120'
8'

CLIENT: U.S.Geological Survey/ S.C.E.C.
PROJECT: SSIP
CLIENT REP: Caye Slayday-Criley

WATER JOB

Date: 3/2/11 Hole # 2000411 Rig # 1 Driller: Sam Crum Supervisor: G. Delis

TIME	LOG #	FOOTAGE	REMARKS
950			TO SITE
1006			TOWER UP
1019	4	0'	DRILLING
1019	8	5'	1st pipe added
1030		20'	SAMPLE TAKEN Rocks Gritty Fragins Adding Neck of Casing
1053	8	25'	2nd pipe added
1101		40'	SAMPLE TAKEN Brown Gritty Rocks
1105	8	45'	3rd pipe added
1111		60'	SAMPLE TAKEN ROCKS Brown Gritty
1113	8	65'	4th pipe added
1125		80'	SAMPLE TAKEN ROCKS Gritty Clay
1128	8	85'	5th pipe added
1148		100'	SAMPLE TAKEN ROCKS Gritty Clay
1153	8	105'	6th pipe added
1206		120'	SAMPLE TAKEN ROCKS Gritty Clay
1209	5		REMOVING PIPE
1214	5		All pipe and Bit out the ground

LOG REFERENCE #

1. Crew Travel To Site
2. Rig Up
3. Reenter Hole
4. Drilling
5. Pull Pipe
6. Mix Mud & Fill
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

MATERIALS USED

Mud _____ sacks
LC _____ Type _____
_____ sacks
_____ sacks
_____ sacks
Viscose _____
Cement _____
Diesel
Foamer 2 1/2
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 ____ "

Approved _____

Revised: 21, June 1999 David Delis

2000HZ
120'
8'

CLIENT: U.S.Geological Survey/ S.C.E.C.
PROJECT: SSIP
CLIENT REP: Faye Slayday - Crilley

WATER 200!

Date: 3/2/11 Hole # 2000HZ Rig # (1) Driller: Sam Crum Supervisor: G.Ellis

TIME	LOG #	FOOTAGE	REMARKS
12:22	4	0'	DRILLING
12:22	8	5'	1st pipe added
12:34		20'	SAMPLE taken Brown Gridy Rocks
12:36	8	25'	2nd pipe added
1:04		40'	Sample taken Rocks Gridy Brown
1:06	8	45'	3rd pipe added
1:19		60'	Sample taken Gridy Brown Rocks
1:32	8	65'	4th pipe added
1:53		80'	Sample Rocks Brown Gridy
1:58	8	85'	5th pipe added
2:16		100'	Sample Rocks Gridy
2:18	8	105'	6th pipe added
2:36		120'	SAMPLE Rocks, Sam for all
2:40	5		Removing pipe & DRILL BIT
2:53	5		All pipe and DRill bit out the Ground

LOG REFERENCE #

1. Crew Travel To Site
2. Rig Up
3. Reenter Hole
4. Drilling
5. Pull Pipe
6. Mix Mud & Fill
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

MATERIALS USED

Mud _____ sacks
LC _____ Type _____
_____ sacks
_____ sacks
_____ sacks
Viscose _____
Cement _____
Diesel
Foamer 1 1/2
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 ____ "

Approved _____

Revised: 21, June 1999 David Delis

20 CCM
140'
8"

CLIENT: U.S.Geological Survey/ S.C.E.C.
PROJECT: SSIP
CLIENT REP: Caye Slayday - C.Riley

Date: 2/16/11 Hole # 2022A Rig # ① Driller: Sam Crum Supervisor: G Fuis

TIME	LOG #	FOOTAGE	REMARKS
12:45			ON Site
2:15			SettinGup
2:35	16		WATER TRIP
3:45	4	0'	DRILLING +1
3:46	8	5'	1st pipe Added.
4:03		20'	SAMPLE TAKEN ROCKS & Gridy
4:06	8	25'	2nd pipe Added
4:25		40'	Sample taken Gridy & Rocks
4:28	8	45'	3rd pipe added
4:47		60'	Sample taken Rocks & Gridy
4:51	8	65'	4th pipe added
5:14		80'	SAMPLE TAKEN Rocky & Gridy
5:20	8	85'	5th pipe added
6:10		100'	SAMPLE TAKEN ROCKS ROCKS ROCKS!
6:30	8	105'	6th pipe · Added
7:03		120'	SAMPLE TAKEN Gidy & ROCKS ..
7:10	8	125'	7th pipe added.
7:30		140'	SAMPLE TAKEN ROCKS
7:37	5		REMOVING pipe & DRILL Bit
7:57	5		All pipe & DRill Bit out the Ground
8:45			OFF Site!

LOG REFERENCE #

1. Crew Travel To Site
2. Rig Up
3. Reenter Hole
4. Drilling
5. Pull Pipe
6. Mix Mud & Fill
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

MATERIALS USED

Mud_____sacks
LC_____Type_____
_____sacks
_____sacks
_____sacks
Viscose_____
Cement_____
Diesel
Foamer 3 1/2 g
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____"
Approved_____

Revised: 21, June 1999 David Delis

140 feet
8"

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

Date: 2/15/11 Hole # 2055 L Rig # 1 Driller: Sam Crum Supervisor: C. Ellis

TIME	LOG #	FOOTAGE	REMARKS
1045			ON SITE
1050	16		WATER TRIP
11:00			Setting up
11:35			TOWER UP
		0'	DRILLING
1145			
11:46	8	5'	Bits about 5' feet 1st pipe Added
		20'	SAmple taken Sand ROCKS Gritty
12:26	8	25'	2nd pipe added
12:32		40'	SAMPLE TAKEN Gritty SAND & ROCKS
1234	8	45'	3rd pipe added
12:43		60'	SAMPLE TAKEN ROCKS SAND Gritty
12:45	8	65'	4th pipe added
12:52		80'	SAMPLE TAKEN Gritty SAND & ROCKS
12:55	8	85'	5th pipe added
1:04pm		100'	SAMPLE TAKEN Bit Gritty with ROCKS SAND.
1:07	8	105'	6th pipe added
115		120'	SAmple taken ROCKS with Gritty Sand
119	8	125'	7th pipe added
1:30		140'	SAmple taken ROCKS Gritty Sand
1:33	5		REMOVING All pipes bit
147	5		All pipe and Drill bit Out the casing

LOG REFERENCE #

1. Crew Travel To Site
2. Rig Up
3. Reenter Hole
4. Drilling
5. Pull Pipe
6. Mix Mud & Fill
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

MATERIALS USED

Mud _____ sacks
LC _____ Type _____
_____ sacks
_____ sacks
_____ sacks
Viscose _____
Cement _____
Diesel
Foamer 2 1/2 g
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 ____ "

Approved _____

Revised: 21, June 1999 David Delis

~400 ft
target = 2000 lbs
140' 8"
~150'

water?

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

Wed. Date: Dec. 29, 2010 Hole # 20816 Rig # 1 Driller: Sam Crum Supervisor: Fuis

	TIME	LOG #	FOOTAGE	REMARKS
AM	7:00			Flat-tailed lizard training with Glenna
	10:30	1/2		moved rig & water trailer to site
	11:20			took casing to 2097a & 2094a (w/ Glenna)
PM	1:52	2		Shaker barrel from 2121b
	2:00	6		mixing mud
	2:10	4	0	
			30'	crack/change in sed. took up mud
	2:45	16		couldn't continue w/out water
		13		sent Travis to Ocotillo fire station; I talked to Eddie this morning
	3:30	4		
		6		sand & gravel; gravel/cobbles as big as 4 cm diameter
	3:35	8	35'	
	4:00	9	65'	
	4:42	10	~80'	dark, rainy, leaving rig for the night
Thurs.	12/30/10			
AM	9:05	2		On site; Glenna led the way & checked for animals
	9:58	4	90'	Gravel, sand, med→dark gray, course
	10:18	5	95'	
	11:00	9	115'	Adding 6th section to drill bit (=18') 5x20 + 18 = 9 = ~113
	11:25	12	~125'	mud pump broke! Got a hole in the bottom? Waiting for Dustin to bring a different pump
	11:40	14		I left to go to 2117a to meet farmer who wanted to ask questions; Coye replaced the

LOG REFERENCE #

1. Crew Travel To Site
2. Rig Up
3. Reenter Hole
4. Drilling
5. Pull Pipe
6. Mix Mud & Fill
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

MATERIALS USED

Mud _____ sacks
LC _____ Type _____
_____ sacks
_____ sacks
_____ sacks
Viscose _____
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 _____ "

Approved _____

Revised: 21, June 1999

David Delis

20816 continued

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

Mon.
Date: 1/3/11 Hole # 20816 Rig # 1-Sam Driller: Sam Crum Supervisor: Fuis

TIME	LOG #	FOOTAGE	REMARKS
pm 12:30	1		met Glenna at powerline Rd so she could lead them into BLM
	2		
	5		pulled 100' of casing out of the hole
	3/4	155'	Re-drilled hole out to 155' (according to helpers; I was with 6KD rig)
	14		Casing end: ↓ They bent the casing so that it wouldn't catch on boulders & rocks again
	15		Sam said they never hit bedrock; just rocks, boulders & sand until the very end when they hit brown-(red?) clay
5:30	10		rig ready to move in the morning once site is cleaned up

LOG REFERENCE #

1. Crew Travel To Site
2. Rig Up
3. Reenter Hole
4. Drilling
5. Pull Pipe
6. Mix Mud & Fill
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

MATERIALS USED

Mud _____ sacks
LC _____ Type _____
_____ sacks
_____ sacks
_____ sacks
Viscose _____
Cement _____
Diesel
Foamer _____
Detergent _____
Other _____

CREW HOURS

Driller ___/_____
Helper ___/_____
Helper ___/_____

Footage: FROM _____ ' TO _____ ' TOTAL FOOTAGE 150' (155')
Bit 9 7/8" changed at _____ ' Size _____ "
Bit _____ changed at _____ ' Size _____ "
Bit _____ changed at _____ ' Size _____ "

Approved _____

Revised: 21, June 1999 David Delis

2081B
2000lbs
140feet
8

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

Date: 12-30-10 (WEDNESDAY) Hole # 2081B Rig # (1) Driller: Sam Crum Supervisor: G.Fus

TIME	LOG #	FOOTAGE	REMARKS
			MOVED TO Different SITE
			TRADED WITH CIZ
3:50			STARTED DRILLING AT 3:50
			18 FEET TO GO
4:40		140'	SAMPLE TAKEN, ROCKS
			TAN SAND
4:23	5		Removing PIPE
4:35	5		All PIPE OUT and removed
			Drill Bit out As well
4:38	8		Casing Begins
			HAD TO STOP CASING
		NOTE	ROCK FELL IN COME
			BACK REMOVE All
			CASING and GET THE
			ROCK OUT THERE
			CASE IT!
5:45			OFF SITE AT

LOG REFERENCE #

1. Crew Travel To Site
2. Rig Up
3. Reenter Hole
4. Drilling
5. Pull Pipe
6. Mix Mud & Fill
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

MATERIALS USED

Mud _____ sacks
LC _____ Type _____
_____ sacks
_____ sacks
_____ sacks
Viscose _____
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 ____"
Approved _____

Revised: 21, June 1999 David Delis

2074a
target 250 lbs
78' 6"

water

no
(casing is
full of water)

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

Tues. Date: 1/4/11 Hole # 2094a Rig # 1 Driller: Sam Crum Supervisor: Ellis

TIME	LOG #	FOOTAGE	REMARKS
AM 7:30	1/11		met Glenna, moved from 2081b
8:30	1/2		
9:15	2		
9:30			I had to go to 6KD's rig to move them to 1102b2
	4 — 0 —		
11:30		78'	Sam called me to tell me he finished drilling and casing; They'll go to 2097a next
			sand/gravel until ~68'
		68'	Clay (brown)
			↳through until the end
11:40	11		off to 2094a

LOG REFERENCE #

1. Crew Travel To Site
2. Rig Up
3. Reenter Hole
4. Drilling
5. Pull Pipe
6. Mix Mud & Fill
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

MATERIALS USED

Mud _____ sacks
LC _____ Type _____
_____ sacks
_____ sacks
_____ sacks
Viscose _____
Cement _____
Diesel
Foamer _____
Detergent _____
Other _____

CREW HOURS

Driller ___/_____
Helper ___/_____
Helper ___/_____

Footage: FROM _____ ' TO _____ ' TOTAL FOOTAGE 78'

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

Approved _____

Revised: 21, June 1999 David Delis

Good sand trail/road

2071a
danger 250 lbs
78' 6"

water?
no
(casing has water)

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

Tues. 1/4/11
Date: 1/4/11 Hole # 2097a Rig # 1-Sam Driller: Sam Crum Supervisor: Ellis

TIME	LOG #	FOOTAGE	REMARKS
AM 11:45	1/2		moved from 2094a
	14		Glenna on site (BLM)
PM 12:20	4	0	
			DG, sand, gravel (Fill; no bedrock)
		55'	Clay (brown) for the last 23 feet or so; med hard clay
		78'	mud didn't drop much at the end of drilling
	10		
3:20	11		called me, ready to move to 2105

LOG REFERENCE #

1. Crew Travel To Site
2. Rig Up
3. Reenter Hole
4. Drilling
5. Pull Pipe
6. Mix Mud & Fill
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

MATERIALS USED

Mud_____sacks
LC_____Type_____
_____sacks
_____sacks
_____sacks
Viscose_____
Cement_____
Diesel
Foamer_____
Detergent_____
Other_____

CREW HOURS

Driller___/_____
Helper___/_____
Helper___/_____

Footage: FROM _____' TO _____' TOTAL FOOTAGE 78'
Bit 7 7/8" changed at _____' Size_____"
Bit_____ changed at _____' Size_____"
Bit_____ changed at _____' Size_____"

Approved_____

Revised: 21, June 1999 David Delis

Good sand road access in OHV area - BLM -

2100c
250 lbs
78 Feet
6'

CLIENT: U.S.Geological Survey/ S.C.E.C.
PROJECT: SSIP
CLIENT REP: Eye Sladay - Caler

Water maybe At Bottom

Date: 2/1/11 Hole # 2100c Rig # (1) Driller: Sam Crum Supervisor: G. Fuis

TIME	LOG #	FOOTAGE	REMARKS
9:15			ON Site
9:45	16		Water trip
9:55	12		Went to Hardware Store For part For pump.
10:35			ON Site With Rig
11:25	6		Mixing mudd Rig Has A Flat!!
11:30	4	0'	Drilling
11:40	8	15'	1st pipe added
11:43		20'	Sample Sand Rocks Bit Gritty Brown tan
12:05	8	35'	2nd pipe added
12:00		40'	Sample Sand Rocks Gravel Tan Colord.
12:33	8	55	3rd pipe added
12:40		60'	Sample taken Sand Gravel Clay like Feeling Tan Brown colored
12:54	8	75	4th pipe added
1:00pm		78'	sample taken clay like feeling sand Gravel Brown tan color.
1:14	5		pulling pipe
1:20	5		All pipe out the Ground
1:24	8		Casing hole 1st one down
1:26	8		2nd casing added
1:36	8		3rd casing added
1:52	8		4th casing added
2:02	8		5th Casing added
2:13			DONE Casing Hole
3:01			OFF Site

LOG REFERENCE #

1. Crew Travel To Site
2. Rig Up
3. Reenter Hole
4. Drilling
5. Pull Pipe
6. Mix Mud & Fill
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

MATERIALS USED

Mud 5 sacks
LC ____ Type ____
____ sacks
____ sacks
____ sacks
Viscose ____
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 ____ "

Approved ____

Revised: 21, June 1999 David Delis

2105a
250 lbs
78'
6"

water:

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

Thurs. Date: 1/4/11 Hole # 2105a Rig # 1 Driller: Sam Crum Supervisor: Fuis

	TIME	LOG #	FOOTAGE	REMARKS
PM	4:00	1/2		on site; location approved by Glenna
	4:40	10		off site; rig & shaker set up
	Wed. 1/5/11			
AM	8:00	2		met Glenna there
	8:40	4	0	
	10:00	4	78'	waiting on Travis to get back with last section of casing
		5/8	CASING	
	10:55		↓	welding last section of casing
	11:30	10	78'	
	11:55	11		moving rig to 2133a

LOG REFERENCE #

1. Crew Travel To Site
2. Rig Up
3. Reenter Hole
4. Drilling
5. Pull Pipe
6. Mix Mud & Fill
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

MATERIALS USED

Mud _____ sacks
LC _____ Type _____
_____ sacks
_____ sacks
_____ sacks
Viscose _____
Cement _____
Diesel
Foamer _____
Detergent _____
Other _____

CREW HOURS

Driller ___/_____
Helper ___/_____
Helper ___/_____

Footage: FROM _____' TO _____' TOTAL FOOTAGE 78'

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

Approved _____

Revised: 21, June 1999 David Delis

Good sandy open OHV area, Plaster City East

2113a
target 250 lbs
78' 6"

water:
at about
50'

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

Mon. Date: 1/3/11 Hole # 2113a Rig # 2-bKD Driller: Sam Crum Supervisor: Ellis

	TIME	LOG #	FOOTAGE	REMARKS
AM	10:20	11		moved rig & shaker from 2117a
	10:55	2		
	11:40	16		Joel went to get water?
		12		Mud pump maintenance (PJ)
PM	12:10	14		I left for BLM site
				↳ back at 2113a at 2PM
	1:30	4	0	
	3:15	4	12'	
	3:40	4/8	45'	Put drill collar on after some struggling w/it
	3:55	4	27'	
				clay is soft & smooth; not super thick/dense; small amount of sand/grit (<10%); tan (light to med) brown
	4:10	4/8	40'	
	4:33	8	57'	(12#15x3))
	5:40	4	~72'	
	5:45	5		
	5:48	10		
				rig down for tonight - the bit is all plugged up w/clay
Tues. 1/4/11				
AM	6:30	12		
	7:45-8	4	78'	took like an hr to drill through last 5' - hard clay; "like drilling through a rubber tire."
			CASING	
			↓	
	9:33	8	78'	
		10		
	10:35	11		moved rig & shaker to 1102b; will need to go back for the rest
				everything off site at 3:15 pm.

MATERIALS USED

Mud _____ sacks
LC _____ Type _____
_____ sacks
_____ sacks
_____ sacks
Viscose _____
Cement _____
Diesel
Foamer _____
Detergent _____
Other _____

CREW HOURS

Driller ___/_____
Helper ___/_____
Helper ___/_____

LOG REFERENCE #

1. Crew Travel To Site
2. Rig Up
3. Reenter Hole
4. Drilling
5. Pull Pipe
6. Mix Mud & Fill
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

Footage: FROM _____ ' TO _____ ' TOTAL FOOTAGE 78 '

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

Approved _____

Revised: 21, June 1999 David Delis

only ~20' off paved road; ~150' from power lines (lines to the north)

2117
250lbs
78 feet
6'

CLIENT: U.S.Geological Survey/ S.C.E.C.
PROJECT: SSIP
CLIENT REP: Cage Stayday-Colley

Wednesday
Date: 12-20-10 Hole # 2117a Rig # (2) Driller: ~~Sam Crum~~ Six killen Supervisor: G FUIS

TIME	LOG #	FOOTAGE	REMARKS
8			ON SITE 2183b PICK UP EQUIPMENT
9:25			Rig up
10:00	4	0'	DRILLING
10:40	8	12'	DRILLED THE FIRST 12 FEET CHANGED TO NEW 12 BIT
10:56		20'	SAMPLE TAKEN THICK GRIDY BROWN CLAY
11:31	8	32'	Added 1st PIPE
11:40		40'	SAMPLE BROWN GRIDDY THICK CLAY
12:01	8	52'	2nd PIPE Added
12:10		60'	SAMPLE TAKEN BROWN THICK CLAY BIT GRIDDY
12:20	8	62'	3rd PIPE Added
12:32			SAMPLE TAKEN THICK BROWN CLAY
			MOVING TO 2081B

LOG REFERENCE #

1. Crew Travel To Site
2. Rig Up
3. Reenter Hole
4. Drilling
5. Pull Pipe
6. Mix Mud & Fill
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

MATERIALS USED

Mud (Reused) sacks
LC Type
sacks
sacks
sacks
Viscose
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 "

Approved

Revised: 21, June 1999 David Delis

2117a
250 lbs
78' 6"

water?
10 - 50'
shaker took on water

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

Thurs. Date: 12/30/10 Hole # 2117a Rig # 2-6KD Driller: Sam Crum Supervisor: Fuis

TIME	LOG #	FOOTAGE	REMARKS
1:05	4	78'	met owner's helper, Cuco
	16	PJ	went to get water from canal
1:30	5		Pulling drill pipe
1:47			drill bit out & put in side box
1:50	8	CASING ↓	* harder clay; not mobile clay; sort of gritty, not waxy/sticky
2:06			Welding 2nd onto 1st.
2:20			3rd up
2:49			#4 up
3:00		78'	Cut off extra section (~8-9')
3:12	10		
	15		* Sandy clay; ~40% sand at cut; Med to dark brown clay
3:45			cleaned up site; left all equipment for the weekend — Ed McCrew said it was ok to leave here
Mon. 1/3/11			
9:30			6KD on site to move to 2113a
10:00	11		

LOG REFERENCE #

1. Crew Travel To Site
2. Rig Up
3. Reenter Hole
4. Drilling
5. Pull Pipe
6. Mix Mud & Fill
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

MATERIALS USED

Mud _____ sacks
LC _____ Type _____
_____ sacks
_____ sacks
_____ sacks
Viscose _____
Cement _____
Diesel
Foamer _____
Detergent _____
Other _____

CREW HOURS

Driller ___/_____
Helper ___/_____
Helper ___/_____

Footage: FROM _____ ' TO _____ ' TOTAL FOOTAGE 78' (18')

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

Approved _____

Revised: 21, June 1999 David Delis

Good farm road — don't drive if wet; good open area

21216
250165
78feet
6'

CLIENT: U.S.Geological Survey/ S.C.E.C.
PROJECT: SSIP
CLIENT REP: Coye Slayday-Chung

Water Dep?

Tuesday
Date: 12-28-10 Hole # 21216 Rig # (1) Driller: Sam Crum Supervisor: Gfuis

TIME	LOG #	FOOTAGE	REMARKS
1250			ON SITE
1pm			Went to let OTHER RIG USE OUR WATER PUMP
			THEY DID NOT USE IT
2:15	4	15'	had to STOP FOR WATER
2:39	4/8	20'	DRILLING AGAIN 1st pipe added
2:42			Sample light Brown Clay Bit Gridy
2:45	8	35'	2nd pipe added
2:50		40'	sample thick light Brown Clay Sticky with a bit Gridy
2:53	8	55'	3rd pipe added
2:59		60'	Sample thick Sticky light Brown clay
3:01	8	75'	4th pipe added
3:05		~78-80~	Sample thick Sticky Brown light Clay Bit Gridy
3:10	5		Removing pipe
3:16	5		Finished removing pipe 5th pipe
3:19	8		1st Casing added
3:45	8		2nd Casing Added pushed
3:55	8		3rd CASING Added
4:05	8		4th CASING ADDED
4:20	8		5th CASING ADDED
4:55			OFF SITE & Pick up Rig IN THE AM!

LOG REFERENCE #

1. Crew Travel To Site
2. Rig Up
3. Reenter Hole
4. Drilling
5. Pull Pipe
6. Mix Mud & Fill
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

MATERIALS USED

Mud (Old) sacks
LC Type
sacks
sacks
sacks
sacks
Viscose
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 "
Approved

Revised: 21, June 1999 David Delis

21236
250lbs
78 Feet
6"

CLIENT: U.S.Geological Survey/ S.C.E.C.
PROJECT: SSIP
CLIENT REP: Cove Slayday - Crew

Water 40

Wednesday
Date: 12-29-10 Hole # 21236 Rig # (2) Driller: ~~Sam Crum~~ Six killer Supervisor: G. FUIS

TIME	LOG #	FOOTAGE	REMARKS
10:15			ON SITE At 21236
10:30	4	0'	Drilling
11:39	4	12'	Slow Drilling Still Not to 20' After 1st 12' Changed Drill Bit to make it Heavier
1:25	8	20'	Added Different Bit
1:38			SAmple taken thick clay Brown colored tinted THICK
		NOTE	NOTE THEY DRILL 12' THEN CHANGE FOR A Heavy Bit !
2:04	8	32'	1st PIPE ADDED
2:15		40'	SAMPLE thick Brown Clay thick textured Gritty
2:18	8	47'	Added 2nd pipe
2:25		60'	SAMPLE TAKEN BROWN THICK Like texture Clay
2:30	8	62'	3rd pipe Added
2:46	8	75'	had to add 4th pipe to Finish OF hole about 5 or 10 FEET !
3:00		78'	SAMPLE taken THICK Brown Clay Gritty Just a bit Sand Black Like Flecks.
3:02	5		PIPE BEING Pulled
3:13	5		All PIPE OUT THE Ground
3:15	8		Started CASING HOLE
3:26	8		2nd casing added
3:46	8		3rd casing added
3:56	8		4th Casing added
4:15	8		5th Casing Added
5:04			OFFSITE moving to Next ONE
5:56			Mail it to Next Site.

LOG REFERENCE #
1. Crew Travel To Site
2. Rig Up
3. Reenter Hole
4. Drilling
5. Pull Pipe
6. Mix Mud & Fill
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

MATERIALS USED
(Mud) Old _____ sacks
LC _____ Type _____
_____ sacks
_____ sacks
_____ sacks
Viscose _____
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 _____ "
Approved _____

Revised: 21, June 1999 David Delis

2501bs
18 feet
10'

CLIENT: U.S.Geological Survey/ S.C.E.C.
PROJECT: SSIP
CLIENT REP: Cuyler Slayday - Crilley

WATER DEP? yes about 5'ON

TUES Day
Date: 12-28-10 Hole # 2125a Rig # (1) Driller: Sam Crum Supervisor: G. Fois

TIME	LOG #	FOOTAGE	REMARKS
730AM			ARRIVED AT SITE
800	2		SETTING UP RIG, RIG UP
8:25			WENT TO GET CASING & MOVE TRAILORS FROM YARD
8:30			WENT TO LOOK AT OTHER SITES.
10:55	4		STARTED DRILLING
11:00	8	15'	1st pipe added
11:06	8	35'	2nd pipe added
11:12	8		3rd pipe Added
		NOTE	NO SAMPLES TAKEN YET went LOOKING FOR SITE coordinating with LIZ
11:23		80'	SAMPLE thick DARK Grey Colord clay A BIT Smoth
11:25	5		pipe Being Removed 1-4
11:35	5		All pipe + bit out the HOLE!
11:38	8		CASING HOLE 1st ONE IN
11:43	8		2nd casing Added
11:53	8		3rd CASING ADDED
12:00	8		4th CASING ADDED
12:13	8		5TH CASING ADDED
12:36	1,10,11		Rig DOWN TRAVELING TO NEW location 2121b with Crew & Rig!
12:50			ON SITE 2121b.

LOG REFERENCE #

1. Crew Travel To Site
2. Rig Up
3. Reenter Hole
4. Drilling
5. Pull Pipe
6. Mix Mud & Fill
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

MATERIALS USED

Mud Gel sacks
LC Type
sacks
sacks
sacks
Viscose
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 "
Approved

Revised: 21, June 1999 David Delis

2133a
target 2000 lbs
140' 8"

Water?
maybe at ~50'
no artesian

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

Wed. 1/5/11

Date: 1/5/11 Hole # 2133a Rig # 1 - Sam Driller: Sam Crum Supervisor: Phil's

	TIME	LOG #	FOOTAGE	REMARKS
PM	12:30	2		
	1:30			tower up
	1:45	4	0	
	2:20	12		Snagged cord/string on motor for water pump
	3:45	4	~53'	got really hard clay
	4:10	8	78'	
		4	135'	really hard, solid, rubbery clay ~5'
	4:50	4	140'	softer med-brown/grayish clay at the bottom
	5:00	5		
	5:15			off site

LOG REFERENCE #

1. Crew Travel To Site
2. Rig Up
3. Reenter Hole
4. Drilling
5. Pull Pipe
6. Mix Mud & Fill
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

MATERIALS USED

Mud 0 sacks (used from 2105)
LC_____ Type_____
_____ sacks
_____ sacks
_____ sacks
Viscose_____
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_____"

Approved_____

Revised: 21, June 1999

David Delis

2133A
140 feet
2000 lbs
8-

CLIENT: U.S.Geological Survey/ S.C.E.C.
PROJECT: SSIP
CLIENT REP: Cove Slayday-Criley

Thursday
Date: 1/6/11 Hole # 2133A Rig # ① Driller: Sam Crum Supervisor: G. Fuis

TIME	LOG #	FOOTAGE	REMARKS
8:05			CASING. DRILL OUT TO Bottom AGAIN
8:17	4		Re DRILLING HOLE
			Note: Already 140' JUST Making HOLE OPEN About ready to case
8:50	4		All RE DRILLED
8:55	5		Pulling PIPE
9:03	5		All pipe out
9:09	8		CASING HOLE
10:38	8		CASING DONE!
			NOTE All CASIN WENT IN Good.
12:30			OFF SITE

LOG REFERENCE #

1. Crew Travel To Site
2. Rig Up
3. Reenter Hole
4. Drilling
5. Pull Pipe
6. Mix Mud & Fill
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

MATERIALS USED

Mud_____sacks
LC_____Type_____
_____sacks
_____sacks
_____sacks
Viscose_____
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_____"
Approved_____

Revised: 21, June 1999 David Delis

J&H Auger

2134a
target = 2500 lbs
78' 6" casing

water at 5'
standing water in the hole

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

Tues. Dec. 21, 2010 mesquite basin

Date: Hole # 2134a Rig # 2 - J & H Driller: Sam Crum Supervisor: Flis

TIME	LOG #	FOOTAGE	REMARKS
AM 7:40	2		We daisy-chained our masterlock to the owner's lock on the yellow gate on Harris Rd
8:15	4	0	started drilling it ast with 6" auger & drilling Mud
8:30	4/8	20'	20' sample - mainly fine sand, w 20-30% fines so it holds its shape; med-brown
9:15	4/8	50'	40' sample - very fine sand - mostly clay though that is soft & sort of
9:25		60'	gritty, med brown color w/some mica & org. matter
			60' darker gray-brown fine sand to mod-grained sand; mica rich & maybe 10% clay
		78'	
10:25	4	78'	
			Victor, one of the helpers went to a hospital to get his finger stitched up - casing cut it pretty good
11:40	13		* lunch break; they have to drill it out again with the 12" auger to slide the 6" casing in
PM 12:05	3	0	raining lightly but constantly
1:10	8	70'	
2:00	1	80'	waiting on one guy to weld casing to lift into place
3:00	8		first case in air
5:00			last case in, Pulling drill pipe
5:00	12/14		snapped the main cable continued pulling pipe out anyway
			All casing went in
6:40	5		All drill pipe out!
6:50	9		Hole plug 1st di quicker: 4 bags chips
7:00	10		
8:00	11		
9:10			off site. Our govt masterlock is on gate on SE corner of lot along Harris Rd

LOG REFERENCE #

1. Crew Travel To Site
2. Rig Up
3. Reenter Hole
4. Drilling
5. Pull Pipe
6. Mix Mud & Fill
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

MATERIALS USED

Mud 5 sacks for drilling w/ 8" auger
LC ____ Type ____
____ sacks
____ sacks
____ sacks
Viscose ____
Cement ____
Diesel
Foamer ____
Detergent ____
Other ____

CREW HOURS

Driller ___/____
Helper ___/____
Helper ___/____

Footage: FROM ____ ' TO ____ ' TOTAL FOOTAGE ____ '

Bit 12" auger changed at ____ ' Size ____ "
Bit ____ changed at ____ ' Size ____ "
Bit ____ changed at ____ ' Size ____ "

Revised: 21, June 1999

David Delis

Approved Road is good if dry, slick if at all wet - trucks slide around even after light rain

2136b
250lbs
78 feet
6' WATER? lost mud Through Cracks

CLIENT: U.S.Geological Survey/ S.C.E.C.
PROJECT: SSIP
CLIENT REP: Caye Slayday-CRiley

Date: 2/14/11 Hole # 2136b Rig # (1) Driller: Sam Crum Supervisor: G. Fuis

TIME	LOG #	FOOTAGE	REMARKS
1pm			ON Site
1:45			WATER TRIP
3pm			Tower up SET up
3:23	4	0'	DRILLING
3:35	8	16'	1st pipe added.
3:39		20'	SAMPLE TAKEN DARK Brown Thick SAND Gridy. Clay
3:46	8	35'	2nd pipe added.
3:49		40'	SAMPLE TAKEN Thick Clay/ Gridy DARK BROWN.
357	8	55'	3rd pipe added.
4:02		60'	SAMPLE TAKEN THICK Brown Clay Gridy
4:15	8	75'	4th pipe added.
4:22		78'	SAMPLE TAKEN Brown Thick Clay Gridy.
4:35	5		Removing PIPE
441	5		All pipe and bit out Ground.
450	8		Casing hole 1st one down
452	8		2nd casing added
5:12	8		3rd Casing added
5:25	8		4th Casing added
5:39	8		5th casing added
547	8		DONE CASING HOLE
			NOTE MUD CAME UP Behind Hole through Cracks IN BUSHES.

LOG REFERENCE #

1. Crew Travel To Site
2. Rig Up
3. Reenter Hole
4. Drilling
5. Pull Pipe
6. Mix Mud & Fill
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

MATERIALS USED

Mud (9) sacks
LC ____ Type ____
____ sacks
____ sacks
____ sacks
Viscose ____
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 ____"
Approved ____

Revised: 21, June 1999 David Delis

2141a

250 lbs
78' 6"
82'

no

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

Sat. Dec. 18, 2010
Date: Hole # 2141a Rig # 1 Driller: Sam Crum Supervisor: Fris

TIME	LOG #	FOOTAGE	REMARKS
Am 10:00	2		
	16		
11:30	4	0	
11:45	12		A rock or something got stuck in the shaker.
11:54	3/4		
Pm 12:01	8	15'	
			Owner, Mark's son came down & said
12:23	4/8	55'	they may be excavating a ton of
12:24	8		dirt in the next couple month's
			and that he'd call if/when
			they started
			Steve showed up to help stake
			a Scout
		80'	
1:05	5		
1:15	8	CASING	CLAY; not much sand at all
		↓	
2:08	10	82'6"	*this would be mush if it rained
2:45	11		All off site, going to 1067a

LOG REFERENCE #

1. Crew Travel To Site
2. Rig Up
3. Reenter Hole
4. Drilling
5. Pull Pipe
6. Mix Mud & Fill
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

MATERIALS USED

Mud 0 sacks (used it all from 1079a)
LC ____ Type ____
____ sacks
____ sacks
____ sacks
Viscose ____
Cement ____
Diesel
Foamer ____
Detergent ____
Other ____

CREW HOURS

Driller ___/____
Helper ___/____
Helper ___/____

Footage: FROM ____' TO ____' TOTAL FOOTAGE 82.5'
Bit 7 7/8" changed at ____' Size ____"
Bit ____ changed at ____' Size ____"
Bit ____ changed at ____' Size ____"

Approved ____

Revised: 21, June 1999 David Delis

Good access as long as it's DRY; otherwise, no [illegible]

2145a

CLIENT: U.S.Geological Survey/ S.C.E.C.
PROJECT: SSIP
CLIENT REP: Janet Harvey

78

Date: 12/27/10 Hole # 2145a Rig # Driller: ~~Sam Crum~~ Supervisor: GFUIS

TIME	LOG #	FOOTAGE	REMARKS
12:15	1		CREW ARRIVES TO START
1:22	2		Drill Bit stuck on pipe- cannot change bit tds soft rock drill
4:36	4		Drilling starts
5:20	13		Stop() for the night
12/28/10			
8:00	3		Start for the day
8:40			20' Sample poorly sorted gravel/ basement, Qtz rich & abundant clay (pinkish)
9			
9:20	5		Add collar for extra weight
10:15	3,4		Restarted drilling
11:00	5		Add next section()
11:20	3,4		" " drilling started
11 35			40' Sample - ~100% clay (brown)
			hit clay ~37', sped up
12:05			60' Sample brown clay w/ abundant charcoal (or possibly organic rich shale)
12:20			Drilling finished
2:37	8		8 - Casing finished
3:10	10		Rig down
4:30	11		

LOG REFERENCE #

1. Crew Travel To Site
2. Rig Up
3. Reenter Hole
4. Drilling
5. Pull Pipe
6. Mix Mud & Fill
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

MATERIALS USED

Mud 2 sacks
LC_____ Type_____
_____ sacks
_____ sacks
_____ sacks
Viscose_____
Cement_____
Diesel
Foamer_____
Detergent_____
Other_____

CREW HOURS

Driller___/_____
Helper___/_____
Helper___/_____

Footage: FROM _____' TO _____' TOTAL FOOTAGE 78'

Bit_____ changed at _____' Size_____"
Bit_____ changed at _____' Size_____"
Bit_____ changed at _____' Size_____"

Approved_____

Revised: 21, June 1999 David Delis

2150A
250 lbs
78 Feet
6"

CLIENT: U.S.Geological Survey/ S.C.E.C.
PROJECT: SSIP
CLIENT REP: Cuyler Skayday-Crileg

Water Dep? Yes 30' - ON

MONDAY
Date: 12-20-10 Hole # 2150A Rig # (1) Driller: Sam Crum Supervisor: G. Fuis

TIME	LOG #	FOOTAGE	REMARKS
3:08			+ ARRIVED ON SITE SETTING UP DRILL
3:40			+ OFF SITE DRILL TOMMORAW!
12-21-10		TUESDAY	12-21-10 TUESDAY 12-21-10
7:20			+ Navigated SITE 1077a
8:30			+ ON SITE 2150A WATING FOR DRILLERS.
8:45			+ LEFT SITE TO SEE IF 2145 A WAS MARKED yet NOT YET. MARKED ! Got Gas
9:45			+ ON SITE AGAIN WATING FOR DRILLERS TO SHOW UP AT 2150a
10:20			+ DRILLERS ON SITE
10:33	4		+ Drilling Begins.
10:39	8	15'	1st pipe added
10:42		20'	SAMPLE thick hard clay Midium Brown colore
10:45	6		Mixing and adding mud
10:53	8	35'	2nd pipe added
10:57		40'	Sample THICK Dark Brown Mid color clay
11:01	6		+ mixing & adding mud
11:05	8	55'	3rd pipe being added
11:12		60'	Sample thick DARK BROWN clay SAME AS last two Samples
11:16	16		+ went TO Fill up WATER
		NOTE	+ FOUND a leack HOLE about 10-20 feet From hole 2150A ONLY ONE to the west
11:34			+ Water TRUCK returned.
11:38	4		+ Drilling again
11:44	8	75'	4th PIPE Added
11:49		80'	+ Sample taken thick Dark Brown Clay

LOG REFERENCE #

1. Crew Travel To Site
2. Rig Up
3. Reenter Hole
4. Drilling
5. Pull Pipe
6. Mix Mud & Fill
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

MATERIALS USED

Mud (9) sacks
LC ____ Type ____
____ sacks
____ sacks
____ sacks
Viscose ____
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 ____"

Approved ____

Revised: 21, June 1999

David Delis

2150a

CLIENT: U.S.Geological Survey/ S.C.E.C.
PROJECT: SSIP
CLIENT REP: Jesse Slayday-(Riley)

WATER DEP? Yes 36'-0N

TUESDAY
Date: 12-21-10 Hole # 2150A Rig # 1 Driller: Sam Crum Supervisor: B. Fuis

TIME	LOG #	FOOTAGE	REMARKS
11:51	5		- Pulling pipe
			- 1st one out
11:53	5		- 2nd pipe out
11:55	5		- 3rd pipe out
11:56	5		- 4th pipe out
11:57	5		Drill bit pulled out.
		NOTE	- More mud today due to loss of water plus leaked from hole. Added more water mud to make it similar.
12:00pm	8		- 1st casing added
12:16	8		- 2nd casing added pushed in
12:26	8		- 3rd casing pushed in
12:36	8		- 4th casing pushed in and down
12:46	8		- 5th casing down & pushed.
1:21	11/4		- Traveling to New Site moving Rig to. 1077a.
1:44			- Arrived at Site 1077a

1. Crew Travel To Site
2. Rig Up
3. Reenter Hole
4. Drilling
5. Pull Pipe
6. Mix Mud & Fill
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

MATERIALS USED

Mud 9 sacks
LC_____Type_____
_____sacks
_____sacks
_____sacks
Viscose_____
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_____" Approved_____

Revised: 21, June 1999 David Delis

115 feet
8

CLIENT: U.S.Geological Survey/ S.C.E.C.
PROJECT: SSIP
CLIENT REP: Cage Stagdy-Corley

WATER? Alot At End

Date: 2/4/11 Hole # 2164A Rig # (1) Driller: Sam Crum Supervisor: G. Fuis

TIME	LOG #	FOOTAGE	REMARKS
7Am			ON Site
7:15a			Setting up
7:30			WATER TRIP
8:50	2/12		Tower up Finised Fixing Rig
9am	4	0'	Drilling
9:02	6		Mixing mudd
9:09	8	15'	1st pipe added
9:13		20'	SAmple taken Clay Feeling With small like ROCKS with Some Sand
9:18	8	35'	2nd pipe added
			NOTE will ONLy BE TAking SAMPLES AT: 20, 60, 80, 115 Feet Sorry in advanced
		40'	
9:20			Sample Clay Feeling Bit Sand and Gravel NOT TAKEN FOR!
9:28	8	55'	3rd pipe added
9:30		60'	SAMPLE TAKEN SAND Clay Rocks MAINLY Gritty Feeling
9:39	8	75'	4th pipe Added
9:42		80'	SAMPLE TAKEN SOME Clay Feeling lots OF SAND AND Gravel ROCKS!
9:48	8	95'	5th pipe Added
9:52		100'	SAMPLE FOR NOT TAKEN SAME Gritty Sand Clay FEELING
10:00		115'	SAMPLE TAKE SAND Gritty Clay Feeling
10:04	5		pulling pipe
10:11	5		All pipes Rit out
10:16	8		CASING Hole 1st down
10:22	8		2nd CASING Added
10:40	8		3rd Casing Added
10:54	8		4th CASING Added
11:04	8		5th Casing Added
11:16	8		6th Casing Added

LOG REFERENCE #

1. Crew Travel To Site
2. Rig Up
3. Reenter Hole
4. Drilling
5. Pull Pipe
6. Mix Mud & Fill
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

MATERIALS USED

Mud 5 sacks
LC ____ Type ____
____ sacks
____ sacks
____ sacks
Viscose ____
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 ____ "

Approved ____

Revised: 21, June 1999 David Delis

CI TTA
250165
78 feet
6"

CLIENT: U.S.Geological Survey/ S.C.E.C.
PROJECT: SSIP
CLIENT REP: Cuyler Slayday - CRiley

Date: 1/12/11 Hole # 2179a Rig # 1 Driller: ~~Sam Crum~~ Supervisor: G. FUS

TIME	LOG #	FOOTAGE	REMARKS
2:20			ON SITE
2:45			SETTING UP
2:50			Rig UP
3:20			About READY to DRill
3:29	4		STARTed DRilling
3:36	8	15'	1st pipe Added
3:40		20'	SAMPLE TAKEN ROCKS ROCKS ROCKS & SOME Gravel
3:46	8	35	2nd pipe Added
3:50		40'	SAMPLE MORE ROCKS and Gravel
3:54	8	55'	pipe added 3rd ONE!
4:05		60'	SAMPLE TAKEN MORE ROCKS LOTS OF Gravel & Color
4:16	8	75'	4th pipe added
		78'	SAMPLE TAKEN ROCKS OH MUD MORE ROCKS
4:32	5		Removing pipe 1st out
4:33	5		2nd pipe out
4:34	5		3rd OUT and pulled " .
4:36	5		4th PIPE PULLED
4:36	5		5th and pit OUT
			casing tomorrow
			OFF SITE
Thursday 1/13/11 8:30			THURSDAY 1/13/11 ONSITE
8:40			Reentering HOLE
9:09			CASING HOLE
9:58			CASING DONE

LOG REFERENCE #

1. Crew Travel To Site
2. Rig Up
3. Reenter Hole
4. Drilling
5. Pull Pipe
6. Mix Mud & Fill
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

MATERIALS USED

Mud_____sacks
LC_____Type_____
_____sacks
_____sacks
_____sacks
Viscose_____
Cement_____
Diesel
Foamer_____
Detergent_____
Other_____

CREW HOURS

Driller___/_____
Helper___/_____
Helper___/_____

Footage: FROM _____' TO _____' TOTAL FOOTAGE _____'
Bit_____ changed at _____' Size_____"
Bit_____ changed at _____' Size_____"
Bit_____ changed at _____' Size_____" Approved_____

Revised: 21, June 1999 David Delis

2183a
2501bs
78 feet
6'

CLIENT: U.S.Geological Survey/ S.C.E.C.
PROJECT: SSIP
CLIENT REP: Dave Slayday - Cabling

Water? 70' Maybe

Wednesday
Date: 11/2/11 Hole # 2183A Rig # (1) Driller: Sam Crum Supervisor: G. Fuis

TIME	LOG #	FOOTAGE	REMARKS
8:45			ARRIVED ON SITE
9:00	16		WATER
9:30			went and Navigated Next site
10:46	2		Rig UP
10:50	4		started DRilling
11:10			left TO SHOW BIOLOGIST Next site MISSED 20
			40 Foot SAMPLE
11:30	8	55'	Added pipe
11:47		60'	SAMPLE TAKEN ROCKS Gravel BITS
12:03	3	75'	pipe Added
12:36		78'	SAMPLE TAKEN
			NOTE All 60-78 FEET ARE THE SAME ROCK GRAVEL
			With Sand MISED THE FIRST TWO SAMPLES.
12:40	5		REMOVING PIPE
12:45	5		All pipe & Bit out.
1:01	8		STARTED CASING HOLE
1:08	8		2nd casing added
1:14	8		3rd down
1:23	8		4th casing added
1:40	8		5th CASING added
2:00			OFF SITE moving Everything to Next location

LOG REFERENCE #

1. Crew Travel To Site
2. Rig Up
3. Reenter Hole
4. Drilling
5. Pull Pipe
6. Mix Mud & Fill
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

MATERIALS USED

Mud 7 sacks
LC_____ Type_____
_____ sacks
_____ sacks
_____ sacks
Viscose_____
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_____"

Approved_____

Revised: 21, June 1999 David Delis

2000
2000 lbs
140 feet
8'

CLIENT: U.S.Geological Survey/ S.C.E.C.
PROJECT: SSIP
CLIENT REP: Cove Slayday-Criley

1 OF 2

Thursday
Date: 1/13/11 Hole # 2188a Rig # ① Driller: Sam Crum Supervisor: G. Fuis

TIME	LOG #	FOOTAGE	REMARKS
12:30			ON SITE 12:45 TRAVLING
1:35			SET UP RIG
2:00	4		DRILING
2:12	8	15'	1st PIPE ADDED
2:17		20'	SAMPLE TAKEN Bit CLAY Gravel BROWN Colored
2:23	8	35'	2nd PIPE ADDED
2:37		40'	SAMPLE TAKEN CLAY SAND Gravel BROWN light colored
2:42	8	55'	3rd PIPE ADDED
			FAST SMOTH DRILLING
2:48		60'	SAMPLE TAKEN CLAY ROCKS Bit OF SAND BROWN
2:53	8	75'	4th pipe ADDED
2:58		80'	SAMPLE TAKEN CLAY Bit OF SAND with SOME Gravel BROWN
3:12	8	95'	5th PIPE ADDED
3:18		100'	SAMPLE TAKEN ROCKS SAND Bit OF Clay and Foam
3:45			REMOVING PIPE NEED TO Get Hard Rock bit TO FINISH HOLE TOMMORROW
4:35			OFF SITE
Friday 1/14/11		Friday	1/14/11
10:17			ON SITE
11:10			SETTING UP
11:50	4		DRILLING
11:51	3/8		2nd pipe added
11:52	3/8		3rd pipe added
11:53			4th pipe added
11:55			5th pipe added
11:58			6th pipe added

LOG REFERENCE #
1. Crew Travel To Site
2. Rig Up
3. Reenter Hole
4. Drilling
5. Pull Pipe
6. Mix Mud & Fill
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

MATERIALS USED
Mud_____sacks
LC_____Type_____
_____sacks
_____sacks
_____sacks
Viscose_____
Cement_____
Diesel
Foamer 5g
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_____" Approved_____

Revised: 21, June 1999 David Delis

488 ft
2000lbs
140Feet
8'

CLIENT: U.S.Geological Survey/ S.C.E.C.
PROJECT: SSIP
CLIENT REP: Caye Slayday-Cailes

2 OF 2

Date: 1/14/11 Hole # 2188A Rig # (1) Driller: Sam Crum Supervisor: G. Fuis

TIME	LOG #	FOOTAGE	REMARKS
12:03		120'	SAMPLE TAKEN ROCKS SAND BROWN COLORED
			MISSED LAST PIPE ADDED &
12:13	5		REMOVING PIPE
			NOTE MISSED SAMPLE
			140' & LAST PIPE ADDED
12:23	5		ALL PIPE OUT THE GROUND
12:30	8		CASING HOLE!
1:45	8		DONE CASING HOLE
			CLEANING UP MOVING CREW & RIG TO NEW LOCATION

LOG REFERENCE #

1. Crew Travel To Site
2. Rig Up
3. Reenter Hole
4. Drilling
5. Pull Pipe
6. Mix Mud & Fill
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

MATERIALS USED

Mud_____sacks

LC_____Type_____

_____sacks

_____sacks

_____sacks

Viscose_____

Cement_____

Diesel

Foamer 5

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_____" Approved_____

Revised: 21, June 1999 David Delis

2222A1
2000lbs?
120feet
8'

CLIENT: U.S.Geological Survey/ S.C.E.C.
PROJECT: SSIP
CLIENT REP: Cayle Slayday-Criley

1 OF 2 water YES About 12 FEET

SAT
Date: 1/15/11 Hole # 2222 A1 Rig # 0 Driller: Sam Crum Supervisor: G FUIS

TIME	LOG #	FOOTAGE	REMARKS
9:Am			ON Site After picking up Trailer with casing
9:15			Setting up
9:30	16		water trip
9:50			Filled up mud / SHAKER with water
10:05	16		WATER TRIP Again
10:35	12		Fixing pice that broke on Rig!
11:00	13		Still working ON Rig
11:20	4		Drilling
11:25			Rock Stuck in SHAKER
11:34	4		DRILLING Again
11:37	8	15'	1st pipe Added
11:40		20'	SAMPLE TAKEN Dark Gray with Clay & Gravel
11:43	8	35	2nd pipe added
11:46		40'	SAMPLE take FINE SAND Gravelsome clay
11:53	8	55'	3rd pipe Added
11:58		60'	SAMPLE taken Gravel Mixed Colord Rocks.
12:01	8	75'	4th pipe added
12:05		80'	SAMPLE River Rocks Colorful
12:10		95'	5th pipe Added
12:15		100'	Sample SAMEas Last Few SAMPLES
12:20	(13)		SHAKER Broke.
2:08	13		Still Fixing SHAKER
3:26			OFF SITE

LOG REFERENCE #

1. Crew Travel To Site
2. Rig Up
3. Reenter Hole
4. Drilling
5. Pull Pipe
6. Mix Mud & Fill
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

MATERIALS USED

Mud (13) sacks
LC_____ Type_____
_____sacks
_____sacks
_____sacks
Viscose_____
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_____" Approved_____

Revised: 21, June 1999 David Delis

20001657
120 feet
8'

CLIENT: U.S.Geological Survey/ S.C.E.C.
PROJECT: SSIP
CLIENT REP: Cage Slagday - C Riley

20F2 Water Yes About 12 feet

SAT
Date: 1/6/11 Hole # 2222A1 Rig # (1) Driller: Sam Crum Supervisor: G. Fuis

TIME	LOG #	FOOTAGE	REMARKS
8:45am			ON SITE
9:15			Fixing Shaker
10:50			starting up Rig
11:10	4		Drilling
11:11	6		Readding pipe 1 stone on
11:12	8		2nd pipe added
11:19	8		3rd pipe added
11:27	8		4th pipe added
11:30	8		5th pipe added
12:03	8	115'	6th pipe added
12:15		120'	SAMPLE TAKEN ROUSS
			lots OF ROCKS Colorful River Rocks.
12:28			SAT At 120' For a bit Keep losing water.
12:42	5		pulling pipe
12:44	5		2nd pipe out
12:47	5		3rd pipe out
12:49	5		4th pipe out
12:51	5		5th pipe out
12:52	5		6th pipe out
1:00pm	8		CASING HOLE
1:02	8		2nd casing added
1:16	8		3rd casing added
1:33	8		4th casing added
1:44	8		5th Casing Added
2:01	8		6th casing added
2:16	8		7th casing added
4:45			OFF SITE

1. Crew Travel To Site
2. Rig Up
3. Reenter Hole
4. Drilling
5. Pull Pipe
6. Mix Mud & Fill
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

MATERIALS USED

Mud 13 sacks
LC _____ Type _____
_____ sacks
_____ sacks
_____ sacks
Viscose _____
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 _____" Approved _____

Revised: 21, June 1999 David Delis

LLCHC
2000lbs?
120 feet
8'

CLIENT: U.S.Geological Survey/ S.C.E.C.
PROJECT: SSIP
CLIENT REP: Cuye Slayday

Water Yor

Date: 11/7/11 Hole # 2222 #2 Rig # (1) Driller: Sam Crum Supervisor: G Fuis

TIME	LOG #	FOOTAGE	REMARKS
9am			ON Site
9:22	4		Drilling
9:25	8	15'	1st pipe Added
9:30		20'	SAmple taken Gray clay SAND a lots OF Gravel
9:38		35'	2nd pipe Added
9:42		40'	SAMPLE TAKEN RIVER Rocks some clay Not much Sand Gray
9:49	8	55'	3rd pipe added
9:55		60'	SAmple taken Bit of Clay RIVER ROCKS SAND Gry Brown
10:05			ROCK Stuck in SHAKER
10:21	8	75'	4th PIPE Added
10:39		80'	SAmple taken ROCKS SAND Gray Brown
11:01	8	95'	5th pipe Added
			Losing Water DRilling At point For A Bit
11:05		100'	SAmple taken Lots OF Rocks Some sand
11:15		115'	6th pipe ADDED
11:25		120'	SAmple taken Rocks Sand
11:35	5		PIPE Removed
11:41	5		SHAKE Out
11:48	8		CASing Hole
12:52	8		All Casing Added
			MAVING Crew and everything
2:55			TO New Location
			OFF Site.

LOG REFERENCE #

1. Crew Travel To Site
2. Rig Up
3. Reenter Hole
4. Drilling
5. Pull Pipe
6. Mix Mud & Fill
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

MATERIALS USED

Mud 3 t old sacks
LC_____ Type_____
_____ sacks
_____ sacks
_____ sacks
Viscose_____
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_____"

Approved_____

Revised: 21, June 1999 David Delis