

500' Morrison

2.800' Cutler

3,365'
DV Collar

4,026' calc top
1st stage cement

4,530' Hermosa
5'438' Ismay
5,562' L. Ismay
5,662' Desert Creek

5.1/2" Casing
Shoe @
5.700'

5,561'
2.7/8" Tubing
PBTD: 5,661'
TD: 5,700'

Well	Cache Unit #1
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WELL & PROJCT DETAIL

Lease	C-02763	Facility ID	223753	Company	BP Remediation Management
API	05-083-05153	Location ID	313429	Project Mgr	C. Michael Jackson
Field	Cache - 9610	Permit No	19650154	Address	201 Helios Way, 6.372C, Houston, Tx 77079
County	Montezuma - 083	Spud Date	26 April 1965	Date	December 2017
State	Colorado	Pro Date	28 May 1965	Phone	713.437.9285

LOCATION DETAIL

Coordinates	DD Latitude	37.245569	DMS Latitude	N 37° 14' 44.3724"			
	DD Longitude	-109.034003	DMS Longitude	W 109° 2' 2.4102"			
NWSE 34 35N20W N PM		Section	34	Town	35 North	Range	20 West
Planned	1980 Feet from South line and 1980 feet from East Line						
Elevation	4897.4'						

COMPLETION DETAIL (COGCC dated 06 Oct 2014)

Csg / Tbg	Depth	Weight	Grade	ID	Burst	Collapse	Capacity
8.5/8"	301	24		8.097"			0.0637
5.1/2"	5700	14		5.012"			0.0244
2.7/8"	5561						

ORIGINAL CASING CEMENTING DETAIL

Hole	Depth	Cement Type	Volume	Weight	Yield	TOC	
11" x 8.5/8"	301	Reg 3%	240 sacks			Surface (calc)	
7.7/8" x 5.1/2"	5,700'	Class C	250 sacks			4,026' (calc)	1st Stage
7.7/8" x 5.1/2"	3,365' DV	Class C	600 sacks			Surface (calc)	2nd Stage

WELL BACKGROUND

Note: Casing cement heights calculated from historical records and utilizing a typical 1.15 yield for the cement



4 Ft Below Grade		P&A Well Abandonment Diagram				Remediation Management Environmental liability management is our business.									
8.5/8" Csg Shoe @ 301'		Plug #3 180 Sacks Class G 15.8 ppg 1.15 Yield		500' Morrison		Well	Cache Unit #1								
						WELL & PROJECT DETAIL									
						Lease	C-02763	Facility ID	223753	Company	BP Remediation Management				
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						2.7/8"	5561								
						ORIGINAL CEMENTING DETAIL									
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						7.7/8" x 5.1/2"	5,700'	Class C	250 sacks			4,026' (calc)	1st Stage		
						7.7/8" x 5.1/2"	3,365' DV	Class C	600 sacks			Surface (calc)	2nd Stage		
						Well Abandonment Work Scope									
						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 ft³		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 5,661' 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 5,661' PBTD to a minimum of 4,300'									
						10. Pull out of hole to 4,000' and circulate waiting on cement for 8 hours									
						11. Run in hole and tag cement plug - maximum depth to be 4,300'. Pump an additional cement plug if required									
						12. Pull out of hole to 3,465'									
						13. Plug #2 - Pump 60 sacks of 15.8 ppg cement Class G with 1.15 yield from 3,465' to 2,965'									
						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.									