

AIR

50006
2000 lb shot
140' 8"

water!
maybe at
140' (doubts)
if though

CLIENT: U.S. Geological Survey/ S.C.E.C.
PROJECT: SSIP
CLIENT REP: LIZ ROSE

Tues. Date: Nov. 30, 2010 Hole # 50006 Rig # 1 Driller: Sam Crum Supervisor: Fluis

TIME	LOG #	FOOTAGE	REMARKS	LOG REFERENCE #
12:45	2			1. Crew Travel To Site
12:55	4			2. Rig Up
1:00	8		140' of casing put in to hold the top of the hole open	3. Reenter Hole
1:11	3/4	~45'	?	4. Drilling
1:23	5			5. Pull Pipe
1:38	12		Put new drill bit on; something wasn't working. w/ the hammer?	6. Mix Mud & Fill
3:00	3/4		- Blew piston had to change it	7. Coring
	8			8. Install Casing/Pipe
3:18	8	40'		9. Cementing
	4/8			10. Rig Down
4:34	8	120'	last steel..	11. Move Rig To New Site
4:58	4	140'		12. Maintenance
	5			13. Standby (Explain)
5:13	10			14. Other (Explain)
				15. Logging
				16. Water Trip
5:30			off site; leaving rig & trailer for the night	MATERIALS USED
				Mud _____ sacks
				LC _____ Type _____
8:00	1/11		cleaned up a bit, buried casing, moved out to 60006	_____ sacks
				_____ sacks
				_____ sacks
				Viscose _____
				Cement _____
				Diesel _____
				Foamer _____ <i>Some used toward the end</i>
				Detergent _____
				Other _____
				CREW HOURS
				Driller _____ / _____
				Helper _____ / _____
				Helper _____ / _____

Wed. Dec. 1, 2010

140'

Footage: FROM _____ ' TO _____ ' TOTAL FOOTAGE _____'
Bit 9 7/8" changed at _____ ' Size _____"
Bit _____ changed at _____ ' Size _____"
Bit _____ changed at _____ ' Size _____"

Approved _____

A little ruttled but all trucks made it; Hard rock/bo

AKK

3010a
target: 1000 lbs
100' 8" casing

Water?
at 90-100'

CLIENT: U.S. Geological Survey/ S.C.E.C.
PROJECT: SSIP
CLIENT REP: LIZ ROSE

Thurs. NOV. 30, 2010 Hole # 5010a Rig # 1 Driller: Sam Crum Supervisor: Fuis

TIME	LOG #	FOOTAGE	REMARKS	LOG REFERENCE #
8:00	1/16			1. Crew Travel To Site
9:00	2		crew on site	2. Rig Up
10:14	4	0		3. Reenter Hole
10:20	14		Env. Health of Riverside County stopped to see if we had a permit which we wouldn't need if it's a blast hole (??)	4. Drilling
10:55	4/8			5. Pull Pipe
11:02	4	30'	10' of casing in the hole	6. Mix Mud & Fill
12:00	4	100'	color change in rock	7. Coring
12:08	5		Bit is out	8. Install Casing/Pipe
	10		Bury lid, move out	9. Cementing
12:15	11		moving to 5000b	10. Rig Down
			drilled into bedrock the whole time	11. Move Rig To New Site
				12. Maintenance
				13. Standby (Explain)
				14. Other (Explain)
				15. Logging
				16. Water Trip

- MATERIALS USED
- Mud _____ sacks
 - LC _____ Type _____
 - _____ sacks
 - _____ sacks
 - _____ sacks
 - Viscose _____
 - Cement _____
 - Diesel _____
 - Foamer _____
 - Detergent _____
 - Other _____

CREW HOURS

Driller / _____

Helper / _____

Helper / _____

100'

Footage: FROM _____ TO _____ TOTAL FOOTAGE _____

Bit 9 7/16" changed at _____ Size _____

Bit _____ changed at _____ Size _____

Bit _____ changed at _____ Size _____

Approved _____

easy driving - turn out on roadside

5016a
 target: 90 → 85.5'
 casing: 6" Water maybe 68'
if there's water, means sands

CLIENT: U.S. Geological Survey/ S.C.E.C.
 PROJECT: SSIP
 CLIENT REP: LIZ ROSE

* The Living Desert * best guest

Date: 11/11/10		Hole # 5016a Rig # 1		Driller: Sam Crum	Supervisor: Fui's
TIME	LOG #	FOOTAGE	REMARKS	LOG REFERENCE #	
2:00	1		Jerry Bell let us into gate across from Haystack Rd	1. Crew Travel To Site	
2:10	2			2. Rig Up	
2:15	16		ran water from the nearby hose	3. Reenter Hole	
2:48	4	0		4. Drilling	
2:52	4	10'		5. Pull Pipe	
2:58	16		Need more water - waiting for hose to fill up the trailer	6. Mix Mud & Fill	
3:19	3/4			7. Coring	
3:22	8	10'		8. Install Casing/Pipe	
3:24	4	13'	Boulder/Rocky	9. Cementing	
3:32	8	30		10. Rig Down	
3:48	4	50'		11. Move Rig To New Site	
4:04	8	50'		12. Maintenance	
4:30	8	70'		13. Standby (Explain)	
4:45	4	90'		14. Other (Explain)	
4:50	5			15. Logging	
5:00	10		Rig down for the night	16. Water Trip	
MATERIALS USED					
				Mud	sacks
				LC	Type
					sacks
					sacks
					sacks
					sacks
				Viscose	
				Cement	
				Diesel	
				Foamer	
				Detergent	
				Other	
CREW HOURS					
				Driller	/
				Helper	/
				Helper	/

Footage: FROM _____ TO _____ TOTAL FOOTAGE 85.5'
 Bit 7 7/8" changed at _____ Size _____
 Bit 9 7/8" changed at _____ Size _____
 Bit _____ changed at _____ Size _____

Approved _____

Nice dirt road; Accessed thru construction gate thanks to staff

5010A

continued

↳ 85.5'

water ~68'

CLIENT: U.S. Geological Survey/ S.C.E.C.

PROJECT: SSIP

CLIENT REP: LZ Rose

Date: 11/12/10		Hole # 5010A Rig # 1		Driller: Sam Crum	Supervisor: Fuis
TIME	LOG #	FOOTAGE	REMARKS	LOG REFERENCE #	
PM	1:56	8	10'		1. Crew Travel To Site
	2:15	4	35'		2. Rig Up
	2:42	4/8	55'		3. Reenter Hole
	2:50	8	75'		4. Drilling
		9	~93'		5. Pull Pipe
	3:03	5			6. Mix Mud & Fill
	3:14	8	CASING		7. Coring
	4:45	10	85.5'	92' - 6.5' = 85.5' casing	8. Install Casing/Pipe
			leaving rig here until tomorrow need to be off premises by 5am		
					9. Cementing
					10. Rig Down
					11. Move Rig To New Site
					12. Maintenance
					13. Standby (Explain)
					14. Other (Explain)
					15. Logging
					16. Water Trip
AM	7:00	1			MATERIALS USED
	7:50		Had to wait for gates to be turned on		Mud _____ sacks
	8:00	10	Sam said Jerry OK'd letting the water & mud out there		LC _____ Type _____
			Peter preferred that we did not cover the hole so we put a pallet on top and stakes w/ flagging		_____ sacks
			Gate locked; moving to 16025		_____ sacks
	9:00	11			Viscose _____
					Cement _____
					Diesel _____
					Foamer _____
					Detergent _____
					Other _____
					CREW HOURS
					Driller _____ / _____
					Helper _____ / _____
					Helper _____ / _____

Footage: FROM _____ ' TO _____ ' TOTAL FOOTAGE

Bit 9 1/8" changed at _____ ' Size _____"
Bit _____ changed at _____ ' Size _____"
Bit _____ changed at _____ ' Size _____"

85.5'

Approved _____

Revised: 21, June 1999

David Delis

* WIDE hole - used a lot of hole plug but careful when shooting?

UCCU
 Target 200 lbs
 8' 6"
 86'

Water
 PJ says no water

CLIENT: U.S. Geological Survey/ S.C.E.C.
 PROJECT: SSIP
 CLIENT REP: Liz Rose

Date: Jan 29, 2011		Hole # 5022a Rig # 2-16KD		Driller: Sam Crum	Supervisor: Fuis
TIME	LOG #	FOOTAGE	REMARKS	LOG REFERENCE #	
Am 8:50	2		ran over sprinkler head	1. Crew Travel To Site	
11:30	4	0	SAND; coarse sand (left site)	2. Rig Up 3. Reenter Hole	
~1am?	8	CASING		4. Drilling 5. Pull Pipe 6. Mix Mud & Fill	
		85.5'	<u>WIDE HOLE</u>	7. Coring 8. Install Casing/Pipe 9. Cementing 10. Rig Down 11. Move Rig To New Site 12. Maintenance 13. Standby (Explain) 14. Other (Explain) 15. Logging 16. Water Trip	
SUN JAN 30, 2011					
Am 8-9:00			filled sand around casing but still a little loose		
			measured casing to 85.5'	MATERIALS USED	
		Mud/	water around casing at about 50' ? (sand took 2-2.5 sec to hit water)	Mud	sacks
				LC	Type
					sacks
~11am			moved equipment out		sacks
					sacks
					sacks
				Viscose	
				Cement	
				Diesel	
				Foamer	
				Detergent	
				Other	
				CREW HOURS	
				Driller	/
				Helper	/
				Helper	/

Footage: FROM _____ ' TO _____ ' TOTAL FOOTAGE 85.5'
 Bit 7 7/8" changed at _____ ' Size _____"
 Bit _____ changed at _____ ' Size _____"
 Bit _____ changed at _____ ' Size _____"

Approved _____

Govt lock on gate; sandy

Target: 250 lb shot
78' deep → 75'
6" casing

Water
between 35 & 40'

CLIENT: U.S. Geological Survey/ S.C.E.C.
PROJECT: SSIP
CLIENT REP: Lit Rose

Tues. 11/9/10

Date: 11/9/10 Hole # 5030a Rig # 1 Driller: Sam Crum Supervisor: Fuis

TIME	LOG #	FOOTAGE	REMARKS	LOG REFERENCE #
8:30	1			1. Crew Travel To Site
9:20	2			2. Rig Up
9:40	16		Sam & Travis went to CV canal	3. Reenter Hole
10:45			Gabriel & Gary arrive	4. Drilling
			Sam & Travis return w/water	5. Pull Pipe
11:45	2/12/16		Travis left for more water	6. Mix Mud & Fill
			Sam & Dustin worked on	7. Coring
			desander; Rig went up	8. Install Casing/Pipe
			at 11:36	9. Cementing
11:57	4	— 0 —		10. Rig Down
12:08	12		Tightening shaker bolts	11. Move Rig To New Site
12:12	4			12. Maintenance
12:15	8	— 10' —		13. Standby (Explain)
	4			14. Other (Explain)
1: 7	8	— 30' —		15. Logging
2:17	4/8	— 50' —	CHP came out to check on a "missile threat" that a crazy lady called in after seeing the drill rig set up	16. Water Trip
2:40	4	78'		MATERIALS USED
2:55	5			Mud 9 sacks
3:25	4		Redrilling; I guess hole caved in	LC _____ Type _____
3:45	5		All pipe & drill bit out	_____ sacks
3:50	8	CASING ↓	4 x 18" pipes	_____ sacks
4:32	8	75'		_____ sacks
4:40	10			_____ sacks
4:55			All crew off site	Viscose _____
				Cement _____
				Diesel _____
				Foamer _____
				Detergent _____
				Other _____
				CREW HOURS
				Driller / _____
				Helper / _____
				Helper / _____

Wed. 11/10/10

8:00	1		clean up, etc.	
9:00	11			
			Ginny Short	
			* someone raked out our gravel pile!	
			Definitely will need gravel to fill hole	

Footage: FROM _____ TO _____ TOTAL FOOTAGE _____

Bit 7 7/8" changed at _____ Size _____
 Bit _____ changed at _____ Size _____
 Bit _____ changed at _____ Size _____

Approved _____

easy driving access

JUSIC

Water

250 lb
78' → 70'
6" casing

~70'

CLIENT: U.S. Geological Survey/ S.C.E.C.

PROJECT: SSIP

CLIENT REP: Lt Rose

Wed: 11/10/10

Hole # 5031c Rig # 1

Driller: Sam Crum

Supervisor: Fuis

TIME	LOG #	FOOTAGE	REMARKS	LOG REFERENCE #
9:05	1/2		Set up in turnout	
9:10			Chris Dalu (BLM) arrived	1. Crew Travel To Site
9:50	4	0	Gabriel will be late	2. Rig Up
9:55	13		Rocky start - went a couple feet	3. Reenter Hole
			Waiting for last IID locator to	4. Drilling
			show up - said they'd be here	5. Pull Pipe
			at 10:15 then said we were	6. Mix Mud & Fill
			clear, then said to wait anyway	7. Coring
10:30	4	0		8. Install Casing/Pipe
10:44	8	10'		9. Cementing
10:48	4/16	15'	Rocky; Travis went to get more water	10. Rig Down
			Gabriel arrived ~11:15	11. Move Rig To New Site
11:30	4/8	50'		12. Maintenance
				13. Standby (Explain)
				14. Other (Explain)
12:00	8	70'	Had to redrill out about 10'; when	15. Logging
			the pipe is pulled up boulders /	16. Water Trip
			rocks rolled in	
12:23	4	78'		
12:30	14		Gabriel left	MATERIALS USED
	5			Mud ~5 sacks
12:50	4	80'	Hole caved & needed to be	LC _____ Type _____
			drilled out again	_____ sacks
1:10	5			_____ sacks
1:20	4/8		More drilling	_____ sacks
	5/8	CASING		_____ sacks
2:00	8	70'		_____ sacks
2:17	10		Filled w/water, capped, buried, etc.	Viscose _____
2:45	11		move to 5034a	Cement _____
				Diesel _____
				Foamer _____
				Detergent _____
				Other _____
				CREW HOURS
				Driller / _____
				Helper / _____
				Helper / _____

Footage: FROM _____ TO _____ TOTAL FOOTAGE

Bit 7 7/8" changed at _____ Size _____
Bit _____ changed at _____ Size _____
Bit _____ changed at _____ Size _____

70'

Approved _____

in turnout - easy driving

25016
78'
6" casing

Water
didn't think
we hit water

CLIENT: U.S. Geological Survey/ S.C.E.C.
PROJECT: SSIP
CLIENT REP: Liz Rose

Date: <u>Wed. 11/10/10</u>		Hole # <u>5034a</u> Rig # <u>1</u>		Driller: <u>Sam Crum</u>	Supervisor: <u>Fuis</u>
TIME	LOG #	FOOTAGE	REMARKS	LOG REFERENCE #	
pm 2:45	1			1. Crew Travel To Site	
2:58	2			2. Rig Up	
3:27	4	0		3. Reenter Hole	
3:50	4		Rocky - as expected; Boulders	4. Drilling	
4:07	4/8	10'		5. Pull Pipe	
4:34	10	~30'	Rig down for the night	6. Mix Mud & Fill	
THURS. 11/11/10					
pm 8:20	1			7. Coring	
8:45	1		Sam * I arrive	8. Install Casing/Pipe	
9:20	2		Travis * Dustin are not far behind	9. Cementing	
9:40	4/1		Gabriel arrived	10. Rig Down	
9:48	8	30'		11. Move Rig To New Site	
10:10	8	50'	Rocky; Boulders	12. Maintenance	
10:27	4	70'		13. Standby (Explain)	
10:31	8	70'		14. Other (Explain)	
10:42	4	80'	Rocky	15. Logging	
	5			16. Water Trip	
11:00	8	CASING	Gabriel left at 11 - I signed off time sheet filled w/water, capped, etc.	MATERIALS USED	
11:35	8	80'		Mud <u>4</u> sacks	
11:37	10			LC _____ Type _____	
pm 12:55	11		clean up & clean shaker	_____ sacks	
1:00			moved boulders back into the dirt road & left for 5016a	_____ sacks	
				Viscose _____	
				Cement _____	
				Diesel _____	
				Foamer _____	
				Detergent _____	
				Other _____	
CREW HOURS					
				Driller <u>/</u> _____	
				Helper <u>/</u> _____	
				Helper <u>/</u> _____	

Footage: FROM _____ TO _____ TOTAL FOOTAGE 80'
 Bit 7/8" changed at _____ Size _____"
 Bit _____ changed at _____ Size _____"
 Bit _____ changed at _____ Size _____"

Approved 80'

off-road but Rocky so OK access
 -> narrow w/turnaround ~200' past

2000 lb shot
140' 8" casing ✓

Water?
not sure

CLIENT: U.S. Geological Survey/ S.C.E.C.
PROJECT: SSIP
CLIENT REP: Liz Rose

Thurs. 11/18/10 Hole # 5038h Rig # 1 Driller: Sam Crum Supervisor: Fluis

TIME	LOG #	FOOTAGE	REMARKS	LOG REFERENCE #
9:50	1			
10:30			set up shaker; take water over from 60126/a hydrant	1. Crew Travel To Site
				2. Rig Up
PM 2:00	1		set up rig; the shaker got a flat tire going off the road; drilled it in 56' closer to the road than was staked	3. Reenter Hole
				4. Drilling
				5. Pull Pipe
				6. Mix Mud & Fill
				7. Coring
				8. Install Casing/Pipe
				9. Cementing
				10. Rig Down
AM 6:30	2			11. Move Rig To New Site
8:00	4	0		12. Maintenance
	8/4	15'	Rocky/Boulders	13. Standby (Explain)
9:12	8	35'		14. Other (Explain)
	4/8	55'		15. Logging
	4/8	75'		16. Water Trip
10:20	4	80'		
11:30	4	100'	(Cinny Short stopped by)	
12:20	8	115'	Different, more compact formation	
12:45	4	120'	Hard boulders; granite or met. (black & white)	MATERIALS USED
1:25	8	135'		Mud 5 sacks Used mud from 60126
1:35	4	143'		LC _____ Type _____
1:40	5			_____ sacks
2:10	8	CASING		_____ sacks
	10	142'		_____ sacks
5:00	10		off site; leaving rig and shaker until tomorrow when we move to 1210a	Viscose _____ Hole Piping 5 bags Cement _____ Diesel _____ Foamer _____ Detergent _____ Other _____
				CREW HOURS
				Driller / _____
				Helper / _____
				Helper / _____

Footage: FROM _____ TO _____ TOTAL FOOTAGE _____
 Bit 9 7/8" changed at _____ Size _____"
 Bit _____ changed at _____ Size _____"
 Bit _____ changed at _____ Size _____"

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Approved _____

Good, sort of paved road