

Surface Measurements (w/ alarms on each):
Injection Pressure, Injection Rate, Annular Pressure, Annular Volume

Surface Equipment:
Wellhead Surface Safety Valve (SSV) for automatic shut-off
Comms to Central Control Facility (24-hr monitoring)

MD
(TVD)

500

1,000

1,500

2,000

2,500

3,000
(2,991)

3,500
(3,478)

4,000
(3,965)

4,500
(4,453)

5,000
(4,940)

5,500
(5,428)

Casing	Depth Interval	Open Hole Diameter	Outer Diameter	Inner Diameter	Weight	Grade	Design Coupling	Thermal Conductivity @ 77 °F	Burst Strength	Collapse Strength	Tensile Strength
	(feet)	(Inches)	(inches)	(inches)	(lb/ft)	(API)	(short or long threaded)	(BTU/ft hr, °F)	(psi)	(psi)	(lbf)
Conductor	14' - 54'	24	20	19.124	94	-	-	2.62	-	-	-
Surface	14' - 2200'	12.25	9.625	8.755	43.5	N-80	Long	2.62	6330	3,810	1,065,350
Long-String	14' - 3000'	8.5	7	6.276	26	L-80	Long	2.62	7240	5,410	603,930
	3000' - 5400'					L-80 CRA					

Tubing	Depth Interval	Outer Diameter	Inner Diameter	Weight	Grade	Design Coupling	Burst Strength	Collapse Strength	Tensile Strength
	(feet)	(inches)	(inches)	(lb/ft)	(API)	(short or long threaded)	(psi)	(psi)	(lb)
3-1/2"	3938'	3.5"	2.992"	9.3	L-80 CRA	Premium	10160	10,530	207,220

Packer Type and Material	Packer Setting Depth	Length	Nominal Casing Weight	Outer Diameter	Inner diameter
	(feet)	(inches)	(lb/ft)	(inches)	(inches)
Permanent Sealbore Packer, CRA	3908'	30.3	26 - 32	5.875"	4.00"

Tensile Rating	Burst Rating	Collapse Rating	Max Casing Inner Diameter	Min Casing Inner Diameter
(lbs)	(psi)	(psi)	(inches)	(inches)
200,000	7,500	7,500	6.276	6.095

USDW @ 2174'

Temperature (DTS)
@ 2150' - 2170'

Temperature (DTS)
@ 2536' - 2556'

Monitoring Interval

Temperature (DTS)
@ 3422' - 3442'

Monitoring Interval

Confining Zone

Packer @ 3908'

Injection Zone

Perforations:
4185' - 5346'

Temperature (DTS),
Injection Pressure Gauge
@ 3898'

Figure 1.  Proposed CO₂ Injection Schematic

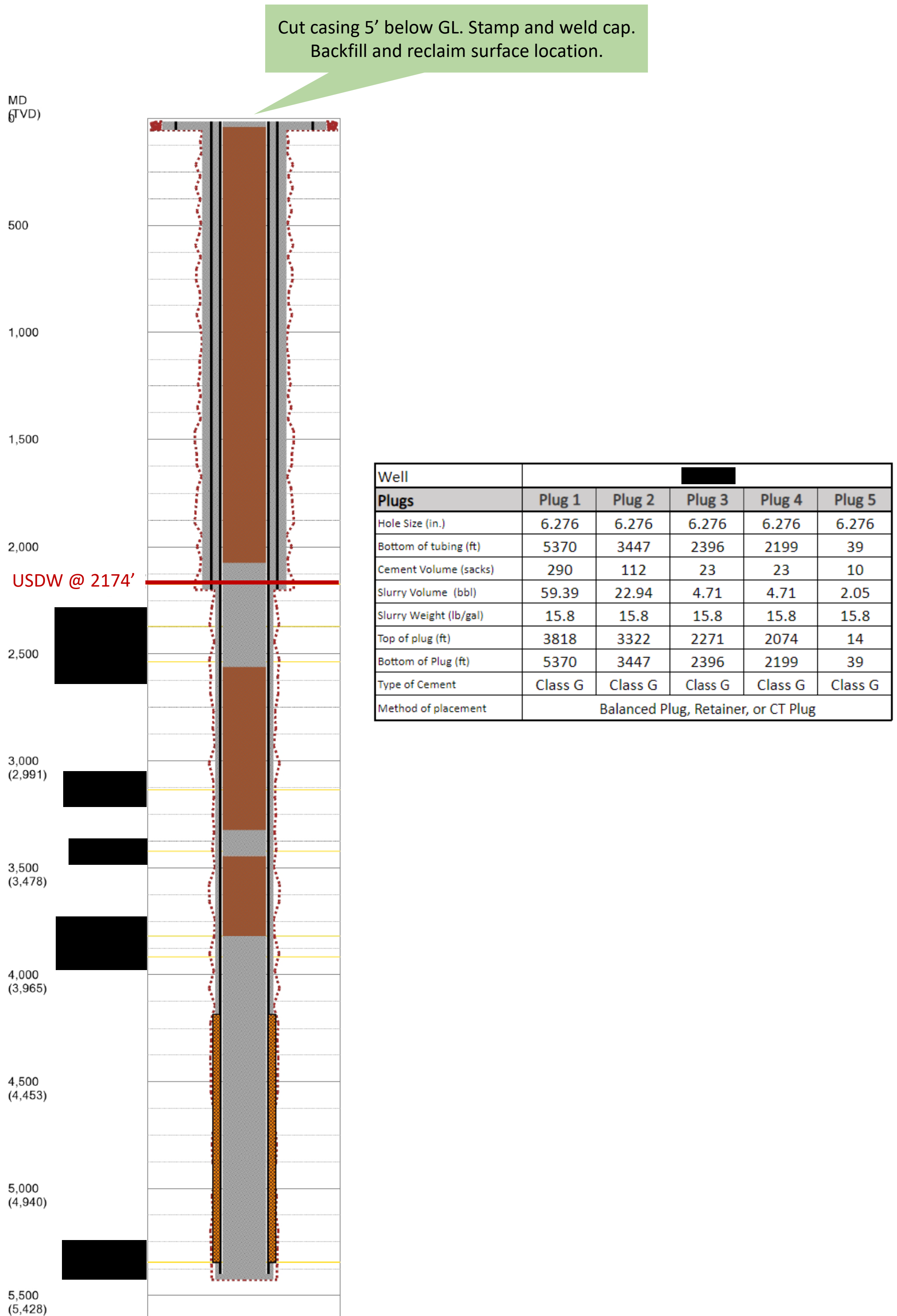
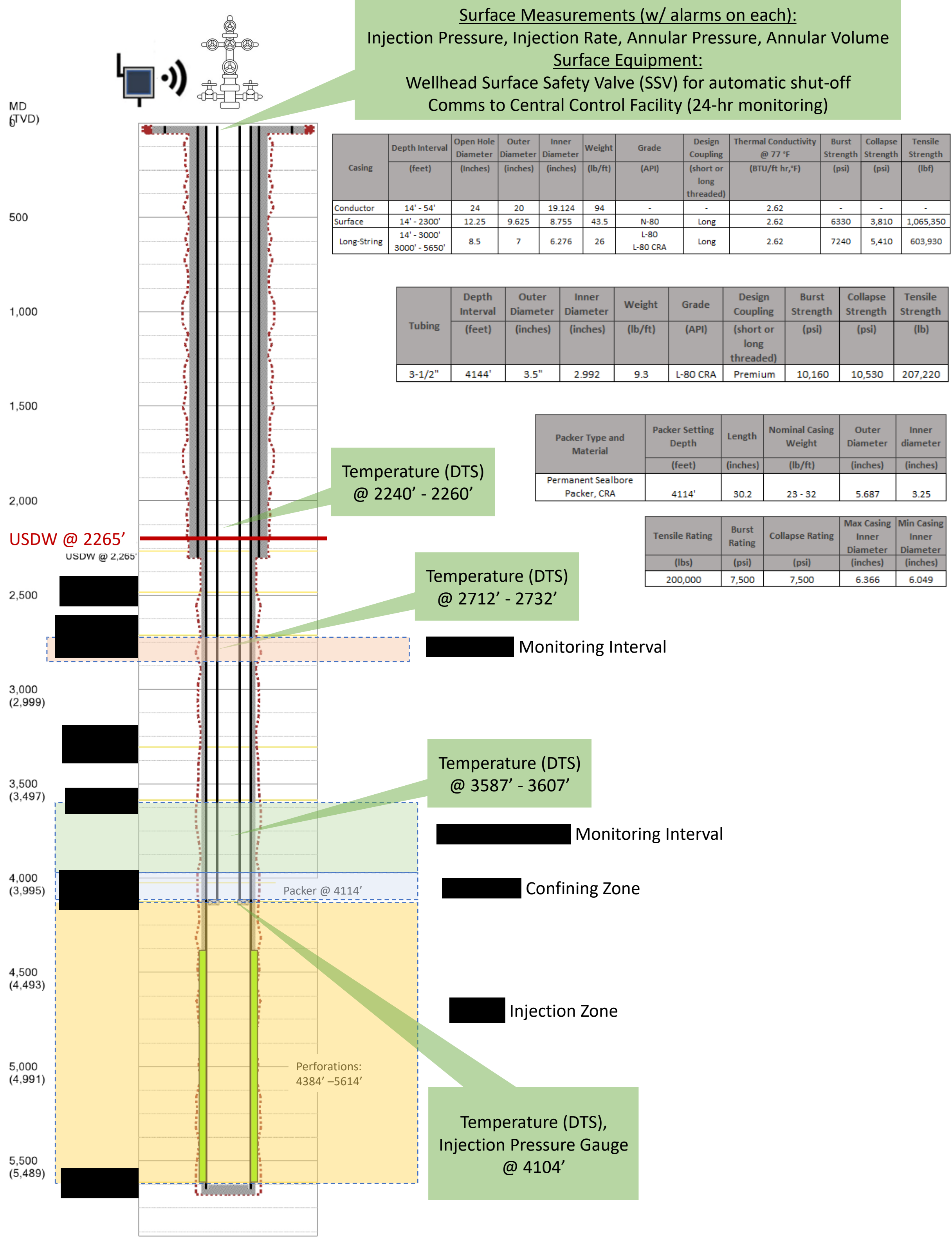
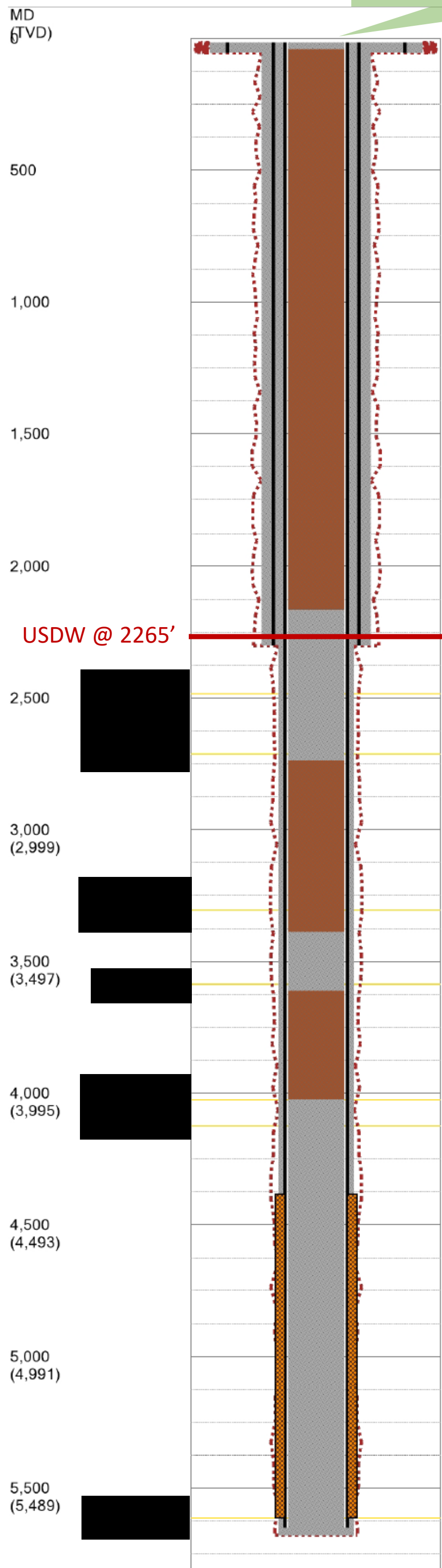


Figure 2. [REDACTED] Proposed Abandonment Schematic

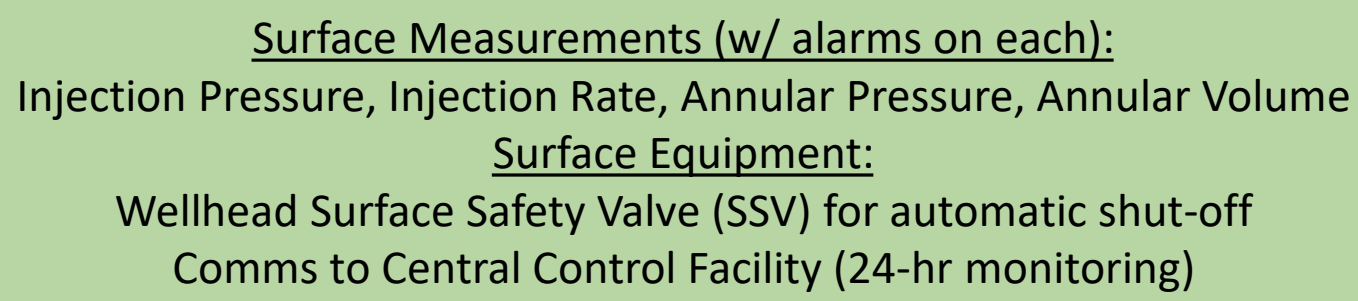


Cut casing 5' below GL. Stamp and weld cap.
Backfill and reclaim surface location.

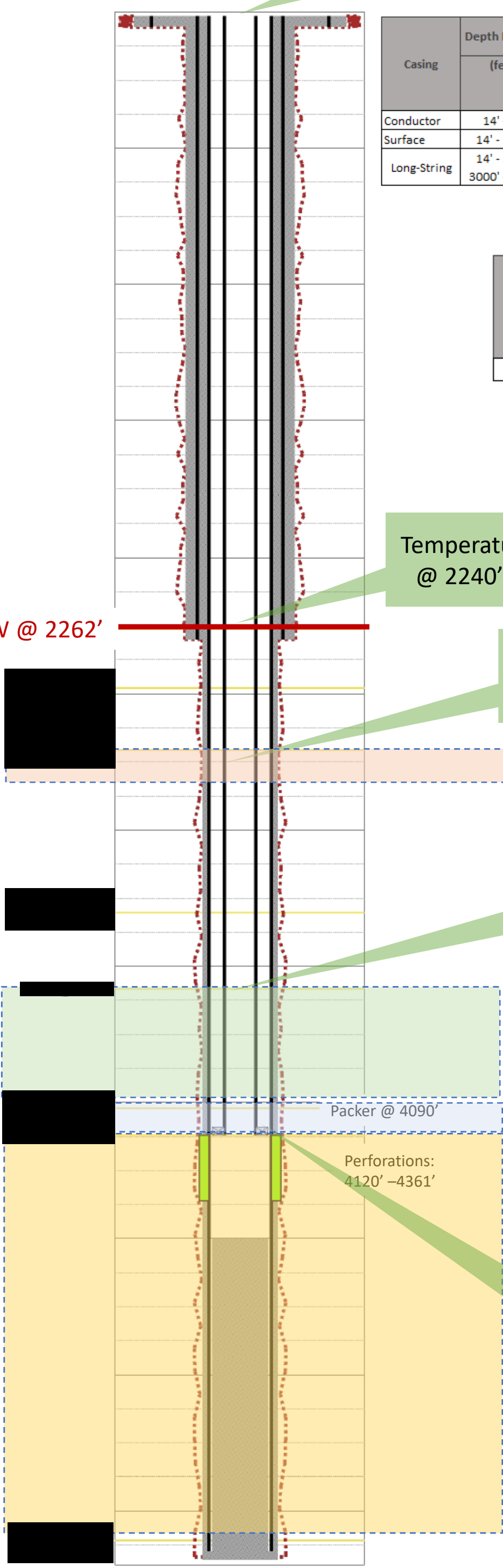


Well					
Plugs	Plug 1	Plug 2	Plug 3	Plug 4	Plug 5
Hole Size (in.)	6.276	6.276	6.276	6.276	6.276
Bottom of tubing (ft)	5638	3612	2508	2290	39
Cement Volume (sacks)	302	119	23	23	10
Slurry Volume (bbl)	61.85	24.37	4.71	4.71	2.05
Slurry Weight (lb/gal)	15.8	15.8	15.8	15.8	15.8
Top of plug (ft)	4024	3487	2383	2165	14
Bottom of Plug (ft)	5638	3612	2508	2290	39
Type of Cement	Class G	Class G	Class G	Class G	Class G
Method of placement	Balanced Plug, Retainer, or CT Plug				

Figure 4. [REDACTED], Proposed Abandonment Schematic



MD (TVD)
500
1,000
1,500
2,000
USD
2,500
3,000 (2,997)
3,500 (3,492)
4,000 (3,987)
4,500 (4,482)
5,000 (4,977)
5,500 (5,473)



Casing	Depth Interval	Open Hole Diameter	Outer Diameter	Inner Diameter	Weight	Grade	Design Coupling	Thermal Conductivity @ 77 °F	Burst Strength	Collapse Strength	Tensile Strength
	(feet)	(Inches)	(inches)	(inches)	(lb/ft)	(API)	(short or long threaded)	(BTU/ft hr,°F)	(psi)	(psi)	(lbf)
Conductor	14' - 54'	24	20	19.124	94	-	-	2.62	-	-	-
Surface	14' - 2300'	12.25	9.625	8.755	43.5	N-80	Long	2.62	6330	3,810	1,065,350
Long-String	14' - 3000' 3000' - 5650'	8.5	7	6.276	26	L-80 L-80 CRA	Long	2.62	7240	5,410	603,930

Tubing	Depth Interval	Outer Diameter	Inner Diameter	Weight	Grade	Design Coupling	Burst Strength	Collapse Strength	Tensile Strength
	(feet)	(inches)	(inches)	(lb/ft)	(API)	(short or long threaded)	(psi)	(psi)	(lb)
3-1/2"	4120'	3.5"	2.992	9.3	L-80 CRA	Premium	10,160	10,530	207,220

Packer Type and Material	Packer Setting Depth	Length	Nominal Casing Weight	Outer Diameter	Inner diameter
	(feet)	(inches)	(lb/ft)	(inches)	(inches)
Permanent Sealbore Packer, CRA	4090'	30.2	23 - 32	5.687	3.25


Tensile Rating	Burst Rating	Collapse Rating	Max Casing Inner Diameter	Min Casing Inner Diameter
(lbs)	(psi)	(psi)	(inches)	(inches)
200,000	7,500	7,500	6.366	6.049

Temperature (DTS)
@ 2240' - 2260'

Temperature (DTS)
@ 2707' - 2727'

Temperature (DTS
@ 3583' - 3603'

Monitoring Interval

 Confining Zone

 Injection Zone

Temperature (DTS),
Injection Pressure Gauge
@ 4080'

Figure 5. [REDACTED] Proposed CO₂ Injection Schematic



Figure 6. [REDACTED] Proposed Abandonment Schematic

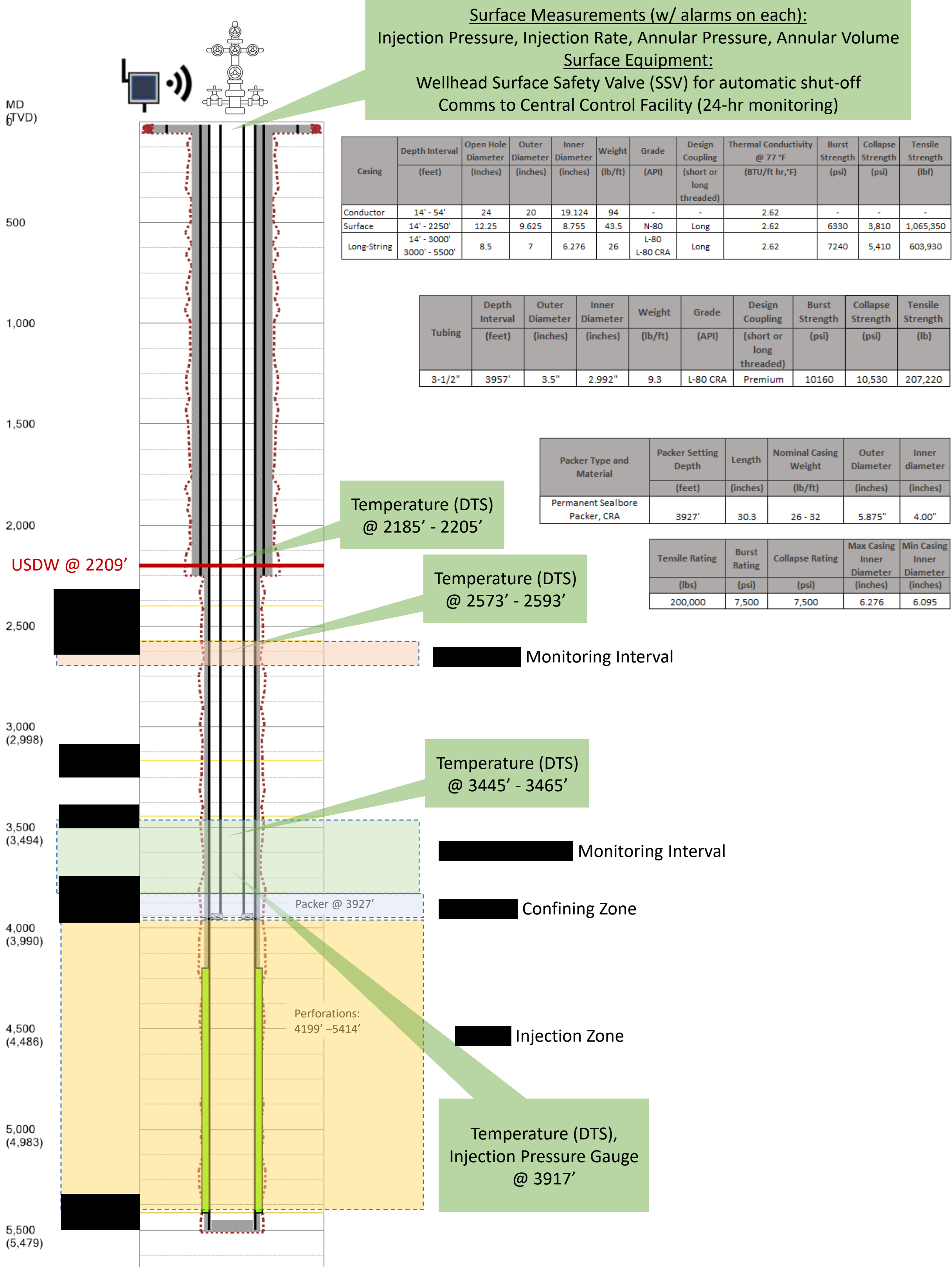


Figure 7. Proposed CO₂ Injection Schematic

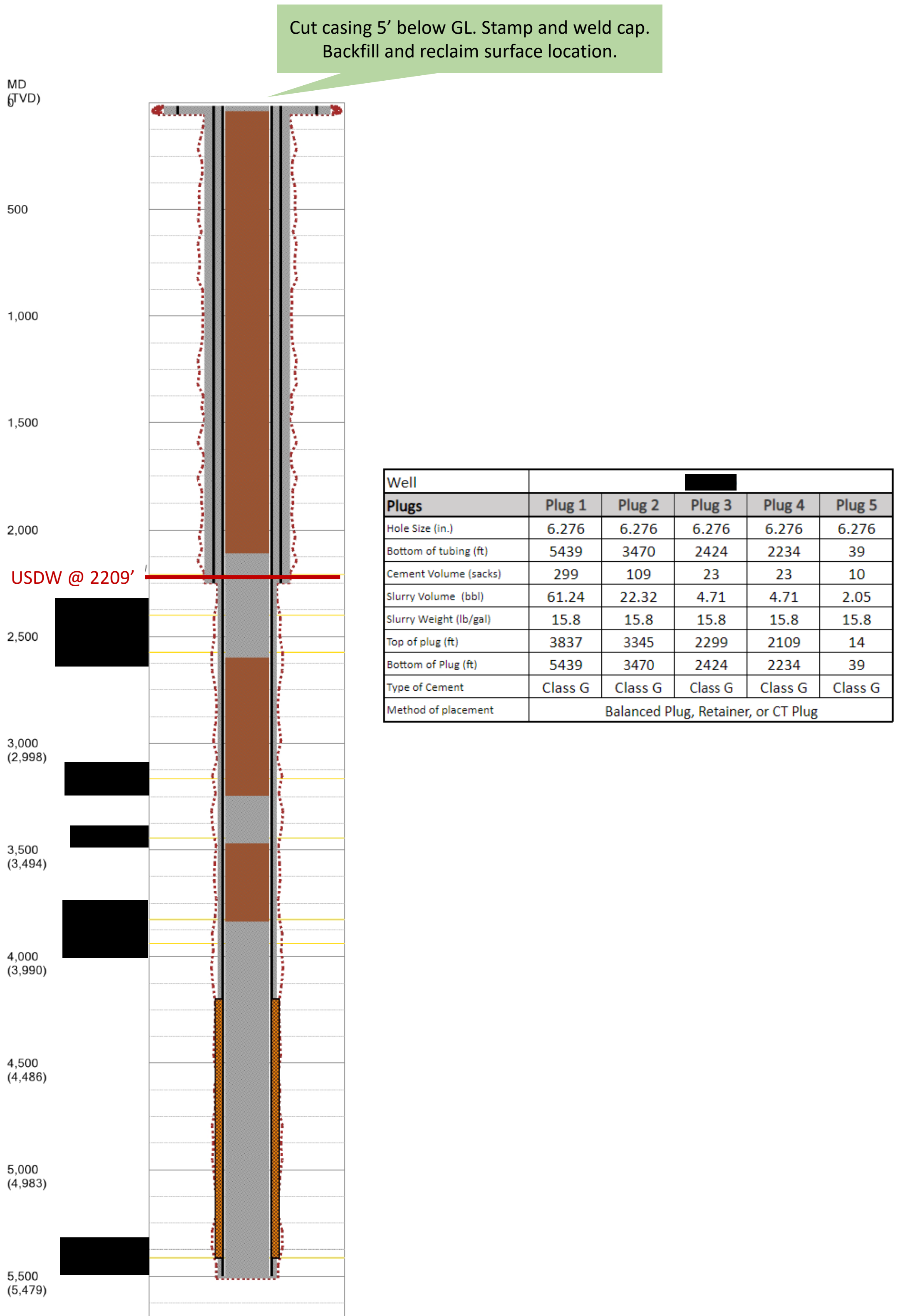
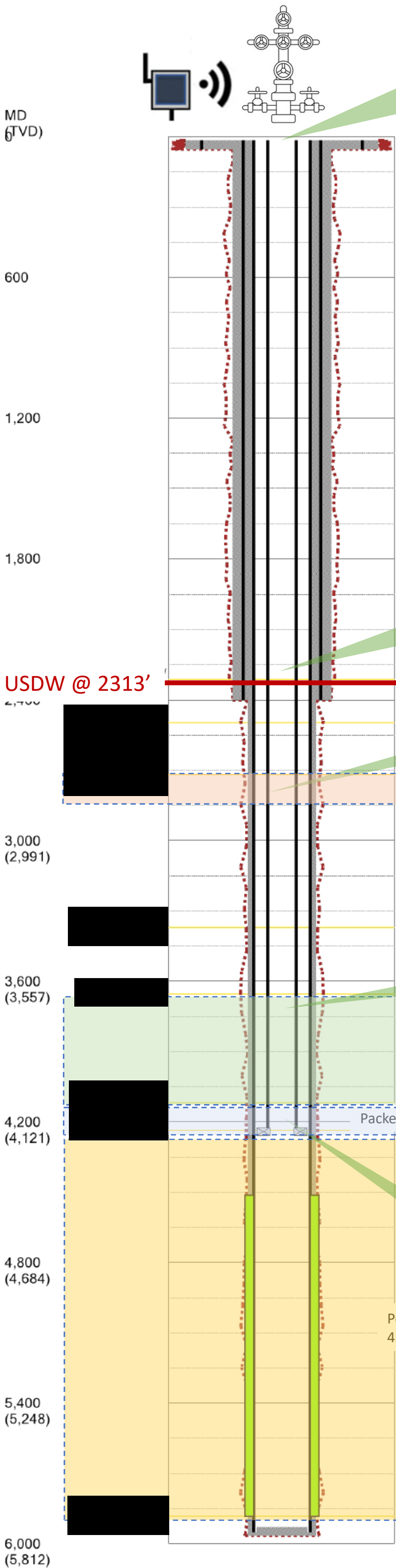


Figure 8. [REDACTED] Proposed Abandonment Schematic

Surface Measurements (w/ alarms on each):
Injection Pressure, Injection Rate, Annular Pressure, Annular Volume
Surface Equipment:
Wellhead Surface Safety Valve (SSV) for automatic shut-off
Comms to Central Control Facility (24-hr monitoring)



Casing	Depth Interval	Open Hole Diameter	Outer Diameter	Inner Diameter	Weight	Grade	Design Coupling	Thermal Conductivity @ 77 °F	Burst Strength	Collapse Strength	Tensile Strength
	(feet)	(Inches)	(inches)	(inches)	(lb/ft)	(API)	(short or long threaded)	(BTU/ft hr, °F)	(psi)	(psi)	(lbf)
Conductor	14' - 54'	24	20	19.124	94	-	-	2.62	-	-	-
Surface	14' - 2400'	12.25	9.625	8.755	43.5	N-80	Long	2.62	6330	3,810	1,065,350
Long-String	14' - 3000' 3000' - 5950'	8.5	7	6.276	26	L-80 L-80 CRA	Long	2.62	7240	5,410	603,930

Tubing	Depth Interval	Outer Diameter	Inner Diameter	Weight	Grade	Design Coupling	Burst Strength	Collapse Strength	Tensile Strength
	(feet)	(inches)	(inches)	(lb/ft)	(API)	(short or long threaded)	(psi)	(psi)	(lb)
3-1/2"	4255'	3.5"	2.992	9.3	L-80 CRA	Premium	10,160	10,530	207,220

Packer Type and Material	Packer Setting Depth	Length	Nominal Casing Weight	Outer Diameter	Inner diameter
	(feet)	(inches)	(lb/ft)	(inches)	(inches)
Permanent Sealbore Packer, CRA	4225'	30.2	23 - 32	5.687	3.25

Tensile Rating	Burst Rating	Collapse Rating	Max Casing Inner Diameter	Min Casing Inner Diameter
(lbs)	(psi)	(psi)	(inches)	(inches)
200,000	7,500	7,500	6.366	6.049

Figure 9. ■■■■ Proposed CO₂ Injection Schematic

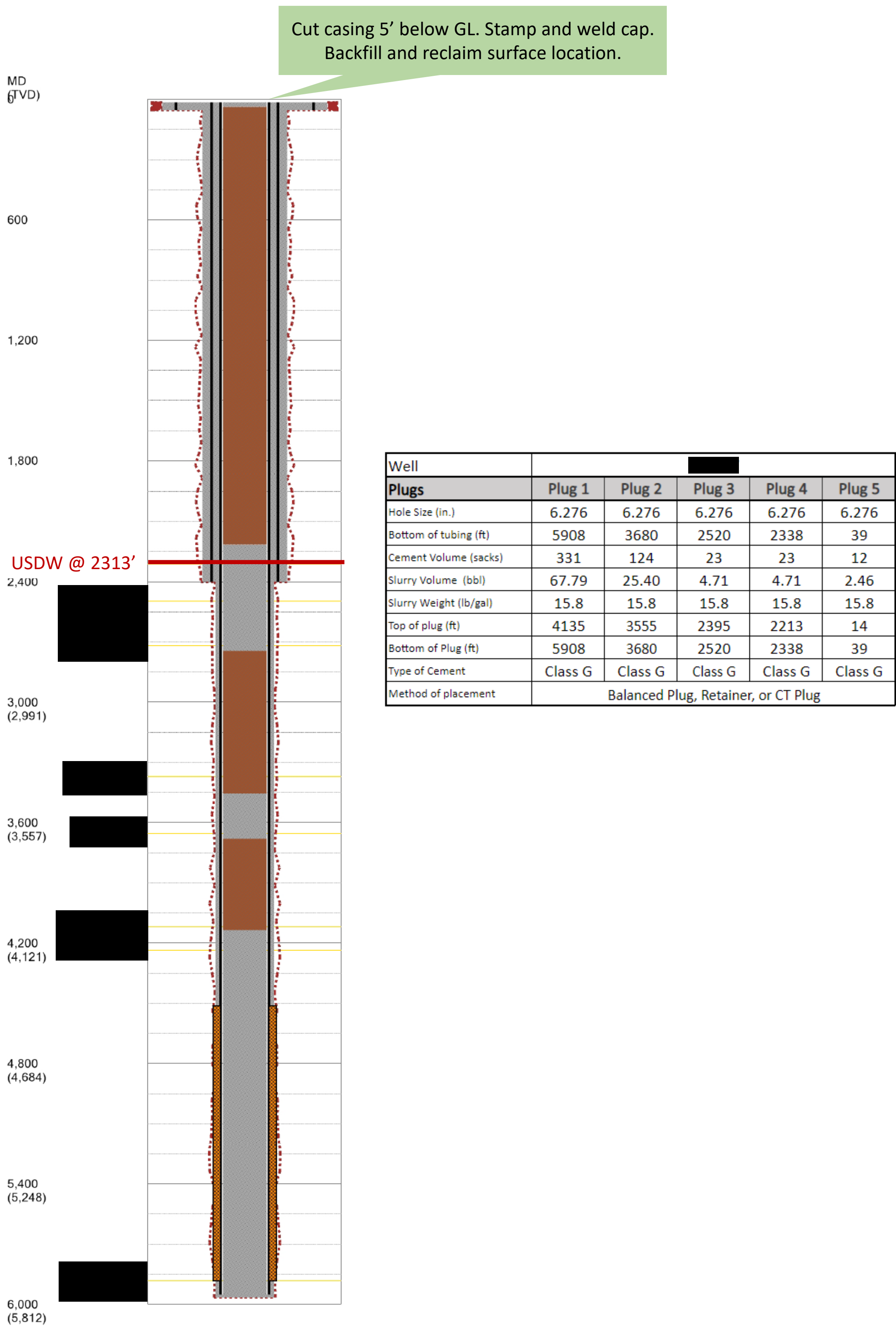
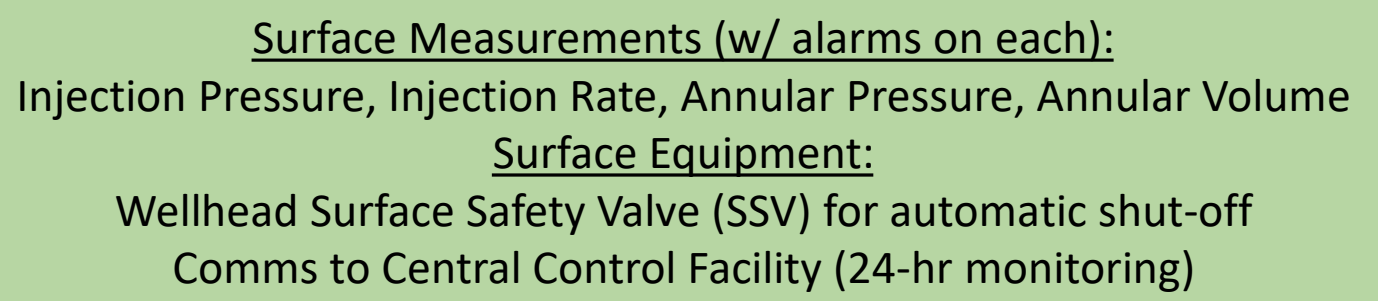


Figure 10. ██████████ Proposed Abandonment Schematic



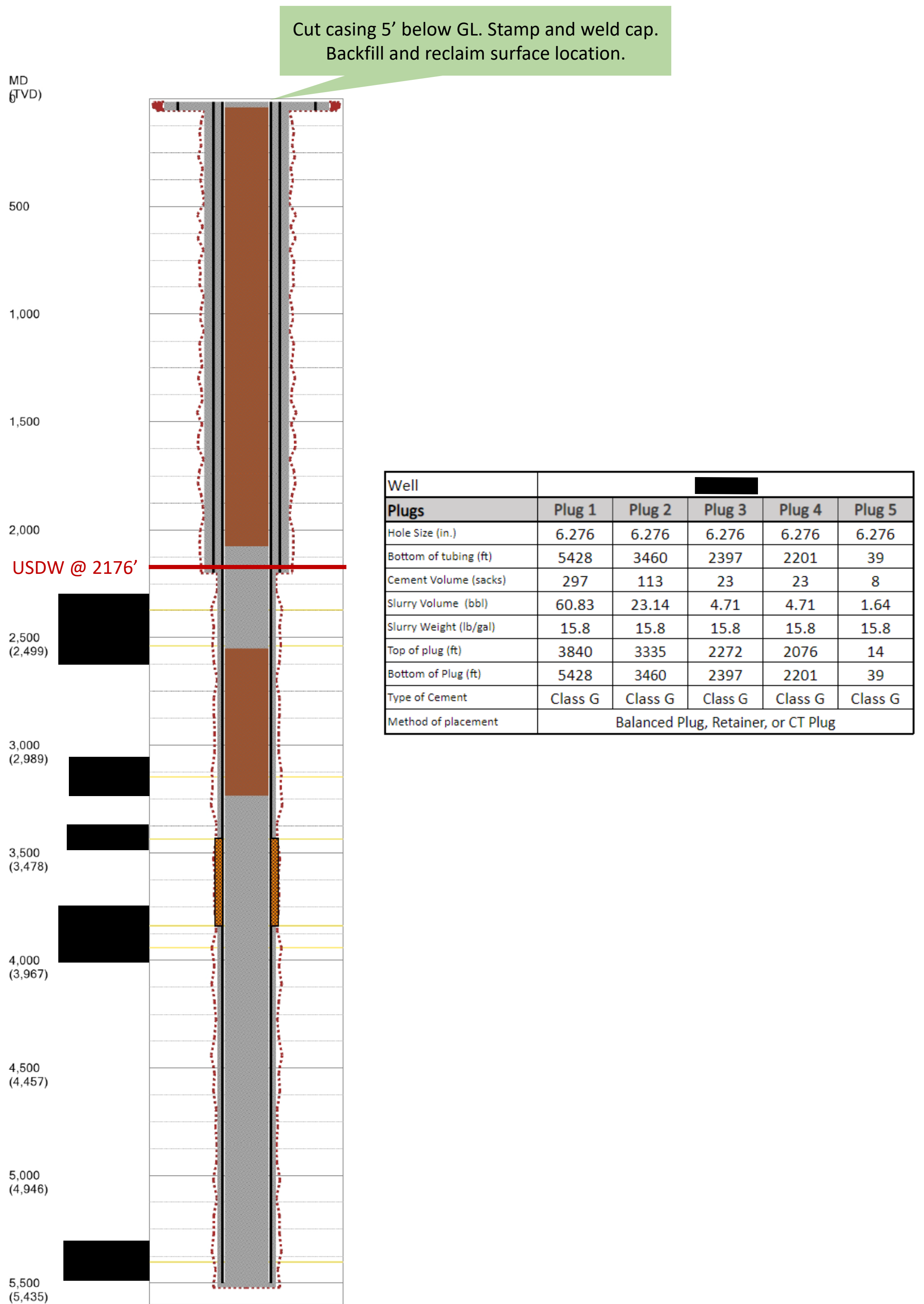


Figure 12. [REDACTED] Proposed Abandonment Schematic

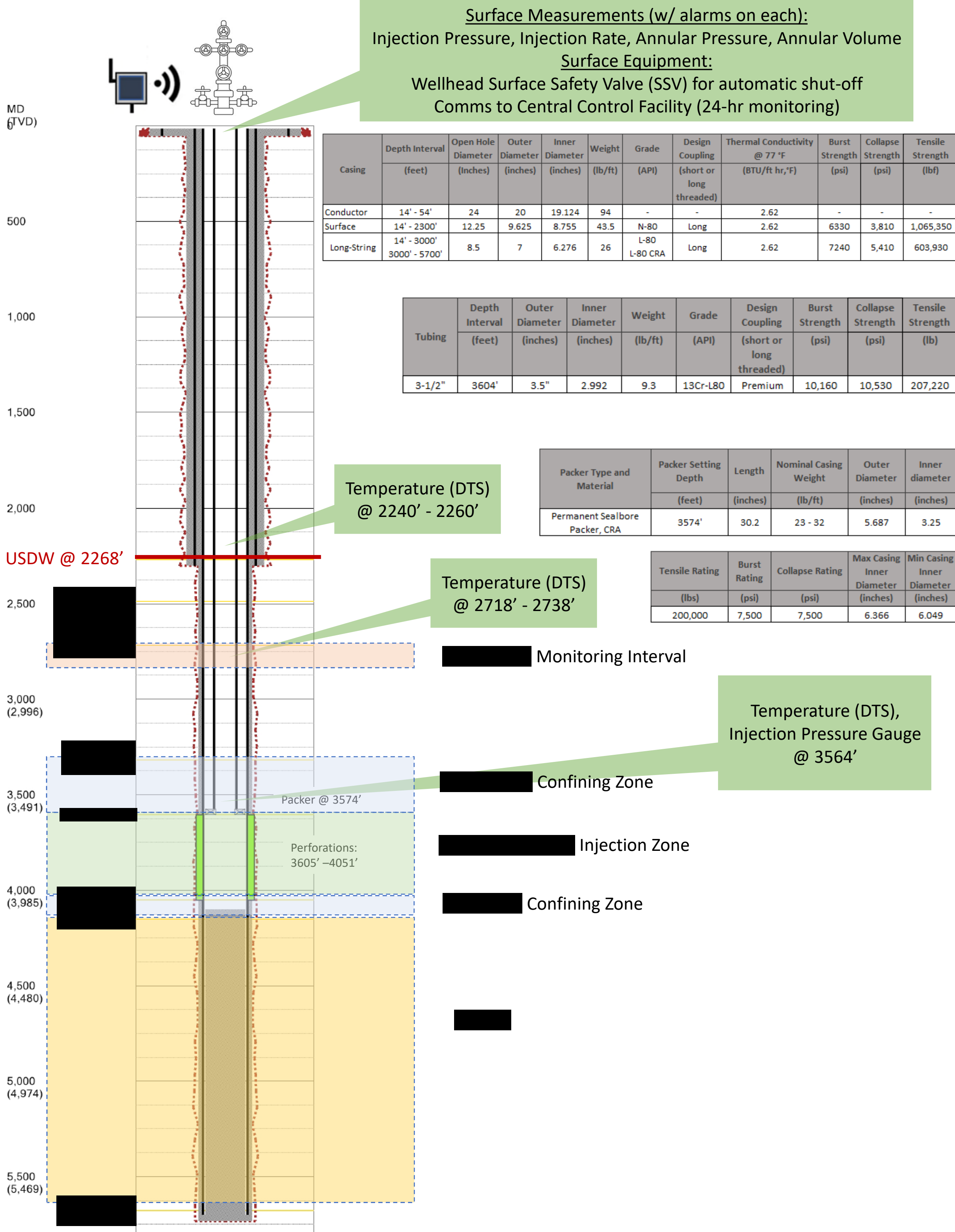


Figure 13.   Proposed CO₂ Injection Schematic



Figure 14. [REDACTED] Proposed Abandonment Schematic

Surface Measurements (w/ alarms on each):
Injection Pressure, Injection Rate, Annular Pressure, Annular Volume

Surface Equipment:
Wellhead Surface Safety Valve (SSV) for automatic shut-off
Comms to Central Control Facility (24-hr monitoring)

MD
(TVD)

500

1,000

1,500

2,000

USDW @ 2306'

2,500

3,000
(2,995)

3,500
(3,487)

4,000
(3,979)

4,500
(4,470)

5,000
(4,962)

5,500
(5,454)

Casing	Depth Interval	Open Hole Diameter	Outer Diameter	Inner Diameter	Weight	Grade	Design Coupling	Thermal Conductivity @ 77 °F	Burst Strength	Collapse Strength	Tensile Strength
	(feet)	(Inches)	(inches)	(inches)	(lb/ft)	(API)	(short or long threaded)	(BTU/ft hr, °F)	(psi)	(psi)	(lbf)
Conductor	14' - 54'	24	20	19.124	94	-	-	2.62	-	-	-
Surface	14' - 2350'	12.25	9.625	8.755	43.5	N-80	Long	2.62	6330	3,810	1,065,350
Long-String	14' - 3000' 3000' - 5800'	8.5	7	6.276	26	L-80 L-80 CRA	Long	2.62	7240	5,410	603,930

Tubing	Depth Interval	Outer Diameter	Inner Diameter	Weight	Grade	Design Coupling	Burst Strength	Collapse Strength	Tensile Strength
	(feet)	(inches)	(inches)	(lb/ft)	(API)	(short or long threaded)	(psi)	(psi)	(lb)
3-1/2"	3612'	3.5"	2.992	9.3	13Cr-L80	Premium	10,160	10,530	207,220

Packer Type and Material	Packer Setting Depth	Length	Nominal Casing Weight	Outer Diameter	Inner diameter
	(feet)	(inches)	(lb/ft)	(inches)	(inches)
Permanent Sealbore Packer, CRA	3582'	30.2	23 - 32	5.687	3.25

Tensile Rating	Burst Rating	Collapse Rating	Max Casing Inner Diameter	Min Casing Inner Diameter
(lbs)	(psi)	(psi)	(inches)	(inches)
200,000	7,500	7,500	6.366	6.049

Temperature (DTS)
@ 2280' - 2300'

Temperature (DTS)
@ 2711' - 2731'

Monitoring Interval

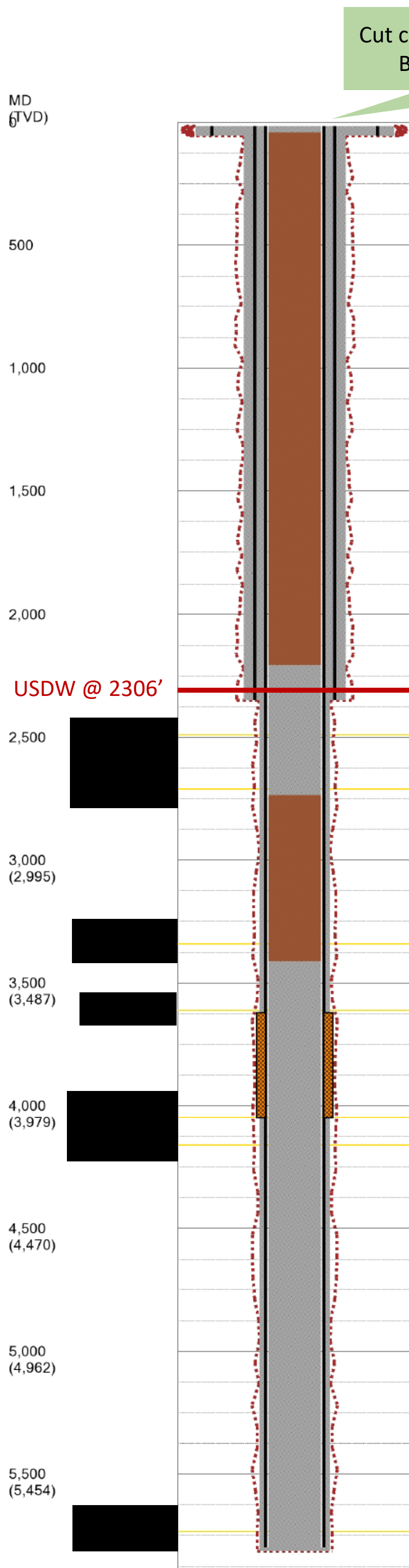
Temperature (DTS),
Injection Pressure Gauge
@ 3572'

Confining Zone

Injection Zone

Confining Zone

Figure 15. Proposed CO₂ Injection Schematic



Well					
Plugs	Plug 1	Plug 2	Plug 3	Plug 4	Plug 5
Hole Size (in.)	6.276	6.276	6.276	6.276	6.276
Bottom of tubing (ft)	5758	3637	2514	2331	39
Cement Volume (sacks)	317	119	23	23	10
Slurry Volume (bbl)	64.92	24.37	4.71	4.71	2.05
Slurry Weight (lb/gal)	15.8	15.8	15.8	15.8	15.8
Top of plug (ft)	4060	3512	2389	2206	14
Bottom of Plug (ft)	5758	3637	2514	2331	39
Type of Cement	Class G	Class G	Class G	Class G	Class G
Method of placement	Balanced Plug, Retainer, or CT Plug				

Figure 16. [REDACTED], Proposed Abandonment Schematic

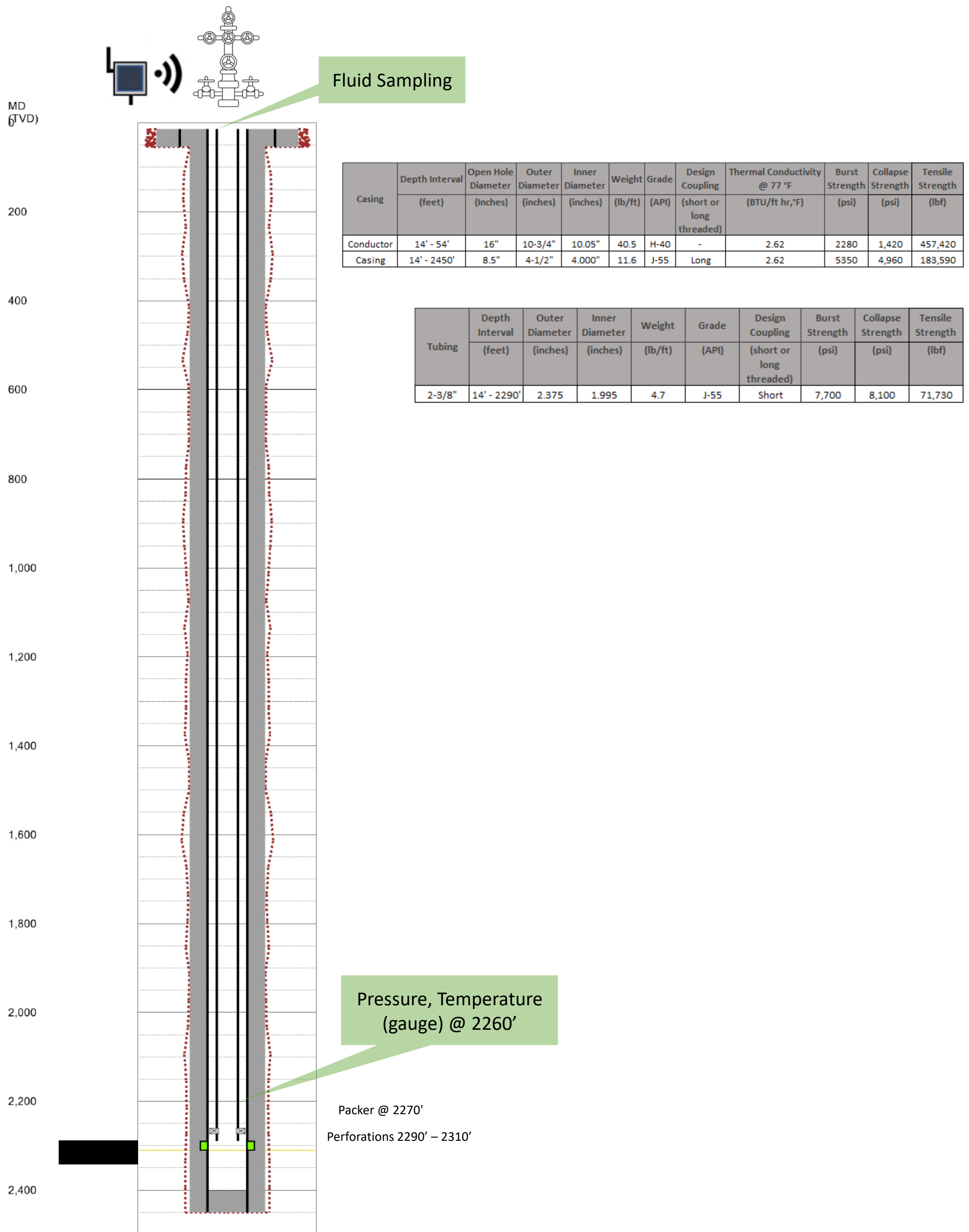
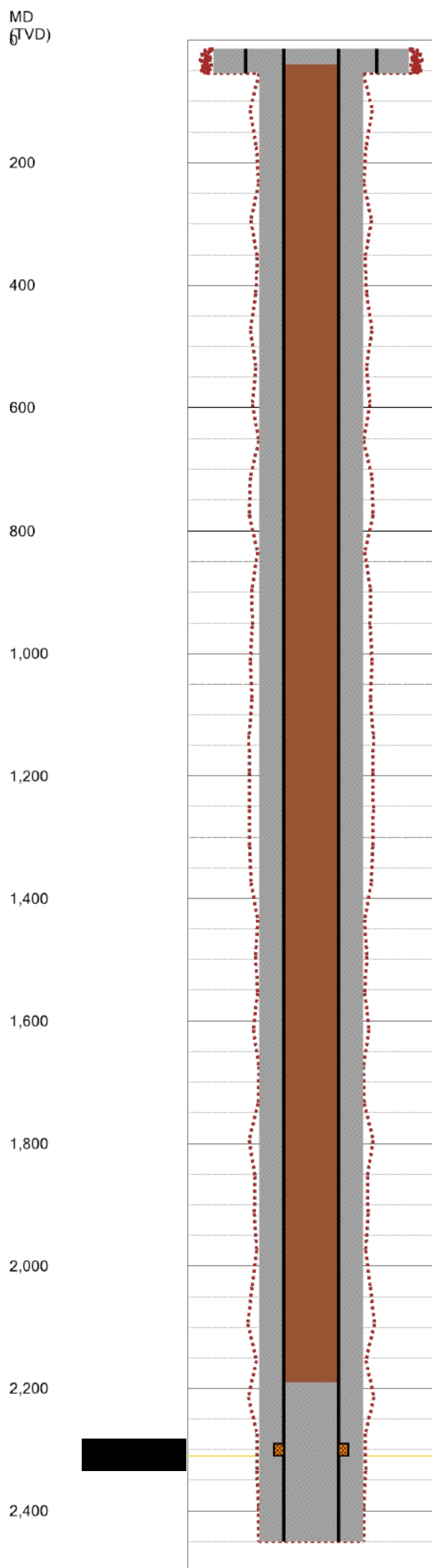


Figure 17. USDW Monitoring Well – [REDACTED] Proposed Monitoring Schematic



Well	[REDACTED]	
Plugs	Plug 1	Plug 2
Diameter of boring in which plug will be placed (in.)	4	4
Depth to bottom of tubing or drill pipe (ft)	2335	39
Sacks of Cement to be used (each plug)	9	10
Slurry Volume to be pumped (bbl)	1.84	2.05
Slurry Weight (lb/gal)	15.8	15.8
Calculated top of plug (ft)	2210	14
Bottom of Plug (ft)	2335	39
Type of Cement or other material	Portland	
Method of placement (e.g., balance method, retainer method, or two-plug method)	Balanced Plug, Retainer, or CT Plug	

Figure 18. USDW Monitoring Well – [REDACTED], Proposed Abandonment Schematic

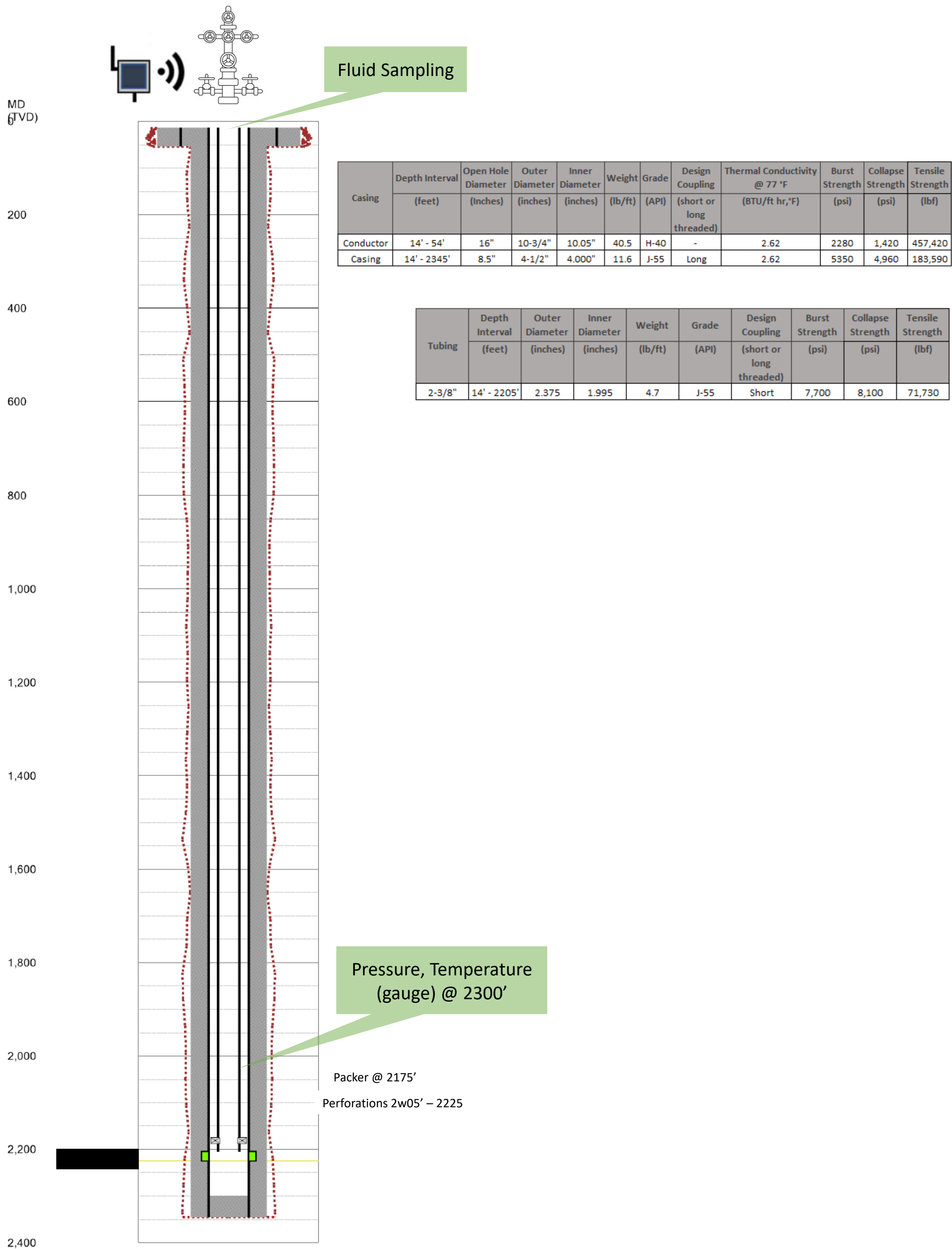
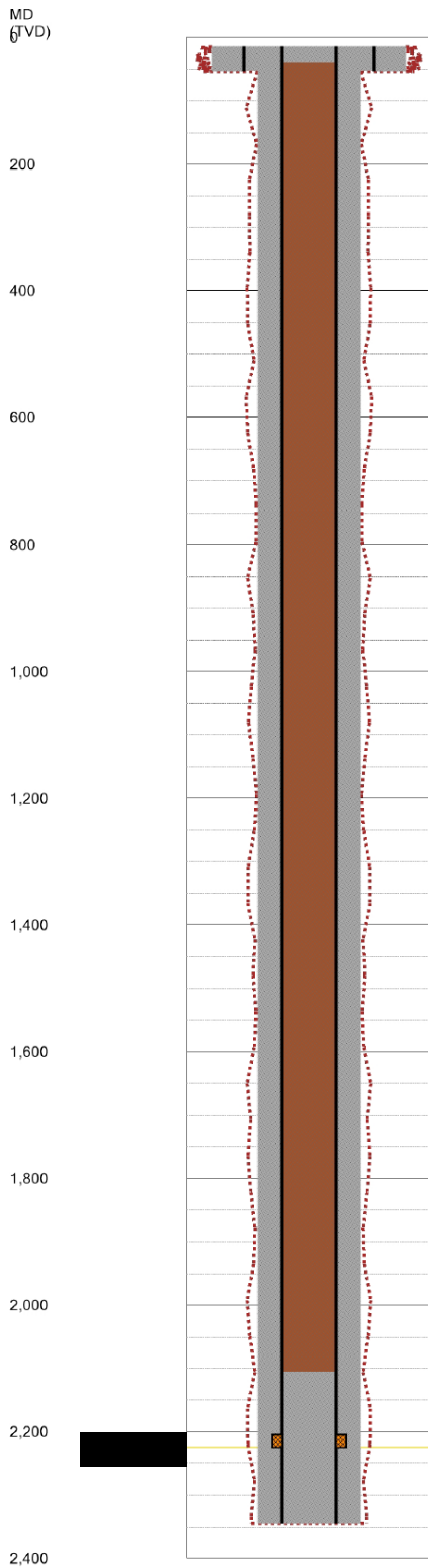


Figure 19. USDW Monitoring Well – [REDACTED], Proposed Monitoring Schematic



Well	[REDACTED]	
Plugs	Plug 1	Plug 2
Diameter of boring in which plug will be placed (in.)	4	4
Depth to bottom of tubing or drill pipe (ft)	2250	39
Sacks of Cement to be used (each plug)	9	10
Slurry Volume to be pumped (bbl)	1.84	2.05
Slurry Weight (lb/gal)	15.8	15.8
Calculated top of plug (ft)	2125	14
Bottom of Plug (ft)	2250	39
Type of Cement or other material	Portland	
Method of placement (e.g., balance method, retainer method, or two-plug method)	Balanced Plug, Retainer, or CT Plug	

Figure 20. USDW Monitoring Well – [REDACTED] Proposed Abandonment Schematic

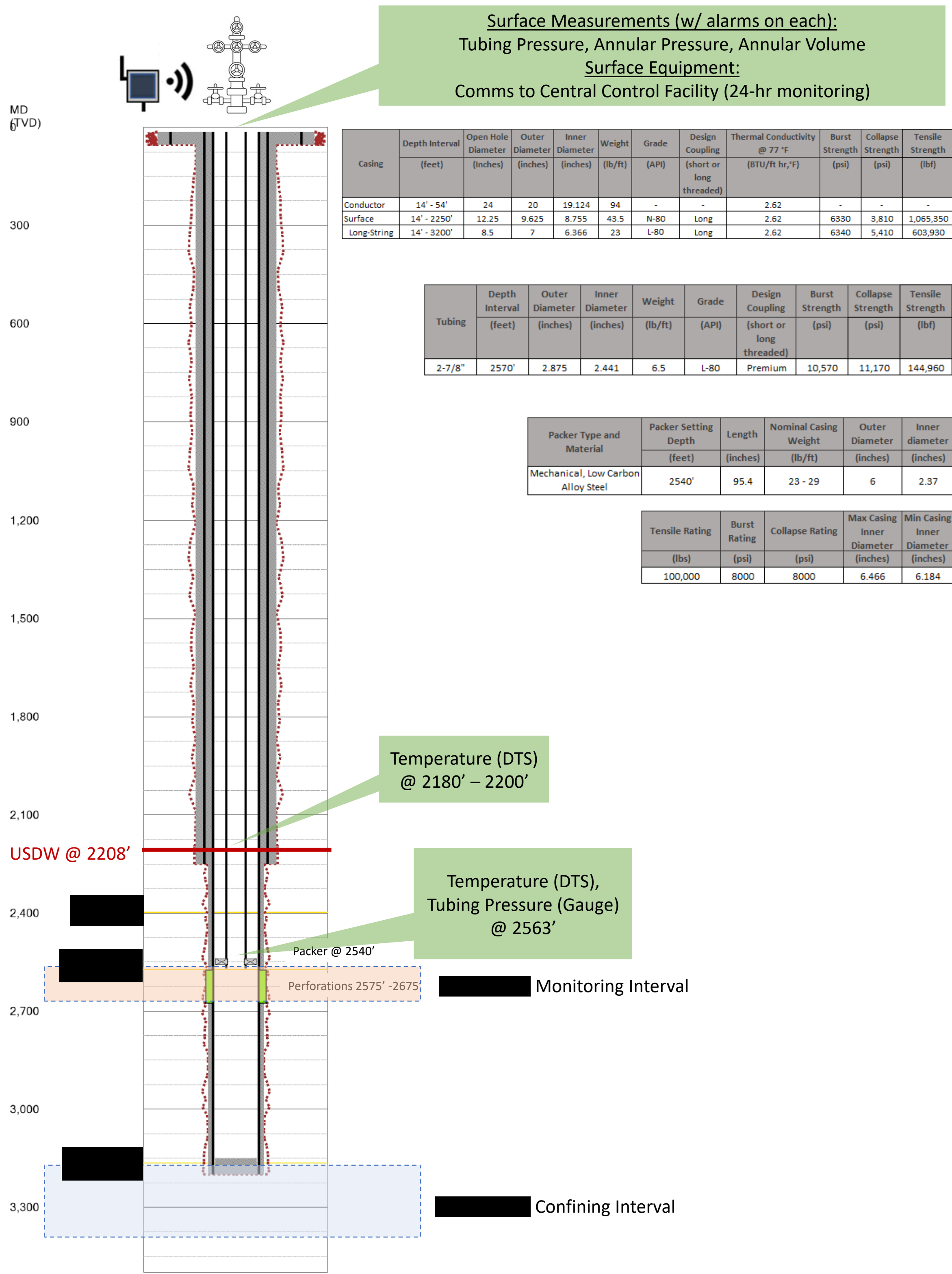


Figure 21. Monitoring Well Proposed Monitoring Schematic

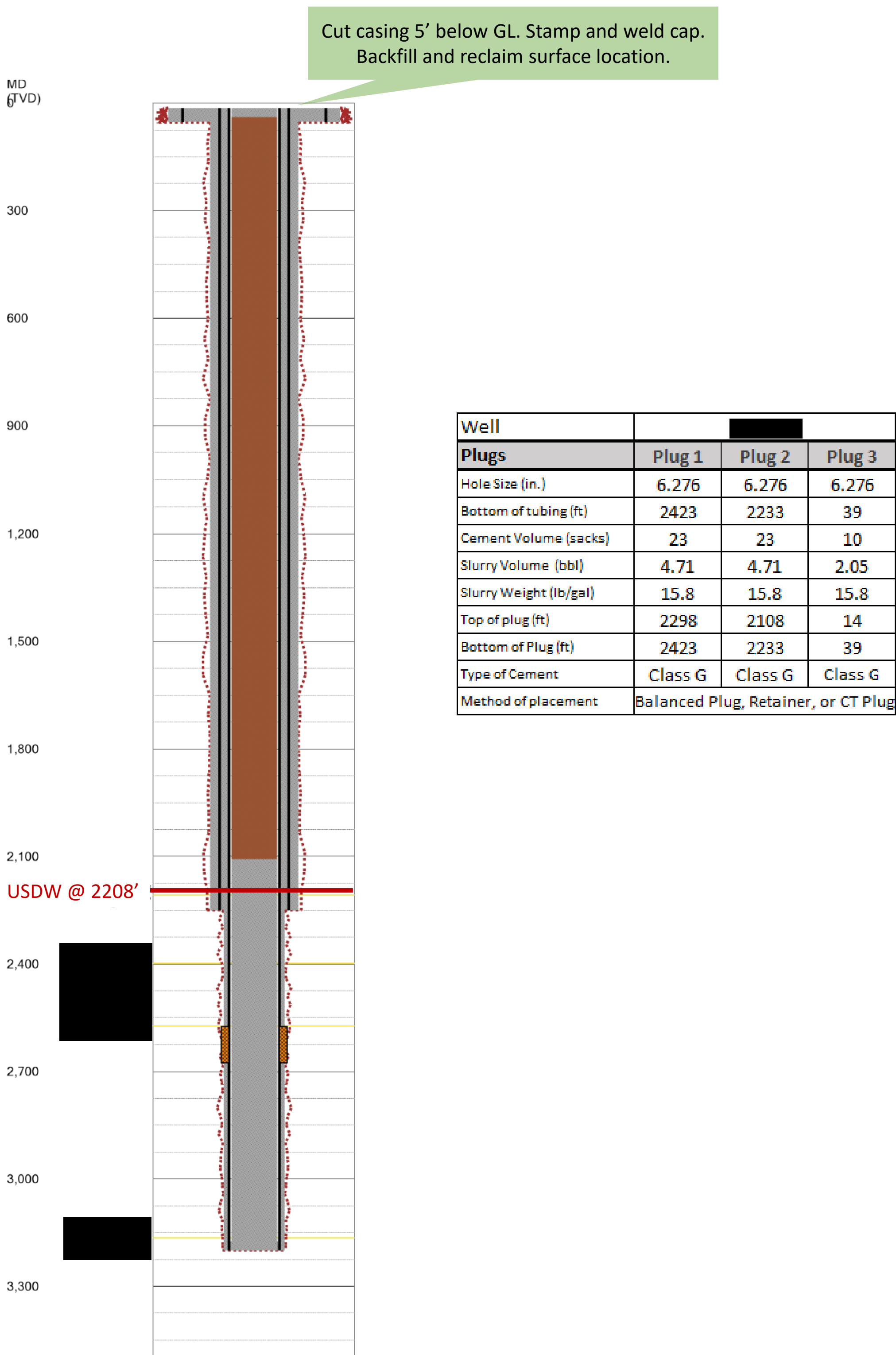


Figure 22. [REDACTED] Monitoring Well [REDACTED], Proposed Abandonment Schematic

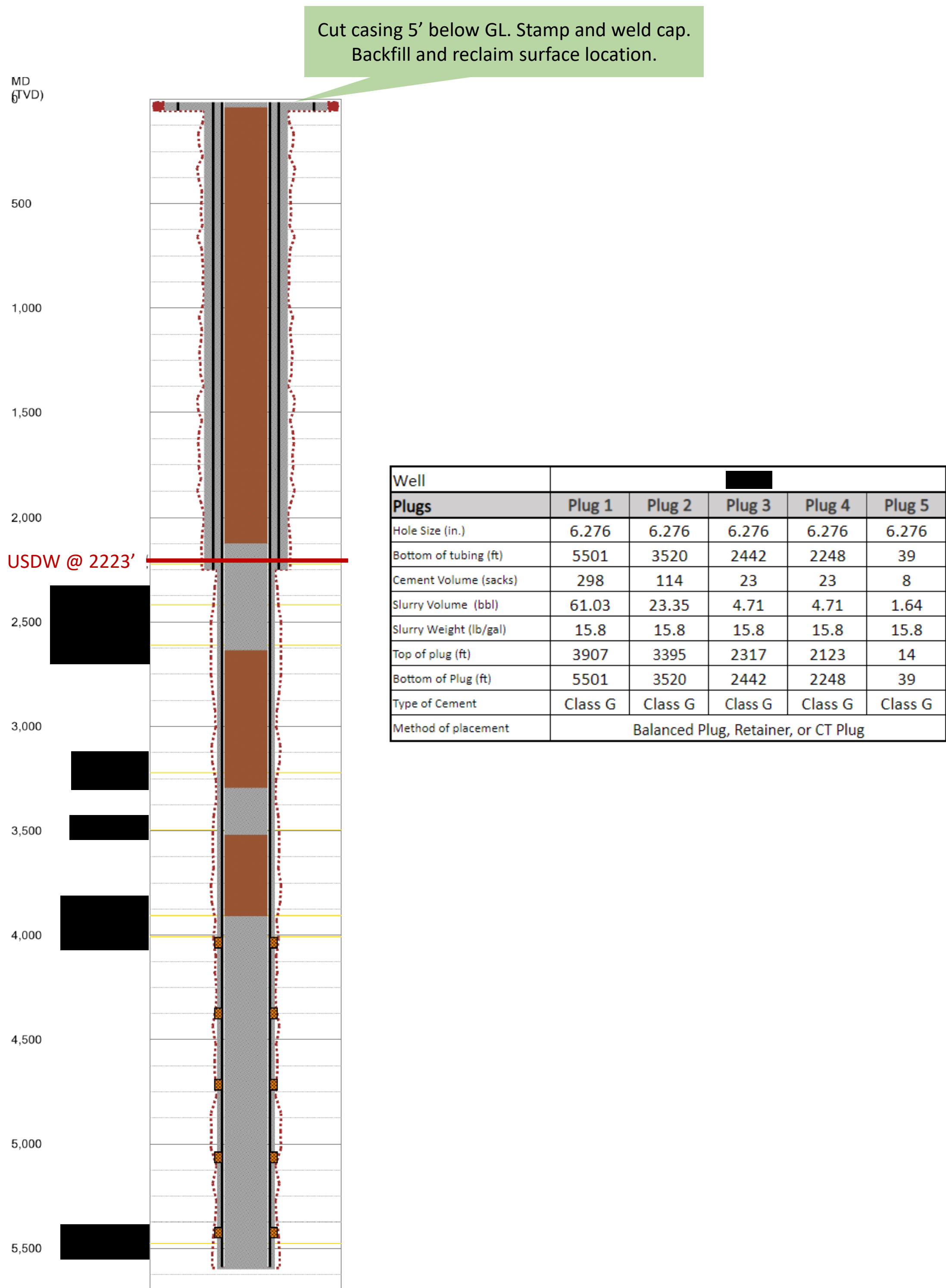


Figure 24. [REDACTED] Monitoring Well [REDACTED] Proposed Abandonment Schematic

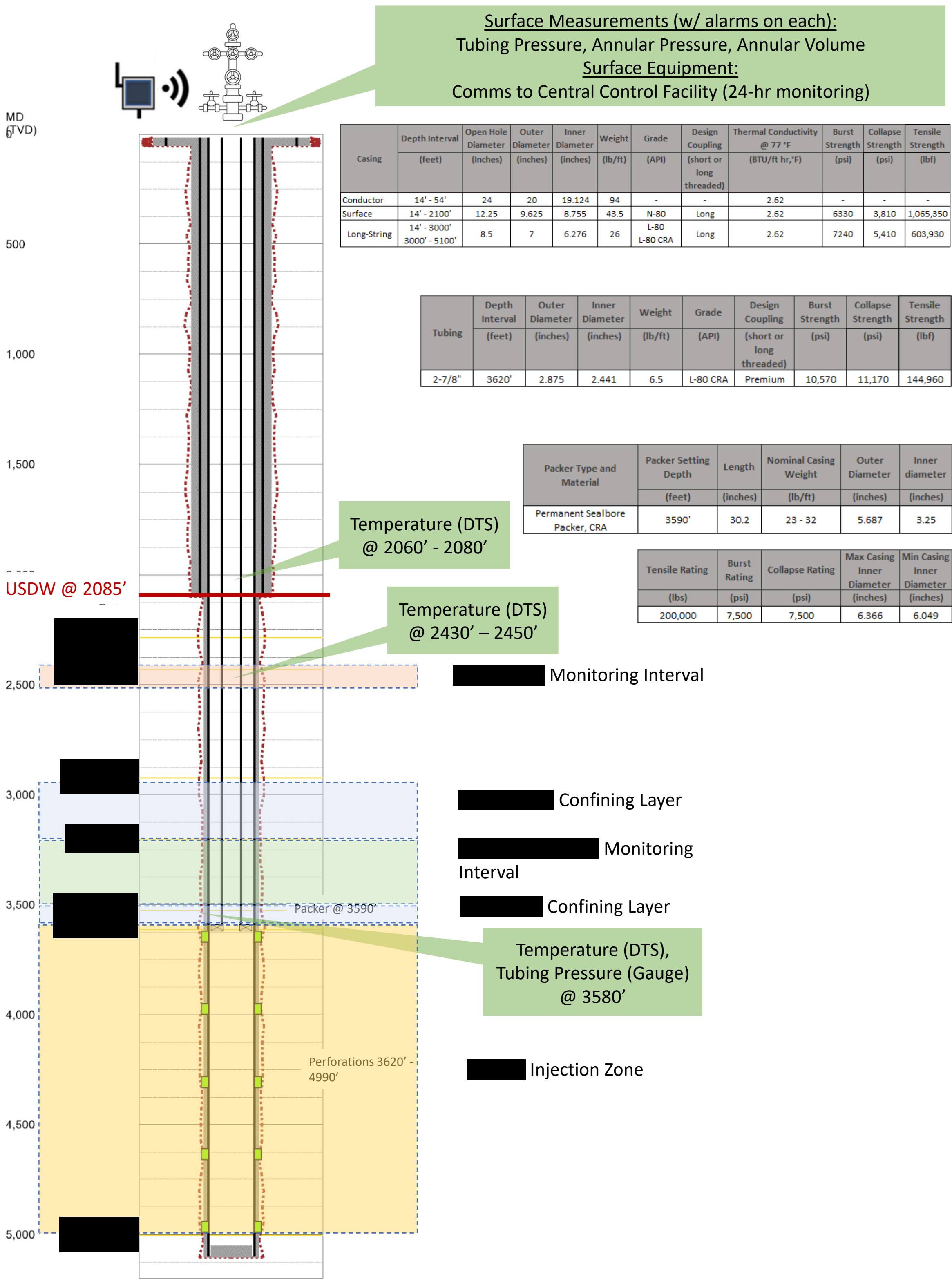


Figure 25. Monitoring Well Proposed Monitoring Schematic

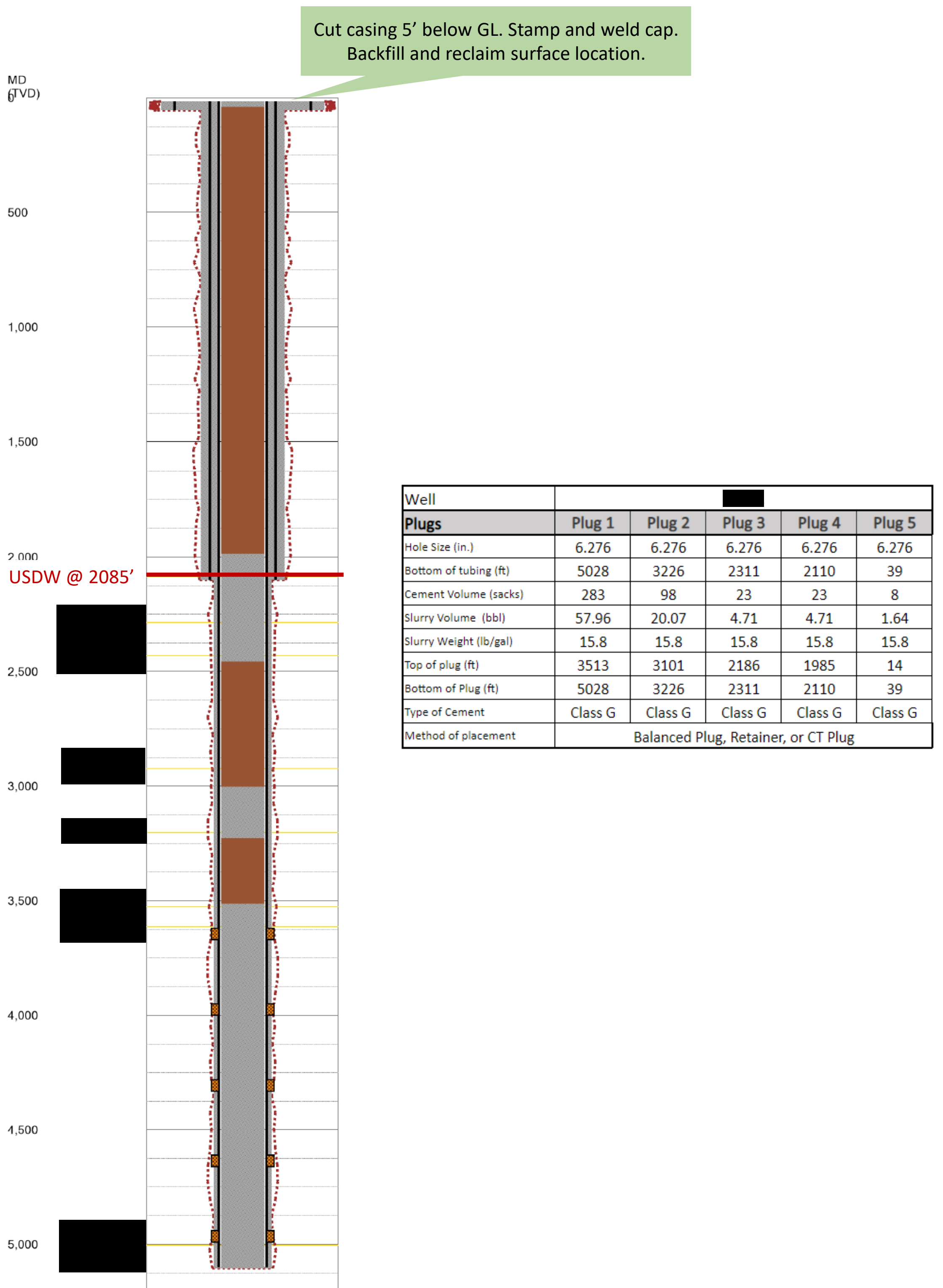
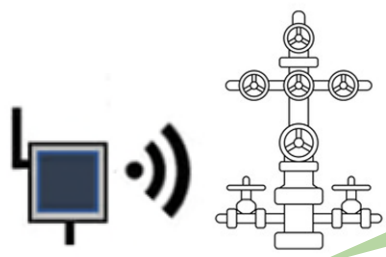
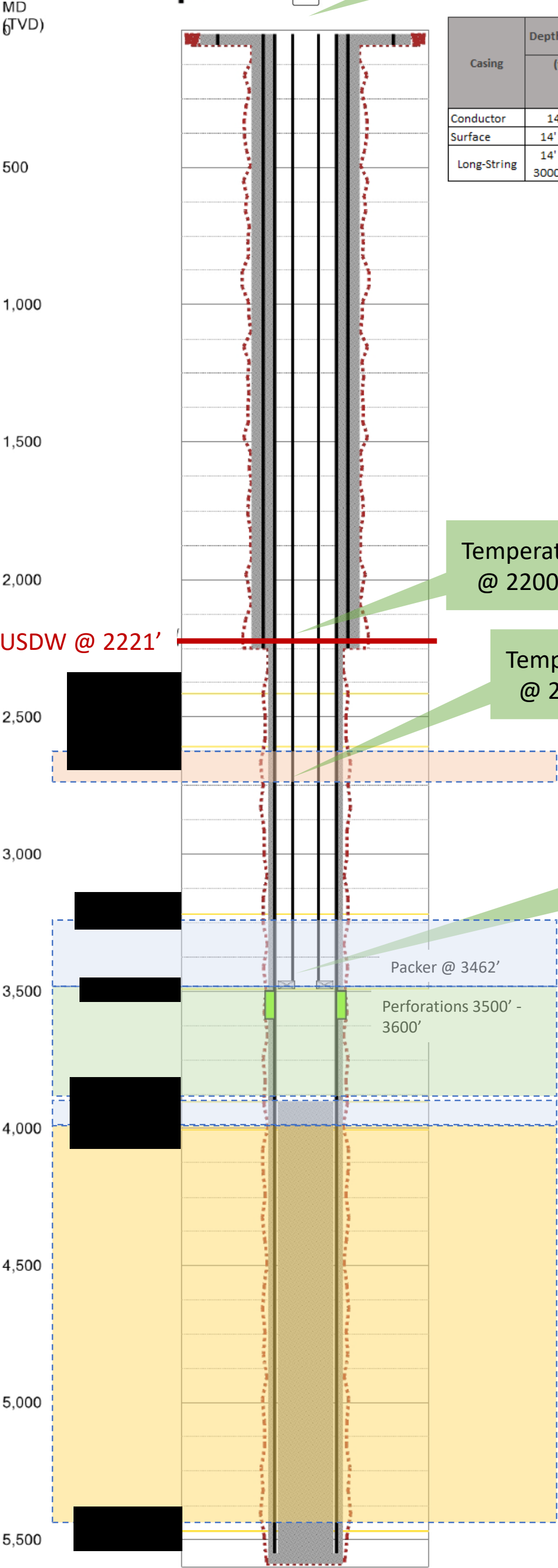


Figure 26. Monitoring Well Proposed Abandonment Schematic



Surface Measurements (w/ alarms on each):
Tubing Pressure, Annular Pressure, Annular Volume
Surface Equipment:
Comms to Central Control Facility (24-hr monitoring)



Casing	Depth Interval	Open Hole Diameter	Outer Diameter	Inner Diameter	Weight	Grade	Design Coupling	Thermal Conductivity	Burst Strength	Collapse Strength	Tensile Strength
	(feet)	(Inches)	(inches)	(inches)	(lb/ft)	(API)	(short or long threaded)	@ 77 °F (BTU/ft hr,°F)	(psi)	(psi)	(lbf)
Conductor	14' - 54'	24	20	19.124	94	-	-	2.62	-	-	-
Surface	14' - 2250'	12.25	9.625	8.755	43.5	N-80	Long	2.62	6330	3,810	1,065,350
Long-String	14' - 3000' 3000' - 5550'	8.5	7	6.276	26	L-80 L-80 CRA	Long	2.62	7240	5,410	603,930

Tubing	Depth Interval	Outer Diameter	Inner Diameter	Weight	Grade	Design Coupling	Burst Strength	Collapse Strength	Tensile Strength
	(feet)	(inches)	(inches)	(lb/ft)	(API)	(short or long threaded)	(psi)	(psi)	(lbf)
2-7/8"	3492'	2.875	2.441	6.5	L-80 CRA	Premium	10,570	11,170	144,960

Packer Type and Material	Packer Setting Depth	Length	Nominal Casing Weight	Outer Diameter	Inner diameter
	(feet)	(inches)	(lb/ft)	(inches)	(inches)
Permanent Sealbore Packer, CRA	3462'	30.2	23 - 32	5.687	3.25

Tensile Rating	Burst Rating	Collapse Rating	Max Casing Inner Diameter	Min Casing Inner Diameter
(lbs)	(psi)	(psi)	(inches)	(inches)
200,000	7,500	7,500	6.366	6.049

Temperature (DTS)
@ 2200' - 2220'

Temperature (DTS)
@ 2608' - 2628'

Temperature (DTS),
Tubing Pressure (Gauge)
@ 3452'

Monitoring Interval

Confining Layer

Monitoring Interval

Confining Layer

Figure 27. Monitoring Well Proposed Monitoring Schematic

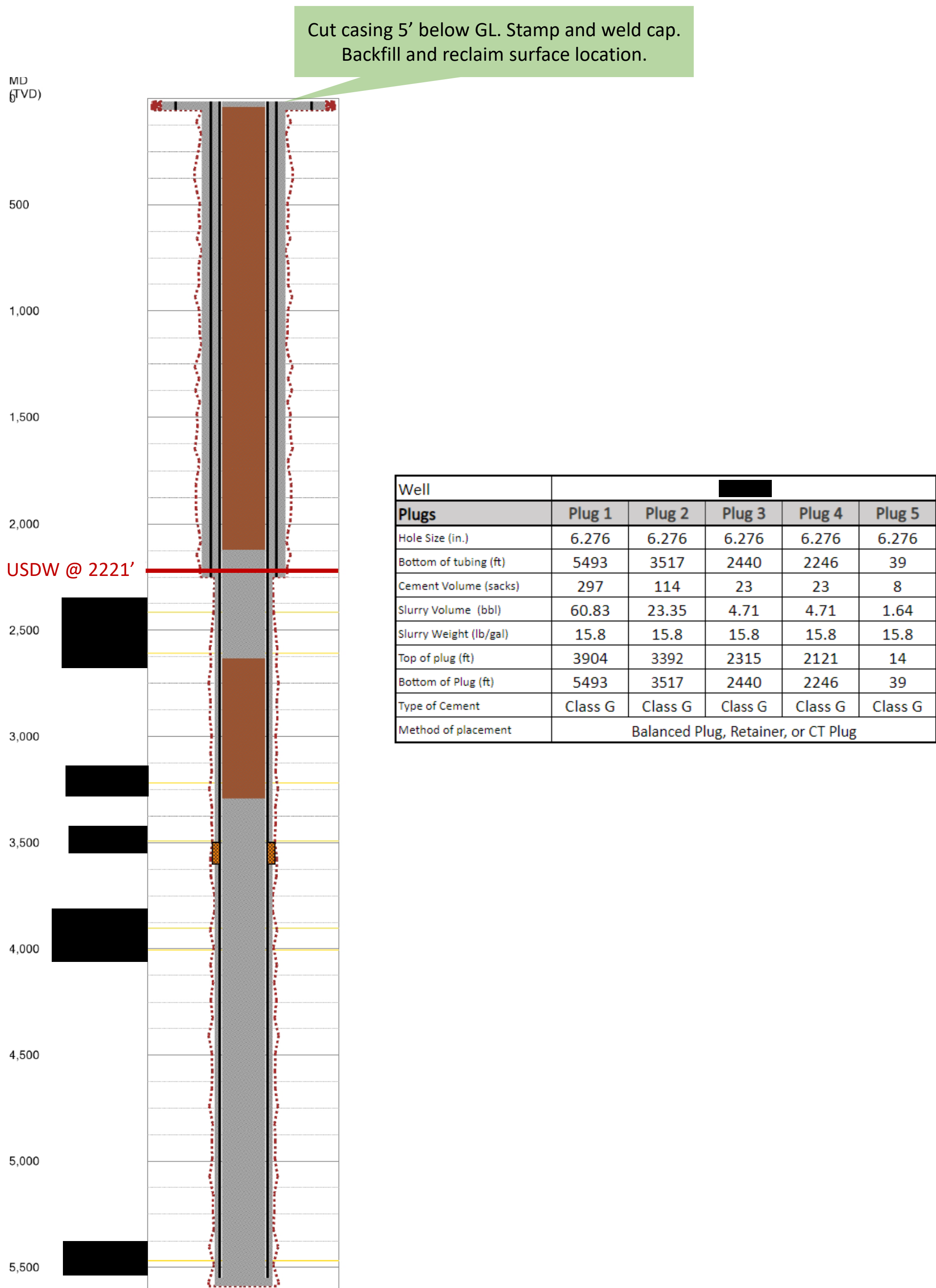


Figure 28. Monitoring Well , Proposed Abandonment Schematic

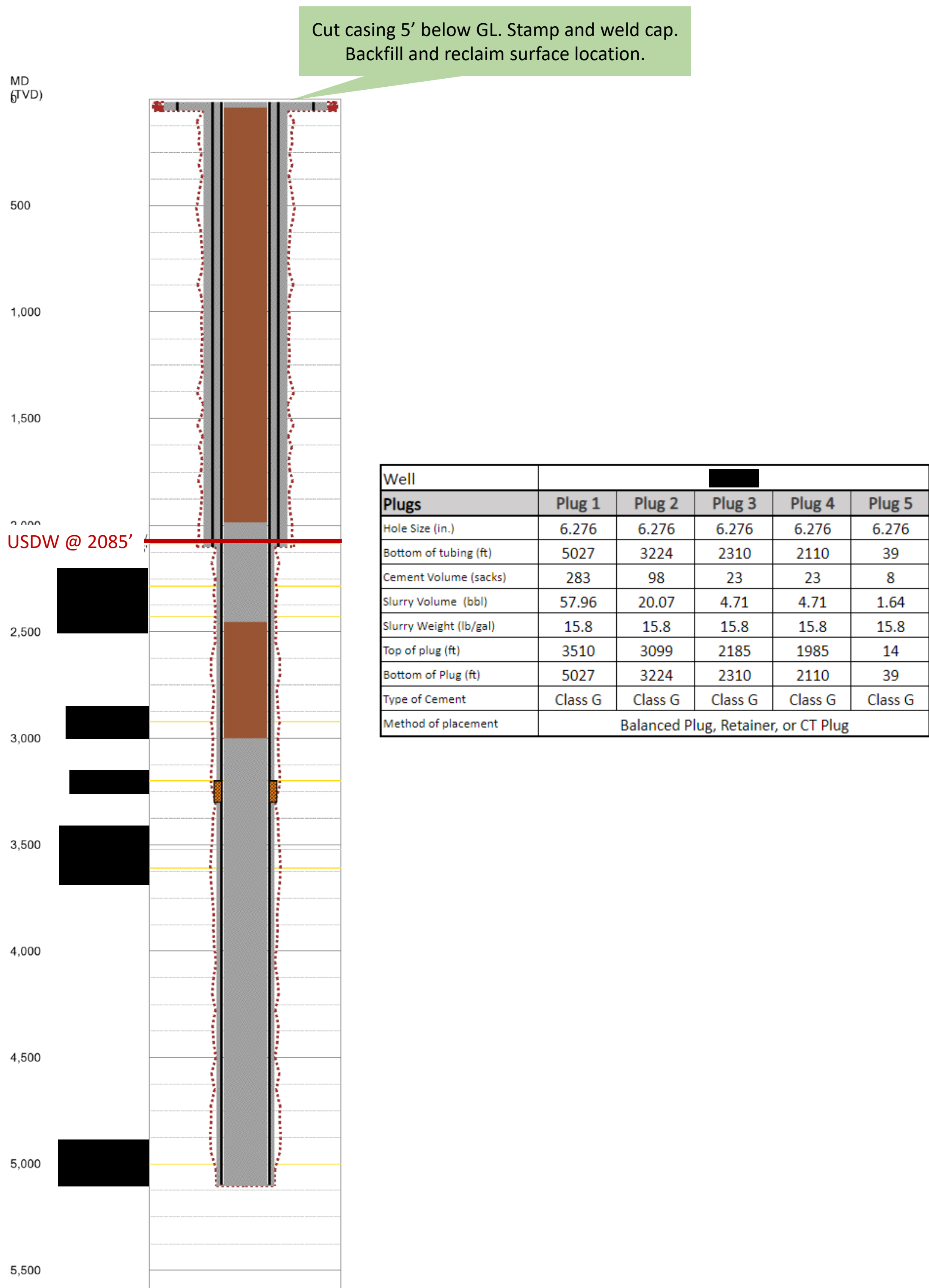


Figure 30. Pressure Monitoring Well [REDACTED], Proposed Abandonment Schematic