

TABLE 1
SUMMARY OF FIELD ACTIVITY REPORTS

FAR No.	Date	ACTIVITY														Description			
		Drilling	WireLine Steering	Microcoil Steering	Loss of Returns	Spade Bit	Tricone Bit	Breakout ²	Frac Out ³	Pullback ⁴	Pit Excavation	Inclinometer Readings	Drain Discharge Readings	Gyro Survey	Boring B-12		Permanent Structure	RFI ⁵ Response Issued	Other
1	02/15/13																		Kick-off Meeting
2	02/18/13	*	*																D-2 Drilling
3	02/19/13	*	*																D-2 Drilling
4	02/20/13	*	*																D-2 Drilling; Drill Repair
5	02/21/13	*	*																D-2 Drilling
6	02/22/13	*	*																D-2 Drilling
7	02/23/13	*	*																D-2 Drilling
8	02/25/13	*	*																D-2 Drilling
9	02/26/13	*	*																D-2 Drilling; Abandon drill path
10	02/27/13	*	*																D-2 Drilling; Attempt to drill new path; return to abandoned path
11	02/28/13	*	*																D-2 Drilling
12	03/01/13	*	*																D-1 Drilling
13	03/02/13	*	*																D-1 Drilling
14	03/04/13	*	*																D-1 Drilling
15	03/05/13	*	*																D-1 Drill and breakout; Coupler broke during pullback
16	03/06/13	*	*																D-1 Extract Piping; Excavate C-Block
17	03/07/13	*	*																D-1 Pullback; C-2 Drill
18	03/08/13	*	*																C-2 Drill and breakout
19	03/09/13	*	*																C-2 Pullback; Construct microcoil
20	03/11/13	*	*																C-5 Drilling
21	03/12/13	*	*																C-5 Drilling, breakout, and pullback; Sonde sheared
22	03/13/13	*	*																Replaced sonde; C-4 Drilling
23	03/14/13	*	*																C-4 Drilling and breakout
24	03/15/13	*	*																C-4 Pullback; C-1 Drilling
25	03/16/13	*	*																C-1 Drilling
26	03/18/13	*	*																C-1 Breakout and pullback; C-6 Drilling
27	03/19/13	*	*																C-6 Drilling; Reposition microcoil
28	03/20/13	*	*																C-6 Drilling, breakout, pullback; C-3 Drilling
29	03/21/13	*	*																C-3 Drilling and breakout
30	03/22/13	*	*																C-3 Pullback; Excavate B-Block; B-5 Drilling
31	03/23/13	*	*																B-5 Drilling
32	03/25/13	*	*																B-5 Drilling, breakout, pullback
33	03/26/13	*	*																B-2 Drilling; Withdraw drill string for repair
34	03/27/13	*	*																B-2 Drilling, breakout, pullback; B-6 Drilling
35	03/28/13	*	*																B-6 Drilling
36	03/29/13	*	*																B-6 Drilling, breakout, pullback
37	04/01/13	*	*																B-3 Drilling
38	04/02/13	*	*																B-3 Drilling, breakout, pullback; B-4 Drilling, withdraw drill string and realign
39	04/03/13	*	*																B-4 Drilling; Pump Failure
40	04/04/13	*	*																Pump Repair; B-4 Drilling, breakout, pullback
41	04/05/13	*	*																B-1 Drilling
42	04/08/13	*	*																B-1 Drilling
43	04/09/13	*	*																B-1 Drilling, breakout, pullback; Excavate A-Block; A-6 Drilling
44	04/10/13	*	*																A-6 Drilling
45	04/11/13	*	*																A-6 Drilling; Reposition microcoil; Boring B-12 Drilling
46	04/12/13	*	*																A-6 Drilling, breakout, pullback; A-3 Drilling; Boring B-12 Drilling
47	04/15/13	*	*																A-3 Drilling, breakout, pullback; Boring B-12 Drilling
48	04/16/13	*	*																A-5 Drilling; Plug and Unplug Drain A-6; Boring B-12 Developed

TABLE 1
SUMMARY OF FIELD ACTIVITY REPORTS

FAR ¹ No.	Date	ACTIVITY														Description			
		Drilling	WireLine Steering	Microcoil Steering	Loss of Returns	Spade Bit	Tricone Bit	Breakout ²	Frac Out ³	Pullback ⁴	Pit Excavation	Inclinometer Readings	Drain Discharge Readings	Gyro Survey	Boring B-12		Permanent Structure	RFI ⁵ Response Issued	Other
49	04/17/13	•	•	•														•	A-5 Drilling; Drilling fluids flow readily into containment, pumps play catch-up; Police incident
50	04/18/13	•	•	•			•		•									•	A-5 Drilling, breakout, pullback; A-2 Drilling; Boring B-12 instrumented; Police incident
51	04/19/13	•	•	•			•		•										A-2 Drilling, breakout, pullback
52	04/20/13	•	•	•			•		•										A-2 Drilling, breakout, pullback
53	04/22/13	•	•	•			•		•										A-4 Drilling; Excavate A-Block
54	04/23/13	•	•	•			•		•										A-4 Drilling
55	04/24/13	•	•	•			•		•										A-4 Drilling, breakout, pullback; Repair drill pump
56	04/25/13	•	•	•			•		•										Repair drill pump; A-1 Drilling
57	04/29/13	•	•	•			•		•										A-1 Drilling, breakout, pullback
58	06/13/13																		Demobilization
WES	06/17/13																		Permanent entry structures
59	07/09/13																		Permanent entry structures

Notes:

1. FAR = Field Activity Report
2. Breakout = The moment when the drill bit exits at the toe of the slope
3. Frac Out = The action of ground fracturing and releasing fluid due to the pressures generated from the drilling activities.
4. Pullback = The action of pulling the HDPE piping from the toe of the slope to the entry pit after drilling of the borehole.
5. RFI = Request for Information

**TABLE 2
SUMMARY OF DRAIN INSTALLATION**

Drain	Upper/ Lower	Date Completed	AS-BUILT SURVEY					
			Horizontal (ft)			Elevation (ft)		
			CP-1	CP-2	Exit	CP-1	CP-2	Exit
D-2	L	28-Feb	1.8	-3.4	0.7	-1.3	-1.6	-4.0
D-1	U	7-Mar	6.3	8.2	2.5	-2.9	-0.9	-1.8
C-2	U	9-Mar	0.6	0.3	-1.2	-10.0	0.6	-3.8
C-5	L	12-Mar	-2.9	-4.9	-7.4	3.9	4.7	-3.5
C-4	L	15-Mar	-0.5	0.1	2.9	5.0	1.8	0.4
C-1	U	18-Mar	0.9	1.0	0.5	-10.0	-0.4	0.0
C-6	L	20-Mar	-0.1	-1.0	-1.8	3.0	4.1	0.9
C-3	U	22-Mar	5.1	2.3	-0.8	-9.8	1.2	0.1
B-5	L	25-Mar	-1.5	-0.9	0.4	4.2	4.3	-0.1
B-2	U	27-Mar	0.2	0.1	0.1	-9.4	-1.6	-0.1
B-6	L	29-Mar	1.4	1.6	0.9	3.8	4.5	-0.2
B-3	U	2-Apr	2.7	1.0	-0.5	-9.6	1.1	0.0
B-4	L	4-Apr	-0.3	3.4	1.4	3.6	3.2	-0.5
B-1	U	9-Apr	-0.5	3.1	-0.4	-9.5	0.5	0.1
A-6	L	12-Apr	0.8	1.9	2.3	4.5	2.9	0.0
A-3	U	15-Apr	4.4	1.1	-1.0	-9.4	-1.0	0.0
A-5	L	18-Apr	-4.3	-4.0	-1.0	4.6	1.5	-0.4
A-2	U	19-Apr	-3.1	-4.4	0.0	-9.2	-2.2	-0.3
A-4	L	23-Apr	-6.4	-5.3	-2.6	1.6	2.5	0.2
A-1	U	25-Apr	-4.4	-5.5	-3.4	10.0	1.3	-0.9

Notes:

1. Positive horizontal distance is oriented east; negative horizontal distance is oriented west.
2. Points surveyed are Critical Point 1 (CP-1), Critical Point 2 (CP-2), and Drain Exit (Exit), as shown in the dewatering plans and specifications.
3. Red font = does not conform to specification; Blue font = contractual variance granted.
4. Horizontal survey data taken from gyrotheodolite survey performed by Scientific Drilling. Elevation survey data taken from wireline location survey performed by ProGuide HDD during drilling.

ft = feet