

212' calc top
2nd stage cement

WELL & PROJCT DETAIL


LOCATION DETAILCOMPLETION DETAIL (COGCC dated 06 Oct 2014)

ORIGINAL CASING CEMENTING DETAIL

WELL BACKGROUND

Status:

3,416' calc top
1st stage cement

4 Ft Below Grade			P&A Well Abandonment Diagram				Remediation Management Environmental liability management is our business.					
8.5/8" Csg Shoe @ 266'	<div>Plug #3</div> <div>180 Sacks</div> <div>Class G</div> <div>15.8 ppg</div> <div>1.15 Yield</div> <div>1,500'</div> <div>CIBP</div> <div>Inhibited</div> <div>Fresh</div> <div>Water</div> <div>2,850'</div> <div>Plug #2</div> <div>60 Sacks</div> <div>Class G</div> <div>15.8 ppg</div> <div>1.15 Yield</div> <div>3,350'</div> <div>Inhibited</div> <div>Fresh</div> <div>Water</div> <div>Tag</div> <div>Cement</div> <div>4,400'</div> <div>Plug #1</div> <div>180 Sacks</div> <div>Class G</div> <div>15.8 ppg</div> <div>1.15 Yield</div>	212' calc top 2nd stage cement 500' Morrison	Well	Cache Unit #3			WELL & PROJECT DETAIL					
			Lease	C-02763	Facility ID	223755	Company	BP Remediation Management				
			API	05-083-05155	Location ID	313431	Project Mgr	C. Michael Jackson				
			Field	Cache - 9610	Permit No	19650083	Address	201 Helios Way, 6.372C, Houston, Tx 77079				
			County	Montezuma - 083	Spud Date	22 February 19	Date	December 2017				
			State	Colorado	Pro Date	21 March 1965	Phone	713.437.9285				
			LOCATION DETAIL									
			Coordinates		DD Latitude	37.245589		DMS Latitude	N 37° 14' 44.088"			
					DD Longitude	-109.024433		DMS Longitude	W 109° 1' 27.9588"			
			NWSW 35 35N20W PM		Section	35	Town	35 North	Range	20 West		
Planned	810 Feet from West line and 1917' feet from South line											
Elevation	4,992'											
COMPLETION DETAIL (COGCC dated 06 Oct 2014)												
Csg / Tbg	Depth	Weight	Grade	ID	Burst	Collapse	Capacity					
8.5/8"	266	24		8.097"			0.0637					
5.1/2"	5780	14		5.012"			0.0244					
CEMENTING DETAIL												
Hole	Depth	Cement Type	Volume	Weight	Yield	TOC						
11" x 8.5/8"	266	Reg 3%	160 sacks			Surface (calc)						
7.7/8" x 5.1/2"	5780	Class C	350 sacks			3,416' (calc)	1st Stage					
7.7/8" x 5.1/2"	3,251' DV	Class C	450 sacks			212' (calc)	2nd Stage					
Well Abandonment Work Scope												
					Sacks	FT ³	Water (bbl)					
Class: G		Plug #1	Primary isolaton of the reservoir		180	207	18					
Weight: 15.8 ppg		Plug #2	Secondary isolation of reservoir		60	69	6					
Yield: 1.15 ft ³		Plug #3	Primary isolation of water table		180	207	18					
* NOTE: Municipal water to be utilized for cement slurry and well displacement.					420	483	43					
1. Mobilize rig and equipment												
2. Braden head pressure - Install a gauge on the Braden head. Document; pressure, blow down characteristis and monitor												
a. Dig out around well head to verfy potential valves below grade												
b. Monitor and document the Braden head pressure throughout the P&A program												
3. Rig up unit on well												
4. Rig up BOPs and fluid handling system on well - NO fluids to touch the ground												
5. Pull and lay down rods testing for NORM												
6. Pull and lay down tubing testing for NORM												
7. Wash and ream into hole with work string to PBTD at 5,726' or as deep as possible												
8. Displace the well to fresh water containing corrosion inhibitor												
9. Plug #1 - Pump 180 sacks of 15.8 ppg cement Class G with 1.15 yield from 5,726' PBTD to a minimum of 4,400'												
10. Pull out of hole to 4,100' and circulate waiting on cement for 8 hours												
11. Run in hole and tag cement plug - maximum depth to be 4,400'. Pump an additional cement plug if required												
12. Pull out of hole to 3,350'												
13. Plug #2 - Pump 60 sacks of 15.8 ppg cement Class G with 1.15 yield from 3,350' to 2,850'												
14. Pull out of hole and pick up tubing conveyed 5.1/2" cast iron bridge plug												
15. Run in hole and set CIBP at 1,500' and confirm set with tagging												
16. Plug #3 - Pump 180 sacks of 15.8 ppg cement Class G with 1.15 yield from 1,500' to surface												
17. Pull out of hole with work string												
18. Top off work string displacement with cement to surface												
19. Move off rig and equipment												
20. Excavate the casing down to 4 feet below grade and cut same												
21. Tack weld a 1/4" metal plate dry hole marker with drilled vent hole to the cut casing												
a. Dry Hole Marker Requirements:												
- Well Name & Number												
- API Number												
- Legal Location												
22. Back fill 4 foot excavation												
23. Remove pumping unit, pumping unit motor, pumping unit cement pads and any other ancillary equipment for salvage												
Cut or pull derrick anchors 4' below grade as well as cut & plug subsurface pipelines 4' below grade and backfill												
24. Surface pipelines and well site reclamation will be covered under a separate reclamation project.												
5.1/2" Casing Shoe @ 5,780'	PBTD: 5,726'	TD: 5,780'	3,416' calc top 1st stage cement	4,606' Hermosa 5,524' Ismay 5,702' Paradox 5,739' Desert Creek	3,251' DV Collar							