DEPLOYMENT LOG for IceCube STRING # 58 67

Deployment Start: at _7:45 Am_ on _12-19-06_

Deployment End: at _2:01 pm_ on _12-19-06_

Target depth (DOM60): **2450 m**   Final depth: _2444.47_

Deployment Crew

Position	First Shift	Second Shift
Shift lead	Gary Hill	Tom Ham
DOM install 1 (high)	Jim Letshaw	Bob Paulos
DOM install 2 (low)	Red Mathinson	Mel Zimmerman
~~DOM supply 1~~ / DOM install 3	Terry Mutt	Bas Nyna
DOM supply 2 / ~~heater~~	Claire Peterson	Sven Lidström
Winch operator (cable & tower)	David Pernic	Dan Gibson
Notary (logbook & photos)	Sven Lidström	Dennys Luisen
PTS (monitoring / sensors)	Andres Morey / Frederic Deschamps	Freija Descamps
Support (optional)		

Time of shift change: _____

Summary/Comments:

Hole Handover

☐ Drill data reviewed

    ☐ maximum drift in x:_____ ☐ plot

    ☐ maximum drift in y:_____ ☐ plot

    ☐ maximum depth:_____

    ☐ minimum radius:_____ ☐ plot

    ☐ plot of predicted radius vs depth and time

☐ Hole dimensions verified   Time:_____

Drill Lead: _____
                         name / signature / date

Deployment Lead: _____
                              name / signature / date

☐ Handover complete

Hole Logging
(skip if not applicable)

☐ Logger drop started Time:_____ Speed:_____
☐ Logging started   Time:_____ Speed:_____
☐ Logging ended   Time:_____

☐ Estimated hole lifetime:_____

▶ Must reach target depth by _____ on _____

Deployment Startup

Time:_____

☐ Cable winch anchored and ☐ operational
☑ Tower winch operational
☑ Tie off verified
☑ Yellow rope verified

☑ Deployment monitoring system (PTS) operational ☐ DDB#__4__
☑ Pressure sensors on hand: Paro and Keller, with backups
☑ Laser ranger, tape measure (metric) on hand

☐ Bleeder string installed (on quad connectors inside cable reel drum)

☑ Uphole pressure system on hand: Setra sensor and cable

☐ DOMs placed in racks
☑ Weight stack on hand: weights (5) and 2 m cable
☐ 17 m string extension steel cable on hand

Safety checks complete (☐ 1st shift ☐ 2nd shift)
☑ ☐ Crew safety briefing
☑ ☐ E-stop locations identified
☑ ☐ TOS evacuation procedures reviewed
☑ ☐ Mustering point identified
☑ ☐ Snow mobile driver(s): _____
☑ ☐ CPR trained: _____
☐ ☐ Food runners: _____
                                              call galley at 65521
☑ End of Main Cable brought into TOS and secured

Cable end attachments

☑ Measure well depth: ___40 m___

☑ Weights (5) attached
☑ Weight cable attached (weight stack complete)   Time: _7.45_

Photos: DOM ids (☐ long ☐ short); connectors (☐ long ☐ short)

DOM position 60

(T, Long)   DOM id: TP ~~____~~

                                                     6P1503

☑ Bottom shackle connected to weight stack   Payout: ‑5
☑ Top shackle connected to 17 m steel cable
Photos: ☐ whole view   No PHOTOS

DOM position 59

(U, Short)   Cable mark: ~~28~~ 2505   DOM id: UP 4P0250

                                                     wrong number

☐ Bottom shackle connected to 17 m cable
☐ Top shackle connected to Yale grip   Δ(59‑60): 16.98
☐ Main cable end taped to 17 m steel cable   (use laser ranger)
Photos: ☐ phi orientation ☐ whole view

Breakout 30   Time: 08:33

                                                     Depth:

- LongDOM   Payout_____
    ☐ connector O‑ring in place and ☐ lubed
    ☐ breakout O‑ring in place and ☐ lubed
    ☐ connected

- ShortDOM
    ☐ connector O‑ring in place and ☐ lubed
    ☐ breakout O‑ring in place and ☐ lubed
    ☐ connected

☐ Loose pigtails taped to cable

Paro   Serial #: 164229   Nipple ☒ on ☐ off
            ☒ Connected ☒ Operational ☐ Air pressure [PSI]: 1.2
            ☐ Cable mark: _____ ☐ Distance to DOM59: + 0.628

☐ All clear to lower cable ☺

Photos: DOM ids (☐ long ☐ short); connectors (☐ long ☐ short)

DOM position 58

(T, Long)   Cable mark: _0016_   DOM id: TP _6P1509_

- ☑ Bottom shackle connected
- ☑ Top clutch connected at link # _18_   Δ(58-59): _16,877_
- ☑ Bow OK → ☑ clutch zip tied
- Photos: ☑ phi orientation ☑ whole view

DOM position 57

(U, Short)   Cable mark: _0033_   DOM id: UP _5P0940_

- ☑ Bottom shackle connected
- ☑ Top clutch connected at link # ~~18~~ 19   Δ(57-58): _16,874_
- ☑ Bow OK → ☑ clutch zip tied
- Photos: ☐ phi orientation ☐ whole view

Breakout 29

- LongDOM
    - ☐ connector O-ring in place and ☐ lubed
    - ☐ breakout O-ring in place and ☐ lubed
    - ☐ connected

- ShortDOM
    - ☐ connector O-ring in place and ☐ lubed
    - ☐ breakout O-ring in place and ☐ lubed
    - ☐ connected

☐ Loose pigtails taped to cable

Now _____
Last b/o _____
Δt [min] _____

Paro _____
Payout _____

Payou~
to ma~

940   940

☐ All clear to lower cable ☺

Photos: DOM ids (☐ long ☐ short); connectors (☐ long ☐ short)

DOM position 56   DOM id: TP 6P 1499

(T, Long)   Cable mark: ___0050___

☑ Bottom shackle connected
☑ Top clutch connected at link # _18___   Δ(56-57): _16.94___
☑ Bow OK → ☑ clutch zip tied
Photos: ☑ phi orientation ☑ whole view

DOM position 55   DOM id: UP 5P 2632

(U, Short)   Cable mark: ___2652___

☑ Bottom shackle connected
☑ Top clutch connected at link # _18___   Δ(55-56): _16.883___
☑ Bow OK → ☑ clutch zip tied
Photos: ☐ phi orientation ☐ whole view

Breakout 28   Time:

- LongDOM   Now _9:15___
    ☐ connector O-ring in place and ☐ lubed   Last b/o _8:35___
    ☐ breakout O-ring in place and ☐ lubed   Δt [min] _20_ m
    ☐ connected   Depth:
                                               Paro _64___
- ShortDOM   Payout _84___
    ☐ connector O-ring in place and ☐ lubed
    ☐ breakout O-ring in place and ☐ lubed   ~~346~~
    ☐ connected   Payout reset
                                               to match Paro
☑ Loose pigtails taped to cable

☐ All clear to lower cable ☺

Photos: DOM ids (☐ long ☐ short); connectors (☐ long ☐ short)

DOM position 54

(T, Long)   Cable mark: _____ 2064 _____   DOM id: TP _____

☑ Bottom shackle connected
☑ Top clutch connected at link # _19_   Δ(54-55): _____ 16,992 _____
☑ Bow OK → ☑ clutch zip tied
Photos: ☐ phi orientation ☐ whole view

DOM position 53

(U, Short)   Cable mark: _olo1_   DOM id: UP _____

☑ Bottom shackle connected
☑ Top clutch connected at link # _19_   Δ(53-54): _16,924_
☑ Bow OK → ☑ clutch zip tied
Photos: ☐ phi orientation ☐ whole view

Breakout 27

     Time:

- LongDOM
     ☐ connector O-ring in place and ☐ lubed
     ☐ breakout O-ring in place and ☐ lubed
     ☑ connected

     Now _9,35_
     Last b/o _9:15_
     Δt [min] _20_
     Depth:
     Paro _119_
     Payout _119_

- ShortDOM
     ☐ connector O-ring in place and ☐ lubed
     ☐ breakout O-ring in place and ☐ lubed
     ☑ connected

☑ Loose pigtails taped to cable

☐ All clear to lower cable ☺

Photos: DOM ids (☐ long ☐ short); connectors (☐ long ☐ short)

DOM position **52**   DOM id: TP 5P 0885

(T, Long)   Cable mark: 0118

☑ Bottom shackle connected
☑ Top clutch connected at link # 18   Δ(52-53): 16,970
☑ Bow OK → ☐ clutch zip tied
Photos: ☐ phi orientation ☐ whole view

DOM position **51**   DOM id: UP 11 44C

(U, Short)   Cable mark: 0136

☑ Bottom shackle connected
☑ Top clutch connected at link # 18   Δ(51-52): 16,846
☑ Bow OK → ☐ clutch zip tied
Photos: ☐ phi orientation ☐ whole view

Breakout **26**   Time:

Now 9:54

Last b/o 9:35

Δt [min]   19

- LongDOM
    ☐ connector O-ring in place and ☐ lubed
    ☐ breakout O-ring in place and ☐ lubed   Depth:
    ☐ connected   Paro 152.69

                                            Payout 148.84

- ShortDOM
    ☐ connector O-ring in place and ☐ lubed
    ☐ breakout O-ring in place and ☐ lubed
    ☐ connected

☐ Loose pigtails taped to cable

☐ All clear to lower cable ☺

Photos: DOM ids (☐ long ☐ short); connectors (☐ long ☐ short)

DOM position 50

(T, Long)   Cable mark: _C152_   DOM id: TP_CP 1497_

☑ Bottom shackle connected
☑ Top clutch connected at link # _18_   Δ(50-51): _16.940_
☐ Bow OK → ☑ clutch zip tied
Photos: ☐ phi orientation ☐ whole view
☐ Curved distance around DOM:_____ ☐ Vertical distance:_____

DOM position 49

(U, Short)   Cable mark: _0169_   DOM id: UP _GP1464_

☑ Bottom shackle connected
☑ Top clutch connected at link # _20_   Δ(49-50): _16.864_
☑ Bow OK → ☐ clutch zip tied
Photos: ☐ phi orientation ☐ whole view
☐ Curved distance around DOM:_____ ☐ Vertical distance:_____

Breakout 25

Time:

- LongDOM
  - ☐ connector O-ring in place and ☐ lubed
  - ☐ breakout O-ring in place and ☐ lubed
  - ☐ connected

- ShortDOM
  - ☐ connector O-ring in place and ☐ lubed
  - ☐ breakout O-ring in place and ☐ lubed
  - ☐ connected

☐ Loose pigtails taped to cable

Now _10:10_
Last b/o _9:54_
Δt [min] _16 min_
Depth:
Paro _186.27_
Payout _180.87_

☐ All clear to lower cable ☺

Photos: DOM ids (☐ long ☐ short); connectors (☐ long ☐ short)

DOM position 48

DOM id: TP _4⁵⁄0017_

(T, Long) Cable mark: _0186_

☑ Bottom shackle connected
☑ Top clutch connected at link # _19_ Δ(48-49): _16.386_
☑ Bow OK → ☑ clutch zip tied
Photos: ☐ phi orientation ☐ whole view

DOM position 47

DOM id: UP _6P142_

(U, Short) Cable mark: _0283_

☑ Bottom shackle connected
☑ Top clutch connected at link # _18_ Δ(47-48): _16.505_
☑ Bow OK → ☐ clutch zip tied
Photos: ☐ phi orientation ☐ whole view

Breakout 24

Time:

- LongDOM
    ☐ connector O-ring in place and ☐ lubed
    ☐ breakout O-ring in place and ☐ lubed
    ☐ connected

Now _033_
Last b/o _10.10_
Δt [min] _23_

Depth:

- ShortDOM
    ☐ connector O-ring in place and ☐ lubed
    ☐ breakout O-ring in place and ☐ lubed
    ☐ connected

Paro _____
Payout _____

☐ Loose pigtails taped to cable

☐ All clear to lower cable ☺

Photos: DOM ids (☐ long ☐ short); connectors (☐ long ☐ short)

DOM position 46   DOM id: TP_____

(T, Long)   Cable mark:_____

☑ Bottom shackle connected
☑ Top clutch connected at link # _____   Δ(46-47): _____
☑ Bow OK → ☑ clutch zip tied
Photos: ☐ phi orientation ☐ whole view

DOM position 45   DOM id: UP_____

(U, Short)   Cable mark: 237

☑ Bottom shackle connected
☑ Top clutch connected at link # _____   Δ(45-46): _____
☑ Bow OK → ☐ clutch zip tied
Photos: ☐ phi orientation ☐ whole view

Breakout 23   Time:

- LongDOM
   - ☑ connector O-ring in place and ☑ lubed   Now _____
   - ☐ breakout O-ring in place and ☐ lubed   Last b/o _____
   - ☐ connected   Δt [min] _____
                                                          Depth:
- ShortDOM   Paro _____
   - ☑ connector O-ring in place and ☑ lubed   Payout _____
   - ☐ breakout O-ring in place and ☐ lubed
   - ☐ connected

☑ Loose pigtails taped to cable

☐ All clear to lower cable ☺

Photos: DOM ids (☐ long ☐ short); connectors (☐ long ☐ short)

DOM position 44   DOM id: TP5P0621

(T, Long)   Cable mark: 0264

- ☑ Bottom shackle connected
- ☑ Top clutch connected at link # 19   Δ(44-45): 16,498
- ☑ Bow OK → ☐ clutch zip tied
- Photos: ☐ phi orientation ☐ whole view

DOM position 43   DOM id: UP6P1504

(U, Short)   Cable mark 0271

- ☑ Bottom shackle connected
- ☑ Top clutch connected at link # 20   Δ(43-44): 16,910
- ☑ Bow OK → ☐ clutch zip tied
- Photos: ☐ phi orientation ☐ whole view

Breakout 22   Time:

Now _11:05_
Last b/o _10:49_
Δt [min] _16_

- LongDOM
  - ☐ connector O-ring in place and ☐ lubed
  - ☐ breakout O-ring in place and ☐ lubed
  - ☐ connected

Depth:
Paro _288.46_
Payout _-269.88_

- ShortDOM
  - ☐ connector O-ring in place and ☐ lubed
  - ☐ breakout O-ring in place and ☐ lubed
  - ☐ connected

- ☑ Loose pigtails taped to cable

☐ All clear to lower cable ☺

Photos: DOM ids (☐ long ☐ short); connectors (☐ long ☐ short)

DOM position 42   DOM id: TP 5P 0825

(T, Long)   Cable mark: 0268

☑ Bottom shackle connected
☑ Top clutch connected at link # 19   Δ(42-43): 16,522
☑ Bow OK → ☐ clutch zip tied
Photos: ☐ phi orientation ☐ whole view

DOM position 41   DOM id: UP 5P0502

(U, Short)   Cable mark: 0525

☑ Bottom shackle connected
☑ Top clutch connected at link # 19   Δ(41-42): 16,920
☑ Bow OK → ☐ clutch zip tied
Photos: ☐ phi orientation ☐ whole view

Breakout 21   Time:

                                              Now   11 25
- LongDOM   Last b/o   11 05
    ☐ connector O-ring in place and ☐ lubed   Δt [min]   20
    ☐ breakout O-ring in place and ☐ lubed   Depth:
    ☐ connected   Paro   322.32
                                              Payout   501.17
- ShortDOM
    ☐ connector O-ring in place and ☐ lubed
    ☐ breakout O-ring in place and ☐ lubed
    ☐ connected

☐ Loose pigtails taped to cable

☐ All clear to lower cable ☺

Photos: DOM ids (☐ long ☐ short); connectors (☐ long ☐ short)

DOM position 40
(T, Long)   Cable mark: 0322   DOM id: TP 5P069
                                                        5P06 19

☑ Bottom shackle connected
☑ Top clutch connected at link # 18   Δ(40-41): 16,926
☑ Bow OK → ☐ clutch zip tied
Photos: ☐ phi orientation ☐ whole view

DOM position 39
(U, Short)   Cable mark: 0339   DOM id: UP 5P0876

☑ Bottom shackle connected
☑ Top clutch connected at link # 19   Δ(39-40): 16,899
☑ Bow OK → ☐ clutch zip tied
Photos: ☑ phi orientation ☑ whole view

Breakout 20

Time:

Now   11,42
Last b/o   11,25
Δt [min]   17

Depth:

Paro   356.07
Payout 330,31

- LongDOM
    ☐ connector O-ring in place and ☐ lubed
    ☐ breakout O-ring in place and ☐ lubed
    ☐ connected

- ShortDOM
    ☐ connector O-ring in place and ☐ lubed
    ☐ breakout O-ring in place and ☐ lubed
    ☐ connected

☐ Loose pigtails taped to cable

☐ All clear to lower cable ☺

Photos: DOM ids (☐ long ☐ short); connectors (☐ long ☐ short)

DOM position 38   DOM id: TP 5P 0565
(T, Long)   Cable mark: 0356

☑ Bottom shackle connected
☑ Top clutch connected at link # 18   Δ(38-39): 16,955
☑ Bow OK → ☑ clutch zip tied
Photos: ☐ phi orientation ☐ whole view

DOM position 37   DOM id: UP 5P0814
(U, Short)   Cable mark: 0373

☑ Bottom shackle connected
☑ Top clutch connected at link # ~~15~~ 20   Δ(37-38): 16,921
☑ Bow OK → ☐ clutch zip tied
Photos: ☐ phi orientation ☐ whole view

Breakout 19   Time:

- LongDOM   Now   11,57
    ☐ connector O-ring in place and ☐ lubed   Last b/o   11,42
    ☐ breakout O-ring in place and ☐ lubed   Δt [min]   15 min
    ☐ connected   Depth:
                                              Paro   390,56
- ShortDOM   Payout −360.38
    ☐ connector O-ring in place and ☐ lubed
    ☐ breakout O-ring in place and ☐ lubed
    ☐ connected

☐ Loose pigtails taped to cable

☐ All clear to lower cable ☺

Photos: DOM ids (□ long □ short); connectors (□ long □ short)

DOM position 36

(T, Long)   Cable mark: 0390

☑ Bottom shackle connected
☑ Top clutch connected at link # 19   Δ(36-37): 16.943
☑ Bow OK → ☑ clutch zip tied   16.943
Photos: □ phi orientation □ whole view

DOM id: TP 6P1463

DOM position 35

(U, Short)   Cable mark: 0407

☑ Bottom shackle connected
☑ Top clutch connected at link # 19   Δ(35-36): 16.837
☑ Bow OK → ☑ clutch zip tied
Photos: □ phi orientation □ whole view

DOM id: UP 6P1496

Breakout 18

                                                        Time:

- LongDOM   Now   12.00
    □ connector O-ring in place and □ lubed Last b/o 11.57
    □ breakout O-ring in place and □ lubed   Δt [min] 13 min
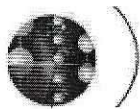   □ connected   Depth:
                                             Paro   424.11
                                             Payout 386.57
- ShortDOM
    □ connector O-ring in place and □ lubed
    □ breakout O-ring in place and □ lubed
    □ connected

□ Loose pigtails taped to cable

□ Put two Kellers (one is for backup) in bucket of water/ice mix

□ All clear to lower cable ☺

Photos: DOM ids (□ long □ short); connectors (□ long □ short)

DOM position 34
(T, Long)   Cable mark: 0424

DOM id: TP5Y0165

- ☑ Bottom shackle connected
- ☑ Top clutch connected at link # 19   Δ(34-35): 16,871
- ☑ Bow OK → ☑ clutch zip tied
- Photos: □ phi orientation □ whole view

DOM position 33
(U, Short)   Cable mark: 0441

DOM id: UP5Y0096

- ☑ Bottom shackle connected
- ☑ Top clutch connected at link # ~~18~~ 20   Δ(33-34): 16,926
- ☑ Bow OK → ☑ clutch zip tied
- Photos: ☑ phi orientation □ whole view

Breakout 17

Time:

Now	12.25
Last b/o	12:40
Δt [min]	15 min

Depth:

Paro	459.38
Payout	417.45

Photos 3360

… and □ lubed
… and □ lubed

… and □ lubed
… and □ lubed

□ All clear to lower cable ☺

Photos: DOM ids (☐ long ☐ short); connectors (☐ long ☐ short)

DOM position 32
(T, Long)   Cable mark: _441_   DOM id: TP 5X0125

☑ Bottom shackle connected
☑ Top clutch connected at link # _17_   Δ(32-33): _17016_
☐ Bow OK → ☑ clutch zip tied
Photos: ☑ phi orientation ☑ whole view

DOM position 31
(U, Short)   Cable mark: _4-61_   DOM id: UP 5Y0160

☑ Bottom shackle connected
☑ Top clutch connected at link # _18_   Δ(31-32): _16428_
☑ Bow OK → ☑ clutch zip tied
Photos: ☑ phi orientation ☑ whole view

Breakout 16   Time:

                                          Now _13:30_
- LongDOM   Last b/o _12:25_
    ☐ connector O-ring in place and ☐ lubed   Δt [min] _65_
    ☐ breakout O-ring in place and ☐ lubed   Depth:
    ☐ connected   Paro _504_
                                          Payout _462_
- ShortDOM
    ☐ connector O-ring in place and ☐ lubed
    ☐ breakout O-ring in place and ☐ lubed
    ☐ connected

☐ Loose pigtails taped to cable

☐ All clear to lower cable ☺

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Photos: DOM ids (☐ long ☐ short); connectors (☐ long ☐ short)

DOM position 30
(T, Long)   Cable mark: 492   DOM id: TP 540215

☒ Bottom shackle connected
☒ Top clutch connected at link # 19   Δ(30-31): 16938
☒ Bow OK → ☒ clutch zip tied
Photos: ☒ phi orientation ☒ whole view

DOM position 29
(U, Short)   Cable mark: 508   DOM id: UP 540078

☒ Bottom shackle connected
☒ Top clutch connected at link # ~~4~~23   Δ(29-30): 16910
☐ Bow OK → ☒ clutch zip tied
Photos: ☒ phi orientation ☒ whole view

Breakout 15

Time:

Now 13:46
Last b/o ~~13~~ 13:30
Δt [min] 16

Depth:

- LongDOM
    ☐ connector O-ring in place and ☐ lubed
    ☐ breakout O-ring in place and ☐ lubed
    ☐ connected

Paro _____
Payout 483.5

- ShortDOM
    ☐ connector O-ring in place and ☐ lubed
    ☐ breakout O-ring in place and ☐ lubed
    ☐ connected

☐ Loose pigtails taped to cable

Thermistor   ☐ Present ☐ Distance to DOM29: _____
Keller   ☐ Connected ☐ Operational ☐ Air pressure [PSI]: _____
Ser.#: 05C4005 ☐ Cable mark: _____   ☐ Distance to DOM29: _____

slope ⊕ 231,71210 ⊕
intrcpt: -929,09114   ☐ All clear to lower cable ☺

⊕ Ambient pressure for Keller was
put in manually.

Photos: DOM ids (☐ long ☐ short); connectors (☐ long ☐ short)

DOM position 28

(T, Long)   Cable mark: _526_   DOM id: TP _570737_

☑ Bottom shackle connected
☑ Top clutch connected at link # _20_   Δ(28-29): _16·989_
☑ Bow OK → ☑ clutch zip tied
Photos: ☑ phi orientation ☑ whole view

DOM position 27

(U, Short)   Cable mark: _~~S8~~_   DOM id: UP _Sp0660_

☑ Bottom shackle connected
☑ Top clutch connected at link # _~~22~~ 18_   Δ(27-28): _16·931_
☑ Bow OK → ☑ clutch zip tied
Photos: ☐ phi orientation ☐ whole view

Breakout 14   Time:

Now _14:10_
Last b/o _13:46_
- LongDOM   Δt [min] _24_
  ☐ connector O-ring in place and ☐ lubed   Depth:
  ☐ breakout O-ring in place and ☐ lubed   Paro _100_
  ☐ connected   Keller ___
- ShortDOM   Payout _516_
  ☐ connector O-ring in place and ☐ lubed
  ☐ breakout O-ring in place and ☐ lubed
  ☐ connected

☐ Loose pigtails taped to cable

☐ All clear to lower cable ☺

Photos: DOM ids (☐ long ☐ short); connectors (☐ long ☐ short)

DOM position 26

(T, Long)   Cable mark: _560_

- ☒ Bottom shackle connected
- ☒ Top clutch connected at link # _18_   Δ(26-27): _16.921_
- ☒ Bow OK → ☒ clutch zip tied
- Photos: ☐ phi orientation ☒ whole view

DOM id: TP _SP0653_

DOM position 25

(U, Short)   Cable mark: _575_

- ☒ Bottom shackle connected
- ☒ Top clutch connected at link # _18_   Δ(25-26): _16.895_
- ☒ Bow OK → ☐ clutch zip tied
- Photos: ☐ phi orientation ☐ whole view

DOM id: UP _SP0608_ → Broke connector

_SP0638_ → replaced

Broke too DOM _SP0704_

Breakout 13

chipped connector on cable top of hole

- LongDOM
    - ☐ connector O-ring in place and ☐ lubed
    - ☐ breakout O-ring in place and ☐ lubed
    - ☐ connected

- ShortDOM
    - ☐ connector O-ring in place and ☐ lubed
    - ☐ breakout O-ring in place and ☐ lubed
    - ☐ connected

☐ Loose pigtails taped to cable

Time:

Since the prob

We th...

actually the PARO depth and it seems that the PARO did a reset

$$PARO = well\ depth + 17\ (DOM\ \# - 30)\ ?$$

☐ All clear to lower cable ☺

Photos: DOM ids (□ long □ short); connectors (□ long □ short)

DOM position 24

(T, Long)   Cable mark: 594   DOM id: TP5P0889

- ☑ Bottom shackle connected
- ☑ Top clutch connected at link # 20   Δ(24-25): 16·952
- ☑ Bow OK → ☒ clutch zip tied
- Photos: □ phi orientation □ whole view

DOM position 23

(U, Short)   Cable mark: 610   DOM id: UP ~~5P0858~~

                                        5P1476

- ☑ Bottom shackle connected
- ☑ Top clutch connected at link # ~~4~~ 19   Δ(23-24): 16·910
- ☑ Bow OK → ☑ clutch zip tied
- Photos: □ phi orientation □ whole view

Breakout 12

Time:

Now 14:52
Last b/o 14:24
Δt [min] _____

- LongDOM
    - □ connector O-ring in place and □ lubed
    - □ breakout O-ring in place and □ lubed
    - □ connected

Depth:
Paro 167·29
Keller 615·89
Payout 580

- ShortDOM
    - □ connector O-ring in place and □ lubed
    - □ breakout O-ring in place and □ lubed
    - □ connected

□ Loose pigtails taped to cable

□ All clear to lower cable ☺

Photos: DOM ids (☐ long ☐ short); connectors (☐ long ☐ short)

caught in here replace

DOM position 22

(T, Long)   Cable mark: ___627___

DOM id: TP SP0663
SP0687

☑ Bottom shackle connected
☑ Top clutch connected at link # ___   ___   Δ(22-23): ___16·885___
☑ Bow OK → ☑ clutch zip tied
Photos: ☐ phi orientation   ☐ whole view

DOM position 21

(U, Short)   Cable mark: ___644___

DOM id: UP6P1444

☐ Bottom shackle connected
☐ Top clutch connected at link # ___   ___   Δ(21-22): ___16·967___
☐ Bow OK → ☐ clutch zip tied
Photos: ☐ phi orientation   ☐ whole view

Breakout 11

Time:

Now ___15:15___
Last b/o ___14:52___
Δt [min] ___   ___

- LongDOM
   ☐ connector O-ring in place and ☐ lubed
   ☐ breakout O-ring in place and ☐ lubed
   ☐ connected

Depth:
Paro ___2.00___
Keller ___638___
Payout ___607___

- ShortDOM
   ☐ connector O-ring in place and ☐ lubed
   ☐ breakout O-ring in place and ☐ lubed
   ☐ connected

☐ Loose pigtails taped to cable

☐ All clear to lower cable ☺

Photos: DOM ids (□ long ⊓ short); connectors (⊓ long □ short)

DOM position 20

(T, Long)   Cable mark: __661__   DOM id: TP 5 P O 8 9 5

□ Bottom shackle connected
□ Top clutch connected at link # __19__   Δ(20-21): _____
⊓ Bow OK → ⊓ clutch zip tied
Photos: ⊓ phi orientation □ whole view
⊓ Curved distance around DOM: _____   ⊓ Vertical distance: _____

DOM position 19

(U, Short)   Cable mark: __678__   DOM id: UP 4 PO 24 8

⊄ Bottom shackle connected
□ Top clutch connected at link # __18__   Δ(19-20): __16·950__
□ Bow OK → □ clutch zip tied   well 46·8
Photos: □ phi orientation □ whole view
□ Curved distance around DOM: _____   □ Vertical distance: _____

Breakout 10   Time:

Now	15:35
Last b/o	15:15
Δt [min]	20

- LongDOM
    □ connector O-ring in place and ⊓ lubed
    □ breakout O-ring in place and □ lubed
    □ connected

Depth:

Paro	234·7
Keller	662·3
Payout	631

- ShortDOM
    □ connector O-ring in place and □ lubed
    □ breakout O-ring in place and □ lubed
    □ connected

□ Loose pigtails taped to cable

⊓ All clear to lower cable ☺

Photos: DOM ids (□ long □ short); connectors (□ long □ short)

DOM position 18
(T, Long)   Cable mark: _695_   DOM id: TP ~~9SP0749~~

☑ Bottom shackle connected
☑ Top clutch connected at link # _18_   Δ(18-19): _16.973_
☑ Bow OK → □ clutch zip tied
Photos: □ phi orientation □ whole view

DOM position 17
(U, Short)   Cable mark: _712_   DOM id: UP SP0764

□ Bottom shackle connected
□ Top clutch connected at link # _19_   Δ(17-18): _16.823_
□ Bow OK → □ clutch zip tied
Photos: □ phi orientation □ whole view

Breakout 9

Time:

Now _1555_
Last b/o _1535_
Δt [min] _20_

- LongDOM
    □ connector O-ring in place and □ lubed
    □ breakout O-ring in place and □ lubed
    □ connected

Depth:
Paro ~~~~ _268_
Keller _686_
Payout _658_

- ShortDOM
    □ connector O-ring in place and □ lubed
    □ breakout O-ring in place and □ lubed
    □ connected

□ Loose pigtails taped to cable

□ All clear to lower cable ☺

Photos: DOM ids (☐ long ☐ short); connectors (☐ long ☐ short)

DOM position 16

(T, Long)   Cable mark: _7 2 1_   DOM id: TP4P0275

☐ Bottom shackle connected
☐ Top clutch connected at link #_____   Δ(16-17): _16·988_
☐ Bow OK → ☐ clutch zip tied
Photos: ☐ phi orientation ☐ whole view

DOM position 15

(U, Short)   Cable mark: _7 2 0_   DOM id: UP SPc982

☐ Bottom shackle connected
☐ Top clutch connected at link #_19_   Δ(15-16): _13·173_
☐ Bow OK → ☐ clutch zip tied
Photos: ☐ phi orientation ☐ whole view

Breakout 8

                                                     Time:

                                              Now _16:10_
- LongDOM   Last b/o _15:55_
    ☐ connector O-ring in place and ☐ lubed   Δt [min] _15_
    ☐ breakout O-ring in place and ☐ lubed   Depth:
    ☐ connected   Paro _305_
                                              Keller _711_
- ShortDOM   Payout _688_
    ☐ connector O-ring in place and ☐ lubed
    ☐ breakout O-ring in place and ☐ lubed
    ☐ connected

☐ Loose pigtails taped to cable

·

☐ All clear to lower cable ☺

Photos: DOM ids (☐ long ☐ short); connectors (☐ long ☐ short)

DOM position 14
(T, Long)   Cable mark: _762_   DOM id: TP_△P025_

☐ Bottom shackle connected
☐ Top clutch connected at link # _13_   Δ(14-15): _16 750_
☐ Bow OK → ☐ clutch zip tied
Photos: ☐ phi orientation ☐ whole view

DOM position 13
(U, Short)   Cable mark:_____   DOM id: UP_SP1018_

☐ Bottom shackle connected
☐ Top clutch connected at link # _13_   Δ(13-14): _16 941_
☐ Bow OK → ☐ clutch zip tied
Photos: ☐ phi orientation ☐ whole view

Breakout 7   Time:

- LongDOM
    ☐ connector O-ring in place and ☐ lubed
    ☐ breakout O-ring in place and ☐ lubed
    ☐ connected

- ShortDOM
    ☐ connector O-ring in place and ☐ lubed
    ☐ breakout O-ring in place and ☐ lubed
    ☐ connected

☐ Loose pigtails taped to cable

Time:	
Now	1623
Last b/o	16:10
Δt [min]	
Depth:	
Paro	336 (1057.8 psi)
Keller	734
Payout	707

☐ All clear to lower cable ☺

Photos: DOM ids (□ long □ short); connectors (□ long □ short)

DOM position 12

(T, Long)   Cable mark: __797__   DOM id: TP__SP0651__

□ Bottom shackle connected
□ Top clutch connected at link # __18__   Δ(12-13): __16·929__
□ Bow OK → □ clutch zip tied
Photos: □ phi orientation □ whole view

DOM position 11

(U, Short)   Cable mark: __~~SP0834~~ 814__   DOM id: UP ~~SP0834~~
     5P0834

□ Bottom shackle connected
□ Top clutch connected at link # __18__   Δ(11-12): __16·946__
□ Bow OK → □ clutch zip tied
Photos: □ phi orientation □ whole view

Breakout 6

     Time:

- LongDOM
  □ connector O-ring in place and □ lubed
  □ breakout O-ring in place and □ lubed
  □ connected

- ShortDOM
  □ connector O-ring in place and □ lubed
  □ breakout O-ring in place and □ lubed
  □ connected

□ Loose pigtails taped to cable

Now __16:40__
Last b/o __16:23__
Δt [min] __17__
Depth:
Paro __373__ & 1111 psi
Keller __762__
Payout __728__

□ All clear to lower cable ☺

Photos: DOM ids (□ long □ short); connectors (□ long □ short)

DOM position 10   DOM id: TP 5P0911

(T, Long)   Cable mark: ___ 931 ___

□ Bottom shackle connected
□ Top clutch connected at link # _US_   Δ(10-11): _16·944_
□ Bow OK → □ clutch zip tied
Photos: □ phi orientation □ whole view

DOM position 9   DOM id: UP 6P1462

(U, Short)   Cable mark: ___ 898 ___

□ Bottom shackle connected
□ Top clutch connected at link # _____   Δ(9-10): ~~18~~ 17·042
□ Bow OK → □ clutch zip tied
Photos: □ phi orientation □ whole view

Breakout 5   Time:

- LongDOM   Now _17:05_
  □ connector O-ring in place and □ lubed   Last b/o _16:40_
  □ breakout O-ring in place and □ lubed   Δt [min] _25_
  □ connected   Depth:
                                               Paro _____
- ShortDOM   Keller _____
  □ connector O-ring in place and □ lubed   Payout _____
  □ breakout O-ring in place and □ lubed
  □ connected

□ Loose pigtails taped to cable

□ All clear to lower cable ☺

Photos: DOM ids (☐ long ☐ short); connectors (☐ long ☐ short)

DOM position 8

(T, Long)   Cable mark: _865_   DOM id: TP _SP0703_

☐ Bottom shackle connected
☐ Top clutch connected at link # _12_ Δ(8-9): _16.903_
☐ Bow OK → ☐ clutch zip tied
Photos: ☐ phi orientation ☐ whole view

DOM position 7

(U, Short)   Cable mark: _412_   DOM id: UP _SP0536_

☐ Bottom shackle connected
☐ Top clutch connected at link # _18_ Δ(7-8): _____
☐ Bow OK → ☐ clutch zip tied
Photos: ☐ phi orientation ☐ whole view

Breakout 4

                Time:

- LongDOM
    - ☐ connector O-ring in place and ☐ lubed
    - ☐ breakout O-ring in place and ☐ lubed
    - ☐ connected

- ShortDOM
    - ☐ connector O-ring in place and ☐ lubed
    - ☐ breakout O-ring in place and ☐ lubed
    - ☐ connected

☐ Loose pigtails taped to cable

Now _17:15_
Last b/o _17:10_
Δt [min] _____
Depth:
Paro _909_   _changed_
Keller _____
Payout _759_

☐ All clear to lower cable ☺

Photos: DOM ids (☐ long ☐ short); connectors (☐ long ☐ short)

DOM position 6
(T, Long)   Cable mark: __8:19__   DOM id: TP 50092 7

☐ Bottom shackle connected
☐ Top clutch connected at link # _____   Δ(6-7): __16·937__
☐ Bow OK → ☐ clutch zip tied
Photos: ☐ phi orientation ☐ whole view

DOM position 5
(U, Short)   Cable mark: __9|0__   DOM id: UP 6P14 30

☐ Bottom shackle connected
☐ Top clutch connected at link # __18__   Δ(5-6): __10 714__
☐ Bow OK → ☐ clutch zip tied
Photos: ☐ phi orientation ☐ whole view

Breakout 3
                                                        Time:

- LongDOM   Now __12:30__
  ☐ connector O-ring in place and ☐ lubed   Last b/o __17:15__
  ☐ breakout O-ring in place and ☐ lubed   Δt [min] _____
  ☐ connected   Depth:
                                                    Paro __939__
- ShortDOM   Keller __945__
  ☐ connector O-ring in place and ☐ lubed   Payout __874 877__
  ☐ breakout O-ring in place and ☐ lubed
  ☐ connected

☐ Loose pigtails taped to cable

☐ All clear to lower cable ☺

Photos: DOM ids (☐ long ☐ short); connectors (☐ long ☐ short)

DOM position 4

(T, Long)   Cable mark: ___932___   DOM id: TP 681443

☐ Bottom shackle connected
☐ Top clutch connected at link # __18__   Δ(4-5): __13 334__
☐ Bow OK → ☐ clutch zip tied
Photos: ☐ phi orientation ☐ whole view

DOM position 3

(U, Short)   Cable mark: _____   DOM id: UP 5P0513

☐ Bottom shackle connected
☐ Top clutch connected at link # __8__   Δ(3-4): __13 318__
☐ Bow OK → ☐ clutch zip tied
Photos: ☐ phi orientation ☐ whole view

Breakout 2

Time:

Now __13 30__
Last b/o _____
Δt [min] _____

- LongDOM
    ☐ connector O-ring in place and ☐ lubed
    ☐ breakout O-ring in place and ☐ lubed
    ☐ connected

Depth:
Paro __973__
Keller __976__
Payout __843__

- ShortDOM
    ☐ connector O-ring in place and ☐ lubed
    ☐ breakout O-ring in place and ☐ lubed
    ☐ connected

☐ Loose pigtails taped to cable

☐ All clear to lower cable ☺

Photos: DOM ids (☐ long ☐ short); connectors (☐ long ☐ short)

DOM position 2

(T, Long) Cable mark: _967_

DOM id: TP _8/121_

☐ Bottom shackle connected
☐ Top clutch connected at link # _17_   Δ(2-3): _16.813_
☐ Bow OK → ☐ clutch zip tied
Photos: ☐ phi orientation ☐ whole view

DOM position 1

(U, Short) Cable mark: _98_

DOM id: UP _SY0226_

☐ Bottom shackle connected
☐ Top clutch connected at link # _____   Δ(1-2): _16.517_
☐ Bow OK → ☐ clutch zip tied
Photos: ☐ phi orientation ☐ whole view

Breakout 1

Time:

Now _____

- LongDOM
   ☐ connector O-ring in place and ☐ lubed
   ☐ breakout O-ring in place and ☐ lubed
   ☐ connected

Last b/o _____
Δt [min] _____

Depth:

Paro _1003_
Keller _1009_

- ShortDOM
   ☐ connector O-ring in place and ☐ lubed
   ☐ breakout O-ring in place and ☐ lubed
   ☐ connected

Payout _673_

☐ Loose pigtails taped to cable

No second Paro no more...

☐ Group photo

☐ All clear to lower cable ☺

Uphole Pressure Sensor (Setra)

After DOM1 is safely under the surface (> 50 m)

Time: 18 h 14

☐ Stop the cable winch

☐ Lower Setra pressure sensor into hole

☐ Distance to Setra from floor: _____

☐ Setra readout verified with monitoring system

☐ Well depth from Setra: _____

☑ Well depth from laser: 46.212m

If the two well depth measurements agree:

☐ Switch to Setra well depth in monitoring system

Time: _____

Now the String Drop begins

String Drop

The target depth is **2450** m

☐ Switch cable winch to computer control

☐ Speed:_____ Time:_____ Depth:_____
☐ Speed:_____ Time:_____ Depth:_____
☐ Speed:_____ Time:_____ Depth:_____
☐ Speed:_____ Time:_____ Depth:_____
☐ Speed:_____ Time:_____ Depth:_____
☐ Speed:_____ Time:_____ Depth:_____

*DOM 60 is
at cable marks + 18m
+ stretch*

Depth Monitoring (log on the fly – do not stop for this)

Depth by Paro[1]	Time	Well depth[1]	Depth by cable marks[2]	Depth by Payout[1]	Δdepth P-K[1]
1000 m	18.15	46.212	1097	9778	504
1500 m	18.35		1474		
2000 m			1969		
2100 m					
2200 m					
2300 m					
2400 m	19:31	46.005	2390	2217	473

1117.6
1494→
1941

2419

[1]Read off monitoring screen   *45.6*
[2]Cable mark offset = _____ (at DOM59) – 17 m = _____ (at DOM60)
(from p.4)

☑ Switch to manual control @ 2400 m

☑ Well depth
@ 2420: _45.6_
@ 2440: _45.6_

PARO @ 2444.44

☑ Position string at target depth of **2450** m   Time: _10 h 37_

☑ String secured with Yale grip and anchor chain   Time: _10 h 55_

Absolute depth with bottom Paro
(depth in *meters* and pressure in *PSI*)

☐ Distance from Paro to DOM60:

$d_{Paro-DOM59}$ = _0.608_ (from p. 4)

$d_{Paro-DOM60}$ = ($d_{Paro-DOM59}$ + 17) m = _17.608_ ← insert below

☑ Convert Paro pressure to string depth:

$K = 3.78151 \cdot 10^{-6}$ /PSI (compressibility of aerated water)

(use 6 decimals for exp's)

Ambient pressure (from p. 4): P_0 = _9.66_ PSI → $\exp(-KP_0)$ = _____

Pressure reading (from screen): P = ~~3416.33~~ 3995.36 PSI → $\exp(-KP)$ = _____ —

Subtract exponentials → = _0.0130942_

× $1.85947 \cdot 10^{5}$

Paro depth in water → = _2434.83_ m

Add distance to DOM60 (above) → + _17.608_ m

Add well depth → + _45.6_ m

Depth of bottom DOM → = _2998.04_ m

? to be redone

Final depth estimates

3995.27   2713.24   2297

◄---------- read off deployment screen --------►

Time:	Paro		Keller		Payout		Cable marks	
Reading	~~3416.54~~	PSI	~~2716.76~~	PSI	2297.76	m		m
Offset	9.66	PSI	10	PSI		m		m
Well depth	45.6	m			This space is intentionally left blank			
Dist. to DOM60	17.61	m	527.83	m				
DEPTH (DOM60)								

Time: _____

Final depth (DOM60): _____

Deployment Closeout

☑ Log entries complete

☑ String safely secured

☑ Hole covered and secured

☑ Equipment safely shutdown and secured

☑ Deployment data OK (in database)

☑ Site cleanup

☑ Deployment crew dismissed

☑ String deployment complete

Time: _____ Date: _12-17-06_

Shift Lead: _____
name / signature

Logger: _____
name / signature

PTS Lead: _____
name / signature

Deployment Manager: _____
name / signature

Safety Officer: _____
name / signature

IceCube On-ice Lead: _____
name / signature

String Installation Traveler

	Surface Cable# : *67*				
	Length (m) : *812 m*		**Start date:** / /		
	Surface to DOM Cable# : *C9*		**Start date:** 12 / 19 /06		

	Process Step	Doc. no. reference	Tech initials	Date Completed	Comments
1	Visual Inspection of Cables at Pole	9400-0006-QLP	*MK*		*not present*

Surface Cable Assembly Inspection   **Pass** [✓]   **Fail** [ ]   **By:** [ ]

Surface to DOM Cable Assembly Inspection   **Pass** [✓]   **Fail** [ ]   **By:** [ ]

	Process Step	Doc. no. reference	Tech initials	Date Completed	Comments
2	Trench Surface Cable Assembly (SCA)	9400-0006-QLP	*MK*		*trenched during 05-06 season*
3	Install SCA into Surface Junction Box (SJB)	9400-0006-QLP	*MK*		*installed during 05-06 season*
4	Install SCA into ICL	9400-0075-PLN	*MK*	1/6/07	*TICL to ICL conversion*
5	Complete IceTop FCU Power and Data Installation Procedure	9400-005-QLP			*05-06 season*
6	Verify Connectivity of IceTop DOMs with Quad Connectivity Tester (QCT)		*MK*	1/8/07	
7	Pre-deployment Inspection Procedure		*MK*		*not present*
8	S2D Cable into SJB installation	9400-0007-QLP	*MK*		*not present*
9	Wet Connector Testing of Quads		*MK*	1/10/07	
10	QCT Testing of Quads		*MK*	1/10/07	
11	SJB Final Inspection Complete (Ok to Bury)	9400-0007-FRM	*MK*	1/20/07	
12	Handoff to IceCube C &V Team		*MK*	1/11/07	

String Installation Traveler

IceCube

String QCT and Wet Connector Test Form

String # _67_   Name of Tester: _Mike Klest_

QCT Results
# of DOMs (0, 1, 2)   Wet Connector Test Results (micro Amps)

Quad name	# of DOMs WP0	# of DOMs WP1	Pass/ Fail	J	L	M	K	Pass/ Fail	Recheck Pass/ Fail
Q2	2	2	P					P	
Q3	2	2	P					P	
Q4	2	2	P					P	
Q5	2	2	P					P	
Q6	2	2	P					P	
Q7	2	2	P					P	
Q8	2	2	P					P	
Q9	2	2	P					P	
Q10	2	2	P					P	
Q11	2	2	P					P	
Q12	2	2	P					P	
Q13	2	2	P					P	
Q14	2	2	P					P	
Q15	2	2	P					P	
Q16	2	2	P					P	
IceTop Quads									
ITQ1	(	(	P						
ITQ2	(	(	P						

Service Quads	Device Connected	Verified on	Tech Initials	Comments
Q1				
Q17				
Q18				
Q19				
Q20				