

## TXU Underground Gas Storage Pty Ltd

Well **Iona-2** 7:00 to 9:30 26-Nov-03 Report 1

Depth Ref Tbg Spool 18.7' KB 3.2808'/m \$0.74/A\$

Time	Operation	Costs	Daily	Cumulative
7:00	PTW & JSA	NA	NA	NA
7:30	Install Vam x Bowen X-over			
8:00	RU SL Lubricator - SIWHP 1510psi			
8:30	RIH 2.30" drift			
9:00	Tag @ 4345.5' KB			
9:30	RD SL			
	<b>Total</b>	NA	NA	NA

<b>BHA</b>
<b>Notes</b>
<div>Weather Fine</div> <div>Supervisor Greg Hogan</div>

## TXU Underground Gas Storage Pty Ltd

Well **Iona-2** 7:00 to 18:30 6-Dec-03 Report 2

Depth Ref Tbg Spool 18.7' KB 3.2808'/m \$0.74/A\$

Time	Operation	Costs	Daily	Cumulative
7:30	Arrive on location, site induction	NA	NA	NA
8:00	Spot trucks and begin rig up			
10:00	Safety meeting for stabbing pipe, pressure testing			
10:20	Stab pipe into injector			
15:00	Pull test connector to 10000 lbf			
15:25	Function test BOPs			
16:25	Pressure test check valves			
16:45	Stab injector			
17:00	Pressure test surface lines			
18:30	Stop Operations			
	<b>Total</b>	NA	NA	NA

<b>BHA</b>	NA
<b>Notes</b>	
<b>Weather</b>	Fine
<b>Supervisor</b>	Greg Hogan

## TXU Underground Gas Storage Pty Ltd

Well **Iona-2**      7:00 to 20:00      7-Dec-03      Report 3

Depth Ref Tbg Spool 18.7' KB    3.2808'/m    \$0.74/A\$

Time	Operation	Costs	Daily	Cumulative
7:00	Safety meeting	NA	NA	NA
7:50	Make up BHA and stab injector			
8:15	Pressure test			
8:25	UMV & LMV open. SIWHP 1165 psi			
8:40	Attempt RIH , close UMV & LMV			
8:58	Unstab injector, check stripper and BHA			
9:16	Stab injector			
9:19	Pressure test			
9:24	UMV & LMV open. SWIHP 1196 psi. RIH			
10:05	Open WV & flare @ 5mmscfd			
10:08	Start pumping N2 @ 300 scfm, surfactant fluid @ 0.25 bpm			
11:22	Stop pumping fluid and N2 for dry tag			
11:43	Tag fill @ 4345 ft. POOH 10 ft. Start pumping @ 400 scfm, 0.6			
12:17	Set down 1000 lb on packer, pick up and set down at same depth			
14:00	Unable to pass packer. POOH to surface.			
15:30	Tag stripper @ surface then close WV, UMV & LMV			
16:40	Inspect BHA and Pressure test			
16:48	Open UMV & LMV. SIWHP 1523 psi. RIH			
18:00	Open WV & flare @ 5mmscfd			
19:08	Unable to pass packer. POOH to surface.			
20:00	At surface. Close UMV & LMV. Stop operations			
	<b>Total</b>	NA	NA	NA

<b>BHA</b>	Sand wash BHA with slim 9-hole nozzle		
<b>Notes</b>	Mobilised a pressure actuated bow spring		
<b>Weather</b>	Fine	<b>Supervisor</b>	Greg Hogan

## TXU Underground Gas Storage Pty Ltd

Well **Iona-2** 6:00 to 18:00 8-Dec-03 Report 4

Depth Ref Tbg Spool 18.7' KB 3.2808'/m \$0.74/A\$

Time	Operation	Costs	Daily	Cumulative
6:00	JSA & RU SL unit	NA	NA	NA
6:45	RIH 2" SB pulling tool, tag 4363'KB, unable to latch prong			
7:45	RIH 1.75" pump bailer, tag 4363'KB, work bailer 20 times			
8:00	POOH SL, CT crew rebuilt CT head			
8:20	Recovered PivotGun debris in bailer - see photo			
9:15	RD SL			
9:30	Pull test connector to 10000 lbf			
10:30	Function test BHA			
10:45	Stab injector			
10:52	Pressure test (500 psi, 3000 psi)			
11:04	Open UMW & LMV. SIWHP 1519 psi. RIH			
12:40	Open WV & flare @ 5mmscfd			
12:43	Tag at 4361.8 ft.			
13:50	Unable to pass packer. POOH to surface			
14:30	Tag stripper @ surface then close WV, UMW & LMV			
18:00	Move to Iona-1			
	<b>Total</b>	NA	NA	NA

### BHA

### Notes

Weather Fine

Supervisor Greg Hogan



## TXU Underground Gas Storage Pty Ltd

Well **Iona-2** 7:00 to 19:00 9-Dec-03 Report 5

Depth Ref Tbg Spool 18.7' KB 3.2808'/m \$0.74/A\$

Time	Operation	Costs	Daily	Cumulative
7:00	JSA, RU SL unit and rebuild rope socket	NA	NA	NA
8:30	RIH 2.2 LIB, SITHP 1468psi, tag 4363'KB & jar down			
9:05	Recovered piece of PivotGun debris in LIB - see photo			
9:30	RIH 1.75" pump bailer, tag 4363'KB, worked 20 times & POOH			
10:30	Recovered some gun debris and small pieces of quartz gravel.			
10:45	RIH 1.75" pump bailer, tag 4363'KB, worked 20 times & POOH			
11:40	Recovered small pieces of gun debris			
11:55	RIH 1.625" hydro bailer, tag 4363'KB, worked 8 times & POOH			
12:30	Misrun, redress and rerun			
13:00	RIH 1.625" hydro bailer, tag 4363'KB, worked 8 times & POOH			
13:35	No returns			
13:50	RIH 1.75" pump bailer, tag 4363'KB, lost stroke after 5 minutes			
14:35	Bailer stuck closed, redress and re-run			
14:50	RIH 1.75" pump bailer, tag 4363'KB, worked 20 times & POOH			
15:45	No returns			
16:05	RIH 2.2" LIB, tag 4363'KB and jar down			
16:35	Impression of gun debris			
16:50	RIH spear, tag 4363'KB, worked 30 times & POOH			
17:20	No recovery			
17:40	RIH 2.2" LIB, tag 4363'KB and jar down			
18:05	Impression of gun debris			
18:30	RD SL unit			
19:00	Stop operations			
	<b>Total</b>	NA	NA	NA

<b>BHA</b>	NA
<b>Notes</b>	I suspect that the PivotGun perforations above the lower completion were run before the PX plug.
<b>Weather</b>	Cloudy & cool
<b>Supervisor</b>	Greg Hogan



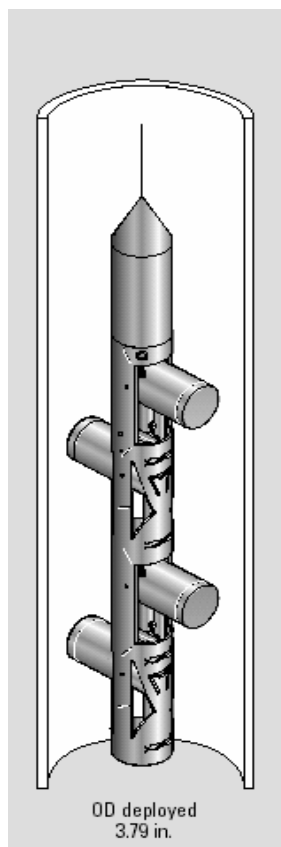
# TXU Underground Gas Storage Pty Ltd

Well **Iona-2** 7:00 to 14:30 10-Dec-03 Report 6

Depth Ref Tbg Spool 18.7' KB 3.2808'/m \$0.74/A\$

Time	Operation	Costs	Daily	Cumulative
7:00	JSA, RU SL unit and rebuild rope socket	NA	NA	NA
8:00	RIH 1.75" pump bailer, tag 4361'KB, work bailer 20 times			
7:45	Recovered rubber PivotGun debris in bailer			
9:00	RIH 1.9" wire grab on 2" RB pulling tool, tag 4363'KB, jar down 20 times then POOH			
9:35	No recovery			
9:45	RIH 1.75" pump bailer, tag 4363'KB, work bailer 20 times			
10:35	Recovered rubber PivotGun debris in bailer			
11:10	RIH 2.5" wire grab, tag 4363'KB, worked for 15min			
12:00	No recovery			
12:10	RIH 1.75" pump bailer, tag 4363'KB, work bailer for 20min			
13:00	No recovery			
14:00	RD SL			
14:30	Stop operations			
	<b>Total</b>	NA	NA	NA

<b>BHA</b>	NA
<b>Notes</b>	Refer to the PivotGun image below
<b>Weather</b>	Fine
<b>Supervisor</b>	Greg Hogan



All of the components shown below this point in the image fragment upon detonation and remain in the well.

The SLB-Logging engineer is contacting Houston engineering for details of the debris.

The rubber that was recovered in the SI bailers s part of the detonator cover assembly.

20 ft (6m) interval perforated with PivotGun at 4spf in Iona-2 above the PXN plug  
837cu in debris 82 charges @ 10.21cu in debris per PivotGun charge

## TXU Underground Gas Storage Pty Ltd

Well **Iona-2** 7:00 to 18:00 11-Dec-03 Report 7

Depth Ref Tbg Spool 18.7' KB 3.2808'/m \$0.74/A\$

Time	Operation	Costs	Daily	Cumulative
7:00	Arrive on location.	NA	NA	NA
7:10	Rig CT equipment on Iona 2			
14:45	Function test BOPs			
15:00	Attempt to make up BHA, x-over threads not mating			
15:05	Send x-over to Timboon Engineering to chase threads			
15:10	Pressure test surface lines to 500 psi, then 3000 psi			
15:45	Wait on x-overs			
18:00	Stop operations - too dark to RIH			
	<b>Total</b>	NA	NA	NA

<b>BHA</b>	NA
<b>Notes</b>	
<b>Weather</b>	Cool and Cloudy
<b>Supervisor</b>	Greg Hogan

## TXU Underground Gas Storage Pty Ltd

Well **Iona-2**      6:00 to 19:30      12-Dec-03      Report 8

Depth Ref Tbg Spool 18.7' KB    3.2808'/m    \$0.74/A\$

Time	Operation	Costs	Daily	Cumulative
6:00	Arrive on location.	NA	NA	NA
6:50	MU venturi basket BHA			
7:10	Pressure test surface lines to 500 psi, then 3000 psi			
7:31	Open UMW & LMV. SIWHP 1515 psi. Run in hole.			
9:30	Open WV & flare @ 5mmscfd			
9:58	Tag packer. Begin junk removal.			
12:17	Pull out of hole to check basket.			
13:05	Tag stripper @ surface then close WV, UMW & LMV			
13:14	Minimal amounts of fill found in basket.			
15:00	MU Macdrill and venturi basket BHA and function test. Macdrill would not start to turn without operator assistance			
15:18	Pressure test connections to 500 psi, then 3000 psi			
15:30	Open UMW & LMV. SIWHP 1530 psi. Run in hole.			
16:00	Open WV & flare @ 5mmscfd			
16:41	Tag packer.			
16:55	Begin milling			
17:23	Flare line elbow wash out. Stop pumps and pull up 50 ft.			
17:23	Close WV			
17:58	Flare line re-configured, run in hole			
18:00	Open WV & flare @ 5mmscfd			
18:43	Little headway made. POOH to surface			
19:15	Function test Macdrill at surface. Motor found not functional.			
19:30	Stop operations			
	<b>Total</b>	NA	NA	NA

<b>BHA</b>	NA
<b>Notes</b>	I suspect that the MacDrill was not turning down hole. An incident report has been raised for the elbow wash out - see photo.
<b>Weather</b>	Fine
<b>Supervisor</b>	Greg Hogan





## TXU Underground Gas Storage Pty Ltd

Well **Iona-2**      7:00 to 18:30      13-Dec-03      Report 9

Depth Ref Tbg Spool 18.7' KB    3.2808'/m    \$0.74/A\$

Time	Operation	Costs	Daily	Cumulative
7:00	Arrive on location.	NA	NA	NA
8:20	Function test 3 motors. All found to be nonfunctional.			
9:45	Rig down CT.			
10:00	JSA & RU SL unit			
10:40	RIH 1.8" drive down junk catcher, SITHP 1510psi, tag 4364'KB & jar down 30 times			
11:20	Recovered 125ml sand			
11:45	RIH 1.75" pump bailer, tag 4362'KB, worked 20 times & POOH			
12:25	Recovered 250ml sand			
12:50	RIH 1.75" drive down bailer, tag 4363'KB, worked 30 times			
13:35	Recovered 500ml sand			
13:50	RIH 1.75" drive down bailer, tag 4363'KB, worked 30 times			
14:35	Recovered 500ml sand			
14:50	RIH 1.75" drive down bailer, tag 4363'KB, worked 30 times			
15:25	Recovered 500ml sand			
15:40	RIH 1.75" drive down bailer, tag 4363'KB, worked 30 times			
16:15	Recovered 500ml sand			
16:30	RIH 1.75" drive down bailer, tag 4363'KB, worked 30 times			
17:05	Recovered 500ml sand			
17:15	RD SL unit			
18:30	Stop operations			
	<b>Total</b>	NA	NA	NA

<b>BHA</b>	NA
<b>Notes</b>	SLB-Dowell has agreed to credit CT charges for this day
<b>Weather</b>	<b>Supervisor</b> Greg Hogan

## TXU Underground Gas Storage Pty Ltd

Well **Iona-2**      6:30 to 18:30      14-Dec-03      Report 10

Depth Ref Tbg Spool 18.7' KB    3.2808'/m    \$0.74/A\$

Time	Operation	Costs	Daily	Cumulative
6:30	Arrive on location.	NA	NA	NA
8:00	Trim 10 ft. from end of coil			
8:51	Pull test connector to 23000 lbf			
8:55	Waiting for PDM to arrive from Moomba			
9:17	Make up 2-1/8" PDM & 2.3" tapered metamuncher mill BHA			
9:49	Function test PDM			
9:56	Stab injector			
10:04	Pressure test (500 psi, 3000 psi)			
10:17	Open UMW & LMV. SIWHP 1520 psi. RIH			
11:25	Open WV & flare @ 5mmscfd			
11:31	Start pumping to test Weatherford audio equipment			
11:44	Motor rate and pressure test: 1.4 bpm, 3500 psi			
11:47	Tag @ 4362.8 ft. Continue milling into fill with max. 6000 lbf			
13:25	Unable to pass below 4365.1 ft. POOH to check tag			
13:45	Light tag @ 4362.7 ft. POOH			
14:26	Tag stripper @ surface then close WV, UMW & LMV			
14:36	Function test motor at surface and rig off for slickline run			
14:40	RU SL unit			
15:00	RIH 2.2" LIB, tag 4363'KB and jar down			
15:20	Impression of gun debris			
15:25	Make up BHA with Venturi junk basket and PDM			
15:32	Stab injector			
15:38	Pressure test (500 psi, 3000 psi)			
15:50	Open UMW & LMV. SIWHP 1520 psi. RIH			
16:43	Tag fill @ 4363.6 ft. Open WV and flare at 5mmscfd			
16:47	Start pumping surfactant fluid @ 1 bpm			
17:00	Bail and mill to 4364.4			
17:05	POOH to surface			
17:39	Tag stripper @ surface then close WV, UMW & LMV			
17:50	Close UMW & LMV and recoverd sand and gun debris in basket			
18:30	Stop operations			
	<b>Total</b>	NA	NA	NA

<b>BHA</b>	2-1/8" PDM & 2.3" tapered metamuncher mill
<b>Notes</b>	Weatherford downhole tools specialist and suite on site for the commencement of operations
<b>Weather</b>	Fine
<b>Supervisor</b>	Greg Hogan

# TXU Underground Gas Storage Pty Ltd

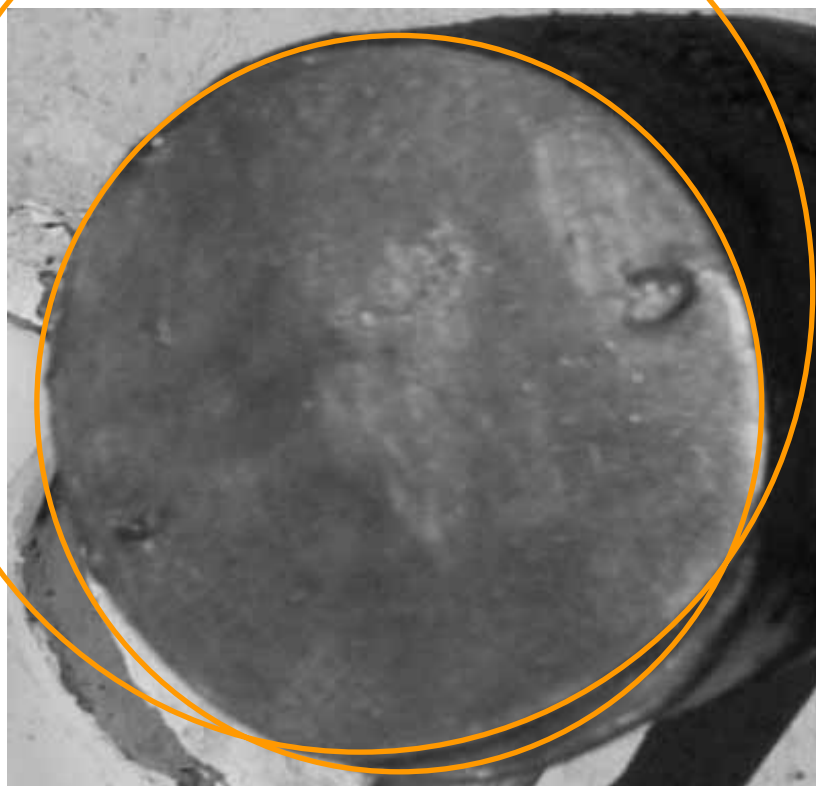
Well **Iona-2** 7:00 to 19:00 15-Dec-03 Report 11

Depth Ref Tbg Spool 18.7' KB 3.2808'/m \$0.74/A\$

Time	Operation	Costs	Daily	Cumulative
7:15	Arrive on location.	NA	NA	NA
8:15	Trim coil, wait for Weatherford connector			
8:26	Pull test connector to 14000 lbf			
8:30	MU 1-11/16" MacDrill & 1.81" tapered diamond mill BHA			
9:25	Stab injector			
9:35	Pressure test (500 psi, 3000 psi)			
9:40	Open UMV & LMV. SIWHP 1550 psi. RIH			
10:30	Open WV & flare @ 5mmscfd			
10:40	Start pumping N2 @ 800 scfm, fluid @ 0.5 bpm			
10:42	Tag fill @ 4367.2 ft., pull up and start milling			
11:53	Sit on bottom (4368 ft.) and circulate bottoms up			
12:23	POOH to surface			
13:08	Tag stripper @ surface then close WV, UMV & LMV			
13:30	RU SL unit			
14:00	RIH 2.2" LIB, tag 4364.5'KB and jar down			
14:25	Impression of sand and circular shoulder - see image below			
14:50	RIH 1.75" LIB, tag 4365'KB and jar down			
15:15	Impression of sand and circular shoulder			
15:25	RD SI unit			
16:00	Make up GX plug pulling tool BHA, function test			
16:23	Pressure test (500 psi, 3000 psi)			
16:30	Open UMV & LMV. SIWHP 1552 psi RIH			
17:10	Open WV & flare @ 5mmscfd			
17:21	Tag @ 4363 ft. Pull up, start pumps (0.5 bpm) and tag several			
17:38	Stop pumping, POOH to surface			
16:13	Tag stripper @ surface then close WV, UMV & LMV			
19:00	Stop operations			
	<b>Total</b>	NA	NA	NA

<b>BHA</b>	1-11/16" MacDrill & 1.81" tapered diamond mill
<b>Notes</b>	I suspect that the slim diamond mill managed to pass the top of the lower packer and ran the GS plug pulling tool which could not get into the lower packer.
<b>Weather</b>	Fine
<b>Supervisor</b>	Greg Hogan

The large ellipse is 125% of the smaller



## TXU Underground Gas Storage Pty Ltd

Well **Iona-2**      7:00 to 18:30      16-Dec-03      Report 12

Depth Ref Tbg Spool 18.7' KB    3.2808'/m    \$0.74/A\$

Time	Operation	Costs	Daily	Cumulative
7:00	Arrive on location.	NA	NA	NA
8:15	Pull test connector to 24000 lbf			
8:25	MU 2-1/8 PDM, 4 ft 1.75" extension & 1.82" flat bottom diamond mill BHA			
8:40	Function test BHA & stab injector			
8:50	Pressure test (500 psi, 3000 psi)			
9:00	Open UMV & LMV. SIWHP 1518 psi. RIH			
9:55	Open WV & flare @ 5mmscfd			
10:00	Tag fill @ 4362.7 ft., pull up pump 0.75 bfm			
10:10	Mill to 4364.7 at 1 bfm			
10:15	Increase to 1.5 bfm			
10:25	Pump overheating, pull back to 4347 ft			
10:40	Pump at 1 bfm			
11:00	Mill to 4365.5 at 1 bfm			
11:10	Tag fill @ 4364.8 ft			
11:15	Stop pumping, POOH to surface			
11:50	Tag stripper @ surface then close WV, UMV & LMV			
12:00	MU 2-1/8 PDM, 2.65" venturi cyclone bailer and 2.375" carbide			
12:15	Function test BHA & stab injector			
12:20	Pressure test (500 psi, 3000 psi)			
12:30	Open UMV & LMV. SIWHP 1511 psi. RIH			
13:15	Open WV & flare @ 5mmscfd			
13:20	Tag fill @ 4363.5 ft and pump at 0.75 bfm			
13:45	Mill to 4364.7 ft at 1 bfm			
13:55	Stop pumping, POOH to surface			
14:30	Tag stripper @ surface then close WV, UMV & LMV			
14:35	Recovered several large PivotGun fragments from the basket			
14:50	MU 2-1/8 PDM, 2.65" venturi cyclone bailer and 2.375" carbide saw tooth mill shoe BHA			
15:10	Function test BHA & stab injector			
15:20	Pressure test (500 psi, 3000 psi)			
15:30	Open UMV & LMV. SIWHP 1510 psi RIH			
16:15	Open WV, flare at 5mmscfd			
16:20	Tag @ 4364.1 ft and pump fluid @ 1 bpm.			
16:30	Mill to 4364.7 ft.			
16:35	Stop pumping, POOH to surface			
17:00	Tag stripper @ surface then close UMV & LMV			
17:15	Recovered sand and small metal fragments from the basket			
18:30	Stop operations			
	<b>Total</b>	NA	NA	NA

<b>BHA</b>	2-1/8 PDM, 2.65" venturi cyclone bailer and 2.375" carbide saw tooth mill shoe
<b>Notes</b>	There is an image of the PivotGun debris recovered in the first basket run below.
<b>Weather</b>	Fine
<b>Supervisor</b>	Greg Hogan



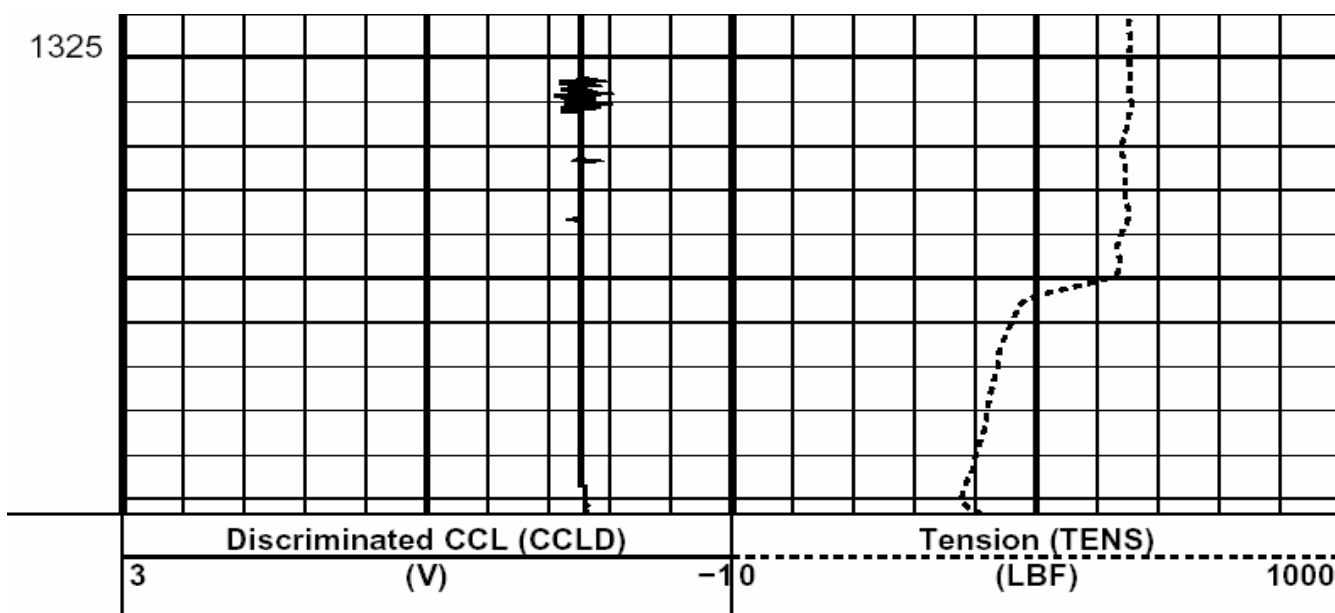
# TXU Underground Gas Storage Pty Ltd

Well **Iona-2** 7:00 to 20:00 17-Dec-03 Report 13

Depth Ref Tbg Spool 18.7' KB 3.2808'/m \$0.74/A\$

Time	Operation	Costs	Daily	Cumulative
7:00	Arrive on location	NA	NA	NA
7:13	Make up 2-1/8 PDM, 10 ft 2.65" venturi cyclone bailer and 2.375" carbide saw tooth mill shoe BHA			
8:56	Function test BHA			
9:06	Pressure test (500 psi, 3000 psi)			
9:22	Open CMV. SIWHP 1515 psi. RIH			
9:55	Open WV & flare @ 5mmscfd			
10:31	Pumping 0.75 bpm fluid			
10:33	Tag @ 4364.3 ft			
11:10	Slow pump to 0.25 bpm			
11:15	POOH, stop pump. Max depth achieved 4366 ft.			
12:10	Tag stripper @ surface then close WV, UMV & LMV			
12:15	Bleed down and rig off well for slickline run			
13:50	Rig down CT to move to Iona 1			
14:30	RU SLB-Logging unit			
15:30	MU GR-CCL logging tool			
16:00	Pressure test lubricator to 2000psi			
16:15	RIH GR-CCL			
17:00	Correlate against open hole logs and tag at 1329.7m (4362.5 ft)			
17:30	POOH			
18:15	RD SL-Logging unit			
20:00	Stop operations			
	<b>Total</b>	NA	NA	NA

<b>BHA</b>	2-1/8 PDM, 10 ft 2.65" venturi cyclone bailer and 2.375" carbide saw tooth mill shoe		
<b>Notes</b>	Received extra CT lubricator joints. Made decision to cease CT operations on Iona-2 at 13:45. Electric log correlation confirmed that the SL and CT tools are hanging up on the top of the lower packer. See image below		
<b>Weather</b>	Fine	<b>Supervisor</b>	Greg Hogan



## TXU Underground Gas Storage Pty Ltd

Well Iona-2 14:30 to 16:00 18-Dec-03 Report 14

Depth Ref Tbg Spool 18.7' KB 3.2808'/m \$0.74/A\$

Time	Operation	Costs	Daily	Cumulative
14:15	JSA & RU SL unit	NA	NA	NA
14:50	RIH 1.85" magnet, tag 4365'KB & POOH			
15:25	No returns on magnet			
16:00	RD SL unit			
	<b>Total</b>	NA	NA	NA

<b>BHA</b>	NA
<b>Notes</b>	No significant recovery from SL magnet run
<b>Weather</b>	Fine
<b>Supervisor</b>	Greg Hogan