INJECTION WELL PLUGGING PLAN
40 CFR 146.92(b)

Facility Information

Facility Name: Pelican Renewables, LLC
Well Names: Rindge Tract CCS Well #1
Rindge Tract CCS Well #2

Facility Contact: John Zuckerman, Pelican Renewables – Managing Member
2200 W. Forest Lake Rd, Acampo, California, 95220
917-868-4346/john.zuckerman@pelicanrenewables.com

Well Locations: Rindge Tract Island, San Joaquin County, California
38.021507, -121.428926 (Well #1)
38.014567, -121.415405 (Well #2)

Pelican Renewables, LLC (Pelican) will conduct injection well plugging and abandonment in compliance with 40 CFR 146.92 and California Public Resources Code Section 3208.1. The wells will be plugged to protect all Underground Sources of Drinking Water (USDWs) and to prevent migration of injected carbon dioxide (CO_2) by using CO_2 resistant plugging materials where required. Following construction of the wells, necessary revisions to the plugging plan will be completed and submitted to the UIC Program Director.

After injection has ceased, bottom-hole pressure measurements will be recorded and mechanical integrity testing will be completed to confirm the integrity of the casing and seal in each well. The wells will be flushed and filled with brine solution to maintain pressure control of the wells. If a loss of mechanical integrity is discovered, the well will be repaired and retested prior to plugging operations.

Planned Tests or Measures to Determine Bottom-Hole Reservoir Pressure

Pressures will be continuously monitored during injection using the casing-conveyed external bottom-hole pressure gauges. Final pressures will be recorded prior to conducting external mechanical integrity tests. Bottom-hole pressure will be used to calculate the pressures required to plug each well, and the density of the brine to flush and fill each well.

Planned Mechanical Integrity Test(s) [MITs]

Pelican will demonstrate mechanical integrity in both injection and any monitoring wells that penetrate the confining zone or injection zone prior to operation, during operation, following corrective action, and before plugging and abandonment of the injection and monitoring wells in accordance with EPA 40 CFR 146.92 and California Public Resources Code Section 3208.1. The purpose of the MIT is as follows:

1. Confirm integrity of casing (i.e., internal MIT).
2. Confirm integrity of cement seal (i.e., external MIT).

Internal Mechanical Integrity

Internal mechanical integrity will be continuously monitored in each well. An APT (annular pressure test) will be performed on an annual basis, as well as following any corrective action, prior to final plugging activities, and at the request of the UIC Program Director. The APT confirms the well's ability to maintain pressure in the fluid-filled annular space between the tubing and casing. As described in EPA's guidance for standard annulus pressure tests, the annular space will be pressurized and pressure readings will be recorded for a minimum of one hour. Internal mechanical integrity will be confirmed if the pressure gain or loss does not exceed 3% of the initial test pressure.

External Mechanical Integrity

Pelican will conduct one of the tests listed in **Table 9-1** to verify external mechanical integrity prior to plugging each injection well. Temperature logs can be used to identify fluid movement through the confining zone adjacent to the well borehole and can identify casing leaks. Noise logs or radioactive tracer surveys (RTSs) may be used if anomalies are identified in the temperature logs. Note that the distributed fiber optic sensing (DFOS) sensors deployed outside the long string casing of the injection well will also continuously monitor for temperature and noise anomalies via distributed temperature and distributed acoustic sensors. The MIT work will be performed by Pelican using experienced and licensed personnel, as applicable, with furnished equipment that is appropriate and adequate to complete all phases of the MIT testing.

Table 9-1. Planned External MITs.

Test Description	Location
Temperature Survey	Wireline Well Log
Noise Log	Wireline Well Log
Radioactive Tracer Survey (RTS)	Wireline Well Log

Equipment

Wellhead equipment will be furnished with stripper head (wireline pack-off) assemblies and used to conduct the geophysical log(s). The stripper head assembly will be securely attached to the wellhead to prevent flow from the well at the pressures observed. The stripper head assembly furnished and installed will be sized to accommodate the width and length of the longest geophysical tool or camera assembly used for conducting the tests and surveys. Each wellhead will be furnished with bleed and isolation valves so the stripper head assembly can be shut-in and isolated from the wellhead equipment. The assembly will include pressure gauges and appurtenances for monitoring pressure in the wells during the tests. Temperature surveys must be appropriately sensitive to temperature differentials to verify external mechanical integrity.

Execution of Test Logs

Pelican will conduct one of the tests listed below to verify external mechanical integrity prior to plugging the injection well.

External MIT – Temperature Survey

The wellbore will be cleared of any material that would be corrosive to the logging tools or present obstructions that would prevent passage of the tools. The temperature log will be conducted through the injection tubing from the surface to total depth of the well. Fluid will be injected into the well and will have a temperature differential of no less than 10° F than the wellbore temperature. The minimum volume of fluid to be injected will be based on three well volumes. Pelican will calculate the fluid volume based on the final well design, including the total depth, the diameter of the long-string casing, and the diameter of the slotted liner and under-reamed gravel pack annulus. The approximate volumes are calculated below.

Table 9-2. Injection Well Design Information

Rindge Tract CCS Well #1	**Depths (ft. bgs)**	**Linear ft**
Total Depth of Well	6946	6946
Packer Depth	5396	N/A
8.875" Long-string Casing	0-5496	5496
12" Under-reamed boring	5496-6946	1450
Rindge Tract CCS Well #2		
Total Depth of Well	6880	6880
Packer Depth	6330	N/A
8.875" Long-string Casing	0-6400	6400
12" Under-reamed boring	6400-6880	480
MRF Monitoring Well #1		
Total Depth of Well	7150	7150
4.5” Long-string Casing	0-7150	7150
MRF Monitoring Well #2		
Total Depth of Well	6975	6975
4.5” Long-string Casing	0-6975	6975
MRF Monitoring Well #3		
Total Depth of Well	6825	6825
4.5” Long-string Casing	0-6825	6825
GMW-1D. DMW-2D, GMW-3D		
Total Depth of Well	5000	5000
4.5” Long-string Casing	0-5000	5000
GMW-1M, DMW-2M, GMW-3M		
Total Depth of Well	4150	4150
4.5” Long-string Casing	0-4150	4150

Notes:Volume calculations completed using Halliburton's eRedBook® Mobile application
bbl:barrels
ft. bgs: feet below ground surface

Rindge Tract CCS Well #1

Long-string casing volume
5496 linear ft * 0.0595 bbl./linear ft. = 327 bbl. (13725 gallons)

Under-reamed gravel pack volume
1450 linear feet x 0.1394 bbl/linear ft. = 202 bbl (8502 gallons)

Total Casing Volume
327 bbl + 202 bbl =529 bbl

Three Casing Volumes
3 x (529 bbl.) = 1588 bbl. (66832 gallons)

Rindge Tract CCS Well #2

Long-string casing volume
6400 linear ft * 0.0595 bbl./linear ft. = 381 bbl. (16002 gallons)

Under-reamed gravel pack volume
480 linear feet x 0.1394 bbl/linear ft. = 67 bbl (2814 gallons)

Total Casing Volume
381 bbl + 67 bbl =448 bbl

Three Casing Volumes
3 x (448 bbl.) = 1344 bbl. (56448 gallons)

MRF Monitoring Well #1

Long-string casing volume
7150 linear ft * 0.01554 bbl./linear ft. = 111 bbl. (4662 gallons)

Three Casing Volumes
3 x (111 bbl.) = 333 bbl. (13986 gallons)

MRF Monitoring Well #2

Long-string casing volume

6975 linear ft * 0.01554 bbl./linear ft. = 108 bbl. (4536 gallons)

Three Casing Volumes
3 x (108 bbl.) = 324 bbl. (13608 gallons)

MRF Monitoring Well #3

Long-string casing volume
6825 linear ft * 0.01554 bbl./linear ft. = 106 bbl. (4452 gallons)

Three Casing Volumes
3 x (106 bbl.) = 318 bbl. (13356 gallons)

GMW-1D. DMW-2D, GMW-3D

Long-string casing volume
5000 linear ft * 0.01554 bbl./linear ft. = 78 bbl. (3276 gallons)

Three Casing Volumes
3 x (78 bbl.) = 234 bbl. (9828 gallons)

GMW-1M. DMW-2M, GMW-3M

Long-string casing volume
4150 linear ft * 0.01554 bbl./linear ft. = 65 bbl. (2730 gallons)

Three Casing Volumes
3 x (65 bbl.) = 195 bbl. (8190 gallons)

Following fluid injection, intermediate temperature surveys will be conducted from the base of the confining unit to total depth. Running the temperature log through this interval will identify temperature anomalies due to leakage behind the casing.

External MIT-RTS

Prior to proceeding with the RTS, the wells will be flushed with fresh water. The RTS will be conducted with medicinal grade Iodine-131 or equivalent and dynamic surveys will provide data for evaluation of external mechanical integrity.

External MIT- Noise Log

A noise log will be conducted under static conditions. The tool will record the amplitude of the reflected acoustic signal as photographic-like images, and the transit-time data will be used to generate high-resolution caliper logs within the tubing.

Should a well fail any portion of the MIT, it will be subject to immediate repair. A workover procedure utilizing best industry practices at the time will be developed and submitted to the UIC Program Director for review and approval based on the anticipated technical issue to be resolved.

Information on Plugs

Following a determination of mechanical integrity, the injection tubing and packer will be removed. Each well will be permanently plugged using the balanced-plug placement method described herein and the casing string will be cut off approximately three feet below ground surface (below plow depth). A metal cap inscribed with the UIC permit number will be welded atop the casing.

Pelican will use the materials and methods noted below to plug each injection and monitoring well. The volume and depth of the plug or plugs will depend on the final geology and downhole conditions of the well as assessed during construction. The cement(s) formulated for plugging will be compatible with the carbon dioxide stream. The cement formulation and required certification documents will be submitted to the UIC Program Director with the well plugging plan. Pelican will report the wet density and will retain duplicate samples of the cement used for each plug.

All cement plugs will be pumped and emplaced inside the long string casing. Cement plugs in all the injection and monitoring wells will be pumped through cement retainers and across the injection zone(s), confining zone, and all depths between these zones, using Halliburton's CorrosaCem cement (or similar CO_2-resistant cement). The cement formulation and required certification documents will be submitted to an authorized regulatory agency with the final well plugging plan. A cement retainer allows cement to be emplaced under pressure, forcing cement through the perforations and into the surrounding formation and prevents fluid migration between different zones. The pressure used to emplace the cement will be determined from the bottom-hole pressure data acquired prior to plugging operations. A maximum pressure threshold of 90% of the determined reservoir fracture pressure for the Mokelumne River Formation will be utilized to constrain pressure increases during the cement injection process. If the injection pressure reaches the 90% fracture pressure threshold, and the total amount of cement has not been pumped into the injection zone, cement pumping will cease. Cementing tubing will be removed from the cement retainer to allow the pressure to return to static conditions. After allowing the pressure to decline, the tubing will be re-strung through the cement retainer, and cement pumping will be attempted again. A rapid increase in pressure on the tubing would indicate that the Mokelumne River Formation perforations have been sealed with cement, and no additional cement will be added to the zone or plug.

Each plug will be allowed to cure for 24 - 48 hours, depending on the corresponding depth, pressure, and temperature. Cement plugs will be tagged and/or pressure tested to ensure competency. Load weights and/or test pressures will be determined in the field at the time of plugging. Cement volumes were calculated by volumetric calculations. (Example: Assuming 9.625-inch 47 lb/ft casing with an I.D. of 8.681-in; [500 feet x 0.411 ft^3ft^{-1} x 1.1 excess]/ 1.11ft^3/sack = 203 sacks). A cement sample from each cement plug will be kept for analysis by the cement vendor.

Narrative Description of Plugging Procedures

Notifications, Permits, & Inspections

In compliance with 40 CFR 146.92(c), Pelican will notify the UIC Program Director at least 60 days before plugging each well and provide updated Injection Well Plugging Plan, if applicable.

Plugging Procedures

Each injection and monitoring wells shall be plugged and abandoned as outlined in the following steps:

1. Mark and note all CO_2 pipelines with rig supervisor prior to MIT.

2. Conduct internal MIT.

3. Test, measure, and determine bottom-hole reservoir pressure. Calculate a kill fluid density.

4. Flush injection well with a kill weight fluid. Circulate tubing and annulus with kill weight fluid pressure is controlled.

5. Install blowout preventers (BOP) and perform a function test of the preventers.

6. Remove disposal tubing and packer from the injection wells. This step is not required on the monitoring wells.

7. Conduct an external MIT on the well as specified in 40 CFR 146.89 and described above.

8. Conduct cement bond log (CBL). Should an evaluation of the CBL indicate that remedial cementing is necessary, a plan and schedule will be submitted for review and approval. The CBL shall have the cement bond rating clearly marked on the log. Information shall be included on the log stating the criteria for various bond ratings appropriate for the casing size. In the event that remedial cementing is necessary, additional well inspections such as a caliper log may be completed to evaluate potential additional remedial procedures.

9. Deploy the first cement plug through a work-string. This procedure will be done by slowly withdrawing the work-string in stages (maximum of 500 ft). The actual volume will be based on length of the plug to be emplaced. Allow the cement to cure for 24 hours. Please see the appropriate tables for the Mokelumne River Formation injection wells and Mokelumne River Formation Monitoring well, Domegine Formation Monitoring wells and Markley Formation Monitoring Wells. See below:

Table 9-3. Cement Table Locations for the Injection Well & Monitoring Wells

Well	Cement Data Table	Conceptual Well Plugging and Abandonment Diagram Figure #
Mokelumne River Formation Injection Well #1	Table 3	Figure 9-1
Mokelumne River Formation Injection Well #2	Same as Injection Well #1	Figure 9-2
Mokelumne River Formation Monitoring Well – Pad 1	Table 5	Figure 9-3
Mokelumne River Formation Monitoring Well – Pad 2	Same as Pad #1	Figure 9-4
Mokelumne River Formation Monitoring Well – Pad 3	Same as Pad #1	Figure 9-5
Domengine Groundwater Monitoring Wells GMW-1D, GMW-2D, GMW-3D	Table 7	Figure 9-6
Markley Groundwater Monitoring Wells GMW-1M, GWM-2M, GMW-3M	Table 9	Figure 9-7

10. Deploy the second cement plug through a work-string. This procedure will be done by slowly withdrawing the work-string in stages (maximum of 500 ft). The actual volume will be based on length of the plug to be emplaced. Allow the cement to cure for approximately 24 hours.Repeat until all of the plugs have been set to surface.

11. Continue placing plugs as prescribed in **Tables 3-10** through the placement of the last cement plug.

12. Once all cementing operations are complete, the wellheads will be removed and casing will be cut off at least three feet below ground level (below plow depth).

13. A metal cap will be welded onto the long string casing inscribed with the referenced UIC permit number and the plugging date.

14. A tri-coordinate location map (including the elevation of the casing cap) will be submitted to the UIC Program Director. The map will be prepared by either a licensed professional land surveyor or California-licensed professional engineer.

15. A plugging report will be submitted to the UIC Program Director within 60 days of the plugging activities.

Below are the Plugging Details for Mokelumne Injection wells, Mokelumne River Formation Monitoring wells, Domengine Monitoring Well and the Markley Monitoring wells.

Table 9-4. CCS Well #1 Plugging Details (See **Figure 9-1,** for P&A wellbore schematic)

Plug Information	Plug #1	Plug #2	Plug #3	Plug #4	Plug #5	Plug #6	Plug #7	Plug #8	Plug #9	Plug 10	Plug #11	Plug #12
Diameter of boring in which plug will be placed (Inches)	5.5	8.625	8.625	8.625	8.625	8.625	8.625	8.625	8.625	8.625	8.625	8.625
Depth to bottom of tubing or drill pipe (feet)	5,396	5,396	5,000	4,500	4,000	3,500	3,000	2,500	2,000	1,500	1,000	500
Sacks of cement to be used	450	149	149	150	150	150	150	150	150	150	150	150
Slurry volume to be pumped (bbl)	30.2	30.4	30.4	30.5	30.5	30.5	30.5	30.5	30.5	30.5	30.5	30.5
Slurry weight (lb./gal)	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8
Calculated top of plug (feet)	5,396	5,000	4,500	4,000	3,500	3,000	2,500	2,000	1,500	1,000	500	0
Bottom of plug (feet)	6,946	5,396	5,000	4,500	4,000	3,500	3,000	2,500	2,000	1,500	1,000	500
Plug Thickness (feet)	1,550	396	500	500	500	500	500	500	500	500	500	500
Type of cement or other material	CorrosaCem CO_2 Resistant Cement	CorrosaCem CO_2 Resistant Cement	CorrosaCem CO_2 Resistant Cement	CorrosaCem CO_2 Resistant Cement	Class G	Class G	Class G	Class G	Class G	Class G	Class G	Class G
Method of emplacement (e.g., balance method, retainer method, or two-plug method)	Pump through seal bore packer	retainer	retainer	retainer	retainer	retainer	retainer	retainer	retainer	retainer	retainer	tremie

*Note: Rindge Track CCS Well #2 will have a similar plugging detail as CCS Well #1 (See **Figure 9-2,** for CCS Well #2 P&A Schematic and plugging details).*

Plug #1 will be pumped through the existing seal bore packer, which will be set at 5,396 ft MD and is within the top of Mokelumne River Formation . Plug #1 will have an estimated thickness of 1,550 ft and will cover the Mokelumne River Formation injection zone. This plug will be pumped using Halliburton's CorrosaCem CO_2 resistant cement or equivalent.

Plug #2 will be pumped through the first retainer, which will be set at 5,000 ft MD within the Capay & Meganos Gorge confining zone. Plug #2 will have an estimated thickness of 396 feet and will cover the upper Mokelumne River Formation and the Capay & Meganos Gorge confining zone. This plug will be pumped using Halliburton's CorrosaCem CO_2 resistant cement or equivalent.

Plug #3 will be pumped through the second retainer, which will be set at 4,500 ft MD within the Domengine Formation. Plug #3 will have an estimated thickness of 500 feet and will cover the upper Capay & Meganos Gorge confining zone and the lower Domengine Formation. This plug will be pumped using Halliburton's CorrosaCem CO_2 resistant cement or equivalent.

Plug #4 will be pumped through the third retainer, which will be set at 4,000 ft MD. This retainer depth is set at the top of the Markley Formation, which is the top of the deepest USDW. Plug #4 will have an estimated thickness of 500 feet and will cover the upper Domengine Formation and the Markley Formation. This plug will be pumped using Halliburton's CorrosaCem CO_2 resistant cement or equivalent.

Plug #5 through Plug #12 will cover the remaining overburden section of the Mokelumne River Formation injection well. Each plug will be approximately 500' thick and consist of Class G cement or equivalent. Below is a table showing the retainer depths for the injection well.

Table 9-5. Remaining Plug Retainer Placement Depths

Plug #	Retainer Depth (ft)
5	3,500
6	3,000
7	2,500
8	2,000
9	1,500
10	1,000
11	500
12	0 (No retainer; cement will be pumped through wellhead or tremied)

Table 9-6. Mokelumne River Formation Monitoring Well - Pad #1 Plugging Details (See Figure 9-3)

Plug Information	Plug #1	Plug #2	Plug #3	Plug #4	Plug #5	Plug #6	Plug #7	Plug #8	Plug #9	Plug #10	Plug #11	Plug #12	Plug #13	Plug #14	Plug #15
Diameter of boring in which plug will be placed (Inches)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Depth to bottom of tubing or drill pipe (feet)	7,150	7,000	6,500	6,000	5,500	5,000	4,500	4,000	3,500	3,000	2,500	2,000	1,500	1,000	500
Sacks of cement to be used	10	34	34	34	34	34	34	36	36	36	36	36	36	36	36
Slurry volume to be pumped (bbl)	2.3	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8
Slurry weight (lb./gal)	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8
Calculated top of plug (feet)	7,000	6,500	6,000	5,500	5,000	4,500	4,000	3,500	3,000	2,500	2,000	1,500	1,000	500	0
Bottom of plug (feet)	7,150	7,000	6,500	6,000	5,500	5,000	4,500	4,000	3,500	3,000	2,500	2,000	1,500	1,000	500
Plug Thickness (feet)	150	500	500	500	500	500	500	500	500	500	500	500	500	500	500
Type of cement or other material	CorrosaCem CO_2 Resistant Cement	CorrosaCem CO_2 Resistant Cement	CorrosaCem CO_2 Resistant Cement	CorrosaCem CO_2 Resistant Cement	CorrosaCem CO_2 Resistant Cement	CorrosaCem CO_2 Resistant Cement	CorrosaCem CO_2 Resistant Cement	Class G	Class G	Class G	Class G	Class G	Class G	Class G	Class G
Method of emplacement (e.g., balance method, retainer method, or two-plug method)	retainer	retainer	retainer	retainer	retainer	retainer	retainer	retainer	retainer	retainer	retainer	retainer	retainer	retainer	retainer

*Note: Mokelumne River Formation Monitoring Well - Pad #2 and Mokelumne River Formation Monitoring Well – Pad #3 have a similar, but not exact, plugging detail as the Mokelumne River Formation Monitoring Well - Pad #1 . See **Figures 9-4 and 9-5,** for the P&A Schematic and plugging details for these wells.*

Plug #1 will be pumped through the first retainer, which will be set at 7,000 ft MD. This retainer depth is within the Mokelumne River Formation injection zone. Plug #1 will have an estimated thickness of 150 ft and will cover the lower portion of the Mokelumne River Formation injection zone. This plug will be Halliburton's CorrosaCem CO_2 resistant cement or equivalent.

Plug #2 will be pumped through the second retainer, which will be set at 6,500 ft MD. This retainer is within the Mokelumne River Formation injection zone. Plug #2 will have an estimated thickness of 500 feet and will cover the extent between the lower and middle section of the Mokelumne River Formation injection zone. This plug will be Halliburton's CorrosaCem CO_2 resistant cement or equivalent.

Plug #3 will be pumped through the third retainer, which will be set at 6,000 ft MD. This retainer depth is within the Capay and Meganos Gorge confining zone. Plug #3 will have an estimated thickness of 500 feet and will cover the upper section of the Mokelumne River Formation and into the Capay and Meganos confining zone interval zone. This plug will be Halliburton's CorrosaCem CO_2 resistant cement or equivalent.

Plug #4 will be pumped through the fourth retainer, which will be set at 5,500 ft MD. This retainer depth is within the Capay and Meganos confining zone. Plug #4 will have an estimated thickness of 500 feet. This plug will be Halliburton's CorrosaCem CO_2 resistant cement or equivalent.

Plug #5 will be pumped through the fifth retainer, which will be set at 5,000 ft MD. This retainer depth is within the Domengine
Formation. Plug #5 will have an estimated thickness of 500 feet. This plug will be Halliburton's CorrosaCem CO_2 resistant cement or equivalent.

Plug #6 will be pumped through the sixth retainer, which will be set at 4,500 ft MD. This retainer depth is within the Domengine Formation. Plug #6 will have an estimated thickness of 500 feet. This plug will be Halliburton's CorrosaCem CO_2 resistant cement or equivalent.

Plug #7 will be pumped through the seventh retainer, which will be set at 4,000 ft MD. This retainer depth is set at the top of the Markley Formation, which is the top of the deepest USDW. Plug #7 will have an estimated thickness of 500 feet. This plug will be Halliburton's CorrosaCem CO_2 resistant cement or equivalent.

Plug #8 through Plug #15 will be pumped through retainers to cover the overburden section of the Mokelumne River Formation monitoring well. Each plug will be approximately 500' thick and consist of Class G cement or equivalent. Below is a table showing the retainer depths for the wells.

Table 9-7. Remaining Plug Retainer Placement Depths

Plug #	Retainer Depth (feet)
8	3,500
9	3,000
10	2,500
11	2,000
12	1,500
13	1,000
14	500
15	At Surface

Table 9-8. Domengine Formation Monitoring Wells GMW-1D, GMW-2D, GMW-3 Plugging Details (See **Figure 9-6**)

Plug Information	Plug #1	Plug #2	Plug #3	Plug #4	Plug #5	Plug #6	Plug #7	Plug #8	Plug #9	Plug #10
Diameter of boring in which plug will be placed (inches)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Depth to bottom of tubing or drill pipe (feet)	5,000	4,500	4,000	3,500	3,000	2,500	2,000	1,500	1,000	500
Sacks of cement to be used	34	34	36	36	36	36	36	36	36	36
Slurry volume to be pumped (bbl)	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8
Slurry weight (lb./gal)	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8
Calculated top of plug (feet)	4,500	4,000	3,500	3,000	2,500	2,000	1,500	1,000	500	0
Bottom of plug (feet)	5,000	4,500	4,000	3,500	3,000	2,500	2,000	1,500	1,000	500
Plug Thickness (feet)	500	500	500	500	500	500	500	500	500	500
Type of cement or other material	CorrosaCem CO_2 Resistant Cement	CorrosaCem CO_2 Resistant Cement	Class G	Class G	Class G	Class G	Class G	Class G	Class G	Class G
Method of emplacement (e.g., balance method, retainer method, or two-plug method)	Retainer	Retainer	Retainer	Retainer	Retainer	Retainer	Retainer	Retainer	Retainer	Retainer

Note: All three Domengine Groundwater monitoring wells have the same P&A plugging details.

Plug #1 will be pumped through the first retainer, which will be set at 4,500 ft MD. This retainer depth is within the Domengine Formation. Plug #1 will have an estimated thickness of 500 ft and will cover a majority of the Domengine Formation. This plug will be Halliburton's CorrosaCem CO_2 resistant cement or equivalent.

Plug #2 will be pumped through the second retainer, which will be set at 4,000 ft MD. This retainer is set at the top of the Markley Formation, which is the top of the deepest USDW. Plug #2 will have an estimated thickness of 500 feet and will be Halliburton's CorrosaCem CO_2 resistant cement or equivalent.

Plug #3 through Plug #10 will be pumped through retainers to cover the overburden section above the USDW in the Domengine well. Each plug will be approximately 500' thick and consist of Class G cement or equivalent. Below is a table showing the retainer depths for the well.

Table 9-9. Remaining Plug Retainer Placement Depths

Plug #	Depth (feet)
3	3,500
4	3,000
5	2,500
6	2,000
7	1,500
8	1,000
9	500
10	At Surface

Table 9-10 Markley Formation Monitoring Wells GMW-1M, GMW-2M, GMW-3M Plugging Details (See **Figure 9-7**)

Plug Information	Plug #1	Plug #2	Plug #3	Plug #4	Plug #5	Plug #6	Plug #7	Plug #8	Plug #9
Diameter of boring in which plug will be placed (Inches)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Depth to bottom of tubing or drill pipe (feet)	4,150	4,000	3,500	3,000	2,500	2,000	1,500	1,000	0
Sacks of cement to be used	11	36	36	36	36	36	36	36	36
Slurry volume to be pumped (bbl)	2.3	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8
Slurry weight (lb./gal)	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8
Calculated top of plug (feet)	4,000	3,500	3,000	2,500	2,000	1,500	1,000	500	0
Bottom of plug (feet)	4,150	4,000	3,500	3,000	2,500	2,000	1,500	1,000	500
Plug Thickness (feet)	150	500	500	500	500	500	500	500	500
Type of cement or other material	Class G	Class G	Class G	Class G	Class G	Class G	Class G	Class G	Class G
Method of emplacement (e.g., balance method, retainer method, or two-plug method)	retainer	retainer	retainer	retainer	retainer	retainer	retainer	retainer	retainer

Plug #1 will be pumped through the first retainer, which will be set at 4,000 ft MD. This retainer depth is set at the top of the Markley Formation, which is the top of the deepest USDW. Plug #1 will have an estimated thickness of 150 ft and will cover a majority of the Markley Formation. This plug will be Class G CO_2 cement or equivalent.

Plug #2 through Plug #9 will be pumped through retainers to cover the overburden section above the USDW in the Markley well. Each plug will be approximately 500' thick and consist of Class G cement or equivalent. Below is a table showing the retainer depths for the well.

Table 9-11. Remaining Plug Retainer Placement Depths

Plug #	Depth
2	3,500
3	3,000
4	2,500
5	2,000
6	1,500
7	1,000
8	500
9	At surface

FIGURES

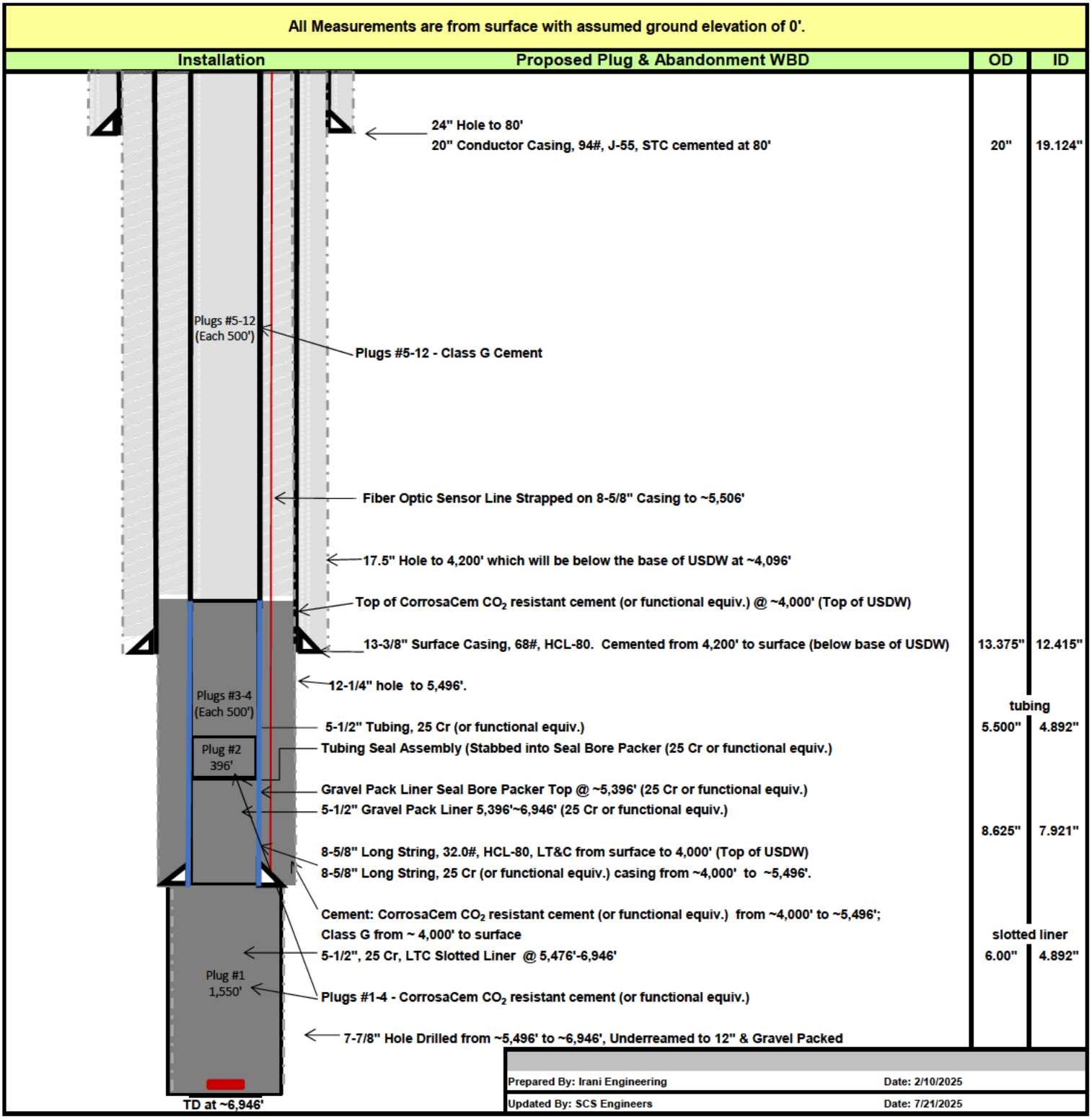


FIGURE 9-1

CONCEPTUAL WELL PLUGGING AND ABANDONMENT DIAGRAM
RIDGE TRACT CCS WELL #1
PELICAN RENEWABLES, INC.
SAN JOAQUIN COUNTY, CALIFORNIA

SCS ENGINEERS

Wichita, KS | August 2025

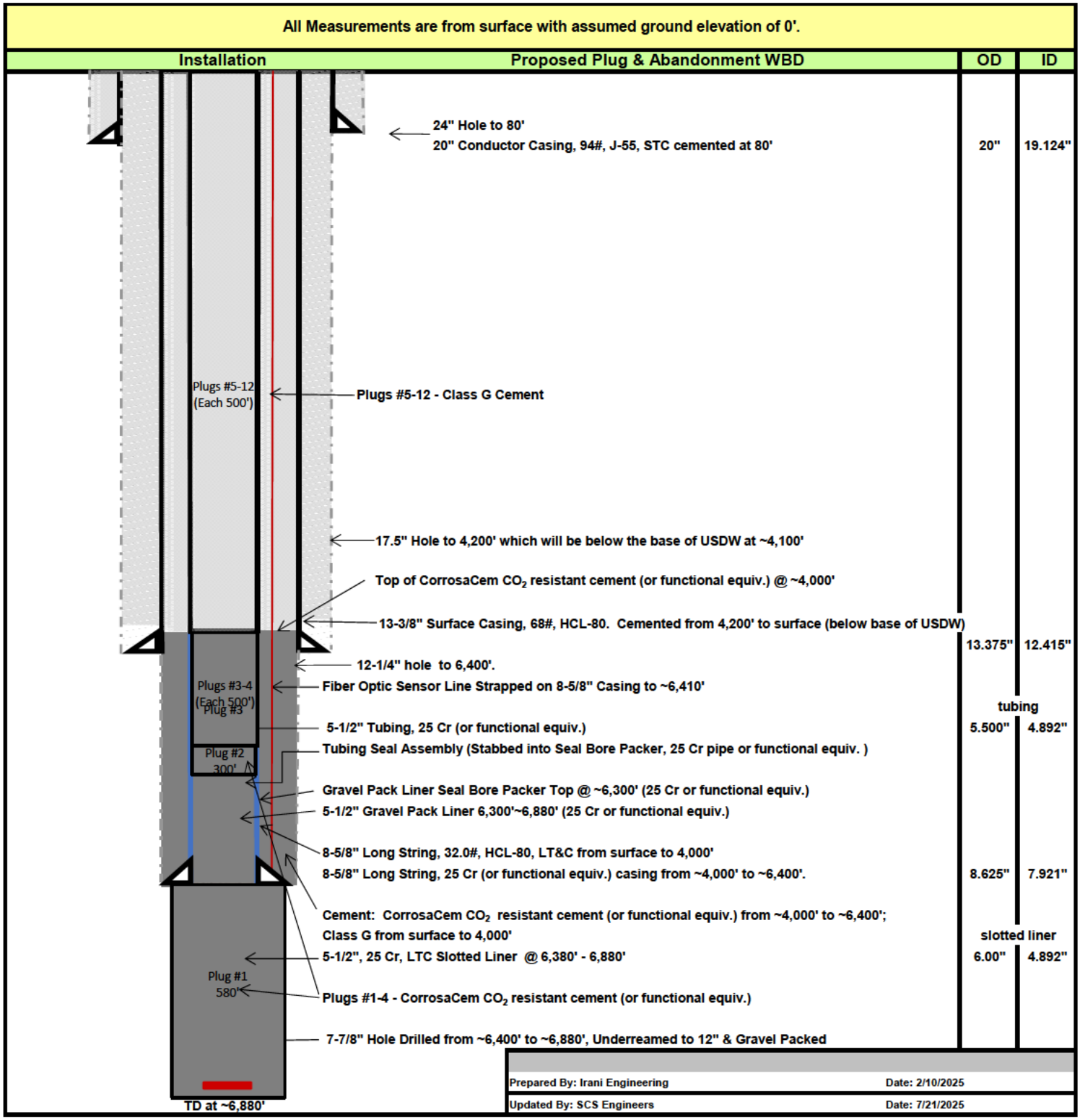
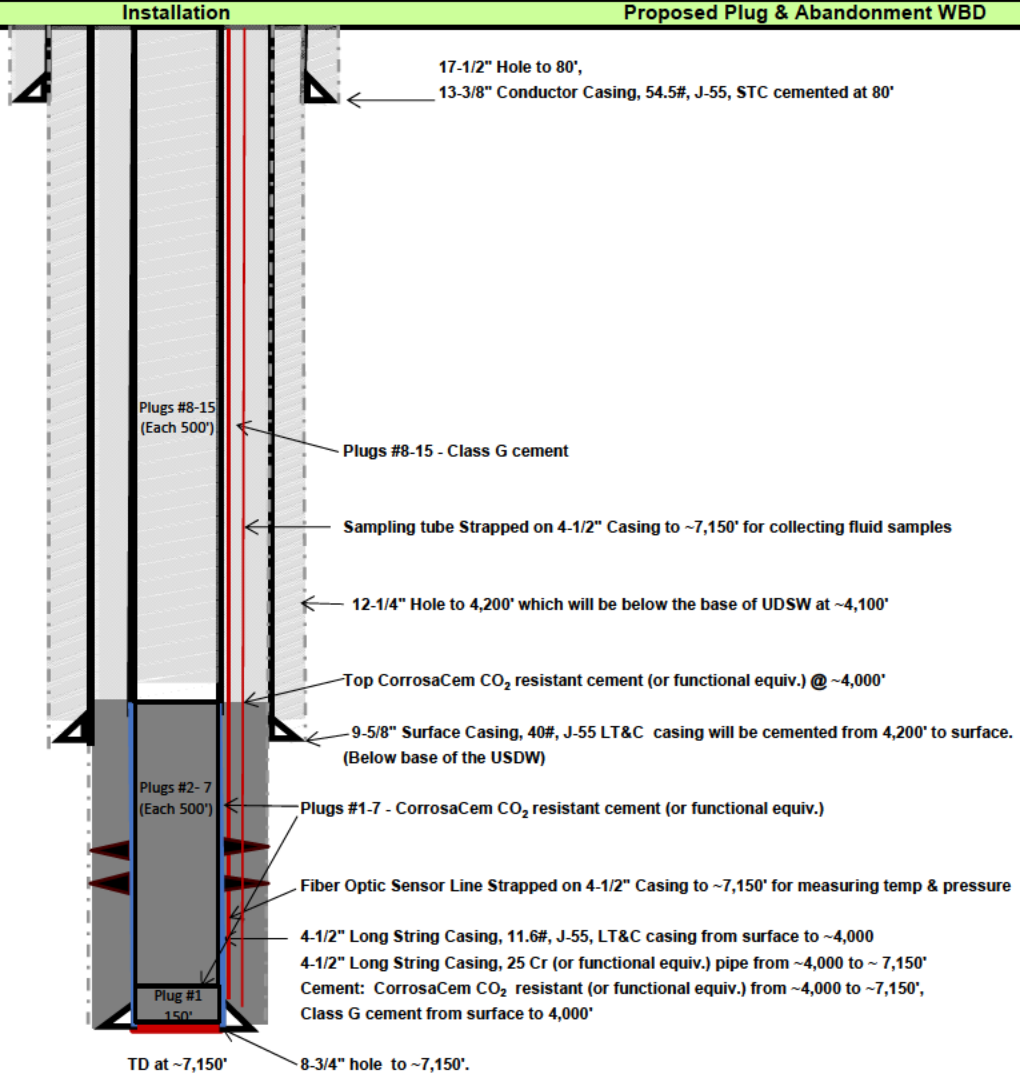


FIGURE 9-2
CONCEPTUAL WELL PLUGGING AND ABANDONMENT DIAGRAM
RIDGE TRACT CCS WELL #2
PELICAN RENEWABLES, INC.
SAN JOAQUIN COUNTY, CALIFORNIA

SCS ENGINEERS
Wichita, KS | August 2025

All Measurements are from surface with assumed ground elevation of 0'.



Prepared By: Irani Engineering	Date: 2-17- 2025
Updated By: SCS Engineers	Date: 7-21- 2025

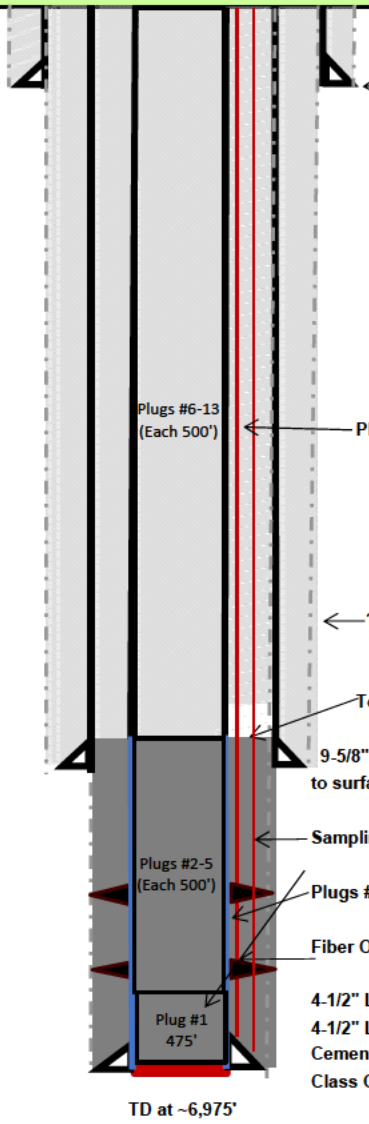
FIGURE 9-3

CONCEPTUAL WELL PLUGGING AND ABANDONMENT DIAGRAM
MOKELUMNE RIVER FORMATION MONITORING WELL - PAD #1
PELICAN RENEWABLES, INC.
SAN JOAQUIN COUNTY, CALIFORNIA

SCS ENGINEERS

Wichita, KS | August 2025

All Measurements are from surface with assumed ground elevation of 0'.



Installation	Proposed Plug & Abandonment WBD (Not to Scale)	OD	ID
	17-1/2" Hole to 80', 13-3/8" Conductor Casing, 54.5#, J-55, STC cemented at 80'	13.375"	12.615"
	Plugs #6-13 - Class G Cement		
	12-1/4" Hole to 4,200' which will be below the base of UDSW at ~4,100'		
	Top CorrosaCem CO_2 resistant cement (or functional equiv.) @ ~4,000'		
	9-5/8" Surface Casing, 40#, J-55 LT&C casing will be cemented from 4,200' to surface. (Below base of the USDW)	9.625"	8.921"
	Sampling tube Strapped on 4-1/2" Casing to ~6,975' for collecting fluid samples		
	Plugs #1-5 - CorrosaCem CO_2 resistant cement (or functional equiv.)		
	Fiber Optic Sensor Line Strapped on 4-1/2" Casing to ~6,975' for measuring temp & pressure		
	4-1/2" Long String Casing, 11.6#, J-55, LT&C casing from ~surface to ~4,000. 4-1/2" Long String Casing, 25 Cr (or functional equiv.) from ~4,000 to ~6,975' Cement: CorrosaCem CO_2 resistant (or functional equiv.) ~4,000 to ~6,975, Class G cement from surface to 4,000'	4.500"	4"
	8-3/4" hole to ~6,975'.		

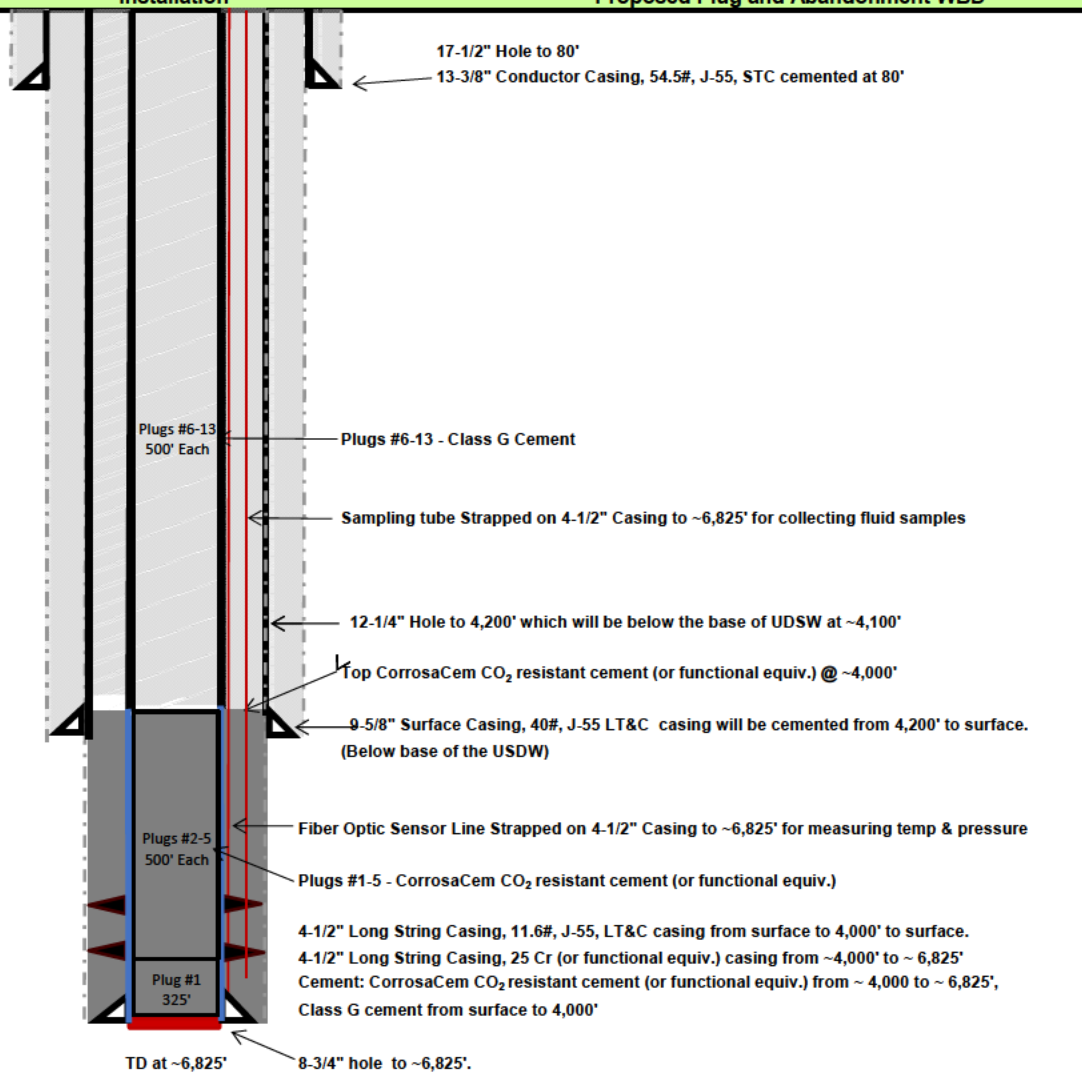
Prepared By: Irani Engineering	Date: 2-17- 2025
Updated By: SCS Engineers	Date: 7-21- 2025

FIGURE 9-4
CONCEPTUAL WELL PLUGGING AND ABANDONMENT DIAGRAM
MOKELUMNE RIVER FORMATION MONITORING WELL - PAD #2
PELICAN RENEWABLES, INC.
SAN JOAQUIN COUNTY, CALIFORNIA

SCS ENGINEERS

Wichita, KS	August 2025

All Measurements are from surface with assumed ground elevation of 0'.



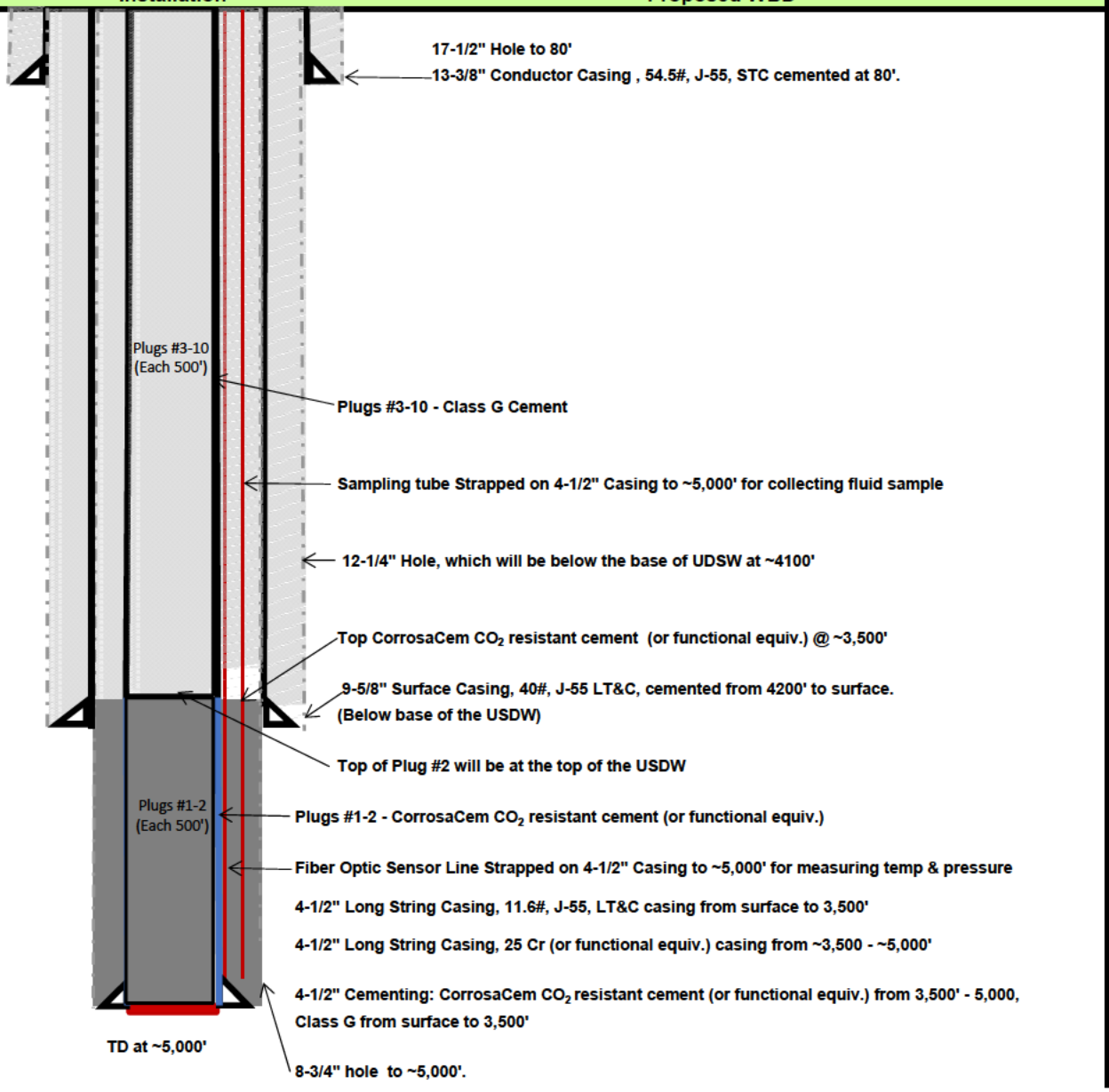
Prepared By: Irani Engineering	Date: 2-17- 2025
Updated By: SCS Engineers	Date: 7-21-2025

FIGURE 9-5
CONCEPTUAL WELL PLUGGING AND ABANDONMENT DIAGRAM
MOKELUMNE RIVER FORMATION MONITORING WELL - PAD #3
PELICAN RENEWABLES, INC.
SAN JOAQUIN COUNTY, CALIFORNIA

SCS ENGINEERS

Wichita, KS | August 2025

All Measurements are from surface with assumed ground elevation of 0'.



Prepared By: Irani Engineering	Date: 2-13- 2025
Uppdated By: SCS Engineers	Date: 7-23- 2025

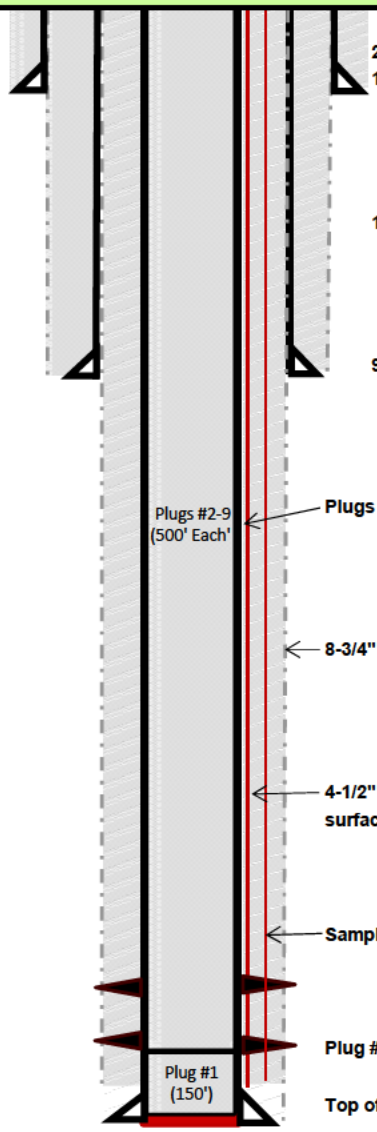
FIGURE 9-6

CONCEPTUAL WELL PLUGGING AND ABANDONMENT DIAGRAM
DOMENGINE GROUNDWATER MONITORING WELLS
GMW-1D, GMW-2D, GMW-3D (ALL PADS)
PELICAN RENEWABLES, INC.
SAN JOAQUIN COUNTY, CALIFORNIA

SCS ENGINEERS

Wichita, KS | August 2025

All Measurements are from surface with assumed ground elevation of 0'.



Installation	Proposed P&A WBD	OD	ID
	20" Hole to 80' 16" Conductor Casing cemented at 80'.	16"	
	12-1/4" Hole to 400',		
	9-5/8" Surface Casing, 36#, J-55, ST&C at 400'. Cement to surface.	9.625"	8.921"
	Plugs #2-9 - Class G Cement		
	8-3/4" Hole to 4000' which will be above the base of UDSW at ~4,100'		
	4-1/2" Long String Casing, 11.6#, J-55, LT&C at 4,150'. Casing will be cemented to surface with Class G cement		
	Sampling tube Strapped on 4-1/2" Casing to ~4,000' for collecting fluid samples		
	Plug #1 - Class G Cement		
	Top of Plug #1 will be at the top of the USDW (4,000')	4.5"	4"

TD at ~4,150' (within the Nortonville)

Prepared By: Irani Engineering	Date: 2/12/2025
Updated By: SCS Engineers	Date: 7/21/2025

FIGURE 9-7
CONCEPTUAL WELL PLUGGING AND ABANDONMENT DIAGRAM
MARKLEY GROUNDWATER MONITORING WELLS
GMW-1M, GMW-2M, GMW-3M (ALL PADS)
PELICAN RENEWABLES, INC.
SAN JOAQUIN COUNTY, CALIFORNIA

SCS ENGINEERS

Wichita, KS | August 2025