIES: Inpection only. Test pressures 300 low 5000 high hydrill tested to 3500. 20 min tests

OGD9 (3/98)

DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

CHECK LIST-RECORDS RECEIVED AND WELL STATUS

Operator: **Southern California Gas Company** WELL DESIGNATION **"Porter" 69C**

API No. **03724128** SE **28** T: **3N** R.: **16W** , **SB** B. and M.

County: **Los Angeles** FIELD: **Aliso Canyon**

Type of Notice: **Supplementary** **Date** **6/30/2016** **Report Number:** **P216-0114**

RECORDS RECEIVED (ATTACH PAGES IF REQUIRED)

	Date	OK	NEED	Remarks
Well Summary (OG100)			✓	MUD SENT
History (OG103)	10-10	✓		
E-Log				
Mud Log				
Dipmeter				
Directional				
Core and/or SWS				
BOPE	6/27/16	✓		
PRESS TEST	7/11/16	✓		
				Digital info in Main Folder

NEW STATUS

DATE: _____

NOTICE OF RECORDS DUE

DATE: 10-25-16

DATE: _____

DATE: _____

DATE: _____

WELL STATUS INQUIRY

DATE: _____

DATE: _____

Well Stat

Change Required: _____

Change Done: _____

ABANDONMENTS/REABANDONMENTS/DRILLS/REDRILLS

CalWims Abandonment Form: _____ SURFACE INSPECTION NEEDED _____ COMPLETED _____
Date and Inspector

FINAL LETTER NEEDED _____ COMPLETED _____ Calwims DRILL/REDRILL Form _____
(Date)

ENGINEER'S CHECK LIST

T-REPORT(S) ✓ OPERATOR'S NAME ✓ WELL DESIGNATION ✓ SIGNATURE ✓

Calwims Location _____ Calwims ELEVATION: _____ CONFIDENTIAL RELEASE DATE: _____ PERMIT REQUIREMENTS MET _____

CLERICAL CHECK LIST

LOCATION CHANGE (OG165) _____ ELEVATION CHANGE (OG165) _____ RELEASE OF BOND (OG150) _____

REMARKS

Waited for T-Report and raw field data

RECORDS SCANNED: _____ (Date)

RECORDS APPROVED: D.O. (Date and Engineer)

Modified OGD2

AOR Datbase _____

NATURAL RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS & GEOTHERMAL RESOURCES
1000 S. Hill Rd, Suite 116 Ventura, CA 93003 - 4458

No. P 216-0114

Old	New
010	010
FIELD CODE	
00	00
AREA CODE	
30	30
POOL CODE	

PERMIT TO CONDUCT WELL OPERATIONS

Gas Storage
"Sesnon-Frew" - Modelo (Miocene-Eocene) Formation

Ventura, California
July 07, 2016

Amy Kitson, Agent
Southern California Gas Company (S4700)
12801 Tampa Ave., SC9382
Northridge, CA 91326

Your **Supplementary** proposal to **REWORK** well **"Porter" 69C**, A.P.I. No. **037-24128**, Section **28**, T. **03N**, R. **16W**, **SB** B. & M., **Aliso Canyon** field, **Any** area, **Sesnon-Frew** pool, **Los Angeles** County, dated **6/30/2016**, received **7/5/2016** has been examined in conjunction with records filed in this office. (Lat: **34.314946** Long: **-118.556961** Datum:**83**)

THE PROPOSAL IS APPROVED PROVIDED:

1. Blowout prevention equipment, as defined by this Division's publication No. M07, shall be installed and maintained in operating condition and meet the following minimum requirements:
   a. Class **III 5M** on the **9 5/8"** casing.
2. Hole fluid of a quality and in sufficient quantity to control all subsurface conditions in order to prevent blowouts shall be used.
3. Blowout prevention practice drills are conducted at least weekly and recorded on the tour sheet. A practice drill may be required at the time of the test/inspection.
4. A Temperature and Noise log are run on the well from the packer to surface.
5. **A Casing Wall Thickness Inspection, Cement Bond Log, and a Multi-Arm Caliper Inspection** shall be performed to demonstrate that the **9 5/8"**casing has integrity.
6. Prior to commencing injection, a pressure test is conducted to demonstrate the mechanical integrity of the **9 5/8"** casing.
7. Injection shall be through tubing and packer only. Injection or withdrawal through the casing is not permitted.
8. This office shall be contacted by phone prior to making any program changes and no changes are made without Division approval.
9. **THIS DIVISION SHALL BE NOTIFIED TO:**
   a. Inspect the installed blowout prevention equipment prior to commencing **downhole** operations.
   b. Witness a pressure test of the **9 5/8"** casing prior to commencing injection.

Blanket Bond Dated: 7/6/1999
UIC Project No. 0100006

Engineer Kris Gustafson
Office (805) 654-4761

KG/kg

Kenneth A. Harris Jr.
State Oil and Gas Supervisor

By _____ for
Patricia A. Abel, *District Deputy*

A copy of this permit and the proposal must be posted at the well site prior to commencing operations. Records for work done under this permit are due within 60 days after the work has been completed or the operations have been suspended. Issuance of this permit does not affect the Operator's responsibility to comply with other applicable state, federal, and local laws, regulations, and ordinances.

OG111 (revised 6/2011)

NOTE:

1. The base of the freshwater zone is at **800'±**.
2. No operation shall be undertaken or continued that will contaminate or otherwise damage the environment.
3. This permit is being issued as part of Division Order No. 1109 dated March 4, 2016. Any well that fails any of the testing must be taken out of service and isolated from the storage reservoir pursuant to the Safety Review Testing Regime.
4. The required History of Oil or Gas Well (OG103) shall include a complete description of the required pressure testing. **An updated casing and tubing diagram shall be included with the well history.**
5. **A Well Summary Report (Form OG 100)** and **Well History (Form OG 103)** shall to be submitted to the Division within 60 days after the well is drilled, reworked, plugged and abandoned, or if the work is suspended. Any additional well work will require an additional notice to be submitted to this office prior to resuming well operations.

Enclosure: **Attachment 1 to DOGGR Order 1109. Safety Review Testing Regime for the Aliso Canyon Natural Gas Storage Facility**

ATTACHMENT 1
TO DOGGR ORDER 1109

SAFETY REVIEW TESTING REGIME
FOR THE ALISO CANYON NATURAL GAS STORAGE FACILITY

This document identifies the requirements of this comprehensive safety review that shall be completed by the Southern California Gas Company (Operator) and verified by the Department of Conservation, Division of Oil, Gas, and Geothermal Resources (Division). The Operator shall use accepted industry practices and procedures.

The Division has consulted with independent technical experts from the Lawrence Berkeley, Lawrence Livermore, and Sandia National Laboratories ("National Laboratories") to develop the requirements of this facility safety review. The National Laboratories experts independently reviewed and concurred with the testing requirements for the safety review detailed below.

This comprehensive safety review requires that each of the active injection wells in the Aliso Canyon Storage facility either pass a thorough battery of tests in order to resume gas injection or be taken out of operation and isolated from the underground gas storage reservoir. Several steps, detailed below, are required in this safety review. Documentation of all testing required under this comprehensive safety review shall be provided electronically to the Division within 72 hours of completion of a test in digital (i.e. LAS) and printed (i.e. pdf) form. All pressure tests required under this comprehensive safety review shall be witnessed by Division staff. A well that is properly plugged and abandoned in accordance with Public Resources Code section 3208 is not subject to testing under this comprehensive safety review. A well that does not pass all tests must be repaired, retested, and pass all tests, or be plug and abandoned.

REQUIRED TESTS FOR EACH WELL IN THE FACILITY

Step 1: The Operator shall perform an initial casing assessment on the well consisting of temperature and noise logs.

a. Temperature Log:
   A temperature survey shall be run from the surface to the packer to measure the temperature within the wellbore. A temperature survey that demonstrates no unexplained anomalous temperature changes in the well is one indication of casing integrity.

b. Noise Log:
   An acoustic sensor survey capable of detecting the sound of fluid flow will be conducted the length of the well above the packer to the surface. The survey will include stops at least every 250 feet and at the midpoint of any anomaly detected by the temperature survey. The absence of anomalous sound above the packer is an indication of well integrity

Step 2: The results of the Temperature Logs and Noise Logs will be independently reviewed by Division engineers. Any unexplained abnormal findings in this set of tests shall be addressed by the Operator in one of the following ways:

a. Conduct further investigation and demonstrate to the Division's satisfaction that the abnormal finding is not an indicator of a lack mechanical integrity;
b. Remediate the well to the Division's satisfaction; or
c. With Division review and approval, remove the well from operation and isolate the well from the underground gas storage reservoir in accordance with Steps 4b through 7b below.

Necessary actions to remediate any abnormalities revealed by these tests will be reviewed by Division engineers. Once repairs or mitigations are completed, the Temperature Log and Noise Log must then be repeated on the well and reviewed by Division engineers to ensure that there are no additional abnormal test results and to confirm the issue was repaired.

Step 3: After these tests are completed on the well, and all required action has been completed, the operator shall either:

a. Conduct the additional tests and evaluations on the well, outlined in Steps 4a through 7a below, in order to gain approval for injecting gas through that well; or
b. Remove the well from operation and isolate the well from the underground gas storage reservoir in accordance with Steps 4b through 7b below.

REQUIRED TESTS IF A WELL IS INTENDED TO RESUME OPERATIONS

If Temperature and Noise Logs have been completed on a well and they indicate well integrity, and the Operator designates the well to return to injection operations, then the Operator shall perform the additional testing outlined in Steps 4a through 7a. The results of these tests will be independently reviewed by Division engineers and posted publicly. Each of the following tests requires that the production tubing be removed from the well.

Step 4a: The Operator shall conduct a **Casing Inspection log.**
The Operator shall conduct a Casing Inspection log of the well that measures the thickness of the production casing, from the surface to the bottom of the gas storage reservoir cap rock. If the inspection reveals a reduction in wall thickness, the current minimum strength of the casing will be calculated. If the current minimum strength of the casing has diminished to the point that it cannot withstand authorized operating pressures for the well plus a built-in additional safety factor of pressure, the well has failed this test. *A passing test for a casing inspection log would show no thinning of the casing that diminishes the casing's ability to contain at least 115% of the well's maximum allowable operating pressure as authorized in the current Project Approval Letter.*

Step 5a: The Operator shall conduct a **Cement Bond Log** for the well.
The Operator shall conduct a Cement Bond Log (CBL) that measures the bonding between cement and the production casing of the well, and also the bonding between the annular cement and the formation. Cement should be solidly bonded to both the well's production casing and the geologic formation to ensure a seal that prevents fluids from migrating up or down the outside of the well. *A passing test for a cement bond log shows definitive bond, as demonstrated by sonic waveform,*

between cement and casing and between cement and the gas storage formation and/or cap rock for at least 100 feet above the top of the gas storage reservoir.

Step 6a: The Operator shall conduct a **Multi-Arm Caliper Inspection** of the well.
The operator shall conduct an inspection that measures any internal degradation or significant changes to the well's geometry from the surface to the top of the gas storage reservoir, using a minimum 32-arm caliper tool. If the inspection reveals a thinning or deformity of the casing, the current strength of the casing will be calculated. If the current strength of the casing has diminished, such that it cannot withstand authorized operating pressures plus a built-in safety factor of additional pressure, the well fails this inspection. *A passing test for a Multi-Arm Caliper Inspection would show no deformation or thinning of the casing that diminishes the casing from being able to properly contain at least 115% of each well's maximum operating pressure.*

Step 7a: The Operator will conduct a **Pressure Test** of the production casing and of the well once the production tubing has been reinstalled. The Operator may conduct the casing pressure test prior to reinstalling the production tubing. Using a digital recorder, the operator will conduct a liquid-filled positive pressure test within the production tubing of the well, and in the annular space between the production tubing and the casing, to determine the well's ability to withstand normal operating pressures. The production tubing will be isolated and then pressure tested. The annular space between tubing and casing will be pressure tested. This testing also evaluates the integrity of any packers, which seal the annular space between the tubing and casing. The pressure test will be one hour and begin at a pressure of 115% of the maximum operating pressure or the minimum yield strength of the casing and tubing, whichever is less. *A passing pressure test is a pressure loss not exceeding 10% for any 30 minute period during the hour long test.*

After conducting the above tests, the Operator will conduct any indicated remediation so that the well can pass these tests. All remediation will be subject to the review of Division engineers. The well would then be required to undergo the tests once again to demonstrate well integrity.

If the well passes the Casing Wall Thickness Inspection, the Cement Bond Log, the Multi-Arm Caliper inspection and the Pressure Test to the Division's satisfaction, then the Division may clear the well for use for gas injections and withdrawal, once the Division has authorized resumption of injection into the gas storage reservoir. As noted below, wells approved for operation will only be permitted to inject or withdraw gas through the production tubing.

REQUIRED ACTIONS IF THE WELL IS TO BE TAKEN OUT OF OPERATION AND ISOLATED FROM THE GAS STORAGE RESERVOIR:

If the operator elects to take a well out of service, then the following steps shall be taken to isolate the well from the gas storage reservoir:

Step 4b: The Operator shall confirm the presence of cement outside the well's external casing in the section of the well that prevents the movement of gas from the underground gas storage reservoir to shallower geologic zones above the gas storage reservoir. Existing cement bond logs and well construction

records may be used to make this confirmation. This confirmation requires concurrence from Division engineers.

Step 5b: The Operator shall install a mechanical seal or "packer" within the well's production casing and install a mechanical plug within the well's production tubing, if applicable. These seals shall be set in place near the bottom of the well, within the portion of the well surrounded by cement. This kind of seal is an industry standard practice for isolating a well from reservoir gases or fluids and will further protect the casing from internal gas pressure.

Step 6b: The Operator shall fill the well with fluid to the well's surface in order to create appropriate downward hydrostatic pressure in the well that further contributes to the integrity of the well seal.

These measures will isolate a well from the underground gas reservoir, as confirmed by National Laboratory experts. Each of the above actions is subject to review and approval by Division Engineers.

Step 7b: Once the Operator has completed steps 4b, 5b, and 6b, and the seal is in place at the bottom of the well and the well is filled with fluid above the seal, the operator shall:

a. Conduct daily gas monitoring at the surface of the non-operational well, including monitoring the area around the well perimeter and in the annular space between the plugged casing string and the outmost casing;
b. Conduct noise log, temperature log and positive pressure test every six months;
c. Conduct weekly monitoring of fluid levels in the well or, install and operate real-time pressure monitors that provide immediate notification to the operator when pressures deviate from normal in the well's interior tubing and its annular space.

The above monitoring shall be reported to Division engineers and maintained as a part of the well file. Division engineers will review all submitted information for evaluation on a regular basis to ensure that the well taken out of service has maintained safety, and the operator shall take all necessary steps maintain the safety of the well.

Any well taken out of operation cannot be approved to resume operations and gas injection until the successful completion of the battery of tests outlined above in Steps 4a through 7a (Casing Wall Thickness Inspection, the Cement Bond Log, the Multi-Arm Caliper Extension and the Pressure Test) is completed. Those tests must be successfully completed within one year of completing step 6b. If a well cannot successfully complete all necessary steps required in this safety review after one year of completing step 6b, then the well shall be properly plugged and abandoned in accordance with Public Resources Code section 3208.

REQUIREMENTS FOR WELLS RESUMING OPERATIONS IN ALISO CANYON

The Division's authorization to resume injection in the Aliso Canyon Storage Facility will be contingent on the successful completion of this comprehensive safety review. The State Oil and Gas Supervisor must confirm in writing that all wells in the facility have either completed and passed the full battery of tests required in the safety review, been taken out of service and isolated from the underground gas storage reservoir, or been properly plugged and abandoned in accordance with Public Resources Code Section 3208.

Rec'd 07-05-16 DOGGR Ventura.

NATURAL RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

FOR DIVISION USE ONLY		
	Forms	
Bond	~~OGD114~~	OGD121
	CAL WIMS	1151

P216-0114

SUPPLEMENTARY NOTICE

Detailed instructions can be found at: www.conservation.ca.gov/dog/

A notice to the Division of Oil, Gas, and Geothermal Resources, dated 06/30/2016, stating the intention to Rework (Drill, Rework, Abandon) well Porter 69 C, API No. 037-24128,

Sec. 34, T. 3N, R. 16W, S.B. B.&M., Aliso Canyon Field, Los Angeles County

should be amended because of changed conditions.

The complete casing record of the well (present hole), including plugs and perforations, is as follows: (Attach wellbore schematics diagram also.)
See attached wellbore schematic

The total depth is: 7882 feet. The effective depth is: 7881 feet.

Present completion zone(s): Sesnon (Name). Anticipated completion zone(s): Same (Name).

Present zone pressure: storage psi. Anticipated/existing new zone pressure: storage psi.

We now propose: (A complete program is preferred and may be attached.)
See attached program

If well is to be redrilled or deepened, show proposed coordinates (from surface location) and true vertical depth at total depth: _____ feet _____ (Direction) and _____ feet _____ (Direction) Estimated true vertical depth: _____

Will the Field and/or Area change? Yes☐ No☒ If yes, specify New Field: _____ New Area: _____

The Division must be notified immediately of changes to the proposed operations. Failure to provide a true and accurate representation of the well and proposed operations may cause rescission of the permit.

Name of Operator			
Southern California Gas Company			
Address: P.O.Box 2300		City/State: Chatsworth	Zip Code: 91313-2300
Name of Person Filing Notice: Mark Ghann-Amoah	Telephone Number: 806-401-2979	Signature:	Date: 06/30/2016
Individual to contact for technical questions: Mark Ghann-Amoah	Telephone Number: 806-401-2979	E-Mail Address: mghann-amoah@semprautilities.com	

This notice must be filed, and approval given, before the operations begin. If operations have not commenced within one year of the Division's receipt of this supplementary notice, this notice will be considered cancelled.

CRITICAL WELL DEFINITION

As defined in the California Code of Regulations, Title 14, Section 1720 (a), "Critical well" means a well within:

(1) 300 feet of the following:
  (A) Any building intended for human occupancy that is not necessary to the operation of the well; or
  (B) Any airport runway.
(2) 100 feet of the following:
  (A) Any dedicated public street, highway or the nearest rail of an operating railway that is in general use;
  (B) Any navigable body of water or watercourse perennially covered by water;
  (C) Any public recreational facility such as a golf course, amusement park, picnic ground, campground or any other area of periodic high-density population; or
  (D) Any officially recognized wildlife preserve.

WELL OPERATIONS REQUIRING BONDING

1. Drilling, redrilling, or deepening any well.
2. Milling out or removing a casing or liner.
3. Running and cementing casing or tubing.
4. Running and cementing liners and inner liners.
5. Perforating casing in a previously unperforated interval for production, injection, testing, observation, or cementing purposes.
6. Drilling out any type of permanent plug.
7. Reentering an abandoned well having no bond.

This form may be printed from the DOGGR website at **www.conservation.ca.gov/dog/**

WORKOVER PROJECT

(P69C – Well Inspection)

DATE:	May 20, 2016
OPERATOR:	SOUTHERN CALIFORNIA GAS COMPANY
FIELD:	ALISO CANYON
PREPARED BY:	MARK GHANN-AMOAH
API NUMBER:	037-24128
ELEVATION:	All depths based on original KB, 23.5' above GL

OBJECTIVE

The intent of this program is to inspect the wells mechanical integrity and remediate identified conditions as part of the Storage Integrity Management Program (SIMP).
This project will include pulling the current production string, Pressure testing casing and well laterals, running casing inspection logs, installing a new completion string and converting well to tubing flow.

CASING & CEMENT RECORD

CSG. SIZE (INCHES)	TOP OF CSG (FT)	DEPTH OF SHOE(FT)	WEIGHT OF CASING(LBS)	GRADE & TYPE OF CSG.	HOLE SIZE (INCHES)	SACKS OF CMNT(CF)	CMNT TOP (FT)	TYPE OF CEMENT
13 - 3/8	0	1043	54.5	K-55 , BTC	17 – 1/2	1125	SURFACE	CLASS G
9 - 5/8	0	7596	47	N-80 , LTC	12 – 1/4	2388	SURFACE	FOAM
5 – 1/2	7520	7881	17	J-55 , LTC	13	285	GRAVEL	20-40

WELL RECORD

Current Status:	Active	
C/O Depths:	TD: 7882', PBTD - 7881' , Last tagged at 7878'(03/ 15/2016–3' of fill)	
Injection Conditions:	Estimated BHT – 154 F	Estimated WHP – 1100psi
Current Injection String:	2-7/8"(2.441"ID) 6.5# 0'/7458' w/GLM w/1.5" SOV at 7355' SSD – 7390'(2.313"ID), XN No-Go – 7422'(ID-2.205"), Guiberson Magnum H Packer – 7455' NB: See attached wellbore schematic for detailed description.	
Proposed Injection String:	See attached	

GEOLOGIC MARKERS

MP	7339'
S1	7564'
S4	7653'
S8	7740'

WELL WORK HISTORY/ANALYSIS

This well was drilled(directional) and completed in 1992. Drilling information from dailies on DOGGR/well files records shows no significant issues while drilling.

This well shows no documented well work event after it was drilled in 1992

It passed noise and temperature log (1 3/8"OD) ran on 3/15/2016. Last tag depth 3/15/2016 indicates we have 3' of fill in well, since 1992.

PROJECT NOTES

1. BOPE requirements in Gas Company Standard 224.05 shall be fully implemented at all times.
2. The storage reservoir pressures shall be monitored during the workover with a minimum of 300 psig overbalance for well control fluids.
3. Prepare the location by removing all relevant landscaping/lighting fixtures as well as surface piping and electrical components as needed. Locate rig anchors, reinstall if necessary.
4. DOGGR permit must be posted on site. Notify the DOGGR as required for BOPE testing as stated on permit.

PRE-RIG WORK(FOLLOW CURRENT SOP)

1. De-energize and remove all laterals.
   → Install companion flanges for circulating the well.
   → LOTO (lock-out/Tag-out) where required.
2. Ensure there are rig anchors and prepare surface location as required.

WELL KILL REQUIREMENTS

1. Top of Liner = 7520'
2. Bottom of Slots = 7881'
3. Estimated BHP = 1311psia
4. Calculated fluid to provide 500psi over balance = ~27#/cu.ft.
5. Wellbore fluid volumes;
   → Tubing = 43bbls
   → Casing/Liner = 9bbls
   → Annulus = 486bbls
   538 bbls. Total
6. Pump w/o fluid down tubing at 3bbls/min. through sleeve – 7390'
   → Bleed off any gas to Gas company system
   → Obtain assistance from Aliso Canyon shift supervisor when killing well
   → Ensure surface string annulus is bled off
   → Maintain surface volume equal to or greater than well volume.

WELLWORK PROGRAM

1. MIRU Ensign double w/o rig w/all equipment – pump, Baker tank, Shaker and mixer.
   - ➔ Perform JSA, CW, Safety Review : Talk about all possible things that can hurt y'all.

2. Spot 500 bbls Baker tanks and load well w/HEC polymer
   - ➔ Connect pump to the tubing and vent the casing through the choke manifold to the SoCal Gas withdrawal system.
   - ➔ Treat all brine with Biocide, 5 gals/100 bbl

3. Kill well w/HEC polymer to minimize loss circulation
   - ➔ Bull head HEC polymer into the liner and change over above TOL to 3% KCL
   - ➔ Pump at 2-3bpm
   - ➔ Tubing volume is ~ 43 bbls., Annulus volume ~ 486 bbls.

4. Install backpressure valve in tubing hanger. ND tree and NU BOPE.
   - ➔ Send-in tree components to Cameron for inspection.

5. Install 11" Class III 5M BOPE per Gas Company Standard 224.05 and in accordance with the DOGGR permit. All connections and valves must be flanged and at least 5000 psig rated.
   - ➔ Perform a 300 psig low pressure test on the annular preventer, blind rams and pipe rams for 20 minutes. Test all lines and connections to 300 psig.
   - ➔ Pressure test the Class III 5M annular preventer to 3500 psig for 20 minutes. Test blind rams and the 2-7/8" pipe rams to 5000 psig for 20 minutes. Test all lines and connections to 5000 psig.
   - ➔ All tests are to be charted and witnessed by a DOGGR representative.
   - ➔ Pull back pressure valve from tubing hanger.

6. Remove Back Pressure Valve and unland tubing
   - ➔ Release tubing from Guiberson Magnum H Packer at 7455'

7. POOH laying down production string, See tubing/production string details attached.
   - ➔ If unable to unset packer assembly at 7455'. E-line cut pipe (tubing) at 7445' (+/- 10' above packer), POOH standing back injection string. Fish out rest of injection string.
     - o NB: OD's / ID's of injections are on first page.

8. RIH w/ 9-5/8", 47# casing scraper (positive) on 2-7/8" injection string to top of packer at 7455', POOH laying down injection string.

9. PU 2-7/8" work string and RIH to mill out packer at +/- 7455', POOH w/ milling assembly.

10. RIH w/ 9-5/8", 47# casing scraper (positive) on 2-7/8" work string to TOL – 7520', POOH

11. RIH w/ clean out assembly and clean out well to bottom – 7881'.

12. Rig-up wireline unit(s), necessary connections as required to run the following logs:
    a) Magnetic flux leakage / vertilog from TOL to surface (Baker)

b) Multi-arm caliper log from TOL to surface
c) Gyro survey from bottom(7881') to surface

NOTE: Run multi-arm caliper and gyro in tandom if possible

13. MU and RIH with 9-5/8", 47# test packer and run a pressure integrity test on the 9-5/8" casing from bottom of 9-5/8" casing to surface to a minimum of 115% of the wells MAOP(3625psi) as per attached pressure test schedule , POOH w/test packer.
    ➔ Follow Pressure Test schedule to avoid over pressuring.

14. MU and RIH w/ 9-5/8", 47# RBP on work string. Set at +/- 7515' (5' above liner top).
    ➔ Fill hole w/ clean w/o fluid and Pressure Test -1000psi. Sand off – tag to confirm depth.
    ➔ POOH and lay down RBP retrieving head.

15. Nipple down 11" Class III 5 M BOPE, tubing spool, and primary pack-off.
    ➔ Send wellhead equipment to Cameron for refurbishment

16. Rig-up wireline unit(s), necessary connections as required to run the following logs:
    a) Ultrasonic imager from sand cap to surface (SLB)
    b) Cement bond log from sand cap to top of cement (SLB)
    NB: Send copies of all logs to engineering team for review

17. Reinstall tubing spool and the 11" Class III BOPE and function test. Inspect and retest all connection broken in process.
    ➔ NU refurbished well head from Cameron and install BOPE.
    ➔ Pressure test BOPE and refurbished wellhead.
    ➔ All tests are to be charted and witnessed by a DOGGR representative.

18. PU retrieving head for BP and RIH to retrieve RBP.
    ➔ Circulate out sand. Retrieve RBP at +/- 7515'.
    ➔ POOH and lay down work string and RBP.

19. RIH w/new completion string as follows:
    a) 2 - 7/8" Wireline re-entry guide
    b) 2 - 7/8" 6.5# L-80 EUE XN (2.313" w/2.205" no-go) nipple
    c) 10' - Pup joint 2-7/8" 6.5# L-80 EUE tubing
    d) 2 - 7/8" 6.5# EUE L-80 x 4-1/2"12.75# EUE L-80 cross-over sub
    e) 4 - 1/2" 12.75# EUE L-80 Mechanical Production Packer
    f) 4 - 1/2"12.75# EUE L-80 x 2-7/8" 6.5# EUE L-80 Cross-over sub
    g) Full joint 2 - 7/8" 6.5# L-80 EUE tubing
    h) 2 - 7/8" 6.5# L-80 EUE (2.313" Open Down) sliding sleeve
    i) Full joint 2 - 7/8" 6.5# L-80 EUE tubing
    j) 2 - 7/8" 6.5# EUE x 3-1/2"9.3# EUE L-80 Cross-over sub
    k) 3 - 1/2" 9.3# L-80 EUE tubing to surface
    l) Pup joints 3-1/2" 9.3# EUE L-80 for space-out
    m) 3 - 1/2"9.3# L-80 EUE x 2-7/8" 6.5# EUE L-80 Cross-over sub
    n) 10' - Pup joint 2-7/8" 6.5# L-80 EUE tubing
    o) 2 - 7/8" 6.5# L-80 EUE fatigue nipple (pin x pin)
    p) Tubing hanger with 2 - 7/8" EUE top box / 2 - 1/8" BPV / 2 - 7/8" EUE bottom box
    NOTE: All EUE tubing connections must be cleaned and seal lubed.

20. Spot 50bbl packer fluid across bottom of tubing string

21. Land tubing on tubing hanger as per vendor specification, same depth as before.
    - ➔ NB: Utilize Force Analysis / Tube Move Calculations for packer setting.
    - ➔ Set packer at +/- 7500'

22. Rig-up slick line unit and lubricator. Set a plug in the 2-7/8" XN profile.

23. Pressure test annulus to a 1000psi and test tubing to 3700 psi.
    - ➔ Notify DOGGR to witness pressure tests
    - ➔ Both tests to be an hour in duration and recorded digitally.

24. Prep well to be unloaded after rig moves off.

25. RDMO

EQUIPMENTS / SERVICES

1. Workover Rig double [Rival Rig 6 – Jason Fike, 9496893725]

1. HEC Polymer, Fluid [GEO drilling fluids – Gilbert Ortega, 6613312697]

2. Separator, well kill [Pacific Petroleum / Onyx – Dean Leal, 6614870492]
    - ➔ We will separate well kill – carbon canisters.

3. Tanks / trucking [Doby Haggar – Victor, 6615781453]

4. BOP/ packer [Weatherford – Tim Ludeman, 8053202190]

5. Tubing string [Tuboscope – Nick Taminich, 8052906577]

6. Wellhead [Cameron – Danny Caraan, 6613038615]

WELL WORK PRPOGRAM TO UNLOAD WELL

1. RIH and shift the sliding sleeve open.

2. Rig-up nitrogen unit. Recover workover fluid by pumping down annulus taking returns up tubing.

3. RIH with slick line and shift sliding sleeve closed. POOH and rig down slickline unit.

4. Fill annulus with packer fluid including corrosion inhibitor & biocide.
    a.) Vent nitrogen returns as appropriate.
    b.) Monitor annulus fluid level and re-fill with packer fluid as necessary.

5. Install BPV in tubing hanger. Nipple down the Class III 5M BOPE and install the production tree and test to 5000 psig. Remove BPV.

6. Release production rig, rig down and move out.

WELL LATERAL HYDROTESTING

1. Per Gas Company Standard 182.0170, pressure test the tubing and casing kill laterals from the wellhead to the remote tie in to 3625 psig. Pressure test the tubing and casing withdrawal/injection laterals from wellhead to operating valves to 3625 psig.

2. Reinstall the hydro-tested laterals.

3. Install the well safety systems and instrumentation. Install pressure transmitters on tubing, casing, and surface casing.

4. Release well to operations.

EXTERNAL CORROSION PROTECTION

Per Gas Company Standard 167.30, remove any lead based paint and recoat wellhead, production tree, and laterals.

Casing Pressure Test Schedule:

		External Casing Backup Pressure			Pressure Test Net Burst Pressure @ Depth				Tubing Leak Net Burst Pressure @		
Depth (TVD)	85% of Burst Strength	Fluid / Formation Pressure Gradient	External Casing Backup Pressure	Internal Water Hydrostatic	1	2	3	Final	Gas-Filled Annulus	Test Pressuree > 85% of Burst	Test Pressure < Tubing Leak - Net Burst (Gas-filled annulus)
				Surface Test Pressure	3625			2400	3625		
				Test Packer Depth	3500			7510			
				Test Down Casing or Tubing	Casing			Casing			
				Bridge Plug Depth							
0	5840	0.00	0	0	3625			2400	3625		
500	5840	0.00	0	221	3846			2621	3670		
1000	5840	0.00	0	442	4067			2842	3716		
1500	5840	0.00	0	663	4288			3063	3761		
2000	5840	0.00	0	884	4509			3284	3806		
2500	5840	0.00	0	1105	4730			3505	3852		
3000	5840	0.00	0	1326	4951			3726	3897		
3500	5840	0.00	0	1547	5172			3947	3942		
4000	5840	0.00	0	1768	-			4168	3988		
4500	5840	0.00	0	1989	-			4389	4033		
5000	5840	0.00	0	2210	-			4610	4078		
5500	5840	0.00	0	2431	-			4831	4123		
6000	5840	0.00	0	2652	-			5052	4169		
6500	5840	0.00	0	2873	-			5273	4214		
7510	5840	0.00	0	3319	-			5719	4306		
				0.442 psi/ft int. grad.					0.091 psi/ft int. grad.		

Rec'd 07-05-16 DOGGR Ventura.

Well
Porter 69C

API #: 04-037-24128-00
Sec 28, T3N, R16W

Operator: So. California Gas Co.

Lease: Porter
Field: Aliso Canyon
Status: Active Gas Storage
BFW:
USDW:

Ground Elevation: 2366' asl
Datum to Ground: 23.5' KB

Spud Date: 3/19/1992
Completion Date: 4/25/1992

Junk: None

13-3/8" TOC Surface
9-5/8" TOC Surface

17-1/2" Hole
(0' - 1045')

Surface Casing
13-3/8", 54.5#, K-55
0' - 1043'

CMT'D w/ 1125 CF,
Good CMT Returns to Surface

1043'

12-1/4" Hole
(1045' - 7596')

Production Casing
9-5/8", 47#, N-80
0' - 7596'

CMT'D w/ 1466 CF Foam CMT + 752 CF Tail CMT, Good CMT Returns to Surface + 170 CF CAL Seal CMT Top Job

7520'

7596'

13" Hole
(7596' - 7881')

Liner
5-1/2", 17#, J-55
7520' - 7881'

7881'

TD 7882'
TD VSS (-5330')
Directionally Drilled: Yes (TD is 1331' E, 191' S of Surf, 7726' TVD)

Tubing
2-7/8", 6.5#, N-80
0' - 7458'

7355' Camco "MMA" GLM w/ 1.5" SOV set to 2750' psi on "RA" latch

7390' Gulberson 'XD' Sliding Sleeve (opens down)

7422' Gulberson 'XN' No-Go Nipple

7455' Gulberson Magnum "H" PCKR
7456' Gulberson Latch & One Foot Seal Unit

7458' Tail

7552' - 7586' CTC Packer (Inflated w/ 7 BBL Inflation CMT)

Liner Perfs:
7543' - 7598' 1-1/2" x 0.012", 12R, 6"C Slots
7598' - 7879' 0.012" WWS

Gravel Packed w/
285 CF (129% of Calc'd) 20-40

8-1/2" Hole (7881' - 7882')

Top of Zone Markers		
LP	5767'	(-3255')
MDA	6711'	(-4186')
MP	7339'	(-4799')
S1	7564'	(-5018')
S4	7653'	(-5106')
S8	7740'	(-5191')

Prepared by: MAM (4/20/2016)

InterAct

Well
Porter 69C

API #: 04-037-24128-00
Sec 28, T3N, R16W

Production Casing Pressure Test - Program

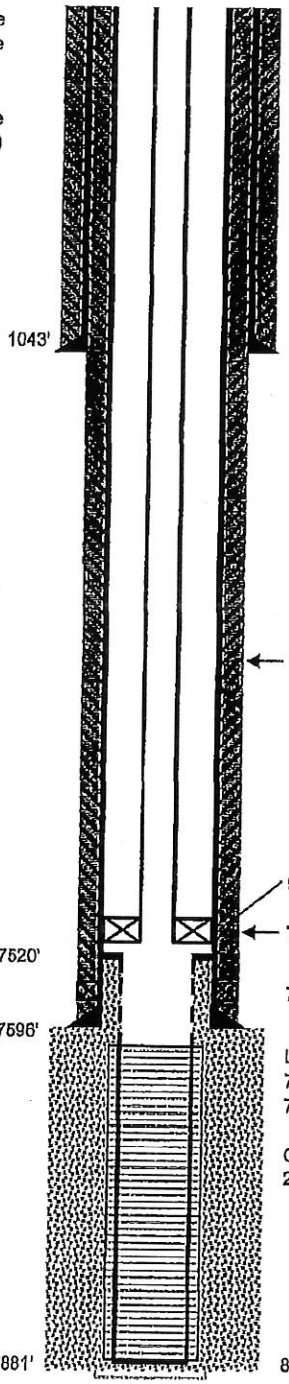
Operator: So. California Gas Co.

Lease: Porter
Field: Aliso Canyon
Status: Active Gas Storage
BFW:
USDW:

Ground Elevation: 2366' asl
Datum to Ground: 23.5' KB

Spud Date: 3/19/1992
Completion Date: 4/25/1992

Junk: None



Surface Casing
13-3/8", 54.5#, K-55
0' - 1043'

CMT'D w/ 1125 CF,
Good CMT Returns to Surface

Production Casing
9-5/8", 47#, N-80
0' - 7596'

CMT'D w/ 1466 CF Foam CMT +
752 CF Tail CMT, Good CMT
Returns to Surface + 170 CF CAL
Seal CMT Top Job

Liner
5-1/2", 17#, J-55
7520' - 7881'

TEST 3500' to Surface - 3625 psi

9-5/8" Test Packer, Move and Set at each TEST Location

TEST 7510' to Surface - 2400 psi

7552' - 7586' CTC Packer (Inflated w/ 7 BBL Inflation CMT)

Liner Perfs:
7543' - 7598' 1-1/2" x 0.012", 12R, 6"C Slots
7598' - 7879' 0.012" WWS

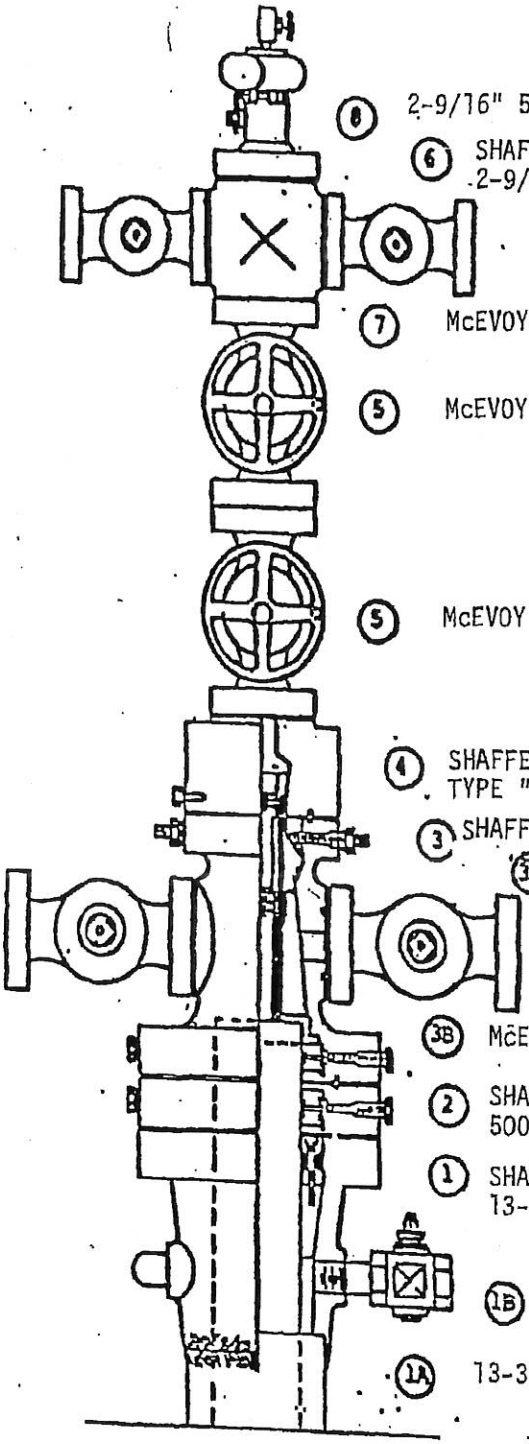
Gravel Packed w/
285 CF (129% of Calc'd) 20-40

Top of Zone Markers		
LP	5757'	(-3255')
MDA	6711'	(-4186')
MP	7339'	(-4799')
S1	7564'	(-5018')
S4	7653'	(-5106')
S8	7740'	(-5191')

TD 7882'
TD VSS (-5330')
Directionally Drilled: Yes (TD is 1331' E, 191' S of Surf, 7726' TVD)

Prepared by: MAM (4/20/2016)

InterAct



8 2-9/16" 5000#

6 SHAFFER OIL TOOL
2-9/16" 5000# x 2-9/16" 5000#

7 McEVOY 2-9/16" 5000#

5 McEVOY 2-9/16" 5000#

5 McEVOY 2-9/16" 5000#

4 SHAFFER OIL TOOL 11" 5000# x 2-9/16" 5000#
TYPE "AJS"

3 SHAFFER OIL TOOL 11" 5000# x 11" 5000#
Type 75 LT

3A SHAFFER OIL TOOL 11" x 2-7/8"
EUE 8RD "AJS"

3B McEVOY 3-1/8" 5000#

2 SHAFFER OIL TOOL 13-5/8" 3000# x 11"
5000# w/9-5/8" P.S. SEAL

1 SHAFFER OIL TOOL 13-5/8" 3000# x
13-3/8" SOW TYPE "SD"

1B APOLLO 2" L.P.

1A 13-3/8" 54# K-55

Well Name: PORTER 69C

Mfgr: SHAFFER OIL TOOL SERVICES

Date Prepared: 27 APRIL 1992

WELLHEAD DESCRIPTION TYPE IV

Well No: PORTER 69-C

Field: ALISO CANYON

Date Prepared: 27 APRIL 1992

Wellhead Mfr: SHAFFER OIL TOOL SERVICES

1. Casing Head SHAFFER OIL TOOL Size 13-5/8" 3000# x 13-3/8" SOW MODEL "SD"

   Slips & Pack-off 13-5/8" x 9-5/8" MODEL "SD"

   A. Surface Csg Size 13-3/8" Wt 54# Grade K-55 (TO 1043 FT.)

   B. Casing Head Valve APOLLO Size 2" L.P. Fig N/A

2. Seal Flange SHAFFER OIL TOOL Size 13-5/8" 3000# x 11" 5000# DOUBLE STUDDED

   Type Seal 9-5/8" TYPE PS Ring RX-57 & RX-54

3. Tubing Head SHAFFER OIL TOOL TYPE 75L1 Type Seal 9-5/8" TYPE PS.

   Size 11" 5000# x 11" 5000# w/2 STUDDED OUTLETS Outlets 3-1/8" 5000#

   Sec.Seal 9-5/8" Valve Thrd 2-1/2" VR Ring Type Btm RX-54 Top RX-54

   A. Tubing Hanger SHAFFER Size 11" x 2-7/8" EUE 8RD "AJS" Bore 2.472

      Type 75 "AJS" Thread 2-7/8" EUE 8RD TOP & BOTTOM

   B.P.V. Size & Thrd SHAFFER OIL TOOL SERVICES 2-7/8"

   B. Tubing Head Valves McEVOY Size 3-1/8" 5000#

   C. Automatic Csg Valve N/A Size N/A

4. Adapter Seal Flange SHAFFER "AJS" Size 11" 5000# x 2-9/16" 5000# DOUBLE STUDDED

   A. Ring Size RX-54 & RX-27 Bore 2-9/16"

5. Master Valve (2) McEVOY Size 2-9/16" 5000#

6. Xmas Tree Cross SHAFFER OIL TOOL Size 2-9/16" 5000# x 2-9/16" 5000#

7. Tbg Wing Valves McEVOY Size 2-9/16" 5000#

   Auto Tbg. Prod Valve N/A Size N/A

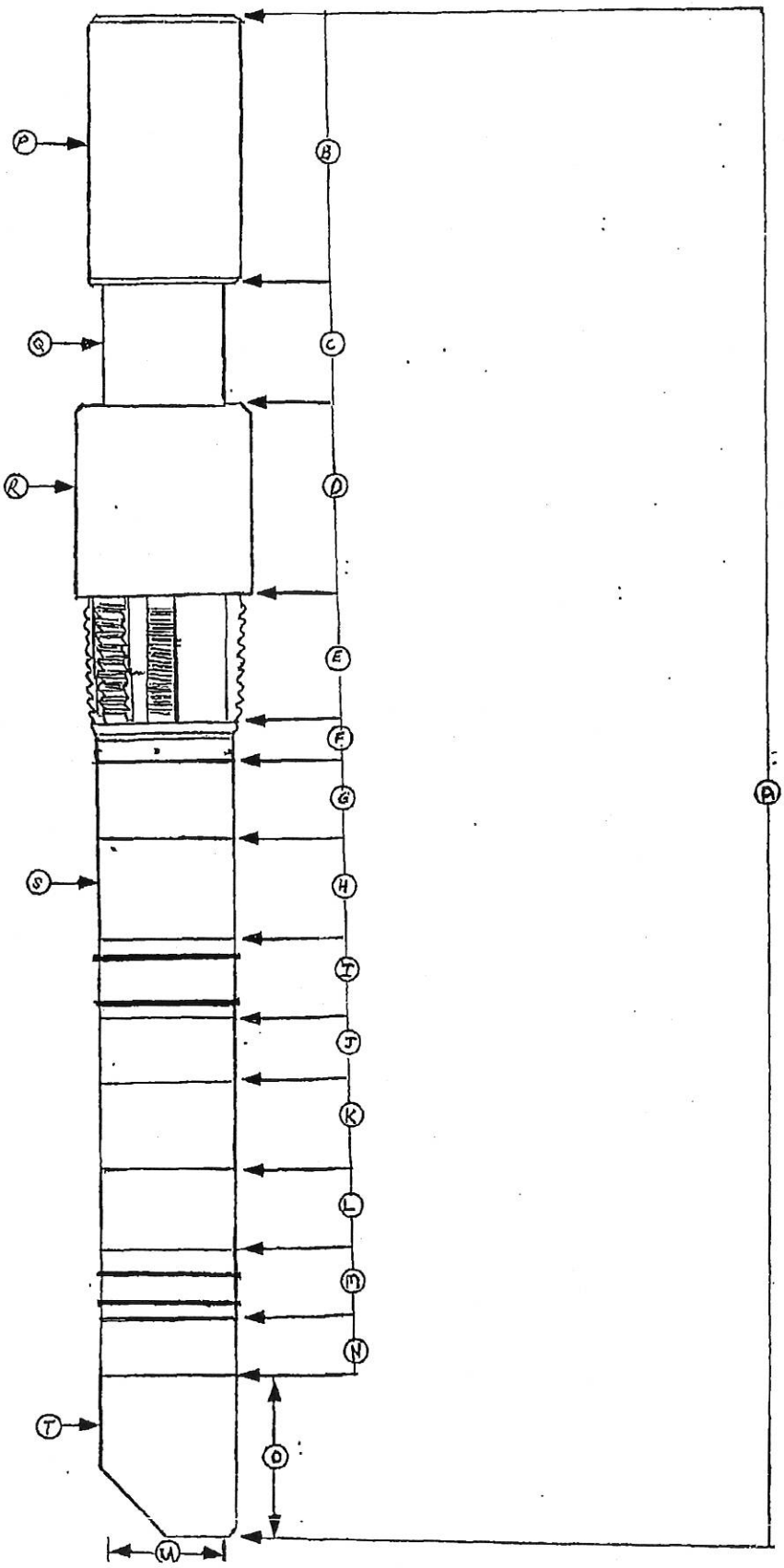
8. Unibolt THORNHILL CRAVER Size 2-9/16" 5000# Inside Thrds 2-7/8" EUE 8RD

9. Csg Size 9-5/8" Wt 47# Grade N-80 (TO 7596 FT)

10. Tubing Head to Ground Level 33" ABOVE GROUND LEVEL

11. Wt. Landed on Doughnut 45,000# Tubing Size 2-7/8" 6.5# Type N-80

A - 50"
B - 5-1/2"
C - 4-3/4 "
D - 4-11/16 "
E - 1-3/4 "
F - 1-1/2 "
G - 5-3/8 "
H - 2-1/2 "
I - 2-1/2 "
J - 2-1/2 "
K - 4-3/8 "
L - 2-1/2 "
M - 2-1/2 "
N - 2-1/2 "
O - 6"
P - 3-5/8"
Q - 2-13/16"
R - 3-15/16"
S - 2.235
T - 3-1/8"
U - 2.437



MILLING AND RETRIEVING SUGGESTIONS FOR MAGNUM SERIES DRILLABLE PACKERS

The following are some suggestions for equipment and operation that can be used for removing the Magnum Series Drillable Packers from the well bore. However, the exact techniques, choice of equipment, and method of removal is entirely up to the customer.

General Suggestion & Operation

To release a Magnum Series Drillable Packer it is necessary to mill over the packer until the upper slip is milled away. At this time, it is possible to engage and pull the packer. For best results, it is suggested that the packer be milled over through the lower slips or until the packer releases and falls. To keep milling time to a minimum, it is only necessary to mill over the outer diameter of the packer without milling the packer mandrel.

The necessary equipment would be composed of a releasable packer retriever (spear), a stinger extension, a mill shoe, wash pipe, a junk basket, and drill collars. Combination packer milling-retrieving tools are available from a number of tool companies and packer companies.

To use this type of tool, the entire assembly is lowered until the packer retriever passes through and out the bottom of the packer. The packer is then milled over until it releases and falls. The spear engages, catching the packer and allowing it to be retrieved.

Suggested Equipment Selection

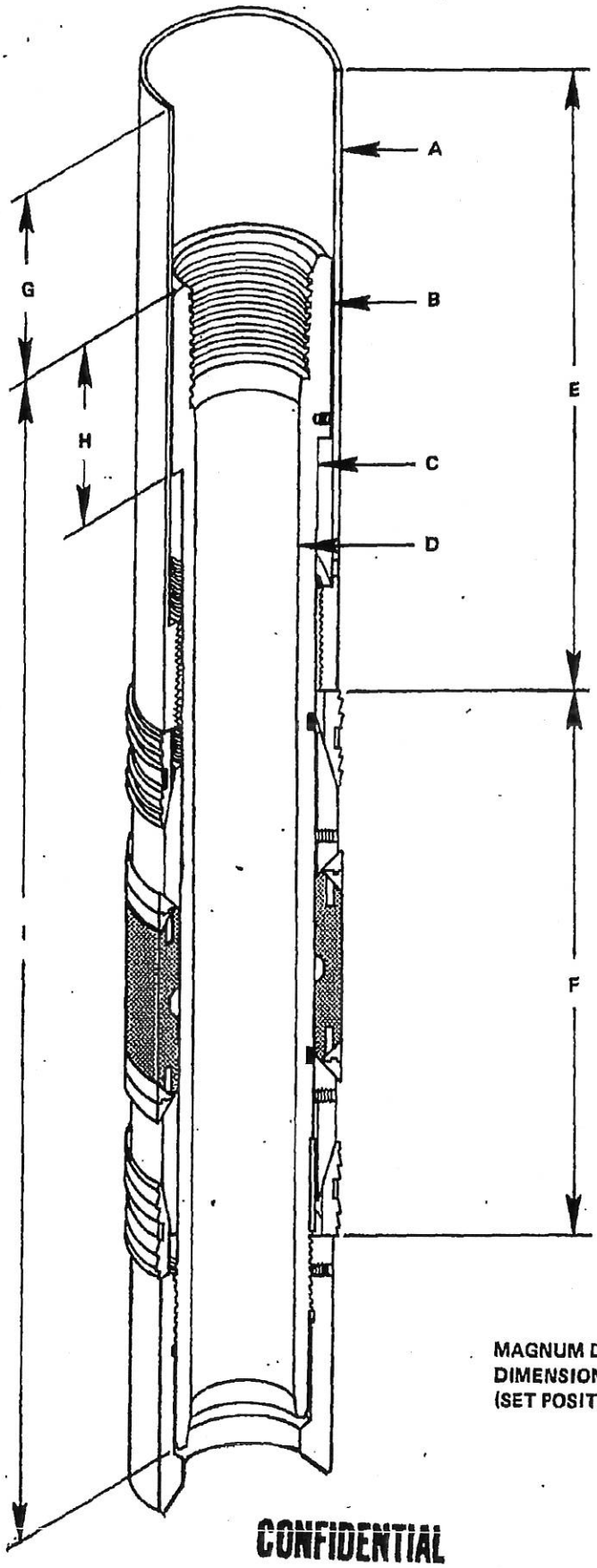
Overshot Mill — A long mill shoe or short mill shoe with wash pipe should be used. The mill body must be long enough to swallow the length of the packer. (See Dimensional Data — Minimum Length of "E" plus "F" Dimensions.)

It is suggested that a mill which is faced on the I.D. and bottom be used. This type mill cuts on the bottom and inside diameter and will not damage the well casing. The mill shoe O.D. will be determined by the casing size and weight. The I.D. of the mill shoe should be no smaller than the outer diameter of the packer mandrel. (See Dimensional Data — Diameter "C".)

Stinger and Retrieving Spear — The stinger or extension length will vary to accommodate the spacing of the packer equipment in the well. The stinger must be long enough to allow the spear to extend out the bottom of the packer. If a Packer Extension (Millout Extension) is used directly below the packer, it should be long enough so that the retriever does not bottom out while milling over the packer.

The spear (slip) section of the retrieving tool is sized to the packer bore. (See Dimensional Data — Diameter "D".) A releasable style spear is desired to facilitate disengagement from the packer, should this become necessary. Where there is a danger of damage to the packer bore or debris, the lower end of the retrieving stinger may be dressed with a small end mill to clear the obstruction.

Junk Basket and Drill Collars — It is suggested that a number of drill collars be used on the bottom of the drill string for additional weight and stabilization. A junk basket (boot basket) may be run directly above the mill shoe and wash pipe, to gather cuttings which can not be circulated to surface.



MAGNUM DRILLABLE PACKER
DIMENSIONAL DATA
(SET POSITION)

MAGNUM DRILLABLE PACKER
DIMENSIONAL DATA
(SET POSITION)

Casing m)	Weight lb/ft	Type	Asm. No.	Type	Asm. No.	DIAMETERS A	B	C	D	LENGTHS E	F Min	F Max	G Min	G Max	H	I
	9.5-11.6	G	82656	GT	85182	3.718	3.313	2.791	2.390	12.50	9.11	9.95	1.48	2.33	3.94	22.81
		H	82658	HT	85184				2.188							
	11.6-16.6	G	82657	GT	85183	3.593			2.390		8.93	11.44	1.31	3.81		
		H	82659	HT	85185				2.188							
	11.6-13	G	82948	GT	82796	4.250	3.938	3.313	2.688	14.00	9.99	10.66	2.77	3.44	4.00	24.50
		H	82949	HT	82797				2.390							
	15-21	G	83599	GT	83600	3.968	3.625	3.125	2.688		7.87	10.38	1.49	4.01		24.75
		H	83601	HT	83345				2.390							
	13-17	G	82953	GT	81869	4.500	4.094	3.500	3.000	13.50	7.99	9.35	.37	1.72	3.94	25.00
		H	82987	HT	81872				2.688							
	17-23	G	82952	GT	81605	4.437			3.000		8.83	10.96	1.21	3.34		
		H	82988	HT	81873				2.688							
	23-26	G	82948	GT	82796	4.250	3.938	3.313	2.688	14.00	8.94	10.11	1.72	2.89	4.00	24.50
		H	82949	HT	82797				2.390							
	13-22	G	83051	GT	82063	5.687	5.188	4.750	4.000	16.25	8.13	9.96	1.29	3.12	4.75	25.75
		H	83056	HT	82460				3.250							
		H	83442	HT	83453				2.688							
	22-32	G	83038	GT	83040	5.468	4.969	4.531	4.000		8.01	11.47	2.17	5.63	3.75	24.75
		H	83060	HT	82590				3.250				1.17	4.63	4.75	25.75
		H	83436	HT	83455				2.688							
	17-26	G	83053	GT	82099	6.000	5.500	5.063	4.000		8.35	9.88	1.51	3.04		
		H	83058	HT	82462				3.250							
		H	83446	HT	83450				2.688							
	26-35	G	83051	GT	82063	5.687	5.188	4.750	4.000		7.21	9.55	.37	2.70		
		H	83056	HT	82460				3.250							
		H	83442	HT	83453				2.688							
	35-44	G	83038	GT	83040	5.468	4.969	4.531	4.000		7.64	9.13	1.79	3.29	3.75	24.75
		H	83060	HT	82590				3.250				.79	2.29	4.75	25.75
		H	83436	HT	83455				2.688							
	24-39	G	83922	GT	84098	6.188	5.500	4.688	4.000	17.06	11.11	14.31	1.64	4.84	3.75	29.19
		H	84100	HT	84101				3.250				.57	3.78	4.81	30.25
		H	84102	HT	84103				2.688							
	24-36	G	83935	GT	84389	7.500	7.031	6.125	5.065	19.13	12.22	14.56	3.88	6.12	4.88	30.13
		H	84390	HT	84391				4.000				2.25	4.49	6.50	31.75
		H	84392	HT	84393				3.250							
	36-49	G	84401	GT	84402	7.125	6.656	5.938	5.065		11.32	13.81	2.97	5.46	4.88	30.13
		H	84403	HT	84404				4.000				1.53	4.03	6.31	31.56
		H	84405	HT	84406				3.250							
	32.3-53.5	G	83537	GT	84321	8.125	7.656	6.750	6.000	19.44	10.05	13.68	2.02	5.65	4.88	30.13
		H	84322	HT	84323				5.065							
		H	84324	HT	84326				4.000				.10	3.72	6.81	32.06
		H	84326	HT	84327				3.250							

: All dimensions are in inches.

BURNING SHOE

MINIMUM LENGTH = LENGTH 'E' + LENGTH 'F' + 5 inches
SHOE O.D. = 3/32" to 1/8" SMALLER THAN CASING DRIFT
SHOE I.D. = DIAMETER 'C' ±1/64"

DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

CHECK LIST-RECORDS RECEIVED AND WELL STATUS

Operator: **Southern California Gas Company** WELL DESIGNATION **"Porter" 69C**

API No. **03724128** SE **28** T: **3N** R.: **16W** , **SB** B. and M.

County: **Los Angeles** FIELD: **Aliso Canyon**

Type of Notice: **Rework** **Date** **5/9/2016** **Report Number:** **P216-0069**

RECORDS RECEIVED (ATTACH PAGES IF REQUIRED)

	Date	OK	NEED	Remarks
Well Summary (OG100)				
History (OG103)				
E-Log				
Mud Log				
Dipmeter				
Directional				
Core and/or SWS				

NEW STATUS

DATE: _____

NOTICE OF RECORDS DUE

DATE: _____

DATE: _____

DATE: _____

DATE: _____

WELL STATUS INQUIRY

DATE: _____

DATE: _____

Well Stat

Change Required: _____

Change Done: _____

ABANDONMENTS/REABANDONMENTS/DRILLS/REDRILLS

CalWims Abandonment Form: _____ SURFACE INSPECTION NEEDED _____ COMPLETED _____
Date and Inspector

FINAL LETTER NEEDED _____ COMPLETED _____ Calwims DRILL/REDRILL Form _____
(Date)

ENGINEER'S CHECK LIST

T-REPORT(S) _____ OPERATOR'S NAME _____ WELL DESIGNATION _____ SIGNATURE _____

Calwims Location _____ Calwims ELEVATION: _____ CONFIDENTIAL RELEASE DATE: _____ PERMIT REQUIREMENTS MET _____

CLERICAL CHECK LIST

LOCATION CHANGE (OG165) _____ ELEVATION CHANGE (OG165) _____ RELEASE OF BOND (OG150) _____

REMARKS

RECORDS SCANNED: _____ **RECORDS APPROVED:** _____
(Date) (Date and Engineer)

Modfied OGD2

AOR Datbase _____

URAL RESOURCES AGENCY OF CALIFORN
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS & GEOTHERMAL RESOURCES
1000 S. Hill Rd, Suite 116 Ventura, CA 93003 - 4458

No. P 216-0069

Old	New
010	010
FIELD CODE	
00	00
AREA CODE	
30	30
POOL CODE	

PERMIT TO CONDUCT WELL OPERATIONS

Gas Storage
"Sesnon-Frew" - Modelo (Miocene-Eocene) Formation

Ventura, California
June 7, 2016

Amy Kitson, Agent
Southern California Gas Company (S4700)
12801 Tampa Ave., SC9382
Northridge, CA 91326

Your proposal to **Rework** well **"Porter" 69C**, A.P.I. No. **037-24128**, Section **28**, T. **03N**, R. **16W**, **SB** B. & M., **Aliso Canyon** field, **Any** area, **Sesnon-Frew** pool, **Los Angeles** County, dated **5/9/2016**, received **5/24/2016** has been examined in conjunction with records filed in this office. (Lat: **34.314946** Long: **-118.556961** Datum:**83**)

THE PROPOSAL IS APPROVED PROVIDED:

1. Blowout prevention equipment, as defined by this Division's publication No. M07, shall be installed and maintained in operating condition and meet the following minimum requirements:
   a. Class **III 5M** on the **9 5/8"** casing.
2. Hole fluid of a quality and in sufficient quantity to control all subsurface conditions in order to prevent blowouts shall be used.
3. Blowout prevention practice drills are conducted at least weekly and recorded on the tour sheet. A practice drill may be required at the time of the test/inspection.
4. A Temperature and Noise log are run on the well from the packer to surface.
5. **A Casing Wall Thickness Inspection, Cement Bond Log, and a Multi-Arm Caliper Inspection** shall be performed to demonstrate that the **9 5/8"**casing has integrity.
6. Prior to commencing injection, a pressure test is conducted to demonstrate the mechanical integrity of the **9 5/8"** casing.
7. Injection shall be through tubing and packer only. Injection or withdrawal through the casing is not permitted.
8. This office shall be contacted by phone prior to making any program changes and no changes are made without Division approval.
9. **THIS DIVISION SHALL BE NOTIFIED TO:**
   a. Inspect the installed blowout prevention equipment prior to commencing **downhole** operations.
   b. Witness a pressure test of the tubing and **9 5/8"** casing prior to commencing injection.

Continued on Next Page

Blanket Bond Dated: 7/6/1999
UIC Project No. 0100006
cc:

Engineer Clifford R. Knight
Office (805) 654-4761

CRK/crk

Kenneth A. Harris Jr.
State Oil and Gas Supervisor

By _____ for
Patricia A. Abel, *District Deputy*

A copy of this permit and the proposal must be posted at the well site prior to commencing operations. Records for work done under this permit are due within 60 days after the work has been completed or the operations have been suspended. Issuance of this permit does not affect the Operator's responsibility to comply with other applicable state, federal, and local laws, regulations, and ordinances.

NOTE:

1. The base of the freshwater zone is at **800'±**.
2. No operation shall be undertaken or continued that will contaminate or otherwise damage the environment.
3. This permit is being issued as part of Division Order No. 1109 dated March 4, 2016. Any well that fails any of the testing must be taken out of service and isolated from the storage reservoir pursuant to the Safety Review Testing Regime.
4. The required History of Oil or Gas Well (OG103) shall include a complete description of the required pressure testing. **An updated casing and tubing diagram shall be included with the well history.**
5. **A Well Summary Report (Form OG 100)** and **Well History (Form OG 103)** shall to be submitted to the Division within 60 days after the well is drilled, reworked, plugged and abandoned, or if the work is suspended. Any additional well work will require an additional notice to be submitted to this office prior to resuming well operations.

Enclosure: **Attachment 1 to DOGGR Order 1109. Safety Review Testing Regime for the Aliso Canyon Natural Gas Storage Facility**

ATTACHMENT 1
TO DOGGR ORDER 1109

SAFETY REVIEW TESTING REGIME
FOR THE ALISO CANYON NATURAL GAS STORAGE FACILITY

This document identifies the requirements of this comprehensive safety review that shall be completed by the Southern California Gas Company (Operator) and verified by the Department of Conservation, Division of Oil, Gas, and Geothermal Resources (Division). The Operator shall use accepted industry practices and procedures.

The Division has consulted with independent technical experts from the Lawrence Berkeley, Lawrence Livermore, and Sandia National Laboratories ("National Laboratories") to develop the requirements of this facility safety review. The National Laboratories experts independently reviewed and concurred with the testing requirements for the safety review detailed below.

This comprehensive safety review requires that each of the active injection wells in the Aliso Canyon Storage facility either pass a thorough battery of tests in order to resume gas injection or be taken out of operation and isolated from the underground gas storage reservoir. Several steps, detailed below, are required in this safety review. Documentation of all testing required under this comprehensive safety review shall be provided electronically to the Division within 72 hours of completion of a test in digital (i.e. LAS) and printed (i.e. pdf) form. All pressure tests required under this comprehensive safety review shall be witnessed by Division staff. A well that is properly plugged and abandoned in accordance with Public Resources Code section 3208 is not subject to testing under this comprehensive safety review. A well that does not pass all tests must be repaired, retested, and pass all tests, or be plug and abandoned.

REQUIRED TESTS FOR EACH WELL IN THE FACILITY

Step 1: The Operator shall perform an initial casing assessment on the well consisting of temperature and noise logs.

a. Temperature Log:
A temperature survey shall be run from the surface to the packer to measure the temperature within the wellbore. A temperature survey that demonstrates no unexplained anomalous temperature changes in the well is one indication of casing integrity.

b. Noise Log:
An acoustic sensor survey capable of detecting the sound of fluid flow will be conducted the length of the well above the packer to the surface. The survey will include stops at least every 250 feet and at the midpoint of any anomaly detected by the temperature survey. The absence of anomalous sound above the packer is an indication of well integrity

Step 2: The results of the Temperature Logs and Noise Logs will be independently reviewed by Division engineers. Any unexplained abnormal findings in this set of tests shall be addressed by the Operator in one of the following ways:

a. Conduct further investigation and demonstrate to the Division's satisfaction that the abnormal finding is not an indicator of a lack mechanical integrity;
b. Remediate the well to the Division's satisfaction; or
c. With Division review and approval, remove the well from operation and isolate the well from the underground gas storage reservoir in accordance with Steps 4b through 7b below.

Necessary actions to remediate any abnormalities revealed by these tests will be reviewed by Division engineers. Once repairs or mitigations are completed, the Temperature Log and Noise Log must then be repeated on the well and reviewed by Division engineers to ensure that there are no additional abnormal test results and to confirm the issue was repaired.

Step 3: After these tests are completed on the well, and all required action has been completed, the operator shall either:

a. Conduct the additional tests and evaluations on the well, outlined in Steps 4a through 7a below, in order to gain approval for injecting gas through that well; or
b. Remove the well from operation and isolate the well from the underground gas storage reservoir in accordance with Steps 4b through 7b below.

REQUIRED TESTS IF A WELL IS INTENDED TO RESUME OPERATIONS

If Temperature and Noise Logs have been completed on a well and they indicate well integrity, and the Operator designates the well to return to injection operations, then the Operator shall perform the additional testing outlined in Steps 4a through 7a. The results of these tests will be independently reviewed by Division engineers and posted publicly. Each of the following tests requires that the production tubing be removed from the well.

Step 4a: The Operator shall conduct a **Casing Inspection log.**
The Operator shall conduct a Casing Inspection log of the well that measures the thickness of the production casing, from the surface to the bottom of the gas storage reservoir cap rock. If the inspection reveals a reduction in wall thickness, the current minimum strength of the casing will be calculated. If the current minimum strength of the casing has diminished to the point that it cannot withstand authorized operating pressures for the well plus a built-in additional safety factor of pressure, the well has failed this test. *A passing test for a casing inspection log would show no thinning of the casing that diminishes the casing's ability to contain at least 115% of the well's maximum allowable operating pressure as authorized in the current Project Approval Letter.*

Step 5a: The Operator shall conduct a **Cement Bond Log** for the well.
The Operator shall conduct a Cement Bond Log (CBL) that measures the bonding between cement and the production casing of the well, and also the bonding between the annular cement and the formation. Cement should be solidly bonded to both the well's production casing and the geologic formation to ensure a seal that prevents fluids from migrating up or down the outside of the well. *A passing test for a cement bond log shows definitive bond, as demonstrated by sonic waveform,*

between cement and casing and between cement and the gas storage formation and/or cap rock for at least 100 feet above the top of the gas storage reservoir.

Step 6a: The Operator shall conduct a **Multi-Arm Caliper Inspection** of the well. The operator shall conduct an inspection that measures any internal degradation or significant changes to the well's geometry from the surface to the top of the gas storage reservoir, using a minimum 32-arm caliper tool. If the inspection reveals a thinning or deformity of the casing, the current strength of the casing will be calculated. If the current strength of the casing has diminished, such that it cannot withstand authorized operating pressures plus a built-in safety factor of additional pressure, the well fails this inspection. *A passing test for a Multi-Arm Caliper Inspection would show no deformation or thinning of the casing that diminishes the casing from being able to properly contain at least 115% of each well's maximum operating pressure.*

Step 7a: The Operator will conduct a **Pressure Test** of the production casing and of the well once the production tubing has been reinstalled. The Operator may conduct the casing pressure test prior to reinstalling the production tubing. Using a digital recorder, the operator will conduct a liquid-filled positive pressure test within the production tubing of the well, and in the annular space between the production tubing and the casing, to determine the well's ability to withstand normal operating pressures. The production tubing will be isolated and then pressure tested. The annular space between tubing and casing will be pressure tested. This testing also evaluates the integrity of any packers, which seal the annular space between the tubing and casing. The pressure test will be one hour and begin at a pressure of 115% of the maximum operating pressure or the minimum yield strength of the casing and tubing, whichever is less. *A passing pressure test is a pressure loss not exceeding 10% for any 30 minute period during the hour long test.*

After conducting the above tests, the Operator will conduct any indicated remediation so that the well can pass these tests. All remediation will be subject to the review of Division engineers. The well would then be required to undergo the tests once again to demonstrate well integrity.

If the well passes the Casing Wall Thickness Inspection, the Cement Bond Log, the Multi-Arm Caliper inspection and the Pressure Test to the Division's satisfaction, then the Division may clear the well for use for gas injections and withdrawal, once the Division has authorized resumption of injection into the gas storage reservoir. As noted below, wells approved for operation will only be permitted to inject or withdraw gas through the production tubing.

REQUIRED ACTIONS IF THE WELL IS TO BE TAKEN OUT OF OPERATION AND ISOLATED FROM THE GAS STORAGE RESERVOIR:

If the operator elects to take a well out of service, then the following steps shall be taken to isolate the well from the gas storage reservoir:

Step 4b: The Operator shall confirm the presence of cement outside the well's external casing in the section of the well that prevents the movement of gas from the underground gas storage reservoir to shallower geologic zones above the gas storage reservoir. Existing cement bond logs and well construction

records may be used to make this confirmation. This confirmation requires concurrence from Division engineers.

Step 5b: The Operator shall install a mechanical seal or "packer" within the well's production casing and install a mechanical plug within the well's production tubing, if applicable. These seals shall be set in place near the bottom of the well, within the portion of the well surrounded by cement. This kind of seal is an industry standard practice for isolating a well from reservoir gases or fluids and will further protect the casing from internal gas pressure.

Step 6b: The Operator shall fill the well with fluid to the well's surface in order to create appropriate downward hydrostatic pressure in the well that further contributes to the integrity of the well seal.

These measures will isolate a well from the underground gas reservoir, as confirmed by National Laboratory experts. Each of the above actions is subject to review and approval by Division Engineers.

Step 7b: Once the Operator has completed steps 4b, 5b, and 6b, and the seal is in place at the bottom of the well and the well is filled with fluid above the seal, the operator shall:

a. Conduct daily gas monitoring at the surface of the non-operational well, including monitoring the area around the well perimeter and in the annular space between the plugged casing string and the outmost casing;
b. Conduct noise log, temperature log and positive pressure test every six months;
c. Conduct weekly monitoring of fluid levels in the well or, install and operate real-time pressure monitors that provide immediate notification to the operator when pressures deviate from normal in the well's interior tubing and its annular space.

The above monitoring shall be reported to Division engineers and maintained as a part of the well file. Division engineers will review all submitted information for evaluation on a regular basis to ensure that the well taken out of service has maintained safety, and the operator shall take all necessary steps maintain the safety of the well.

Any well taken out of operation cannot be approved to resume operations and gas injection until the successful completion of the battery of tests outlined above in Steps 4a through 7a (Casing Wall Thickness Inspection, the Cement Bond Log, the Multi-Arm Caliper Extension and the Pressure Test) is completed. Those tests must be successfully completed within one year of completing step 6b. If a well cannot successfully complete all necessary steps required in this safety review after one year of completing step 6b, then the well shall be properly plugged and abandoned in accordance with Public Resources Code section 3208.

REQUIREMENTS FOR WELLS RESUMING OPERATIONS IN ALISO CANYON

The Division's authorization to resume injection in the Aliso Canyon Storage Facility will be contingent on the successful completion of this comprehensive safety review. The State Oil and Gas Supervisor must confirm in writing that all wells in the facility have either completed and passed the full battery of tests required in the safety review, been taken out of service and isolated from the underground gas storage reservoir, or been properly plugged and abandoned in accordance with Public Resources Code Section 3208.

NATURAL RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

Rec'd 05-24-16 DOGGR Ventura.

FOR DIVISION USE ONLY			
	Forms		
Bond	~~OGD114~~	OGD121	
	CALV WIMS	115V	

P216-0069

NOTICE OF INTENTION TO REWORK / REDRILL WELL

Detailed instructions can be found at: www.conservation.ca.gov/dog/

In compliance with Section 3203, Division 3, Public Resources Code, notice is hereby given that it is our intention to rework ☒ / redrill ☐ (Check one) well Porter 69C, API No. 037-24128,

Sec. 34, T. 3N, R. 16W, S.B. B.&M., Aliso Canyon Field, Los Angeles County.

The complete casing record of the well (present hole), including plugs and perforations, is as follows: (Attach wellbore schematics diagram also.)

See attached wellbore schematic

The total depth is: 7882 feet. The effective depth is: 7881 feet.

Present completion zone(s): Sesnon (Name). Anticipated completion zone(s): Same (Name).

Present zone pressure: storage psi. Anticipated/existing new zone pressure: storage psi.

Is this a critical well as defined in the California Code of Regulations, Title 14, Section 1720(a) (see next page)? Yes☐ No☒

For redrilling or deepening only, is a California Environmental Quality Act (CEQA) document required by a local agency? Yes☐ No☒ If yes, see next page.

The proposed work is as follows: (A complete program is preferred and may be attached.)

See attached program

If well is to be redrilled or deepened, show proposed coordinates (from surface location) and true vertical depth at total depth: _____ feet _____ (Direction) and _____ feet _____ (Direction) Estimated true vertical depth: _____

Will the Field and/or Area change? Yes☐ No☒ If yes, specify New Field: _____ New Area: _____

The Division must be notified immediately of changes to the proposed operations. Failure to provide a true and accurate representation of the well and proposed operations may cause rescission of the permit.

Name of Operator			
Southern California Gas Company			
Address P. O. Box 2300		City/State Chatsworth	Zip Code 91313-2300
Name of Person Filing Notice Mark Ghann-Amoah	Telephone Number: (806) 401-2979	Signature	Date 05/9/16
Individual to contact for technical questions: Mark Ghann-Amoah	Telephone Number: (806) 401-2979	E-Mail Address: mghann-amoah@semprautilities.com	

This notice and an indemnity or cash bond must be filed, and approval given, before the workover begins. (See the reverse side for bonding information.) If operations have not commenced within one year of the Division's receipt of the notice, this notice will be considered cancelled.

INFORMATION FOR COMPLIANCE WITH THE CALIFORNIA ENVIRONMENTAL QUALITY ACT OF 1970 (CEQA)

If an environmental document has been prepared by the lead agency, submit a copy of the ***Notice of Determination*** or ***Notice of Exemption*** with this notice. Please note that a CEQA determination by a local jurisdiction, if required, must be complete, or the Division may not issue a permit.

CRITICAL WELL DEFINITION

As defined in the California Code of Regulations, Title 14, Section 1720 (a), "Critical well" means a well within:

(1) 300 feet of the following:
  (A) Any building intended for human occupancy that is not necessary to the operation of the well; or
  (B) Any airport runway.
(2) 100 feet of the following:
  (A) Any dedicated public street, highway or the nearest rail of an operating railway that is in general use;
  (B) Any navigable body of water or watercourse perennially covered by water;
  (C) Any public recreational facility such as a golf course, amusement park, picnic ground, campground or any other area of periodic high-density population; or
  (D) Any officially recognized wildlife preserve.

WELL OPERATIONS REQUIRING BONDING

1. Drilling, redrilling, or deepening any well.
2. Milling out or removing a casing or liner.
3. Running and cementing casing or tubing.
4. Running and cementing liners and inner liners.
5. Perforating casing in a previously unperforated interval for production, injection, testing, observation, or cementing purposes.
6. Drilling out any type of permanent plug.
7. Reentering an abandoned well having no bond.

This form may be printed from the DOGGR website at www.conservation.ca.gov/dog/

WORKOVER PROJECT

(P69C – Well Inspection)

DATE: May 20, 2016
OPERATOR: SOUTHERN CALIFORNIA GAS COMPANY
FIELD: ALISO CANYON
PREPARED BY: MARK GHANN-AMOAH
API NUMBER: 037-24128
ELEVATION: All depths based on original KB, 23.5' above GL

OBJECTIVE

The intent of this program is to inspect the wells mechanical integrity and remediate identified conditions as part of the Storage Integrity Management Program (SIMP).
This project will include pulling the current production string, Pressure testing casing and well laterals, running casing inspection logs, installing a new completion string and converting well to tubing flow.

CASING & CEMENT RECORD

CSG. SIZE (INCHES)	TOP OF CSG (FT)	DEPTH OF SHOE(FT)	WEIGHT OF CASING(LBS)	GRADE & TYPE OF CSG.	HOLE SIZE (INCHES)	SACKS OF CMNT(CF)	CMNT TOP (FT)	TYPE OF CEMENT
13 - 3/8	0	1043	54.5	K-55 , BTC	17 – 1/2	1125	SURFACE	CLASS G
9 - 5/8	0	7596	47	N-80 , LTC	12 – 1/4	2388	SURFACE	FOAM
5 – 1/2	7520	7881	17	J-55 , LTC	13	285	GRAVEL	20-40

WELL RECORD

Current Status:	Active	
C/O Depths:	TD: 7882', PBTD - 7881' , Last tagged at 7878'(03/ 15/2016–3' of fill)	
Injection Conditions:	Estimated BHT – 154 F	Estimated WHP – 1100psi
Current Injection String:	2-7/8"(2.441"ID) 6.5# 0'/7458' w/GLM w/1.5" SOV at 7355' SSD – 7390'(2.313"ID), XN No-Go – 7422'(ID-2.205"), Guiberson Magnum H Packer – 7455' NB: See attached wellbore schematic for detailed description.	
Proposed Injection String:	See attached	

GEOLOGIC MARKERS

MP	7339'
S1	7564'
S4	7653'
S8	7740'

WELL WORK HISTORY/ANALYSIS

This well was drilled(directional) and completed in 1992. Drilling information from dailies on DOGGR/well files records shows no significant issues while drilling.

This well shows no documented well work event after it was drilled in 1992

Last production data – 1/1/2016 showed that well produced 200bopd, 27bwpd and 757MMCF/D with a recorded casing and tubing pressure of 878psi.
It passed noise and temperature log (1 3/8"OD) ran on 3/15/2016. Last tag depth 3/15/2016 indicates we have 3' of fill in well, since 1992.

PROJECT NOTES

1. BOPE requirements in Gas Company Standard 224.05 shall be fully implemented at all times.

2. The storage reservoir pressures shall be monitored during the workover with a minimum of 300 psig overbalance for well control fluids.

3. Prepare the location by removing all relevant landscaping/lighting fixtures as well as surface piping and electrical components as needed. Locate rig anchors, reinstall if necessary.

4. DOGGR permit must be posted on site. Notify the DOGGR as required for BOPE testing as stated on permit.

PRE-RIG WORK(FOLLOW CURRENT SOP)

1. De-energize and remove all laterals.
   → Install companion flanges for circulating the well.
   → LOTO (lock-out/Tag-out) where required.
2. Ensure there are rig anchors and prepare surface location as required.

WELL KILL REQUIREMENTS

1. Top of Liner = 7520'
2. Bottom of Slots = 7881'
3. Estimated BHP = 1311psia
4. Calculated fluid to provide 500psi over balance = ~27#/cu.ft.
5. Wellbore fluid volumes;
   → Tubing = 43bbls
   → Casing/Liner = 9bbls
   → Annulus = 246bbls
   298 bbls. Total
6. Pump w/o fluid down tubing at 3bbls/min. through GLM – 7355'
   → Bleed off any gas to Gas company system
   → Obtain assistance from Aliso Canyon shift supervisor when killing well
   → Ensure surface string annulus is bled off
   → Maintain surface volume equal to or greater than well volume.

WELLWORK PROGRAM

1. MIRU Ensign double w/o rig w/all equipment – pump, Baker tank, Shaker and mixer.
   - ➔ Perform JSA, CW, Safety Review : Talk about all possible things that can hurt y'all.

2. Spot 500 bbls Baker tanks and load well w/3% KCL water or 8.5 ppg.
   - ➔ Connect pump to the tubing and vent the casing through the choke manifold to the SoCal Gas withdrawal system.
   - ➔ Treat all brine with Biocide, 5 gals/100 bbl

3. Kill well HEC pill to minimize loss circulation
   - ➔ Bull head HEC polymer into the liner and change over above TOL to 3% KCL
   - ➔ Pump at 2-3bpm MASP - 3625psig
   - ➔ Tubing volume is ~ 43 bbls., Annulus volume ~ 246 bbls.

4. Install backpressure valve in tubing hanger. ND tree and NU BOPE.
   - ➔ Send-in tree components to Cameron for inspection.

5. Install 11" Class III 5M BOPE per Gas Company Standard 224.05 and in accordance with the DOGGR permit. All connections and valves must be flanged and at least 5000 psig rated.
   - ➔ Perform a 300 psig low pressure test on the annular preventer, blind rams and pipe rams for 20 minutes. Test all lines and connections to 300 psig.
   - ➔ Pressure test the Class III 5M annular preventer to 3500 psig for 20 minutes. Test blind rams and the 2-7/8" pipe rams to 5000 psig for 20 minutes. Test all lines and connections to 5000 psig.
   - ➔ All tests are to be charted and witnessed by a DOGGR representative.
   - ➔ Pull back pressure valve from tubing hanger.

6. Remove Back Pressure Valve and unland tubing
   - ➔ Release tubing from Guiberson Magnum H Packer at 7455'

7. POOH laying down production string, See tubing/production string details attached.
   - ➔ If unable to unset packer assembly at 7455'. E-line cut pipe (tubing) at 7325' (+/- 20' above GLM), POOH. Fish out rest of injection string.
     - o NB: OD's / ID's of injections are on first page.

8. RIH w/ 9-5/8", 47# casing scraper (positive) on 2-7/8" work string to TOL, POOH

9. MU and RIH with 9-5/8", 47# test packer and run a pressure integrity test on the 9-5/8" casing from bottom of 9-5/8" casing to surface to a minimum of 115% of the wells MAOP(3625psi) as per attached pressure test schedule , POOH w/test packer.
   - ➔ Follow Pressure Test schedule to avoid over pressuring.

10. Rig up wireline and run gyro survey

11. MU and RIH w/ 9-5/8", 47# RBP on work string. Set at +/- 7500' (20' above liner top).
    - → Sand off, fill hole w/ clean w/o fluid and Pressure Test -1000psi.
    - ➔ POOH and lay down BP retrieving head.

12. Nipple down 11" Class III 5 M BOPE, tubing spool, and primary pack-off.
    - ➔ Send wellhead equipment to Cameron for refurbishment

13. Rig-up wireline unit(s), necessary connections as required to run the following logs:
    a). Gyro survey from TOL to surface (Scientific)
    b). Magnetic flux leakage/vertilog from TOL to surface (Baker)
    c). Multi-arm caliper log from TOL to surface (Baker)
    d). Ultrasonic imager from BP to surface (SLB)
    e). Cement bond log from BP to top of cement (SLB)
    NB: Send copies of all logs to engineering team for review

14. Reinstall tubing spool and the 11" Class III BOPE and function test. Inspect and retest all connection broken in process.
    - ➔ NU refurbished well head from Cameron and install BOPE.
    - ➔ Pressure test BOPE and refurbished wellhead equipment per DOGGR requirements.

15. PU retrieving head for BP and RIH to 5' above top of sand.
    - ➔ Circulate out sand. Release BP at +/- 7500'.
    - ➔ C/O w/weighted brine as required to control well.
    - ➔ POOH and lay down work string and RBP.

16. NU refurbished well head from Cameron and install BOPE.
    - ➔ Pressure test BOPE and refurbished wellhead equipment per DOGGR requirements.

17. RIH w/new completion string as follows:
    a) 4-1/2" Wireline re-entry guide
    b) +/- 8ft - 4-1/2" 12.75# EUE L-80 Mechanical Production Packer
    c) +/- 1ft - 4-1/2"12.75# EUE L-80 x 2-7/8" 6.5# EUE L-80 Cross-over sub
    d) +/- 10ft - Pup joint 2-7/8" 6.5# L-80 EUE
    e) +/- 2ft – 2-7/8" 6.5# L-80 EUE XN (2.313" w/2.205" no-go) nipple
    f) +/- 31ft - Full joint 2-7/8" 6.5# L-80 EUE tubing
    g) +/- 2ft - Pup 2-7/8" 6.5# L-80 EUE
    h) +/- 2ft – 2-7/8" 6.5# L-80 EUE (2.313" Open Down) sliding sleeve
    i) +/- 4ft - Pup 2-7/8"6.5# L-80 EUE
    j) +/- 1ft – 2-7/8" 6.5# EUE x 3-1/2"9.3# EUE L-80 Cross-over sub
    k) +/- 7434ft – 3-1/2" 9.3# L-80 EUE tubing to surface
    l) Pup joints 3-1/2" 9.3# EUE L-80 for space-out
    m) +/- 1ft – 3-1/2"9.3# L-80 EUE x 2-7/8" 6.5# EUE L-80 Cross-over sub
    n) +/- 4ft - 2-7/8" 6.5# L-80 EUE fatigue nipple (pin x pin)
    o) Tubing hanger with 2-7/8" EUE top box / 2-1/8" BPV / 2-7/8" EUE bottom box

18. Land tubing on tubing hanger as per vendor specification, same depth as before.
    - ➔ NB: Utilize Force Analysis / Tube Move Calculations for packer setting.
    - ➔ Set packer at +/- 7500'

19. Rig-up slick line unit and lubricator. Set a plug in the 4-1/2" XN profile.

20. Pressure test annulus to a 1000psi and test tubing to 3700 psi.
    - ➔ Notify DOGGR to witness pressure tests
    - ➔ Both tests to be an hour in duration and recorded digitally.

21. Prep well to be unloaded after rig moves off.

22. RDMO

EQUIPMENTS / SERVICES

1. Workover Rig double [Rival Rig 6 – Jason Fike, 9496893725]

1. HEC Polymer, Fluid [GEO drilling fluids – Gilbert Ortega, 6613312697]

2. Separator, well kill [Pacific Petroleum / Onyx – Dean Leal, 6614870492]
   ➔ We will separate well kill – carbon canisters.

3. Tanks / trucking [Doby Haggar – Victor, 6615781453]

4. BOP/ packer [Weatherford – Tim Ludeman, 8053202190]

5. Tubing string [Tuboscope – Nick Taminich, 8052906577]

6. Wellhead [Cameron – Danny Caraan, 6613038615]

WELL WORK PRPOGRAM TO UNLOAD WELL

1. RIH and shift the sliding sleeve open.

2. Rig-up nitrogen unit. Recover workover fluid by pumping down annulus taking returns up tubing.

3. RIH with slick line and shift sliding sleeve closed. POOH and rig down slickline unit.

4. Fill annulus with packer fluid including corrosion inhibitor & biocide.
   a.) Vent nitrogen returns as appropriate.
   b.) Monitor annulus fluid level and re-fill with packer fluid as necessary.

5. Install BPV in tubing hanger. Nipple down the Class III 5M BOPE and install the production tree and test to 5000 psig. Remove BPV.

6. Release production rig, rig down and move out.

WELL LATERAL HYDROTESTING

1. Per Gas Company Standard 182.0170, pressure test the tubing and casing kill laterals from the wellhead to the remote tie in to 3625 psig. Pressure test the tubing and casing withdrawal/injection laterals from wellhead to operating valves to 3625 psig.

2. Reinstall the hydro-tested laterals.

3. Install the well safety systems and instrumentation. Install pressure transmitters on tubing, casing, and surface casing.

4. Release well to operations.

EXTERNAL CORROSION PROTECTION

Per Gas Company Standard 167.30, remove any lead based paint and recoat wellhead, production tree, and laterals.

Casing Pressure Test Schedule:

		External Casing Backup Pressure			Pressure Test Net Burst Pressure @ Depth				Tubing Leak Net Burst Pressure @		
Depth (TVD)	85% of Burst Strength	Fluid / Formation Pressure Gradient	External Casing Backup Pressure	Internal Water Hydrostatic	1	2	3	Final	Gas-Filled Annulus	Test Pressuree > 85% of Burst	Test Pressure < Tubing Leak - Net Burst (Gas-filled annulus)
				Surface Test Pressure	3625			2400	3625		
				Test Packer Depth	3500			7510			
				Test Down Casing or Tubing	Casing			Casing			
				Bridge Plug Depth							
0	5840	0.00	0	0	3625			2400	3625		
500	5840	0.00	0	221	3846			2621	3670		
1000	5840	0.00	0	442	4067			2842	3716		
1500	5840	0.00	0	663	4288			3063	3761		
2000	5840	0.00	0	884	4509			3284	3806		
2500	5840	0.00	0	1105	4730			3505	3852		
3000	5840	0.00	0	1326	4951			3726	3897		
3500	5840	0.00	0	1547	5172			3947	3942		
4000	5840	0.00	0	1768	-			4168	3988		
4500	5840	0.00	0	1989	-			4389	4033		
5000	5840	0.00	0	2210	-			4610	4078		
5500	5840	0.00	0	2431	-			4831	4123		
6000	5840	0.00	0	2652	-			5052	4169		
6500	5840	0.00	0	2873	-			5273	4214		
7510	5840	0.00	0	3319	-			5719	4306		
				0.442 psi/ft int. grad.					0.091 psi/ft int. grad.		

Rec'd 05-24-16 DOGGR Ventura.

Well
Porter 69C

API #: 04-037-24128-00
Sec 28, T3N, R16W

Operator: So. California Gas Co.

Lease: Porter
Field: Aliso Canyon
Status: Active Gas Storage
BFW:
USDW:

Ground Elevation: 2366' asl
Datum to Ground: 23.5' KB

Spud Date: 3/19/1992
Completion Date: 4/25/1992

Junk: None

13-3/8" TOC Surface
9-5/8" TOC Surface

17-1/2" Hole
(0' - 1045')

Surface Casing
13-3/8", 54.5#, K-55
0' - 1043'

CMT'D w/ 1125 CF,
Good CMT Returns to Surface

1043'

12-1/4" Hole
(1045' - 7596')

Production Casing
9-5/8", 47#, N-80
0' - 7596'

CMT'D w/ 1466 CF Foam CMT + 752 CF Tail CMT, Good CMT Returns to Surface + 170 CF CAL Seal CMT Top Job

7520'

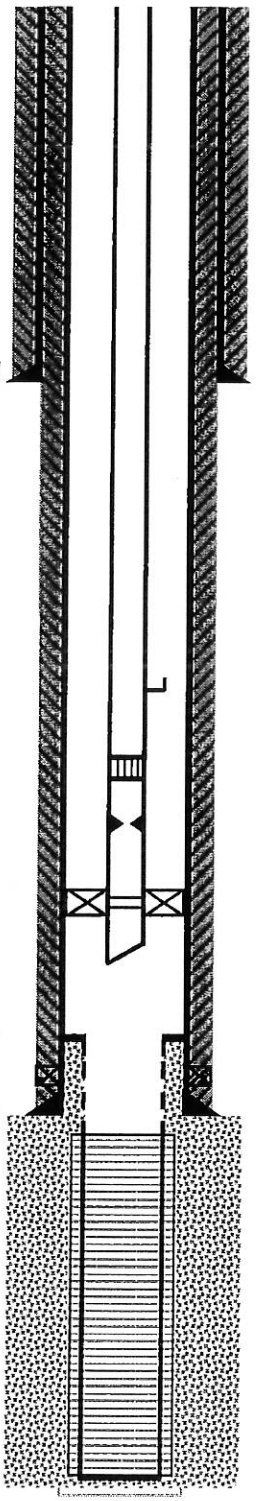
7596'

13" Hole
(7596' - 7881')

Liner
5-1/2", 17#, J-55
7520' - 7881'

7881'

TD 7882'
TD VSS (-5330')
Directionally Drilled: Yes (TD is 1331' E, 191' S of Surf, 7726' TVD)



Tubing
2-7/8", 6.5#, N-80
0' - 7458'

7355' Camco "MMA" GLM w/ 1.5" SOV set to 2750' psi on "RA" latch

7390' Guiberson 'XD' Sliding Sleeve (opens down)

7422' Guiberson 'XN' No-Go Nipple

7455' Guiberson Magnum "H" PCKR
7456' Guiberson Latch & One Foot Seal Unit

7458' Tail

7552' - 7586' CTC Packer (Inflated w/ 7 BBL Inflation CMT)

Liner Perfs:
7543' - 7598' 1-1/2" x 0.012", 12R, 6"C Slots
7598' - 7879' 0.012" WWS

Gravel Packed w/
285 CF (129% of Calc'd) 20-40

8-1/2" Hole (7881' - 7882')

Top of Zone Markers		
LP	5757'	(-3255')
MDA	6711'	(-4186')
MP	7339'	(-4799')
S1	7564'	(-5018')
S4	7653'	(-5106')
S8	7740'	(-5191')

Prepared by: MAM (4/20/2016)

InteiAct

Rec'd 05-24-16 DOGGR Ventura.

Well

Porter 69C

API #: 04-037-24128-00
Sec 28, T3N, R16W

Production Casing Pressure Test - Program

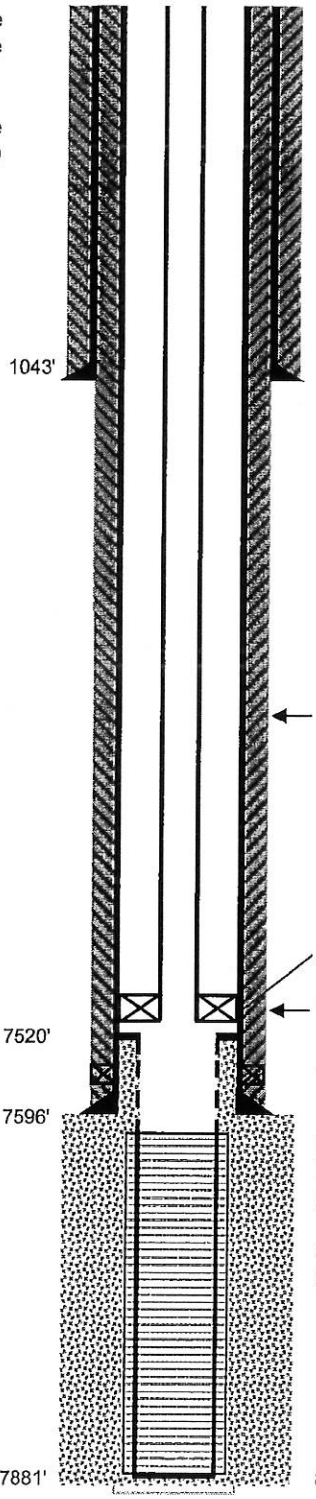
Operator: So. California Gas Co.

Lease: Porter
Field: Aliso Canyon
Status: Active Gas Storage
BFW:
USDW:

Ground Elevation: 2366' asl
Datum to Ground: 23.5' KB

Spud Date: 3/19/1992
Completion Date: 4/25/1992

Junk: None



Surface Casing
13-3/8", 54.5#, K-55
0' - 1043'

CMT'D w/ 1125 CF,
Good CMT Returns to Surface

Production Casing
9-5/8", 47#, N-80
0' - 7596'

CMT'D w/ 1466 CF Foam CMT + 752 CF Tail CMT, Good CMT Returns to Surface + 170 CF CAL Seal CMT Top Job

Liner
5-1/2", 17#, J-55
7520' - 7881'

Liner Perfs:
7543' - 7598' 1-1/2" x 0.012", 12R, 6"C Slots
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285 CF (129% of Calc'd) 20-40

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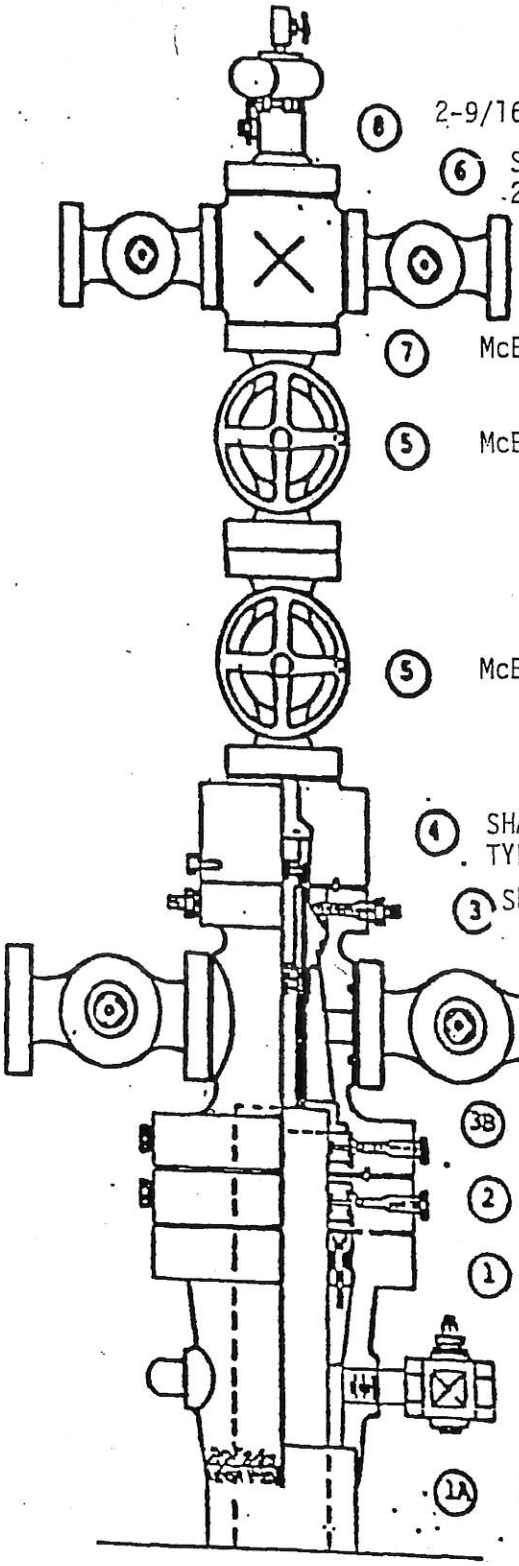
S4	7653'	(-5106')
S8	7740'	(-5191')

TD 7882'
TD VSS (-5330')
Directionally Drilled: Yes (TD is 1331' E, 191' S of Surf, 7726' TVD)

Prepared by: MAM (4/20/2016)

InterAct



8 2-9/16" 5000#

6 SHAFFER OIL TOOL
2-9/16" 5000# x 2-9/16" 5000#

7 McEVOY 2-9/16" 5000#

5 McEVOY 2-9/16" 5000#

5 McEVOY 2-9/16" 5000#

4 SHAFFER OIL TOOL 11" 5000# x 2-9/16" 5000#
TYPE "AJS"

3 SHAFFER OIL TOOL 11" 5000# x 11" 5000#
Type 75 L1

3A SHAFFER OIL TOOL 11" x 2-7/8"
EUE 8RD "AJS"

3B McEVOY 3-1/8" 5000#

2 SHAFFER OIL TOOL 13-5/8" 3000# x 11"
5000# w/9-5/8" P.S. SEAL

1 SHAFFER OIL TOOL 13-5/8" 3000# x
13-3/8" SOW TYPE "SD"

1B APOLLO 2" L.P.

1A 13-3/8" 54# K-55

Well Name: PORTER 69C

Mfgr: SHAFFER OIL TOOL SERVICES

Date Prepared: 27 APRIL 1992

WELLHEAD DESCRIPTION TYPE

Rec'd 05-24-16 DOGGR Ventura.

Well No: PORTER 69-C

Field: ALISO CANYON

Date Prepared: 27 APRIL 1992

Wellhead Mfr: SHAFFER OIL TOOL SERVICES

1. Casing Head SHAFFER OIL TOOL Size 13-5/8" 3000# x 13-3/8" SOW MODEL "SD"

   Slips & Pack-off 13-5/8" x 9-5/8" MODEL "SD"

   A. Surface Csg Size 13-3/8" Wt 54# Grade K-55 (TO 1043 FT.)

   B. Casing Head Valve APOLLO Size 2" L.P. Fig N/A

2. Seal Flange SHAFFER OIL TOOL Size 13-5/8" 3000# x 11" 5000# DOUBLE STUDDED

   Type Seal 9-5/8" TYPE PS Ring RX-57 & RX-54

3. Tubing Head SHAFFER OIL TOOL TYPE 75L1 Type Seal 9-5/8" TYPE PS

   Size 11" 5000# x 11" 5000# w/2 STUDDED OUTLETS Outlets 3-1/8" 5000#

   Sec.Seal 9-5/8" Valve Thrd 2-1/2" VR Ring Type Btm RX-54 Top RX-54

   A. Tubing Hanger SHAFFER Size 11" x 2-7/8" EUE 8RD "AJS" Bore 2.472

   Type 75 "AJS" Thread 2-7/8" EUE 8RD TOP & BOTTOM

   B.P.V. Size & Thrd SHAFFER OIL TOOL SERVICES 2-7/8"

   B. Tubing Head Valves McEVOY Size 3-1/8" 5000#

   C. Automatic Csg Valve N/A Size N/A

4. Adapter Seal Flange SHAFFER "AJS" Size 11" 5000# x 2-9/16" 5000# DOUBLE STUDDED

   A. Ring Size RX-54 & RX-27 Bore 2-9/16"

5. Master Valve (2) McEVOY Size 2-9/16" 5000#

6. Xmas Tree Cross SHAFFER OIL TOOL Size 2-9/16" 5000# x 2-9/16" 5000#

7. Tbg Wing Valves McEVOY Size 2-9/16" 5000#

   Auto Tbg. Prod Valve N/A Size N/A

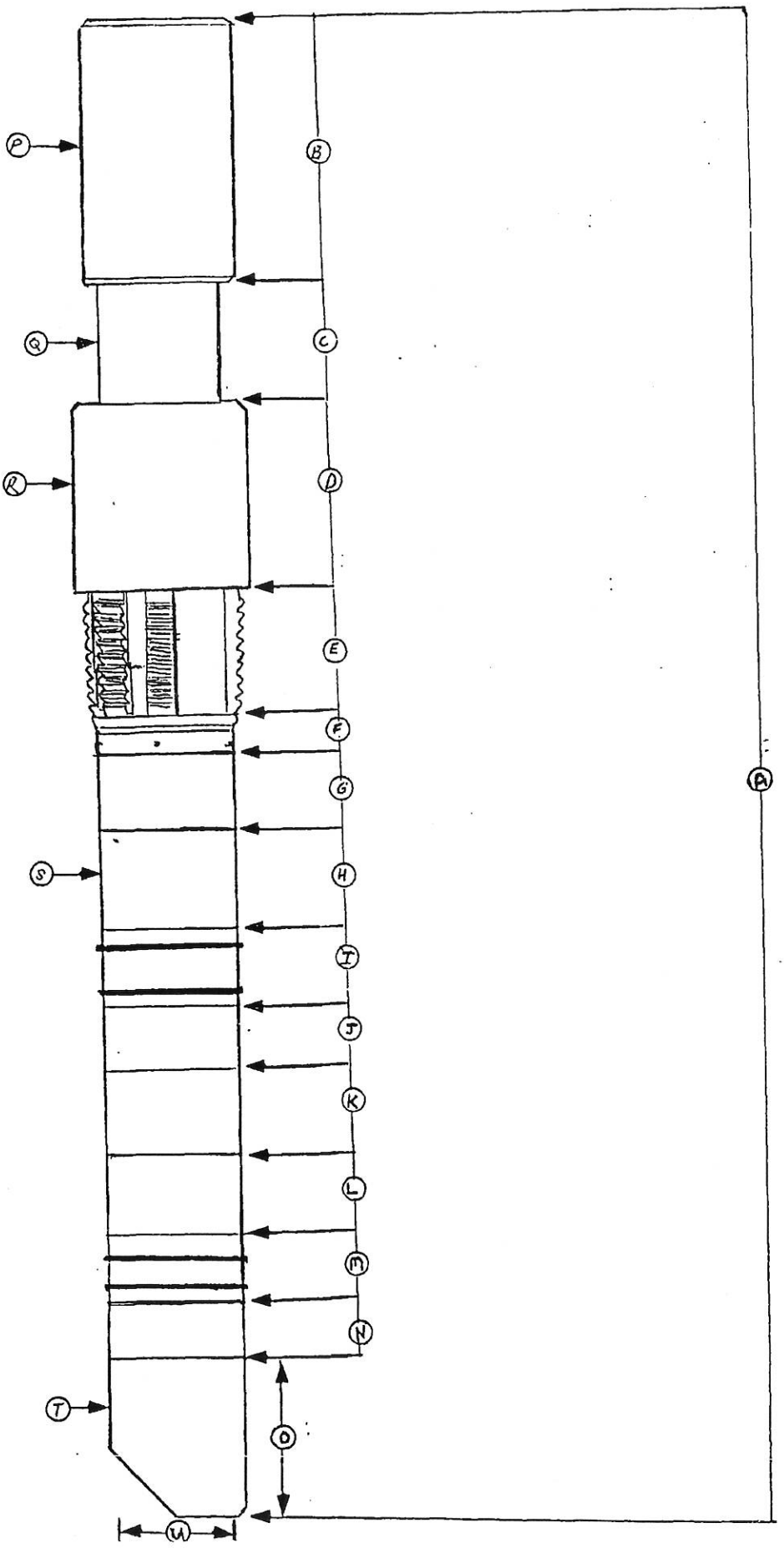
8. Unibolt THORNHILL CRAVER Size 2-9/16" 5000# Inside Thrds 2-7/8" EUE 8RD

9. Csg Size 9-5/8" Wt 47# Grade N-80 (TO 7596 FT)

10. Tubing Head to Ground Level 33" ABOVE GROUND LEVEL

11. Wt. Landed on Doughnut 45,000# Tubing Size 2-7/8" 6.5# Type N-80

A - 50"
B - 5-1/2"
C - 4-3/4 "
D - 4-11/16 "
E - 1-3/4 "
F - 1-1/2 "
G - 5-3/8 "
H - 2-1/2 "
I - 2-1/2 "
J - 2-1/2 "
K - 4-3/8 "
L - 2-1/2 "
M - 2-1/2 "
N - 2-1/2 "
O - 6"
P - 3-5/8"
Q - 2-13/16"
R - 3-15/16"
S - 2.235
T - 3-1/8"
U - 2.437



MILLING AND RETRIEVING SUGGESTIONS FOR MAGNUM SERIES DRILLABLE PACKERS

The following are some suggestions for equipment and operation that can be used for removing the Magnum Series Drillable Packers from the well bore. However, the exact techniques, choice of equipment, and method of removal is entirely up to the customer.

General Suggestion & Operation

To release a Magnum Series Drillable Packer it is necessary to mill over the packer until the upper slip is milled away. At this time, it is possible to engage and pull the packer. For best results, it is suggested that the packer be milled over through the lower slips or until the packer releases and falls. To keep milling time to a minimum, it is only necessary to mill over the outer diameter of the packer without milling the packer mandrel.

The necessary equipment would be composed of a releasable packer retriever (spear), a stinger extension, a mill shoe, wash pipe, a junk basket, and drill collars. Combination packer milling-retrieving tools are available from a number of tool companies and packer companies.

To use this type of tool, the entire assembly is lowered until the packer retriever passes through and out the bottom of the packer. The packer is then milled over until it releases and falls. The spear engages, catching the packer and allowing it to be retrieved.

Suggested Equipment Selection

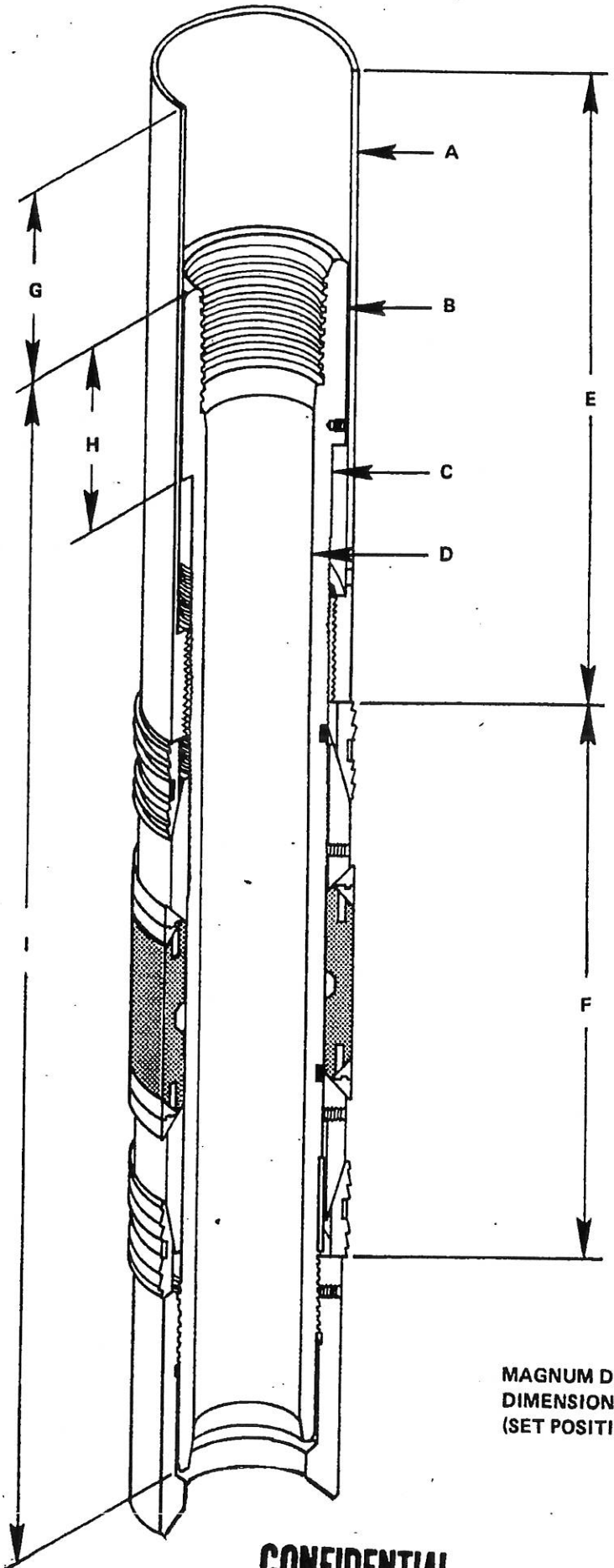
Overshot Mill — A long mill shoe or short mill shoe with wash pipe should be used. The mill body must be long enough to swallow the length of the packer. (See Dimensional Data — Minimum Length of "E" plus "F" Dimensions.)

It is suggested that a mill which is faced on the I.D. and bottom be used. This type mill cuts on the bottom and inside diameter and will not damage the well casing. The mill shoe O.D. will be determined by the casing size and weight. The I.D. of the mill shoe should be no smaller than the outer diameter of the packer mandrel. (See Dimensional Data — Diameter "C".)

Stinger and Retrieving Spear — The stinger or extension length will vary to accommodate the spacing of the packer equipment in the well. The stinger must be long enough to allow the spear to extend out the bottom of the packer. If a Packer Extension (Millout Extension) is used directly below the packer, it should be long enough so that the retriever does not bottom out while milling over the packer.

The spear (slip) section of the retrieving tool is sized to the packer bore. (See Dimensional Data — Diameter "D".) A releasable style spear is desired to facilitate disengagement from the packer, should this become necessary. Where there is a danger of damage to the packer bore or debris, the lower end of the retrieving stinger may be dressed with a small end mill to clear the obstruction.

Junk Basket and Drill Collars — It is suggested that a number of drill collars be used on the bottom of the drill string for additional weight and stabilization. A junk basket (boot basket) may be run directly above the mill shoe and wash pipe, to gather cuttings which can not be circulated to surface.



MAGNUM DRILLABLE PACKER
DIMENSIONAL DATA
(SET POSITION)

MAGNUM DRILLABLE PACKER
DIMENSIONAL DATA
(SET POSITION)

Casing m)	Weight lb/ft	Type	Asm. No.	Type	Asm. No.	DIAMETERS A	B	C	D	LENGTHS E	F Min	F Max	G Min	G Max	H	I
	9.5-11.6	G	82656	GT	85182	3.718	3.313	2.791	2.390	12.50	9.11	9.95	1.48	2.33	3.94	22.81
		H	82658	HT	85184				2.188							
	11.6-16.6	G	82657	GT	85183	3.593			2.390		8.93	11.44	1.31	3.81		
		H	82659	HT	85185				2.188							
	11.5-13	G	82948	GT	82796	4.250	3.938	3.313	2.688	14.00	9.99	10.66	2.77	3.44	4.00	24.50
		H	82949	HT	82797				2.390							
	15-21	G	83599	GT	83600	3.968	3.625	3.125	2.688		7.87	10.38	1.49	4.01		24.75
		H	83601	HT	83345				2.390							
	13-17	G	82953	GT	81869	4.500	4.094	3.500	3.000	13.50	7.99	9.35	.37	1.72	3.94	25.00
		H	82987	HT	81872				2.688							
	17-23	G	82952	GT	81605	4.437			3.000		8.83	10.96	1.21	3.34		
		H	82988	HT	81873				2.688							
	23-26	G	82948	GT	82796	4.250	3.938	3.313	2.688	14.00	8.94	10.11	1.72	2.89	4.00	24.50
		H	82949	HT	82797				2.390							
	13-22	G	83051	GT	82063	5.687	5.188	4.750	4.000	16.25	8.13	9.96	1.29	3.12	4.75	25.75
		H	83056	HT	82460				3.250							
		H	83442	HT	83453				2.688							
	22-32	G	83038	GT	83040	5.468	4.969	4.531	4.000		8.01	11.47	2.17	5.63	3.75	24.75
		H	83060	HT	82590				3.250				1.17	4.63	4.75	25.75
		H	83436	HT	83455				2.688							
	17-26	G	83053	GT	82099	6.000	5.500	5.063	4.000		8.35	9.88	1.51	3.04		
		H	83058	HT	82462				3.250							
		H	83446	HT	83450				2.688							
	26-35	G	83051	GT	82063	5.687	5.188	4.750	4.000		7.21	9.55	.37	2.70		
		H	83056	HT	82460				3.250							
		H	83442	HT	83453				2.688							
	35-44	G	83038	GT	83040	5.468	4.969	4.531	4.000		7.64	9.13	1.79	3.29	3.75	24.75
		H	83060	HT	82590				3.250				.79	2.29	4.75	25.75
		H	83436	HT	83455				2.688							
	24-39	G	83922	GT	84098	6.188	5.500	4.688	4.000	17.06	11.11	14.31	1.64	4.84	3.75	29.19
		H	84100	HT	84101				3.250				.57	3.78	4.81	30.25
		H	84102	HT	84103				2.688							
	24-36	G	83935	GT	84389	7.500	7.031	6.125	5.065	19.13	12.22	14.56	3.88	6.12	4.88	30.13
		H	84390	HT	84391				4.000				2.25	4.49	6.50	31.75
		H	84392	HT	84393				3.250							
	36-49	G	84401	GT	84402	7.125	6.656	5.938	5.065		11.32	13.81	2.97	5.46	4.88	30.13
		H	84403	HT	84404				4.000				1.53	4.03	6.31	31.56
		H	84405	HT	84406				3.250							
	32.3-53.5	G	83537	GT	84321	8.125	7.656	6.750	6.000	19.44	10.05	13.68	2.02	5.65	4.88	30.13
		H	84322	HT	84323				5.065							
		H	84324	HT	84325				4.000				.10	3.72	6.81	32.06
		H	84326	HT	84327				3.250							

: All dimensions are in inches.

BURNING SHOE

MINIMUM LENGTH = LENGTH 'E' + LENGTH 'F' + 5 inches
SHOE O.D. = 3/32" to 1/8" SMALLER THAN CASING DRIFT
SHOE I.D. = DIAMETER 'C' ±1/64"

OPERATOR
WELL NO.
MAP

INTENTION	Drill					
NOTICE DATED	5-3-92					
P-REPORT NUMBER	2592-0114					
CHECKED BY/DATE	6-1-92					
MAP LETTER DATED						
SYMBOL	1					

	REC'D	NEED	REC'D	NEED	REC'D	NEED	REC'D	NEED	REC'D	NEED	REC'D	NEED
NOTICE	5-3-92											
HISTORY	6/1/92											
SUMMARY	6-30-92											
E-LOG (3 runs)	8-25-92											
MUD LOG												
DIPMETER												
DIRECTIONAL	9-1-92											
CORE/SWS												
CBL	NOT RUN											
[illegible]	7-21-92											
SPL	✓											
GR/CBL	7-24-92											
CALIPER	9-1-92											
6MTH OPOB												
2PB/L 93		✓										

ENGINEERING CHECK

T-REPORTS						
OPERATOR'S NAME						
WELL NO.						
LOC & ELEV						
SIGNATURE						
SURFACE INSP.						
DRILL CARD						
RECORD'S COMPLETE	OK					

FINAL LETTER OK _____
MAILED _____
RELEASED BOND _____

INJECTION BOOK _____
DLE WELL LIST _____
URFACE INSP. CARD ____
K TO RELEASE FROM CONFIDENTIAL _____
BANDONED-REMOVED FROM E.D.P. _____

REMARKS: _____

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

API No. 04-037-24128

WELL SUMMARY REPORT

Operator	Well				
Southern California Gas Company	Porter 69C				
Field	**County**	**Sec.**	**T.**	**R.**	**B.&M.**
Aliso Canyon	Los Angeles	28	3N	16W	SB

Location (Give surface location from property or section corner, street center line and/or California coordinates)

854' South and 3234' West of Station 84.

Elevation of ground above sea level: 2366'

Commenced drilling (date): 3/19/92

Completed drilling (date): 4/25/92

Commenced producing (date):

☐ Flowing ☐ Pumping ☐ Gas lift

Name of producing zone(s): Sesnon

Total depth (1st hole)	(2nd)	(3rd)
7882'	N/A	N/A

Present effective depth: 7881'

Junk: None

Depth measurements taken from top of: ☐ Derrick Floor ☐ Rotary Table ☒ Kelly Bushing

Which is 23.5 feet above ground

GEOLOGICAL MARKERS	DEPTH
Miocene/Pliocene Contact	7339'
S2	7603'
S4	7653'
S8	7740'

Formation and age at total depth: Sesnon - Miocene

	Clean Oil (bbl per day)	Gravity Clean Oil	Percent Water including emulsion	Gas (Mcf per day)	Tubing Pressure	Casing Pressure
Initial Production						
Production After 30 day:						

CASING RECORD (Present Hole)

Size of Casing (API)	Top of Casing	Depth of Shoe	Weight of Casing	Grade and Type of Casing	New or Second Hand	Size of Hole Drilled	Number of Sacks or Cubic Feet of Cement	Depth of Cementing (if through perforations)
20"	Surface	32'	Conductor					
13-3/8"	Surface	1043'	54.5#	K55; Buttress	New	17-1/2"	1125 cu.ft.	
9-5/8"	Surface	7596'	47#	N80; LT&C	New	12-1/4"	2355 cu.ft.	

PERFORATED CASING (Size, top, bottom, perforated intervals, size and spacing of perforation and method.)

5-1/2", 17#, J55, LT&C. Top: 7520'. Bottom: 7881'. .012" slotted csg. 7543' to 7598'; 12 rows, 1-1/2" slots, 6" centers. .012" wire wrapped screen 7598' to 7879'. Gravel packed 13" open hole with 285 cu. ft. 20-40 sand.

Was the well directionally drilled? If yes, show coordinates at total depth

☒ Yes ☐ No

191' South and 1331' East of surface location at 7881' T.D.

Other surveys: DIL-SFL, GR, SP: 1043'-7570'; Density-Neutron: 1043'-7569'; DIL-SFL, GR, SP: 7596'-7882'; Density-Neutron: 7596'-7880'.

In compliance with Sec. 3215, Division 3 of the Public Resources Code, the information given herewith is a complete and correct record of the present condition of the well and all work done thereon, so far as can be determined from all available records.

Name	Title	
R. M. Dowell	Drilling Manager	
Address	**City**	**Zip Code**
P. O. Box 3249, Terminal Annex	Los Angeles	90013
Telephone Number	**Signature**	**Date**
(213) 244 - 2666	R. M. Dowell	June 17, 1992

OG100 (10/85/DWRR/5M)

SUBMIT IN DUPLICATE

SUBMIT IN DUPLICATE

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

History of Oil or Gas Well

Operator Southern California Gas Company Field Aliso Canyon County Los Angeles
Well Porter #69C, Sec. 28, T 3N, R 16W, SB B. & M.
A.P.I. No. 037-24128 Name R. D. Phillips (Person submitting report) Title Agent (President, Secretary or Agent)
Date May 19, 19 92

Signature R. M. Dowell for R. D. Phillips

P. O. Box 3429 Terminal Annex, Los Angeles, CA 90051 (Address) (213) 244-2666 (Telephone Number)

History must be complete in all detail. Use this form to report all operations during drilling and testing of the well or during redrilling or altering the casing, plugging, or abandonment with the dates thereof. Include such items as hole size, formation test details, amounts of cement used, top and bottom of plugs, perforation details, sidetracked junk, bailing tests and initial production data.

Date	
1992	
3-16 to 3-18	Moved in and rigged up. Aligned rotary table over 20" conductor pipe.
3-19	Made up and ran 17-1/2" mill tooth bit on 9-1/2" mud motor, monel and one 10" drill collar. Drilled 17-1/2" hole from 49' to 194'. Pulled out of hole.
3-20	Added 1.5 degree kick sub to BHA. Ran in hole. Drilled 17-1/2" hole from 194' to 292'. Pulled out of hole. Made up near bit stabilizer on BHA. Ran in hole. Reamed hole from 272' to 292'. Drilled 17-1/2" hole from 292' to 415'. Pulled out of hole. Made up 17-1/2" Smith F-2 insert bit on BHA. Ran in hole. Drilled 17-1/2" hole from 415' to 452'.
3-21	Drilled 17-1/2" hole from 452' to 927'.
3-22	Drilled 17-1/2" hole from 927' to 1045'. Circulated hole clean. Made wiper trip. Circulated hole clean. Pulled out of hole. Ran 27 joints of 13-3/8", 54.5#, K-55 buttress casing as follows: float shoe, one joint of casing, stab-in float collar then 26 joints of casing to surface. Ran in with drillpipe and stabbed into stab-in collar. Circulated bottoms up. Rigged up cementers. Pressure tested surface lines and connections to 1000 psi. Mixed and pumped 10 Bbls of fresh water ahead of 1125 cu.ft. Class "G" cement with 3% CaCl2. Displaced with 13 Bbls of water. Good cement returns to surface. Pulled out of stab-in collar. Pulled drill pipe out of hole. Waited on cement for 4 hours.

D.O.G. 5/29/92

3-23 Cut off 13-3/8" casing. Welded on 13-5/8" 3000# x 13-3/8" 3000# casing head. Pressure tested weld to 1500 psi. X-rayed and verified weld. Installed BOPE. Tested blind rams, manifold and pipe rams to 2500 psi. Tested Hydril bag to 2000 psi. BOPE test witnessed and approved by B. Hesson of D.O.G. Made up 12-1/4" Smith SDGH bit (previously run), near bit stabilizer, shock sub, 8" monel, stabilizer, two 8" drill collars, stabilizer, three 8" drill collars, 13-joints of HWDP, then 4-1/2" drill pipe. Ran in to top of float collar. Closed pipe rams. Tested 13-3/8" casing to 500 psi for 10 minutes. Drilled out float collar, cement and float shoe at 1043'. Drilled 12-1/4" hole from 1043' to 1178'.

3-24 Drilled 12-1/4" hole from 1178' to 1290'. Pulled out of hole. Made up 12-1/4" Smith SVH mill tooth bit on Eastman 8" Navi-drill mud motor with MWD. Ran in and drilled 12-1/4" hole from 1178' to 1450'.

3-25 Drilled 12-1/4" hole from 1450' to 1763'. Pulled out of hole. Ran in well with new 12-1/4" Smith SVH mill tooth bit on same BHA. Drilled 12-1/4" hole from 1763' to 1810'.

3-26 Drilled 12-1/4" hole from 1810' to 2122'. Pulled out of hole. Laid down 8" navi-drill mud motor and MWD tool. Made up same bit on locked up BHA as follows: bit, stabilizer, shock sub, monel, stabilizer, 2 drill collars, stabilizer, 3 drill collars, 13 joints HWDP then 4-1/2" drill pipe. Reamed from 1327' to 2122'.

3-27 Drilled 12-1/4" hole from 2122' to 2437'. Pulled out of hole. Made up and ran new 12-1/4" Security M44SGN mill tooth bit on previous BHA. Drilled 12-1/4" hole from 2437' to 2592'.

3-28 Drilled 12-1/4" hole from 2592' to 2843'. Pulled out of hole. Made up and ran 12-1/4" Hughes J-7 mill tooth bit on previous BHA. Drilled 12-1/4" hole from 2843' to 2913'.

3-29 Pulled out of hole. Made up and ran 12-1/4" Smith SDGH bit on 8" Navi-drill DTU mud motor and 8" MWD tool. Directionally drilled 12-1/4" hole from 2913' to 3077'. Pulled out of hole. Made up and ran 12-1/4" Smith FDGH bit on previous directional BHA. Directionally drilled 12-1/4" hole from 3077' to 3088'.

3-30 Drilled 12-1/4" hole from 3088' to 3295'. Pulled out of hole. Laid down 8" Navi-Drill and MWD tool. Ran 12-1/4" Hughes JG4 bit on locked-up BHA as follows: bit, stabilizer, shock sub, stabilizer, monel, 2 drill collars, 13 joints HWDP then 4-1/2" drill pipe. Reamed hole from 2913' to 3295'.

3-31 Drilled 12-1/4" hole from 3295' to 3900'.

4-1 Drilled 12-1/4" hole from 3900' to 4162'. Pulled out of hole. Made up and ran new 12-1/4" Hughes J4 bit on previous BHA. Drilled 12-1/4" hole from 4162' to 4250'.

4-2 Drilled 12-1/4" hole from 4250' to 4488'. Pulled out of hole for bit #12. Ran in hole with 12-1/4" Security M44N. Drilled from 4488' to 4850'.

4-3 Continued drilling from 4850' to 4859'. Tripped for bit. Ran in hole with 12-1/4" Smith SVH.

4-4 Continued drilling from 4859' to 5531'.

4-5 Drilled 12-1/4" hole from 5531' to 5621'. Pulled out of hole. Made up and ran 12-1/4" Smith MSDGH bit on 8" NaviDrill DTU mud motor with MWD. Drilled 12-1/4" hole from 5621' to 5821'.

4-6 Pulled out of hole. Changed out mud motor and ran in with previous BHA. Drilled 12-1/4" hole from 5831' to 5855'. Pulled out of hole. Made up and ran 12-1/4" Smith MSDSH bit on previous BHA. Drilled 12-1/4" hole from 5855' to 5866'.

4-7 Drilled 12-1/4" hole from 5866' to 5880'. Pulled out of hole. Laid down mud motor and MWD tool. Made up 12-1/4" Hughes ATJ-05 bit on the following BHA: near bit stabilizer, shock sub, stabilizer, monel, 2-8" drill collars, stabilizer, 3-8" drill collars, xo, 20 joints HWDP. Reamed hole from 5620' to 5880'. Drilled 12-1/4" hole from 5880' to 6210'.

4-8 Drilled 12-1/4" hole from 6210' to 6240'. Pulled out of hole. Changed stabilizers on BHA to full gage stabilizers. Drilled 12-1/4" hole from 6240' to 6825'.

4-9 Drilled 12-1/4" hole from 6825' to 7297'.

4-10 Drilled 12-1/4" hole from 7297' to 7467'. Pulled out of hole. Located washout between drill collar #2 and stabilizer. Made up and reran 12-1/4" Hughes ATJ-05 bit with junk sub on BHA. Circulated hole.

4-11 Drilled 12-1/4" hole from 7467' to 7570'. Circulated 1/2 hour. Wiped hole to 5570'. Circulated and conditioned mud. Pulled out of hole. Rigged up loggers. Installed shooting flange.

4-12 Ran DIL/GR/SP log from 7566' to 1043'. Ran DENSITY/NEUTRON/GR from 7566' to 1043'. Ran 4 arm caliper from 7566' to 1043'. Rigged down loggers. Changed blocks to 10 lines with new 1/8" drilling line.

4-13 Made up and ran 12-1/4" Smith SVH bit on previous BHA. Drilled 12-1/4" hole from 7570' to 7600'. Made 1000' wiper trip. Circulated well. Conditioned mud. Pulled out of well. Changed from 4-1/2" to 9-5/8" pipe rams. Ran 9-5/8", 47#, N-80, LT&C casing to 7599' as follows: differential float shoe, 10' pup joint, 32' CTC inflatable packer (20' seal element), 11 joints, 15' pup joint, 95 joints, 14' pup joint, 69 joints, 12' pup joint, 2 joints to surface (177 full joints total, 4 pup joints).

4-14 Circulated and conditioned mud. Cemented 9-5/8" casing as follows: Pumped 10 Bbls water, 30 Bbls super flush, 10 Bbls water, then 1466 cu.ft. Class "G" lead cement with 0.3% Diacel GWC foamed with nitrogen staged between 45-486 scf/Bbl followed by 752 cu.ft. Class "G" tail cement with 1% Halad-322, 0.15% HR-7. Dropped top plug. Pumped additional 109 cu.ft. packer inflation cement with 1% Halad-322 and 0.15% HR7. Displaced with 10 Bbls water followed by 538 Bbls of mud. (Good cement returns to surface). Bumped plug at 500 psi. Opened inflation valve on CTC packer and pumped 7 Bbls of inflation cement into seal element (calculated 22" diameter open hole) with no pressure build-up evident. Pumped 28 cu.ft. of cross linked gel followed by 170 cu.ft. CAL seal cement with 2% CACl2 down 13-1/8" x 9-5/8" annulus. Displaced with 34 cu.ft. mud. Cement in place at 5:30 p.m. Closed well in. Waited 6-1/2 hours. Opened valve on 13-3/8" casing, no pressure. Picked up BOPE. Set slips around 9-5/8" casing.

4-15 Installed 13-5/8", 3000# x 11", 5000# seal flange and Shaffer 11", 5000# x 11", 5000# type 75L1 tubing head. Tested seal flange and tubing head to 5000 psi. Installed BOPE equipment. Tested blind rams, pipe rams and manifold to 3500 psi. Tested Hydril bag to 2000 psi. Made up 8-1/2" Hughes JG3 bit below Eastman 6-3/4" navi-drill mud motor, stabilizer, monel, two 6-3/8" drill collars, 20 joints HW, then 4-1/2" drill pipe. Began running in well.

4-16 Circulated and conditioned mud. Tagged top of cement at 7458'. Cleaned out cement from 7458' to 7585'. Pressure tested casing to 1000 psi for 20 mintues. Drilled out 9-5/8" casing shoe at 7596'. Drilled 8-1/2" hole from 7596' to 7806'. Surveyed, circulated hole clean. Pulled out of hole.

4-17 Ran DIL log from 7596' to 7806'. Pulled out of hole. Made up 8-1/2" Hughes JG3 bit on same BHA. Ran in and drilled 8-1/2" hole from 7806' to 7849'. Pulled out of hole. Ran 8-1/2" Hughes ATM J22G bit on same BHA. Drilled 8-1/2" hole from 7849' to 7857'.

4-18 Drilled 8-1/2" hole from 7857' to 7882'. Surveyed. Circulated well clean. Pulled out of hole. Ran DIL from 7596' to 7886', GR/CNT/CDL from 7596' to 7882'. Made up Smith 7-1/4" x 13" 2 cone hole opener on Smith 6-5/16" mud motor, xover, three 6" drill collars, 20 joints HW, 4-1/2" drill pipe. Ran in well to shoe. Changed hole fluid over to 63# polymer fluid.

4-19 Opened hole to 13" from 7596' to 7689'. Pulled out of hole. Changed rams and cones on hole opener. Ran in well and opened hole from 7689' to 7816'. Pulled out of hole. Made up TriState 7-1/4" x 13" Cobra hole opener on Smith Mud Motor and shock sub.

4-20 Ran in hole. Opened hole to 13" from 7816' to 7881'. Pulled out of hole. Made up new TriState 7-1/4" x 13" mill tooth hole opener. Ran in and gauged hole from 7596' to 7881'. Circulated well clean.

4-21 Pulled to shoe, tight hole from 7620' to 7640'. Reamed and gauged hole to 7879'. Pulled to shoe for change over. Changed over hole fluid to clean fluid. Pulled out of hole. Ran caliper log from 7596' to 7881'. Made up 5-1/2" 17# J55 LT&C liner as follows: guide shoe, 7 joints (281') 5-1/2" 12 gauge WWS, 2 joints with 55' slotted and top 19' blank. Made up 2-7/8" CS Hydril tubing tail.

4-22 Finished running in well with liner and over the top gravel packing crossover tool. Landed liner at 7881' with top of landing nipple at 7522'. Rigged up pump truck and blender. Tested surface lines and connections to 4000 psi. Tested 9-5/8" casing and gravel pack tool to 800 psi. Pumped 5 Bbls of 63 pcf gel followed by 101 Bbls of 12.6 ppg slurry containing 260 cu.ft. of 20-40 sand. Displaced with 5 Bbls of 63 pcf GEL and 104 Bbls of 64 pcf HEC polymer fluid. Final pressure: 2100 psi at 5 cu.ft./min. Backscuttled 25 cu.ft. sand. Waited 2 hours. Established injection rate of 280 psi at 17 cu.ft./min. Pumped 5 Bbls of 63 pcf gel followed by 11 Bbls of 12.2 ppg slurry containing 35 cu.ft. of 20-40 sand. Displaced with 5 BBls of 63 pcf gel and 122 Bbls of 64 pcf HEC polymer fluid. Final pressure: 580 psi at 17 cu.ft./min. Backscuttled 5 cu.ft. of sand. Pumped 5 Bbls of 63 pcf gel followed by 20 Bbls of 63 pcf gel containing 50 cu.ft. 20-40 sand and 89 Bbls of 64 pcf HEC polymer fluid. Final pressure: 2300 psi at 0 cu.ft./min. Backscuttled 30 cu.ft. of sand. Total estimated sand in place 285 cu.ft. (29% over theoretical volume). Waited 1-1/2 hours. Performed injectivity test: 600 psi at 17 cu.ft./min. Rigged down pump truck and blender. Pulled out of hole.

4-23 Ran dual spaced neutron log. The log indicated good gravel pack across liner. Ran in well and set lead seal at 7520'. Backscuttled well clean. Laid down 4-1/2" drill pipe.

4-24 Made up and ran 9-5/8" 47# Guiberson Magnum permanent packer on wireline. Ran in and attempted to set packer at 7450'. Pulled out of well with packer. Firing head did not fire. Ran in with new 9-5/8" Guiberson packer on wireline. Set packer at 7455'. Ran in well with 2-7/8" 6.5# N-80 EUE 8rd tubing as follows: latching seal unit with 40,000# shear, 1 joint tubing, Guiberson 2.205" XN No-Go, 1 joint tubing, Guiberson 2.313""XD" sliding sleeve, 1 joint tubing, 2-7/8" MMA GLM w/1.5" SOV set to 2750 psi on "RA" latch, tubing to surface. Externally pressure tested each connection to 4000 psi. Changed over hole fluid to 2% KCl double inhibited with EXXON Coat 7726.

4-25 Latched into packer at 7455'. Pulled 20,000 lbs. over to check latch. Landed tubing with 10,000 lbs. Installed back pressure valve. Removed BOPE. Installed x-mas tree and tested wellhead seals to 5000 psi. Shifted sliding sleeve open. Released rig.

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

No. T292-101

REPORT ON OPERATIONS

R.D. Phillips, Agent
Southern Calif. Gas Company
810 S. Flower St.
Los Angeles, CA. 90017

Ventura, California
May 13, 1992

Your operations at well "Porter" 69C, API No. 037-24128, Sec. 28, T. 3N, R. 16W, S.B.B.&M. Aliso Canyon Field, in Los Angeles County, were witnessed on 4/16/92. S. Mulqeen, representative of the supervisor, was present from 0800 to 0900. There were also present Bill Killebrew, Consultant.

Present condition of well: 20" cem 70'; 13 3/8" cem 1040'; 9 5/8" cem 7599'. TD 7600' (Drilling).

The operations were performed for the purpose of testing the blowout prevention equipment and installation.

DECISION:

The blowout prevention equipment and its installation on the 9 5/8" casing are approved.

tkc

K.P. HENDERSON, Acting Chief

By Patrick J. Kinnear
Deputy Supervisor

OG109

API No. 037 - 24128 DIVISION OF OIL AND GAS T 1N 01

BLOWOUT PREVENTION EQUIPMENT MEMO

Operator SO. CALIF GAS CO. Well "PORTER" 69C

Field ALISO CANYON County LOS ANGELES Spud Date 4-19-92

VISITS:	Date	Engineer	Time	Operator's Rep.	Title
1st	4-16-92	S. MULQUEEN	(0800 to 0900)	BILL KILLEBREW	CONSULTANT
2nd			(to)		

Contractor KENAI DRILLING Rig # 44 Contractor's Rep. & Title JESSE RIPPETOE

Casing record of well: 20" cem 70'; 13 3/8 cem 1040'; 9 5/8" cem 7599'. TD 7600' (DRILLING).

OPERATION: Testing (~~inspecting~~) the blowout prevention equipment and installation.

DECISION: The blowout prevention equipment and its installation on the 9 5/8 " casing are approved.

Proposed Well Opns: DRILL . MACP: psi

Hole size: 12 1/4" fr. 1040' to 7600' TD, " to ' & " to '

REQUIRED BOPE CLASS: III B 5M

CASING RECORD OF BOPE ANCHOR STRING					Cement Details	Top of Cement	
Size	Weight(s)	Grade(s)	Shoe at	CP at		Casing	Annulus
9 5/8	47#	N-80	7599'		INFLATABLE PACKER (ECP) 7567'	—	—
					- 7587, CEM, TOTAL 2218 cf FOAM		
					CEM (1466 LEAD 752 TAIL) 4-14-92		
					+ 109 cf CEM TO INFLATE PKR		

BOP STACK

API Symb.	Ram Size (in.)	Manufacturer	Model or Type	Vert. Bore Size (in.)	Press. Rtg.	Date Last Overhaul	Gal. to Close	Recovery Time (Min.)	Calc. GPM Output
A	—	SHAFCO	GK	11	5M				
RD	4 1/2	"	—	11	"			PRESSURE CHART	
RD	CSO	"	—	11	"				

TEST DATA

psi Drop to Close	Secs. to Close	Test Date	Test Press.
		4-16	2000
		4-16	3400
		4-16	3400

ACTUATING SYSTEM

Accumulator Unit(s) Working Pressure 3000 psi

Total Rated Pump Output gpm

Distance From Well Bore 95 ft.

	Accum. Manufacturer	Capacity	Precharge
1	KOOMEY	120 gal.	1000 psi
2		gal.	psi

	CONTROL STATIONS	Elec.	Hyd.	Pneu.
Y	Manifold at accumulator unit		✓	
X	Remote at Driller's station			✓
	Other:			

	EMERG. BACKUP SYSTEM			Press.	Wkg. Fluid
X	N_2 Cylinders 3	1	L= "	1800	gal.
	Other:	2	L= "	1500	gal.
		3	L= "	1900	gal.
		4	L= "		gal.
		5	L= "		gal.
		6	L= "		gal.
			TOTAL:		gal.

AUXILIARY EQUIPMENT — TOTAL:

		No.	Size (in.)	Rated Press.	Connections: Weld	Flange	Thread	Test Press.
X	Fill-up Line							
X	Kill Line		2	5000	✓	✓	✓	3400
X	Control Valve(s)	3		11		✓		3400
X	Check Valve(s)	1		11		✓		3400
	Aux. Pump Connect.			11	✓		✓	3400
X	Choke Line		3 1/2	5000	✓	✓	✓	3400
X	Control Valve(s)	13		11		✓		3400
X	Pressure Gauge						✓	
X	* Adjustable Choke(s)	2	3	11		✓		3400
X	Bleed Line				✓	✓		
X	Upper Kelly Cock							3400
X	Lower Kelly Cock		4 1/2	5000				3400
	Standpipe Valve							3400
X	Standpipe Press. Gauge							
X	Pipe Safety Valve		4 1/2	5000				3400
X	Internal Preventer		4 1/2	5000				3400

HOLE FLUID MONITORING EQUIPMENT		Alarm Type: Audible	Visual	Class
Y	Calibrated Mud Pit		✓	A
Y	Pit Level Indicator	✓	✓	B
X	Pump Stroke Counter		✓	B
Y	Pit Level Recorder		✓	
X	Flow Sensor		✓	C
X	Mud Totalizer		✓	C
	Calibrated Trip Tank		✓	
	Other:			

Hole Fluid Type	Weight	Storage Pits (Type & Size)
CLAY (WATER BASE)	9.4	315 BBL

REMARKS AND DEFICIENCIES:

* W/ SWIVEL CHOKE

OGD9 (12/90/GSR1/2M)

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

No.T292-091

REPORT ON OPERATIONS

R.D. Phillips, Agent
Southern Calif. Gas Company
810 S. Flower St.
Los Angeles, CA. 90017

Ventura, California
April 1, 1992

Your operations at well "Porter" 69C, API No. 037-24128, Sec. 28, T. 3N, R. 16W, S.B.B.&M. Aliso Canyon Field, in Los Angeles County, were witnessed on 3/23/92. B. Hesson, representative of the supervisor, was present from 1700 to 2200. There were also present Bill Killebrew Drilling Consultant.

Present condition of well: 13 3/8" cem 1044'. TD 1045' (Drilling)

The operations were performed for the purpose of testing the blowout prevention equipment and installation.

DECISION:

The blowout prevention equipment and its installation on the 13 3/8" casing are approved.

tkc

K.P. HENDERSON, Acting Chief

By Patrick J. Kinnear
Patrick J. Kinnear
Deputy Supervisor

OG109

API No. 037-24128 DIVISION OF OIL AND GAS T 09S

BLOWOUT PREVENTION EQUIPMENT MEMO

Operator SOUTHERN CALIF. GAS CO. Well "PORTER" 69L
Field ALISO CYN. County LOS ANGELES Spud Date 3/19/92

VISITS:	Date	Engineer	Time	Operator's Rep.	Title
1st	3/23/92	B. HESSON	(1700 to 2200)	BILL KILLEBREW	DRILLING CONSULTANT
2nd			(to)		

Contractor KENAI Rig # 44 Contractor's Rep. & Title JESSE - RIPPETOE - TOOLPUSHER
Casing record of well: 13 3/8" CEM 1044'. TD 1045' (DRILLING)

OPERATION: (Testing) (inspecting) the blowout prevention equipment and installation.
DECISION: The blowout prevention equipment and its installation on the 13 3/8 " casing are approved.

Proposed Well Opns: DRILL . MACP: psi
Hole size: 17 1/2 " fr. 0 ' to 1045 ' , " to ' & " to '

REQUIRED BOPE CLASS: III B 3M

CASING RECORD OF BOPE ANCHOR STRING					Cement Details	Top of Cement	
Size	Weight(s)	Grade(s)	Shoe at	FCP at		Casing	Annulus
13 3/8	54.5	K-55	1044	998	CEM W/ 1125 CF "G", DISP. W/ 13 BBLS H2O. GOOD CEMENT RETURNS	998'	SURF

BOP STACK

API Symb.	Ram Size (in.)	Manufacturer	Model or Type	Vert. Bore Size (in.)	Press. Rtg.	Date Last Overhaul
A	-	SHAFFER	GK	13 3/8	3000	
Bd	4 1/2	"	F	"		
Bd	CSO	"	F	"		

TEST DATA

Gal. to Close	Recovery Time (Min.)	Calc. GPM Output	psi Drop to Close	Secs. to Close	Test Date	Test Press.
8.6 (W/4 1/2" DP)						550
3.55 + 2.9 (OPEN)						2000
-			BAD	J. RIPPETOE		2000

ACTUATING SYSTEM

Accumulator Unit(s) Working Pressure 1500 psi
Total Rated Pump Output — gpm
Distance From Well Bore 50 ft.

	Accum. Manufacturer	Capacity	Precharge
1	KOOMEY	120 gal.	750 psi
2		gal.	psi

CONTROL STATIONS

		Elec.	Hyd.	Pneu.
✓	Manifold at accumulator unit		✓	
✓	Remote at Driller's station			✓
	Other:			

EMERG. BACKUP SYSTEM

				Press.	Wkg. Fluid
✓	N_2 Cylinders	1	L= "	1900	7.0 gal.
	Other: 3	2	L= "	1900	7.0 gal.
		3	L= "	1950	7.5 gal.
		4	L= "		gal.
		5	L= "		gal.
		6	L= "		gal.

TOTAL: 21.5 gal.

TOTAL: 15,05

AUXILIARY EQUIPMENT

		No.	Size (in.)	Rated Press.	Connections: Weld	Flange	Thread	Test Press.
✓	Fill-up Line							
✓	Kill Line		3	3000	✓	✓	✓	2000
✓	Control Valve(s)	2				✓		
✓	Check Valve(s)	1				✓		
✓	Aux. Pump Connect.						✓	
✓	Choke Line		4		✓	✓	✓	
✓	Control Valve(s)	13				✓		
✓	Pressure Gauge						✓	
✓	Adjustable Choke(s)	2	4			✓		
✓	Bleed Line		3		✓		✓	
✓	Upper Kelly Cock							
✓	Lower Kelly Cock		4 1/2					
✓	Standpipe Valve							
✓	Standpipe Press. Gauge							
✓	Pipe Safety Valve		4 1/2					
-	Internal Preventer		4 1/2					

HOLE FLUID MONITORING EQUIPMENT

		Alarm Type: Audible	Visual	Class
✓	Calibrated Mud Pit	✓	✓	A
✓	Pit Level Indicator	✓	✓	B
✓	Pump Stroke Counter	✓	✓	
✓	Pit Level Recorder		✓	
✓	Flow Sensor	✓	✓	C
✓	Mud Totalizer	✓	✓	
✓	Calibrated Trip Tank	✓	✓	
	Other:			

Hole Fluid Type	Weight	Storage Pits (Type & Size)

REMARKS AND DEFICIENCIES:

OGD9 (12/90/GSR1/2M)

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

No. P292-074
Field Code 10
Area Code 00
New Pool Code 30
Old Pool Code --

PERMIT TO CONDUCT WELL OPERATIONS
GAS STORAGE

R.D. Phillips, Agent
Southern Calif. Gas Company
810 S. Flower St.
Los Angeles, CA. 90017

Ventura, California
March 17, 1992

Your proposal to drill well "Porter" 69C, A.P.I. No. 037-24128, Section 28, T. 3 N, R. 16W, S.B. B.&M., Aliso Canyon field, any area, Sesnon-Frew pool, Los Angeles County, dated 3/3/92, received 3/9/92, has been examined in conjunction with records filed in this office.

THE PROPOSAL IS APPROVED PROVIDED THAT:

1. Blowout prevention equipment conforming to DOG Class III B3M requirements is installed on the 13 3/8" casing and DOG Class III B5M requirements is installed on the 9 5/8" casing and maintained in operating condition at all times.
2. Drilling fluid of a quality and in sufficient quantity is used to control all subsurface conditions in order to prevent blowouts.
3. An approved blowout prevention and control plan is on file with this office prior to commencing operations.
4. Blowout prevention practice drills are conducted at least weekly and recorded on the tour sheet.
5. This office shall be consulted before sidetracking the well or running any additional casing.
6. The 13 3/8" casing is cemented with sufficient cement to fill behind this casing from the shoe to the ground surface.
7. The 9 5/8" casing is cemented with sufficient cement to fill behind this casing to at least 500 feet above the uppermost oil and/or gas zone or anomalous pressure interval, whichever is higher.
8. Requirements specified in our approval of the gas storage project dated July 26, 1986 shall apply.
9. Injection shall cease if any evidence of damage is observed, or upon written notice from this Division.
10. This office shall be consulted before initiating any changes or additions to this proposed operation, or if operations are to be suspended.

Engineer Steve Fields

Phone (805) 654-4761

K.P. HENDERSON, Acting Chief

By Patrick J. Kinnear
Deputy Supervisor

A copy of this permit and the proposal must be posted at the well site prior to commencing operations. Records for work done under this permit are due within 60 days after the work has been completed or the operations have been suspended.
OG111

11. THIS DIVISION SHALL BE NOTIFIED:
    a. To witness a pressure test of the blowout prevention equipment prior to drilling out the shoe of the 13 3/8" casing. Prior to notifying the division engineer to witness the test, the blind rams must be tested. Information of the blind ram test must be entered on the tour sheet along with the signature of the person in charge.
    b. To witness a Mit Survey within three months after injection has commenced.

Blanket Bond
SF:tkc

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS
Notice of Intention to Drill New Well

C.E.Q.A. INFORMATION			
EXEMPT ☐ CLASS____	NEG. DEC. ☐ S.C.H. NO.____	E.I.R. ☐ S.C.H. NO.____	DOCUMENT NOT REQUIRED BY LOCAL JURISDICTION ☑
See Reverse Side			

FOR DIVISION USE ONLY					
MAP	MAP BOOK	CARDS	BOND	FORMS 114	FORMS 121
254	3/21/92	✓	BB	✓	✓

In compliance with Section 3203, Division 3, Public Resources Code, notice is hereby given that it is our intention to commence drilling well Porter #69C, well type Storage, API No. 037-24128 (Assigned by Division)

Sec. 28, T. 3N, R. 16W S.B.B. & M., Aliso Canyon Field, Los Angeles County.

Legal description of mineral-right lease, consisting of _____ acres, is as follows: _____ (Attach map or plat to scale)

Not applicable, owned by Southern California Gas Company in fee.

Do mineral and surface leases coincide? Yes N/A No_____. If answer is no, attach legal description of both surface and mineral leases, and map or plat to scale.

Location of well _____ feet _____ (Direction) ~~along section/property line~~ (Cross out one) and _____ feet _____ (Direction)

at right angles to said line from the _____ ~~corner of section/property~~ (Cross out one) _____ or

854' South and 3234' West of Station 84

Is this a critical well according to the definition on the reverse side of this form? Yes ☐ No ☒

If well is to be directionally drilled, show proposed coordinates (from surface location) at total depth: ~~316'~~ 1867 feet South (Direction) and ~~1919'~~ 1342 feet East (Direction)

Elevation of ground above sea level 2372 feet.

All depth measurements taken from top of Kelly Bushing (Derrick Floor, Rotary Table, or Kelly Bushing) that is 23.5 feet above ground.

PROPOSED CASING PROGRAM

SIZE OF CASING INCHES API	WEIGHT	GRADE AND TYPE	TOP	BOTTOM	CEMENTING DEPTHS	CALCULATED FILL BEHIND CASING (Linear Feet)
13-3/8"	54.5#	J-55	0	1000'	1000'	Surface
9-5/8"	47#	N-80	0	7706'	7706'	Surface
5-1/2"	17#	J-55	7640'	7972'	Gravel Flow	Pack

(A complete drilling program is preferred and may be submitted in lieu of the above program.)

Intended zone(s) of completion Upper and Lower Sesnon (Name, depth, and expected pressure) Estimated true vertical depth 7622'

It is understood that if changes in this plan become necessary we are to notify you immediately.

Name of Operator	Type of Organization (Corporation, Partnership, Individual, etc.)	
Southern California Gas Company	Corporation	
Address	**City**	**Zip Code**
P.O. Box 3249, Terminal Annex	Los Angeles,	90013
Telephone Number / **Name of Person Filing Notice**	**Signature**	**Date**
(213)244-2666 / J. B. Lane		3/31/92

This notice and indemnity or cash bond shall be filed, and approval given, before drilling begins. If operations have not commenced within one year of receipt of the notice, this notice will be considered cancelled.

OG105 (9/83/GSR1/5M)

Information for compliance with the California Environmental Quality Act of 1970 (C.E.Q.A.).

If an environmental document has been prepared by the lead agency, please submit a copy of the document with this notice *or* supply the following information:

Lead Agency: _____

Lead Agency Contact Person: _____

Address: _____

_____

Phone: ( ) _____

FOR DIVISION USE ONLY
District review of environmental document (if applicable)? Yes ☐ No ☐
Remarks: _____

CRITICAL WELL

As defined in the California Administrative Code, Title 14, Section 1720(a), "Critical well" means a well within:

(1) 300 feet of the following:
(A) Any building intended for human occupancy that is not necessary to the operation of the well; or
(B) Any airport runway.
(2) 100 feet of the following:
(A) Any dedicated public street, highway, or nearest rail of an operating railway that is in general use;
(B) Any navigable body of water or watercourse perennially covered by water;
(C) Any public recreational facility such as a golf course, amusement park, picnic ground, campground, or any other area of periodic high-density population; or
(D) Any officially recognized wildlife preserve.

Exceptions or additions to this definition may be established by the supervisor upon his own judgment or upon written request of an operator. This written request shall contain justification for such an exception.