# 2005 Mytilus Seismic Survey

## BEACH PETROLEUM LIMITED

## Final Operations Report
## PEL 91 & 92 – South Australia
## Cooper Basin

January 2006

Compiled by

D C Roberts for

Beach Petroleum Ltd.

A.B.N. 20 007 617 969
Level 1, 25 Conyngham Street,
GLENSIDE S.A. 5065
GPO Box 175,
ADELAIDE S.A. 5001

BEACH PETROLEUM

## *TABLE OF CONTENTS*

Page No.

## *TABLE OF ATTACHMENTS*

**LIST OF FIGURES**



**LIST OF TABLES**



**LIST OF APPENDICES**



**Note these Appendices are not included in printed form but are included as PDF files on the attached CD version of the full Final Report.**



**2005 Mytilus SEISMIC SURVEY – CD CONTENTS**

Mytilus Seismic Survey Final Report (PDF)

- Appendix 1 Field Supervision Report (Bruce Beer)
- Appendix 2 Acquisition Operations Report (Terrex Seismic)
- Appendix 3 Survey Report (DSS)
- Appendix 4 Processing Report (FSI)
- Appendix 5 Environmental Report (B Beer)

Mytilus Seismic Survey Support Data

- Final Velocities
- Navigation data
- Observer Logs
- Tape Listing
- Upholes

## 1.0 INTRODUCTION

The 2005 Mytilus Seismic Survey in the Cooper Basin in South Australia recorded 47 lines totalling 641 kilometres of new seismic data in PEL 91 & PEL 92 commencing on 8th May 2005 and ending on 7th June 2005. 762 kilometres of earlier vintage seismic data (41 lines) were reprocessed with the new data. 396 new upholes were drilled for the purpose of low velocity layer (LVL) measurement and refraction static calibration of the new lines.

The primary objectives of the survey and reprocessing were to mature to prospect status leads in each of the permit areas and to enhance the regional seismic framework in order to locate additional leads for future refinement.

Work Area Clearance (WAC) processes preceded the survey, conducted by representatives of the Dieri Aboriginal Corporation Native Title Claimant Group. The group was accompanied by their appointed technical experts who prepared reports on the clearance results. This led to several sensitive sites being avoided by shifting the line positions locally.

The participants in the Joint Ventures at the time of the survey were as follows:

| **PEL 91** | **%** |
|---|---|
| Beach Petroleum Limited | 40 |
| Great Artesian Oil & Gas Limited | 60 |

| **PEL 92** | **%** |
|---|---|
| Beach Petroleum Limited | 75 |
| Cooper Energy Limited | 25 |

*Table 1* ***Survey Statistics***

| | PEL 91 | PEL 92 | Total |
|---|---|---|---|
| No of lines | 11 | 36 | 47 |
| Line No Range | BC05-37 to 47<br>Part BC05-32 | BC05-01 to 36<br>Part BC05-32 | BC05-01 to 47 |
| Line length | 186 km | 455 km | 641 km |
| No upholes | 96 | 300 | 396 |
| Average hole depth | 32.8 m | 40.3 | 38.5 m |
| Holes per day | 4.0 | 6.4 | 5.6 |
| Reprocessing Lines | 13 | 28 | 41 |
| Reprocessing km | 309 km | 453 km | 762 km |
| Start Date | 8th May2005 | inc | 8th May2005 |
| End Date | 7th June 2005 | inc | 7th June 2005 |
| Average km/day | 20.7 | 23.2 | 21.4 |
| Average km/rec hr | 3.4 | 3.3 | 3.3 |

Bruce Beer provided the field supervision for the full project. The Field Supervision Report (Appendix 1) provides a detailed history and database with photographs for all aspects of the field operations. The data acquisition contract was awarded to Terrex Seismic of Perth, Western Australia. The Contractor's Seismic Data Acquisition report is in Appendix 2. Dynamic Satellite Surveys were the surveying contractor for this project and the full Contractor's Survey Report is in Appendix 3. The data processing and reprocessing was awarded to Fugro Seismic Imaging (FSI) in Perth, Western Australia and the Data Processing Report is in Appendix 4. Expertest (Adelaide) recorded the upholes for the survey.

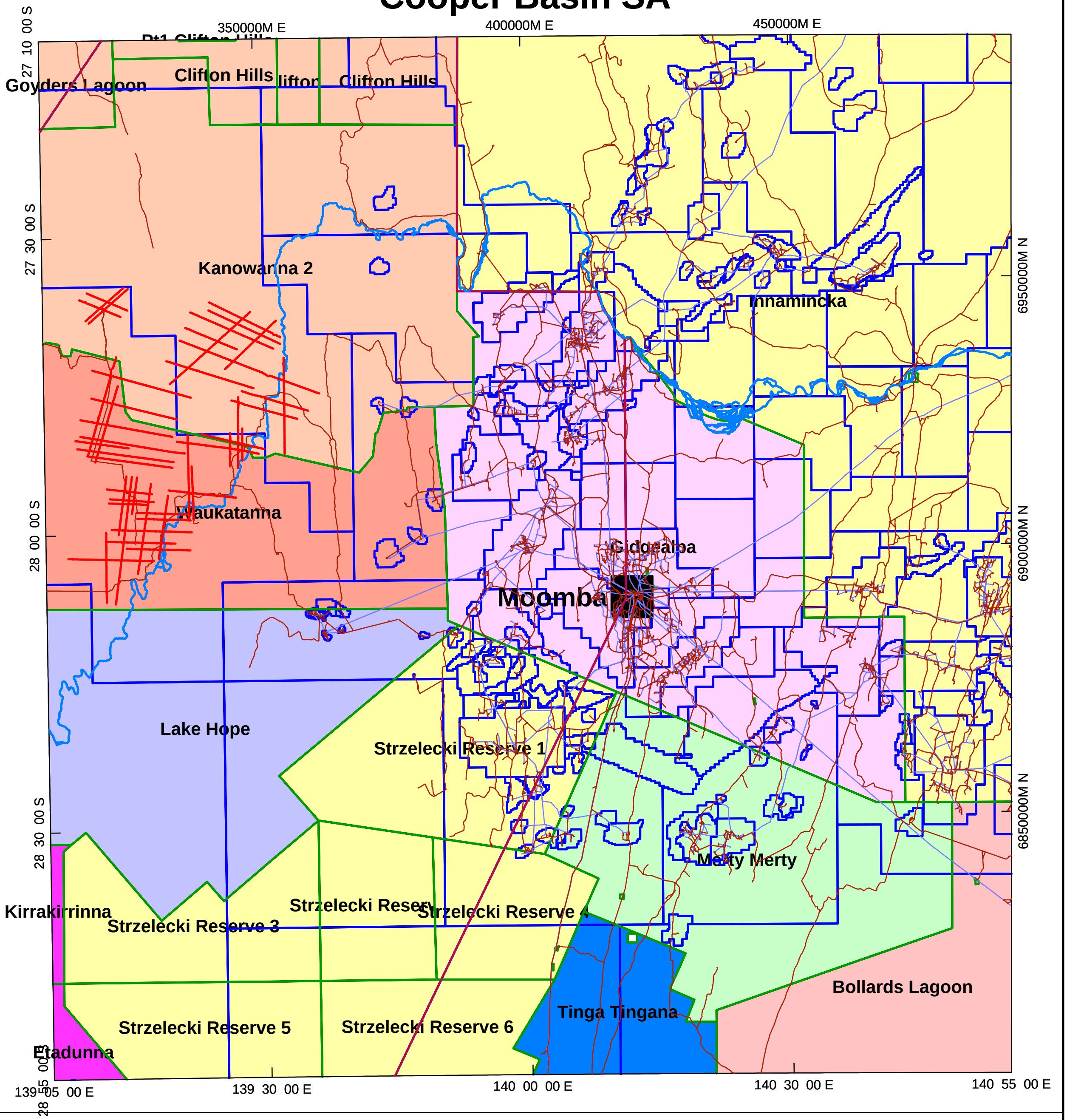
The contracting groups involved in the survey are summarised in Table 2

*Table 2* ***Contractors***

| Operation | Contractor | Report |
|---|---|---|
| Field supervision | Bruce Beer | Appendix 1 |
| Data acquisition | Terrex Seismic | Appendix 2 |
| Line preparation | Denham & O’Keefe | |
| Survey | Dynamic Satellite Surveys | Appendix 3 |
| Uphole drilling | Daly Drilling Co | |
| Uphole recording | Expertest | |
| Data processing | Fugro Seismic Imaging | Appendix 4 |

The following sections provide a summary of the acquisition and processing of the survey.

# Cooper Basin SA




1:1200000

0 12 24 36 48 60

KILOMETRES

UNIVERSAL TRANSVERSE MERCATOR PROJECTION
G.R.S. 1980 SPHEROID
CENTRAL MERIDIAN 141 00 00 E

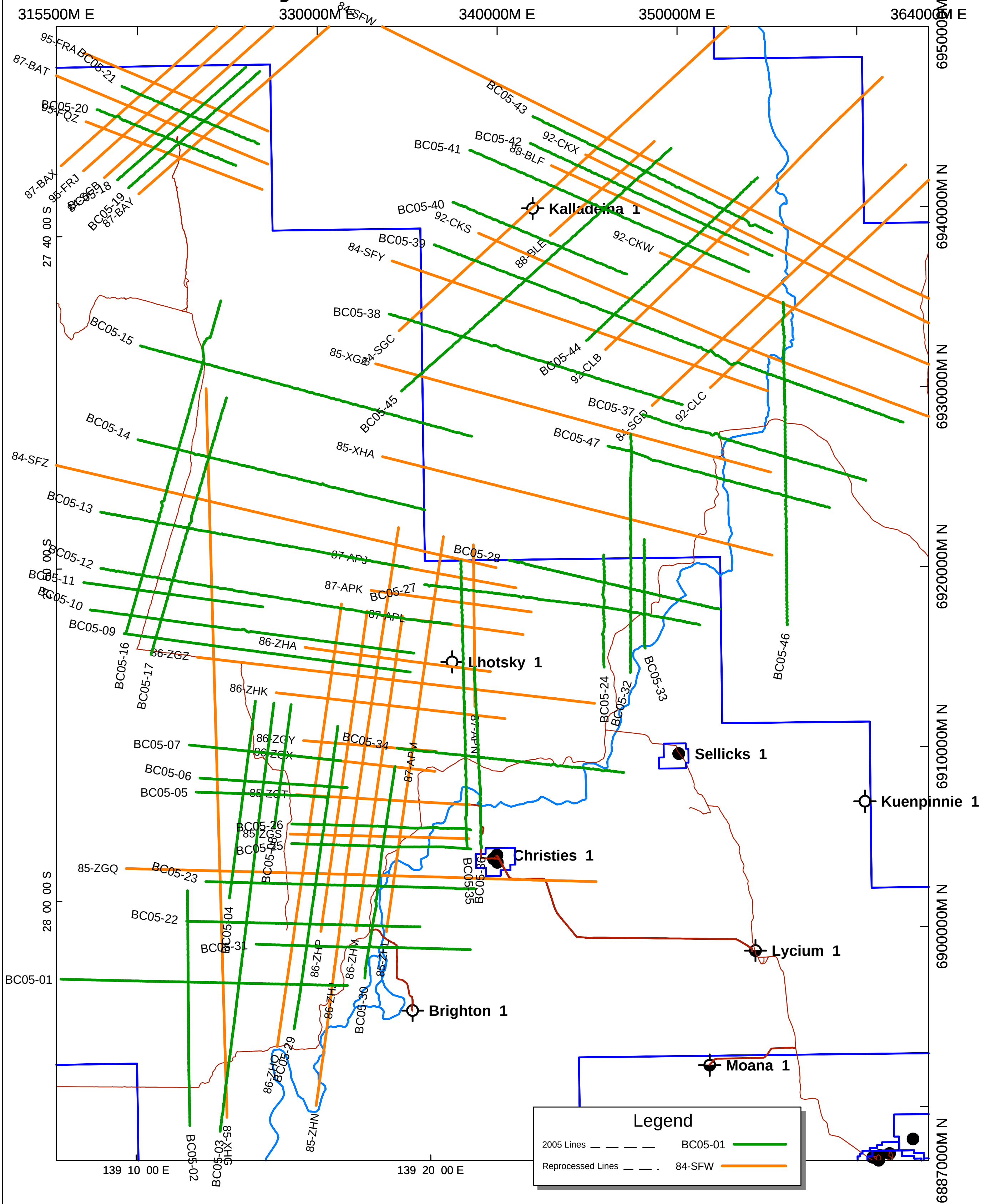
**Beach Petroleum Ltd**

**2005 Mytilus Seismic Survey**
**Regional Location**

**Figure 1**

| | | |
|---|---|---|
| Scale: 1:1200000 | Date : January 18, 2006 | Encl No: |
| Contour Interval: | Author: | |
| Map File: | | |

# Mytilus Seismic PEL 91 / 92




1:300000

0 2 4 6 8 10

KILOMETRES

UNIVERSAL TRANSVERSE MERCATOR PROJECTION

G.R.S. 1980 SPHEROID

CENTRAL MERIDIAN 141 00 00 E

Mapsheet datum: "GDA94"

**Beach Petroleum Ltd**

**2005 Mytilus Seismic Survey**

**PEL 91, PEL 92**

**New and Reprocessed Lines**

**Figure 2**

| | | |
|---|---|---|
| Scale: 1:300000 | Date : January 18, 2006 | Encl No: |
| Contour Interval: | Author: dcr | |
| Map File: | | |

## 2.0 FIELD OPERATIONS

### 2.1 Location

The 2005 Mytilus seismic survey was conducted within PEL 91and PEL 92 which are approximately 100 km west of the Moomba oil and gas production facility operated by Santos Ltd within the Cooper Basin South Australia. Figure 1 shows the regional location of the Mytilus Seismic Survey and Figures 2 shows the line location maps. Tables 3 & 4 list the new lines and the lines selected for reprocessing.

*Table 3* ***New and Reprocessed Lines PEL 91***

| New Lines | | | Reprocessed Lines | | |
|---|---|---|---|---|---|
| **Line** | **Range** | **Length** | **Line** | **Range** | **Length** |
| BC05-32 | 375-553 | 6.5 | 84-SFW | 800-2052 | 48.8 |
| BC05-37 | 200-547 | 13.1 | 84-SFY | 1240-1830 | 24.0 |
| BC05-38 | 200-655 | 17.1 | 84-SGC | 223-1167 | 36.6 |
| BC05-39 | 200-946 | 28.0 | 84-SGD | 200-720 | 21.3 |
| BC05-40 | 200-479 | 10.5 | 85-XGZ | 1180-1788 | 24.6 |
| BC05-41 | 200-651 | 17.0 | 85-XHA | 758-1646 | 35.2 |
| BC05-42 | 200-595 | 14.9 | 88-BLE | 200-408 | 7.8 |
| BC05-43 | 200-594 | 14.8 | 88-BLF | 200-520 | 12.0 |
| BC05-44 | 200-550 | 13.2 | 92-CKS | 200-952 | 28.2 |
| BC05-45 | 200-738 | 20.2 | 92-CKW | 200-696 | 18.6 |
| BC05-46 | 200-679 | 18.0 | 92-CKX | 200-856 | 24.6 |
| BC05-47 | 200-543 | 12.9 | 92-CLB | 200-776 | 21.6 |
| | | | 92-CLC | 200-920 | 27.0 |
| | **Total** | **186.0** | | **Total** | **330.6** |

*Table 4* ***New and reprocessed lines PEL 92***

| New Lines | | | Reprocessed Lines | | |
|---|---|---|---|---|---|
| **Line** | **Range** | **Length** | **Line** | **Range** | **Length** |
| BC05-01 | 200-625 | 16.0 | 84-SFZ | 200-1250 | 39.4 |
| BC05-02 | 200-548 | 13.1 | 84-SGB | 780-1400 | 26.9 |
| BC05-03 | 200-840 | 24.0 | 85-XHG | 120-1200 | 40.5 |
| BC05-04 | 200-494 | 11.1 | 85-ZGQ | 200-898 | 26.2 |
| BC05-05 | 200-396 | 7.4 | 85-ZGS | 200-460 | 9.8 |
| BC05-06 | 200-419 | 8.3 | 85-ZGT | 200-458 | 9.7 |
| BC05-07 | 200-426 | 8.5 | 85-ZHL | 200-522 | 12.1 |
| BC05-08 | 200-385 | 7.0 | 85-ZHN | 200-448 | 9.3 |
| BC05-09 | 200-626 | 16.1 | 86-ZHJ | 200-870 | 25.2 |
| BC05-10 | 200-685 | 18.2 | 86-ZHM | 200-672 | 17.7 |
| BC05-11 | 200-468 | 10.1 | 86-ZHP | 200-680 | 18.0 |
| BC05-12 | 200-726 | 19.8 | 86-ZHQ | 224-888 | 24.9 |
| BC05-13 | 200-652 | 17.0 | 86-ZGX | 200-400 | 7.5 |
| BC05-14 | 200-638 | 16.5 | 86-ZGY | 205-398 | 7.5 |
| BC05-15 | 200-709 | 19.1 | 86-ZGZ | 200-794 | 22.3 |
| BC05-16 | 200-713 | 19.3 | 86-ZHA | 200-478 | 10.5 |
| BC05-17 | 200-597 | 14.9 | 86-ZHK | 200-542 | 12.9 |
| BC05-18 | 200-453 | 9.5 | 87-APJ | 200-412 | 8.0 |
| BC05-19 | 200-460 | 9.8 | 87-APK | 200-440 | 9.0 |
| BC05-20 | 200-422 | 8.4 | 87-APL | 200-364 | 6.2 |
| BC05-21 | 200-420 | 8.3 | 87-APM | 200-496 | 11.1 |

| | | | | | |
|---|---|---|---|---|---|
| BC05-22 | 200-546 | 13.0 | 87-APN | 200-440 | 9.0 |
| BC05-23 | 201-599 | 15.0 | 87-BAT | 200-600 | 15.0 |
| BC05-24 | 200-367 | 6.3 | 87-BAX | 200-654 | 17.1 |
| BC05-25 | 200-466 | 10.0 | 87-BAY | 200-640 | 16.5 |
| BC05-26 | 200-466 | 10.0 | 95-FQZ | 200-550 | 10.5 |
| BC05-27 | 200-613 | 15.5 | 95-FRA | 200-570 | 11.1 |
| BC05-28 | 200-521 | 12.1 | 95-FRJ | 200-990 | 23.7 |
| BC05-29 | 200-653 | 17.0 | | | |
| BC05-30 | 200-517 | 11.9 | | | |
| BC05-31 | 200-518 | 12.0 | | | |
| BC05-32 | 200-375 | 6.5 | | | |
| BC05-33 | 200-361 | 6.1 | | | |
| BC05-34 | 200-539 | 12.8 | | | |
| BC05-35 | 200-627 | 16.1 | | | |
| BC05-36 | 200-468 | 10.1 | | | |
| | **Total** | **456.6** | | **Total** | **457.9** |

## 2.2 Permitting

PIRSA was notified about the survey in 17th March 2005. PEL 91 & 92 lines were located within the Mungeranie and the Clifton Hills pastoral leases and both of these properties were provided with Notices of Entry for the survey work. Santos as operator of adjacent PPLs and as provider of the local road access network was also provided with a Notice of Entry. The Dieri Aboriginal Corporation (Dieri) and Aboriginal Legal Rights Movement were advised of the survey with a Notice of Entry. The Dieri were also consulted for the Cultural Heritage Clearance (next section).

## 2.3 Cultural Heritage Clearance

The PEL 91 and PEL 92 Joint Ventures have ancillary agreements with the Dieri who are the Native Title claimants over various portions of the survey area (Figure 1) and under that agreement consultation and field inspection of proposed line locations are required prior to conducting any fieldwork.

<u>Dieri Work Area Clearance 1 in PEL 91 & PEL 92</u>

A Clearance Request for PEL 91& 92 was sent to the Dieri legal representative and a field inspection was conducted during late November to early December 2003. The Work Area Clearance (WAC) was coordinated by anthropologists from the Department of Anthropology at the University of Adelaide and the Aboriginal Legal Rights Movement, Native title Unit.

Dieri Representatives –

Male: P Stuart, S Kemp, D Kemp,
Female: B Ed, A Stuart, P Gepp

- Technical specialists – R Lucas, J Scott, A Nettlefold
- Beach Representative –Bill Hedditch

<u>Dieri Work Area Clearance 2 in PEL 92</u>

A Clearance Request for additional work in PEL 92 was sent to the Dieri legal representative and field site visits were conducted in November 2004.

The work area clearance party consisted of the following 7 persons

- Dieri Representatives –
    - Male: Willie Landers, Neil Stewart
    - Female: Jennifer Landers, Leeane Warren

- Technical specialists – R Lucas, J Scott
- Beach Representative – B Hedditch

Inspection and survey of seismic lines was carried out in two or three 4WD vehicles equipped with UHF radios for communications. The lead vehicle was equipped with onboard navigational equipment consisting of a GPS unit coupled with a laptop computer. This equipment traced and recorded the team’s position in relation to the terrain and the proposed seismic lines. The specialists documented the clearance process with field notes, photographs and handheld GPS units.

Because of safety considerations, difficult terrain and time constraints it was not always possible to inspect the entire length of each proposed seismic line. Rather the inspection process involved driving as much of the line as seemed safe and sensible with particular priority given to inspecting areas identified by the clearance team as likely to be significant. The field inspection was followed by a report from the technical specialists detailing the clearances and specific exclusions. The lines were cleared with a limited number of specified deviations.

### 2.4 Line Preparation & Survey

Line preparation was subcontracted through Terrex Seismic to Denham and O’Keeffe Earthmoving (DOK) of Toowoomba, Queensland. DOK provided a camp, two Komatsu D65 dozers and a Cat 12G grader. Surveying was sub-contracted to Dynamic Satellite Surveys (DSS) of Yeppoon in Queensland using Novatel GPS equipment. Line preparation work began on 23rd April and was completed on 27th May 2005. A total of 641 km of 2D seismic line was prepared.

Table 5 lists the Control Station locations established.

*Table 5* ***Control Station locations***

| Station | Easting | Northing | Height | Comments |
|---|---|---|---|---|
| BC0244 | 321502.20 | 6920364.53 | 47.78 | Published-3D |
| BC0246 | 336346.80 | 6912776.21 | 18.82 | Published-3D |
| BC0251 | 345153.46 | 6909112.78 | 18.62 | Published-3D |
| BC51 | 345153.29 | 6909112.82 | 18.64 | Static Survey |
| MAR1 | 315419.95 | 6891112.75 | 41.40 | Static Survey |
| MYT01 | 333618.45 | 6903115.05 | 21.22 | Static Survey |
| MYT02 | 336276.14 | 6927864.51 | 50.14 | Static Survey |
| MYT03 | 325097.73 | 6892695.83 | 26.09 | Static Survey |
| MYT04 | 348187.38 | 6917952.30 | 32.24 | Static Survey |
| MYT05 | 322030.90 | 6941602.76 | 53.32 | Static Survey |
| MYT06 | 355905.54 | 6928080.54 | 31.26 | Static Survey |

Each dozer was equipped by DSS with a GPS receiver containing the coordinates of each line including bend points and heritage no-go zones. Information on the survey methods and geodetic and geophysical datum employed is in the Contractors Survey Report (Appendix 3)

## 2.5 Environment

The 2005 Mytilus Seismic Survey was conducted under a “Statement of Environmental Objectives” (SEO) published by PIRSA, which provided objectives and measurements for preparation and use of seismic lines in order to minimise impact and maximise rehabilitation. The dozer operators and surveyors were all competent in the techniques required to meet these objectives.

The terrain in the Mytilus Seismic Survey consisted mostly of sand dunes with a north-south orientation with an average height of 17 metres above the swales. The far northwest area around the proposed Boomer well site had some gibber terrain and some of the dune corridors on the western lines were also gibber. There was floodplain and wetland around the Cooper Creek.

Comprehensive environmental guidelines on the preparation of lines were provided in written form and in inductions and were followed by the various crews. The major points stressed were.

- Weave lines to break the line of sight;
- Minimise dune cuts;
- Store sand from dune cuts on dune flanks and avoid “ramping”
- Minimise blade work in dune swales;
- Where blade-work is necessary, ensure that the windrows are flattened;
- Place doglegs at road and track crossings and try to avoid blade-work within 50m of road crossings;
- Report and avoid any aboriginal artefacts found;
- Spread drill cuttings so as not to create a “pile”.
- Ensure that no litter is on the lines;
- Ensure that all gates are closed and drop gates reinstated;
- Report any fence wire breakages immediately and make sure that fences are stock-proof.

An environmental report for this area has been written and submitted to PIRSA. This is attached as Appendix 5 and contains EMP report and GAS audit reports.

## 2.6 Health and Safety

Safety received a high priority from Beach Petroleum, Terrex Seismic and all sub-contractors during this survey. An induction was held prior to the start of line preparation and again before the start of recording. An induction for the drill crew was given by Bruce Beer who also gave inductions to all new crewmembers upon arrival.

The basic tenets of the Terrex Seismic HSE policy were:

- Daily toolbox meetings pre-work
- Weekly safety meetings
- Site specific Emergency response plan

The safety efforts were comprehensive and there were no Lost Time Injuries on this project but there were 2 reportable incidents. Details are included in the Field Supervision Report (Appendix 1). The following table summarises some key safety statistics for the project.

| | |
|---|---|
| Terrex Seismic Man-hours | 13,260 |
| Fatalities | 0 |
| LTI | 0 |
| MTI | 0 |
| First Aid / Medical Cases | 19 |

| | |
|---|---|
| Incident / Accident Reports | 2 |
| Hazard Identification Reports | 21 |
| Training Hours | 108.7 |
| Tool Box / Safety Meeting Man-hours | 250 |
| Audits / Inspections | 32 |
| Drills | 1 |
| Land Spills (< 5 litres) | 0 |

## 2.7 Recording Operations

Terrex Seismic was selected as the Vibroseis seismic data acquisition contractor for this project. The survey commenced on 8$^{th}$ May 2005 through to 7$^{th}$ June. Full details of the operation are in Appendix 1 and Appendix 2. The acquisition parameters are listed in Table 6. Parameters similar to previous Cooper Basin seismic surveys were used. These have been fine-tuned over the last 15 years and proven to be very effective for acquiring high quality data.

*Table 6* ***Acquisition Parameters***

| **Instruments** | |
|---|---|
| Model | Sercel SN388 |
| No. Channels | 124 |
| Tape Format | SEGD rev 1 (Demux) IBM 3490E cart. |
| Filters | Hi 125 Hz Low Out |
| Correlation | Zero Phase – after sum |
| Stack | Diversity stack plus burst edit |
| Record Length | 4 sec |
| Sample rate | 2 ms |
| **Source Parameters** | |
| Vibrators | 3 x I/O AHV IV on 4x4 Buggies |
| Electronics | Pelton Advance III VibePro |
| Sweep frequency | 5-90 Hz Linear |
| Sweep length | 3 sec |
| No. of sweeps | 2 standing |
| VP interval | 37.5 m |
| Vibrator Array | 3 vibs in line, 15m pad to pad, centred between stn – no moveup |
| Phase lock | Ground Force |
| Drive Level | 90% varied by Amplitude control (Peak to Peak) |
| **Receiver Parameters** | |
| Group interval | 37.5m |
| Spread | Split, 2306.25 – 93.75 – 0 – 93.75 – 2306.25 |
| Geophones | Sensor SM4 10Hz |
| Array | 12 in line, centred on station, 3.125m spacing |
| Connection | Series/Parallel (6x2) |
| Fold | 62 (60 processed) |

Data quality throughout the Mytilus Seismic Survey was generally excellent in all areas.

The Terrex Seismic crew were accommodated in a mobile camp put together specifically for the Cooper Basin campaign. The crew had 34 persons including the camp and administrative personnel. The average recording rate for this survey was 21.4 km/per day when normalised to a 12 hour day. 3.3-km/recording hour was achieved which is a reasonable performance for the crew. The average cycle time for the given parameters was about 40.6 seconds per VP.

## 2.8 LVL Acquisition

The uphole program for the survey consisted of 396 holes at an average spacing of 1.6 km. Scanlon Drilling of Kalgoorlie were contracted through Terrex Seismic to conduct the drilling work. Drilling was conducted using a Bourne 1000 truck mounted drilling rig. Uphole logging was contracted to Expertest using a 100kg weight drop unit mounted on a Toyota 4x4 tray back unit. The unit had a down-hole geophone tool with a 150m cable. Drilling commenced on 24$^{th}$ May and was completed in 4$^{th}$ August 2005.

The average hole depth was 38.5 m and an average of 5.6 holes per day were recorded and logged. Plots of elevation vs. elevation of base of weathering show that across the broad area of this survey that the base of weathering is consistently at 10-20m above sea level datum in the PEL 91 & PEL 92 licence areas. The weathering thickness varies with elevation above these levels. Table 8 is a list of the uphole locations and fbr file names.

## 2.9 Rehabilitation and de-permitting

At the end of field acquisition activities the lines were checked for any rubbish and pegs left behind. The method of low impact line preparation use does not require any rehabilitation activities as the windrows were minimised and the lines should regenerate naturally. Environmental monitoring points were established which will enable a record to be kept over time as the lines recover.

## 3.0 DATA PROCESSING

### 3.1 Processing tests

Fugro Seismic Imaging Pty Ltd (FSI, Formerly Robertson Research) of Perth WA were awarded the contract to process the data. Processing flow was based on the previous year's program. The Contractor report in Appendix 4 discusses the detail and results of the processing.

### 3.2 Processing sequence

*Table 7* ***Processing Sequence***

| Sequence | Processing Parameters |
|---|---|
| Transcription | Transcribe SEGD to FSI internal format |
| Gain recovery | Sperical divergence correction Gain (db)=3.0t+10log(t) |
| Phase conversion | Convert Zero to Minimum phase |
| Refraction Statics | Floating datum correction<br>Green Mountain Refraction statics calibrated to upholes |
| CDP Gather | 62 nominal fold cdp interval 18.75m |
| Deconvolution | Surface consistent spiking with 2 windows (120ms operator) |
| Spectral balance | Spectral whitening using band pass filter 5-10-90-95 |
| Velocity analysis 1 | Prelim approx 1.5 km intervals |
| Residual statics 1 | Surface consistent – 9 trace pilot (max shift +/- 25ms) |
| Velocity analysis 2 | 2nd round approx 1 km intervals |
| Residual Statics 2 | Surface consistent – 9 trace pilot (max shift +/- 25ms) |
| Dip moveout | Hales method, 62 equal offset planes |
| Velocity analysis 3 | Final velocities at .5 km intervals |
| NMO corrections | Velocity function referenced to surface |
| Outer Mute | Offset /time 150m/0ms, 200/200,650/500,1330/1200,2307/1900 |
| Scaling | 500ms AGC |
| Statics | Floating datum to sea level correction (new time origin –200ms) |
| CDP trim statics | CDP consistent trim statics – 9 tr pilot window 200-3000ms (+/-8ms) |
| Stack | CDP stack (62 fold) |
| DAS | Decon after Stack 0.1% wht noise,120ms operator 20ms gap |
| Migration | FD Migration – Second Order solution (65 degrees) 12ms step – 100% smoothed stacking velocities |
| Band pass filter | 500 ms 8/12/-80/90, 1500ms 8/12-70/80, 2500ms 8/12-60/70 |
| Scaling | Dual window AGC 1000ms & 400ms 50% application |
| Phase & Time Shift | 0 deg for BC05 vintage – various for other vintages |

### 3.3 Static corrections

Refraction first breaks were picked using Green Mountain Refraction statics Delay Time method, which estimates the refractor velocities to model the weathering thickness. Weathering velocities were interpreted at uphole locations shot along the lines. These upholes were also used as calibration points. Seismic reference datum of 0m above sea level was used. A two-layer model was best suited for the Cooper Basin data.

### 3.4 Archived data

An archive data listing is included in the FSI processing report (Appendix 4). A field tape summary is in Table 9. For each line both new and reprocessed the following files were archived onto CD or DVDs.

SEGY – Filtered Migration Stack, Raw Stack, Raw Migration, Final Stack

CGM+ - Final Stack, Filtered Migrated Stack

## 4.0 CONCLUSIONS & RECOMMENDATIONS

The 2005 Mytilus Seismic Survey was a technical and operational success. The data acquired was of a excellent standard and together with the reprocessed data provides information to further evaluate the leads and prospects within PEL 91 and PEL 92. Environmental and cultural heritage considerations made in the planning and conduct of the survey are expected to result in very low long-term impact on the survey area. Line preparation methods employed were successful in avoiding significant visual and potential erosion problems and regeneration of the line over time is expected to remove most evidence of the survey. Areas discovered to be of cultural significance were avoided during the survey and remain undisturbed.

All the contractors utilised during the survey performed well and would all be commended for future projects in the area. A detailed list of recommendations appears in the Field Supervision Report (Appendix 1)

A brief Summary of recommendations from the field supervision (Appendix 1) report follows.

- The wide-spread nature of the program and the lack of access tracks made this a challenging job for Terrex Seismic. However, crew # 102 handled the challenges in a safe and efficient manner.
- Data quality appeared to be good in all parts of the program. The I/O AHV IV vibrators proved to be a good and reliable source. However, the tyres with their deep-lugged treads were inappropriate for the sandy terrain and 4% of the total time was taken with detours. This was particularly bad when the vibes had to go east to west up the steepest face of the dunes.
- The line preparation operation went smoothly but the production rate in PEL 92 was affected by the long travel and lack of access. DOK have now been sold to Terrex Contracting but the personnel are the same. They are recommended for future work.
- The DSS personnel list for this job was short on Cooper Basin experience due to a concurrent job running in WA. Some mistakes were made. However, by the end of the job they were all up to speed. DSS are recommended for future contracts.
- Scanlon Drilling got off to a horror start with 4 days of downtime but recovered well to end up doing a splendid job. The 16.14 metres/drill hour was low due to the difficult access in that area while the 22.04 metres/drill hr in PEL 92 was due to the more benign dunes in the southern area. Scanlon Drilling is recommended for future work.
- Expertest’s Mark Smale continues to produces data of the highest quality. Expertest (and Mark Smale) is recommended for future work.
- Terrex Seismic’s Crew Managers, Mark Kneipp and Jon Turner, are excellent crew managers and were a pleasure to deal with. They both adopt an attitude of respect towards crewmembers who sense this and reward it by returned respect and hard, cheerful work. The atmosphere on the crew was very good.
- There were no LTI’s on this job. This was in part due to the excellent work of the HSE officers Gary Hutchinson and Nicky Byrne but also the excellent atmosphere of cooperation and mutual support that pervaded the crew.

*Table 8* **Uphole listing (Corrected Locations)**

| Uphole_No | East ing | North ing | Elev ation | Logged Depth | Static | Line A | STN | Line B | FBR File |
|---|---|---|---|---|---|---|---|---|---|
| DHBC05-001 | 316273 | 6897051 | 32.6 | 46 | -27.3 | BC05-01 | 214 | | BC001.FBR |
| DHBC05-002 | 318185 | 6897010 | 28.4 | 40 | -23.1 | BC05-01 | 265 | | BC002.FBR |
| DHBC05-003 | 320546 | 6896954 | 25.6 | 34 | -20.6 | BC05-01 | 328 | | BC003.FBR |
| DHBC05-004 | 322833 | 6896906 | 35.0 | 40 | -32.5 | BC05-01 | 389 | BC05-02 | BC004.FBR |
| DHBC05-005 | 324783 | 6896867 | 30.9 | 46 | -31.6 | BC05-01 | 441 | 85-ZHG | BC005.FBR |
| DHBC05-006 | 325646 | 6896852 | 13.9 | 34 | -13.1 | BC05-01 | 464 | BC05-03 | BC006.FBR |
| DHBC05-007 | 329118 | 6896769 | 17.4 | 28 | -17.3 | BC05-01 | 556 + 23 | BC05-29 | BC007.FBR |
| DHBC05-008 | 329814 | 6896750 | 16.4 | 34 | -15.7 | BC05-01 | 575 + 7 | BC02-55 | BC008.FBR |
| DHBC05-009 | 330857 | 6896724 | 16.8 | 34 | -18.9 | BC05-01 | 603 | 85-XHN | BC009.FBR |
| DHBC05-010 | 322909 | 6889797 | 17.3 | 34 | -19.0 | BC05-02 | 223 + 1 | 85-XRG | BC010.FBR |
| DHBC05-011 | 322892 | 6891058 | 17.1 | 28 | -20.5 | BC05-02 | 256 + 24 | 84-XAC | BC011.FBR |
| DHBC05-012 | 322856 | 6893181 | 35.9 | 46 | -35.9 | BC05-02 | 313 + 10 | | BC012.FBR |
| DHBC05-013 | 322840 | 6895305 | 23.1 | 34 | -20.7 | BC05-02 | 369 + 34 | 85-XHF | BC013.FBR |
| DHBC05-014 | 322819 | 6898550 | 29.6 | 40 | -29.0 | BC05-02 | 456 + 16 | 85-ZGM | BC014.FBR |
| DHBC05-015 | 322804 | 6900292 | 35.9 | 46 | -38.1 | BC05-02 | 502 + 34 | BC05-22 | BC015.FBR |
| DHBC05-016 | 322800 | 6900933 | 33.7 | 40 | -36.0 | BC05-02 | 520 | 85-XHE | BC016.FBR |
| DHBC05-017 | 324687 | 6889265 | 20.5 | 34 | -24.3 | BC05-03 | 217 + 19 | | BC017.FBR |
| DHBC05-018 | 324903 | 6891050 | 16.4 | 34 | -19.2 | BC05-03 | 265 + 17 | 85-XAC /85-XHG | BC018.FBR |
| DHBC05-019 | 325211 | 6893277 | 19.8 | 34 | -19.9 | BC05-03 | 325 + 15 | | BC019.FBR |
| DHBC05-020 | 325470 | 6895324 | 19.1 | 40 | -20.9 | BC05-03 | 380 + 17 | 85-XHF | BC020.FBR |
| DHBC05-021 | 325854 | 6898418 | 17.4 | 34 | -18.0 | BC05-03 | 463 + 22 | 85-ZGM | BC021.FBR |
| DHBC05-022 | 326057 | 6900210 | 26.8 | 40 | -25.2 | BC05-03 | 511 + 25 | BC05-22 | BC022.FBR |
| DHBC05-023 | 326151 | 6900854 | 25.8 | 34 | -26.9 | BC05-03 | 529 | 85-XHE | BC023.FBR |
| DHBC05-024 | 326338 | 6902423 | 27.8 | 40 | -26.2 | BC05-03 | 571 + 5 | BC05-23 | BC024.FBR |
| DHBC05-025 | 326412 | 6903034 | 27.9 | 40 | -25.0 | BC05-03 | 587 + 21 | 85-ZGQ | BC025.FBR |
| DHBC05-026 | 326625 | 6904763 | 18.4 | 34 | -17.3 | BC05-03 | 634 | | BC026.FBR |
| DHBC05-027 | 326825 | 6906472 | 22.3 | 34 | -24.7 | BC05-03 | 680 + 5 | 85-XHD | BC027.FBR |
| DHBC05-028 | 326940 | 6907360 | 20.5 | 34 | -20.7 | BC05-03 | 704 | BC05-05 | BC028.FBR |
| DHBC05-029 | 327021 | 6908012 | 16.2 | 34 | -16.6 | BC05-03 | 721 + 19 | BC05-06 | BC029.FBR |
| DHBC05-030 | 327123 | 6908767 | 20.7 | 34 | -20.6 | BC05-03 | 741 + 32 | 85-ZGW | BC030.FBR |
| DHBC05-031 | 327232 | 6909632 | 27.3 | 40 | -28.2 | BC05-03 | 765 + 4 | BC05-07 | BC031.FBR |
| DHBC05-032 | 327475 | 6911482 | 33.8 | 40 | -34.3 | BC05-03 | 814 + 31 | | BC032.FBR |
| DHBC05-033 | 325232 | 6902447 | 29.9 | 40 | -34.9 | BC05-04 | 223 + 6 | BC05-23 | BC033.FBR |
| DHBC05-034 | 325319 | 6903065 | 20.8 | 40 | -20.1 | BC05-04 | 239 + 30 | 85-ZGQ | BC034.FBR |
| DHBC05-035 | 325542 | 6904783 | 28.7 | 40 | -30.2 | BC05-04 | 286 | | BC035.FBR |
| DHBC05-036 | 325770 | 6906525 | 34.5 | 46 | -36.1 | BC05-04 | 332 + 31 | | BC036.FBR |
| DHBC05-037 | 325894 | 6907381 | 35.6 | 40 | -34.5 | BC05-04 | 355 + 34 | BC05-05 | BC037.FBR |
| DHBC05-038 | 325975 | 6908088 | 30.4 | 40 | -29.7 | BC05-04 | 374 + 33 | BC05-06 | BC038.FBR |
| DHBC05-039 | 326082 | 6908888 | 35.2 | 40 | -34.6 | BC05-04 | 396 + 15 | 85-ZGW | BC039.FBR |
| DHBC05-040 | 326196 | 6909734 | 19.9 | 40 | -17.3 | BC05-04 | 419 + 6 | BC05-07 | BC040.FBR |
| DHBC05-041 | 326451 | 6911583 | 22.8 | 40 | -21.2 | BC05-04 | 468 + 35 | | BC041.FBR |
| DHBC05-042 | 324463 | 6907431 | 27.0 | 40 | -24.3 | BC05-05 | 231 + 28 | | BC042.FBR |
| DHBC05-043 | 327865 | 6907315 | 18.3 | 34 | -18.3 | BC05-05 | 322 + 19 | BC05-08 | BC043.FBR |
| DHBC05-044 | 330603 | 6907174 | 30.2 | 40 | -36.3 | BC05-05 | 395 + 24 | BC05-29 | BC044.FBR |
| DHBC05-045 | 324441 | 6908182 | 27.5 | 40 | -25.3 | BC05-06 | 225 + 28 | 85-XHG | BC045.FBR |
| DHBC05-046 | 327950 | 6907957 | 19.3 | 34 | -16.8 | BC05-06 | 319 + 18 | BC05-08 | BC046.FBR |
| DHBC05-047 | 329894 | 6907819 | 28.8 | 40 | -28.3 | BC05-06 | 371 + 17 | 86-ZHQ | BC047.FBR |
| DHBC05-048 | 330682 | 6907776 | 21.2 | 34 | -20.7 | BC05-06 | 392 + 19 | BC05-29 | BC048.FBR |
| DHBC05-049 | 331365 | 6907728 | 32.4 | 40 | -30.5 | BC05-06 | 410 + 28 | BC02-55 | BC049.FBR |
| DHBC05-050 | 324404 | 6909921 | 32.9 | 46 | -29.4 | BC05-07 | 240 + 21 | | BC050.FBR |
| DHBC05-051 | 328168 | 6909541 | 31.5 | 46 | -30.4 | BC05-07 | 341 + 17 | BC05-08 | BC051.FBR |
| DHBC05-052 | 330877 | 6909240 | 33.9 | 40 | -39.6 | BC05-07 | 414 + 5 | BC05-29 | BC052.FBR |
| DHBC05-053 | 327736 | 6906427 | 17.2 | 34 | -17.2 | BC05-08 | 226 + 6 | 85-XHD | BC053.FBR |
| DHBC05-054 | 328424 | 6911385 | 39.4 | 46 | -47.3 | BC05-08 | 359 + 24 | BC05-08 | BC054.FBR |
| DHBC05-055 | 320215 | 6916137 | 47.7 | 58 | -37.1 | BC05-09 | 225 + 21 | BC02-43 | BC055.FBR |
| DHBC05-056 | 321035 | 6916028 | 43.0 | 46 | -34.1 | BC05-09 | 247 + 23 | BC05-17 | BC056.FBR |
| DHBC05-057 | 322619 | 6915819 | 47.1 | 46 | -41.8 | BC05-09 | 290 + 9 | | BC057.FBR |
| DHBC05-058 | 324228 | 6915598 | 29.2 | 40 | -26.2 | BC05-09 | 333 + 21 | 85-XHG | BC058.FBR |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| DHBC05-059 | 326253 | 6915332 | 20.6 | 34 | -16.8 | BC05-09 | 388 | | BC059.FBR |
| DHBC05-060 | 328549 | 6915022 | 29.4 | 40 | -29.4 | BC05-09 | 449 + 29 | | BC060.FBR |
| DHBC05-061 | 330899 | 6914705 | 36.4 | 46 | -38.9 | BC05-09 | 513 | 86-ZHQ | BC061.FBR |
| DHBC05-062 | 331634 | 6914602 | 16.9 | 34 | -15.0 | BC05-09 | 532 + 31 | BC02-48 | BC062.FBR |
| DHBC05-063 | 332348 | 6914516 | 19.7 | 34 | -17.6 | BC05-09 | 552 | 86-ZHP | BC063.FBR |
| DHBC05-064 | 333328 | 6914377 | 16.7 | 34 | -16.1 | BC05-09 | 578 + 14 | 86-ZHJ | BC064.FBR |
| DHBC05-065 | 334298 | 6914260 | 22.5 | 34 | -24.6 | BC05-09 | 604 + 16 | 86-ZHM | BC065.FBR |
| DHBC05-066 | 318608 | 6917432 | 44.4 | 46 | -31.3 | BC05-10 | 232 + 21 | BC02-42 | BC066.FBR |
| DHBC05-067 | 319644 | 6917286 | 53.1 | 52 | -45.9 | BC05-10 | 260 + 17 | BC05-16 | BC067.FBR |
| DHBC05-068 | 320532 | 6917171 | 43.7 | 46 | -33.0 | BC05-10 | 284 + 12 | BC02-43 | BC068.FBR |
| DHBC05-069 | 321332 | 6917056 | 36.7 | 100 | -29.6 | BC05-10 | 305 + 33 | BC05-17 | BC069.FBR |
| DHBC05-070 | 322748 | 6916863 | 40.1 | 46 | -32.5 | BC05-10 | 344 | | BC070.FBR |
| DHBC05-071 | 324197 | 6916668 | 34.0 | 40 | -29.4 | BC05-10 | 383 | 85-XHG | BC071.FBR |
| DHBC05-072 | 326411 | 6916374 | 19.6 | 34 | -15.7 | BC05-10 | 444 | | BC072.FBR |
| DHBC05-073 | 328828 | 6916052 | 37.4 | 41 | -44.0 | BC05-10 | 509 | | BC073.FBR |
| DHBC05-074 | 331042 | 6915761 | 25.5 | 40 | -25.7 | BC05-10 | 568 + 21 | 86-ZHQ | BC074.FBR |
| DHBC05-075 | 331774 | 6915666 | 17.1 | 34 | -15.9 | BC05-10 | 588 + 9 | BC02-48 | BC075.FBR |
| DHBC05-076 | 332499 | 6915567 | 27.5 | 40 | -29.5 | BC05-10 | 607 + 28 | 86-ZHP | BC076.FBR |
| DHBC05-077 | 333489 | 6915437 | 17.1 | 34 | -15.8 | BC05-10 | 634 + 15 | | BC077.FBR |
| DHBC05-078 | 334456 | 6915310 | 20.1 | 34 | -18.5 | BC05-10 | 660 + 14 | 86-ZHM | BC078.FBR |
| DHBC05-079 | 317356 | 6919055 | 45.0 | 46 | -32.5 | BC05-11 | 209 + 36 | | BC079.FBR |
| DHBC05-080 | 319011 | 6918837 | 42.6 | 46 | -32.3 | BC05-11 | 253 + 19 | BC02-42 | BC080.FBR |
| DHBC05-081 | 320055 | 6918697 | 47.7 | 46 | -37.2 | BC05-11 | 281 + 23 | BC05-16 | BC081.FBR |
| DHBC05-082 | 320944 | 6918571 | 51.4 | 52 | -40.4 | BC05-11 | 305 + 21 | BC02-43 | BC082.FBR |
| DHBC05-083 | 321744 | 6918462 | 51.3 | 46 | -40.2 | BC05-11 | 327 + 3 | BC05-17 | BC083.FBR |
| DHBC05-084 | 322958 | 6918302 | 50.9 | 46 | -48.5 | BC05-11 | 359 + 27 | | BC084.FBR |
| DHBC05-085 | 324157 | 6918135 | 34.2 | 40 | -28.0 | BC05-11 | 392 | 85-XHG | BC085.FBR |
| DHBC05-086 | 326008 | 6917890 | 23.5 | 40 | -19.3 | BC05-11 | 441 + 30 | | BC086.FBR |
| DHBC05-087 | 319291 | 6919682 | 40.5 | 46 | -27.2 | BC05-12 | 235 + 27 | BC02-42 | BC087.FBR |
| DHBC05-088 | 320283 | 6919511 | 42.8 | 46 | -37.2 | BC05-12 | 262 + 22 | BC05-16 | BC088.FBR |
| DHBC05-089 | 321170 | 6919368 | 41.7 | 46 | -34.1 | BC05-12 | 286 + 20 | BC02-43 | BC089.FBR |
| DHBC05-090 | 321971 | 6919232 | 40.7 | 46 | -31.0 | BC05-12 | 308 + 8 | BC05-17 | BC090.FBR |
| DHBC05-091 | 323039 | 6919069 | 39.1 | 46 | -31.7 | BC05-12 | 337 | | BC091.FBR |
| DHBC05-092 | 324136 | 6918872 | 34.5 | 40 | -28.2 | BC05-12 | 366 + 27 | 85-XHG | BC092.FBR |
| DHBC05-092A | 328312 | 6902369 | 19.5 | 100 | -17.0 | BC05-23 | 320 | | BC092A.FBR |
| DHBC05-093 | 326107 | 6918550 | 29.1 | 40 | -24.7 | BC05-12 | 420 | | BC093.FBR |
| DHBC05-094 | 327864 | 6918261 | 36.9 | 40 | -38.3 | BC05-12 | 467 + 18 | | BC094.FBR |
| DHBC05-095 | 329551 | 6917997 | 21.8 | 40 | -24.6 | BC05-12 | 513 | | BC095.FBR |
| DHBC05-096 | 333772 | 6917298 | 19.8 | 34 | -20.3 | BC05-12 | 627 + 4 | 86-ZHJ | BC096.FBR |
| DHBC05-097 | 318403 | 6922935 | 44.2 | 46 | -32.5 | BC05-13 | 212 | | BC097.FBR |
| DHBC05-098 | 320080 | 6922647 | 51.3 | 52 | -46.4 | BC05-13 | 257 + 14 | BC02-42 | BC098.FBR |
| DHBC05-099 | 321126 | 6922454 | 37.0 | 40 | -34.1 | BC05-13 | 285 + 28 | BC05-16 | BC099.FBR |
| DHBC05-100 | 322037 | 6922297 | 36.6 | 40 | -33.4 | BC05-13 | 310 + 15 | BC02-43 | BC100.FBR |
| DHBC05-101 | 322808 | 6922143 | 36.9 | 40 | -28.8 | BC05-13 | 331 + 13 | BC05-17 | BC101.FBR |
| DHBC05-102 | 324050 | 6921918 | 40.6 | 46 | -36.2 | BC05-13 | 365 | 85-XHG | BC102.FBR |
| DHBC05-103 | 325980 | 6921562 | 37.4 | 46 | -34.0 | BC05-13 | 417 + 13 | | BC103.FBR |
| DHBC05-104 | 327859 | 6921215 | 25.1 | 40 | -21.5 | BC05-13 | 468 + 12 | | BC104.FBR |
| DHBC05-105 | 329534 | 6920940 | 15.1 | 34 | -12.5 | BC05-13 | 513 + 21 | | BC105.FBR |
| DHBC05-106 | 331660 | 6920544 | 14.3 | 34 | -13.1 | BC05-13 | 571 + 9 | | BC106.FBR |
| DHBC05-107 | 334204 | 6920080 | 19.7 | 34 | -19.1 | BC05-13 | 640 + 7 | 86-XHJ | BC107.FBR |
| DHBC05-108 | 321265 | 6926755 | 37.7 | 40 | -25.7 | BC05-14 | 233 + 31 | BC02-42 | BC108.FBR |
| DHBC05-109 | 322278 | 6926500 | 38.9 | 46 | -30.8 | BC05-14 | 261 + 24 | BC05-16 | BC109.FBR |
| DHBC05-110 | 323988 | 6926101 | 59.2 | 52 | -52.0 | BC05-14 | 308 + 18 | BC05-17 | BC110.FBR |
| DHBC05-111 | 325877 | 6925628 | 41.5 | 46 | -36.3 | BC05-14 | 360 + 15 | | BC111.FBR |
| DHBC05-112 | 327995 | 6925086 | 29.6 | 46 | -22.6 | BC05-14 | 418 + 27 | | BC112.FBR |
| DHBC05-113 | 329710 | 6924668 | 33.5 | 46 | -30.8 | BC05-14 | 465 + 29 | | BC113.FBR |
| DHBC05-114 | 331440 | 6924277 | 41.6 | 52 | -39.5 | BC05-14 | 513 + 3 | | BC114.FBR |
| DHBC05-115 | 333356 | 6923810 | 31.4 | 40 | -31.0 | BC05-14 | 565 + 25 | | BC115.FBR |
| DHBC05-116 | 335511 | 6923256 | 16.4 | 34 | -13.7 | BC05-14 | 625 | | BC116.FBR |
| DHBC05-117 | 321407 | 6931938 | 34.4 | 40 | -25.1 | BC05-15 | 234 | | BC117.FBR |
| DHBC05-118 | 323655 | 6931300 | 36.7 | 40 | -33.2 | BC05-15 | 296 + 11 | BC05-16 | BC118.FBR |
| DHBC05-119 | 325660 | 6930771 | 36.5 | 40 | -26.6 | BC05-15 | 351 + 23 | | BC119.FBR |
| DHBC05-120 | 327569 | 6930232 | 39.9 | 46 | -32.1 | BC05-15 | 404 + 19 | | BC120.FBR |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| DHBC05-121 | 329573 | 6929675 | 37.0 | 46 | -33.5 | BC05-15 | 460 | | BC121.FBR |
| DHBC05-122 | 331546 | 6929159 | 35.2 | 46 | -31.2 | BC05-15 | 514 + 13 | | BC122.FBR |
| DHBC05-123 | 333524 | 6928622 | 36.9 | 46 | -38.7 | BC05-15 | 569 | | BC123.FBR |
| DHBC05-124 | 335482 | 6928085 | 32.8 | 40 | -35.5 | BC05-15 | 623 + 5 | | BC124.FBR |
| DHBC05-125 | 337463 | 6927530 | 16.7 | 28 | -12.5 | BC05-15 | 678 | 85-XHH | BC125.FBR |
| DHBC05-126 | 319874 | 6918037 | 51.3 | 52 | -43.3 | BC05-16 | 249 + 2 | 85-XHB | BC126.FBR |
| DHBC05-127 | 320564 | 6920494 | 44.2 | 46 | -37.0 | BC05-16 | 317 + 4 | BC02-44 | BC127.FBR |
| DHBC05-128 | 321615 | 6924190 | 39.9 | 40 | -37.2 | BC05-16 | 419 + 22 | 84-SFZ | BC128.FBR |
| DHBC05-129 | 321953 | 6925357 | 41.3 | 40 | -26.7 | BC05-16 | 452 | | BC129.FBR |
| DHBC05-130 | 322621 | 6927662 | 39.3 | 46 | -30.3 | BC05-16 | 516 | | BC130.FBR |
| DHBC05-131 | 322955 | 6928822 | 40.0 | 46 | -30.9 | BC05-16 | 548 + 6 | 85-XHA | BC131.FBR |
| DHBC05-132 | 323294 | 6930083 | 36.5 | 64 | -36.0 | BC05-16 | 583 | | BC132.FBR |
| DHBC05-133 | 323826 | 6932583 | 41.2 | 46 | -30.1 | BC05-16 | 651 | | BC133.FBR |
| DHBC05-134 | 324331 | 6933708 | 37.0 | 40 | -30.1 | BC05-16 | 683 + 20 | 85-XGZ | BC134.FBR |
| DHBC05-135 | 324566 | 6934478 | 41.5 | 52 | -28.7 | BC05-16 | 705 | | BC135.FBR |
| DHBC05-136 | 321555 | 6917792 | 47.4 | 46 | -33.8 | BC05-17 | 274 + 14 | 85-XHB | BC136.FBR |
| DHBC05-137 | 322254 | 6920250 | 36.2 | 46 | -38.1 | BC05-17 | 342 + 19 | BC02-44 | BC137.FBR |
| DHBC05-138 | 323318 | 6923791 | 35.1 | 46 | -29.4 | BC05-17 | 441 + 28 | 84-SFZ | BC138.FBR |
| DHBC05-139 | 323641 | 6924931 | 41.4 | 46 | -33.7 | BC05-17 | 473 + 12 | | BC139.FBR |
| DHBC05-140 | 323936 | 6925891 | 59.1 | 52 | -49.4 | BC05-17 | 500 + 5 | 85-XHG | BC140.FBR |
| DHBC05-141 | 324328 | 6927257 | 52.0 | 52 | -43.2 | BC05-17 | 538 | | BC141.FBR |
| DHBC05-142 | 324648 | 6928392 | 33.9 | 34 | -23.5 | BC05-17 | 569 + 17 | 85-XHA | BC142.FBR |
| DHBC05-143 | 319520 | 6942034 | 64.9 | 106 | -61.2 | BC05-18 | 222 + 2 | 84-SFY | BC143.FBR |
| DHBC05-144 | 320929 | 6943266 | 29.3 | 46 | -19.2 | BC05-18 | 271 + 36 | 95-FQZ | BC144.FBR |
| DHBC05-145 | 321591 | 6943842 | 29.9 | 28 | -22.3 | BC05-18 | 310 + 16 | BC05-20 | BC145.FBR |
| DHBC05-146 | 322290 | 6944446 | 38.4 | 46 | -26.3 | BC05-18 | 320 | 87-BAT | BC146.FBR |
| DHBC05-147 | 322975 | 6945053 | 46.5 | 52 | -41.7 | BC05-21 | 311 + 8 | BC05-18 | BC147.FBR |
| DHBC05-148 | 323721 | 6945715 | 40.1 | 58 | -32.8 | BC05-18 | 371 | 95-FRA | BC148.FBR |
| DHBC05-149 | 325131 | 6946968 | 41.0 | 64 | -28.7 | BC05-18 | 421 + 11 | 84-SFX | BC149.FBR |
| DHBC05-150 | 319760 | 6941272 | 66.3 | 100 | -43.8 | BC05-19 | 209 | | BC150.FBR |
| DHBC05-151 | 320311 | 6941759 | 53.7 | 82 | -50.5 | BC05-19 | 228 + 22 | 84-SFY | BC151.FBR |
| DHBC05-152 | 321683 | 6942977 | 29.7 | 28 | -21.2 | BC05-19 | 277 + 20 | 95-FQZ | BC152.FBR |
| DHBC05-153 | 322336 | 6943566 | 35.2 | 34 | -25.4 | BC05-20 | 331 + 23 | BC05-19 | BC153.FBR |
| DHBC05-154 | 323075 | 6944204 | 37.1 | 64 | -28.3 | BC05-19 | 327 | 87-BAT | BC154.FBR |
| DHBC05-155 | 323693 | 6944748 | 39.2 | 64 | -33.0 | BC05-21 | 332 | BC05-19 | BC155.FBR |
| DHBC05-156 | 324420 | 6945403 | 48.1 | 82 | -37.4 | BC05-19 | 375 + 2 | 95-FRA | BC156.FBR |
| DHBC05-157 | 325858 | 6946659 | 39.7 | 70 | -31.7 | BC05-19 | 425 + 35 | 84-SFX | BC157.FBR |
| DHBC05-158 | 326502 | 6947235 | 57.4 | 88 | -55.7 | BC05-19 | 449 | | BC158.FBR |
| DHBC05-159 | 318026 | 6945271 | 45.7 | 70 | -33.2 | BC05-20 | 208 | | BC159.FBR |
| DHBC05-160 | 318801 | 6944988 | 52.5 | 76 | -38.0 | BC05-20 | 230 | 87-BAX | BC160.FBR |
| DHBC05-161 | 319916 | 6944545 | 46.4 | 70 | -35.4 | BC05-20 | 262 | 95-FRJ | BC161.FBR |
| DHBC05-162 | 320960 | 6944103 | 29.3 | 28 | -19.7 | BC05-20 | 292 + 8 | 84-SGB | BC162.FBR |
| DHBC05-163 | 323011 | 6943295 | 36.4 | 40 | -25.5 | BC05-20 | 351 | 87-BAY | BC163.FBR |
| DHBC05-164 | 324812 | 6942547 | 39.4 | 46 | -28.6 | BC05-20 | 403 | | BC164.FBR |
| DHBC05-165 | 319416 | 6946561 | 39.8 | 64 | -27.3 | BC05-21 | 208 | | BC165.FBR |
| DHBC05-166 | 320210 | 6946224 | 34.4 | 46 | -27.6 | BC05-21 | 231 | 87-BAX | BC166.FBR |
| DHBC05-167 | 321240 | 6945767 | 37.2 | 46 | -27.6 | BC05-21 | 261 + 6 | 95-FRJ | BC167.FBR |
| DHBC05-168 | 322325 | 6945320 | 40.0 | 46 | -33.4 | BC05-21 | 292 + 18 | 84-SGB | BC168.FBR |
| DHBC05-169 | 324358 | 6944472 | 50.8 | 82 | -46.9 | BC05-21 | 351 + 8 | 87-BAY | BC169.FBR |
| DHBC05-170 | 326190 | 6943722 | 38.6 | 70 | -30.6 | BC05-21 | 404 | | BC170.FBR |
| DHBC05-171 | 324673 | 6900254 | 30.1 | 40 | -32.7 | BC05-22 | 251 + 16 | 85-XHG | BC171.FBR |
| DHBC05-172 | 327460 | 6900177 | 22.6 | 40 | -21.6 | BC05-22 | 326 | | BC172.FBR |
| DHBC05-173 | 328784 | 6900151 | 27.2 | 40 | -31.4 | BC05-22 | 361 + 3 | 86-ZHQ | BC173.FBR |
| DHBC05-174 | 329579 | 6900129 | 17.1 | 34 | -19.1 | BC05-22 | 382 + 11 | BC05-29 | BC174.FBR |
| DHBC05-175 | 330290 | 6900118 | 16.5 | 34 | -14.3 | BC05-22 | 401 + 9 | BC02-55 | BC175.FBR |
| DHBC05-176 | 331283 | 6900089 | 17.6 | 34 | -16.9 | BC05-22 | 427 + 28 | 86-ZHJ | BC176.FBR |
| DHBC05-177 | 332212 | 6900071 | 19.3 | 34 | -20.6 | BC05-22 | 452 + 20 | 86-ZHM | BC177.FBR |
| DHBC05-178 | 333080 | 6900044 | 17.8 | 34 | -19.0 | BC05-22 | 475 + 26 | BC05-30 | BC178.FBR |
| DHBC05-179 | 333893 | 6900021 | 22.8 | 34 | -27.5 | BC05-22 | 497 + 13 | 85-ZHL | BC179.FBR |
| DHBC05-180 | 334431 | 6900002 | 19.3 | 34 | -24.4 | BC05-22 | 511 + 27 | BC02-56 | BC180.FBR |
| DHBC05-181 | 324607 | 6902463 | 28.0 | 40 | -26.1 | BC05-23 | 221 + 14 | | BC181.FBR |
| DHBC05-182 | 327714 | 6902394 | 22.6 | 34 | -23.7 | BC05-23 | 304 + 9 | | BC182.FBR |
| DHBC05-183 | 329106 | 6902350 | 18.0 | 34 | -19.1 | BC05-23 | 341 + 14 | 86-ZHQ | BC183.FBR |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| DHBC05-184 | 329910 | 6902326 | 18.2 | 34 | -21.2 | BC05-23 | 362 + 32 | BC05-29 | BC184.FBR |
| DHBC05-185 | 330577 | 6902306 | 18.2 | 34 | -21.5 | BC05-23 | 381 + 8 | BC02-55 | BC185.FBR |
| DHBC05-186 | 331523 | 6902282 | 34.0 | 46 | -45.6 | BC05-23 | 405 + 33 | 85-ZHN | BC186.FBR |
| DHBC05-187 | 332536 | 6902263 | 16.9 | 34 | -18.2 | BC05-23 | 432 + 33 | 85-ZHM | BC187.FBR |
| DHBC05-188 | 333384 | 6902240 | 15.7 | 34 | -15.1 | BC05-23 | 455 + 19 | BC05-30 | BC188.FBR |
| DHBC05-189 | 334208 | 6902216 | 20.3 | 34 | -23.4 | BC05-23 | 477 + 19 | 85-ZHL | BC189.FBR |
| DHBC05-190 | 335858 | 6902176 | 16.3 | 34 | -17.9 | BC05-23 | 521 + 19 | | BC190.FBR |
| DHBC05-191 | 337510 | 6902123 | 24.4 | 34 | -27.7 | BC05-23 | 565 + 2 | 85-XHH | BC191.FBR |
| DHBC05-192 | 345923 | 6915578 | 28.0 | 40 | -31.6 | BC05-24 | 231 + 13 | BC02-62 | BC192.FBR |
| DHBC05-193 | 345944 | 6917025 | 19.3 | 28 | -19.9 | BC05-24 | 270 | 88-BTC | BC193.FBR |
| DHBC05-194 | 345939 | 6917748 | 23.9 | 34 | -24.4 | BC05-24 | 289 + 16 | BC05-27 | BC194.FBR |
| DHBC05-195 | 345891 | 6918549 | 19.5 | 28 | -17.5 | BC05-24 | 311 | 81-KRK | BC195.FBR |
| DHBC05-196 | 345959 | 6919114 | 17.8 | 28 | -15.6 | BC05-24 | 326 + 6 | BC05-28 | BC196.FBR |
| DHBC05-197 | 345967 | 6919744 | 20.1 | 28 | -19.3 | BC05-24 | 343 | 88-BTB | BC197.FBR |
| DHBC05-198 | 329443 | 6904574 | 29.6 | 40 | -35.7 | BC05-25 | 223 | 85-ZHQ | BC198.FBR |
| DHBC05-199 | 330230 | 6904554 | 19.0 | 34 | -18.2 | BC05-25 | 244 | BC05-29 | BC199.FBR |
| DHBC05-200 | 330868 | 6904537 | 19.2 | 34 | -19.3 | BC05-25 | 261 | 85-ZHP | BC200.FBR |
| DHBC05-201 | 331804 | 6904506 | 20.8 | 34 | -20.2 | BC05-25 | 286 | 85-ZHN | BC201.FBR |
| DHBC05-202 | 332817 | 6904476 | 19.1 | 34 | -22.7 | BC05-25 | 313 | 85-ZHM | BC202.FBR |
| DHBC05-203 | 333644 | 6904434 | 17.0 | 34 | -15.8 | BC05-25 | 335 + 7 | BC05-30 | BC203.FBR |
| DHBC05-204 | 334514 | 6904410 | 18.1 | 34 | -20.4 | BC05-25 | 358 + 5 | 85-ZHL | BC204.FBR |
| DHBC05-205 | 336412 | 6904418 | 18.1 | 34 | -19.9 | BC05-25 | 409 | | BC205.FBR |
| DHBC05-206 | 329606 | 6905672 | 28.5 | 40 | -29.9 | BC05-26 | 227 | | BC206.FBR |
| DHBC05-207 | 330354 | 6905658 | 18.7 | 34 | -18.2 | BC05-26 | 247 | | BC207.FBR |
| DHBC05-208 | 331067 | 6905627 | 18.2 | 34 | -19.7 | BC05-26 | 266 | BC02-55 | BC208.FBR |
| DHBC05-209 | 332117 | 6905601 | 18.1 | 34 | -19.9 | BC05-26 | 294 | | BC209.FBR |
| DHBC05-210 | 333016 | 6905574 | 22.5 | 34 | -27.6 | BC05-26 | 318 | | BC210.FBR |
| DHBC05-211 | 333814 | 6905555 | 18.3 | 34 | -20.5 | BC05-26 | 339 | BC05-30 | BC211.FBR |
| DHBC05-212 | 334664 | 6905501 | 19.6 | 34 | -24.0 | BC05-26 | 362 | 85-ZHL | BC212.FBR |
| DHBC05-213 | 336650 | 6905497 | 17.2 | 34 | -15.9 | BC05-26 | 415 | | BC213.FBR |
| DHBC05-214 | 338293 | 6905436 | 20.3 | 34 | -21.4 | BC05-26 | 459 | BC05-35 | BC214.FBR |
| DHBC05-215 | 336616 | 6918935 | 38.1 | 46 | -41.6 | BC05-27 | 217 + 8 | 87-APM | BC215.FBR |
| DHBC05-216 | 338018 | 6918761 | 19.3 | 28 | -18.9 | BC05-27 | 254 + 33 | BC05-35 | BC216.FBR |
| DHBC05-217 | 338709 | 6918672 | 19.8 | 28 | -21.0 | BC05-27 | 273 + 17 | 87-APN | BC217.FBR |
| DHBC05-218 | 340496 | 6918427 | 18.8 | 28 | -16.4 | BC05-27 | 321 + 21 | | BC218.FBR |
| DHBC05-219 | 342290 | 6918178 | 18.0 | 28 | -16.7 | BC05-27 | 370 + 7 | | BC219.FBR |
| DHBC05-220 | 344145 | 6917977 | 20.4 | 28 | -16.8 | BC05-27 | 420 | | BC220.FBR |
| DHBC05-221 | 346680 | 6917628 | 20.2 | 28 | -19.9 | BC05-27 | 488 + 7 | 85-XHJ | BC221.FBR |
| DHBC05-222 | 347417 | 6917497 | 20.2 | 28 | -18.4 | BC05-27 | 508 + 6 | BC05-32 | BC222.FBR |
| DHBC05-223 | 348190 | 6917337 | 20.7 | 28 | -21.4 | BC05-27 | 529 + 7 | BC05-33 | BC223.FBR |
| DHBC05-224 | 349856 | 6917045 | 19.3 | 28 | -16.4 | BC05-27 | 574 + 11 | BC02-67 | BC224.FBR |
| DHBC05-225 | 351022 | 6916816 | 22.6 | 28 | -25.0 | BC05-27 | 606 | | BC225.FBR |
| DHBC05-226 | 341676 | 6920124 | 20.9 | 28 | -19.1 | BC05-28 | 228 | | BC226.FBR |
| DHBC05-227 | 344157 | 6919537 | 26.4 | 34 | -28.3 | BC05-28 | 296 | | BC227.FBR |
| DHBC05-228 | 346674 | 6918938 | 19.8 | 28 | -18.2 | BC05-28 | 365 | 85-XHJ | BC228.FBR |
| DHBC05-229 | 347439 | 6918762 | 19.5 | 28 | -20.5 | BC05-28 | 385 + 35 | BC05-32 | BC229.FBR |
| DHBC05-230 | 348185 | 6918592 | 27.6 | 40 | -30.1 | BC05-28 | 406 + 12 | BC05-33 | BC230.FBR |
| DHBC05-231 | 349874 | 6918207 | 18.9 | 28 | -20.0 | BC05-28 | 452 + 19 | BC02-67 | BC231.FBR |
| DHBC05-232 | 351971 | 6917709 | 19.6 | 28 | -19.1 | BC05-28 | 510 | | BC232.FBR |
| DHBC05-233 | 328892 | 6895359 | 18.7 | 34 | -20.2 | BC05-29 | 228 + 8 | 85-XHF | BC233.FBR |
| DHBC05-234 | 329332 | 6898280 | 29.0 | 40 | -33.2 | BC05-29 | 307 + 1 | 85-ZGM | BC234.FBR |
| DHBC05-235 | 329420 | 6898921 | 24.4 | 34 | -25.2 | BC05-29 | 275 | BC05-31 | BC235.FBR |
| DHBC05-236 | 329517 | 6899595 | 17.2 | 34 | -18.6 | BC05-29 | 342 + 16 | BC02-54 | BC236.FBR |
| DHBC05-237 | 329676 | 6900769 | 20.7 | 34 | -23.4 | BC05-29 | 374 | 85-XHE | BC237.FBR |
| DHBC05-238 | 329839 | 6901729 | 19.7 | 34 | -20.6 | BC05-29 | 400 | 85-ZGP | BC238.FBR |
| DHBC05-239 | 330000 | 6902957 | 28.1 | 40 | -30.4 | BC05-29 | 433 | 85-ZGQ | BC239.FBR |
| DHBC05-240 | 330165 | 6904108 | 18.8 | 34 | -19.6 | BC05-29 | 464 | 85-ZGR | BC240.FBR |
| DHBC05-241 | 330307 | 6905110 | 24.9 | 34 | -27.2 | BC05-29 | 491 | 85-ZGS | BC241.FBR |
| DHBC05-242 | 330469 | 6906300 | 19.5 | 34 | -18.7 | BC05-29 | 523 | | BC242.FBR |
| DHBC05-243 | 330774 | 6908377 | 25.1 | 34 | -25.5 | BC05-29 | 579 | 85-ZGW | BC243.FBR |
| DHBC05-244 | 332754 | 6898099 | 17.1 | 34 | -16.9 | BC05-30 | 226 + 7 | 85-ZGM | BC244.FBR |
| DHBC05-245 | 332881 | 6898846 | 16.4 | 34 | -15.9 | BC05-30 | 246 + 14 | BC05-31 | BC245.FBR |
| DHBC05-246 | 332986 | 6899506 | 17.6 | 34 | -18.4 | BC05-30 | 264 + 8 | BC02-54 | BC246.FBR |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| DHBC05-247 | 333191 | 6900693 | 16.5 | 34 | -17.3 | BC05-30 | 296 + 12 | 85-XHE | BC247.FBR |
| DHBC05-248 | 333322 | 6901675 | 17.2 | 34 | -16.9 | BC05-30 | 322 + 31 | 85-ZGP | BC248.FBR |
| DHBC05-249 | 333448 | 6902836 | 17.3 | 34 | -15.0 | BC05-30 | 354 | 85-ZGQ | BC249.FBR |
| DHBC05-250 | 333584 | 6903974 | 20.0 | 34 | -20.7 | BC05-30 | 384 + 21 | 85-ZGR | BC250.FBR |
| DHBC05-251 | 333730 | 6904955 | 16.7 | 34 | -15.9 | BC05-30 | 411 | | BC251.FBR |
| DHBC05-252 | 333895 | 6906068 | 21.5 | 34 | -26.3 | BC05-30 | 441 | | BC252.FBR |
| DHBC05-253 | 334028 | 6906958 | 16.8 | 34 | -17.2 | BC05-30 | 465 | | BC253.FBR |
| DHBC05-254 | 334176 | 6907922 | 24.5 | 34 | -27.2 | BC05-30 | 491 | 85-ZGN | BC254.FBR |
| DHBC05-255 | 326861 | 6899006 | 17.3 | 34 | -19.2 | BC05-31 | 206 + 25 | | BC255.FBR |
| DHBC05-256 | 328610 | 6898945 | 22.3 | 34 | -26.5 | BC05-31 | 253 + 12 | 86-ZHQ | BC256.FBR |
| DHBC05-257 | 330108 | 6898901 | 22.6 | 34 | -24.7 | BC05-31 | 293 + 11 | BC02-55 | BC257.FBR |
| DHBC05-258 | 331111 | 6898861 | 18.1 | 34 | -20.6 | BC05-31 | 320 + 2 | 86-ZHJ | BC258.FBR |
| DHBC05-259 | 334425 | 6898846 | 15.9 | 34 | -16.9 | BC05-31 | 408 + 35 | BC02-56 | BC259.FBR |
| DHBC05-260 | 336434 | 6898772 | 16.7 | 34 | -18.6 | BC05-31 | 462 + 21 | BC02-58 | BC260.FBR |
| DHBC05-261 | 347415 | 6915387 | 19.1 | 28 | -17.8 | BC05-32 | 234 | BC02-62 | BC261.FBR |
| DHBC05-262 | 347433 | 6916790 | 19.8 | 28 | -18.4 | BC05-32 | 271 + 15 | 88-BTC | BC262.FBR |
| DHBC05-263 | 347448 | 6918199 | 27.0 | 34 | -29.6 | BC05-32 | 309 | 81-KRK | BC263.FBR |
| DHBC05-264 | 347448 | 6919399 | 20.4 | 28 | -21.3 | BC05-32 | 341 | 88-BTB | BC264.FBR |
| DHBC05-265 | 347433 | 6920712 | 23.9 | 28 | -21.0 | BC05-32 | 376 | BC02-70 | BC265.FBR |
| DHBC05-266 | 347421 | 6922620 | 36.6 | 46 | -38.0 | BC05-32 | 426 + 34 | 85-XHA | BC266.FBR |
| DHBC05-267 | 347438 | 6925187 | 21.4 | 28 | -20.1 | BC05-32 | 495 + 14 | BC02-69 | BC267.FBR |
| DHBC05-268 | 347469 | 6926396 | 18.6 | 28 | -16.5 | BC05-32 | 527 + 24 | BC05-47 | BC268.FBR |
| DHBC05-269 | 348201 | 6915653 | 18.3 | 28 | -17.6 | BC05-33 | 205 | | BC269.FBR |
| DHBC05-270 | 348206 | 6916703 | 19.0 | 28 | -18.3 | BC05-33 | 233 | 88-BTC | BC270.FBR |
| DHBC05-271 | 348199 | 6920513 | 28.4 | 40 | -25.0 | BC05-33 | 334 + 22 | BC02-70 | BC271.FBR |
| DHBC05-272 | 335296 | 6909795 | 35.0 | 40 | -38.7 | BC05-34 | 222 + 30 | | BC272.FBR |
| DHBC05-273 | 337504 | 6909568 | 17.8 | 34 | -18.8 | BC05-34 | 282 | | BC273.FBR |
| DHBC05-274 | 338234 | 6909494 | 16.6 | 34 | -16.3 | BC05-34 | 301 + 21 | BC05-35 | BC274.FBR |
| DHBC05-275 | 338984 | 6909424 | 16.9 | 34 | -16.3 | BC05-34 | 321 + 24 | BC05-36 | BC275.FBR |
| DHBC05-276 | 340942 | 6909209 | 18.1 | 34 | -18.2 | BC05-34 | 374 + 6 | 88-BSZ | BC276.FBR |
| DHBC05-277 | 342575 | 6909024 | 18.9 | 34 | -19.1 | BC05-34 | 418 | | BC277.FBR |
| DHBC05-278 | 344137 | 6908856 | 18.5 | 34 | -17.6 | BC05-34 | 460 + 6 | 85-ZHH | BC278.FBR |
| DHBC05-279 | 345121 | 6908771 | 19.0 | 34 | -17.2 | BC05-34 | 487 + 1 | BC02-61 | BC279.FBR |
| DHBC05-280 | 346699 | 6908592 | 17.6 | 34 | -16.9 | BC05-34 | 529 + 29 | 85-XHJ | BC280.FBR |
| DHBC05-281 | 338299 | 6904882 | 19.7 | 34 | -19.5 | BC05-35 | 215 | 85-ZGS | BC281.FBR |
| DHBC05-282 | 338296 | 6906745 | 18.7 | 34 | -16.7 | BC05-35 | 265 | | BC282.FBR |
| DHBC05-283 | 338292 | 6907519 | 16.5 | 34 | -14.0 | BC05-35 | 285 + 24 | 85-ZGW | BC283.FBR |
| DHBC05-284 | 338258 | 6908436 | 17.1 | 34 | -17.4 | BC05-35 | 310 + 4 | | BC284.FBR |
| DHBC05-285 | 338222 | 6910382 | 16.7 | 34 | -18.2 | BC05-35 | 362 | 85-XHC | BC285.FBR |
| DHBC05-286 | 338189 | 6911047 | 16.5 | 34 | -17.0 | BC05-35 | 379 + 28 | BC02-47 | BC286.FBR |
| DHBC05-287 | 338193 | 6911806 | 16.3 | 34 | -16.9 | BC05-35 | 400 | 86-ZHK | BC287.FBR |
| DHBC05-288 | 338165 | 6912575 | 16.1 | 34 | -15.8 | BC05-35 | 420 + 19 | BC02-46 | BC288.FBR |
| DHBC05-289 | 338160 | 6913239 | 16.8 | 34 | -15.7 | BC05-35 | 438 + 8 | BC02-45 | BC289.FBR |
| DHBC05-290 | 338109 | 6914350 | 16.5 | 34 | -16.5 | BC05-35 | 467 + 32 | 86-ZHA | BC290.FBR |
| DHBC05-291 | 338091 | 6915397 | 16.2 | 28 | -17.4 | BC05-35 | 495 + 29 | 85-XHB | BC291.FBR |
| DHBC05-292 | 338076 | 6916685 | 16.8 | 20 | -15.9 | BC05-35 | 530 + 5 | 87-APL | BC292.FBR |
| DHBC05-293 | 338024 | 6917992 | 19.0 | 28 | -18.3 | BC05-35 | 565 | 87-APK | BC293.FBR |
| DHBC05-294 | 338017 | 6919375 | 19.4 | 28 | -19.7 | BC05-35 | 601 + 34 | 87-APJ | BC294.FBR |
| DHBC05-295 | 339076 | 6906695 | 17.1 | 34 | -17.4 | BC05-36 | 262 + 9 | 89-CBR | BC295.FBR |
| DHBC05-296 | 339066 | 6907446 | 17.5 | 34 | -16.8 | BC05-36 | 282 + 9 | 85-ZGW | BC296.FBR |
| DHBC05-297 | 339009 | 6908390 | 17.0 | 34 | -15.6 | BC05-36 | 307 + 18 | | BC297.FBR |
| DHBC05-298 | 338901 | 6910972 | 18.0 | 34 | -16.6 | BC05-36 | 376 + 15 | BC02-47 | BC298.FBR |
| DHBC05-299 | 338865 | 6911734 | 19.4 | 34 | -15.9 | BC05-36 | 396 + 27 | 86-ZHK | BC299.FBR |
| DHBC05-300 | 338809 | 6912511 | 20.3 | 34 | -19.4 | BC05-36 | 417 + 19 | BC02-46 | BC300.FBR |
| DHBC05-301 | 338793 | 6913167 | 18.4 | 34 | -16.6 | BC05-36 | 435 | BC02-45 | BC301.FBR |
| DHBC05-302 | 338758 | 6913933 | 18.7 | 34 | -19.0 | BC05-36 | 455 + 30 | BC02-61 | BC302.FBR |
| DHBC05-303 | 348314 | 6928371 | 18.5 | 28 | -17.5 | BC05-37 | 206 | | BC303.FBR |
| DHBC05-304 | 349953 | 6927846 | 19.1 | 28 | -19.8 | BC05-37 | 252 | BC02-67 | BC304.FBR |
| DHBC05-305 | 352214 | 6927384 | 23.6 | 28 | -22.3 | BC05-37 | 314 | | BC305.FBR |
| DHBC05-306 | 354250 | 6926632 | 18.1 | 28 | -17.8 | BC05-37 | 373 | 81-KRE | BC306.FBR |
| DHBC05-307 | 356035 | 6926105 | 27.4 | 34 | -25.1 | BC05-37 | 422 + 24 | BC05-46 | BC307.FBR |
| DHBC05-308 | 358027 | 6925514 | 19.6 | 28 | -14.3 | BC05-37 | 478 | BC02-78 | BC308.FBR |
| DHBC05-309 | 359711 | 6925016 | 20.2 | 28 | -16.7 | BC05-37 | 524 + 33 | 81-KRH | BC309.FBR |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| DHBC05-310 | 337447 | 6932985 | 22.4 | 28 | -20.4 | BC05-38 | 296 + 5 | 85-XHH | BC310.FBR |
| DHBC05-311 | 338099 | 6932776 | 33.8 | 40 | -33.5 | BC05-38 | 314 + 14 | BC05-45 | BC311.FBR |
| DHBC05-312 | 340267 | 6932094 | 19.1 | 28 | -16.6 | BC05-38 | 375 | | BC312.FBR |
| DHBC05-313 | 342306 | 6931451 | 40.7 | 46 | -41.6 | BC05-38 | 432 | | BC313.FBR |
| DHBC05-314 | 344491 | 6930789 | 36.1 | 40 | -33.6 | BC05-38 | 491 | | BC314.FBR |
| DHBC05-315 | 346732 | 6930118 | 19.3 | 28 | -18.4 | BC05-38 | 555 | | BC315.FBR |
| DHBC05-316 | 348973 | 6929401 | 23.4 | 34 | -22.3 | BC05-38 | 618 | 84-SGD | BC316.FBR |
| DHBC05-317 | | | | | | | | | Hole Deleted |
| DHBC05-318 | 338780 | 6937003 | 22.1 | 28 | -17.7 | BC05-39 | 265 + 5 | 84-SGC | BC318.FBR |
| DHBC05-319 | 340174 | 6936448 | 21.2 | 28 | -17.0 | BC05-39 | 305 + 6 | | BC319.FBR |
| DHBC05-320 | 341533 | 6935924 | 16.0 | 28 | -11.4 | BC05-39 | 344 | BC05-45 | BC320.FBR |
| DHBC05-321 | 343241 | 6935277 | 31.5 | 34 | -32.1 | BC05-39 | 392 + 26 | | BC321.FBR |
| DHBC05-322 | 344872 | 6934642 | 23.4 | 28 | -20.2 | BC05-39 | 439 + 13 | | BC322.FBR |
| DHBC05-323 | 346507 | 6933986 | 20.6 | 34 | -19.0 | BC05-39 | 486 + 13 | BC05-44 | BC323.FBR |
| DHBC05-324 | 348877 | 6933082 | 19.6 | 28 | -16.6 | BC05-39 | 554 | | BC324.FBR |
| DHBC05-325 | 350343 | 6932504 | 19.8 | 28 | -19.9 | BC05-39 | 596 | | BC325.FBR |
| DHBC05-326 | 351767 | 6931929 | 20.5 | 28 | -15.8 | BC05-39 | 637 | 84-SGD | BC326.FBR |
| DHBC05-327 | 353150 | 6931255 | 22.1 | 28 | -18.0 | BC05-39 | 679 | 92-CLC | BC327.FBR |
| DHBC05-328 | 354207 | 6931021 | 28.5 | 40 | -30.9 | BC05-39 | 709 | 81-KRE | BC328.FBR |
| DHBC05-329 | 355984 | 6930395 | 20.8 | 28 | -19.0 | BC05-39 | 759 | BC02-46/BC02-80 | BC329.FBR |
| DHBC05-330 | 356891 | 6930065 | 20.5 | 28 | -16.3 | BC05-39 | 785 | BC02-79 | BC330.FBR |
| DHBC05-331 | 359678 | 6929058 | 17.5 | 28 | -17.9 | BC05-39 | 864 | 81-KRH | BC331.FBR |
| DHBC05-332 | 359921 | 6928959 | 17.5 | 28 | -17.4 | BC05-39 | 871 | BC02-78 | BC332.FBR |
| DHBC05-333 | 361891 | 6928231 | 22.9 | 28 | -19.7 | BC05-39 | 927 | | BC333.FBR |
| DHBC05-334 | 338067 | 6940044 | 26.7 | 34 | -21.4 | BC05-40 | 215 | | BC334.FBR |
| DHBC05-335 | 339443 | 6939440 | 20.0 | 28 | -14.8 | BC05-40 | 255 | | BC335.FBR |
| DHBC05-336 | 340826 | 6938892 | 30.8 | 34 | -26.5 | BC05-40 | 294 + 8 | 84-SGC | BC336.FBR |
| DHBC05-337 | 342221 | 6938308 | 26.6 | 34 | -22.2 | BC05-40 | 335 | | BC337.FBR |
| DHBC05-338 | 343567 | 6937727 | 23.8 | 28 | -19.7 | BC05-40 | 374 + 1 | BC05-45 | BC338.FBR |
| DHBC05-339 | 339375 | 6942749 | 56.3 | 64 | -55.5 | BC05-41 | 226 | | BC339.FBR |
| DHBC05-340 | 341332 | 6941891 | 41.4 | 46 | -40.4 | BC05-41 | 283 | | BC340.FBR |
| DHBC05-341 | 343196 | 6941086 | 24.6 | 34 | -18.0 | BC05-41 | 337 + 4 | 84-SGC | BC341.FBR |
| DHBC05-342 | 345041 | 6940274 | 16.8 | 28 | -14.5 | BC05-41 | 390 + 32 | 88-BLE | BC342.FBR |
| DHBC05-343 | 345964 | 6939881 | 33.3 | 36 | -31.5 | BC05-41 | 417 + 23 | BC05-45 | BC343.FBR |
| DHBC05-344 | 348102 | 6938929 | 19.0 | 28 | -15.2 | BC05-41 | 480 | | BC344.FBR |
| DHBC05-345 | 350535 | 6937880 | 31.0 | 40 | -30.2 | BC05-41 | 550 + 25 | BC05-44 | BC345.FBR |
| DHBC05-346 | 353472 | 6936610 | 20.5 | 28 | -18.6 | BC05-41 | 636 | | BC346.FBR |
| DHBC05-347 | 342528 | 6943186 | 28.4 | 34 | -25.1 | BC05-42 | 220 | | BC347.FBR |
| DHBC05-348 | 344499 | 6942279 | 28.3 | 34 | -25.1 | BC05-42 | 277 + 33 | 84-SGC | BC348.FBR |
| DHBC05-349 | 346332 | 6941438 | 37.2 | 40 | -35.7 | BC05-42 | 331 + 24 | 88-BLE | BC349.FBR |
| DHBC05-350 | 347215 | 6941006 | 31.4 | 34 | -28.6 | BC05-42 | 357 + 33 | BC05-45 | BC350.FBR |
| DHBC05-351 | 349330 | 6940022 | 24.5 | 34 | -25.0 | BC05-42 | 420 | | BC351.FBR |
| DHBC05-352 | 351688 | 6938946 | 30.8 | 40 | -32.6 | BC05-42 | 489 + 7 | BC05-44 | BC352.FBR |
| DHBC05-353 | 352660 | 6938471 | 21.2 | 28 | -20.7 | BC05-42 | 518 | 92-CLB | BC353.FBR |
| DHBC05-354 | 354290 | 6937739 | 19.9 | 28 | -19.0 | BC05-42 | 565 + 25 | 81-KRE | BC354.FBR |
| DHBC05-355 | 342612 | 6944683 | 34.2 | 40 | -29.5 | BC05-43 | 218 + 25 | | BC355.FBR |
| DHBC05-356 | 344076 | 6943988 | 39.6 | 42 | -34.4 | BC05-43 | 262 | | BC356.FBR |
| DHBC05-357 | 345567 | 6943260 | 41.1 | 46 | -37.0 | BC05-43 | 306 + 5 | 84-SGC | BC357.FBR |
| DHBC05-358 | 347380 | 6942382 | 29.0 | 34 | -30.9 | BC05-43 | 359 + 32 | 88-BLE | BC358.FBR |
| DHBC05-359 | 348259 | 6941958 | 23.9 | 28 | -22.7 | BC05-43 | 385 + 32 | BC04-45 | BC359.FBR |
| DHBC05-360 | 350417 | 6940891 | 20.3 | 28 | -17.7 | BC05-43 | 450 | | BC360.FBR |
| DHBC05-361 | 352615 | 6939848 | 27.1 | 40 | -25.8 | BC05-43 | 514 + 35 | BC05-44 | BC361.FBR |
| DHBC05-362 | 353537 | 6939378 | 35.0 | 40 | -36.2 | BC05-43 | 542 + 20 | 92-CLB | BC362.FBR |
| DHBC05-363 | 354224 | 6938949 | 21.6 | 28 | -18.7 | BC05-43 | 564 | 81-KRE | BC363.FBR |
| DHBC05-364 | 345516 | 6933066 | 21.6 | 34 | -20.6 | BC05-44 | 219 + 33 | 84-SFY | BC364.FBR |
| DHBC05-365 | 347410 | 6934868 | 20.5 | 28 | -17.8 | BC05-44 | 289 + 22 | 92-CKS | BC365.FBR |
| DHBC05-366 | 348351 | 6935789 | 20.2 | 28 | -17.6 | BC05-44 | 324 + 26 | 92-CKT | BC366.FBR |
| DHBC05-367 | 349301 | 6936689 | 24.3 | 28 | -23.2 | BC05-44 | 359 + 22 | 81-KRF | BC367.FBR |
| DHBC05-368 | 352107 | 6939358 | 34.2 | 40 | -36.0 | BC05-44 | 462 + 32 | 92-CKX | BC368.FBR |
| DHBC05-369 | 353146 | 6940340 | 21.0 | 28 | -19.6 | BC05-44 | 501 | 84-SFW | BC369.FBR |
| DHBC05-370 | 354451 | 6941581 | 24.2 | 34 | -22.0 | BC05-44 | 549 | 92-CKY | BC370.FBR |
| DHBC05-371 | 335645 | 6930609 | 25.5 | 34 | -21.8 | BC05-45 | 234 + 16 | 85-XGZ | BC371.FBR |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| DHBC05-372 | 337450 | 6932189 | 17.7 | 28 | -12.0 | BC05-45 | 298 + 10 | 85-XHH | BC372.FBR |
| DHBC05-373 | 339258 | 6933802 | 27.9 | 40 | -26.8 | BC05-45 | 363 | | BC373.FBR |
| DHBC05-374 | 340386 | 6934836 | 21.0 | 28 | -17.6 | BC05-45 | 403 + 30 | 84-SFY | BC374.FBR |
| DHBC05-375 | 342682 | 6936916 | 17.1 | 28 | -11.2 | BC05-45 | 486 + 15 | 92-CKS | BC375.FBR |
| DHBC05-376 | 344637 | 6938707 | 30.7 | 40 | -29.9 | BC05-45 | 557 + 4 | 81-KRF | BC376.FBR |
| DHBC05-377 | 346720 | 6940591 | 35.1 | 46 | -30.7 | BC05-45 | 632 | 88-BLF | BC377.FBR |
| DHBC05-378 | 347757 | 6941488 | 33.6 | 34 | -33.3 | BC05-45 | 668 + 21 | 92-CKX | BC378.FBR |
| DHBC05-379 | 348793 | 6942456 | 25.7 | 28 | -24.2 | BC05-45 | 706 + 14 | 84-SFW | BC379.FBR |
| DHBC05-380 | 356109 | 6917352 | 20.2 | 28 | -17.9 | BC05-46 | 216 | 88-BTS | BC380.FBR |
| DHBC05-381 | 356114 | 6918527 | 30.7 | 40 | -32.6 | BC05-46 | 247 + 12 | BC02-70 | BC381.FBR |
| DHBC05-382 | 356097 | 6920427 | 32.1 | 40 | -34.4 | BC05-46 | 298 | 81-KRL | BC382.FBR |
| DHBC05-383 | 356045 | 6922910 | 33.0 | 40 | -33.6 | BC05-46 | 364 + 9 | BC02-69 | BC383.FBR |
| DHBC05-384 | 356068 | 6923920 | 23.8 | 28 | -25.4 | BC05-46 | 391 + 6 | BC05-47 | BC384.FBR |
| DHBC05-385 | 356049 | 6925018 | 23.5 | 34 | -21.9 | BC05-46 | 420 + 17 | 81-KRM | BC385.FBR |
| DHBC05-386 | 356012 | 6927210 | 31.2 | 40 | -30.9 | BC05-46 | 479 | BC02-68 | BC386.FBR |
| DHBC05-387 | 355974 | 6929434 | 20.0 | 28 | -17.0 | BC05-46 | 538 + 13 | 81-KRG | BC387.FBR |
| DHBC05-388 | 355945 | 6931351 | 21.6 | 28 | -17.7 | BC05-46 | 589 | 92-CKS | BC388.FBR |
| DHBC05-389 | 355960 | 6932607 | 21.6 | 28 | -18.2 | BC05-46 | 623 | 92-CKT | BC389.FBR |
| DHBC05-390 | 355927 | 6934587 | 19.6 | 28 | -16.3 | BC05-46 | 676 + 9 | 92-CKW | BC390.FBR |
| DHBC05-391 | 346344 | 6926641 | 31.1 | 40 | -30.6 | BC05-47 | 205 | | BC391.FBR |
| DHBC05-392 | 349971 | 6925580 | 19.1 | 28 | -19.5 | BC05-47 | 306 + 22 | BC02-67 | BC392.FBR |
| DHBC05-393 | 352086 | 6925010 | 19.3 | 28 | -16.7 | BC05-47 | 365 | | BC393.FBR |
| DHBC05-394 | 354419 | 6924365 | 18.3 | 28 | -16.6 | BC05-47 | 429 + 25 | 81-KRE | BC394.FBR |
| DHBC05-395 | 358130 | 6923385 | 23.7 | 28 | -20.6 | BC05-47 | 532 | | BC395.FBR |
| Boomer Bore | 323540 | 6943079 | 37.3 | 118 | -27.4 | BC05-20 | 332 | | Boomer.FBR |

*Table 9* ***Field Tape Listing***

| Tape # | Line - | First FFID | Last FFID | First VP | Last VP | Date Recorded |
|---|---|---|---|---|---|---|
| 8000A | | 1 | 5 | - | - | 8-May-05 |
| 1A | BC05-30 | 1 | 318 | 517.5 | 200.5 | 8-May-05 |
| 2A | BC05-01 | 1 | 424 | 625.5 | 200.5 | 9-10 May 05 |
| 3A | BC05-02 | 1 | 349 | 548.5 | 200.5 | 10-May-05 |
| 4A | BC05-03 | 1 | 641 | 200.5 | 840.5 | 10-11-May 05 |
| 5A | BC05-08 | 1 | 184 | 385.5 | 200.5 | 11-May-05 |
| 6A | BC05-25 | 1 | 258 | 200.5 | 466.5 | 12-May-05 |
| 7A | BC05-26 | 1 | 266 | 466.5 | 200.5 | 12-May-05 |
| 8A | BC05-05 | 1 | 192 | 396.5 | 200.5 | 13-May-05 |
| 9A | BC05-06 | 1 | 219 | 200.5 | 419.5 | 13-May-05 |
| 10A | BC05-07 | 1 | 220 | 426.5 | 200.5 | 13-14-May 05 |
| 11A | BC05-04 | 1 | 295 | 494.5 | 200.5 | 14-May-05 |
| 12A | BC05-23 | 1 | 396 | 201.5 | 599.5 | 14-15-May 05 |
| 13A | BC05-22 | 1 | 347 | 546.5 | 200.5 | 15-May-05 |
| 14A | BC05-31 | 1 | 310 | 200.5 | 518.5 | 15-16-May-05 |
| 15A | BC05-29 | 1 | 455 | 200.5 | 653.5 | 16-May-05 |
| 16A | BC05-09 | 1 | 422 | 628.5 | 200.5 | 17-May-05 |
| 17A | BC05-10 | 1 | 487 | 200.5 | 685.5 | 17-18-May |
| 8000 | Tap Test | | | | | 18-May-05 |
| 18A | BC05-12 | 1 | 519 | 726.5 | 200.5 | 18-19-May |
| 19A | BC05-11 | 1 | 267 | 200.5 | 468.5 | 19-May-05 |
| 20A | BC05-13 | 1 | 415 | 200.5 | 652.5 | 20-May-05 |
| 21A | BC05-14 | 2 | 423 | 638.5 | 200.5 | 21-May-05 |
| 22A | BC05-17 | 1 | 398 | 597.5 | 200.5 | 21-22-May |
| 23A | BC05-16 | 1 | 515 | 200.5 | 713.5 | 22-23-May |
| 24A | BC05-19 | 1 | 258 | 460.5 | 200.5 | 23-May-05 |
| 25A | BC05-18 | 1 | 255 | 200.5 | 453.5 | 24-May-05 |
| 26A | BC05-21 | 1 | 218 | 420.5 | 200.5 | 24-May-05 |
| 27A | BC05-20 | 1 | 223 | 200.5 | 422.5 | 24/25-May-2005 |
| 28A | BC05-15 | 1 | 508 | 200.5 | 709.5 | 25/26-May-2005 |
| 29A | BC05-45 | 1 | 482 | 200.5 | 738.5 | 26/27-May-2005 |
| 30A | BC05-44 | 1 | 350 | 550.5 | 200.5 | 27/28-May-2005 |
| 31A | BC05-39 | 1 | 560 | 946.5 | 384.5 | 28-May-05 |
| 32A | BC05-39 | 561 | 732 | 383.5 | 200.5 | 29-May-05 |
| 33A | BC05-38 | 1 | 451 | 200.5 | 655.5 | 29-May-05 |
| 34A | BC05-40 | 1 | 277 | 479.5 | 200.5 | 30-May-05 |
| 35A | BC05-41 | 1 | 435 | 200.5 | 651.5 | 30/31-May-2005 |
| 36A | BC05-42 | 1 | 397 | 595.5 | 200.5 | 31-May/1-June-2005 |
| 37A | BC05-43 | 1 | 395 | 200.5 | 594.5 | 1-Jun-05 |
| 38 A | BC05-46 | 1 | 479 | 679 | 200 | 1-Jun-05 |
| 39 A | BC05-37 | 1 | 347 | 200 | 547 | 2-Jun-05 |
| 40 A | BC05-47 | 1 | 341 | 543 | 200 | 3-Jun-05 |
| 41 A | BC05-32 | 1 | 356 | 553 | 200 | 3-Jun-05 |
| 42 A | BC05-24 | 1 | 168 | 200 | 367 | 4-Jun-05 |
| 43 A | BC05-33 | 1 | 162 | 361 | 200 | 4-Jun-05 |
| 44 A | BC05-28 | 1 | 319 | 201 | 521 | 5-Jun-05 |
| 45 A | BC05-27 | 1 | 407 | 613 | 200 | 5-Jun-05 |
| 46 A | BC05-35 | 1 | 427 | 627 | 200 | 6-Jun-05 |
| 47 A | BC05-36 | 1 | 269 | 200 | 468 | 6-Jun-05 |
| 48 A | BC05-34 | 1 | 338 | 539 | 200 | 6-Jun-05 |

## APPENDIX 1

**FIELD SUPERVISION REPORT**

**B BEER**

## APPENDIX 2

**ACQUISITION CONTRACTOR REPORT**

**TERREX SEISMIC**

## APPENDIX 3

**SURVEY CONTRACTOR REPORT**

**DYNAMIC SATELLITE SURVEYS**

## APPENDIX 4

**DATA PROCESSING REPORT**

**FUGRO SEISMIC IMAGING**

## APPENDIX 5

**ENVIRONMENTAL REPORT**

**BRUCE BEER**

# BEACH PETROLEUM LIMITED

## Field Supervision Report

**for the**

**2005 PEL 91 & 92 MYTILUS 2D Seismic Survey**

**Cooper Basin, South Australia**

**Conducted by:**

**Terrex Seismic Pty Ltd**

**From**

**May 8th – June 7th, 2005**

**Prepared by: Bruce Beer**
**Consulting Geophysicist**
**B. C. & M. Beer Pty. Ltd.**
**ABN 96 007 830 882**

# CONTENTS

## Beach Petroleum Limited:
## 2005 PEL 91 & 92 Mytilus Seismic Survey

Section



Appendices

## 1.0 INTRODUCTION

The 2005 Mytilus 2D Seismic Survey was operated by Beach Petroleum Limited and conducted in PEL's 91 and 92 in the Cooper Basin in north-east South Australia by Terrex Seismic. The program was located in mostly sand dune terrain approximately 80 km west northwest of Moomba.

Terrex Seismic was contracted to collect the seismic data on a turnkey rate basis. 641.5125 km of 2D seismic data was recorded on 47 lines. 185.775 km was recorded in PEL 91 and 455.7375 km in PEL 92. Recording operations began on May 8th and were completed on June 7th, 2005.

Beach Petroleum sub-contracted (through Terrex Seismic) Dynamic Satellite Surveys (DSS) to do the surveying, Denham and O'Keeffe Earthmoving (DOK) to do the line preparation, Scanlon Drilling to do the up-hole drilling and Expertest to do the up-hole logging.

The crews were billeted in three separate camps that were located at various sites at different times (see Fig. # 1-3).

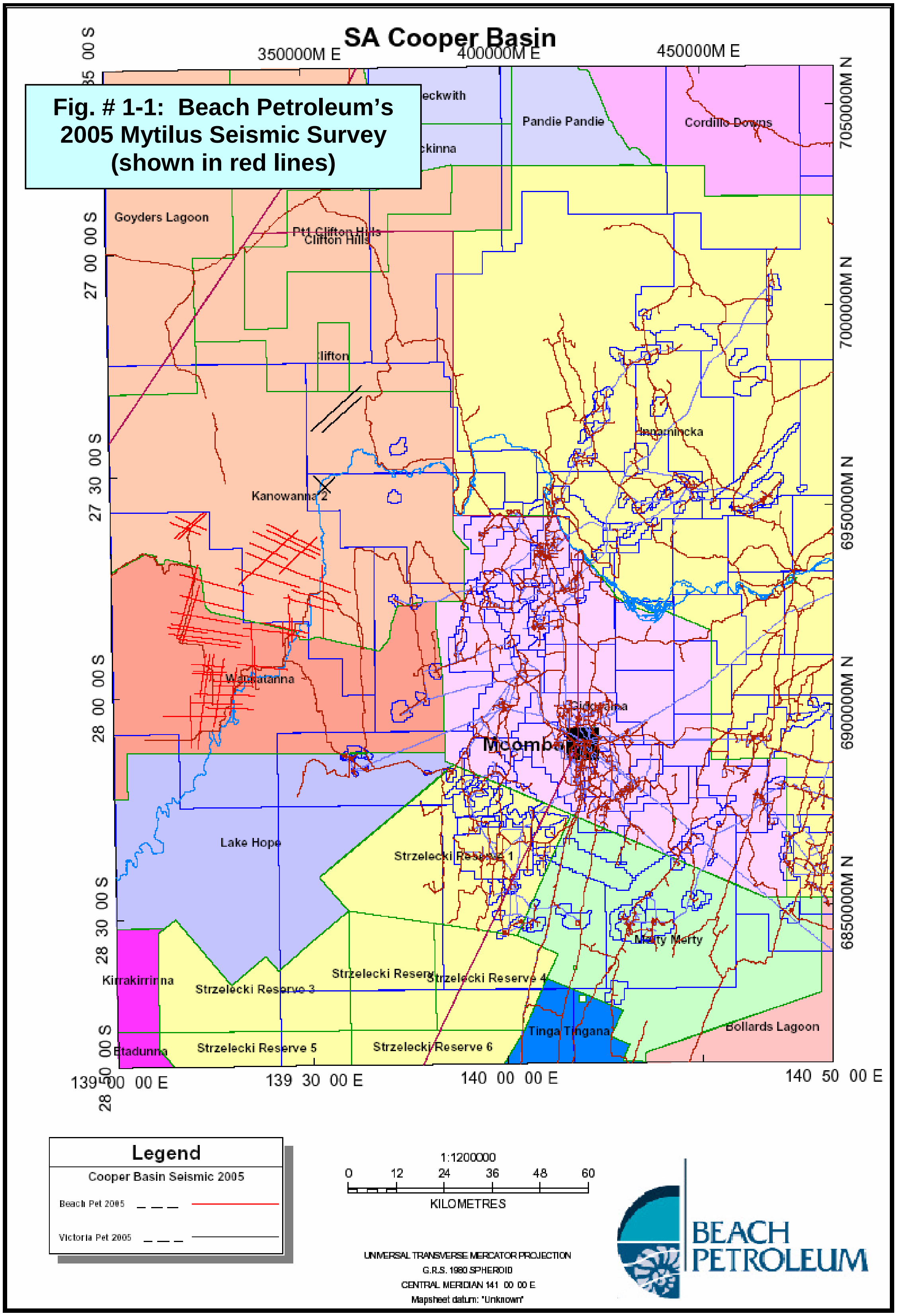
Beach Petroleum's Operations Coordinator Doug Roberts was in overall control of the project while Bruce Beer was contracted to represent Beach in the field.

There were no Lost Time Injuries during the job.

Details of production are contained in the appendices.

Fig. # 1-1 shows a location map of the program in relation to pastoral and PEL boundaries of the SA sector of the Cooper Basin. . Fig. # 1-2 shows a topographic map of the area and Fig. # 1-3 is a diagrammatic representation of the program that was used as a progress map for daily reports.

# 1.0 INTRODUCTION



# 1.0 INTRODUCTION

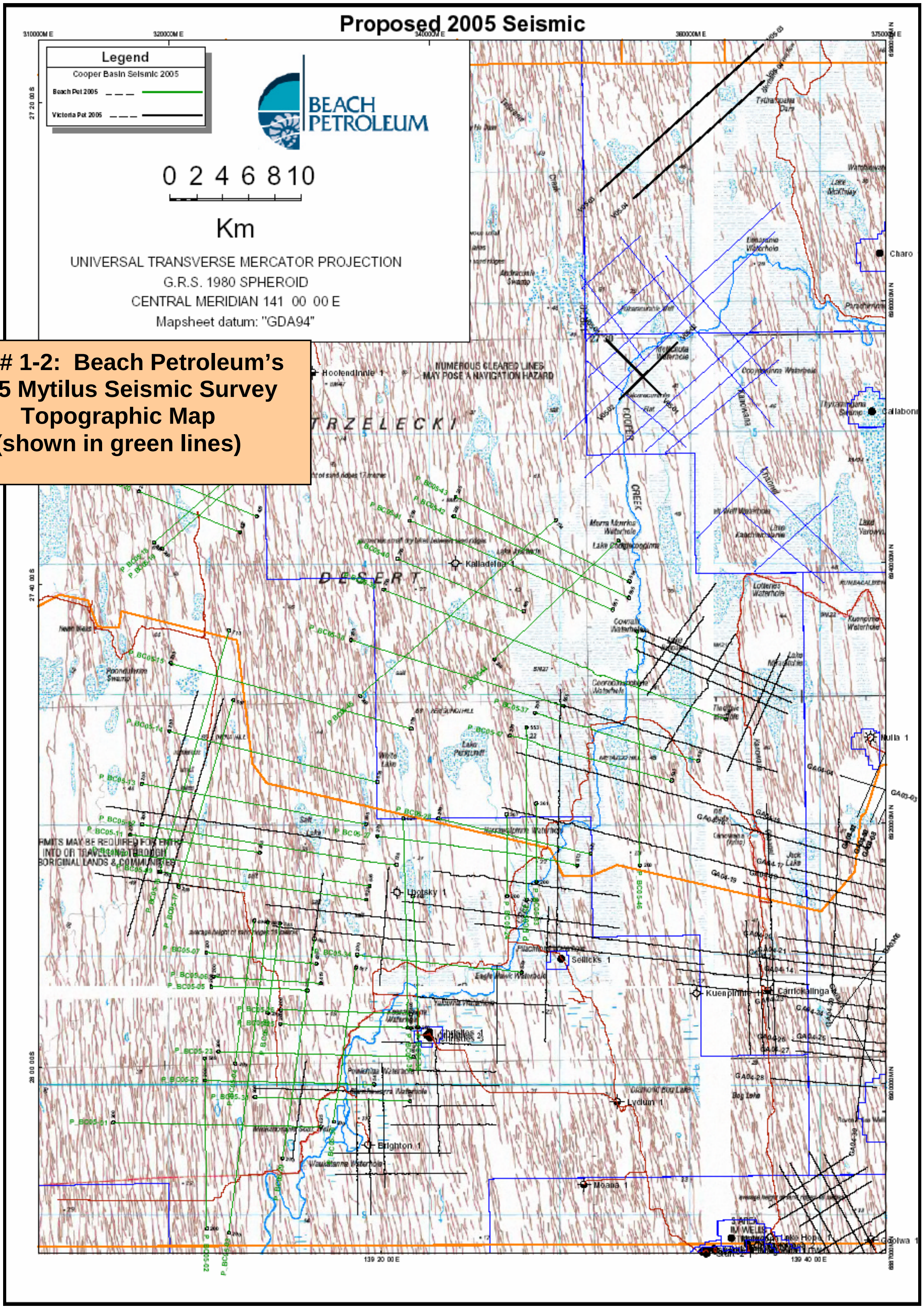
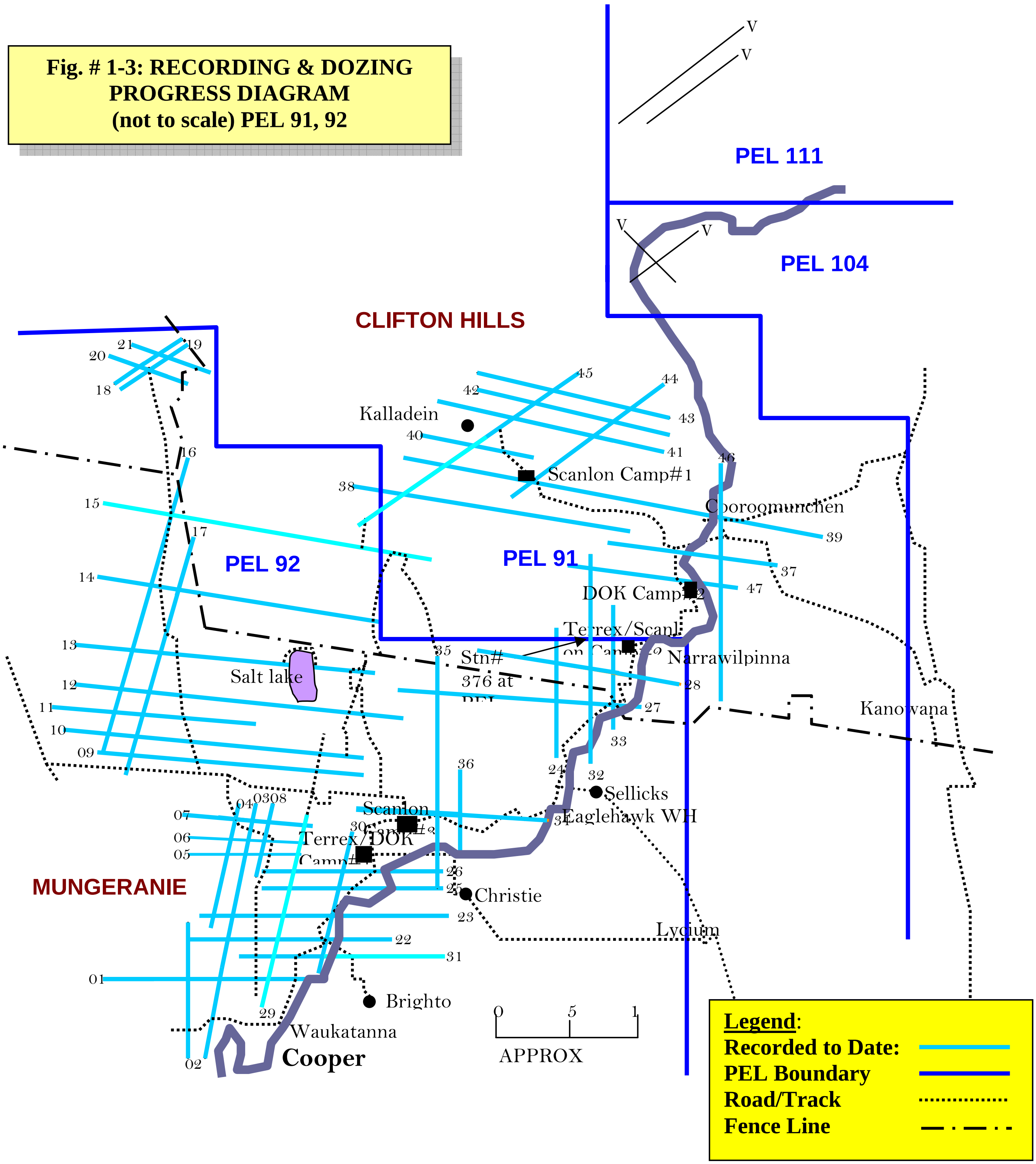



Fig. # 1-2: Beach Petroleum's 2005 Mytilus Seismic Survey Topographic Map (shown in green lines)

## 1.0 INTRODUCTION

**Fig. # 1-3: RECORDING & DOZING PROGRESS DIAGRAM (not to scale) PEL 91, 92**



## 2.0 LOGISTICS

The Denham and O'Keeffe dozer camp and DSS moved to the PEL 92 area on April 22nd and set up camp at

Camp # 1 coordinates:

E 335 609 N 6 907 098 Lat 27 deg 57.095' Long 139 deg 19.745'

This site was at the intersection of the Christies and River Roads.

The Terrex crew moved to the same location on May 7th, 2005. On May 17th the DOK camp was moved to

E 352378 N6924856

This location was on the River Road about 7 km north of the boundary gate between Mungeranie and Clifton Hills.

On May 25th the Terrex camp was moved to:

E 348 967 N 6 919 857

This location was 2 km north of the boundary gate between Mungeranie and Clifton Hills.

Scanlon Drilling moved into the area on May 23rd. They camped near the intersection of lines BC05-44 and BC05-39.

Drinking water was obtained from the de-min plant in Moomba. Drilling water was obtained from Lycium Bore with the permission of Graham Betts and Cooroomunchena waterhole with the permission of Travis Gilby.

Access to Moomba was via Tantana and Gidgealpa.

Personnel crew changes were made out of the airport at Moomba. Food supplies were ordered out of Adelaide and delivered to Moomba by Mansell Transport where they were picked up by the Terrex supply truck.

Communication was via satellite telephone and broad-band internet.

## 3.0 TIMETABLE of EVENTS

Apr 23 Start line preparation on Mytilus Seismic Survey.

May 8 Begin recording on Mytilus SS

May 24 Scanlon Drilling start up-hole drilling on Mytilus Seismic Survey

May 27 Complete line preparation.

Jun 7 Complete recording

Aug 4 Complete uphole drilling.

## 4.0 - PARAMETERS

### 4.0 RECORDING PARAMETERS

Survey: 2005 Mytilus Seismic Survey PEL: 92 & 91
Lines: BCO5-01 → BC05-47 Areas: Various

**Instrumentation**

| | | |
|---|---|---|
| Instruments: | : | Sercel 388 |
| No. Channels | : | 124 |
| Tape Drives | : | 3490E (x 2) |
| Tape Format | : | SEGD Revision 1 8058IEEE Demultiplexed, Noise edited correlated summed 4 sec record |
| Filters | : | Hi cut 125 Hz, (half Nyquist - Linear)<br>Lo cut: Out |
| Sample Rate | : | 2 ms |
| Record Length | : | 7 sec (3 sec sweep, 4 sec listen) |
| RTC | : | Yes |
| Correlation Type | : | Zero Phase, After Sum |
| Stack | : | Diversity stack plus burst edit |

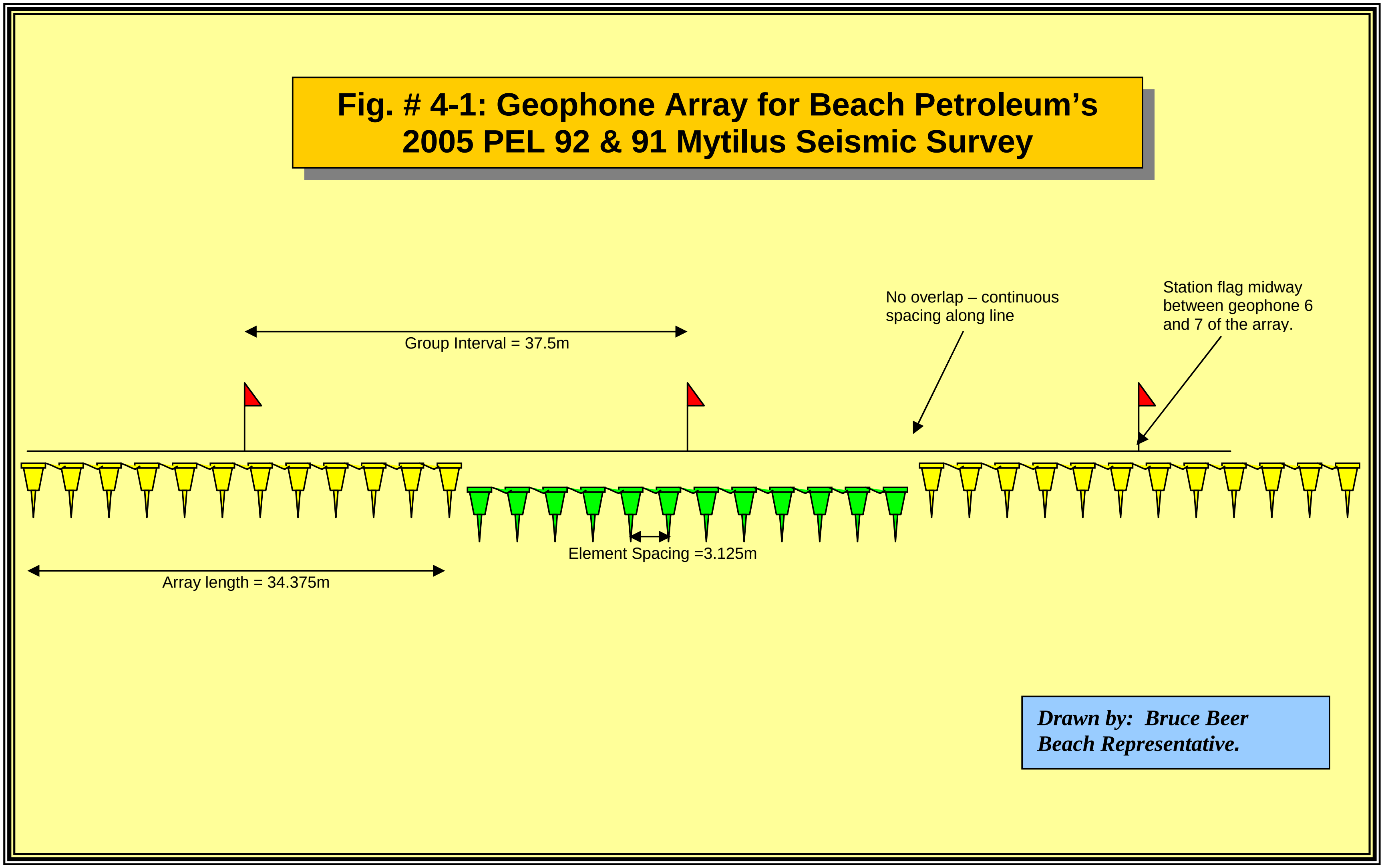
**Source Data**

| | | |
|---|---|---|
| Vibrators | : | 3 x I/O AHV IV's on 4x4 Buggies |
| Electronics | : | Pelton Advance III, VibePro |
| Sweep Frequency | : | Mono-sweep, 5-90 Hz |
| Sweep Length | : | 3 seconds |
| No. Sweeps | : | 2 standing |
| VP Interval | : | 37.5m |
| Vibrator Array | : | 3 vibs in line, 15m pad to pad standing. No move-up. |
| Sweep Amplitude Taper | : | 100% (none) |
| Drive Level | : | 90% varied by amplitude control function |
| End Tapers (cosine) | : | 0.2s |
| Phase Locking Type | : | Ground Force |
| Amplitude Control? | : | Peak to Peak |

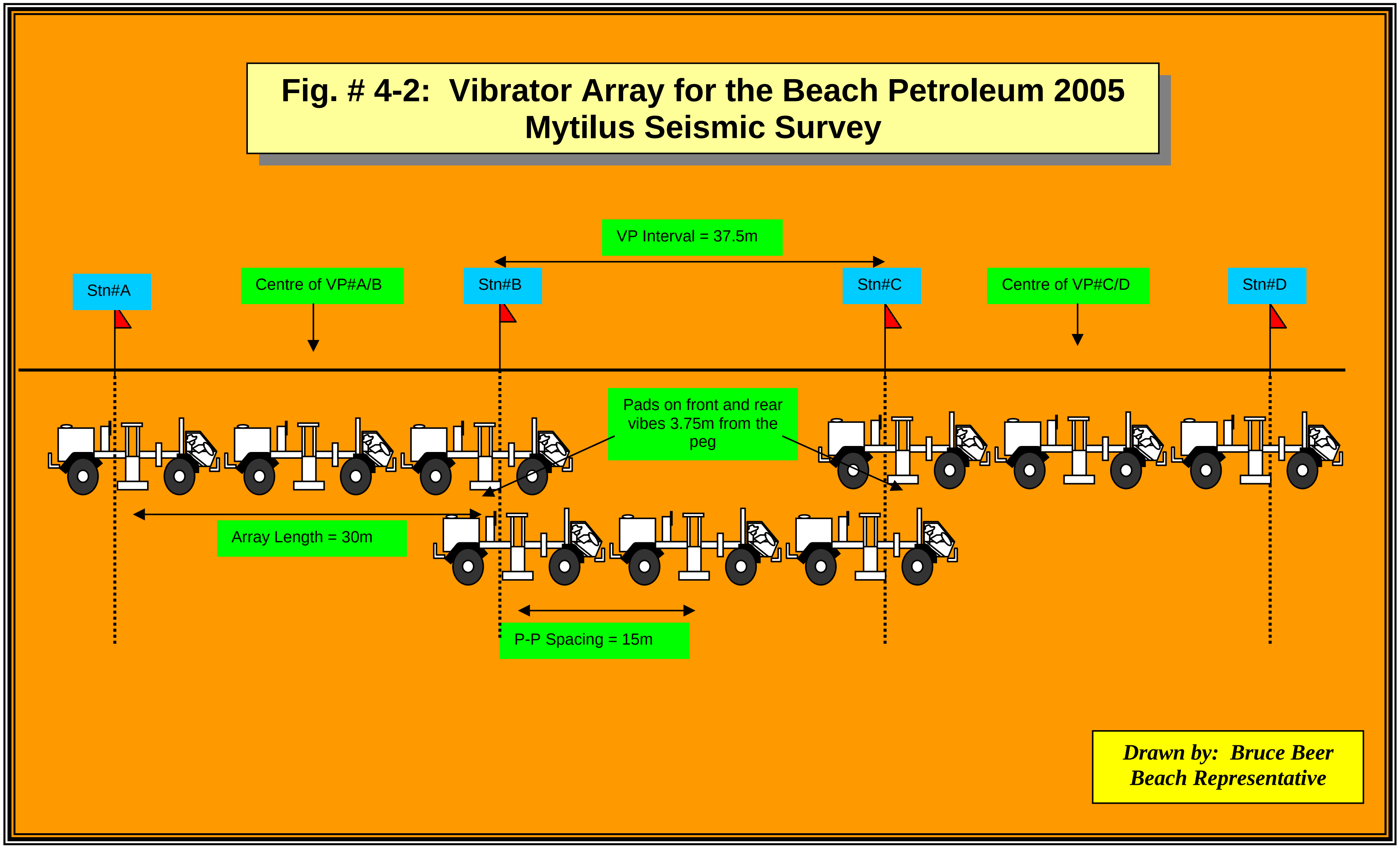
**Receivers**

| | | |
|---|---|---|
| Receiver Group Interval | : | 37.5m |
| Number of live traces | : | 124 |
| Spread | : | Split, 2306.25-93.75-0-93.75-2306.75 |
| Geophones | : | Sensor SM4 10 Hz |
| Array | : | 12 in-line, centred on station, 3.125 spacing |
| Connection | : | Series/Parallel (6x2) |
| Multiplicity | : | 62 fold (60 fold processed) |

## 4.0 - PARAMETERS



## 4.0 - PARAMETERS



## 5.0 - RECORDING

Introduction

The 2005 PEL 91 & 92 Mytilus Seismic Survey was located in the Cooper Basin, in north east South Australia approximately 80 km west north west of Moomba and operated by Beach Petroleum Limited. Terrex Seismic carried out the survey. The recording phase was conducted from May 8th to June 7th, 2005.

The contract was based on a turnkey rate. A total of 641.5125 kms of 2D seismic data was recorded on 47 lines. Of this total 187.775 km was in PEL 91 and 455.7375 km was in PEL 92. The program area is shown in the mud map in Fig. # 5-1. The program was spread out and had poor access so travel times were long, particularly in the north western areas.

Full production statistics appear in Appendix I.

Terrain

Most of the terrain was dune fields but there were areas of gibber in the far northwest, salt lakes in the northern areas and floodplain/wetlands along the Cooper Creek.

**Picture # 5- 1: vibes on line BC05-16 with recording truck and vibe service truck to left**

Equipment

## 5.0 - RECORDING

Terrex provided their Sercel 388 telemetric recording system, along with a field deployment of up to 700 x 12 strings of Sensor SM4 10 hz geophones.

There were three Input Output AHV IV 60,000 lb vibrators on line with a fourth as spare.

**Picture # 5- 2: vibes on line BC05-45**

There was one Station Unit (SU) every 6 stations and a battery unit (PSU) every 48 stations. The batteries lasted 2 days between charges.

<u>Parameters</u>

Parameters are listed in Section 4.0. They are the standard 2D parameters used in previous Beach Petroleum programs.

<u>Recording Crew Strength</u>

The following table details the strength and disposition of the crew:

## 5.0 - RECORDING

**Table 1: Terrex Seismic Crew Strength and Disposition on 8-5-05**

| **Contract Requirement** | **Actually on Crew** |
|---|---|
| Crew Manager (1) | Mark Kniepp (1) |
| HSE Representative (1) | Gary Hutchinson/Nicky Byrne (2) |
| Geophone Repair (1) | Darren Rea (1) |
| Senior Vehicle Mechanics (2) | Richard Carmody (1) |
| Supply Driver (1) | Allan Tuite (1) |
| Camp Cook (1) | Campbell McCormack(1) |
| Kitchen Hand (1) | Masako Iwasaki (1) |
| Camp attendant (1) | Elizabeth Crossie (1) |
| Senior Vibe Tech (1) | Dennis Corbin (1) |
| Lead Vibe Op (1) | Steve Bates(1) |
| 4 Vibe Operators (4) | David Lynch, Shane Walker, Aaron Beatson (3) |
| Senior Observer (1) | Joel Carry (1) |
| Line Boss (1) | Tony Hutchinson (1) |
| Trouble Shooter (not specified) | Nick Helme (1) |
| Cable truck personnel (6) | 6 people on 3 cable trucks (6) |
| Jug truck drivers (2) | 2 jug truck driver (2) |
| Line crew (10) | Line crew (9) |
| **Total Contract Requirement = 34** | **Actually on crew = 34** |

From Table #1, it can be seen that the crew strength was kept at contract levels.

## 5.0 - RECORDING

**Picture # 5- 3: Jug truck scooping up on line BC05-10**

Operations

Operations went smoothly despite the long travel times to some of the north western lines. There was one fence to negotiate. This was the boundary fence between Mungeranie to the south and Clifton Hills to the north. Permission to lay this fence down where necessary had been obtained from Rodney Fullarton of Mungeranie and Travis Gilby of Clifton Hills.

The I/O AHV IV vibrators were fitted with tyres having large lugs more suitable to rocks than sand. They had considerable trouble traversing dunes from the east to west direction, up the steep slip face. In many instances there were skips resulting from this as the statistics will confirm. Terrex have debated the viability of purchasing sand tyres for the vibes and finally look like doing it in 2006.

There were several large salt lakes to cross on this job. One was on line BC05-13 where there were 38 skips from vp# 514-551. To help compensate for this we went to 204 live traces at VP # 413.5 and continued this way to the eastern end of the line. The monitor records for this mode of shooting remarkably good (see sample monitors) and the longer offsets will help build coverage beneath the salt lake.

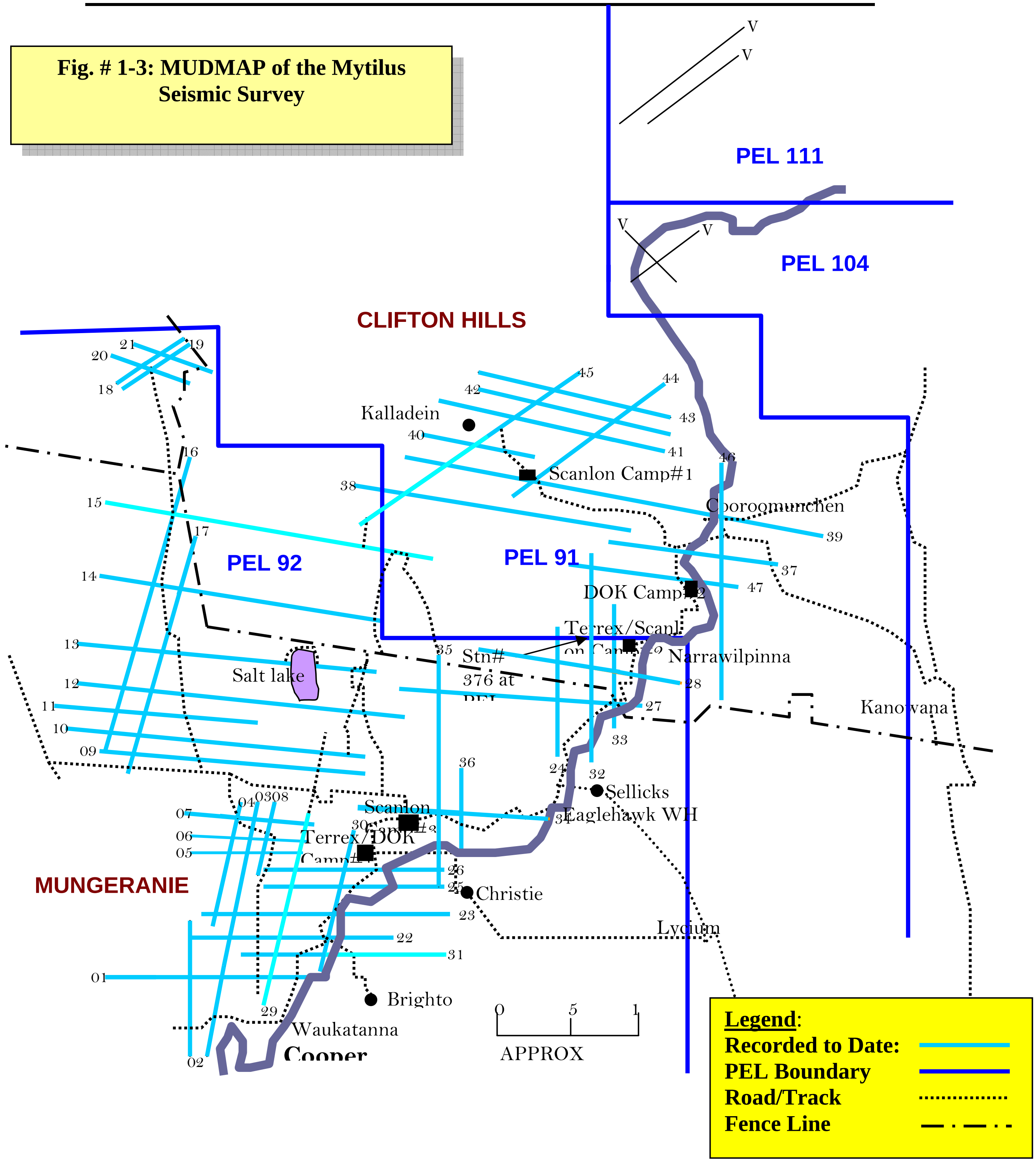
On line 45 there were two salt lakes that required hand-carry and skips. The first was at VP# 277-292 and second at VP# 446-484. We went to 204 traces live at VP # 293 – 588 in an effort to build fold under the lakes.

## 5.0 - RECORDING

**Picture # 5- 4: salt lake on line BC05-13**

## 5.0 - RECORDING

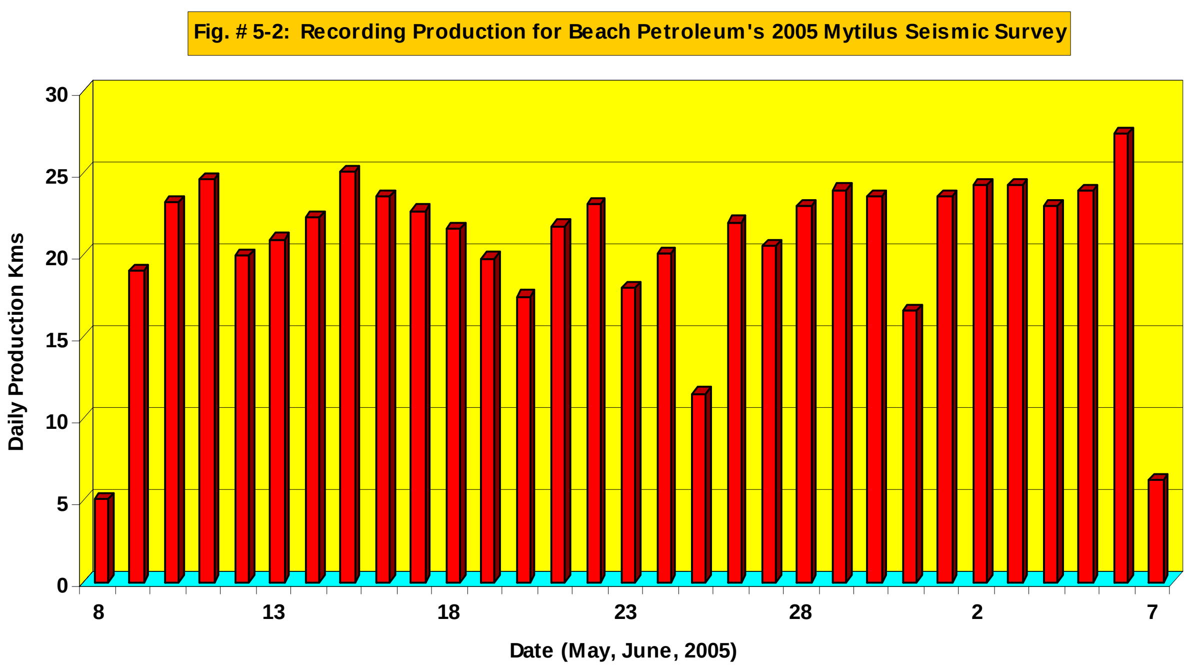
**Fig. # 1-3: MUDMAP of the Mytilus Seismic Survey**



## 5.0 - RECORDING

**Picture # 5- 5: back juggy Kevin Mitchell; dressed with the proper PPE**

Production



## 5.0 - RECORDING

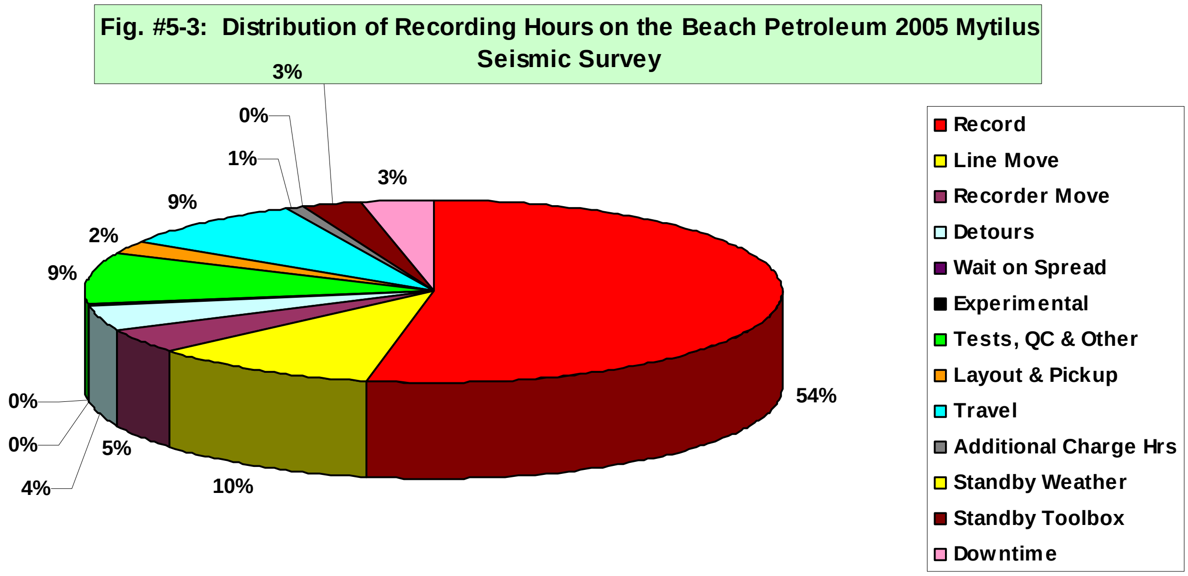
Fig. #5-2 above details daily production in the 2005 Mytilus Seismic Survey:
.
.

**Picture # 5- 6: back juggy Geoff Oswell .... 60 years old and the fittest man on the crew!**

The average daily production was 20.694 km. The highest daily production was 27.375 km on June 6th.

Fig. #5-3 shows the distribution of recording hours in percentage terms for the 2005 Mytilus Seismic Survey:

## 5.0 - RECORDING




The above pie chart shows that 54% of total time was spent recording. This is a good result. Line moves were 10%, reflecting the spread-out nature of the program and travel was 9% reflecting the poor access. The additional charge hrs figure of 1% was due to excessive travel time. Detours were 4% reflecting the difficult dunes and the salt lakes. Downtime was 3% .

Table #5-2 below details the statistics:

**Table 5-2: Statistical Summary of the 2005 Mytilus Seismic Survey**

| | |
|---|---|
| Total Recorded Linear Kms | 641.5125 |
| Total Recording Hours | 193.7 |
| Total Standby Rate Charge Hours | 9.8 |
| Total Experimental Hours | 0.4 |
| Total Overall Hours | 365.5 (excl mobe) |
| Total Recording Days | 30 (including part days) |
| Average Km/Day | 21.38 |
| Average Km/Recording Hr | 3.31 |
| Total VPs | 17145 |
| Total Skips | 261 |
| Percentage Skips/Possible VPs | 1.5 % |
| Average Recording Cycle Time | 40.7 seconds/VP |
| Efficiency Factor (Rec Hr/Tot Hr) | 53% (excludes mobe) |

Table # 5-2 shows a good set of figures and indicates that Terrex conducted an efficient survey.

## 5.0 - RECORDING

To break it down into individual blocks, Tables #5-3 and #5-4 show the statistics:

**Table 5-3: Statistical Summary of the 2005 PEL 91 Mytilus Seismic Survey**

| | |
|---|---|
| Total Recorded Linear Kms | 185.775 |
| Total Recording Hours | 55.2 |
| Total Standby Rate Charge Hours | 2.4 |
| Total Experimental Hours | 0.0 |
| Total Overall Hours | 98.5 (excl mobe) |
| Total Recording Days | 8 (including part days) |
| Average Km/Day | 23.22 |
| Average Km/Recording Hr | 3.37 |
| Total VPs | 4861 |
| Total Skips | 105 |
| Percentage Skips/Possible VPs | 2.11 % |
| Average Recording Cycle Time | 40.88 seconds/VP |
| Efficiency Factor (Rec Hr/Tot Hr) | 56% (excludes mobe) |

**Picture # 5- 7: vibe tech Shane Goosens (kneeling) and Richard Carmody change a vibe tyre. Note the large lugs, inappropriate for sand.**

## 5.0 - RECORDING

**Table 5-4: Statistical Summary of the 2005 PEL 92 Mytilus Seismic Survey**

| | |
|---|---|
| Total Recorded Linear Kms | 455.7375 |
| Total Recording Hours | 138.5 |
| Total Standby Rate Charge Hours | 7.4 |
| Total Experimental Hours | 0.4 |
| Total Overall Hours | 267.0 (excl mobe) |
| Total Recording Days | 22 (including part days) |
| Average Km/Day | 20.72 |
| Average Km/Recording Hr | 3.29 |
| Total VPs | 12284 |
| Total Skips | 156 |
| Percentage Skips/Possible VPs | 1.25 % |
| Average Recording Cycle Time | 40.59 seconds/VP |
| Efficiency Factor (Rec Hr/Tot Hr) | 51.9% (excludes mobe) |

From the above tables it can be seen that the PEL 91 program was done more efficiently than the PEL 92 program. This is largely due to the increased travel time in PEL 92 due to lack of access.

Data Quality

Data quality was generally excellent in all areas. Signal to noise was high.

Sample paper monitor records are shown in Sample Monitor # 5-1, 5-2, 5-3 and 5-4. It must be noted that the monitor records have a 14 Hz low cut playback filter applied to them. The observers do this to cosmetically clean up the record and make it easier to trouble shoot. But the effect is to mask the lower frequencies and, in particular, the full impact of ground-roll.

Sample Monitor # 5-1 is from Line BC05-45 VP# 486.5. This record has 204 live traces. This was done in an attempt to increase the fold beneath a hand carry salt lake. It shows the top of the Permian at 1.5 seconds and the C horizon at 1.2 seconds. Signal/noise is good. This line is in the north-eastern part of the program.

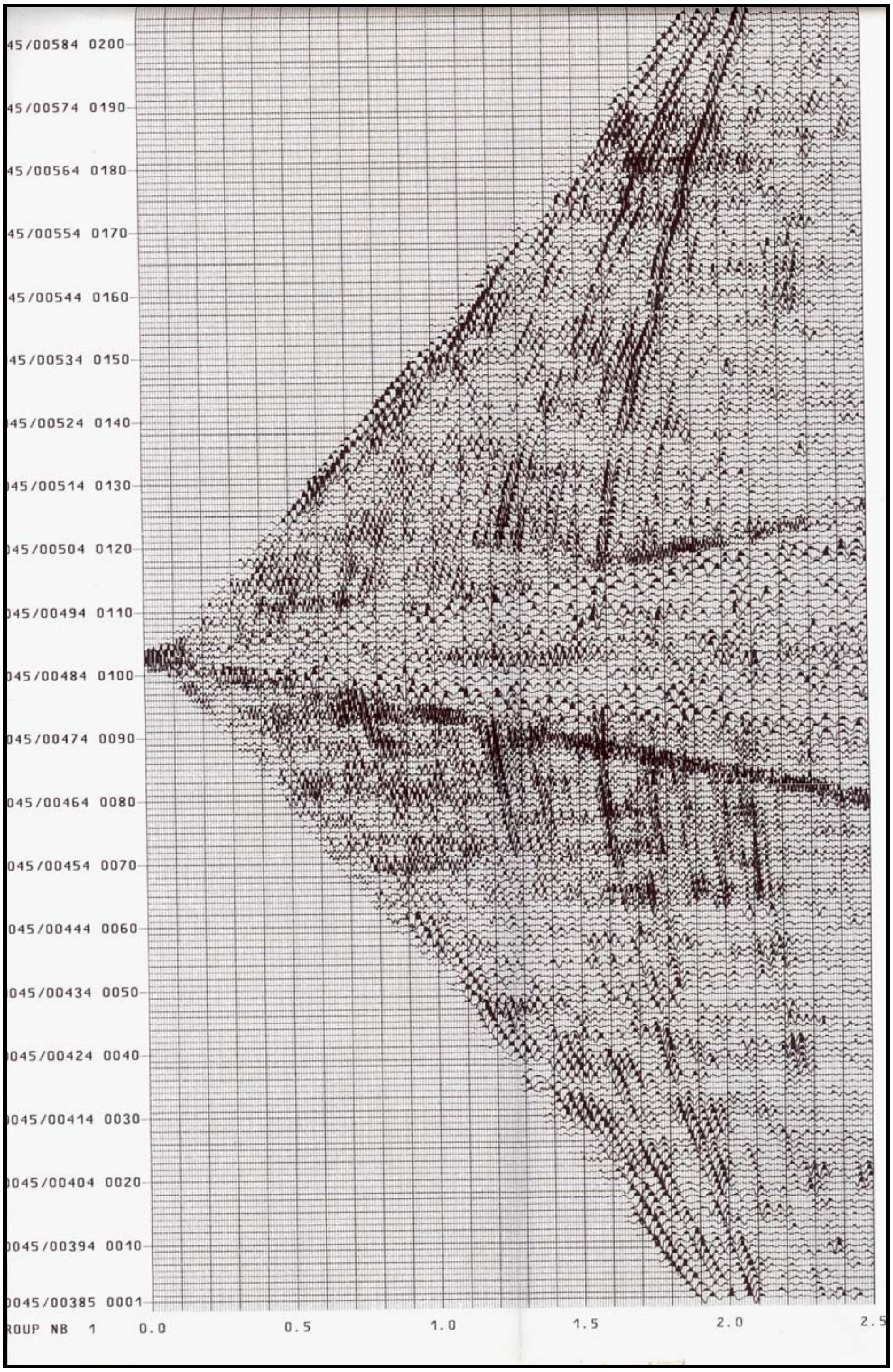
Sample Monitor # 5-2 is from Line BC05-46 VP# 481.5. It shows the Permian top at 1.7 secs and the C horizon at 1.3 secs.

Sample Monitor # 5-3 is from Line BC05-03 VP# 776.5. It shows a weak P horizon at 1.8 secs and the C horizon at 1.05.

Sample Monitor # 5-4 is from Line BC05-13 VP# 494.5. This record has 204 live traces. This was done in an attempt to increase the fold beneath a hand carry salt lake. It shows the top of the Permian at 1.6 seconds and the C horizon at 1.2 seconds.

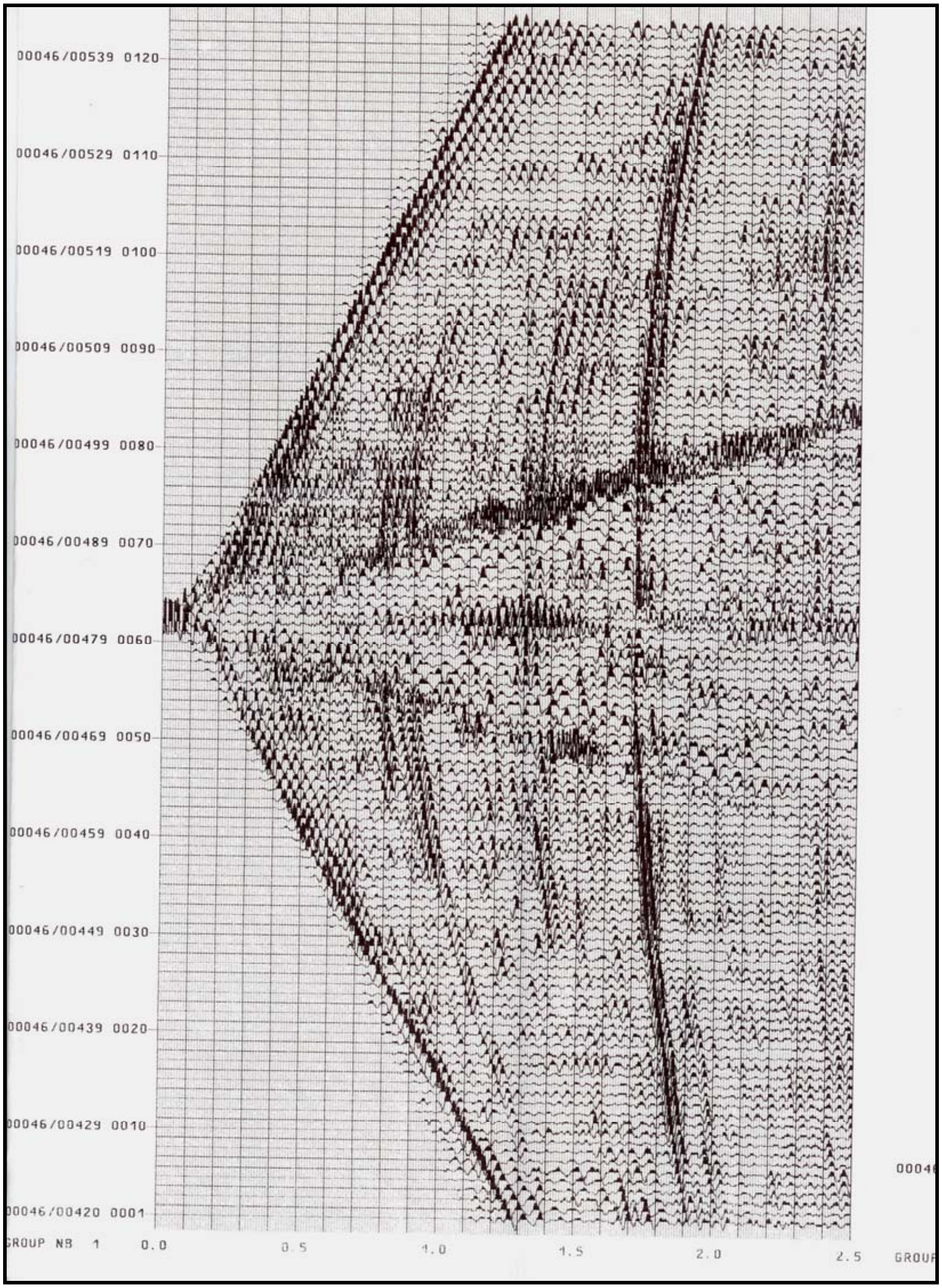
In summary, the chosen parameters should lead to some good quality stack sections.

## 5.0 - RECORDING



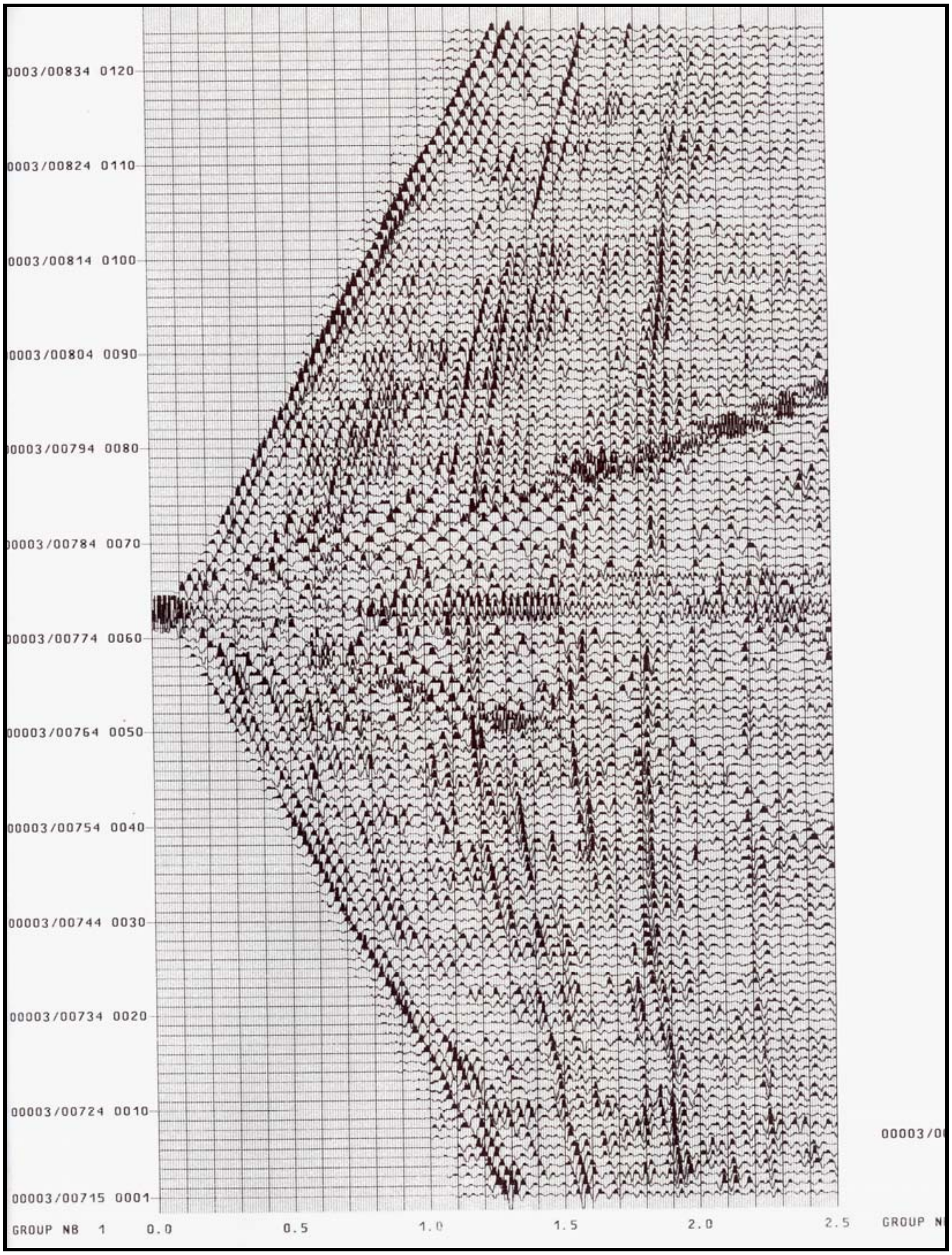

**Sample Monitor # 5- 1: Line BC05-45 VP# 486.5. Note that there are 204 live traces on this record to help build fold beneath a salt lake.**

## 5.0 - RECORDING



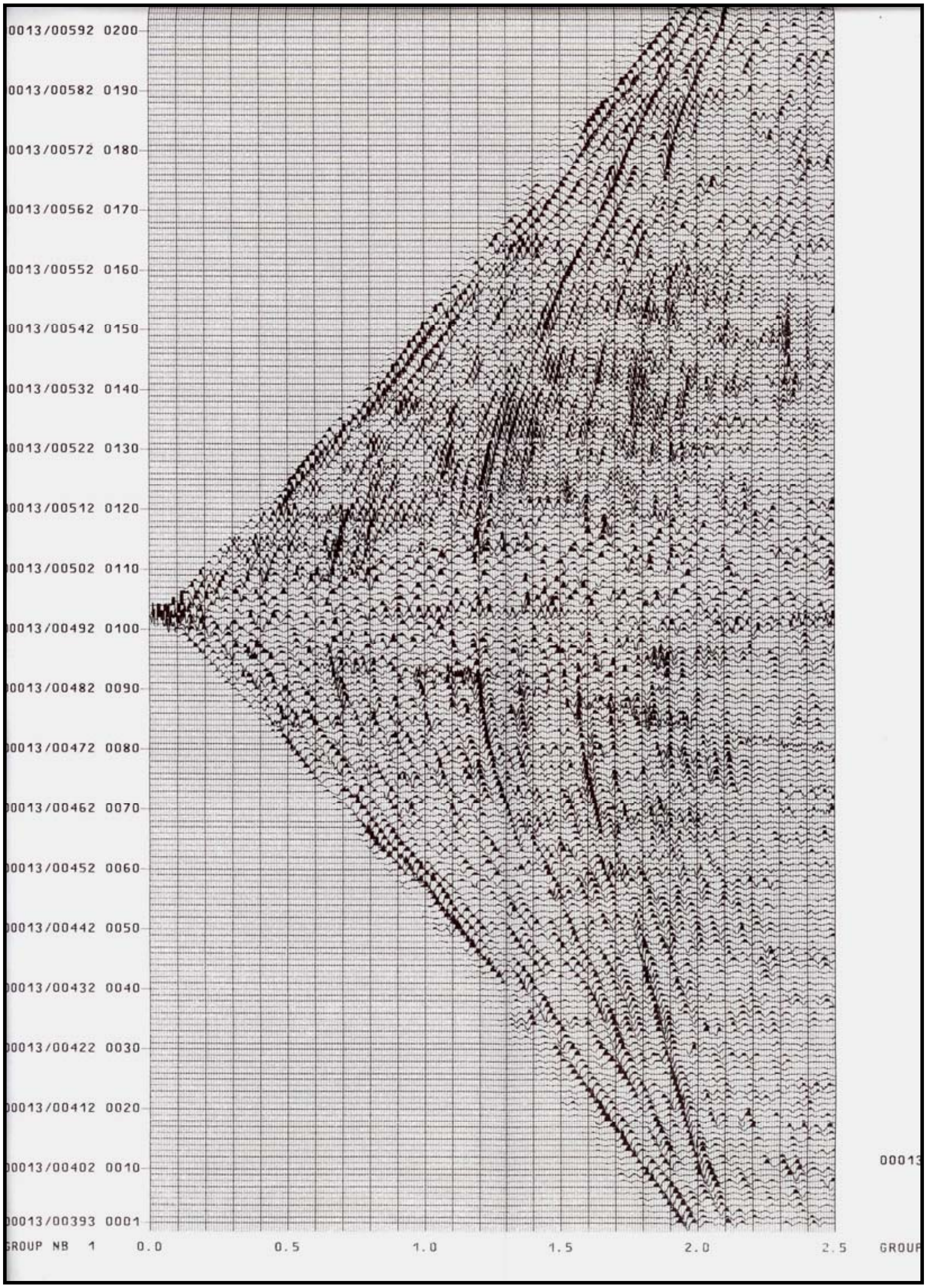

**Sample Monitor # 5- 2: Line BC05-46 VP# 481.5**

## 5.0 - RECORDING




**Sample Monitor # 5- 3: Line BC05-03 VP# 776.5**

## 5.0 - RECORDING




**Sample Monitor # 5- 4: Line BC05-13 VP#494.5. Note that this record has 204 live traces; this was done to try building up fold beneath a hand carry salt lake.**

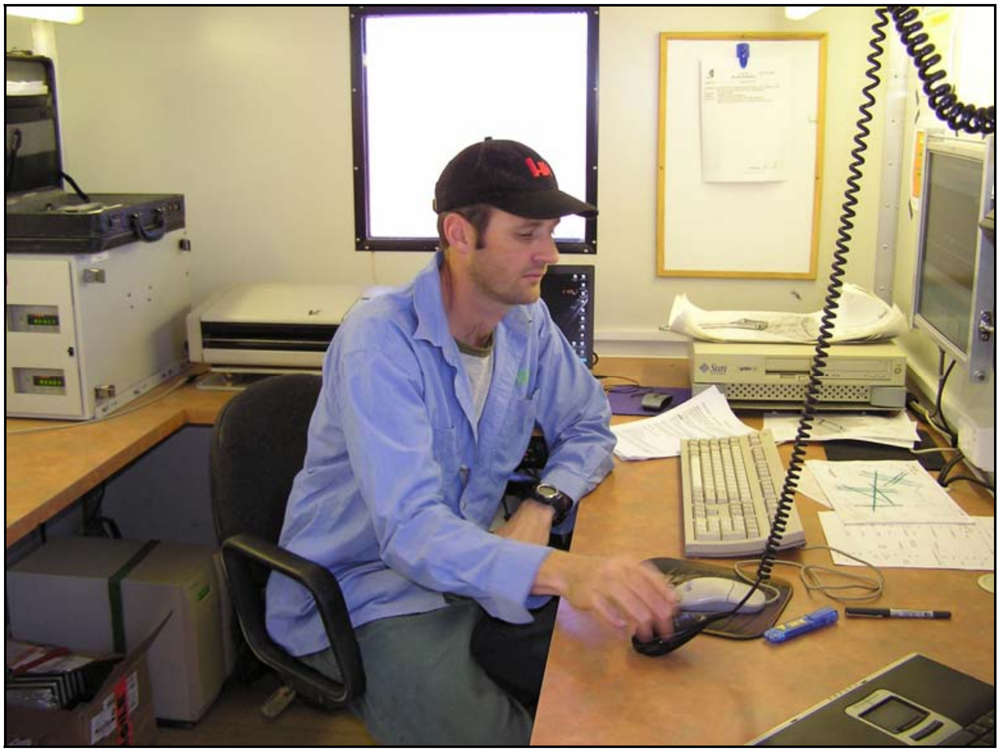
## 5.0 - RECORDING

**Picture # 5- 8: Observer Joel Carry shows new Beach geophysicist Luke Gardiner around the dogbox**

<u>Observer & Line Boss</u>

The observer on this job was Joel Carry. Joel is based in Calgary Alberta and has vast experience in the seismic industry. He is the backbone of the Terrex technical division. He was assisted by Junior Observer Nik Helme. The line boss was Tony Hutchinson (Turbo) and his relief was Simon Feldheim (Elmer). They all have a quality over quantity attitude and did an excellent job.

## 5.0 - RECORDING



**Picture # 5- 9: trainee Observer Nik Helme**

**Picture # 5- 10: Line Boss Tony Hutchinson (Turbo) assisting in stomping**

## 5.0 - RECORDING

Summary

The travel time to the north western areas of PEL 92 presented plenty of challenges to Terrex on the Mytilus Seismic Survey. However, their crew overcame these with great aplomb and good data resulted. They are recommended for future work.

## 6.0 DRILLING & LVL

Introduction

The uphole program for the 2005 PEL 91 & 92 Mytilus Seismic Survey consisted of 396 holes (see Map # 6-1). Total metres drilled and logged was 15243. Drilling began on May 24th and was completed on August 4th, 2004.

Scanlon Drilling from Kalgoorlie WA was contracted to do the uphole drilling while Expertest was contracted to do the logging. The drilling contract was let on an hourly rate (+ consumables) basis while the logging contract for Expertest was for a day rate (plus a km rate for the logging truck). Both were subcontracted to Terrex Seismic. Full production statistics appear in Appendix II and III.

Scanlon Drilling & Expertest

Equipment

**Table 6- 1: Equipment list for Scanlon Drilling Company**

| Item | Description |
|---|---|
| Drilling rig | Bourne 1000 |
| Water trucks | 2x Hino 4x4; 4500 litre tanks |
| Water truck | 1x International S-Liner 6x4; 12,000 litre tanks; |
| Camp | 1x kitchen/diner/sleeper van |
| Ablution | 1x trailer with chemical toilet mounted |
| Utility | 1x Toyota 4x4 Station Wagon |
| Communications | All vehicles have UHF radios; 2 x satellite telephones; |

**Picture # 6- 1: the Spartan drill camp; Expertest van to left**

## 6.0 DRILLING & LVL

Expertest provided their Toyota mounted weight drop logging init and an accommodation/office caravan.

**Picture # 6- 2: Scanlon rig with driller Russell St jack on the step**

## 6.0 DRILLING & LVL

Personnel

| | | |
|---|---|---|
| Scanlon Drilling: | Driller | Greg Scanlon/Russell St Jack/Brett Andrew |
| | Offsider | T. Jones |
| | Offsider | Wyndham Middleton/ Sasha Rohr |
| Expertest | Logger | Mark Smale |

Drilling in PEL 91

The average depth of hole on this program was 32.8m and the average depth of weathering was 11.2m. All holes were drilled on mud with Biovis being the main additive. This is organically compatible.

Drilling water was obtained from Cooroomunchena Waterhole (see Fig. # 6-1) with the generous permission of Travis Gilby from Clifton Hills.

**Picture # 6- 3: Expertest logger Mark Smale (left) loading the tool in the hole and watched by the drillers to see that there are no problems**

## 6.0 DRILLING & LVL

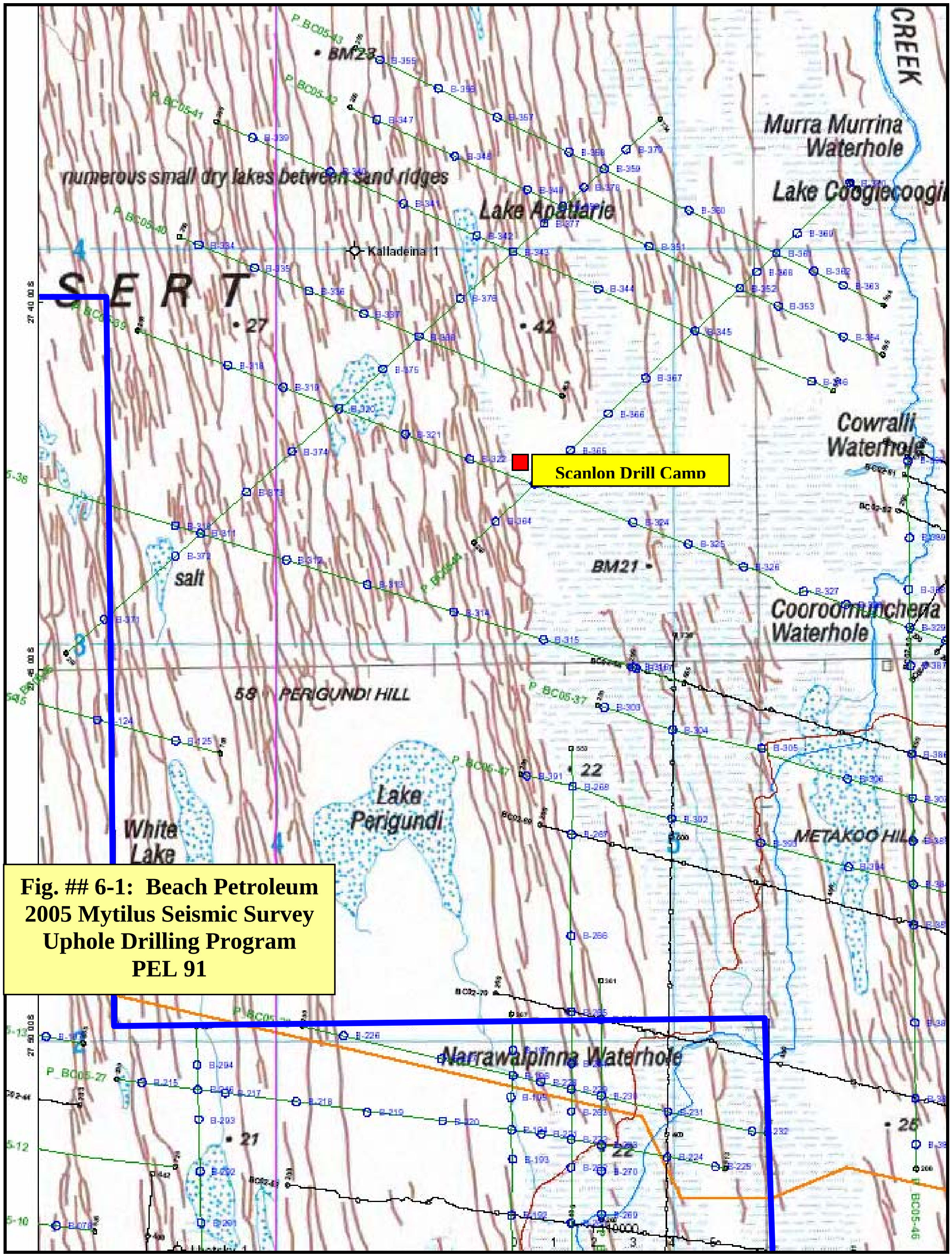



**Fig. ## 6-1: Beach Petroleum 2005 Mytilus Seismic Survey Uphole Drilling Program PEL 91**

## 6.0 DRILLING & LVL

Lithologies were listed by the drillers as predominantly sands and clays. There was the very occasional thin layer of silcrete in some holes. Sub-weathering velocities were in the range 1680 to 1900 metres/sec, but typically in the mid 1700's.

In order to give an example of the weathering profile in the area, line BC05-45 has been selected. Using elevations provided by DSS and taking the weathering depths as interpreted by Expertest, a value for the elevation of the base of weathering was calculated at each uphole location. Using the series-trend function in Excel, a linear interpolation was made between each control point. The results were plotted as follows:

**Fig. # 6-2: Weathering Profile for Line BC05-45**

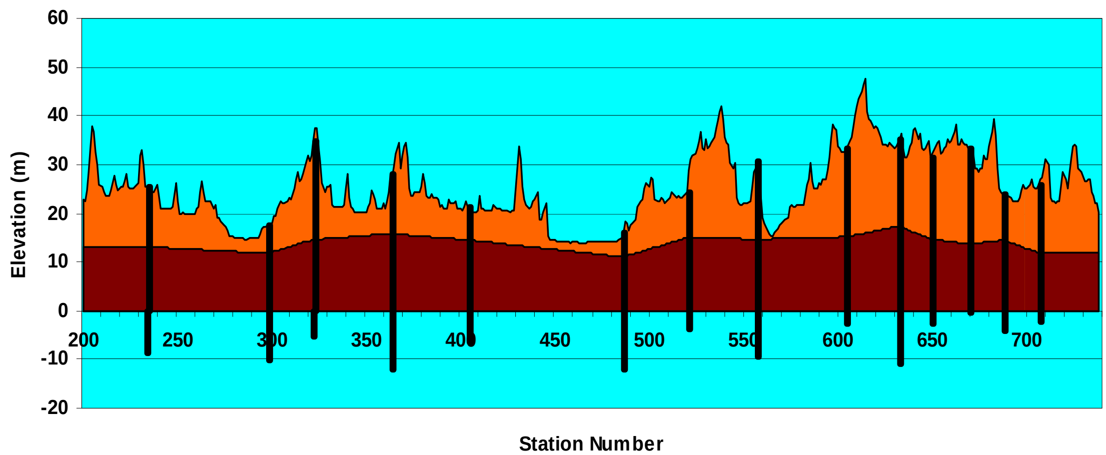
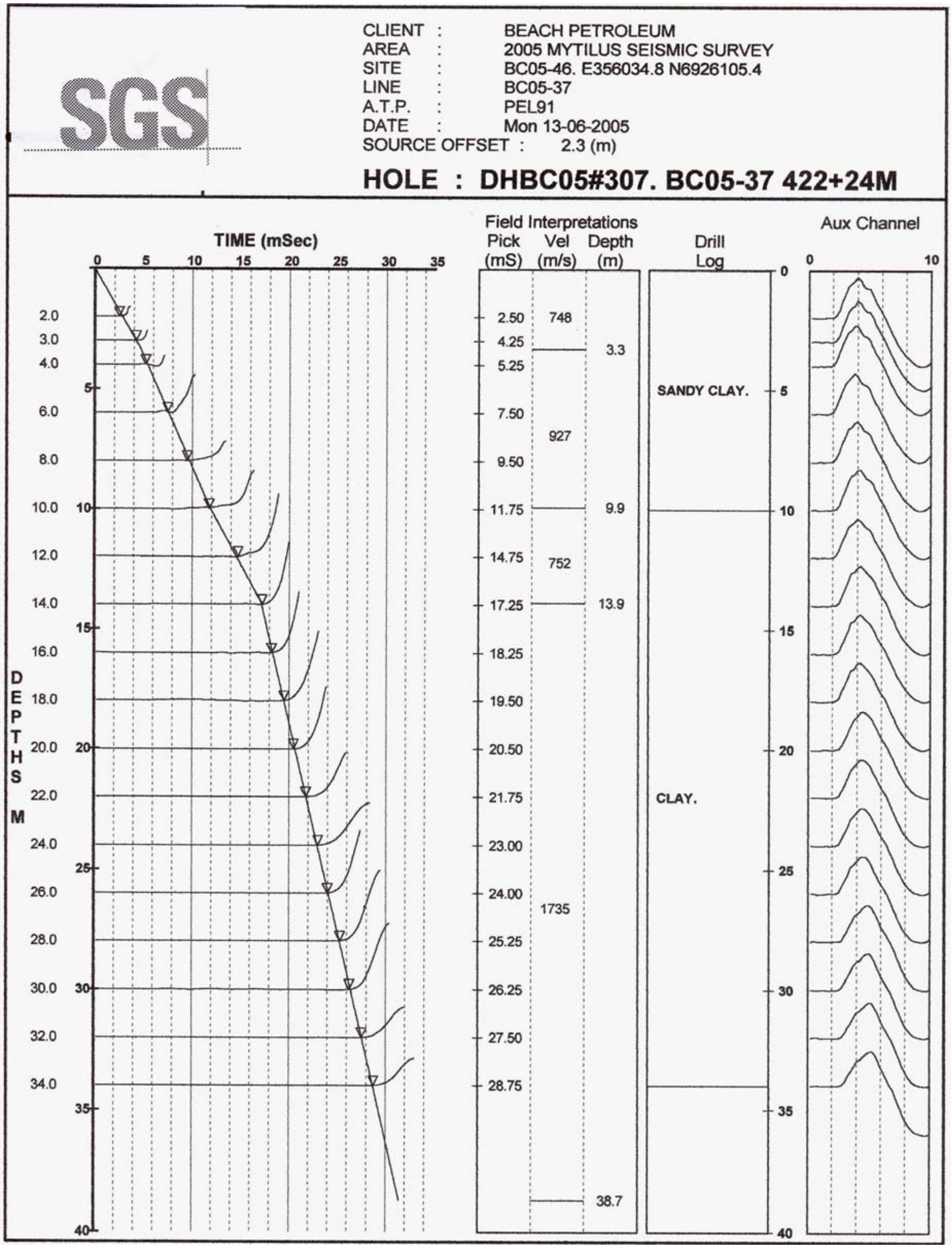



Fig # 6-2 shows a fairly consistent base of weathering varying no more than 5m over the line. The depth of weathering beneath the salt lakes is 2-3m The uphole locations are plotted in the chart. They show a good mix of elevations on which to base the model. Note that all holes were drilled below datum.

The model used in the plot in Fig. # 6-2 assumes that the base of weathering is linear between control points. 14 up-hole plots were used in producing the above plot. The weathering profiles in these up-holes tend to confirm that this model is approximately correct.

An example of an Expertest Uphole plot from one of the above contributors is shown in Sample Uphole Plot # 1.

## 6.0 DRILLING & LVL

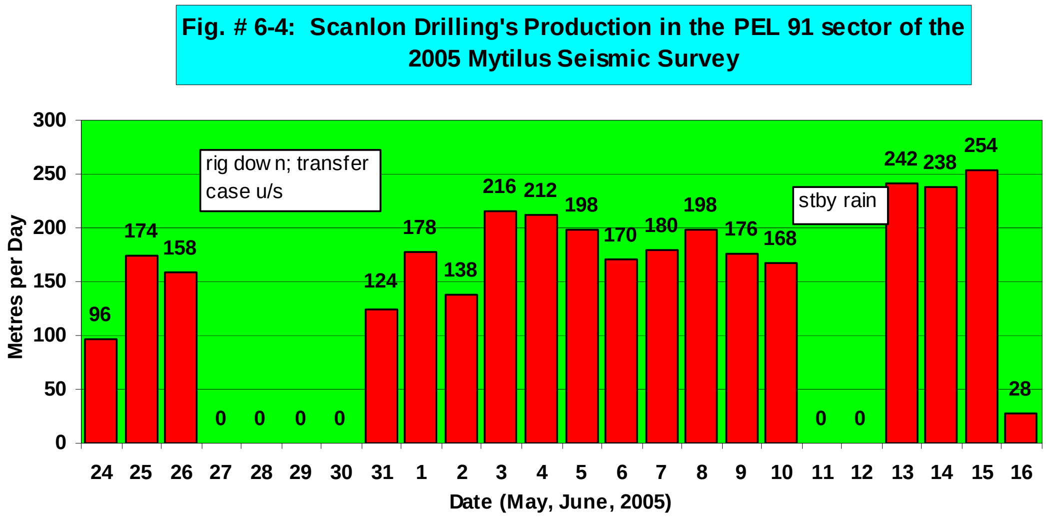



**Sample Uphole Plot # 6- 1: Expertest uphole plot for Hole # 307**

## 6.0 DRILLING & LVL

Production

Fig. #6-4 shows production for Scanlon Drilling in PEL 91




From the above chart it can be seen that production by Scanlon Drilling was usually in the 200m/day range.  4 days were lost to downtime and 2 days were standby for rain.

The table below gives the statistics:

**Table 6- 2: Statistics for Scanlon Drilling on the 2005 PEL 91 Mytilus Seismic Survey**

| | |
|---|---|
| Start Date | May 24th, 2005 |
| End date | June 16th, 2005 |
| Total Days | 24 |
| Total Holes Drilled | 96 |
| Average Holes/Day | 4.0 |
| Total Metres Drilled | 3148 |
| Total Full Rate Drill Hours | 195.0 (excluding mobe and demobe) |
| Total Standby Rate Charge Hours | 20.0 |
| Average Metres/Full Rate Drill Hr | 16.14 (excluding mobe and demobe) |
| Average Metres/Total Charge Hr | 14.64 (including stby, mobe & demobe) |
| Scanlon Drilling Driller | Greg Scanlon/Russell St Jack/Brett Andrew |
| Expertest Logger(s) | Mark Smale |
| Total $4^3/_4$” Regular bits used | 13 |
| Total $4^3/_4$” Chevron bits used | 0 |
| Total TCI bits used | 0 |
| Total drums of Biovis used | 24 |
| Total bags of  AquPol used | 9.5 |

## 6.0 DRILLING & LVL

The above figures point to fairly slow operation. Much of this was due to the difficult access in large dunes.

<u>Drilling in PEL 92</u>

PEL 92 had the largest uphole program. There were 300 holes drilled during the Mytilus Seismic Survey.

## 6.0 DRILLING & LVL

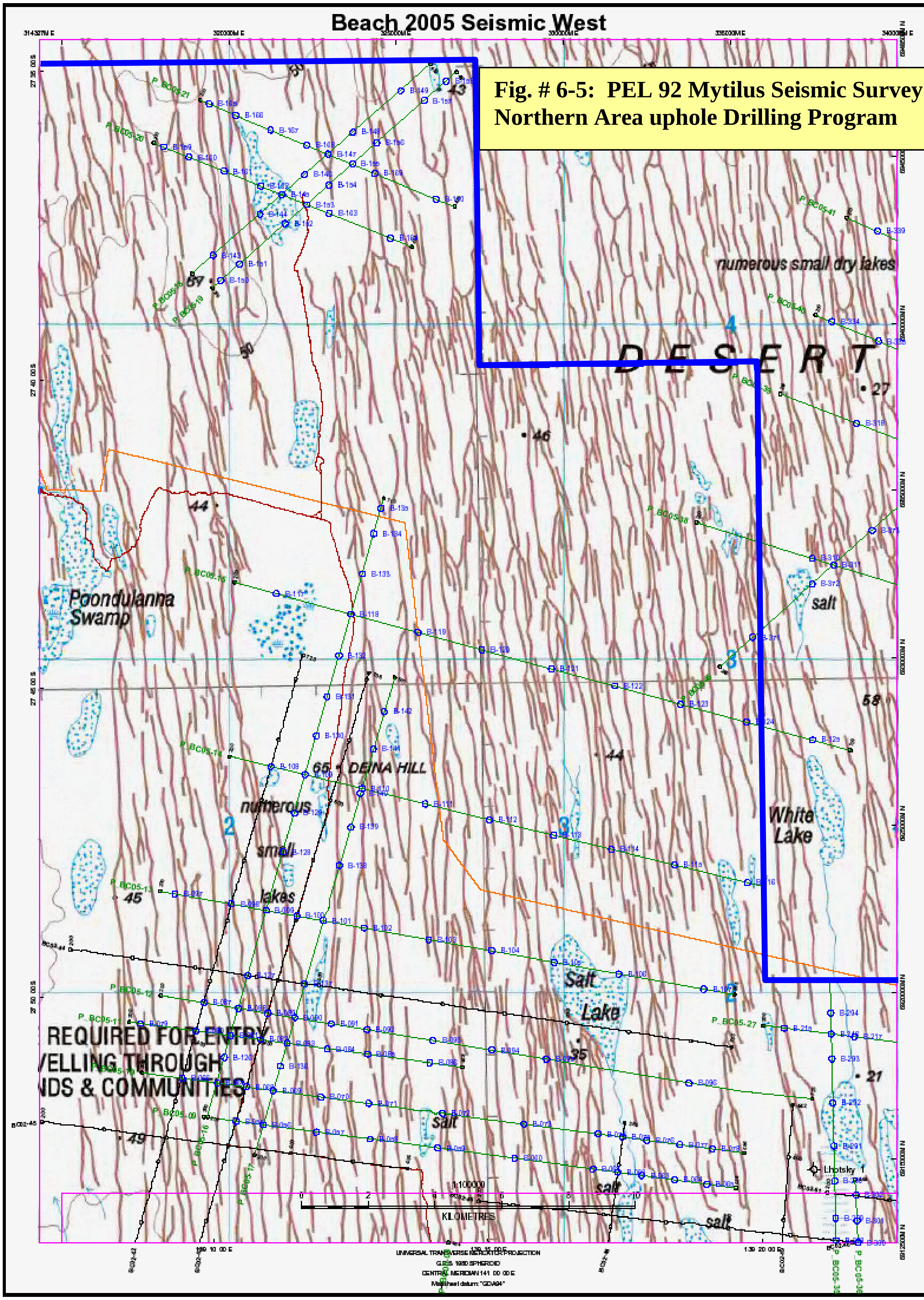



**Fig. # 6-5: PEL 92 Mytilus Seismic Survey; Northern Area uphole Drilling Program**

## 6.0 DRILLING & LVL

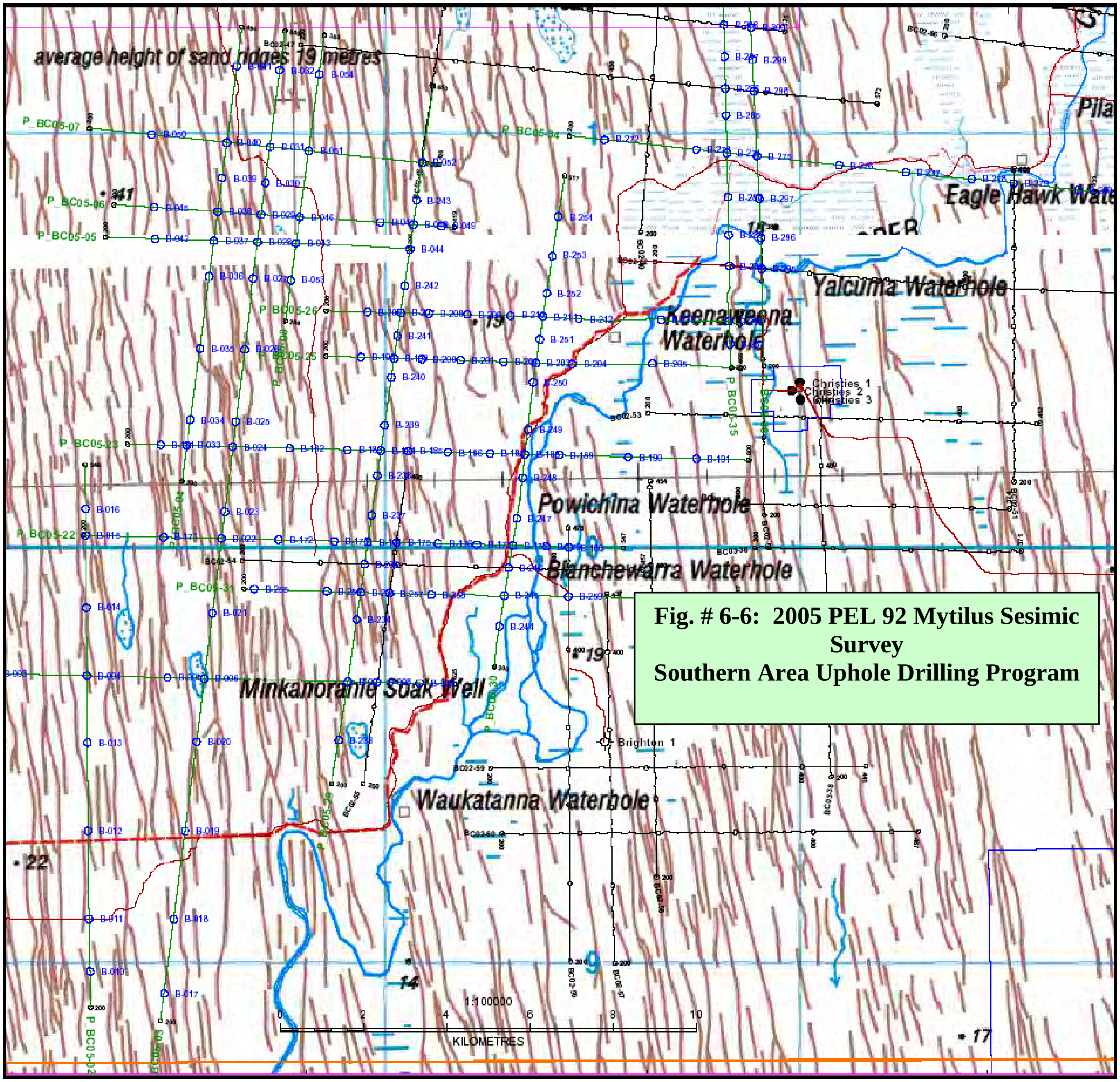



**Fig. # 6-6: 2005 PEL 92 Mytilus Sesimic Survey**
**Southern Area Uphole Drilling Program**

## 6.0 DRILLING & LVL

Fig. # 6-5 and 6-6 show the locations of the upholes in this program.

The average depth of hole on this program was 40.32m and the average depth of weathering was 15.1m. All holes were drilled on mud with Biovis being the main additive. This is organically compatible.

Drilling water was obtained from Lycium Bore with the generous permission of Graham Betts, owner of Mungeranie Station and Narrawalpinna Waterhole with the permission of Travis Gilby from Clifton Hills.

Lithologies were listed as sands and clays with some thin bands of silcrete in the "Boomer" area deep holes.

Most of the program had a weathering depth of 6-15m in the swales but the small north western grid around the proposed Boomer well-site was in gibber terrain and required hole depths exceeding 100m. The drilling of these holes has affected the average drill depth for PEL 92. There were also some test holes drilled deep in this area to search for water as a possible source for the upcoming Boomer well. One of these holes was drilled at Line BC05-20 stn # 322 to 118m and was logged as an uphole even though it was not programmed.

Since the PEL 92 uphole program covered such a large area, 3 lines have been chosen to be representative of the north, central and southern areas. The weathering depths and base of weathering have been plotted against the elevations for these lines as follows:

**Fig. # 6-7: Weathering profile for Line BC05-22 in the Southern area of the Beach 2005 Mytilus Sesimic Survey**

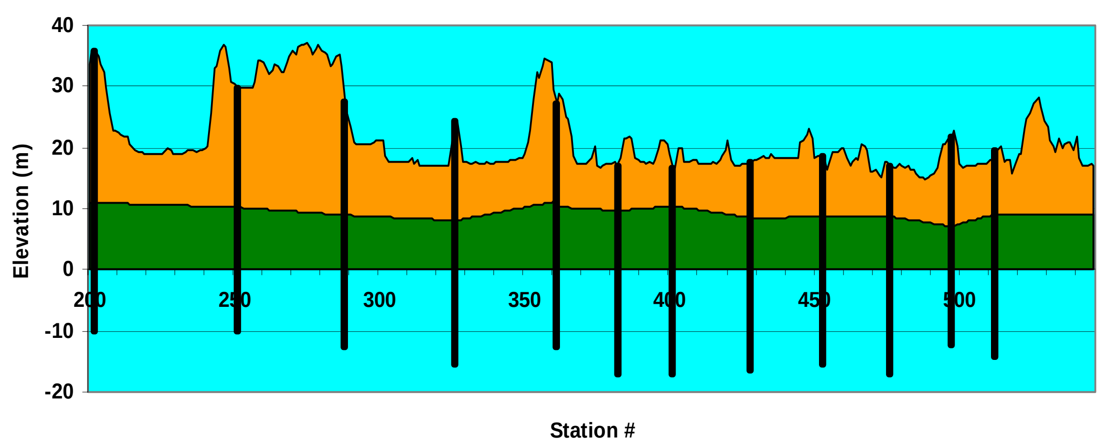



Fig. # 6-7 shows a fairly flat base of weathering with the depth of weathering in the swales around 8 metres. Note that all the upholes were drilled below datum.

## 6.0 DRILLING & LVL

**Fig. # 6-8: Weathering Profile for Line BC05-21 in the northern "Boomer" area**

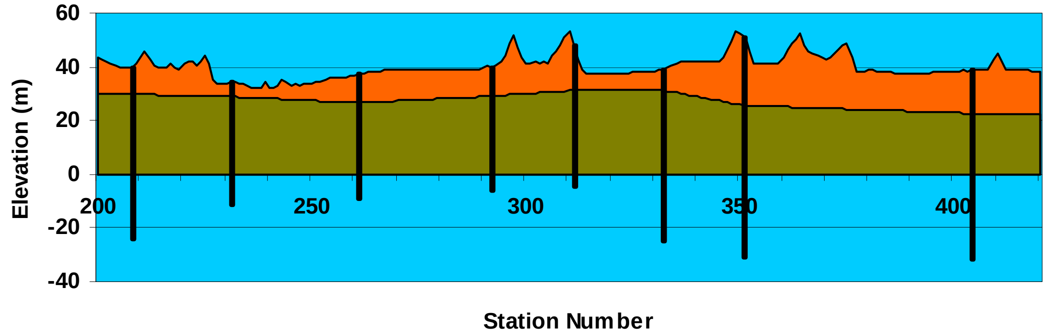



Fig. # 6-8 shows a flat base of weathering with thickness in the swales of only 5m in the west but thickening to 16m in the east.

**Fig. # 6-9: Weathering Profile for Line BC05-13 in the Central area of the PEL 92 Mytilus Uphole Program**

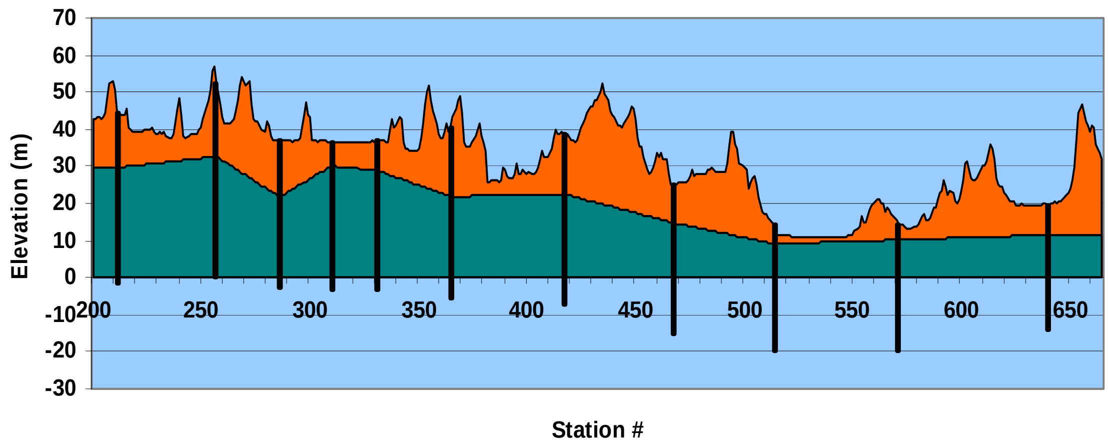
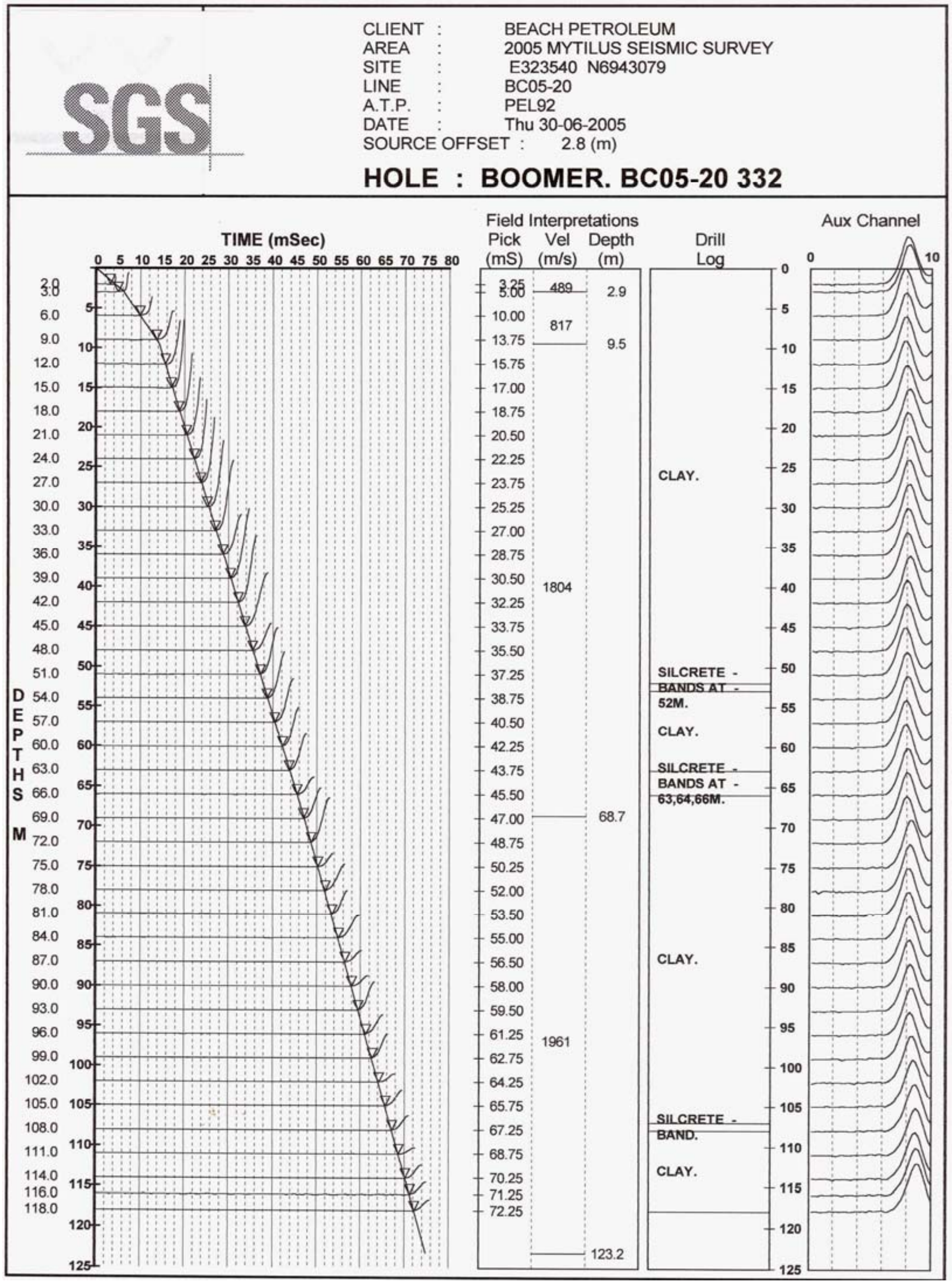



Fig. # 6-9 above shows a definite rise n the base of Wx to the west with 6-8m of weathering in the swales and only 1m of weathering on the salt lake around stn # 520-550.

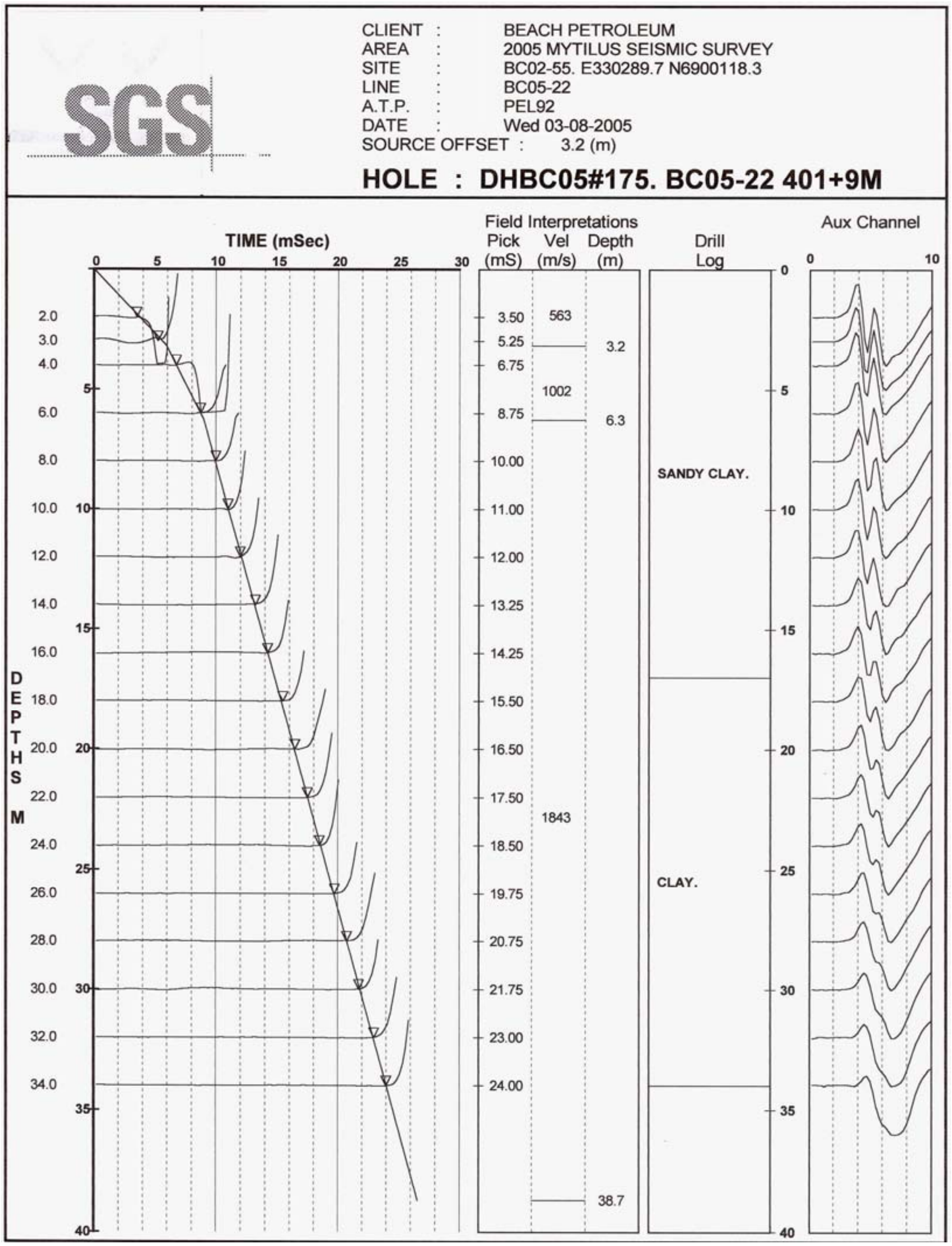
Sample plots from the northern, central and southern areas are shown in Sample Up-hole Plots # 6-2, 6-3 and 6-4.

## 6.0 DRILLING & LVL



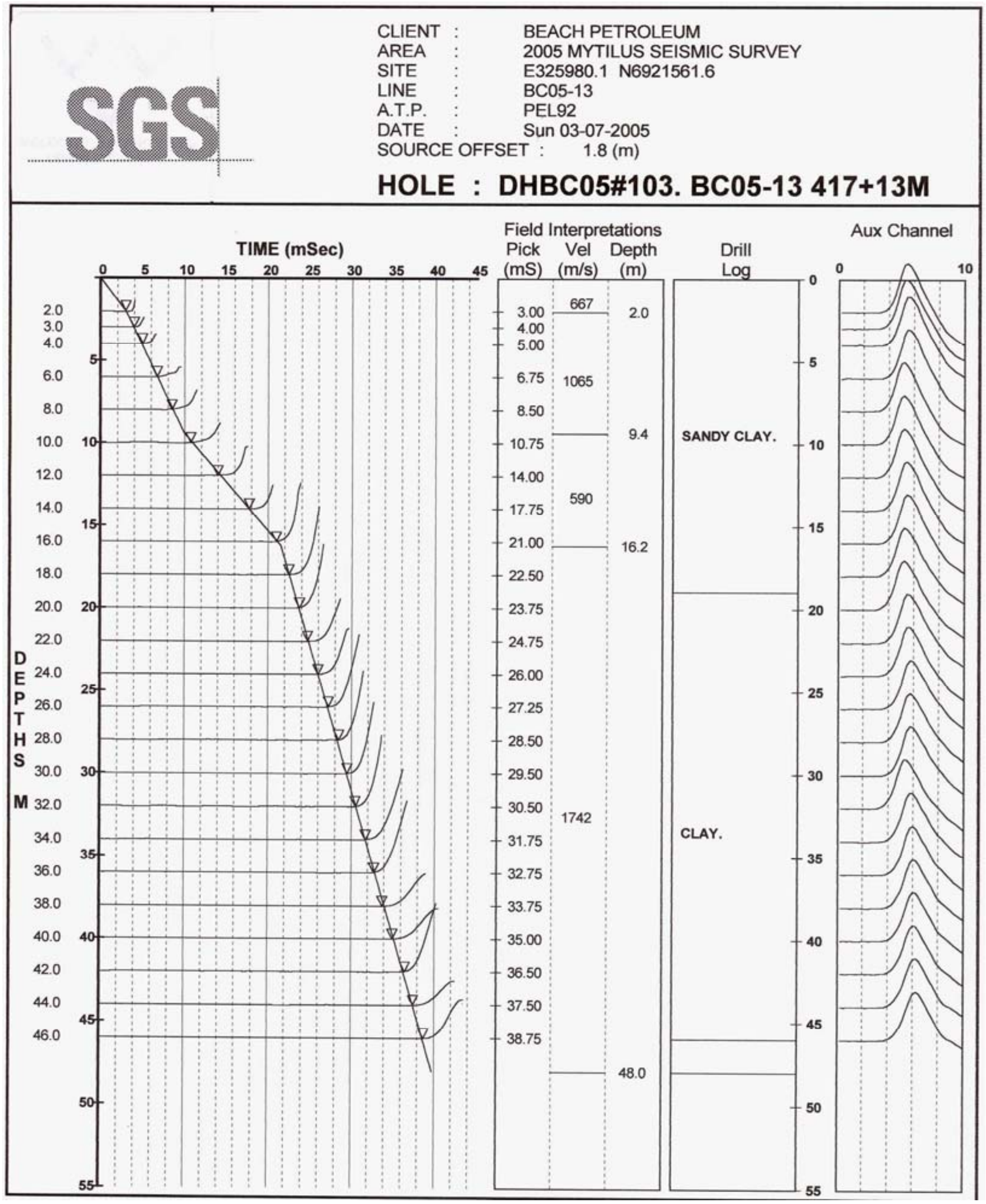

**Sample Uphole Plot # 6- 2: the test hole drilled for the water bore at the Boomer well site**

## 6.0 DRILLING & LVL




**Sample Uphole Plot # 6- 3: plot for Hole # 175**

## 6.0 DRILLING & LVL

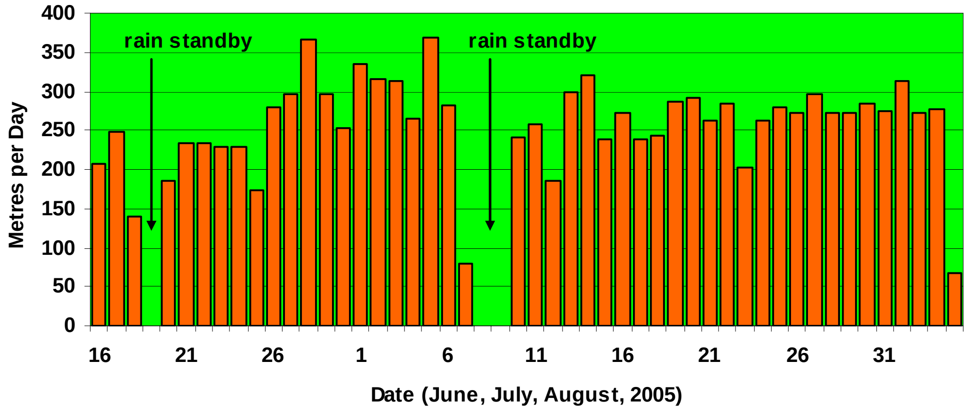



**Sample Uphole Plot # 6- 4: plot for Hole # 103 from the central region**

## 6.0 DRILLING & LVL

Production in PEL 92 is shown below:

**Fig. # 6-10: Drilling Production for Scanlon Drilling on the Beach Petroleum 2005 PEL 92 Mytilus Seismic Survey**




As can be seen from Fig. # 6-10, three days were lost to wet weather but apart from that, the daily production generally exceeded 200m, often exceeded 250m and occasionally exceeded 300m. This was an excellent drilling performance.

The table below summarizes production in PEL 92:

**Table 6- 3: Statistics for Scanlon Drilling on the 2005 PEL 92 Mytilus Seismic Survey**

| | |
|---|---|
| Start Date | June 16th, 2005 |
| End date | August 4th, 2005 |
| Total Drill Days (excluding 3 stby days) | 47 |
| Total Holes Drilled | 300 |
| Average Holes/Day | 6.38 |
| Total Metres Drilled | 12095 |
| Total Full Rate Drill Hours | 548.75 (excluding mobe and demobe) |
| Total Standby Rate Charge Hours | 34.5 |
| Average Metres/Full Rate Drill Hr | 22.04 (excluding mobe and demobe) |
| Average Metres/Total Charge Hr | 20.71 (including stby) |
| Scanlon Drilling Driller | Greg Scanlon/Russell St Jack/Brett Andrew |
| Expertest Logger(s) | Mark Smale |
| Total $4^3/_4$” Regular bits used | 41 |
| Total TCI bits used | 1 |
| Total drums of Biovis used | 82.5 |
| Total bags of AquPol used | 4 |

## 6.0 DRILLING & LVL

The figures in table # 6-3 indicate that drilling was considerably better in PEL 92 than in PEL 91. One reason offered for this was that access was much easier on the southern PEL 92 lines than those in PEL 91.

Summary for Scanlon Drilling and Expertest

Scanlons had a minor hiccup with some downtime at start of the PEL 91 program but after that they never looked back. They work long hours each day getting an early start before dawn. It never ceases to amaze me how they get their heavily laden trucks around over dunes that even the vibrators have trouble with. They are recommended for future work.

Expertest's Mark Smale is a veteran of the uphole logging industry and is a perfectionist when it comes to data quality. His plots and the Expertest product still set the industry standard.

This paring of Scanlon Drilling and Expertest is the best in the business and they are recommended for future work.

## 7.0 – LINE PREPARARTION, SURVEYING, PERMITTING & ENVIRONMENT

### Introduction

Denham & O'Keeffe Earthmoving (DOK) was contracted to do the line preparation on the 2005 Mytilus Seismic Survey. Dynamic Satellite Surveys (DSS) was contracted to do the surveying. Line preparation started on April 23rd and was completed on May 27th, 2005. Both companies were sub-contracted through Terrex Seismic. DOK were contracted on an hourly rate basis and DSS were contracted on a turnkey rate.

Two camp locations were used (see 2.0 Logistics and the map in Fig. # 1-3).

The program was located in sand dune, floodplain, gibber and wetland terrain on Clifton Hills and Mungeranie Stations.

### Line Preparation

Denham and O'Keeffe provided a 2D version of their railway carriage camp. They had two train carriages in the camp plus their workshop trailer. DSS provided their own office van and a new sleeper van.

**Picture # 7- 1: the DOK and DSS camp**

The DOK crew list is as follows:

| Position Held | Name |
|---|---|
| Supervisor | Bill O'Keeffe |
| Dozer Operator | Gene Greenhalgh/Bill Anderson |
| Dozer Operator | Eric Ree/Selwyn Price |
| Grader Operator | John Talbot/Max Young |
| Offsider | Matt Thomas |
| Cook | Mark Gill |
| Mechanic | Kim Townsend/Matt Gower |

The following table details production in PEL 91.

## 7.0 – LINE PREPARARTION, SURVEYING, PERMITTING & ENVIRONMENT

**Table 7- 1: Line Preparation Statistics for DOK Earthmoving on the PEL 91 Mytilus SS**

| | |
|---|---|
| Start Date for Line Preparation | May 15th, 2005 |
| End Date for Line Preparation (dozing) | May 24th, 2005 |
| Total Kms Cleared | 185.775 km |
| Total Days (amortised @ 22 hrs/day) | 8.1 |
| Average Km/day | 22.93 |
| Total Full Rate Dozer Work/Walk/Float Hours | 178.5 |
| Average Km/Dozer Full Rate Hour | 1.04 |
| Total Dozer Standby Hours | 4.0 |
| Total Grader Work Hours | 116.0 |
| Total Grader Standby Hours | 3.0 |


**Picture # 7- 2: Bill O'Keeffe (left) talking to operator Bill Anderson**

Table 7-2 below details production in PEL 92:

**Table 7- 2: Line Preparation Statistics for DOK Earthmoving on the PEL 92 Mytilus SS**

| | |
|---|---|
| Start Date for Line Preparation | April 23rd, 2005 |
| End Date for Line Preparation (dozing) | May 30th, 2005 |
| Total Kms Cleared | 455.7375 km |
| Total Days (amortised @ 22 hrs/day) | 24.9 |
| Average Km/day | 18.3 |
| Total Full Rate Dozer Work/Walk/Float Hours | 546.75 |
| Average Km/Dozer Full Rate Hour | 0.83 |

**7.0 – LINE PREPARARTION, SURVEYING, PERMITTING & ENVIRONMENT**

| | |
|---|---|
| Total Dozer Standby Hours | 14.5 |
| Total Grader Work Hours | 304.5 |
| Total Grader Standby Hours | 18.0 |

From the two tables above it is clear that production in PEL 91 was greater than in PEL 92. The reason for this is that PEL 92 had some very long travel time to the western and north western areas and DOK were given permission to call excessive travel time work time.

**Picture # 7- 3: Bill O'Keeffe talking with DSS surveyor Shane MacDonald and operator Selwyn Price**

Operations

The surveyors mounted gps receivers on the dozers and loaded line coordinates into them, including any deviations specified by the WAC team. Note that the dozers did not operate on differential gps because that sort of accuracy was not required. The operator simply followed the line on the screen in front of him making appropriate detours and weaves to meet environmental requirements.

The allowable deviations to weave the line were +/- 20 metres. The dozer operators were encouraged to use all of this and, as a result, the weaving on most of this survey was excellent.

## 7.0 – LINE PREPARARTION, SURVEYING, PERMITTING & ENVIRONMENT

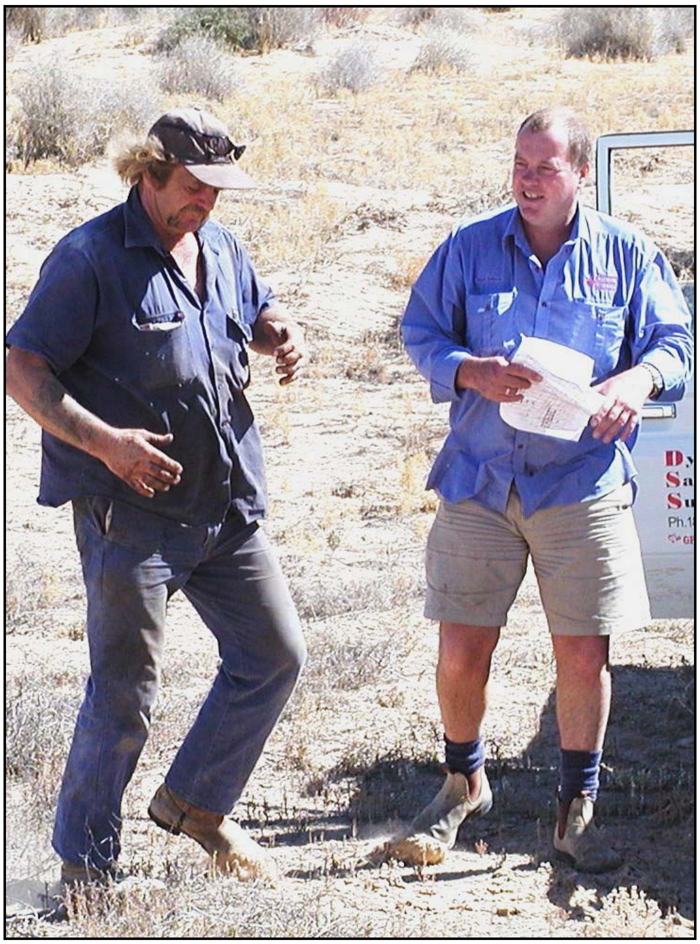
### Surveying

DSS had only three surveyors on their crew for this job. The contract was based on a turnkey rate.

DSS fielded an office/accommodation van and a new sleeper van

The DSS crew list is as follows:

| Position | Name |
|---|---|
| Head Surveyor | Mark Lefebvre |
| Surveyor | Shane McDonald/Dean Hausman |
| Surveyor | Frank Tangney/Ben Alsopp |



**Picture # 7- 4: DOK mechanic Kim Townsend and DSS surveyor Mark Lefebvre**

Annotated wooden pegs were used every 5th station on receiver lines with pink and blue pin flags in between. These pegs and pin flags were picked up by the recording back-crew and recycled.

## 7.0 – LINE PREPARARTION, SURVEYING, PERMITTING & ENVIRONMENT

Surveying was done using the RTDGPS method where a base station at a known point broadcasts continuous corrections to a roving unit. By this method, horizontal accuracy was down to cms.

One of the duties of the survey crew was to install Environmental Monitoring Points (EMPs). In this survey, four (4) EMP's were installed

**Picture # 7- 5: DSS surveyor Dean Hausmann pegging**

Photographs were taken in each of the line directions before line preparation and after recording. A separate "Environmental Report" has been written and this includes details on the EMPs. It is intended that revisits will be made at intervals of 1, 2 and 4 years after the operation to monitor the rehabilitation of the lines. The EMPs also served as permanent markers (PMs).

**7.0 – LINE PREPARARTION, SURVEYING, PERMITTING & ENVIRONMENT**

**Picture # 7- 6: Cat 12G grader**

Another duty of the surveyors was to photograph and register any cultural heritage sites not found during the cultural heritage clearance process. These are normally incorporated into an Environmental Report Form (ERF) prepared by the Line Pointer. There were no ERF's reported in the Mytilus Seismic Survey by the surveyors.

**7.0 – LINE PREPARARTION, SURVEYING, PERMITTING & ENVIRONMENT**

**Picture # 7- 7: DSS surveyor Dean Hausman with pegs and pinflags**

Summary

All but one of the DSS surveyors on this job lacked recent Cooper Basin experience and it was some time before they came to grips with all that was required. However, they are a professional group of people and by the end of the job were up to speed.

Permitting

The PEL 91 & 92 Mytilus Seismic Survey was located on Mungeranie Station to the south and Clifton Hills Station to the north. Travis Gilby from Clifton Hills was extremely generous in allowing us the use of his station tracks and waterholes along the Cooper. Rodney Fullarton from Mungeranie was equally generous in allowing us the use of water from Lycium Bore. However, there was a report long after the completion of the job that the drillers used some surface rainwater without asking permission.

**Picture # 7- 8: dozer on line BC05-10**

Environment

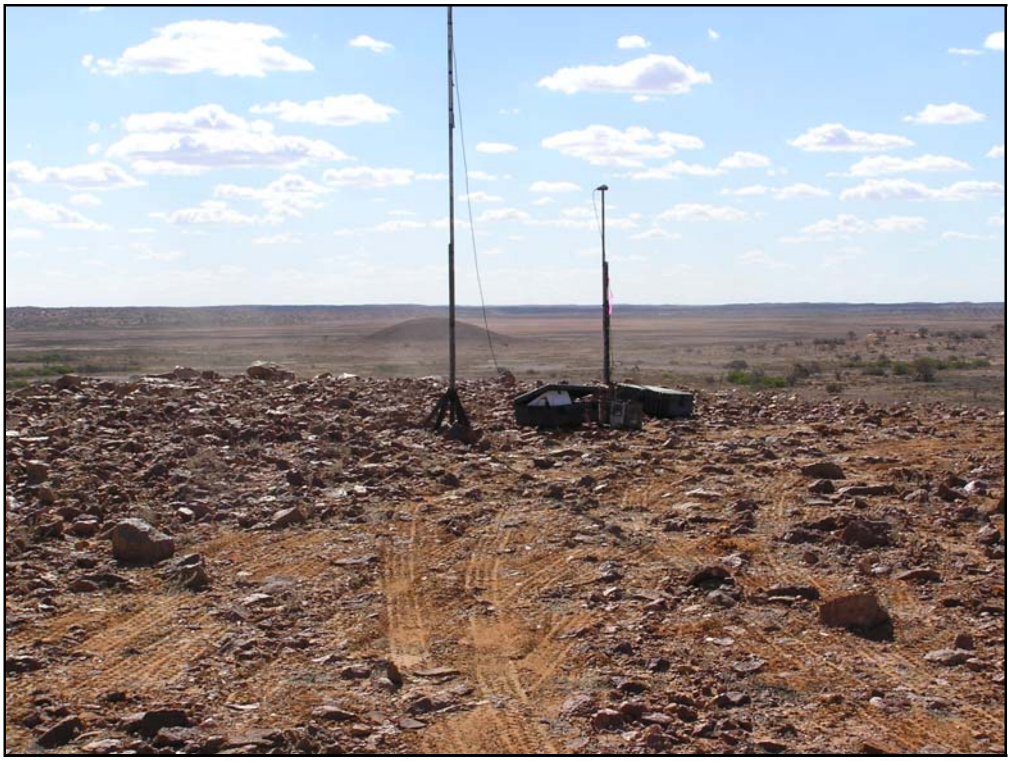
The terrain in the Mytilus Seismic Survey consisted mostly of sand dunes with a north-south orientation with an average height of 17 metres above the swales. The far northwest area around the proposed Boomer well site had some gibber terrain and some of the dune corridors on the western lines were also gibber. There was floodplain and wetland around the Cooper Creek.

DOK used proper line preparation techniques in all these terrain types.

Summary

The environmental aspect of the Mytilus Seismic Survey met accepted guidelines. DOK managed a reasonable rate of production considering the spread out nature of the program and the lack of access.

## 7.0 – LINE PREPARARTION, SURVEYING, PERMITTING & ENVIRONMENT



**Picture # 7- 9: DSS base station on a gibber jumpup in the Boomer area**

**Picture # 7- 10: Line BC05-28 stn# 407 looking east; line weaves into floodplain**

## 7.0 – LINE PREPARARTION, SURVEYING, PERMITTING & ENVIRONMENT

**Picture # 7- 11: line BC05-45; good weaving**

**Picture # 7- 12: line BC05-38; line weaves thru lignum and swamp cane-grass**

## 8.0 – SAFETY

Introduction

The HSE officer on the Terrex crew was Gary Hutchinson. The trainee HSE officer was Nicky Byrne.

The basic tenets of the HSE policy were:

- An induction meeting prior to the start of operations at which potential hazards were identified and discussed. Inductions by Terrex and Beach for all new crew members;
- Producing a site-specific safety plan including an Emergency Response Plan detailing the procedure to adopt in case of emergency;
- Daily toolbox meetings: these were held before departure in the mornings. They provided a forum for any safety or operational issues to be aired. These meetings were paid for by Beach at the standby rate;
- Weekly safety meetings: these were held on Sunday mornings and were more focused on purely safety issues. The HSE officer would review the week's safety performance and often include a first aid demonstration. The Crew Manager, Bird-dog and section heads added their views on crew safety performance and then comments from the various departments on the crew were invited.

All vehicles were equipped with first aid kits and fire extinguishers. About 30% of the crew were trained first aiders. Some of the safety related procedures introduced to the crew were:

- All vehicles were fitted with dune poles and warning flags;
- All vehicles had headlights on at all times when driving;
- Journey management procedures were instituted for all vehicles travelling outside the operational area;
- Supply truck drivers were given a mobile satellite telephone for communications;
- All crewmembers were required to wear long sleeve shirts and hats;
- All crewmembers were required to wear ankle-supporting lace-up boots;
- All line vehicles carried large containers of water and regular camp water runs were made when shortages were reported;
- All electrical cables in camp were buried to avoid tripping;
- Spotlights were placed around camp to illuminate the major traffic areas;

The Terrex QHSE end of contract report and safety meeting minutes were included in the Terrex report so will not be duplicated here. There were no LTI's on the job but there were two reportable incidents. Full details are in the Terrex report but, briefly, they were:

i. On 11-5-05 mechanic Ken Matthews suffered bruising to his thumb when it was caught in a leaf spring after a jack collapsed;

**8.0 – SAFETY**

ii. On 15-5-05 vibe tech Shane Goosens sprained an ankle after stepping in a hole on a late night toilet excursion.

Summary

HSE officers Gary Hutchinson and Nicky Byrne had a good rapport with the crewmembers. They tended to listen to his safety warnings and alerts. Furthermore, the crewmembers tended to participate in meetings and help disseminate safety information. It is a tribute to the whole crew that no serious accidents occurred.

**Picture # 8- 1: back juggy Kevin Mitchell wearing the proper PPE**

## 9.0 – REMARKS & RECOMMENDATIONS

1) The wide-spread nature of the program and the lack of access tracks made this a challenging job for Terrex Seismic. However, their crew # 102 handled the challenges in a safe and efficient manner.

2) Data quality appeared to be good in all parts of the program. The I/O AHV IV vibrators proved to be a good and reliable source. However, the tyres with their deep-lugged treads were inappropriate for the sandy terrain and 4% of the total time was taken with detours. This was particularly bad when the vibes had to go east to west up the steepest face of the dunes.


**Picture # 9- 1: the I/O AHV IV vibrator; large lugs on the tyres are inappropriate for sand**

3) Terrex Seismic management has been considering the purchase of sand tyres for these vibrators for some time. They have been hesitant due to the high costs involved and the difficulty of procurement. Now, months after the job has been completed, it appears that they have decided to do it, so the 2006 surveys should be considerably easier in this respect.

4) Two campsites were used by the Terrex main crew for this job. The dozer crew used two campsites and the drillers used three campsites.

## 9.0 – REMARKS & RECOMMENDATIONS

**Picture # 9- 2: the Terrex main camp near the intersection of the Christies road and the River road.**

5) The line preparation operation went smoothly but the production rate in PEL 92 was affected by the long travel and lack of access. DOK have now been sold to Terrex Contracting but the personnel are the same. They are recommended for future work.

6) The DSS personnel list for this job was short on Cooper Basin experience due to a concurrent job running in WA. Some mistakes were made. However, by the end of the job they were all up to speed. DSS are recommended for future contracts.

7) Scanlon Drilling got off to a horror start with 4 days of downtime but recovered well to end up doing a splendid job. The 16.14 metres/drill hour was low due to the difficult access in that area while the 22.04 metres/drill hr in PEL 92 was due to the more benign dunes in the southern area. Scanlon Drilling is recommended for future work.

8) Expertest's Mark Smale continues to produces data of the highest quality. Expertest (and Mark Smale) is recommended for future work.

9) Terrex Seismic's Crew Managers, Mark Kneipp and Jon Turner, are excellent crew managers and were a pleasure to deal with. They both adopt an attitude of respect towards crewmembers who sense this and reward it by returned respect and hard, cheerful work. The atmosphere on the crew was the best of any I have worked on.

## 9.0 – REMARKS & RECOMMENDATIONS

**Picture # 8- 1; the Scanlon drilling rig being pulled out of a mild bog by the water truck on line BC05-45**

10) Mark Kneipp at 24 is the youngest crew manager in Australian seismic history. But he is such an exceptionally talented young man that it is no surprise. He can fix anything from a bull dozer to a computer and has an IQ of about 190 but is very humble about it.

11) Crewmembers appreciated the visit by Danny Burns on June 7th. They particularly appreciated the gift of torches to each person. Shane Goosens reckons that he would not have had his midnight accident if he had his Beach torch. It was a great present.

12) There were no LTI's on this job. I believe that this was in part due to the excellent work of the HSE officers Gary Hutchinson and Nicky Byrne but also the excellent atmosphere of cooperation and mutual support that pervaded the crew.

13) In summary, the 2005 Mytilus Seismic Survey went well in all departments.

Bruce Beer
Beach Representative

# APPENDIX I
# RECORDING PRODUCTION STATISTICS

## RECORDING PRODUCTION by Terrex Seismic on Beach Petroleum Limited's 2005 MYTILUS Seismic Survey

Note: this is a turnekey contract

| | Line Details | | | | | | | Charge Kms | | Hours | | | | | | | | | Charge Hrs | | | | | Comme |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date | Area | Line | First Stn | Last Stn | # Stns | # VPs | # Skips | Line Kms | **Total Daily Km** | Record | Line Move | Rec Move | Detours | Wait on Spread | Experimental | Tests, QC & Other | Layout & Pickup | Travel | Additional Charge Hrs | Standby/Client weather, etc | Standby Toolbox | Downtime | Total Hours for Day | Comm |
| May | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | PEL92 | | | | | | | | | | | | | | | | | | | | | | | crew travels Jackson-Inna |
| 7 | " | | | | | | | | | | | | | | | | | | | | | | | crew arrives PEL 92-set u |
| 8 | " | BC05-30 | 517 | 383 | 134 | 384 | | 5.0250 | **5.0250** | 1.8 | | | | | 0.4 | | 5.3 | 0.3 | | | 0.8 | **3.7** | 12.3 | l/o spread; wirelines; start |
| 9 | " | BC05-30 | 383 | 200 | 183 | 183 | | 6.8625 | **19.0125** | 6.0 | 0.8 | 1.9 | 1.3 | | | 1.1 | | 1.1 | | | 0.3 | | 12.5 | vibes having trouble with c |
| | " | BC05-01 | 625 | 301 | 324 | 324 | 1 | 12.1500 | | | | | | | | | | | | | | | | |
| 10 | " | BC05-01 | 301 | 200 | 101 | 99 | 2 | 3.7875 | **23.2125** | 7.0 | 1.1 | | 1.0 | | | 1.0 | | 1.4 | | | 0.3 | **0.3** | 12.1 | down for vibes |
| | " | BC05-02 | 548 | 200 | 348 | 349 | | 13.0500 | | | | | | | | | | | | | | | | |
| | " | BC05-03 | 200 | 370 | 170 | 171 | | 6.3750 | | | | | | | | | | | | | | | | |
| 11 | " | BC05-03 | 370 | 840 | 470 | 470 | | 17.6250 | **24.5625** | 7.3 | 2.1 | 0.7 | | | | 0.9 | | 0.7 | | | 0.3 | | 12.0 | |
| | " | BC05-08 | 385 | 200 | 185 | 184 | 2 | 6.9375 | | | | | | | | | | | | | | | | |
| 12 | " | BC05-25 | 200 | 466 | 266 | 258 | 9 | 9.9750 | **19.9500** | 6.0 | 1.9 | | | | | 2.3 | | 0.9 | | | 0.3 | **0.6** | 12.0 | crew change - 4 short; dw |
| | " | BC05-26 | 466 | 200 | 266 | 266 | 1 | 9.9750 | | | | | | | | | | | | | | | | |
| 13 | " | BC05-05 | 396 | 200 | 196 | 192 | 9 | 7.3500 | **20.9250** | 6.6 | 1.2 | | 1.8 | | | 1.3 | | 1.0 | | | 0.3 | | 12.2 | vibs have trouble with dun |
| | " | BC05-06 | 200 | 419 | 219 | 219 | 1 | 8.2125 | | | | | | | | | | | | | | | | |
| | " | BC05-07 | 426 | 283 | 143 | 139 | 5 | 5.3625 | | | | | | | | | | | | | | | | |
| 14 | " | BC05-07 | 283 | 200 | 83 | 81 | 2 | 3.1125 | **22.3125** | 6.5 | 1.2 | 0.8 | 2.5 | | | 0.4 | | 0.7 | | | 0.3 | | 12.4 | detours for dunes |
| | " | BC05-04 | 494 | 200 | 294 | 295 | | 11.0250 | | | | | | | | | | | | | | | | |
| | " | BC05-23 | 200 | 418 | 218 | 215 | 4 | 8.1750 | | | | | | | | | | | | | | | | |
| 15 | " | BC05-23 | 418 | 599 | 181 | 181 | | 6.7875 | **25.0875** | 7.6 | 1.6 | | 0.2 | | | 1.9 | | 0.4 | | | 0.3 | **0.3** | 12.3 | weekly safety meeting hel |
| | " | BC05-22 | 546 | 200 | 346 | 347 | | 12.9750 | | | | | | | | | | | | | | | | |
| | " | BC05-31 | 200 | 342 | 142 | 143 | | 5.3250 | | | | | | | | | | | | | | | | |

## RECORDING PRODUCTION by Terrex Seismic on Beach Petroleum Limited's 2005 MYTILUS Seismic Survey

Note: this is a turnkey contract

| | Line Details | | | | | | | Charge Kms | | Hours | | | | | | | | | Charge Hrs | | | | | Comme |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date | Area | Line | First Stn | Last Stn | # Stns | # VPs | # Skips | Line Kms | **Total Daily Km** | Record | Line Move | Rec Move | Detours | Wait on Spread | Experimental | Tests, QC & Other | Layout & Pickup | Travel | Additional Charge Hrs | Standby/Client weather, etc | Standby Toolbox | Downtime | Total Hours for Day | Comm |
| 16 | " | BC05-31 | 342 | 518 | 176 | 167 | 9 | 6.6000 | **23.5875** | 7.0 | 1.5 | 1.4 | 0.5 | | | 0.5 | | 0.7 | | | 0.3 | | 11.9 | |
| | " | BC05-29 | 200 | 653 | 453 | 454 | | 16.9875 | | | | | | | | | | | | | | | | |
| 17 | " | BC05-09 | 628 | 200 | 428 | 419 | 10 | 16.0500 | **22.6875** | 7.1 | 0.4 | 2.1 | 0.7 | | | 0.8 | | 1.0 | | | 0.3 | | 12.4 | |
| | " | BC05-10 | 200 | 377 | 177 | 178 | | 6.6375 | | | | | | | | | | | | | | | | |
| 18 | " | BC05-10 | 377 | 685 | 308 | 306 | 2 | 11.5500 | **21.5625** | 6.8 | 0.7 | 1.2 | 1.5 | | | 1.2 | | 1.0 | | | 0.3 | | 12.7 | vibes had trouble with dun |
| | " | BC05-12 | 726 | 459 | 267 | 261 | 7 | 10.0125 | | | | | | | | | | | | | | | | |
| 19 | " | BC05-12 | 459 | 200 | 259 | 258 | 1 | 9.7125 | **19.7625** | 6.2 | 0.8 | 0.7 | 0.6 | | | 2.4 | | 1.1 | | | 0.3 | | 12.1 | crew change day |
| | " | BC05-11 | 200 | 468 | 268 | 267 | 2 | 10.0500 | | | | | | | | | | | | | | | | |
| 20 | " | BC05-13 | 200 | 665 | 465 | 414 | 51 | 17.4375 | **17.4375** | 4.8 | 2.0 | 0.7 | 0.4 | | | 2.2 | | 1.4 | | | 0.3 | | 11.8 | det salt lake; go to 204 live |
| 21 | " | BC05-14 | 638 | 200 | 438 | 422 | 17 | 16.4250 | **21.7500** | 6.9 | 0.8 | 1.0 | 0.7 | | | 0.7 | | 1.5 | | | 0.3 | | 11.9 | |
| | " | BC05-17 | 597 | 455 | 142 | 143 | | 5.3250 | | | | | | | | | | | | | | | | |
| 22 | " | BC05-17 | 455 | 200 | 255 | 255 | | 9.5625 | **23.0625** | 6.8 | 0.6 | 0.8 | | | | 1.5 | | 1.5 | 0.3 | | 0.3 | | 11.8 | additional chg for excess t |
| | " | BC05-16 | 200 | 560 | 360 | 361 | | 13.5000 | | | | | | | | | | | | | | | | |
| 23 | " | BC05-16 | 561 | 713 | 152 | 152 | | 5.7000 | **17.9250** | 5.4 | 1.6 | | 0.8 | | | 2.1 | | 1.5 | 0.5 | | 0.3 | | 12.2 | additional chg for excess t |
| | | BC05-19 | 460 | 200 | 260 | 258 | 3 | 9.7500 | | | | | | | | | | | | | | | | |
| | | BC05-18 | 200 | 266 | 66 | 67 | | 2.4750 | | | | | | | | | | | | | | | | |
| 24 | " | BC05-18 | 266 | 453 | 187 | 187 | | 7.0125 | **20.0625** | 5.9 | 2.7 | | 0.3 | | | 0.6 | | 1.5 | 0.9 | | 0.3 | | 12.2 | additional chg for excess t |
| | | BC05-21 | 420 | 200 | 220 | 218 | 3 | 8.2500 | | | | | | | | | | | | | | | | |
| | | BC05-20 | 200 | 328 | 128 | 129 | | 4.8000 | | | | | | | | | | | | | | | | |
| 25 | " | BC05-20 | 328 | 422 | 94 | 94 | | 3.5250 | **11.5125** | 3.6 | 1.2 | | | | | 0.7 | | 1.5 | 1.3 | | 0.3 | 3.2 | 11.8 | dwn for r/t generator probl |
| | | BC05-15 | 200 | 413 | 213 | 214 | | 7.9875 | | | | | | | | | | | | | | | | |
| 26 | " | BC05-15 | 413 | 709 | 296 | 294 | 2 | 11.1000 | **11.1000** | 3.0 | | 0.7 | | | | 0.3 | | 0.8 | 0.4 | | 0.3 | | 5.5 | salt lake skips on line 45 |

**RECORDING PRODUCTION by Terrex Seismic on Beach Petroleum Limited's 2005 MYTILUS Seismic Survey**

Note: this is a turnekey contract

| | Line Details | | | | | | | Charge Kms | | Hours | | | | | | | | | Charge Hrs | | | | | Comme |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date | Area | Line | First Stn | Last Stn | # Stns | # VPs | # Skips | Line Kms | **Total Daily Km** | Record | Line Move | Rec Move | Detours | Wait on Spread | Experimental | Tests, QC & Other | Layout & Pickup | Travel | Additional Charge Hrs | Standby/Client weather, etc | Standby Toolbox | Downtime | Total Hours for Day | Comm |
| | PEL91 | BC05-45 | 200 | 490 | 290 | 236 | 55 | 10.8750 | **10.8750** | 3.0 | 1.2 | | 0.7 | | | 0.3 | | 0.7 | 0.3 | | | | 6.2 | go to 204 live from VP # 2 |
| 27 | " | BC05-45 | 490 | 738 | 248 | 246 | 2 | 9.3000 | **20.5500** | 6.2 | 1.0 | 1.6 | 0.4 | | | 0.8 | | 1.4 | | | 0.3 | | 11.7 | continue 204 live till VP# 5 |
| | " | BC05-44 | 550 | 250 | 300 | 301 | | 11.2500 | | | | | | | | | | | | | | | | |
| 28 | " | BC05-44 | 250 | 200 | 50 | 49 | 1 | 1.8750 | **22.9500** | 6.6 | 0.9 | 1.1 | 0.3 | | | 1.2 | | 1.1 | | | 0.3 | | 11.5 | |
| | " | BC05-39 | 946 | 384 | 562 | 560 | 3 | 21.0750 | | | | | | | | | | | | | | | | |
| 29 | " | BC05-39 | 384 | 200 | 184 | 172 | 12 | 6.9000 | **23.9625** | 7.6 | 1.7 | | 0.5 | | | 1.1 | | 0.9 | | | 0.3 | | 12.1 | weekly safety meeting |
| | " | BC05-38 | 200 | 655 | 455 | 451 | 5 | 17.0625 | | | | | | | | | | | | | | | | 7 skips for salt lake ln 39 |
| 30 | " | BC05-40 | 479 | 200 | 279 | 277 | 3 | 10.4625 | **23.5875** | 7.0 | 1.4 | 0.6 | 1.0 | | | 0.9 | | 0.9 | | | 0.3 | | 12.1 | skip vp#373-387 on ln 41 |
| | | BC05-41 | 200 | 550 | 350 | 334 | 17 | 13.1250 | | | | | | | | | | | | | | | | |
| 31 | " | BC05-41 | 550 | 651 | 101 | 101 | | 3.7875 | **16.5750** | 5.2 | 0.7 | 0.7 | 0.1 | | | 0.3 | | 1.2 | | | 0.3 | **3.7** | 12.2 | dwn due system probs in |
| | | BC05-42 | 595 | 254 | 341 | 342 | | 12.7875 | | | | | | | | | | | | | | | | |
| June | " | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | " | BC05-42 | 254 | 200 | 54 | 53 | 1 | 2.0250 | **23.5125** | 6.8 | 2.0 | | 0.2 | | | 1.2 | | 1.1 | | | 0.3 | | 11.6 | |
| | | BC05-43 | 200 | 594 | 394 | 394 | 1 | 14.7750 | | | | | | | | | | | | | | | | |
| | | BC05-46 | 679 | 500 | 179 | 180 | | 6.7125 | | | | | | | | | | | | | | | | |
| 2 | " | BC05-46 | 500 | 200 | 300 | 299 | 1 | 11.2500 | **24.2625** | 6.8 | 2.3 | | 0.2 | 0.9 | | 0.3 | | 0.6 | | | 0.3 | | 11.4 | wos due crew change. |
| | " | BC05-37 | 200 | 547 | 347 | 347 | 1 | 13.0125 | | | | | | | | | | | | | | | | |
| 3 | " | BC05-47 | 543 | 200 | 343 | 341 | 3 | 12.8625 | **19.5000** | 6.0 | 0.7 | | 0.1 | | | 1.8 | | 0.4 | | | 0.3 | **0.4** | 9.7 | dwn for vib prob |
| | " | BC05-32 | 553 | 376 | 177 | 178 | | 6.6375 | | | | | | | | | | | | | | | | line BC05-32 split betwee |
| | PEL92 | BC05-32 | 376 | 249 | 127 | 127 | | 4.7625 | **4.7625** | 1.5 | | | | | | | | | | | | | 1.5 | |
| 4 | " | BC05-32 | 249 | 200 | 49 | 49 | | 1.8375 | **22.9500** | 7.0 | 1.6 | | | | | 1.6 | | 0.8 | | | 0.3 | **0.1** | 11.4 | |
| | " | BC05-24 | 200 | 367 | 167 | 168 | | 6.2625 | | | | | | | | | | | | | | | | |

## RECORDING PRODUCTION by Terrex Seismic on Beach Petroleum Limited's 2005 MYTILUS Seismic Survey

Note: this is a turnkey contract

| | Line Details | | | | | | | Charge Kms | | Hours | | | | | | | | | Charge Hrs | | | | | Comm |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date | Area | Line | First Stn | Last Stn | # Stns | # VPs | # Skips | Line Kms | **Total Daily Km** | Record | Line Move | Rec Move | Detours | Wait on Spread | Experimental | Tests, QC & Other | Layout & Pickup | Travel | Additional Charge Hrs | Standby/Client weather, etc | Standby Toolbox | Downtime | Total Hours for Day | Comm |
| | " | BC05-33 | 361 | 200 | 161 | 162 | | 6.0375 | | | | | | | | | | | | | | | | |
| | " | BC05-28 | 200 | 435 | 235 | 233 | 3 | 8.8125 | | | | | | | | | | | | | | | | |
| 5 | " | BC05-28 | 435 | 521 | 86 | 86 | | 3.2250 | **23.9250** | 7.1 | 1.6 | 0.7 | 0.6 | | | 0.8 | | 0.6 | | | 0.3 | | 11.7 | |
| | " | BC05-27 | 613 | 200 | 413 | 407 | 7 | 15.4875 | | | | | | | | | | | | | | | | |
| | " | BC05-35 | 627 | 488 | 139 | 140 | | 5.2125 | | | | | | | | | | | | | | | | |
| 6 | " | BC05-35 | 488 | 200 | 288 | 287 | 1 | 10.8000 | **27.3750** | 8.3 | 1.0 | | | | | 0.7 | | 1.0 | | | 0.3 | | 11.3 | |
| | | BC05-36 | 200 | 468 | 268 | 269 | | 10.0500 | | | | | | | | | | | | | | | | |
| | | BC05-34 | 539 | 365 | 174 | 174 | 1 | 6.5250 | | | | | | | | | | | | | | | | |
| 7 | | BC05-34 | 365 | 200 | 165 | 164 | 1 | 6.1875 | **6.1875** | 2.3 | | | | | | 0.6 | 2.6 | 1.2 | | | 0.3 | | 7.0 | complete Mytilus SS; pick |
| Overall Totals | | | | | 17107 | 17145 | 261 | 641.5125 | **641.5125** | 193.7 | 38.3 | 16.7 | 16.4 | 0.9 | 0.4 | 33.5 | 7.9 | 31.9 | 3.7 | | 9.8 | 12.3 | 365.5 | |
| Sub Total PEL 92 | | | | | 12153 | 12284 | 156 | 455.7375 | 455.7375 | 138.5 | 26.4 | 12.7 | 12.9 | | 0.4 | 25.6 | 7.9 | 23.6 | 3.4 | | 7.4 | 8.2 | 267.0 | |
| Sub Total PEL 91 | | | | | 4954 | 4861 | 105 | 185.7750 | 185.7750 | 55.2 | 11.9 | 4.0 | 3.5 | 0.9 | | 7.9 | | 8.3 | 0.3 | | 2.4 | 4.1 | 98.5 | |

| | |
|---|---|
| Average Km/Rec Hr = | 3.3119 |
| Average Km/Total Hr = | 1.7552 |
| Total Km in Beach Mytilus Program = | 641.5125 |
| Total Km in PEL 91 = | 185.7750 |
| Total Km in PEL 92 = | 455.7375 |

BEACH PETRLEUM LIMITED'S 2005 MYTILUS SEISMIC SURVEY

# APPENDIX II

# UPHOLE DRILLING PRODUCTION

## Production for *SCANLON DRILLING Co.* , on Beach Petroleum's 2005 MYTILUS Seismic Survey

| | | Line Details | | | Drill Hours | | | | | Consumables | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date | Prospect | Lines | # Holes | Metres | Work | Stby | Charge | Travel | Down | 43/4 Regular | 5 1/8" Blades | TCI Bit | Bio-Vis (drums) | AquaPol | Hi-Seal (bags) | Commen |
| May | | | | | | | | | | | | | | | | |
| 23 | | | | | | | | | | | | | | | | Scanlon Drilling & Expe |
| 24 | PEL 91 | BC05-39,44 | 3 | 96 | 7.50 | | 7.50 | | | 1 | 1 | | 1 | | | start drilling in PEL 91 |
| 25 | " | BC05-39,45 | 6 | 174 | 11.50 | | 11.50 | | | 1 | | | 1.5 | | | |
| 26 | " | BC05-40 | 5 | 158 | 10.00 | | 10.00 | | 3.00 | 1 | | | 1.5 | | | |
| 27 | " | - | 0 | 0 | | | 0.00 | | 10.00 | | | | | | | rig dwn; transfer box pro |
| 28 | " | | 0 | 0 | | | 0.00 | | 10.00 | | | | | | | rig dwn; transfer box pro |
| 29 | " | | 0 | 0 | | | 0.00 | | 10.00 | | | | | | | rig dwn; transfer box pro |
| 30 | " | | 0 | 0 | | | 0.00 | | 10.00 | | | | | | | rig dwn; transfer box pro |
| 31 | " | BC05-41,44 | 4 | 124 | 8.00 | | 8.00 | | 5.50 | 1 | | | 1 | | | repairs in morning; work |
| June | " | | | | | | 0.00 | | | | | | | | | |
| 1 | " | BC05-41,45 | 5 | 178 | 12.00 | | 12.00 | | | 1 | | | 1.5 | | | |
| 2 | " | BC05-41,45 | 3 | 138 | 10.75 | | 10.75 | 1.25 | | | | | 1.5 | | | |
| 3 | " | BC05-41,42,43 | 6 | 216 | 12.00 | | 12.00 | 1.25 | | 1 | | | 2 | | | |
| 4 | " | BC05-43,45 | 6 | 212 | 12.00 | | 12.00 | 1.50 | | | | | 1 | 2 | | |
| 5 | " | BC05-43,44 | 6 | 198 | 12.00 | | 12.00 | 1.25 | | 1 | | | 1 | 2 | | |
| 6 | " | BC05-42,44 | 5 | 170 | 11.00 | | 11.00 | 1.75 | | 1 | | | 1 | 1 | | |
| 7 | " | BC05-39,46 | 6 | 180 | 12.50 | | 12.50 | 0.50 | | | | | 1 | 2 | | |
| 8 | " | BC05-38,39,45 | 6 | 198 | 12.00 | | 12.00 | 1.50 | | 1 | | | 1 | 1 | | |
| 9 | " | BC05-38,39,45 | 5 | 176 | 12.00 | | 12.00 | 0.75 | | | | | 1 | 1.5 | | |
| 10 | " | BC05-39,46 | 6 | 168 | 11.50 | | 11.50 | 0.25 | | 1 | | | 2 | | | |
| 11 | " | - | 0 | 0 | | 10.00 | 10.00 | | | | | | | | | standby due to rain |
| 12 | " | - | 0 | 0 | | 10.00 | 10.00 | | | | | | | | | standby due to rain |
| 13 | " | BC05-37,46 | 8 | 242 | 13.00 | | 13.00 | 0.50 | | 1 | | | 2 | | | a big day |
| 14 | " | BC05-37,46,47 | 7 | 238 | 12.75 | | 12.75 | 0.50 | | | | | 2 | | | another good day |
| 15 | " | BC05-32,46,47 | 8 | 254 | 13.00 | | 13.00 | 0.25 | | 1 | | | 2 | | | |
| 16 | " | BC05-32 | 1 | 28 | 1.50 | | 1.50 | | | | | | | | | last hole in PEL 91 |
| | | Sub Total PEL 91 | 96 | 3148 | 195.00 | 20.00 | 215.00 | 11.25 | 48.50 | 12 | 1 | 0 | 24 | 9.5 | 0 | |
| | PEL 92 | BC05-24,28,32 | 7 | 208 | 11.00 | | 11.00 | 0.75 | | | | | 2 | | | first holes in PEL 92 |
| 17 | " | BC05-24,27,28,33 | 8 | 248 | 12.50 | | 12.50 | 0.75 | | | | | 2 | | | |
| 18 | " | BC05-27,32,33 | 5 | 140 | 8.00 | 2.00 | 10.00 | 0.25 | | 1 | | | 1.5 | | | stby in afternoon due to |

## Production for *SCANLON DRILLING Co.* , on Beach Petroleum's 2005 MYTILUS Seismic Survey

| | | Line Details | | | Drill Hours | | | | | Consumables | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date | Prospect | Lines | # Holes | Metres | Work | Stby | Charge | Travel | Down | 43/4 Regular | 5 1/8" Blades | TCI Bit | Bio-Vis (drums) | AquaPol | Hi-Seal (bags) | Commer |
| 19 | " | | 0 | | | 10.00 | 10.00 | | | | | | | | | stby due to wet conditio |
| 20 | " | BC05-24.27 | 6 | 186 | 11.50 | | 11.50 | 0.75 | | | | | 1.5 | | | |
| 21 | " | BC05-27,35 | 8 | 234 | 12.25 | | 12.25 | 1.25 | | 1 | | | 2 | | | |
| 22 | " | BC05-15,35 | 6 | 234 | 11.75 | | 11.75 | 2.00 | | 1 | | 1 | 1.5 | | | use rock bit # QMCTAB |
| 23 | " | BC05-15, 16 | 5 | 230 | 9.25 | | 9.25 | 3.00 | | | 1 | | 1.5 | | | Driller, R St Jack - OUT |
| 24 | " | BC05-15, 18, 20 | 6 | 228 | 12.00 | | 12.00 | 2.00 | | | | | 2 | | | G Scanlon - IN |
| 25 | " | BC05-20 | 3 | 174 | 10.50 | | 10.50 | 2.00 | | 1 | | | 1.5 | | | **Camp move 3 hours.** |
| 26 | " | BC05-19, 20 | 4 | 280 | 11.50 | 0.25 | 11.75 | 2.00 | | 1 | | | 2 | | | Scanlon report details, ( |
| 27 | " | BC05-18, 21 | 5 | 296 | 11.50 | | 11.50 | 2.00 | | 1 | 1 | | 2 | | | |
| 28 | " | BC05-18, 19, 21 | 6 | 366 | 11.25 | | 11.25 | 2.00 | | | | | 2 | | | |
| 29 | " | BC05-19, 21 | 4 | 296 | 11.50 | | 11.50 | 2.00 | | 1 | | | 1 | 1 | | |
| 30 | " | BC05-19, 21, 20 | 3 | 252 | 11.75 | | 11.75 | 1.75 | | | | | 1 | | | BC05-20/332,water bore |
| Jul | | | | | | | | | | | | | | | | |
| 1 | " | BC05-14, 16, 17 | 7 | 334 | 11.50 | | 11.50 | 1.50 | | 1 | | | 2 | | | |
| 2 | " | BC05-17, 16, 13 | 7 | 316 | 11.75 | | 11.75 | 1.25 | | 1 | | | 2 | | | |
| 3 | " | BC05-13 | 8 | 314 | 12.25 | 0.25 | 12.25 | 0.75 | | | 1 | | 2 | 1 | | ToolBox meeting 0.25hr |
| 4 | " | BC05-14 | 6 | 264 | 11.75 | | 11.75 | 0.75 | | 1 | | | 2 | 1 | | |
| 5 | " | BC05,17, 12, 16 | 8 | 368 | 12.25 | | 12.25 | 1.25 | | | | | 2 | 1 | | |
| 6 | " | BC05-11 | 6 | 282 | 12.00 | | 12.00 | 1.25 | | 1 | | | 2 | | | |
| 7 | " | BC05-11 | 2 | 80 | 7.00 | 2.00 | 10.00 | 1.00 | | 1 | | | 1 | | | Early shutdown for rain |
| 8 | " | | 0 | 0 | 0.00 | 10.00 | 10.00 | | | | | | | | | Terrain too wet to work. |
| 9 | " | | 0 | 0 | 0.00 | 10.00 | 10.00 | | | | | | | | | Terrain too wet to work |
| 10 | " | BC05-12 | 6 | 240 | 12.25 | | 12.25 | 1.25 | | 2 | | | 1.5 | | | Moved UH#91 27m we: |
| 11 | " | BC05-10 | 7 | 257 | 12.50 | | 12.50 | 0.75 | | 1 | | | 1.5 | | | |
| 12 | " | BC05-10 | 3 | 186 | 12.50 | | 12.50 | 1.25 | | | | | 1 | | | hole#69 drilled to 100m |
| 13 | " | BC05-17,10,16,09 | 6 | 300 | 12.25 | | 12.25 | 1.00 | | | | | 2 | | | |
| 14 | " | BC05-09 | 8 | 320 | 12.50 | | 12.50 | 0.75 | | 1 | | | 2 | | | |
| 15 | " | BC05-09, 35, 36 | 7 | 238 | 12.00 | | 12.00 | 0.75 | | 1 | | | 1 | | | |
| 16 | " | BC05-36,34 | 8 | 272 | 13.00 | | 13.00 | 0.50 | | 1 | | | 2 | | | |
| 17 | " | BC05-34,36,35,26 | 7 | 238 | 12.75 | | 12.75 | 0.50 | | 1 | 1 | | 2 | | | |
| 18 | " | BC05-35,34 | 7 | 244 | 12.50 | | 12.50 | 0.50 | | | | | 1.5 | | | |
| 19 | " | BC05-35,04,07,03 | 7 | 286 | 12.50 | | 12.50 | 0.75 | | 1 | | | 2 | | | |

## Production for *SCANLON DRILLING Co.* , on Beach Petroleum's 2005 MYTILUS Seismic Survey

| | | Line Details | | | Drill Hours | | | | | Consumables | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date | Prospect | Lines | # Holes | Metres | Work | Stby | Charge | Travel | Down | 43/4 Regular | 5 1/8" Blades | TCI Bit | Bio-Vis (drums) | AquaPol | Hi-Seal (bags) | Commei |
| 20 | " | BC05-04, 05, 23 | 7 | 292 | 12.25 | | 12.25 | 1.00 | | | 1 | | 2 | | | |
| 21 | " | BC05-04, 04, 06 | 7 | 262 | 12.50 | | 12.50 | 1.00 | | 2 | | | 1.5 | | | W.Middleton-OUT. T.Jc |
| 22 | " | BC05-03, 23 | 8 | 284 | 12.00 | | 12.00 | 1.25 | | 1 | | | 2 | | | |
| 23 | PEL-92 | BC05-5, 6, 8, 23 | 4 | 202 | 11.50 | | 11.50 | 0.75 | | 1 | | | 1.5 | | | UH# 92A BC05-23/320 |
| 24 | " | BC05-05, 06, 07, 29 | 7 | 262 | 12.50 | | 12.50 | 1.00 | | 2 | | | 2 | | | |
| 25 | PEL92 | BC05-26 & 30 | 8 | 280 | 12.50 | | 12.50 | 0.75 | | 1 | | | 2 | | | Camp move in morning |
| 26 | " | BC05-25, 26, 30 | 8 | 272 | 12.75 | | 12.75 | 0.50 | | | 1 | | 2 | | | |
| 27 | " | BC05-23, 25, 29 | 8 | 296 | 12.50 | | 12.50 | 0.50 | | 1 | | | 2 | | | |
| 28 | " | BC05-23, 30 | 8 | 272 | 12.75 | | 12.75 | 0.50 | | 1 | | | 2 | | | B. Andrew out; Greg Sc |
| 29 | " | BC05-22,30,31 | 8 | 272 | 12.50 | | 12.50 | 0.50 | | 1 | | | 2 | | | |
| 30 | " | BC05-02,03,30 | 8 | 284 | 12.75 | | 12.75 | 0.75 | | 1 | | | 2 | | | |
| 31 | " | BC05-01,02 | 7 | 274 | 12.00 | | 12.00 | 1.00 | | 1 | | | 2 | | | |
| Aug | " | | | | | | 0.00 | | | | | | | | | |
| 1 | " | BC05-01,02,03,22 | 8 | 314 | 12.50 | | 12.50 | 0.75 | | 1 | | | 2 | | | |
| 2 | " | BC05-01,29,31 | 8 | 272 | 12.75 | | 12.75 | 0.50 | | | | | 2 | | | |
| 3 | " | BC05-22,29,31 | 8 | 278 | 12.50 | | 12.50 | 0.50 | | 2 | | | 2 | | | |
| 4 | " | BC05-22 | 2 | 68 | 3.00 | | 3.00 | 0.50 | | | | | 0.5 | | | complete Beach uphole |
| Sub Total PEL 92 | | | 300 | 12095 | 548.75 | 34.50 | 584.00 | 50.00 | 0.00 | 35 | 6 | 1 | 82.5 | 4 | 0 | |

| PEL 91 | |
|---|---|
| Average Depth of Hole = | 32.79 |
| Average Metres/Chg Hr = | 14.64 |
| Metres/Drill Hour = | 16.14 |
| Total Holes Drilled in PEL 91 = | 96 |
| Total days to Drill in PEL 91 (excl down & stby) | 18 |
| Average Holes per drill day = | 5.3 |

| PEL 92 | |
|---|---|
| Average Depth of Hole in PEL 92 = | 40.317 |
| Average Metres/Charge Hr = | 20.711 |
| Average Metres/Drill Hr in PEL 92 = | 22.041 |
| Total Holes Drilled in PEL 92 = | 300 |
| Total Drill Days in PEL 92 (excl down and stby) = | 47 |
| Average Holes/Drill Day = | 6.38 |

# APPENDIX III

## EXPERTEST UPHOLE LOGGING STATISTICS

## Production for EXPERTEST on Beach Petroleum's 2005 MYTILUS Seismic Survey

| Date | Area | Line | **Hole #** | Stn# | Depth Logged | Wx Depth | Total Holes for Day | Hours: Work days | Hours: Stand by | Hours: Travel | Hours: Down | Hours: Total | Km Travelled per day | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 23-May | | | | | | | | | | | | | | arrive on site; induction by B. Beer 1 hr |
| 24-May | PEL 91 | BC05-39 | **323** | | 34 | 5 | 3 | 1.00 | | | | | 12 | start logging |
| 24-May | PEL 91 | BC05-44 | **364** | | 34 | 8 | | | | | | | | |
| 24-May | PEL 91 | BC05-44 | **365** | | 28 | 4 | | | | | | | | |
| 25-May | PEL 91 | BC05-39 | **318** | | 28 | 6 | 6 | 1.00 | | | | | 25 | |
| 25-May | PEL 91 | BC05-39 | **319** | | 28 | 7 | | | | | | | | |
| 25-May | PEL 91 | BC05-39 | **320** | | 28 | 2 | | | | | | | | |
| 25-May | PEL 91 | BC05-39 | **321** | | 34 | 18 | | | | | | | | |
| 25-May | PEL 91 | BC05-39 | **322** | | 28 | 8 | | | | | | | | |
| 25-May | PEL 91 | BC05-45 | **374** | | 28 | 7 | | | | | | | | |
| 26-May | PEL 91 | BC05-40 | **334** | 215 | 34 | 2 | 5 | 1.00 | | | | | 35 | |
| 26-May | PEL 91 | BC05-40 | **335** | 255 | 28 | 4 | | | | | | | | |
| 26-May | PEL 91 | BC05-40 | **336** | 294 | 34 | 3 | | | | | | | | |
| 26-May | PEL 91 | BC05-40 | **337** | 335 | 34 | 7 | | | | | | | | |
| 26-May | PEL 91 | BC05-40 | **338** | 374 | 28 | 7 | | | | | | | | |
| 27-May | PEL 91 | | | | | | | | 1.00 | | | | | drill rig down |
| 28-May | PEL 91 | | | | | | | | 1.00 | | | | | rig down |
| 29-May | PEL 91 | | | | | | | | 1.00 | | | | | rig down |
| 30-May | PEL 91 | | | | | | | | 1.00 | | | | | rig down |
| 31-May | PEL 91 | BC05-41 | **345** | 551 | 40 | 24 | 4 | 0.50 | 0.50 | | | | | |
| 31-May | PEL 91 | BC05-41 | **346** | 636 | 28 | 8 | | | | | | | | |
| 31-May | PEL 91 | BC05-44 | **366** | 325 | 28 | 6 | | | | | | | | |
| 31-May | PEL 91 | BC05-44 | **367** | 360 | 28 | 14 | | | | | | | | |
| 1-Jun | PEL 91 | BC05-41 | **342** | 391 | 28 | 5 | 5 | 1.00 | | | | | 28 | |
| 1-Jun | PEL 91 | BC05-41 | **343** | 418 | 36 | 18 | | | | | | | | |
| 1-Jun | PEL 91 | BC05-41 | **344** | 480 | 28 | 3 | | | | | | | | |
| 1-Jun | PEL 91 | BC05-45 | **376** | 557 | 40 | 16 | | | | | | | | |
| 1-Jun | PEL 91 | BC05-45 | **377** | 632 | 46 | 18 | | | | | | | | |
| 2-Jun | PEL 91 | BC05-41 | **339** | 226 | 64 | 39 | 3 | 1.00 | | | | | 32 | |
| 2-Jun | PEL 91 | BC05-41 | **340** | 283 | 46 | 24 | | | | | | | | |
| 2-Jun | PEL 91 | BC05-45 | **375** | 486 | 28 | 5 | | | | | | | | |
| 3-Jun | PEL 91 | BC05-41 | **341** | 537 | 34 | 8 | 6 | 1.00 | | | | | 40 | |
| 3-Jun | PEL 91 | BC05-42 | **347** | 220 | 34 | 17 | | | | | | | | |
| 3-Jun | PEL 91 | BC05-42 | **348** | 278 | 34 | 15 | | | | | | | | |
| 3-Jun | PEL 91 | BC05-42 | **349** | 332 | 40 | 22 | | | | | | | | |
| 3-Jun | PEL 91 | BC05-42 | **350** | 358 | 34 | 16 | | | | | | | | |
| 3-Jun | PEL 91 | BC05-43 | **355** | 218 | 40 | 18 | | | | | | | | |
| 4-Jun | PEL 91 | BC05-43 | **356** | 262 | 42 | 24 | 6 | 1.00 | | | | | 34 | |
| 4-Jun | PEL 91 | BC05-43 | **357** | 306 | 46 | 26 | | | | | | | | |
| 4-Jun | PEL 91 | BC05-43 | **358** | 360 | 34 | 15 | | | | | | | | |
| 4-Jun | PEL 91 | BC05-43 | **359** | 386 | 28 | 10 | | | | | | | | |
| 4-Jun | PEL 91 | BC05-45 | **378** | 669 | 34 | 20 | | | | | | | | |
| 4-Jun | PEL 91 | BC05-45 | **379** | 706 | 28 | 14 | | | | | | | | |
| 5-Jun | PEL 91 | BC05-43 | **360** | 450 | 28 | 4 | 6 | 1.00 | | | | | 38 | |
| 5-Jun | PEL 91 | BC05-43 | **361** | 515 | 40 | 12 | | | | | | | | |
| 5-Jun | PEL 91 | BC05-43 | **362** | 543 | 40 | 27 | | | | | | | | |
| 5-Jun | PEL 91 | BC05-43 | **363** | 564 | 28 | 10 | | | | | | | | |
| 5-Jun | PEL 91 | BC05-44 | **369** | 501 | 28 | 7 | | | | | | | | |
| 5-Jun | PEL 91 | BC05-44 | **370** | 549 | 34 | 10 | | | | | | | | |

## Production for EXPERTEST on Beach Petroleum's 2005 MYTILUS Seismic Survey

| Date | Area | Line | Hole # | Stn# | Depth Logged | Wx Depth | Total Holes for Day | Hours: Work days | Stand by | Tra vel | Do wn | To tal | Km Travel led per day | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7-Jun | PEL 91 | BC05-39 | **325** | 596 | 28 | 7 | 6 | 1.00 | | | | | 45 | |
| 7-Jun | PEL 91 | BC05-39 | **326** | 637 | 28 | 6 | | | | | | | | |
| 7-Jun | PEL 91 | BC05-39 | **327** | 679 | 28 | 8 | | | | | | | | |
| 7-Jun | PEL 91 | BC05-39 | **328** | 709 | 40 | 15 | | | | | | | | |
| 7-Jun | PEL 91 | BC05-46 | **389** | 623 | 28 | 6 | | | | | | | | |
| 7-Jun | PEL 91 | BC05-46 | **390** | 676 | 28 | 10 | | | | | | | | |
| 8-Jun | PEL 91 | BC05-38 | **310** | 296 | 28 | 8 | 6 | 1.00 | | | | | 58 | |
| 8-Jun | PEL 91 | BC05-38 | **311** | 314 | 40 | 20 | | | | | | | | |
| 8-Jun | PEL 91 | BC05-39 | **324** | 554 | 28 | 4 | | | | | | | | |
| 8-Jun | PEL 91 | BC05-45 | **371** | 234 | 34 | 12 | | | | | | | | |
| 8-Jun | PEL 91 | BC05-45 | **372** | 298 | 28 | 6 | | | | | | | | |
| 8-Jun | PEL 91 | BC05-45 | **373** | 363 | 40 | 12 | | | | | | | | |
| 9-Jun | PEL 91 | BC05-38 | **312** | 375 | 28 | 4 | 5 | 1.00 | | | | | 50 | |
| 9-Jun | PEL 91 | BC05-38 | **313** | 432 | 46 | 26 | | | | | | | | |
| 9-Jun | PEL 91 | BC05-38 | **314** | 495 | 40 | 21 | | | | | | | | |
| 9-Jun | PEL 91 | BC05-38 | **315** | 555 | 28 | 6 | | | | | | | | |
| 9-Jun | PEL 91 | BC05-38 | **316** | 618 | 34 | 11 | | | | | | | | |
| 10-Jun | PEL 91 | BC05-39 | **329** | 759 | 28 | 5 | 6 | 1.00 | | | | | 40 | |
| 10-Jun | PEL 91 | BC05-39 | **330** | 785 | 28 | 3 | | | | | | | | |
| 10-Jun | PEL 91 | BC05-39 | **331** | 864 | 28 | 6 | | | | | | | | |
| 10-Jun | PEL 91 | BC05-39 | **332** | 871 | 28 | 6 | | | | | | | | |
| 10-Jun | PEL 91 | BC05-39 | **333** | 927 | 28 | 9 | | | | | | | | |
| 10-Jun | PEL 91 | BC05-46 | **388** | 589 | 28 | 8 | | | | | | | | |
| 11-Jun | PEL 91 | - | | | | | | | 1.00 | | | | 0 | standby due to rain |
| 12-Jun | PEL 91 | - | | | | | | | 1.00 | | | | 0 | standby due to rain |
| 13-Jun | PEL 91 | BC05-37 | **304** | 252 | 28 | 7 | 8 | 1.00 | | | | | 38 | |
| 13-Jun | PEL 91 | BC05-37 | **305** | 314 | 28 | 10 | | | | | | | | |
| 13-Jun | PEL 91 | BC05-37 | **306** | 373 | 28 | 11 | | | | | | | | |
| 13-Jun | PEL 91 | BC05-37 | **307** | 423 | 34 | 14 | | | | | | | | |
| 13-Jun | PEL 91 | BC05-37 | **308** | 478 | 28 | 4 | | | | | | | | |
| 13-Jun | PEL 91 | BC05-37 | **309** | 525 | 28 | 7 | | | | | | | | |
| 13-Jun | PEL 91 | BC05-46 | **386** | 479 | 40 | 15 | | | | | | | | |
| 13-Jun | PEL 91 | BC05-46 | **387** | 538 | 28 | 4 | | | | | | | | |
| 14-Jun | PEL 91 | BC05-37 | **303** | 206 | 28 | 8 | 7 | 1.00 | | | | | 56 | |
| 14-Jun | PEL 91 | BC05-46 | **380** | 216 | 28 | 7 | | | | | | | | |
| 14-Jun | PEL 91 | BC05-46 | **381** | 247 | 40 | 18 | | | | | | | | |
| 14-Jun | PEL 91 | BC05-46 | **382** | 298 | 40 | 19 | | | | | | | | |
| 14-Jun | PEL 91 | BC05-46 | **383** | 364 | 40 | 19 | | | | | | | | |
| 14-Jun | PEL 91 | BC05-46 | **385** | 420 | 34 | 9 | | | | | | | | |
| 14-Jun | PEL 91 | BC05-47 | **395** | 532 | 28 | 10 | | | | | | | | |
| 15-Jun | PEL 91 | BC05-32 | **266** | 427 | 46 | 22 | 8 | 1.00 | | | | | | no report yet |
| 15-Jun | PEL 91 | BC05-32 | **267** | 495 | 28 | 6 | | | | | | | | |
| 15-Jun | PEL 91 | BC05-32 | **268** | 528 | 28 | 4 | | | | | | | | |
| 15-Jun | PEL 91 | BC05-46 | **384** | 391 | 28 | 10 | | | | | | | | |
| 15-Jun | PEL 91 | BC05-47 | **391** | 205 | 40 | 18 | | | | | | | | |
| 15-Jun | PEL 91 | BC05-47 | **392** | 306 | 28 | 6 | | | | | | | | |
| 15-Jun | PEL 91 | BC05-47 | **393** | 365 | 28 | 6 | | | | | | | | |
| 15-Jun | PEL 91 | BC05-47 | **394** | 430 | 28 | 7 | | | | | | | | |
| 16-Jun | PEL 91 | BC05-32 | **265** | 376 | 28 | 10 | 1 | 0.13 | | | | | | LAST HOLE pel 91 |
| | | Sub Total PEL 91 | | | 3148 | 1077 | 96 | 16.63 | 6.50 | ## | ## | ## | 560 | |

## Production for EXPERTEST on Beach Petroleum's 2005 MYTILUS Seismic Survey

| Date | Area | Line | Hole # | Stn# | Depth Logged | Wx Depth | Total Holes for Day | Hours: Work days | Stand by | Tra vel | Do wn | To tal | Km Travel led per day | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 16-Jun | PEL92 | BC05-24 | **197** | 343 | 28 | 9 | 7 | 0.88 | | | | | 34 | FIRST HOLE IN PEL 92 |
| 16-Jun | PEL92 | BC05-28 | **226** | 228 | 28 | 11 | | | | | | | | |
| 16-Jun | PEL92 | BC05-28 | **227** | 296 | 34 | 16 | | | | | | | | |
| 16-Jun | PEL92 | BC05-28 | **228** | 365 | 28 | 5 | | | | | | | | |
| 16-Jun | PEL92 | BC05-28 | **229** | 386 | 28 | 8 | | | | | | | | |
| 16-Jun | PEL92 | BC05-32 | **263** | 309 | 34 | 16 | | | | | | | | |
| 16-Jun | PEL92 | BC05-32 | **264** | 341 | 28 | 8 | | | | | | | | |
| 17-Jun | PEL92 | BC05-24 | **196** | 326 | 28 | 4 | 8 | 1.00 | | | | | 35 | |
| 17-Jun | PEL92 | BC05-27 | **223** | 529 | 28 | 9 | | | | | | | | |
| 17-Jun | PEL92 | BC05-27 | **224** | 574 | 28 | 8 | | | | | | | | |
| 17-Jun | PEL92 | BC05-27 | **225** | 606 | 28 | 12 | | | | | | | | |
| 17-Jun | PEL92 | BC05-28 | **230** | 406 | 40 | 16 | | | | | | | | |
| 17-Jun | PEL92 | BC05-28 | **231** | 453 | 28 | 7 | | | | | | | | |
| 17-Jun | PEL92 | BC05-28 | **232** | 510 | 28 | 8 | | | | | | | | |
| 17-Jun | PEL92 | BC05-33 | **271** | 335 | 40 | 13 | | | | | | | | |
| 18-Jun | PEL92 | BC05-27 | **222** | 508 | 28 | 8 | 5 | 1.00 | | | | | 20 | stby due to rain in mid afternoon |
| 18-Jun | PEL92 | BC05-32 | **261** | 234 | 28 | 8 | | | | | | | | |
| 18-Jun | PEL92 | BC05-32 | **262** | 271 | 28 | 8 | | | | | | | | |
| 18-Jun | PEL92 | BC05-33 | **269** | 295 | 28 | 7 | | | | | | | | |
| 18-Jun | PEL92 | BC05-33 | **270** | 233 | 28 | 10 | | | | | | | | |
| 19-Jun | PEL92 | - | | | | | 0 | | 1.00 | | | | | stby due to wet conditions |
| 20-Jun | PEL92 | BC05-24 | **192** | 231 | 40 | 17 | 6 | 1.00 | | | | | 34 | |
| 20-Jun | PEL92 | BC05-24 | **193** | 270 | 28 | 8 | | | | | | | | |
| 20-Jun | PEL92 | BC05-24 | **194** | 289 | 34 | 12 | | | | | | | | |
| 20-Jun | PEL92 | BC05-24 | **195** | 311 | 28 | 8 | | | | | | | | |
| 20-Jun | PEL92 | BC05-27 | **220** | 420 | 28 | 8 | | | | | | | | |
| 20-Jun | PEL92 | BC05-27 | **221** | 488 | 28 | 9 | | | | | | | | |
| 21-Jun | PEL92 | BC05-27 | **215** | 217 | 46 | 27 | 8 | 1.00 | | | | | 42 | |
| 21-Jun | PEL92 | BC05-27 | **216** | 255 | 28 | 12 | | | | | | | | |
| 21-Jun | PEL92 | BC05-27 | **217** | 273 | 28 | 11 | | | | | | | | |
| 21-Jun | PEL92 | BC05-27 | **218** | 322 | 28 | 4 | | | | | | | | |
| 21-Jun | PEL92 | BC05-27 | **219** | 370 | 28 | 5 | | | | | | | | |
| 21-Jun | PEL92 | BC05-35 | **291** | 496 | 28 | 6 | | | | | | | | |
| 21-Jun | PEL92 | BC05-35 | **292** | 530 | 20 | 4 | | | | | | | | |
| 21-Jun | PEL92 | BC05-35 | **293** | 565 | 28 | 6 | | | | | | | | |
| 22-Jun | PEL92 | BC05-15 | **121** | 460 | 46 | 20 | 6 | 1.00 | | | | | 58 | |
| 22-Jun | PEL92 | BC05-15 | **122** | 514 | 46 | 19 | | | | | | | | |
| 22-Jun | PEL92 | BC05-15 | **123** | 569 | 46 | 24 | | | | | | | | |
| 22-Jun | PEL92 | BC05-15 | **124** | 623 | 40 | 19 | | | | | | | | |
| 22-Jun | PEL92 | BC05-15 | **125** | 678 | 28 | 5 | | | | | | | | |
| 22-Jun | PEL92 | BC05-35 | **294** | 602 | 28 | 10 | | | | | | | | |
| 23-Jun | PEL92 | BC05-15 | **119** | 352 | 46 | 22 | 5 | 1.00 | | | | | 95 | Hole loc at Sta 351 + 23m |
| 23-Jun | PEL92 | BC05-15 | **120** | 405 | 46 | 22 | | | | | | | | Hole loc at Sta 404 + 19m |
| 23-Jun | PEL92 | BC05-16 | **133** | 651 | 46 | 26 | | | | | | | | |
| 23-Jun | PEL92 | BC05-16 | **134** | 684 | 40 | 17 | | | | | | | | Hole loc at Sta. 683 + 20m X 85-XGZ |
| 23-Jun | PEL92 | BC05-16 | **135** | 705 | 52 | 14 | | | | | | | | 1948m/sec at 10m & 1735m/sec at 24m. |
| 24-Jun | PEL92 | BC05-15 | **117** | 234 | 40 | 8 | 6 | 1.00 | | | | | 115 | |
| 24-Jun | PEL92 | BC05-15 | **118** | 296 | 40 | 19 | | | | | | | | Intersection. X BC05-16 |
| 24-Jun | PEL92 | BC05-18 | **145** | 311 | 28 | 9 | | | | | | | | Hole loc. At Sta. 310 + 16m x BC05-20 |
| 24-Jun | PEL92 | BC05-20 | **153** | 331 | 34 | 9 | | | | | | | | Hole loc Sta. 331 + 23m X BC05-19 |
| 24-Jun | PEL92 | BC05-20 | **163** | 351 | 40 | 8 | | | | | | | | Intersec. X 87-BAY |
| 24-Jun | PEL92 | BC05-20 | **164** | 403 | 46 | 34 | | | | | | | | 2344m/sec at 20m & 2038m/sec at 34m |

## Production for EXPERTEST on Beach Petroleum's 2005 MYTILUS Seismic Survey

| Date | Area | Line | Hole # | Stn# | Depth Logged | Wx Depth | Total Holes for Day | Hours: Work days | Hours: Stand by | Hours: Travel | Hours: Down | Hours: Total | Km Travelled per day | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 25-Jun | PEL92 | BC05-20 | **160** | 230 | 76 | 56 | 3 | 1.00 | | | | | 135 | Hole Loc. 57m west of Int. BC05-20 X 87-BAX |
| 25-Jun | PEL92 | BC05-20 | **161** | 262 | 70 | 50 | | | | | | | | *"Line 95-FRJ not seen"* |
| 25-Jun | PEL92 | BC05-20 | **162** | 292 | 28 | 6 | | | | | | | | |
| 26-Jun | PEL92 | BC05-19 | **150** | 209 | 100 | 84 | 4 | 1.00 | | | | | 105 | |
| 26-Jun | PEL92 | BC05-19 | **151** | 229 | 82 | 66 | | | | | | | | Hole loc. At Sta. 228 + 22m. X 84-SFY |
| 26-Jun | PEL92 | BC05-19 | **152** | 278 | 28 | 8 | | | | | | | | Hole loc. At Sta.277 + 20m X 95-FQZ |
| 26-Jun | PEL92 | BC05-20 | **159** | 208 | 70 | 55 | | | | | | | | |
| 27-Jun | PEL92 | BC05-18 | **143** | 222 | 106 | 86 | 5 | 1.00 | | | | | 110 | Hole at Sta. 222+2m X 84-SFY |
| 27-Jun | PEL92 | BC05-18 | **144** | 272 | 46 | 9 | | | | | | | | Hole at Sta 271+36m X 95-FOZ |
| 27-Jun | PEL92 | BC05-18 | **146** | 320 | 46 | 11 | | | | | | | | *'No see 87-BAT'* |
| 27-Jun | PEL92 | BC05-21 | **147** | 311 | 52 | 30 | | | | | | | | Hole at Sta. 311+8m X BC05-18 |
| 27-Jun | PEL92 | BC05-21 | **166** | 231 | 46 | 33 | | | | | | | | Hole at Sta. 231 X 87-BAX |
| 28-Jun | PEL92 | BC05-18 | **148** | 371 | 58 | 45 | 6 | 1.00 | | | | | 120 | |
| 28-Jun | PEL92 | BC05-18 | **149** | 421 | 64 | 51 | | | | | | | | Sta. 421 + 11m X 84-SFX |
| 28-Jun | PEL92 | BC05-19 | **158** | 449 | 88 | 48 | | | | | | | | |
| 28-Jun | PEL92 | BC05-21 | **165** | 208 | 64 | 32 | | | | | | | | |
| 28-Jun | PEL92 | BC05-21 | **167** | 261 | 46 | 26 | | | | | | | | Sta. 261 +6m X 95-FRJ |
| 28-Jun | PEL92 | BC05-21 | **168** | 292 | 46 | 22 | | | | | | | | Sta. 292 +18m X 84-SGB |
| 29-Jun | PEL92 | BC05-21 | **155** | 332 | 62 | 49 | 4 | 1.00 | | | | | 123 | |
| 29-Jun | PEL92 | BC05-19 | **156** | 375 | 82 | 66 | | | | | | | | Sta. 375+2m X 95-FRA |
| 29-Jun | PEL92 | BC05-19 | **157** | 426 | 70 | 59 | | | | | | | | Sta. 425+25m X 84-SFX |
| 29-Jun | PEL92 | BC05-21 | **169** | 351 | 82 | 68 | | | | | | | | Sta. 351+8m X 87-BAY |
| 30-Jun | PEL92 | BC05-19 | **154** | 327 | 64 | 48 | 3 | 1.00 | | | | | 110 | *No see 87-BAT'* |
| 30-Jun | PEL92 | BC05-21 | **170** | 404 | 70 | 48 | | | | | | | | |
| 30-Jun | PEL92 | BC05-20 | **?** | 332 | 118 | 10 | | | | | | | | Test hole for water bore. Logged as UH |
| 1-Jul | PEL92 | BC05-16 | **132** | 538 | 64 | 12 | 7 | 1.00 | | | | | 68 | |
| 1-Jul | PEL92 | BC05-16 | **131** | 548 | 46 | 9 | | | | | | | | Sta. 548+6m. X 85-XHA |
| 1-Jul | PEL92 | BC05-14 | **109** | 261 | 46 | 8 | | | | | | | | Sta. 261+24m. X BC05-16 |
| 1-Jul | PEL92 | BC05-14 | **108** | 233 | 40 | 8 | | | | | | | | Sta. 233+31m. X BC02-42 |
| 1-Jul | PEL92 | BC05-17 | **142** | 569 | 34 | 10 | | | | | | | | Sta. 569+17m. X 85-XHA |
| 1-Jul | PEL92 | BC05-17 | **141** | 538 | 52 | 26 | | | | | | | | |
| 1-Jul | PEL92 | BC05-14 | **110** | 308 | 52 | 24 | | | | | | | | Sta. 308+18m X BC05-17 |
| 2-Jul | PEL92 | BC05-17 | **140** | 500 | 52 | 24 | 7 | 1.00 | | | | | 69 | Sta, 500+5m. X 85-XAG |
| 2-Jul | PEL92 | BC05-16 | **130** | 516 | 46 | 16 | | | | | | | | |
| 2-Jul | PEL92 | BC05-16 | **129** | 452 | 40 | 8 | | | | | | | | |
| 2-Jul | PEL92 | BC05-16 | **128** | 420 | 40 | 16 | | | | | | | | Sta. 419+22m. X 84-SFZ |
| 2-Jul | PEL92 | BC05-13 | **97** | 212 | 45 | 15 | | | | | | | | |
| 2-Jul | PEL92 | BC05-13 | **98** | 257 | 52 | 20 | | | | | | | | Sta. 257+14m. X BC02-42 |
| 2-Jul | PEL92 | BC05-13 | **99** | 286 | 40 | 16 | | | | | | | | Sta. 285+20m. X BC05-16 |
| 3-Jul | PEL92 | BC05-13 | **100** | 310 | 40 | 20 | 8 | 1.00 | | | | | 45 | Sta. 310_15m X BC02-43 |
| 3-Jul | PEL92 | BC05-13 | **101** | 331 | 40 | 22 | | | | | | | | Sta. 331+13m X BC05-17 |
| 3-Jul | PEL92 | BC05-13 | **102** | 365 | 46 | 27 | | | | | | | | X 85-XHJ |
| 3-Jul | PEL92 | BC05-13 | **103** | 417 | 46 | 16 | | | | | | | | Sta. 417+13m. |
| 3-Jul | PEL92 | BC05-13 | **104** | 468 | 40 | 10 | | | | | | | | Sta. 468+12m. |
| 3-Jul | PEL92 | BC05-13 | **105** | 513 | 34 | 5 | | | | | | | | Sta. 513 +21m. |
| 3-Jul | PEL92 | BC05-13 | **106** | 571 | 34 | 4 | | | | | | | | Sta. 571+9m. |
| 3-Jul | PEL92 | BC05-13 | **107** | 640 | 34 | 8 | | | | | | | | Sta. 640+70m. X 86-ZHJ |
| 4-Jul | PEL92 | BC05-14 | **116** | 625 | 34 | 6 | 6 | 1.00 | | | | | 50 | |
| 4-Jul | PEL92 | BC05-14 | **115** | 566 | 40 | 18 | | | | | | | | Sta. 565+20m. |
| 4-Jul | PEL92 | BC05-14 | **114** | 513 | 52 | 22 | | | | | | | | Sta. 513 + 3m |
| 4-Jul | PEL92 | BC05-14 | **113** | 466 | 46 | 18 | | | | | | | | Sta. 465+29m. |
| 4-Jul | PEL92 | BC05-14 | **112** | 419 | 46 | 12 | | | | | | | | Sta. 418+27m. |
| 4-Jul | PEL92 | BC05-14 | **111** | 360 | 46 | 28 | | | | | | | | Sta. 360+15m. |

# Production for EXPERTEST on Beach Petroleum's 2005 MYTILUS Seismic Survey

| | | | | | | | | Hours | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date | Area | Line | Hole # | Stn# | Depth Logged | Wx Depth | Total Holes for Day | Work days | Stand by | Tra vel | Do wn | To tal | Km Travelled per day | Comments |
| 5-Jul | PEL92 | BC05-17 | **139** | 473 | 46 | 20 | 8 | 1.00 | | | | | | Sta. 473+12m |
| 5-Jul | PEL92 | BC05-17 | **138** | 442 | 46 | 14 | | | | | | | | Sta. 441+20m X 84-SFZ |
| 5-Jul | PEL92 | BC05-17 | **137** | 343 | 46 | 18 | | | | | | | | Sta. 342+19m. X BC02-44 |
| 5-Jul | PEL92 | BC05-12 | **90** | 308 | 46 | 24 | | | | | | | | Sta. 308+8m. X BC05-17 |
| 5-Jul | PEL92 | BC05-12 | **89** | 287 | 46 | 18 | | | | | | | | Sta. 286+20m. X BC02-43 |
| 5-Jul | PEL92 | BC05-16 | **127** | 317 | 46 | 14 | | | | | | | | Sta. 317+4m. X BC02-44 |
| 5-Jul | PEL92 | BC05-12 | **88** | 253 | 46 | 14 | | | | | | | | Sta. 262+22m. X BC05-16 |
| 5-Jul | PEL92 | BC05-12 | **87** | 236 | 46 | 4 | | | | | | | | Sta. 235+27m. X BC02-42 |
| 6-Jul | PEL92 | BC05-11 | **79** | 210 | 46 | 8 | 6 | 1.00 | | | | | 47 | Sta. 209+36m. |
| 6-Jul | PEL92 | BC05-11 | **80** | 254 | 46 | 8 | | | | | | | | Sta. 253+19m. X BC02-42 |
| 6-Jul | PEL92 | BC05-11 | **81** | 282 | 46 | 14 | | | | | | | | Sta. 281+23m. X BC05-16 |
| 6-Jul | PEL92 | BC05-11 | **82** | 305 | 52 | 16 | | | | | | | | Sta. 305+21m. X BC02-43 |
| 6-Jul | PEL92 | BC05-11 | **83** | 327 | 46 | 14 | | | | | | | | Sta. 327+3m. X BC05-17 |
| 6-Jul | PEL92 | BC05-11 | **84** | 360 | 46 | 28 | | | | | | | | Sta. 359+27m. |
| 7-Jul | PEL92 | BC05-11 | **85** | 392 | 40 | 18 | 2 | 0.50 | 0.50 | | | | 32 | X 85-XHG Early shutdown because |
| 7-Jul | PEL92 | BC05-11 | **86** | 442 | 40 | 10 | | | | | | | | Sta. 441+30m. |
| 8-Jul | PEL92 | | | | | | 0 | | 1.00 | | | | | Terrain too wet to work. |
| 9-Jul | PEL92 | | | | | | 0 | | 1.00 | | | | | Terrian too wet to work |
| 10-Jul | PEL92 | BC05-12 | **91** | 337 | 46 | 21 | 6 | 1.00 | | | | | 42 | Moved hole 27m west - 'hard silcrete' |
| 10-Jul | PEL92 | BC05-12 | **92** | 337 | 40 | 18 | | | | | | | | Sta. 366+27m. X 85-XHG |
| 10-Jul | PEL92 | BC05-12 | **93** | 420 | 40 | 16 | | | | | | | | |
| 10-Jul | PEL92 | BC05-12 | **94** | 467 | 40 | 22 | | | | | | | | Sta. 467+18m. |
| 10-Jul | PEL92 | BC05-12 | **95** | 513 | 40 | 10 | | | | | | | | |
| 10-Jul | PEL92 | BC05-12 | **96** | 627 | 34 | 9 | | | | | | | | Sta. 627+4m. X 86-ZHJ |
| 11-Jul | " | BC05-10 | 78 | 660 | 34 | 9 | 7 | 1.00 | | | | | 27 | no holes shifted from surveyed positions |
| " | " | BC05-10 | 77 | 634 | 34 | 6 | | | | | | | | |
| " | " | BC05-10 | 76 | 608 | 40 | 16 | | | | | | | | |
| " | " | BC05-10 | 75 | 588 | 34 | 6 | | | | | | | | |
| " | " | BC05-10 | 74 | 569 | 40 | 14 | | | | | | | | |
| " | " | BC05-10 | 73 | 509 | 41 | 24 | | | | | | | | |
| " | " | BC05-10 | 72 | 444 | 34 | 8 | | | | | | | | |
| 12-Jul | " | BC05-10 | 71 | 383 | 40 | 29 | 3 | 1.00 | | | | | 54 | |
| " | " | BC05-10 | 70 | 444 | 46 | 18 | | | | | | | | |
| " | " | BC05-10 | 69 | 306 | 100 | 10 | | | | | | | | drilled to 100m as test for water bore |
| 13-Jul | " | BC05-17 | 136 | 274 | 46 | 11 | 6 | 1.00 | | | | | 45 | |
| " | " | BC05-10 | 68 | 284 | 46 | 10 | | | | | | | | |
| " | " | BC05-16 | 126 | 249 | 52 | 17 | | | | | | | | |
| " | " | BC05-10 | 67 | 260 | 52 | 18 | | | | | | | | |
| " | " | BC05-10 | 66 | 233 | 46 | 8 | | | | | | | | |
| " | " | BC05-09 | 55 | 226 | 58 | 18 | | | | | | | | |
| 14-Jul | " | BC05-09 | 56 | 248 | 46 | 18 | 8 | 1.00 | | | | | 33 | |
| " | " | BC05-09 | 57 | 290 | 46 | 24 | | | | | | | | |
| " | " | BC05-09 | 58 | 334 | 40 | 14 | | | | | | | | |
| " | " | BC05-09 | 59 | 388 | 34 | 10 | | | | | | | | |
| " | " | BC05-09 | 60 | 450 | 40 | 16 | | | | | | | | |
| " | " | BC05-09 | 61 | 513 | 46 | 25 | | | | | | | | |
| " | " | BC05-09 | 62 | 533 | 34 | 6 | | | | | | | | |
| " | " | BC05-09 | 63 | 552 | 34 | 9 | | | | | | | | |
| 15-Jul | " | BC05-09 | 64 | 578 | 34 | 8 | 7 | 1.00 | | | | | 31 | |
| | | BC05-09 | 65 | 604 | 34 | 13 | | | | | | | | |
| | | BC05-35 | 288 | 421 | 34 | 4 | | | | | | | | |
| | | BC05-35 | 289 | 438 | 34 | 6 | | | | | | | | |
| | | BC05-35 | 290 | 468 | 34 | 4 | | | | | | | | |
| | | BC05-36 | 302 | 456 | 34 | 11 | | | | | | | | |
| | | BC05-36 | 301 | 435 | 34 | 6 | | | | | | | | hole # 301 producing water |

## Production for EXPERTEST on Beach Petroleum's 2005 MYTILUS Seismic Survey

| | | | | | | | | Hours | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date | Area | Line | **Hole #** | Stn# | Depth Logged | Wx Depth | Total Holes for Day | Work days | Stand by | Tra vel | Do wn | To tal | Km Travel led per day | Comments |
| 16-Jul | " | BC05-36 | 300 | 418 | 34 | 9 | 8 | 1.00 | | | | | 27 | |
| " | " | BC05-36 | 299 | 397 | 34 | 8 | | | | | | | | |
| " | " | BC05-36 | 298 | 376 | 34 | 8 | | | | | | | | |
| " | " | BC05-34 | 275 | 322 | 34 | 6 | | | | | | | | |
| " | " | BC05-34 | 280 | 530 | 34 | 5 | | | | | | | | |
| " | " | BC05-34 | 279 | 487 | 34 | 8 | | | | | | | | |
| " | " | BC05-34 | 278 | 460 | 34 | 6 | | | | | | | | |
| " | " | BC05-34 | 277 | 418 | 34 | 9 | | | | | | | | |
| 17-Jul | " | BC05-34 | 276 | 375 | 34 | 8 | 7 | 1.00 | | | | | 27 | |
| " | " | BC05-36 | 297 | 307 | 34 | 6 | | | | | | | | |
| " | " | BC05-36 | 296 | 282 | 34 | 8 | | | | | | | | |
| " | " | BC05-36 | 295 | 262 | 34 | 6 | | | | | | | | |
| " | " | BC05-35 | 281 | 215 | 34 | 10 | | | | | | | | |
| " | " | BC05-26 | 214 | 459 | 34 | 11 | | | | | | | | |
| " | " | BC05-35 | 282 | 265 | 34 | 11 | | | | | | | | |
| 18-Jul | " | BC05-35 | 283 | 286 | 34 | 6 | 7 | 1.00 | | | | | 32 | |
| " | " | BC05-35 | 284 | 310 | 34 | 7 | | | | | | | | |
| " | " | BC05-34 | 274 | 302 | 34 | 4 | | | | | | | | |
| " | " | BC05-34 | 273 | 282 | 34 | 8 | | | | | | | | |
| " | " | BC05-34 | 272 | 223 | 40 | 23 | | | | | | | | |
| " | " | BC05-25 | 285 | 362 | 34 | 6 | | | | | | | | |
| " | " | BC05-35 | 286 | 380 | 34 | 7 | | | | | | | | |
| 19-Jul | " | BC05-35 | 287 | 400 | 34 | 7 | 7 | 1.00 | | | | | 71 | |
| " | " | BC05-04 | 40 | 419 | 40 | 9 | | | | | | | | |
| " | " | BC05-07 | 50 | 241 | 46 | 16 | | | | | | | | |
| " | " | BC05-04 | 41 | 469 | 40 | 10 | | | | | | | | |
| " | " | BC05-03 | 32 | 815 | 40 | 22 | | | | | | | | |
| " | " | BC05-03 | 31 | 765 | 40 | 15 | | | | | | | | |
| " | " | BC05-07 | 51 | 341 | 46 | 18 | | | | | | | | |
| 20-Jul | PEL92 | BC05-08 | 54 | 359 | 46 | 27 | 7 | 1.00 | | | | | 51 | Sta 359+24m. X not sighted |
| | " | BC05-23 | 181 | 221 | 40 | 14 | | | | | | | | Sta. 221+14m X not sighted |
| | " | BC05-04 | 33 | 223 | 40 | 19 | | | | | | | | Sta. 223+6m X BC05-23 |
| | " | BC05-04 | 34 | 240 | 40 | 10 | | | | | | | | Sta. 239+30m. X 85-ZGQ |
| | " | BC05-04 | 35 | 286 | 40 | 15 | | | | | | | | |
| | " | BC05-04 | 36 | 333 | 46 | 20 | | | | | | | | Sta. 332+31m. X not sighted |
| | " | BC05-05 | 42 | 232 | 40 | 15 | | | | | | | | Sta. 231+28m. X not sighted |
| 21-Jul | " | BC05-04 | 37 | 356 | 40 | 19 | 7 | 1.00 | | | | | 45 | Sta. 355+34m. X BC05-05 |
| | " | BC05-04 | 38 | 375 | 40 | 17 | | | | | | | | Sta. 374+33m. X BC05-06 |
| | " | BC05-04 | 39 | 226 | 40 | 17 | | | | | | | | Sta. 396+15m. X 85-ZGW |
| | " | BC05-03 | 28 | 704 | 34 | 9 | | | | | | | | |
| | " | BC05-03 | 29 | 722 | 34 | 5 | | | | | | | | Sta. 721+19m. X BC05-06 |
| | " | BC05-03 | 30 | 742 | 34 | 8 | | | | | | | | Sta. 741+32m. X 85-ZGW |
| | " | BC05-06 | 45 | 226 | 40 | 12 | | | | | | | | Sta. 225+28m. X 85-XGH |
| 22-Jul | " | BC05-03 | 27 | 680 | 34 | 11 | 8 | 1.00 | | | | | 49 | Sta. 680+5m. X 85-XHD |
| | " | BC05-03 | 26 | 634 | 34 | 8 | | | | | | | | |
| | " | BC05-03 | 25 | 587 | 40 | 12 | | | | | | | | Sta. 587+21m. X 85-ZGQ |
| | " | BC05-03 | 24 | 571 | 40 | 12 | | | | | | | | Sta. 571+5m. X BC05-23 |
| | " | BC05-23 | 182 | 304 | 34 | 13 | | | | | | | | |
| | " | BC05-23 | 183 | 341 | 34 | 8 | | | | | | | | Sta. 341+14m X BC05-29 |
| | " | BC05-23 | 184 | 362 | 34 | 8 | | | | | | | | Sta. 362+32m. X BC05-29 |
| | " | BC05-23 | 185 | 381 | 34 | 8 | | | | | | | | Sta. 381+8m. X not sighted |
| 23-Jul | " | BC05-23 | 92A | 320 | 100 | 8 | 4 | 1.00 | | | | | 45 | UH# 92A is a water-well test hole - logged as a |
| | " | BC05-06 | 45 | 314 | 34 | 10 | | | | | | | | Sta. 319+18m. X BC05-08 |
| | " | BC05-05 | 43 | 323 | 34 | 6 | | | | | | | | Sta. 322+19m. X BC05-08 |
| | " | BC05-08 | 53 | 226 | 34 | 8 | | | | | | | | Sta. 226+6m. X 85-XHD |

## Production for EXPERTEST on Beach Petroleum's 2005 MYTILUS Seismic Survey

| | | | | | | | | Hours | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date | Area | Line | **Hole #** | Stn# | Depth Logged | Wx Depth | Total Holes for Day | Work days | Stand by | Tra vel | Do wn | To tal | Km Travel led per day | Comments |
| 24-Jul | " | BC05-07 | 52 | 414 | 40 | 22 | 7 | 1.00 | | | | | 29 | Sta. 414+5m. X BC05-29 |
| | " | BC05-29 | 243 | 579 | 34 | 14 | | | | | | | | X 85-ZGW |
| | " | BC05-06 | 48 | 393 | 34 | 10 | | | | | | | | Sta. 392+19m. X BC05-29 |
| | " | BC05-06 | 47 | 371 | 40 | 15 | | | | | | | | Sta. 371+17m. X 86-ZHQ |
| | " | BC05-06 | 49 | 411 | 40 | 18 | | | | | | | | Sta. 410+28m. X BC02-55 |
| | " | BC05-05 | 44 | 396 | 40 | 20 | | | | | | | | Sta. 395+24m. X BC05-29 |
| | " | BC05-29 | 242 | 523 | 34 | 8 | | | | | | | | X 'not sighted' |
| 25-Jul | PEL92 | BC05-26 | 207 | 247 | 34 | 8 | 8 | 1.00 | | | | | 27 | |
| | " | BC05-26 | 206 | 227 | 40 | 16 | | | | | | | | X 86-ZHQ *'OFFSET - DUNE'* ?? |
| | " | BC05-26 | 208 | 266 | 34 | 7 | | | | | | | | X BC05-55 (?) |
| | " | BC05-26 | 209 | 296 | 34 | 9 | | | | | | | | *'OFFSET - DUNE'* |
| | " | BC05-26 | 210 | 318 | 36 | 12 | | | | | | | | X *' not sighted'* |
| | " | BC05-26 | 211 | 339 | 34 | 10 | | | | | | | | X BC05-30 |
| | " | BC05-30 | 251 | 411 | 34 | 8 | | | | | | | | X *' not sighted'* |
| | " | BC05-30 | 252 | 441 | 34 | 12 | | | | | | | | X *' not sighted'* |
| 26-Jul | PEL92 | BC05-25 | 202 | 313 | 34 | 8 | 8 | 1.00 | | | | | 28 | X 85-ZHM not seen |
| | " | BC05-25 | 203 | 335 | 34 | 6 | | | | | | | | Sta. 335+7m. X BC05-30 |
| | " | BC05-25 | 204 | 358 | 34 | 13 | | | | | | | | Sta. 358+5m. X 85-ZHL |
| | " | BC05-25 | 205 | 409 | 34 | 18 | | | | | | | | |
| | " | BC05-26 | 212 | 362 | 34 | 10 | | | | | | | | X 85-ZHL not seen |
| | " | BC05-26 | 213 | 415 | 34 | 7 | | | | | | | | |
| | " | BC05-30 | 253 | 465 | 34 | 8 | | | | | | | | " Cross line not seen" |
| | " | BC05-30 | 254 | 491 | 34 | 14 | | | | | | | | X 85-ZGW not seen |
| 27-Jul | PEL92 | BC05-23 | 186 | 406 | 46 | 24 | 8 | 1.00 | | | | | 28 | Sta. 405+33m. X 85-ZHN |
| | " | BC05-25 | 198 | 223 | 40 | 19 | | | | | | | | X 85-ZQH |
| | " | BC05-25 | 199 | 244 | 34 | 8 | | | | | | | | X BC05-29 |
| | " | BC05-25 | 200 | 261 | 34 | 8 | | | | | | | | X BC02-55 |
| | " | BC05-25 | 201 | 286 | 34 | 10 | | | | | | | | X 85-ZHN not seen |
| | " | BC05-29 | 239 | 453 | 40 | 17 | | | | | | | | X 85-ZGQ not seen |
| | " | BC05-29 | 240 | 464 | 34 | 8 | | | | | | | | *"o/s 11m. NORTH int. 85-ZGR"* |
| | " | BC05-29 | 241 | 491 | 34 | 21 | | | | | | | | X 85-ZGS |
| 28-Jul | PEL92 | BC05-23 | 187 | 433 | 34 | 7 | 8 | 1.00 | | | | | 20 | |
| | | BC05-23 | 188 | 456 | 34 | 7 | | | | | | | | |
| | | BC05-23 | 189 | 478 | 34 | 11 | | | | | | | | |
| | | BC05-23 | 190 | 522 | 34 | 7 | | | | | | | | |
| | | BC05-23 | 191 | 566 | 34 | 14 | | | | | | | | |
| | | BC05-30 | 248 | 323 | 34 | 8 | | | | | | | | |
| | | BC05-30 | 249 | 354 | 34 | 5 | | | | | | | | |
| | | BC05-30 | 250 | 385 | 34 | 8 | | | | | | | | |
| 29-Jul | PEL92 | BC05-22 | 178 | 476 | 34 | 8 | 8 | 1.00 | | | | | 18 | |
| | | BC05-22 | 179 | 497 | 34 | 14 | | | | | | | | |
| | | BC05-22 | 180 | 512 | 34 | 11 | | | | | | | | |
| | | BC05-30 | 245 | 246 | 34 | 9 | | | | | | | | |
| | | BC05-30 | 246 | 264 | 34 | 9 | | | | | | | | |
| | | BC05-30 | 247 | 296 | 34 | 6 | | | | | | | | |
| | | BC05-31 | 259 | 409 | 34 | 6 | | | | | | | | |
| | | BC05-31 | 260 | 463 | 34 | 7 | | | | | | | | |
| 30-Jul | PEL92 | BC05-02 | 10 | 223 | 34 | 8 | 8 | 1.00 | | | | | 48 | |
| | | BC05-02 | 11 | 257 | 28 | 8 | | | | | | | | |
| | | BC05-02 | 12 | 313 | 46 | 21 | | | | | | | | |
| | | BC05-03 | 17 | 218 | 34 | 12 | | | | | | | | |
| | | BC05-03 | 18 | 205 | 34 | 10 | | | | | | | | |
| | | BC05-03 | 19 | 325 | 34 | 10 | | | | | | | | |
| | | BC05-03 | 20 | 380 | 40 | 11 | | | | | | | | |
| | | BC05-30 | 244 | 226 | 34 | 8 | | | | | | | | |

## Production for EXPERTEST on Beach Petroleum's 2005 MYTILUS Seismic Survey

| Date | Area | Line | Hole # | Stn# | Depth Logged | Wx Depth | Total Holes for Day | Hours: Work days | Hours: Stand by | Hours: Tra vel | Hours: Do wn | Hours: To tal | Km Travel led per day | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 31-Jul | PEL92 | BC05-01 | 1 | 214 | 46 | 26 | 7 | 1.00 | | | | | 53 | |
| | | BC05-01 | 2 | 265 | 40 | 25 | | | | | | | | |
| | | BC05-01 | 3 | 328 | 34 | 14 | | | | | | | | |
| | | BC05-01 | 4 | 389 | 40 | 24 | | | | | | | | |
| | | BC05-02 | 13 | 370 | 34 | 6 | | | | | | | | |
| | | BC05-02 | 14 | 456 | 40 | 16 | | | | | | | | |
| | | BC05-02 | 16 | 520 | 40 | 24 | | | | | | | | |
| 1-Aug | PEL92 | BC05-01 | 5 | 441 | 46 | 30 | 8 | 1.00 | | | | | 49 | |
| | | BC05-01 | 6 | 464 | 34 | 6 | | | | | | | | |
| | | BC05-02 | 15 | 503 | 46 | 3 | | | | | | | | |
| | | BC05-03 | 21 | 464 | 34 | 16 | | | | | | | | |
| | | BC05-03 | 22 | 512 | 40 | 18 | | | | | | | | |
| | | BC05-03 | 23 | 529 | 34 | 16 | | | | | | | | |
| | | BC05-22 | 171 | 251 | 40 | 20 | | | | | | | | |
| | | BC05-22 | 172 | 326 | 40 | 16 | | | | | | | | |
| 2-Aug | PEL92 | BC05-01 | 7 | 557 | 28 | 7 | 8 | 1.00 | | | | | 38 | |
| | | BC05-01 | 8 | 575 | 34 | 13 | | | | | | | | |
| | | BC05-01 | 9 | 603 | 34 | 8 | | | | | | | | |
| | | BC05-29 | 233 | 228 | 34 | 12 | | | | | | | | |
| | | BC05-29 | 234 | 307 | 40 | 21 | | | | | | | | |
| | | BC05-31 | 255 | 207 | 34 | 9 | | | | | | | | |
| | | BC05-31 | 257 | 293 | 34 | 16 | | | | | | | | |
| | | BC05-31 | 258 | 320 | 34 | 18 | | | | | | | | |
| 3-Aug | PEL92 | BC05-22 | 173 | 361 | 40 | 16 | 8 | 1.00 | | | | | 22 | |
| | | BC05-22 | 174 | 382 | 34 | 14 | | | | | | | | |
| | | BC05-22 | 175 | 401 | 34 | 6 | | | | | | | | |
| | | BC05-29 | 235 | 275 | 34 | 14 | | | | | | | | |
| | | BC05-29 | 236 | 342 | 34 | 8 | | | | | | | | |
| | | BC05-29 | 237 | 374 | 34 | 12 | | | | | | | | |
| | | BC05-29 | 238 | 400 | 34 | 9 | | | | | | | | |
| | | BC05-31 | 256 | 253 | 34 | 12 | | | | | | | | |
| 4-Aug | PEL92 | BC05-22 | 176 | 428 | 34 | 18 | 2 | 1.00 | | | | | 6 | complete Beach u/h program. Demobe unit to Lyndhurst enroute Adelaide. |
| | | BC05-22 | 177 | 453 | 34 | 10 | | | | | | | | |
| Sub Total PEL 92 | | | | | 12094 | 4533 | 300 | 46.38 | 3.50 | | | | 2392 | |

| **PEL 91 Summary** | |
|---|---|
| **Average Depth of Hole =** | **32.792** |
| **Average Depth of Weathering =** | **11.219** |
| **Total Holes Logged =** | **96** |

| **PEL 92 Summary** | |
|---|---|
| **Average Depth of Ho** | **40** |
| **Average Depth of We** | **15.1** |
| **Total Holes Logged =** | **300** |

# APPENDIX IV

# LINE PREPARATION

**LINE PREPARATION  Production by DENHAM & O'KEEFE Earthmoving on Beach Petroleum's 2005 MYTILUS Seismic Survey**

| | | **Dozer #5** (Komatsu D65EX) | | | | | | **Dozer # 6** (Komatsu D65EX) | | | | | | **Grader** | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date | AREA | Line | Km | Work | Walk / Float | Stand by | Charge | Line | Km | Work | Walk / Float | Stand by | Charge | Work / Walk | Stby | Charge | Tot Km for Day | Camp Move | Comments |
| April-05 | | | | | | | | | | | | | | | | | | | |
| 22-Apr | PEL 92 | | | | | | | | | | | | | | | | 0.0000 | 5.00 | Move from Moomba to DOK Camp#1 |
| 23-Apr | " | BC05-25 | 5.2875 | 9.00 | | 0.50 | 9.50 | BC05-35 | 2.4750 | | | | | | 10.00 | 10.00 | 7.7625 | | BEACH induction by Doug |
| | | | | | | | | BC05-26 | 2.4750 | 8.00 | 1.00 | 0.50 | 9.50 | | | | 2.4750 | | |
| 24-Apr | " | BC05-25 | 4.6875 | | | 0.50 | 0.50 | BC05-26 | 7.5000 | | | 0.50 | 0.50 | 8.00 | 0.50 | 8.50 | 12.1875 | | Rehab **SELLICKS 3D lines.** |
| | " | BC05-30 | 3.6000 | 11.00 | | | 11.00 | BC05-29 | 2.4000 | 10.50 | | | 10.50 | | | | 6.0000 | | |
| 25-Apr | " | BC05-30 | 7.7250 | 11.00 | | 0.25 | 11.00 | BC05-29 | 9.8625 | 10.50 | | 0.25 | 10.50 | 10.00 | 0.25 | 10.00 | 17.5875 | | 0.25 Hrs for DAILY Toolbox meeting |
| 26-Apr | " | BC05-30 | 0.5625 | | | | | BC05-29 | 4.6875 | | | | 0.00 | 11.00 | 0.25 | 11.25 | 5.2500 | | |
| | " | BC05-31 | 7.6500 | 11.00 | | 0.25 | 11.25 | BC05-01 | 6.8250 | 11.00 | | 0.25 | 11.25 | | | | 14.4750 | | |
| 27-Apr | " | BC05-31 | 4.2750 | | | | | BC05-01 | 9.1125 | 8.50 | | 0.25 | 8.75 | 11.00 | 0.25 | 11.25 | 13.3875 | | Dozer #6 down 2.5hrs for AC repair |
| | | BC05-22 | 5.5875 | 11.00 | | 0.25 | 11.25 | | | | | | 0.00 | | | | #VALUE! | | |
| 28-Apr | " | BC05-22 | 7.4250 | | | | | BC05-21 | 6.5250 | 11.00 | | 0.25 | 11.25 | 11.00 | 0.25 | 11.25 | 13.9500 | | |
| | | BC05-23 | 5.4000 | 11.00 | | 0.25 | 11.25 | | | | | | 0.00 | | | | 5.4000 | | |
| 29-Apr | " | BC05-23 | 9.6000 | 11.00 | | 0.25 | 11.25 | BC05-02 | 4.4250 | 6.00 | | 0.25 | 6.25 | 11.00 | 0.25 | 11.25 | 14.0250 | | Dozer #6 down 5 hrs, hydraulic fitting |
| 30-Apr | PEL92 | BC05-04 | 7.5000 | | | | | BC05-02 | 2.1000 | | | | 0.00 | 11.00 | 0.25 | 11.25 | 9.6000 | | Dozer #6 down 1.5hrs - replaced O ring |
| | | BC05-06 | 3.1500 | 11.00 | | 0.25 | 11.25 | BC05-03 | 5.5125 | 9.50 | | 0.25 | 9.75 | | | | 8.6625 | | Grader River Road access S end BC05-02 |
| 1-May | PEL92 | BC05-05 | 5.3625 | | | | | BC05-03 | 10.0125 | 10.00 | | | 10.00 | 5.00 | | 5.00 | 15.3750 | | Grader down - replacement from Moomba |
| | | BC05-06 | 5.0625 | 11.00 | | | 11.00 | | | | | | 0.00 | | | 0.00 | 5.0625 | | Safety meeting postponed 1 day. |
| 2-May | PEL92 | BC05-07 | 4.4625 | | | | | BC05.03 | 5.6250 | | | | 0.00 | 3.00 | 0.50 | 3.50 | 10.0875 | | CAT grader arrived Moomba mid afternoon |
| | | BC05-04 | 0.7125 | | | | | BC05-07 | 2.6625 | 10.00 | | 0.50 | 10.50 | | | 0.00 | 3.3750 | | Satey meeting 18:50-19:20 |
| | | BC05-06 | 1.9875 | 10.00 | | 0.50 | 10.50 | | | | | | 0.00 | | | 0.00 | 1.9875 | | |
| 3-May | PEL92 | BC05-03 | 2.8500 | | | | | BC05-07 | 1.3500 | | | | 0.00 | 11.00 | 0.25 | 11.25 | 4.2000 | | Gene reported sixk to Moomba medic. |
| | | BC05-04 | 2.8125 | | | | | BC05-08 | 6.9375 | 8.50 | 0.50 | 0.25 | 9.25 | | | 0.00 | 9.7500 | | Matt & Kim operating Dozer #6 |
| | | BC05-09 | 2.2875 | 11.00 | | 0.25 | 11.25 | | | | | | 0.00 | | | 0.00 | 2.2875 | | |
| 4-May | PEL92 | BC05-09 | 9.7125 | 11.00 | | 0.25 | 11.25 | BC05-10 | 5.8875 | 10.25 | 2.00 | 0.25 | 12.50 | 11.00 | 0.25 | 11.25 | 15.6000 | | Gene back on Dozer #6 mid afternoon |
| 5-May | PEL92 | BC05-09 | 4.0500 | | | | | BC05-10 | 0.6750 | 5.50 | | 0.25 | 5.75 | 11.00 | 0.25 | 11.25 | 4.7250 | | Dozer #6 down.  Oil leak. |
| | " | BC05-11 | 3.0375 | | | | | | | | | | | | | | 3.0375 | | |
| | " | BC05-16 | 2.5125 | | | | | | | | | | | | | | 2.5125 | | |
| | " | BC05-17 | 0.9375 | 11.00 | | 0.25 | 11.25 | | | | | | | | | | 0.9375 | | |
| 6-May | " | BC05-11,16 | 7.6875 | 11.00 | | 0.25 | 11.25 | BC05-10 | 5.9250 | 11.00 | | 0.25 | 11.25 | 11.00 | 0.25 | 11.25 | 13.6125 | | |
| 7-May | " | BC05-16,12 | 9.2250 | 11.00 | | 0.25 | 11.25 | BC05-10,17 | 8.7000 | 11.00 | | 0.25 | 11.25 | 11.00 | 0.25 | 11.25 | 17.9250 | | |
| 8-May | " | BC05-12 | 10.2750 | 11.00 | | 0.25 | 11.25 | BC05-17,13,16 | 10.9125 | 11.00 | | 0.25 | 11.25 | 11.00 | 0.25 | 11.25 | 21.1875 | | |
| 9-May | " | BC05-12,13 | 7.5000 | 10.50 | | 0.25 | 10.75 | BC05-16,14,17 | 9.0375 | 10.50 | | 0.25 | 10.75 | 10.00 | 0.25 | 10.25 | 16.5375 | | |
| 10-May | " | BC05-16,15 | 7.8375 | 11.00 | | 0.25 | 11.25 | BC05-13,17 | 10.0500 | 9.00 | | 0.25 | 9.25 | 11.00 | 0.25 | 11.25 | 17.8875 | | |
| 11-May | " | BC05-14,17 | 8.8500 | 9.50 | 1.50 | 0.25 | 11.25 | BC05-15,16 | 3.7125 | 8.00 | 3.00 | 0.25 | 11.25 | 11.00 | 0.25 | 11.25 | 12.5625 | | |
| 12-May | " | BC05-14 | 6.7500 | 11.00 | | 0.25 | 11.25 | BC05-18,19 | 9.9000 | 11.00 | | 0.25 | 11.25 | 11.00 | 0.25 | 11.25 | 16.6500 | | |
| 13-May | " | BC05-15 | 4.7625 | 7.00 | 2.50 | 0.25 | 9.75 | BC05-18,19 | 5.6250 | 11.00 | | 0.25 | 11.25 | 11.00 | 0.25 | 11.25 | 10.3875 | | D#5 dwn 2.5 hrs alt prob.  Long travel |
| 14-May | " | BC05-15 | 10.7250 | 11.00 | | 0.25 | 11.25 | BC05-19,20 | 7.0125 | 11.00 | | 0.25 | 11.25 | 11.00 | 0.25 | 11.25 | 17.7375 | | |
| 15-May | 92 | | | | | | | BC05-20,21 | 5.0250 | 11.00 | | 0.25 | 11.25 | 15.50 | 0.50 | 16.00 | 5.0250 | | used 2 graders; one to clean up River Rd |
| 16-May | " | | | | | | | BC05-20,21 | 5.1000 | 10.00 | | 0.25 | 10.25 | 10.00 | 0.25 | 10.25 | 5.1000 | | |
| 17-May | " | | | | | | | BC05-20 | 3.1500 | 4.00 | | | 4.00 | 11.00 | 0.25 | 11.25 | 3.1500 | | complete dozing in PEL 92 |

**LINE PREPARATION  Production by DENHAM & O'KEEFE Earthmoving on Beach Petroleum's 2005 MYTILUS Seismic Survey**

| | | **Dozer #5** (Komatsu D65EX) | | | | | | **Dozer # 6** (Komatsu D65EX) | | | | | | **Grader** | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Date | AREA | Line | Km | Work | Walk / Float | Stand by | Charge | Line | Km | Work | Walk / Float | Stand by | Charge | Work / Walk | Stby | Charge | Tot Km for Day | Camp Move | Comments |
| | | | | | | | | | | | | | | | | | 0.0000 | | |
| 24-May | " | BC05-32 | 6.6000 | 3.50 | 0.50 | 0.25 | 4.25 | BC05-28,33 | 8.2500 | 7.50 | | 0.25 | 7.75 | | | | 14.8500 | | |
| 25-May | " | BC05-27,35 | 17.0250 | 11.00 | | 0.25 | 11.25 | BC05-24,28 | 10.6500 | 11.00 | | 0.25 | 11.25 | 11.00 | 0.25 | 11.25 | 27.6750 | | |
| 26-May | " | BC0534,35,36 | 21.0750 | 11.00 | | 0.25 | 11.25 | BC05-24,33,34 | 9.2250 | 11.00 | | 0.25 | 11.25 | 11.00 | 0.25 | 11.25 | 30.3000 | | |
| 27-May | " | BC05-36 | 4.8000 | 5.00 | | 0.25 | 5.25 | BC05-34 | 5.1375 | 5.00 | | 0.25 | 5.25 | 5.50 | 0.25 | 5.75 | 9.9375 | | Cplt Mytilus SS; grader 0.5 day for ACOR |
| 28-May | " | | | | | | 0.00 | | | | | | 0.00 | 7.50 | 0.25 | 7.75 | 0.0000 | | grader finishing access cleanup. |
| 29-May | " | | | | | | | | | | | | | 11.00 | 0.25 | 11.25 | 0.0000 | | grader finishing access cleanup. |
| 30-May | " | | | | | | | | | | | | | 10.00 | 0.25 | 10.25 | 0.0000 | | complete grading on Beach work |
| | | | | | | | | | | | | | | | | | 0.0000 | | |
| | | | 241.3500 | 263.50 | 4.50 | 7.00 | 274.75 | | 214.4625 | 272.25 | 6.50 | 7.50 | 286.00 | 304.50 | 18.00 | 322.25 | 455.8125 | | |
| **Total Km Cleared in PEL 92 =** | | | | **455.8125** | | | | | | | | | | | | | | | |
| **Total Dozer Work/Walk Hrs in PEL 92 =** | | | | **546.75** | | | | | | | | | | | | | | | |
| **Total Dozer Standby Hours in PEL 92 =** | | | | **14.50** | | | | | | | | | | | | | | | |
| 15-May | PEL 91 | BC05-45 | 7.6875 | 7.50 | 3.50 | 0.25 | 11.25 | | | | | | | 15.50 | 0.50 | 16.00 | 7.6875 | | used 2 graders; one to clean up River Rd |
| 16-May | " | BC05-39,45 | 12.2250 | 10.00 | | 0.25 | 10.25 | | | | | | | 10.00 | 0.25 | 10.25 | 12.2250 | | |
| 17-May | " | BC05-38 | 13.1625 | 11.00 | | 0.25 | 11.25 | BC05-39 | 1.9875 | 2.50 | 4.50 | 0.25 | 7.25 | 11.00 | 0.25 | 11.25 | 15.1500 | | walk D#6 to line 39 |
| 18-May | PEL 91 | BC05-38,41,45 | 11.1000 | 9.00 | 2.00 | 0.25 | 11.25 | BC05-44 | 8.1375 | 9.00 | 2.00 | 0.25 | 11.25 | 14.00 | 0.50 | 14.50 | 19.2375 | | used 2nd grader for 3 hrs on access track |
| 19-May | " | BC05-40,41 | 10.5000 | 8.50 | 2.50 | 0.25 | 11.25 | BC05-42,43,44 | 8.4750 | 11.00 | | 0.25 | 11.25 | 11.00 | 0.25 | 11.25 | 18.9750 | | |
| 20-May | " | BC05-40,41 | 11.2500 | 8.00 | 1.00 | 0.25 | 9.25 | BC05-39,41,42 | 8.3625 | 11.00 | | 0.25 | 11.25 | 11.00 | 0.25 | 11.25 | 19.6125 | | |
| 21-May | " | 41,42,43,45 | 16.6125 | 11.00 | | 0.25 | 11.25 | BC05-39,46 | 11.6250 | 11.00 | | 0.25 | 11.25 | 11.00 | 0.25 | 11.25 | 28.2375 | | |
| 22-May | " | BC05-42,43 | 11.6625 | 8.00 | 3.00 | 0.25 | 11.25 | BC05-37,39,46 | 13.5375 | 11.00 | | 0.25 | 11.25 | 11.00 | 0.25 | 11.25 | 25.2000 | | |
| 23-May | " | BC05-37,47 | 13.3875 | 8.00 | 2.00 | 0.25 | 10.25 | BC05-37.46,47 | 10.2375 | 11.00 | | 0.25 | 11.25 | 11.00 | 0.25 | 11.25 | 23.6250 | | |
| 24-May | " | BC05-47, 32 | 11.8500 | 7.00 | | | 7.00 | BC05-46 | 3.9750 | 3.50 | | | 3.50 | 10.50 | 0.25 | 10.75 | 15.8250 | | |
| 25-May | " | | | | | | | | | | | | | | | | | | |
| | | **PEL 91 TOTALS:** | 119.4375 | 88.00 | 14.00 | 2.25 | 104.25 | | 66.3375 | 70.00 | 6.50 | 1.75 | 78.25 | 116.00 | 3.00 | 119.00 | 185.7750 | 0.00 | |
| **Total Km Cleared in PEL 91 =** | | | | **185.7750** | | | | | | | | | | | | | | | |
| **Total Dozer Work/Walk Hrs in PEL 91 =** | | | | **178.50** | | | | | | | | | | | | | | | |
| **Total Dozer Standby Hours in PEL 91=** | | | | **4.00** | | | | | | | | | | | | | | | |

# APPENDIX V

# SURVEYING PRODUCTION

## Survey Production by *DYNAMIC SATELLITE SURVEYS* (DSS) on Beach Petroleum's 2005 MYTILUS Seismic Survey

| Date | Area | Lines | Kms | Extra Chargeable Hrs Work | Stby | Total Charge Hrs | Comments |
|---|---|---|---|---|---|---|---|
| 22-Apr-2005 | | | | | | | Arrived PEL92 - temporary o/nite camp |
| | | | | | | | Installed RDGPS Control points. |
| 23-Apr | PEL92 | CONTROL | | | 0.50 | 0.50 | BEACH induction 19:00-19:30 - 0.50 hrs stby |
| 24-Apr | PEL92 | BC05- 25 & 35 | 22.0125 | | 0.50 | 0.50 | Pegging behind 'dozers. Safety meeting 0.50 hrs stby |
| 25-Apr | PEL92 | BC05-26, 29, 30 | 22.8750 | | 0.25 | 0.25 | Toolbox meeting 0.25 hrs standby |
| 26-Apr | PEL92 | BC05-01, 29, 30, 31 | 20.8500 | | 0.25 | 0.25 | |
| 27-Apr | PEL92 | BC05-01, 22, 31 | 18.9750 | | 0.25 | 0.25 | |
| 28-Apr | PEL92 | BC05-02, 22, 23 | 16.5375 | | 0.25 | 0.25 | Mark, Kim(DO'K) & TG seeking access to northern PEL92 |
| 29-Apr | PEL92 | BC05-02, 23 | 16.8375 | | 0.25 | 0.25 | |
| 30-Apr | PEL92 | BC05-02, 03, 04, 06 | 17.3625 | | 0.25 | 0.25 | |
| | | **TOTALS** | 135.4500 | 0.0000 | 2.5000 | 2.5000 | |
| 1-May | PEL92,9: | BC05-03, 05, 06 | 21.3375 | | | 0.00 | Toolbox/Safety meeting postponed 1 day |
| 2-May | " | BC05-03, 04, 06, 07 | 15.4500 | | 0.50 | 0.50 | Safety meeting 18:50-19:20 |
| 3-May | " | BC05-03, 04, 07, 08, 09 | 16.2375 | | 0.25 | 0.25 | Toolbox meeting 18:45-19:00 |
| 4-May | " | BC05-09, 10 | 15.6000 | | 0.25 | 0.25 | Toolbox meeting 18:45-19:00 |
| 5-May | " | BC05-09, 10, 11, 16, 17 | 11.2125 | | 0.25 | 0.25 | Dozer #6 down. TbM 19:10-19:40 |
| 6-May | " | BC05-10,11,16 | 9.3750 | | 0.25 | 0.25 | stby toolbox |
| 7-May | " | BC05-10,17,12,16 | 22.1625 | | 0.25 | 0.25 | stby toolbox |
| 8-May | " | BC05-12,17,13,16 | 21.1875 | | 0.25 | 0.25 | stby toolbox |
| 9-May | " | BC05-12,13,16,17,14 | 16.5375 | | 0.25 | 0.25 | stby toolbox |
| 10-May | " | BC05-13,17,16,15 | 17.8875 | | 0.25 | 0.25 | stby toolbox |
| 11-May | " | BC05-14,17,15,16 | 12.5625 | | 0.25 | 0.25 | stby toolbox |
| " | " | | | | | | |
| 12-May | " | BC05-14,18,19 | 16.6500 | | 0.25 | 0.25 | stby toolbox |
| 13-May | " | BC05-15,18 | 10.3875 | | 0.25 | 0.25 | stby toolbox |
| 14-May | " | BC05-15,19,20 | 17.7375 | | 0.25 | 0.25 | stby toolbox |
| 15-May | 92,91 | BC05-20,21,45 | 12.7125 | | 0.25 | 0.25 | stby toolbox |
| 16-May | " | BC05-20,21,39,45 | 17.3750 | | 0.25 | 0.25 | stby toolbox |
| 17-May | " | BC05-20,38,39 | 18.3000 | | 0.25 | 0.25 | stby toolbox |
| 18-May | PEL91 | BC05-38,41,44,45 | 19.2375 | | 0.25 | 0.25 | stby toolbox |
| 19-May | " | BCO5-40,41,42,43,44 | 18.9750 | | 0.25 | 0.25 | stby toolbox |
| 20-May | " | BC05-39,40,41,42 | 19.6125 | | 0.25 | 0.25 | stby toolbox |
| 21-May | " | BCO5-39,41,42,43,45,46 | 28.2375 | | 0.25 | 0.25 | stby toolbox |
| 22-May | " | BC05-37,39,42,43,46 | 25.2000 | | 0.25 | 0.25 | stby toolbox |
| 23-May | " | BC05-37,46,47 | 23.6250 | | 0.25 | 0.25 | stby toolbox |
| | | | | | | 0.00 | |
| 24-May | " | BC05-46,28,33,47,32 | 30.6750 | | 0.25 | 0.25 | stby toolbox |
| 25-May | " | BC05-24,27,28,35 | 27.6750 | | 0.25 | 0.25 | stby toolbox |
| 26-May | " | BC05-24,33,34,35,36 | 30.3000 | | 0.25 | 0.25 | stby toolbox |
| 27-May | " | BC05-34,36 | 9.9375 | | 0.25 | 0.25 | stby toolbox; complete Mytilus SS |
| 28-May | " | | | | | 0.00 | |
| | | AGGREGATE TOTALS | 641.6375 | 0.0000 | 9.2500 | 9.2500 | |

BEACH PETROLEUM'S 2005 MYTILUS SEISMIC SURVEY

# APPENDIX VI

# SHIFTED UPHOLE LOCATION FILE

**Beach Petroleum 2005 Mytilus Seismic Survey: Uphole Location Listing**

| Pegged Position of Hole by DSS | | | | | | | | | | Revised Position Details | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Line | Station# | Eastings | Northings | Elevation | | | Hole # | Drilled Yet? (Y/N) | Date Drilled | Shifted? (Y/N) | Details of SHIFT from DRILLER's LOG | Revised Easting | Revised Northing | Revised Elevation |
| P_BC05-01 | 214 | 316272.913 | 6897051.258 | 32.584 | OO | UH | B001 | Y | 31-Jul-05 | N | | | | |
| P_BC05-01 | 265 | 318184.839 | 6897010.054 | 28.437 | OO | UH | B002 | Y | 31-Jul-05 | N | | | | |
| P_BC05-01 | 328 | 320546.35 | 6896953.517 | 25.62 | OO | UH | B003 | Y | 31-Jul-05 | N | | | | |
| P_BC05-01 | 389 | 322832.988 | 6896905.667 | 34.962 | OO | UH | B004 | Y | 31-Jul-05 | N | | | | |
| P_BC05-01 | 441 | 324782.877 | 6896867.019 | 30.916 | OO | UH | B005 | Y | 01-Aug-05 | N | | | | |
| P_BC05-01 | 464 | 325646.249 | 6896852.057 | 13.945 | OO | UH | B006 | Y | 01-Aug-05 | N | | | | |
| P_BC05-01 | 556+23 | 329118.173 | 6896768.998 | 17.353 | OO | UH | B007 | Y | 02-Aug-05 | N | | | | |
| P_BC05-01 | 575+7 | 329814.209 | 6896749.847 | 16.448 | OO | UH | B008 | Y | 02-Aug-05 | N | | | | |
| P_BC05-01 | 603 | 330856.895 | 6896723.637 | 16.755 | OO | UH | B009 | Y | 02-Aug-05 | N | | | | |
| P_BC05-02 | 223+1 | 322908.896 | 6889797.044 | 17.29 | OO | UH | B010 | Y | 30-Jul-05 | N | | | | |
| P_BC05-02 | 256+24 | 322891.845 | 6891058.206 | 17.111 | OO | UH | B011 | Y | 30-Jul-05 | N | | | | |
| P_BC05-02 | 313+10 | 322856.489 | 6893181.173 | 35.917 | OO | UH | B012 | Y | 30-Jul-05 | N | | | | |
| P_BC05-02 | 369+34 | 322839.729 | 6895304.871 | 23.114 | OO | UH | B013 | Y | 31-Jul-05 | N | | | | |
| P_BC05-02 | 456+16 | 322819.324 | 6898549.591 | 29.618 | OO | UH | B014 | Y | 31-Jul-05 | N | | | | |
| P_BC05-02 | 502+34 | 322804.02 | 6900292.332 | 35.891 | OO | UH | B015 | Y | 01-Aug-05 | N | | | | |
| P_BC05-02 | 520 | 322800.167 | 6900933.187 | 33.712 | OO | UH | B016 | Y | 31-Jul-05 | N | | | | |
| P_BC05-03 | 217+19 | 324687.075 | 6889264.876 | 20.535 | OO | UH | B017 | Y | 30-Jul-05 | N | | | | |
| P_BC05-03 | 265+17 | 324903.317 | 6891050.22 | 16.445 | OO | UH | B018 | Y | 30-Jul-05 | N | | | | |
| P_BC05-03 | 325+15 | 325211.004 | 6893276.879 | 19.78 | OO | UH | B019 | Y | 30-Jul-05 | N | | | | |
| P_BC05-03 | 380+17 | 325469.896 | 6895324.319 | 19.106 | OO | UH | B020 | Y | 30-Jul-05 | N | | | | |
| P_BC05-03 | 463+22 | 325854.439 | 6898418.45 | 17.383 | OO | UH | B021 | Y | 01-Aug-05 | N | | | | |
| P_BC05-03 | 511+25 | 326056.619 | 6900210.251 | 26.848 | OO | UH | B022 | Y | 01-Aug-05 | N | | | | |
| P_BC05-03 | 529 | 326151.299 | 6900853.94 | 25.776 | OO | UH | B023 | Y | 01-Aug-05 | N | | | | |
| P_BC05-03 | 571+5 | 326337.831 | 6902422.71 | 27.779 | OO | UH | B024 | Y | 22-Jul-05 | N | | | | |
| P_BC05-03 | 587+21 | 326412.149 | 6903034.388 | 27.913 | OO | UH | B025 | Y | 22-Jul-05 | N | | | | |
| P_BC05-03 | 634 | 326625.097 | 6904762.812 | 18.391 | OO | UH | B026 | Y | 22-Jul-05 | N | | | | |
| P_BC05-03 | 680+5 | 326824.747 | 6906472.293 | 22.264 | OO | UH | B027 | Y | 22-Jul-05 | N | | | | |
| P_BC05-03 | 704 | 326939.55 | 6907360.134 | 20.459 | OO | UH | B028 | Y | 21-Jul-05 | N | | | | |
| P_BC05-03 | 721+19 | 327021.476 | 6908011.594 | 16.241 | OO | UH | B029 | Y | 21-Jul-05 | N | | | | |
| P_BC05-03 | 741+32 | 327123.066 | 6908767.307 | 20.713 | OO | UH | B030 | Y | 21-Jul-05 | N | | | | |
| P_BC05-03 | 765+4 | 327232.19 | 6909632.467 | 27.332 | OO | UH | B031 | Y | 19-Jul-05 | N | | | | |

**Beach Petroleum 2005 Mytilus Seismic Survey: Uphole Location Listing**

| Pegged Position of Hole by DSS | | | | | | | | | | Revised Position Details | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Line | Station# | Eastings | Northings | Elevation | | | Hole # | Drilled Yet? (Y/N) | Date Drilled | Shifted? (Y/N) | Details of SHIFT from DRILLER's LOG | Revised Easting | Revised Northing | Revised Elevation |
| P_BC05-03 | 814+31 | 327474.856 | 6911481.859 | 33.849 | OO | UH | B032 | Y | 19-Jul-05 | N | | | | |
| P_BC05-04 | 223+6 | 325231.905 | 6902446.808 | 29.898 | OO | UH | B033 | Y | 20-Jul-05 | N | | | | |
| P_BC05-04 | 239+30 | 325318.859 | 6903065.073 | 20.817 | OO | UH | B034 | Y | 20-Jul-05 | N | | | | |
| P_BC05-04 | 286 | 325542.04 | 6904783.038 | 28.7 | OO | UH | B035 | Y | 20-Jul-05 | N | | | | |
| P_BC05-04 | 332+31 | 325770.078 | 6906524.693 | 34.479 | OO | UH | B036 | Y | 20-Jul-05 | N | | | | |
| P_BC05-04 | 355+34 | 325893.536 | 6907380.751 | 35.568 | OO | UH | B037 | Y | 21-Jul-05 | N | | | | |
| P_BC05-04 | 374+33 | 325974.856 | 6908087.615 | 30.381 | OO | UH | B038 | Y | 21-Jul-05 | N | | | | |
| P_BC05-04 | 396+15 | 326082.408 | 6908887.818 | 35.241 | OO | UH | B039 | Y | 21-Jul-05 | N | | | | |
| P_BC05-04 | 419+6 | 326196.077 | 6909734.028 | 19.874 | OO | UH | B040 | Y | 19-Jul-05 | N | | | | |
| P_BC05-04 | 468+35 | 326450.858 | 6911583.16 | 22.77 | OO | UH | B041 | Y | 19-Jul-05 | N | | | | |
| P_BC05-05 | 231+28 | 324463.361 | 6907430.863 | 26.951 | OO | UH | B042 | Y | 20-Jul-05 | N | | | | |
| P_BC05-05 | 322+19 | 327864.988 | 6907314.78 | 18.342 | OO | UH | B043 | Y | 23-Jul-05 | N | | | | |
| P_BC05-05 | 395+24 | 330603.288 | 6907173.865 | 30.213 | OO | UH | B044 | Y | 24-Jul-05 | N | | | | |
| P_BC05-06 | 225+28 | 324441.49 | 6908182.067 | 27.453 | OO | UH | B045 | Y | 21-Jul-05 | N | | | | |
| P_BC05-06 | 319+18 | 327949.865 | 6907956.551 | 19.328 | OO | UH | B046 | Y | 23-Jul-05 | N | | | | |
| P_BC05-06 | 371+17 | 329893.924 | 6907818.921 | 28.782 | OO | UH | B047 | Y | 24-Jul-05 | N | | | | |
| P_BC05-06 | 392+19 | 330682.074 | 6907776.295 | 21.221 | OO | UH | B048 | Y | 24-Jul-05 | N | | | | |
| P_BC05-06 | 410+28 | 331364.581 | 6907728.15 | 32.411 | OO | UH | B049 | Y | 24-Jul-05 | N | | | | |
| P_BC05-07 | 240+21 | 324404.297 | 6909921.081 | 32.857 | OO | UH | B050 | Y | 19-Jul-05 | N | | | | |
| P_BC05-07 | 341+17 | 328168.221 | 6909541.353 | 31.451 | OO | UH | B051 | Y | 19-Jul-05 | N | | | | |
| P_BC05-07 | 414+5 | 330877.328 | 6909240.423 | 33.893 | OO | UH | B052 | Y | 24-Jul-05 | N | | | | |
| P_BC05-08 | 226+6 | 327736.493 | 6906426.868 | 17.234 | OO | UH | B053 | Y | 23-Jul-05 | N | | | | |
| P_BC05-08 | 359+24 | 328424.12 | 6911385.085 | 39.373 | OO | UH | B054 | Y | 20-Jul-05 | N | | | | |
| P_BC05-09 | 225+21 | 320215.213 | 6916137.269 | 47.694 | OO | UH | B055 | Y | 13-Jul-05 | N | | | | |
| P_BC05-09 | 247+23 | 321034.605 | 6916027.699 | 42.973 | OO | UH | B056 | Y | 14-Jul-05 | N | | | | |
| P_BC05-09 | 290+9 | 322619.214 | 6915818.612 | 47.054 | OO | UH | B057 | Y | 14-Jul-05 | N | | | | |
| P_BC05-09 | 333+21 | 324228.491 | 6915597.509 | 29.157 | OO | UH | B058 | Y | 14-Jul-05 | N | | | | |
| P_BC05-09 | 388 | 326253.139 | 6915332.373 | 20.613 | OO | UH | B059 | Y | 14-Jul-05 | N | | | | |
| P_BC05-09 | 449+29 | 328548.856 | 6915022.191 | 29.43 | OO | UH | B060 O | Y | 14-Jul-05 | N | | | | |
| P_BC05-09 | 513 | 330898.926 | 6914705.226 | 36.449 | OO | UH | B061 | Y | 14-Jul-05 | N | | | | |
| P_BC05-09 | 532+31 | 331634.412 | 6914601.991 | 16.851 | OO | UH | B062 | Y | 14-Jul-05 | N | | | | |

## Beach Petroleum 2005 Mytilus Seismic Survey: Uphole Location Listing

| Pegged Position of Hole by DSS | | | | | | | | | | Revised Position Details | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Line | Station# | Eastings | Northings | Elevation | | | Hole # | Drilled Yet? (Y/N) | Date Drilled | Shifted? (Y/N) | Details of SHIFT from DRILLER's LOG | Revised Easting | Revised Northing | Revised Elevation |
| P_BC05-09 | 552 | 332348.201 | 6914515.762 | 19.718 | OO | UH | B063 | Y | 14-Jul-05 | N | | | | |
| P_BC05-09 | 578+14 | 333327.829 | 6914376.519 | 16.675 | OO | UH | B064 | Y | 15-Jul-05 | N | | | | |
| P_BC05-09 | 604+16 | 334298.082 | 6914260.442 | 22.47 | OO | UH | B065 | Y | 15-Jul-05 | N | | | | |
| P_BC05-10 | 232+21 | 318607.66 | 6917431.552 | 44.371 | OO | UH | B066 | Y | 13-Jul-05 | N | | | | |
| P_BC05-10 | 260+17 | 319644.135 | 6917286.236 | 53.093 | OO | UH | B067 | Y | 13-Jul-05 | N | | | | |
| P_BC05-10 | 284+12 | 320531.613 | 6917171.03 | 43.699 | OO | UH | B068 | Y | 13-Jul-05 | N | | | | |
| P_BC05-10 | 305+33 | 321332.073 | 6917055.917 | 36.696 | OO | UH | B069 | Y | 12-Jul-05 | N | drilled to 100m as a water bore test hole | | | |
| P_BC05-10 | 344 | 322748.249 | 6916863.054 | 40.1 | OO | UH | B070 | Y | 12-Jul-05 | N | | | | |
| P_BC05-10 | 383 | 324197.183 | 6916667.796 | 34.017 | OO | UH | B071 | Y | 12-Jul-05 | N | | | | |
| P_BC05-10 | 444 | 326410.959 | 6916373.668 | 19.557 | OO | UH | B072 | Y | 11-Jul-05 | N | | | | |
| P_BC05-10 | 509 | 328827.65 | 6916051.524 | 37.417 | OO | UH | B073 | Y | 11-Jul-05 | N | | | | |
| P_BC05-10 | 568+21 | 331042.49 | 6915760.62 | 25.458 | OO | UH | B074 | Y | 11-Jul-05 | N | | | | |
| P_BC05-10 | 588+9 | 331774.465 | 6915666.178 | 17.128 | OO | UH | B075 | Y | 11-Jul-05 | N | | | | |
| P_BC05-10 | 607+28 | 332498.705 | 6915566.899 | 27.474 | OO | UH | B076 | Y | 11-Jul-05 | N | | | | |
| P_BC05-10 | 634+15 | 333489.421 | 6915437.062 | 17.069 | OO | UH | B077 | Y | 11-Jul-05 | N | | | | |
| P_BC05-10 | 660+14 | 334455.528 | 6915309.558 | 20.077 | OO | UH | B078 | Y | 11-Jul-05 | N | | | | |
| P_BC05-11 | 209+36 | 317355.579 | 6919055.319 | 45.03 | OO | UH | B079 | Y | 06-Jul-05 | N | | | | |
| P_BC05-11 | 253+19 | 319010.664 | 6918837.214 | 42.575 | OO | UH | B080 | Y | 06-Jul-05 | N | | | | |
| P_BC05-11 | 281+23 | 320054.967 | 6918697.085 | 47.68 | OO | UH | B081 | Y | 06-Jul-05 | N | | | | |
| P_BC05-11 | 305+21 | 320944.213 | 6918570.626 | 51.41 | OO | UH | B082 | Y | 06-Jul-05 | N | | | | |
| P_BC05-11 | 327+3 | 321744.277 | 6918462.458 | 51.258 | OO | UH | B083 | Y | 06-Jul-05 | N | | | | |
| P_BC05-11 | 359+27 | 322957.779 | 6918302.459 | 50.902 | OO | UH | B084 | Y | 06-Jul-05 | N | | | | |
| P_BC05-11 | 392 | 324156.673 | 6918135.288 | 34.207 | OO | UH | B085 | Y | 07-Jul-05 | N | | | | |
| P_BC05-11 | 441+30 | 326007.818 | 6917889.54 | 23.467 | OO | UH | B086 | Y | 07-Jul-05 | N | | | | |
| P_BC05-12 | 235+27 | 319290.555 | 6919681.707 | 40.549 | OO | UH | B087 | Y | 05-Jul-05 | N | | | | |
| P_BC05-12 | 262+22 | 320283.261 | 6919510.816 | 42.83 | OO | UH | B088 | Y | 05-Jul-05 | N | | | | |
| P_BC05-12 | 286+20 | 321169.562 | 6919368.022 | 41.727 | OO | UH | B089 | Y | 05-Jul-05 | N | | | | |
| P_BC05-12 | 308+8 | 321971.389 | 6919231.664 | 40.661 | OO | UH | B090 | Y | 05-Jul-05 | N | | | | |
| P_BC05-12 | 337+27 | 323065.466 | 6919067.934 | 39.384 | OO | UH | B091 | Y | 10-Jul-05 | YES | Moved 27m west - 'hard silcrete' | | | |
| P_BC05-12 | 366+27 | 324135.612 | 6918871.885 | 34.456 | OO | UH | B092 | Y | 10-Jul-05 | N | | | | |
| P_BC05-12 | 420 | 326107.123 | 6918549.862 | 29.118 | OO | UH | B093 | Y | 10-Jul-05 | N | | | | |

**Beach Petroleum 2005 Mytilus Seismic Survey:   Uphole Location Listing**

| Pegged Position of Hole by DSS | | | | | | | | | | Revised Position Details | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Line | Station# | Eastings | Northings | Elevation | | | Hole # | Drilled Yet? (Y/N) | Date Drilled | Shifted? (Y/N) | Details of SHIFT from DRILLER's LOG | Revised Easting | Revised Northing | Revised Elevation |
| P_BC05-12 | 467+18 | 327864.039 | 6918260.904 | 36.911 | OO | UH | B094 | Y | 10-Jul-05 | N | | | | |
| P_BC05-12 | 513 | 329550.703 | 6917996.705 | 21.811 | OO | UH | B095 O | Y | 10-Jul-05 | N | | | | |
| P_BC05-12 | 627+4 | 333771.871 | 6917298.023 | 19.77 | OO | UH | B096 | Y | 10-Jul-05 | N | | | | |
| P_BC05-13 | 212 | 318402.716 | 6922934.526 | 44.211 | OO | UH | B097 | Y | 02-Jul-05 | N | | | | |
| P_BC05-13 | 257+14 | 320079.885 | 6922646.509 | 51.286 | OO | UH | B098 | Y | 02-Jul-05 | N | | | | |
| P_BC05-13 | 285+28 | 321125.912 | 6922454.025 | 37.01 | OO | UH | B099 | Y | 02-Jul-05 | N | | | | |
| P_BC05-13 | 310+15 | 322037.154 | 6922297.33 | 36.628 | OO | UH | B100 | Y | 03-Jul-05 | N | | | | |
| P_BC05-13 | 331+13 | 322807.888 | 6922143.149 | 36.887 | OO | UH | B101 | Y | 03-Jul-05 | N | | | | |
| P_BC05-13 | 365 | 324049.83 | 6921918.372 | 40.554 | OO | UH | B102 | Y | 03-Jul-05 | N | | | | |
| P_BC05-13 | 417+13 | 325980.155 | 6921561.663 | 37.424 | OO | UH | B103 | Y | 03-Jul-05 | N | | | | |
| P_BC05-13 | 468+12 | 327859.208 | 6921214.695 | 25.071 | OO | UH | B104 | Y | 03-Jul-05 | N | | | | |
| P_BC05-13 | 513+21 | 329533.609 | 6920939.652 | 15.087 | OO | UH | B105 O | Y | 03-Jul-05 | N | | | | |
| P_BC05-13 | 571+9 | 331660.089 | 6920543.603 | 14.335 | OO | UH | B106 | Y | 03-Jul-05 | N | | | | |
| P_BC05-13 | 640+7 | 334203.84 | 6920080.418 | 19.72 | OO | UH | B107 | Y | 03-Jul-05 | N | | | | |
| P_BC05-14 | 233+31 | 321265.229 | 6926755.12 | 37.745 | OO | UH | B108 | Y | 01-Jul-05 | N | | | | |
| P_BC05-14 | 261+24 | 322277.663 | 6926500.424 | 38.89 | OO | UH | B109 | Y | 01-Jul-05 | N | | | | |
| P_BC05-14 | 308+18 | 323987.931 | 6926101.423 | 59.216 | OO | UH | B110 | Y | 01-Jul-05 | N | | | | |
| P_BC05-14 | 360+15 | 325876.5 | 6925628.472 | 41.53 | OO | UH | B111 | Y | 04-Jul-05 | N | | | | |
| P_BC05-14 | 418+27 | 327995.047 | 6925085.787 | 29.594 | OO | UH | B112 | Y | 04-Jul-05 | N | | | | |
| P_BC05-14 | 465+29 | 329709.647 | 6924667.839 | 33.528 | OO | UH | B113 O | Y | 04-Jul-05 | N | | | | |
| P_BC05-14 | 513+3 | 331440.078 | 6924276.61 | 41.589 | OO | UH | B114 | Y | 04-Jul-05 | N | | | | |
| P_BC05-14 | 565+25 | 333356.228 | 6923809.62 | 31.408 | OO | UH | B115 O | Y | 04-Jul-05 | N | | | | |
| P_BC05-14 | 625 | 335510.519 | 6923255.576 | 16.422 | OO | UH | B116 | Y | 04-Jul-05 | N | | | | |
| P_BC05-15 | 234 | 321407.099 | 6931937.831 | 34.403 | OO | UH | B117 | Y | 24-Jun-05 | N | | | | |
| P_BC05-15 | 296+11 | 323654.782 | 6931300.492 | 36.699 | OO | UH | B118 | Y | 24-Jun-05 | N | | | | |
| P_BC05-15 | 351+23 | 325660.277 | 6930771.105 | 36.51 | OO | UH | B119 | Y | 23-Jun-05 | N | | | | |
| P_BC05-15 | 404+19 | 327569.092 | 6930232.479 | 39.869 | OO | UH | B120 | Y | 23-Jun-05 | N | | | | |
| P_BC05-15 | 461+23 | 329633.836 | 6929663.76 | 40.542 | OO | UH | B121 | **Y** | **22-Jun-05** | **YES** | **moved 60m west to drillable site** | | | |
| P_BC05-15 | 514+13 | 331546.297 | 6929158.588 | 35.176 | OO | UH | B122 | Y | 22-Jun-05 | N | | | | |
| P_BC05-15 | 569 | 333524.059 | 6928622.05 | 36.903 | OO | UH | B123 | Y | 22-Jun-05 | N | | | | |
| P_BC05-15 | 623+5 | 335481.676 | 6928084.777 | 32.815 | OO | UH | B124 | Y | 22-Jun-05 | N | | | | |

**Beach Petroleum 2005 Mytilus Seismic Survey:   Uphole Location Listing**

| Pegged Position of Hole by DSS | | | | | | | | | | Revised Position Details | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Line | Station# | Eastings | Northings | Elevation | | | Hole # | Drilled Yet? (Y/N) | Date Drilled | Shifted? (Y/N) | Details of SHIFT from DRILLER's LOG | Revised Easting | Revised Northing | Revised Elevation |
| P_BC05-15 | 678 | 337462.952 | 6927530.241 | 16.743 | OO | UH | B125 | Y | 22-Jun-05 | N | | | | |
| P_BC05-16 | 249+2 | 319873.765 | 6918036.506 | 51.269 | OO | UH | B126 | Y | 13-Jul-05 | N | | | | |
| P_BC05-16 | 317+4 | 320563.791 | 6920493.539 | 44.212 | OO | UH | B127 | Y | 05-Jul-05 | N | | | | |
| P_BC05-16 | 419+22 | 321614.937 | 6924189.736 | 39.868 | OO | UH | B128 | Y | 02-Jul-05 | N | | | | |
| P_BC05-16 | 452 | 321953.32 | 6925357.417 | 41.25 | OO | UH | B129 | Y | 02-Jul-05 | N | | | | |
| P_BC05-16 | 516 | 322620.939 | 6927662.439 | 39.312 | OO | UH | B130 | Y | 02-Jul-05 | N | | | | |
| P_BC05-16 | 548+6 | 322954.952 | 6928821.935 | 39.979 | OO | UH | B131 | Y | 01-Jul-05 | N | | | | |
| P_BC05-16 | 583 | 323294.024 | 6930082.894 | 36.478 | OO | UH | B132 | Y | 01-Jul-05 | N | | | | |
| P_BC05-16 | 651 | 323826.454 | 6932583.35 | 41.231 | OO | UH | B133 | Y | 23-Jun-05 | N | | | | |
| P_BC05-16 | 683+20 | 324330.539 | 6933708.293 | 37.019 | OO | UH | B134 | Y | 23-Jun-05 | N | | | | |
| P_BC05-16 | 705 | 324566.489 | 6934478.243 | 41.499 | OO | UH | B135 | Y | 23-Jun-05 | N | | | | |
| P_BC05-17 | 274+14 | 321554.801 | 6917792.284 | 47.387 | OO | UH | B136 | Y | 13-Jul-05 | N | | | | |
| P_BC05-17 | 342+19 | 322253.962 | 6920250.364 | 36.231 | OO | UH | B137 | Y | 05-Jul-05 | N | | | | |
| P_BC05-17 | 441+28 | 323317.661 | 6923791.057 | 35.1 | OO | UH | B138 | Y | 05-Jul-05 | N | | | | |
| P_BC05-17 | 473+12 | 323640.915 | 6924930.728 | 41.388 | OO | UH | B139 | Y | 05-Jul-05 | N | | | | |
| P_BC05-17 | 500+5 | 323935.928 | 6925891.428 | 59.073 | OO | UH | B140 | Y | 02-Jul-05 | N | | | | |
| P_BC05-17 | 538 | 324328.337 | 6927256.842 | 51.95 | OO | UH | B141 | Y | 01-Jul-05 | N | | | | |
| P_BC05-17 | 569+17 | 324648.309 | 6928391.691 | 33.922 | OO | UH | B142 | Y | 01-Jul-05 | N | | | | |
| P_BC05-18 | 222+2 | 319519.9 | 6942034.257 | 64.911 | OO | UH | B143 | Y | 27-Jun-05 | N | | | | |
| P_BC05-18 | 271+36 | 320928.552 | 6943266.395 | 29.262 | OO | UH | B144 | Y | 27-Jun-05 | N | | | | |
| P_BC05-18 | 310+16 | 321591.262 | 6943841.586 | 29.866 | OO | UH | B145 | Y | 24-Jun-05 | N | | | | |
| P_BC05-18 | 320 | 322289.869 | 6944446.153 | 38.395 | OO | UH | B146 | Y | 27-Jun-05 | N | | | | |
| P_BC05-21 | 311+8 | 322974.944 | 6945053.258 | 46.468 | OO | UH | B147 | Y | 27-Jun-05 | N | | | | |
| P_BC05-18 | 371 | 323721.255 | 6945714.861 | 40.05 | OO | UH | B148 | Y | 28-Jun-05 | N | | | | |
| P_BC05-18 | 421+11 | 325130.87 | 6946967.871 | 40.98 | OO | UH | B149 | Y | 28-Jun-05 | N | | | | |
| P_BC05-19 | 209 | 319760.482 | 6941271.887 | 66.336 | OO | UH | B150 | Y | 26-Jun-05 | N | | | | |
| P_BC05-19 | 228+22 | 320311.022 | 6941758.914 | 53.694 | OO | UH | B151 | Y | 26-Jun-05 | N | | | | |
| P_BC05-19 | 277+20 | 321683.475 | 6942976.976 | 29.748 | OO | UH | B152 | Y | 26-Jun-05 | N | | | | |
| P_BC05-20 | 331+23 | 322336.15 | 6943565.571 | 35.203 | OO | UH | B153 | Y | 24-Jun-05 | N | | | | |
| P_BC05-19 | 327 | 323074.994 | 6944203.778 | 37.146 | OO | UH | B154 | Y | 30-Jun-05 | N | | | | |
| P_BC05-21 | 332 | 323692.514 | 6944747.676 | 39.231 | OO | UH | B155 | Y | 29-Jun-05 | N | | | | |

**Beach Petroleum 2005 Mytilus Seismic Survey: Uphole Location Listing**

| Pegged Position of Hole by DSS | | | | | | | | | | Revised Position Details | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Line | Station# | Eastings | Northings | Elevation | | | Hole # | Drilled Yet? (Y/N) | Date Drilled | Shifted? (Y/N) | Details of SHIFT from DRILLER's LOG | Revised Easting | Revised Northing | Revised Elevation |
| P_BC05-19 | 375+2 | 324420.163 | 6945403.316 | 48.096 | OO | UH | B156 | Y | 29-Jun-05 | N | | | | |
| P_BC05-19 | 425+35 | 325857.549 | 6946658.534 | 39.734 | OO | UH | B157 | Y | 29-Jun-05 | N | | | | |
| P_BC05-19 | 449 | 326501.688 | 6947235.422 | 57.355 | OO | UH | B158 | Y | 28-Jun-05 | N | | | | |
| P_BC05-20 | 208 | 318026.188 | 6945270.877 | 45.657 | OO | UH | B159 | Y | 26-Jun-05 | N | | | | |
| P_BC05-20 | 230 | 318801.293 | 6944987.759 | 52.546 | OO | UH | B160 | Y | 25-Jun-05 | N | | | | |
| P_BC05-20 | 262 | 319916.451 | 6944544.954 | 46.371 | OO | UH | B161 | Y | 25-Jun-05 | N | | | | |
| P_BC05-20 | 292+8 | 320960.353 | 6944103.382 | 29.327 | OO | UH | B162 | Y | 25-Jun-05 | N | | | | |
| P_BC05-20 | 351 | 323011.297 | 6943295.159 | 36.449 | OO | UH | B163 | Y | 24-Jun-05 | N | | | | |
| P_BC05-20 | 403 | 324812.284 | 6942546.877 | 39.447 | OO | UH | B164 | Y | 24-Jun-05 | N | | | | |
| P_BC05-21 | 208 | 319415.751 | 6946560.888 | 39.783 | OO | UH | B165 | Y | 28-Jun-05 | N | | | | |
| P_BC05-21 | 231 | 320210.072 | 6946224.248 | 34.4 | OO | UH | B166 | Y | 27-Jun-05 | N | | | | |
| P_BC05-21 | 261+6 | 321239.552 | 6945767.48 | 37.195 | OO | UH | B167 | Y | 28-Jun-05 | N | | | | |
| P_BC05-21 | 292+18 | 322324.885 | 6945319.797 | 39.973 | OO | UH | B168 | Y | 28-Jun-05 | N | | | | |
| P_BC05-21 | 351+8 | 324358.418 | 6944472.403 | 50.825 | OO | UH | B169 | Y | 29-Jun-05 | N | | | | |
| P_BC05-21 | 404 | 326190.192 | 6943722.262 | 38.628 | OO | UH | B170 | Y | 30-Jun-05 | N | | | | |
| P_BC05-22 | 251+16 | 324672.998 | 6900254.198 | 30.058 | OO | UH | B171 | Y | 01-Aug-05 | N | | | | |
| P_BC05-22 | 325+8 | 327439.55 | 6900183.851 | 22.616 | OO | UH | B172 | Y | 01-Aug-05 | N | | | | |
| P_BC05-22 | 361+3 | 328783.96 | 6900151.123 | 27.197 | OO | UH | B173 | Y | 03-Aug-05 | N | | | | |
| P_BC05-22 | 382+11 | 329579.132 | 6900129.332 | 17.123 | OO | UH | B174 | Y | 03-Aug-05 | N | | | | |
| P_BC05-22 | 401+9 | 330289.656 | 6900118.343 | 16.504 | OO | UH | B175 | Y | 03-Aug-05 | N | | | | |
| P_BC05-22 | 427+28 | 331282.966 | 6900089.44 | 17.561 | OO | UH | B176 | Y | 04-Aug-05 | N | | | | |
| P_BC05-22 | 452+20 | 332212.126 | 6900071.085 | 19.346 | OO | UH | B177 | Y | 04-Aug-05 | N | | | | |
| P_BC05-22 | 475+26 | 333080.21 | 6900043.624 | 17.8 | OO | UH | B178 | Y | 29-Jul-05 | N | | | | |
| P_BC05-22 | 497+13 | 333892.535 | 6900020.555 | 22.76 | OO | UH | B179 | Y | 29-Jul-05 | N | | | | |
| P_BC05-22 | 511+27 | 334430.779 | 6900001.577 | 19.344 | OO | UH | B180 | Y | 29-Jul-05 | N | | | | |
| P_BC05-23 | 221+14 | 324606.842 | 6902463.061 | 27.957 | OO | UH | B181 | Y | 20-Jul-05 | N | | | | |
| P_BC05-23 | 304+9 | 327713.914 | 6902394.135 | 22.605 | OO | UH | B182 | Y | 22-Jul-05 | N | | | | |
| P_BC05-23 | 341+14 | 329105.792 | 6902349.718 | 18.038 | OO | UH | B183 | Y | 22-Jul-05 | N | | | | |
| P_BC05-23 | 362+32 | 329910.387 | 6902326.17 | 18.172 | OO | UH | B184 | Y | 22-Jul-05 | N | | | | |
| P_BC05-23 | 381+8 | 330576.853 | 6902306.132 | 18.236 | OO | UH | B185 | Y | 22-Jul-05 | N | | | | |
| P_BC05-23 | 405+33 | 331522.883 | 6902281.625 | 34.049 | OO | UH | B186 | y | 27-Jul-05 | N | | | | |

**Beach Petroleum 2005 Mytilus Seismic Survey:   Uphole Location Listing**

| Pegged Position of Hole by DSS | | | | | | | | | | Revised Position Details | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Line | Station# | Eastings | Northings | Elevation | | | Hole # | Drilled Yet? (Y/N) | Date Drilled | Shifted? (Y/N) | Details of SHIFT from DRILLER's LOG | Revised Easting | Revised Northing | Revised Elevation |
| P_BC05-23 | 432+33 | 332535.601 | 6902263.31 | 16.856 | OO | UH | B187 | Y | 28-Jul-05 | N | | | | |
| P_BC05-23 | 455+19 | 333383.585 | 6902239.869 | 15.708 | OO | UH | B188 | Y | 28-Jul-05 | N | | | | |
| P_BC05-23 | 477+19 | 334208.444 | 6902216.217 | 20.28 | OO | UH | B189 | Y | 28-Jul-05 | N | | | | |
| P_BC05-23 | 521+19 | 335857.922 | 6902175.51 | 16.28 | OO | UH | B190 | Y | 28-Jul-05 | N | | | | |
| P_BC05-23 | 565+22 | 337510.297 | 6902122.92 | 24.435 | OO | UH | B191 | Y | 28-Jul-05 | N | | | | |
| P_BC05-24 | 231+13 | 345922.893 | 6915577.834 | 28.048 | OO | UH | B192 | Y | 20-Jun-05 | N | | | | |
| P_BC05-24 | 270 | 345943.679 | 6917025.191 | 19.276 | OO | UH | B193 | Y | 20-Jun-05 | N | | | | |
| P_BC05-24 | 289+16 | 345939.259 | 6917747.634 | 23.859 | OO | UH | B194 | Y | 20-Jun-05 | N | | | | |
| P_BC05-24 | 311 | 345891.447 | 6918549.048 | 19.466 | OO | UH | B195 | Y | 20-Jun-05 | N | | | | |
| P_BC05-24 | 326+6 | 345958.699 | 6919113.809 | 17.812 | OO | UH | B196 | Y | 17-Jun-05 | N | | | | |
| P_BC05-24 | 343 | 345966.93 | 6919744.36 | 20.07 | OO | UH | B197 | Y | 16-Jun-05 | N | | | | |
| P_BC05-25 | 223 | 329442.846 | 6904574.182 | 29.556 | OO | UH | B198 | Y | 27-Jul-05 | N | | | | |
| P_BC05-25 | 244 | 330230.435 | 6904553.925 | 19.048 | OO | UH | B199 | Y | 27-Jul-05 | N | | | | |
| P_BC05-25 | 261 | 330867.678 | 6904537.153 | 19.179 | OO | UH | B200 | Y | 27-Jul-05 | N | | | | |
| P_BC05-25 | 286 | 331804.182 | 6904505.882 | 20.805 | OO | UH | B201 | Y | 27-Jul-05 | N | | | | |
| P_BC05-25 | 313 | 332816.612 | 6904475.859 | 19.065 | OO | UH | B202 | Y | 26-Jul-05 | N | | | | |
| P_BC05-25 | 335+7 | 333644.376 | 6904434.11 | 17.038 | OO | UH | B203 | Y | 26-Jul-05 | N | | | | |
| P_BC05-25 | 358+5 | 334514.436 | 6904410.491 | 18.139 | OO | UH | B204 | Y | 26-Jul-05 | N | | | | |
| P_BC05-25 | 409 | 336412.333 | 6904417.619 | 18.096 | OO | UH | B205 | Y | 26-Jul-05 | N | | | | |
| P_BC05-26 | 227 | 329606.036 | 6905672.231 | 28.548 | OO | UH | B206 | Y | 25-Jul-05 | N | | | | |
| P_BC05-26 | 247 | 330354.361 | 6905657.726 | 18.663 | OO | UH | B207 O | Y | 25-Jul-05 | N | | | | |
| P_BC05-26 | 266 | 331067.328 | 6905626.905 | 18.155 | OO | UH | B208 | Y | 25-Jul-05 | N | | | | |
| P_BC05-26 | 294 | 332117.085 | 6905600.878 | 18.127 | OO | UH | B209 O | Y | 25-Jul-05 | N | | | | |
| P_BC05-26 | 318 | 333016.183 | 6905574.022 | 22.464 | OO | UH | B210 | Y | 25-Jul-05 | N | | | | |
| P_BC05-26 | 339 | 333814.352 | 6905554.723 | 18.26 | OO | UH | B211 | Y | 25-Jul-05 | N | | | | |
| P_BC05-26 | 362 | 334664.41 | 6905500.881 | 19.56 | OO | UH | B212 | Y | 26-Jul-05 | N | | | | |
| P_BC05-26 | 415 | 336649.924 | 6905496.738 | 17.217 | OO | UH | B213 | Y | 26-Jul-05 | N | | | | |
| P_BC05-26 | 459 | 338293.18 | 6905435.777 | 20.343 | OO | UH | B214 | Y | 17-Jul-05 | N | | | | |
| P_BC05-27 | 217+8 | 336616.028 | 6918934.898 | 38.111 | OO | UH | B215 | Y | 21-Jun-05 | N | | | | |
| P_BC05-27 | 254+33 | 338017.562 | 6918761.059 | 19.297 | OO | UH | B216 | Y | 21-Jun-05 | N | | | | |
| P_BC05-27 | 273+17 | 338708.577 | 6918671.838 | 19.823 | OO | UH | B217 | Y | 21-Jun-05 | N | | | | |

**Beach Petroleum 2005 Mytilus Seismic Survey: Uphole Location Listing**

| Pegged Position of Hole by DSS | | | | | | | | | | Revised Position Details | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Line | Station# | Eastings | Northings | Elevation | | | Hole # | Drilled Yet? (Y/N) | Date Drilled | Shifted? (Y/N) | Details of SHIFT from DRILLER's LOG | Revised Easting | Revised Northing | Revised Elevation |
| P_BC05-27 | 321+21 | 340496.229 | 6918426.929 | 18.764 | OO | UH | B218 | Y | 21-Jun-05 | N | | | | |
| P_BC05-27 | 370+7 | 342289.665 | 6918178.423 | 18.008 | OO | UH | B219 | Y | 21-Jun-05 | N | | | | |
| P_BC05-27 | 421+3 | 344187.318 | 6917974.892 | 20.236 | OO | UH | B220 | Y | 20-Jun-05 | Y | 40m west to stn # 420 due to wetness | | | |
| P_BC05-27 | 488+7 | 346679.787 | 6917627.769 | 20.248 | OO | UH | B221 | Y | 20-Jun-05 | N | | | | |
| P_BC05-27 | 508+6 | 347417.06 | 6917497.465 | 20.186 | OO | UH | B222 | Y | 18-Jun-05 | N | | | | |
| P_BC05-27 | 529+7 | 348189.721 | 6917336.708 | 20.652 | OO | UH | B223 | Y | 17-Jun-05 | N | | | | |
| P_BC05-27 | 574+11 | 349855.948 | 6917044.835 | 19.336 | OO | UH | B224 | Y | 17-Jun-05 | N | | | | |
| P_BC05-27 | 606 | 351022.392 | 6916815.959 | 22.623 | OO | UH | B225 | Y | 17-Jun-05 | N | | | | |
| P_BC05-28 | 228 | 341676.095 | 6920123.708 | 20.909 | OO | UH | B226 | Y | 16-Jun-05 | N | | | | |
| P_BC05-28 | 296 | 344157.127 | 6919536.812 | 26.435 | OO | UH | B227 | Y | 16-Jun-05 | N | | | | |
| P_BC05-28 | 365 | 346674.35 | 6918938.055 | 19.771 | OO | UH | B228 | Y | 16-Jun-05 | N | | | | |
| P_BC05-28 | 385+35 | 347439.156 | 6918761.694 | 19.477 | OO | UH | B229 | Y | 16-Jun-05 | N | | | | |
| P_BC05-28 | 406+12 | 348185.201 | 6918592.485 | 27.583 | OO | UH | B230 | Y | 17-Jun-05 | N | | | | |
| P_BC05-28 | 452+19 | 349873.546 | 6918207.027 | 18.91 | OO | UH | B231 | Y | 17-Jun-05 | N | | | | |
| P_BC05-28 | 510 | 351971.386 | 6917708.664 | 19.627 | OO | UH | B232 | Y | 17-Jun-05 | N | | | | |
| P_BC05-29 | 228+8 | 328891.527 | 6895358.726 | 18.683 | OO | UH | B233 | Y | 02-Aug-05 | N | | | | |
| P_BC05-29 | 307+1 | 329331.992 | 6898280.336 | 29.023 | OO | UH | B234 | Y | 02-Aug-05 | N | | | | |
| P_BC05-29 | 275 | 329420.165 | 6898921.081 | 24.44 | OO | UH | B235 | Y | 03-Aug-05 | N | | | | |
| P_BC05-29 | 342+16 | 329516.831 | 6899595.488 | 17.16 | OO | UH | B236 | Y | 03-Aug-05 | N | | | | |
| P_BC05-29 | 374 | 329676.004 | 6900768.778 | 20.692 | OO | UH | B237 | Y | 03-Aug-05 | N | | | | |
| P_BC05-29 | 400 | 329839.491 | 6901729.366 | 19.74 | OO | UH | B238 | Y | 03-Aug-05 | N | | | | |
| P_BC05-29 | 433 | 330000.335 | 6902957.111 | 28.147 | OO | UH | B239 | Y | 27-Jul-05 | N | | | | |
| P_BC05-29 | 464 | 330164.855 | 6904107.875 | 18.801 | OO | UH | B240 | Y | 27-Jul-05 | ? | "o/s 11m. NORTH int. 85-ZGR" ??? | | | |
| P_BC05-29 | 491 | 330307.018 | 6905110.202 | 24.901 | OO | UH | B241 | Y | 27-Jul-05 | N | | | | |
| P_BC05-29 | 523 | 330468.692 | 6906299.99 | 19.487 | OO | UH | B242 | Y | 24-Jul-05 | N | | | | |
| P_BC05-29 | 579 | 330774.299 | 6908376.985 | 25.073 | OO | UH | B243 | Y | 24-Jul-05 | N | | | | |
| P_BC05-30 | 226+7 | 332754.276 | 6898098.965 | 17.1 | OO | UH | B244 | Y | 30-Jul-05 | N | | | | |
| P_BC05-30 | 246+14 | 332880.926 | 6898845.554 | 16.352 | OO | UH | B245 | Y | 29-Jul-05 | N | | | | |
| P_BC05-30 | 264+8 | 332986.161 | 6899506.285 | 17.568 | OO | UH | B246 | Y | 29-Jul-05 | N | | | | |
| P_BC05-30 | 296+12 | 333190.973 | 6900692.688 | 16.487 | OO | UH | B247 | Y | 29-Jul-05 | N | | | | |
| P_BC05-30 | 322+31 | 333321.719 | 6901674.896 | 17.158 | OO | UH | B248 | Y | 28-Jul-05 | N | | | | |

**Beach Petroleum 2005 Mytilus Seismic Survey:   Uphole Location Listing**

| Pegged Position of Hole by DSS | | | | | | | | | | Revised Position Details | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Line | Station# | Eastings | Northings | Elevation | | | Hole # | Drilled Yet? (Y/N) | Date Drilled | Shifted? (Y/N) | Details of SHIFT from DRILLER's LOG | Revised Easting | Revised Northing | Revised Elevation |
| P_BC05-30 | 354 | 333448.31 | 6902836.38 | 17.301 | OO | UH | B249 | Y | 28-Jul-05 | N | | | | |
| P_BC05-30 | 384+21 | 333583.522 | 6903974.124 | 19.983 | OO | UH | B250 | Y | 28-Jul-05 | N | | | | |
| P_BC05-30 | 411 | 333730.278 | 6904955.348 | 16.713 | OO | UH | B251 | Y | 25-Jul-05 | N | | | | |
| P_BC05-30 | 441 | 333895.068 | 6906067.98 | 21.501 | OO | UH | B252 | Y | 25-Jul-05 | N | | | | |
| P_BC05-30 | 465 | 334027.717 | 6906958.29 | 16.819 | OO | UH | B253 | Y | 26-Jul-05 | N | | | | |
| P_BC05-30 | 491 | 334175.766 | 6907921.812 | 24.45 | OO | UH | B254 | Y | 26-Jul-05 | N | | | | |
| P_BC05-31 | 206+25 | 326860.958 | 6899006.411 | 17.27 | OO | UH | B255 | Y | 02-Aug-05 | N | | | | |
| P_BC05-31 | 253+12 | 328609.698 | 6898945.256 | 22.283 | OO | UH | B256 | Y | 03-Aug-05 | N | | | | |
| P_BC05-31 | 293+11 | 330108.228 | 6898901.227 | 22.592 | OO | UH | B257 | Y | 02-Aug-05 | N | | | | |
| P_BC05-31 | 320+2 | 331111.072 | 6898860.653 | 18.059 | OO | UH | B258 | Y | 02-Aug-05 | N | | | | |
| P_BC05-31 | 408+35 | 334424.915 | 6898846.362 | 15.89 | OO | UH | B259 | Y | 29-Jul-05 | N | | | | |
| P_BC05-31 | 462+21 | 336434.347 | 6898771.569 | 16.689 | OO | UH | B260 | Y | 29-Jul-05 | N | | | | |
| P_BC05-32 | 234 | 347414.507 | 6915386.878 | 19.06 | OO | UH | B261 | Y | 18-Jun-05 | N | | | | |
| P_BC05-32 | 271+15 | 347432.849 | 6916789.984 | 19.802 | OO | UH | B262 | Y | 18-Jun-05 | N | | | | |
| P_BC05-32 | 309 | 347448.298 | 6918199.106 | 27.021 | OO | UH | B263 | Y | 16-Jun-05 | N | | | | |
| P_BC05-32 | 341 | 347447.51 | 6919399.045 | 20.423 | OO | UH | B264 | Y | 16-Jun-05 | N | | | | |
| P_BC05-32 | 376 | 347433.242 | 6920711.706 | 23.9 | OO | UH | B265 | Y | 16-Jun-05 | N | | | | |
| P_BC05-32 | 426+34 | 347420.642 | 6922620.373 | 36.568 | OO | UH | B266 | Y | 15-Jun-05 | N | | | | |
| P_BC05-32 | 495+14 | 347438.112 | 6925187.182 | 21.448 | OO | UH | B267 | Y | 15-Jun-05 | N | | | | |
| P_BC05-32 | 527+24 | 347469.302 | 6926396.336 | 18.632 | OO | UH | B268 | Y | 15-Jun-05 | N | | | | |
| P_BC05-33 | 205 | 348200.783 | 6915653.423 | 18.277 | OO | UH | B269 | Y | 18-Jun-05 | N | | | | |
| P_BC05-33 | 233 | 348206.485 | 6916703.49 | 19.027 | OO | UH | B270 | Y | 18-Jun-05 | N | | | | |
| P_BC05-33 | 334+22 | 348198.75 | 6920512.67 | 28.373 | OO | UH | B271 | Y | 17-Jun-05 | N | | | | |
| P_BC05-34 | 222+30 | 335296.014 | 6909795.314 | 34.99 | OO | UH | B272 | Y | 18-Jul-05 | N | | | | |
| P_BC05-34 | 282 | 337504.469 | 6909567.803 | 17.846 | OO | UH | B273 | Y | 18-Jul-05 | N | | | | |
| P_BC05-34 | 301+21 | 338233.937 | 6909493.6 | 16.622 | OO | UH | B274 | Y | 18-Jul-05 | N | | | | |
| P_BC05-34 | 321+24 | 338983.822 | 6909423.609 | 16.945 | OO | UH | B275 | Y | 16-Jul-05 | N | | | | |
| P_BC05-34 | 374+6 | 340941.725 | 6909208.761 | 18.074 | OO | UH | B276 | Y | 17-Jul-05 | N | | | | |
| P_BC05-34 | 418 | 342575.103 | 6909023.852 | 18.858 | OO | UH | B277 | Y | 16-Jul-05 | N | | | | |
| P_BC05-34 | 460+6 | 344136.568 | 6908855.814 | 18.492 | OO | UH | B278 | Y | 16-Jul-05 | N | | | | |
| P_BC05-34 | 487+1 | 345120.607 | 6908771.178 | 19.027 | OO | UH | B279 | Y | 16-Jul-05 | N | | | | |

**Beach Petroleum 2005 Mytilus Seismic Survey: Uphole Location Listing**

| Pegged Position of Hole by DSS | | | | | | | | | | Revised Position Details | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Line | Station# | Eastings | Northings | Elevation | | | Hole # | Drilled Yet? (Y/N) | Date Drilled | Shifted? (Y/N) | Details of SHIFT from DRILLER's LOG | Revised Easting | Revised Northing | Revised Elevation |
| P_BC05-34 | 529+29 | 346699.438 | 6908592.195 | 17.63 | OO | UH | B280 | Y | 16-Jul-05 | N | | | | |
| P_BC05-35 | 215 | 338299.439 | 6904882.164 | 19.656 | OO | UH | B281 | Y | 17-Jul-05 | N | | | | |
| P_BC05-35 | 265 | 338296.19 | 6906744.973 | 18.654 | OO | UH | B282 O | Y | 17-Jul-05 | N | | | | |
| P_BC05-35 | 285+24 | 338291.95 | 6907518.979 | 16.538 | OO | UH | B283 | Y | 18-Jul-05 | N | | | | |
| P_BC05-35 | 310+4 | 338258.108 | 6908435.502 | 17.137 | OO | UH | B284 | Y | 18-Jul-05 | N | | | | |
| P_BC05-35 | 362 | 338222.256 | 6910381.829 | 16.727 | OO | UH | B285 | Y | 18-Jul-05 | N | | | | |
| P_BC05-35 | 379+28 | 338189.398 | 6911046.612 | 16.523 | OO | UH | B286 | Y | 18-Jul-05 | N | | | | |
| P_BC05-35 | 400 | 338193.434 | 6911806.466 | 16.254 | OO | UH | B287 | Y | 19-Jul-05 | N | | | | |
| P_BC05-35 | 420+19 | 338164.602 | 6912575.01 | 16.12 | OO | UH | B288 | Y | 15-Jul-05 | N | | | | |
| P_BC05-35 | 438+8 | 338160.439 | 6913238.671 | 16.765 | OO | UH | B289 | Y | 15-Jul-05 | N | | | | |
| P_BC05-35 | 467+32 | 338109.376 | 6914350.045 | 16.466 | OO | UH | B290 | Y | 15-Jul-05 | N | | | | |
| P_BC05-35 | 495+29 | 338091.454 | 6915396.607 | 16.176 | OO | UH | B291 | Y | 21-Jun-05 | N | | | | |
| P_BC05-35 | 530+5 | 338076.26 | 6916685.253 | 16.751 | OO | UH | B292 | Y | 21-Jun-05 | N | | | | |
| P_BC05-35 | 565 | 338023.524 | 6917991.628 | 19 | OO | UH | B293 | Y | 21-Jun-05 | N | | | | |
| P_BC05-35 | 601+34 | 338017.183 | 6919375.44 | 19.412 | OO | UH | B294 | Y | 22-Jun-05 | N | | | | |
| P_BC05-36 | 262+9 | 339075.523 | 6906695.024 | 17.091 | OO | UH | B295 | Y | 17-Jul-05 | N | | | | |
| P_BC05-36 | 282+9 | 339065.892 | 6907445.683 | 17.467 | OO | UH | B296 | Y | 17-Jul-05 | N | | | | |
| P_BC05-36 | 307+18 | 339008.899 | 6908390.252 | 17.045 | OO | UH | B297 | Y | 17-Jul-05 | N | | | | |
| P_BC05-36 | 376+15 | 338900.555 | 6910972.483 | 18.009 | OO | UH | B298 | Y | 16-Jul-05 | N | | | | |
| P_BC05-36 | 396+27 | 338864.926 | 6911733.683 | 19.367 | OO | UH | B299 | Y | 16-Jul-05 | N | | | | |
| P_BC05-36 | 417+19 | 338808.501 | 6912511.102 | 20.256 | OO | UH | B300 | Y | 16-Jul-05 | N | | | | |
| P_BC05-36 | 435 | 338793.278 | 6913167.49 | 18.416 | OO | UH | B301 | Y | 15-Jul-05 | N | PRODUCING WATER | | | |
| P_BC05-36 | 455+30 | 338757.718 | 6913932.728 | 18.72 | OO | UH | B302 | Y | 15-Jul-05 | N | | | | |
| P_BC05-37 | 206 | 348313.896 | 6928370.594 | 18.516 | OO | UH | B303 | Y | 14-Jun-05 | N | | | | |
| P_BC05-37 | 252 | 349952.888 | 6927846.21 | 19.076 | OO | UH | B304 | Y | 13-Jun-05 | N | | | | |
| P_BC05-37 | 314 | 352214.459 | 6927384.036 | 23.565 | OO | UH | B305 | Y | 13-Jun-05 | N | | | | |
| P_BC05-37 | 373 | 354250.068 | 6926632.477 | 18.111 | OO | UH | B306 | Y | 13-Jun-05 | N | | | | |
| P_BC05-37 | 422+24 | 356034.756 | 6926105.35 | 27.376 | OO | UH | B307 | Y | 13-Jun-05 | N | | | | |
| P_BC05-37 | 473+32 | 357888.247 | 6925598.277 | 22.29 | OO | UH | B308 | Y | 13-Jun-05 | Y | 157m east to stn# 478 | | | |
| P_BC05-37 | 524+33 | 359711.083 | 6925016.144 | 20.223 | OO | UH | B309 | Y | 13-Jun-05 | N | | | | |
| P_BC05-38 | 296+5 | 337446.528 | 6932984.509 | 22.425 | OO | UH | B310 | Y | 08-Jun-05 | N | | | | |

**Beach Petroleum 2005 Mytilus Seismic Survey: Uphole Location Listing**

| Pegged Position of Hole by DSS | | | | | | | | | | Revised Position Details | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Line | Station# | Eastings | Northings | Elevation | | | Hole # | Drilled Yet? (Y/N) | Date Drilled | Shifted? (Y/N) | Details of SHIFT from DRILLER's LOG | Revised Easting | Revised Northing | Revised Elevation |
| P_BC05-38 | 314+14 | 338098.663 | 6932775.768 | 33.76 | OO | UH | B311 | Y | 08-Jun-05 | N | | | | |
| P_BC05-38 | 374+15 | 340247.994 | 6932106.646 | 19.581 | OO | UH | B312 | Y | 09-Jun-05 | Y | 22m east to stn# 375 | | | |
| P_BC05-38 | 432 | 342306.059 | 6931451.262 | 40.701 | OO | UH | B313 | Y | 09-Jun-05 | N | | | | |
| P_BC05-38 | 492+24 | 344480.466 | 6930787.03 | 35.8 | OO | UH | B314 | Y | 09-Jun-05 | Y | 17m east to stn# 493 | | | |
| P_BC05-38 | 555+8 | 346729.316 | 6930116.275 | 19.284 | OO | UH | B315 | Y | 09-Jun-05 | Y | 8m west to stn# 555 | | | |
| P_BC05-38 | 618+5 | 348977.784 | 6929401.933 | 23.375 | OO | UH | B316 | Y | 09-Jun-05 | N | | | | |
| P_BC05-38 | 620+18 | 349061.156 | 6929370.816 | 24.304 | OO | UH | B317 | | | | HOLE DELETED | | | |
| P_BC05-39 | 265+5 | 338779.667 | 6937003.337 | 22.073 | OO | UH | B318 | Y | 25-May-05 | ? | unsure - check fbr header | | | |
| P_BC05-39 | 305+6 | 340174.45 | 6936448.39 | 21.172 | OO | UH | B319 | Y | 26-May-05 | ? | unsure - check fbr header | | | |
| P_BC05-39 | 344 | 341533.278 | 6935923.972 | 16.041 | OO | UH | B320 | Y | 27-May-05 | ? | unsure - check fbr header | | | |
| P_BC05-39 | 392+26 | 343240.877 | 6935276.573 | 31.468 | OO | UH | B321 | Y | 28-May-05 | ? | unsure - check fbr header | | | |
| P_BC05-39 | 439+13 | 344871.522 | 6934642.05 | 23.403 | OO | UH | B322 | Y | 29-May-05 | ? | unsure - check fbr header | | | |
| P_BC05-39 | 486+13 | 346507.032 | 6933986.019 | 20.557 | OO | UH | B323 | Y | 24-May-05 | ? | unsure - check fbr header | | | |
| P_BC05-39 | 554 | 348877.427 | 6933081.659 | 19.625 | OO | UH | B324 | Y | 08-Jun-05 | N | | | | |
| P_BC05-39 | 596 | 350343.021 | 6932504.315 | 19.782 | OO | UH | B325 | Y | 07-Jun-05 | N | | | | |
| P_BC05-39 | 637 | 351767.46 | 6931929.113 | 20.497 | OO | UH | B326 | Y | 07-Jun-05 | N | | | | |
| P_BC05-39 | 679 | 353149.737 | 6931255.309 | 22.088 | OO | UH | B327 | Y | 07-Jun-05 | N | | | | |
| P_BC05-39 | 709 | 354206.534 | 6931020.661 | 28.542 | OO | UH | B328 | Y | 07-Jun-05 | N | | | | |
| P_BC05-39 | 759 | 355984.173 | 6930395.111 | 20.792 | OO | UH | B329 | Y | 10-Jun-05 | N | | | | |
| P_BC05-39 | 785 | 356891.435 | 6930065.418 | 20.528 | OO | UH | B330 | Y | 10-Jun-05 | N | | | | |
| P_BC05-39 | 864 | 359677.622 | 6929057.802 | 17.508 | OO | UH | B331 | Y | 10-Jun-05 | N | | | | |
| P_BC05-39 | 871 | 359921.043 | 6928958.864 | 17.489 | OO | UH | B332 | Y | 10-Jun-05 | N | | | | |
| P_BC05-39 | 927 | 361891.178 | 6928231.06 | 22.881 | OO | UH | B333 | Y | 10-Jun-05 | N | | | | |
| P_BC05-40 | 213+28 | 338029.769 | 6940064.016 | 27.127 | OO | UH | B334 | Y | 27-May-05 | Y | 48m east | | | |
| P_BC05-40 | 254+25 | 339432.166 | 6939441.677 | 19.954 | OO | UH | B335 | Y | 26-May-05 | Y | 14m east | | | |
| P_BC05-40 | 294+11 | 340816.529 | 6938899.174 | 30.802 | OO | UH | B336 | Y | 28-May-05 | Y | 7m east | | | |
| P_BC05-40 | 334+10 | 342200.604 | 6938325.174 | 26.632 | OO | UH | B337 | Y | 29-May-05 | Y | 27m east | | | |
| P_BC05-40 | 374+1 | 343566.918 | 6937727.312 | 23.839 | OO | UH | B338 | Y | 30-May-05 | N | | | | |
| P_BC05-41 | 226+34 | 339404.552 | 6942731.315 | 56.497 | OO | UH | B339 | Y | 02-Jun-05 | Y | 34m west to stn# 226 | | | |
| P_BC05-41 | 283+5 | 341339.152 | 6941890.69 | 41.29 | OO | UH | B340 | Y | 02-Jun-05 | Y | 5m west to stn# 283 | | | |
| P_BC05-41 | 337+4 | 343196.409 | 6941086.039 | 24.607 | OO | UH | B341 | Y | 03-Jun-05 | N | | | | |

**Beach Petroleum 2005 Mytilus Seismic Survey:   Uphole Location Listing**

| Pegged Position of Hole by DSS | | | | | | | | | | Revised Position Details | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Line | Station# | Eastings | Northings | Elevation | | | Hole # | Drilled Yet? (Y/N) | Date Drilled | Shifted? (Y/N) | Details of SHIFT from DRILLER's LOG | Revised Easting | Revised Northing | Revised Elevation |
| P_BC05-41 | 390+32 | 345040.501 | 6940273.996 | 16.752 | OO | UH | B342 | Y | 01-Jun-05 | N | | | | |
| P_BC05-41 | 417+23 | 345963.801 | 6939881.232 | 33.33 | OO | UH | B343 | Y | 01-Jun-05 | N | | | | |
| P_BC05-41 | 480+9 | 348109.256 | 6938924.144 | 18.974 | OO | UH | B344 | Y | 01-Jun-05 | Y | 9m east to stn# 480 | | | |
| P_BC05-41 | 550+25 | 350535.341 | 6937880.312 | 30.97 | OO | UH | B345 | Y | 31-May-05 | N | | | | |
| P_BC05-41 | 636 | 353471.588 | 6936609.727 | 20.453 | OO | UH | B346 | Y | 31-May-05 | N | | | | |
| P_BC05-42 | 220+4 | 342531.241 | 6943185.53 | 28.369 | OO | UH | B347 | Y | 03-Jun-05 | Y | 4m west to stn# 220 | | | |
| P_BC05-42 | 277+33 | 344499.369 | 6942278.83 | 28.311 | OO | UH | B348 | Y | 03-Jun-05 | N | | | | |
| P_BC05-42 | 331+24 | 346332.02 | 6941437.597 | 37.208 | OO | UH | B349 | Y | 03-Jun-05 | N | | | | |
| P_BC05-42 | 357+33 | 347215.445 | 6941005.758 | 31.433 | OO | UH | B350 | Y | 03-Jun-05 | N | | | | |
| P_BC05-42 | 422+1 | 349396.374 | 6939990.602 | 25.369 | OO | UH | B351 | Y | 06-Jun-05 | Y | 76m west to stn # 420 | | | |
| P_BC05-42 | 489+7 | 351688.189 | 6938945.762 | 30.797 | OO | UH | B352 | Y | 06-Jun-05 | N | | | | |
| P_BC05-42 | 518 | 352659.703 | 6938471.292 | 21.221 | OO | UH | B353 | Y | 06-Jun-05 | N | | | | |
| P_BC05-42 | 565+25 | 354289.685 | 6937739.174 | 19.931 | OO | UH | B354 | Y | 06-Jun-05 | N | | | | |
| P_BC05-43 | 218+25 | 342611.78 | 6944683.117 | 34.229 | OO | UH | B355 | Y | 03-Jun-05 | N | | | | |
| P_BC05-43 | 262+6 | 344086.171 | 6943984.089 | 39.574 | OO | UH | B356 | Y | 04-Jun-05 | Y | 6m west to stn# 262 | | | |
| P_BC05-43 | 306+5 | 345567.272 | 6943260.434 | 41.131 | OO | UH | B357 | Y | 04-Jun-05 | N | | | | |
| P_BC05-43 | 359+32 | 347380.342 | 6942381.792 | 28.953 | OO | UH | B358 | Y | 04-Jun-05 | N | | | | |
| P_BC05-43 | 385+32 | 348259.042 | 6941957.837 | 23.874 | OO | UH | B359 | Y | 04-Jun-05 | N | | | | |
| P_BC05-43 | 449+19 | 350399.78 | 6940902.091 | 20.14 | OO | UH | B360 | Y | 05-Jun-05 | Y | 18m east to stn # 450 | | | |
| P_BC05-43 | 514+35 | 352615.408 | 6939847.732 | 27.104 | OO | UH | B361 | Y | 05-Jun-05 | N | | | | |
| P_BC05-43 | 542+20 | 353537.308 | 6939378.072 | 34.972 | OO | UH | B362 | Y | 05-Jun-05 | N | | | | |
| P_BC05-43 | 564 | 354223.806 | 6938948.729 | 21.646 | OO | UH | B363 | Y | 05-Jun-05 | N | | | | |
| P_BC05-44 | 219+33 | 345516.418 | 6933066.044 | 21.599 | OO | UH | B364 | Y | 24-May-05 | ? | unsure - check fbr header | | | |
| P_BC05-44 | 289+22 | 347410.19 | 6934867.736 | 20.52 | OO | UH | B365 | Y | 24-May-05 | ? | unsure - check fbr header | | | |
| P_BC05-44 | 324+26 | 348351.295 | 6935788.649 | 20.169 | OO | UH | B366 | Y | 31-May-05 | N | | | | |
| P_BC05-44 | 359+22 | 349300.728 | 6936689.095 | 24.344 | OO | UH | B367 | Y | 31-May-05 | N | | | | |
| P_BC05-44 | 462+32 | 352106.726 | 6939358.269 | 34.193 | OO | UH | B368 | Y | 03-Jun-05 | N | | | | |
| P_BC05-44 | 501 | 353146.429 | 6940340.129 | 20.977 | OO | UH | B369 | Y | 05-Jun-05 | N | | | | |
| P_BC05-44 | 549 | 354450.696 | 6941580.601 | 24.179 | OO | UH | B370 | Y | 05-Jun-05 | N | | | | |
| P_BC05-45 | 234+16 | 335645.417 | 6930608.623 | 25.479 | OO | UH | B371 | Y | 08-Jun-05 | N | | | | |
| P_BC05-45 | 298+36 | 337466.967 | 6932202.91 | 17.879 | OO | UH | B372 | Y | 08-Jun-05 | Y | 26m west to int 85-XHH | | | |

**Beach Petroleum 2005 Mytilus Seismic Survey:   Uphole Location Listing**

| Pegged Position of Hole by DSS | | | | | | | | | | Revised Position Details | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Line | Station# | Eastings | Northings | Elevation | | | Hole # | Drilled Yet? (Y/N) | Date Drilled | Shifted? (Y/N) | Details of SHIFT from DRILLER's LOG | Revised Easting | Revised Northing | Revised Elevation |
| P_BC05-45 | 363 | 339258.274 | 6933801.891 | 27.869 | OO | UH | B373 | Y | 08-Jun-05 | N | | | | |
| P_BC05-45 | 403+30 | 340386.065 | 6934835.982 | 21.046 | OO | UH | B374 | Y | 25-May-05 | ? | unsure - check fbr header | | | |
| P_BC05-45 | 486+15 | 342681.836 | 6936915.992 | 17.119 | OO | UH | B375 | Y | 02-Jun-05 | N | | | | |
| P_BC05-45 | 557+4 | 344636.572 | 6938707.21 | 30.732 | OO | UH | B376 | Y | 01-Jun-05 | N | | | | |
| P_BC05-45 | 632 | 346720.147 | 6940590.908 | 35.141 | OO | UH | B377 | Y | 01-Jun-05 | N | | | | |
| P_BC05-45 | 668+21 | 347757.363 | 6941487.659 | 33.616 | OO | UH | B378 | Y | 04-Jun-05 | N | | | | |
| P_BC05-45 | 706+14 | 348793.367 | 6942455.984 | 25.699 | OO | UH | B379 | Y | 04-Jun-05 | N | | | | |
| P_BC05-46 | 216 | 356109.16 | 6917351.961 | 20.17 | OO | UH | B380 | Y | 14-Jun-05 | N | | | | |
| P_BC05-46 | 247+12 | 356113.795 | 6918526.522 | 30.698 | OO | UH | B381 | Y | 14-Jun-05 | N | | | | |
| P_BC05-46 | 298 | 356096.584 | 6920426.772 | 32.149 | OO | UH | B382 | Y | 14-Jun-05 | N | | | | |
| P_BC05-46 | 364+9 | 356045.337 | 6922910.005 | 33 | OO | UH | B383 | Y | 14-Jun-05 | N | | | | |
| P_BC05-46 | 391+6 | 356068.456 | 6923920.286 | 23.849 | OO | UH | B384 | Y | 15-Jun-05 | N | | | | |
| P_BC05-46 | 420+17 | 356049.192 | 6925018.317 | 23.522 | OO | UH | B385 | Y | 14-Jun-05 | N | | | | |
| P_BC05-46 | 480 | 356014.514 | 6927251.716 | 32.015 | OO | UH | B386 | Y | 13-Jun-05 | Y | 37m south to int BC02-68 | | | |
| P_BC05-46 | 538+13 | 355973.959 | 6929433.893 | 19.952 | OO | UH | B387 | Y | 13-Jun-05 | N | | | | |
| P_BC05-46 | 589 | 355945.26 | 6931351.374 | 21.598 | OO | UH | B388 | Y | 10-Jun-05 | N | | | | |
| P_BC05-46 | 623 | 355960.193 | 6932607.36 | 21.648 | OO | UH | B389 | Y | 07-Jun-05 | N | | | | |
| P_BC05-46 | 676+9 | 355927.482 | 6934587.331 | 19.552 | OO | UH | B390 | Y | 07-Jun-05 | N | | | | |
| P_BC05-47 | 204+9 | 346312.868 | 6926647.963 | 31.007 | OO | UH | B391 | Y | 15-Jun-05 | Y | 26m east to stn# 205 | | | |
| P_BC05-47 | 306+22 | 349970.721 | 6925579.898 | 19.081 | OO | UH | B392 | Y | 15-Jun-05 | N | | | | |
| P_BC05-47 | 365 | 352086.492 | 6925009.861 | 19.292 | OO | UH | B393 | Y | 15-Jun-05 | N | | | | |
| P_BC05-47 | 429+25 | 354419.439 | 6924365.435 | 18.332 | OO | UH | B394 | Y | 15-Jun-05 | N | | | | |
| P_BC05-47 | 532 | 358129.979 | 6923384.726 | 23.719 | OO | UH | B395 | Y | 14-Jun-05 | N | | | | |
| BC05-23 | 320 | | | | | | B92A | Y | 23-Jul-05 | N | | | | |
| BC05-20 | 332 | | | | | | B396 | Y | 30-Jun-05 | Y | this was a test hole for water drilled to 118m & logged | | | |
| | | | Total Holes Drilled to Date = | | | | | 396 | | | | | | |

BEACH PETROLEUM LIMITED'S 2005 MYTILUS SEISMIC SURVEY

# APPENDIX VII

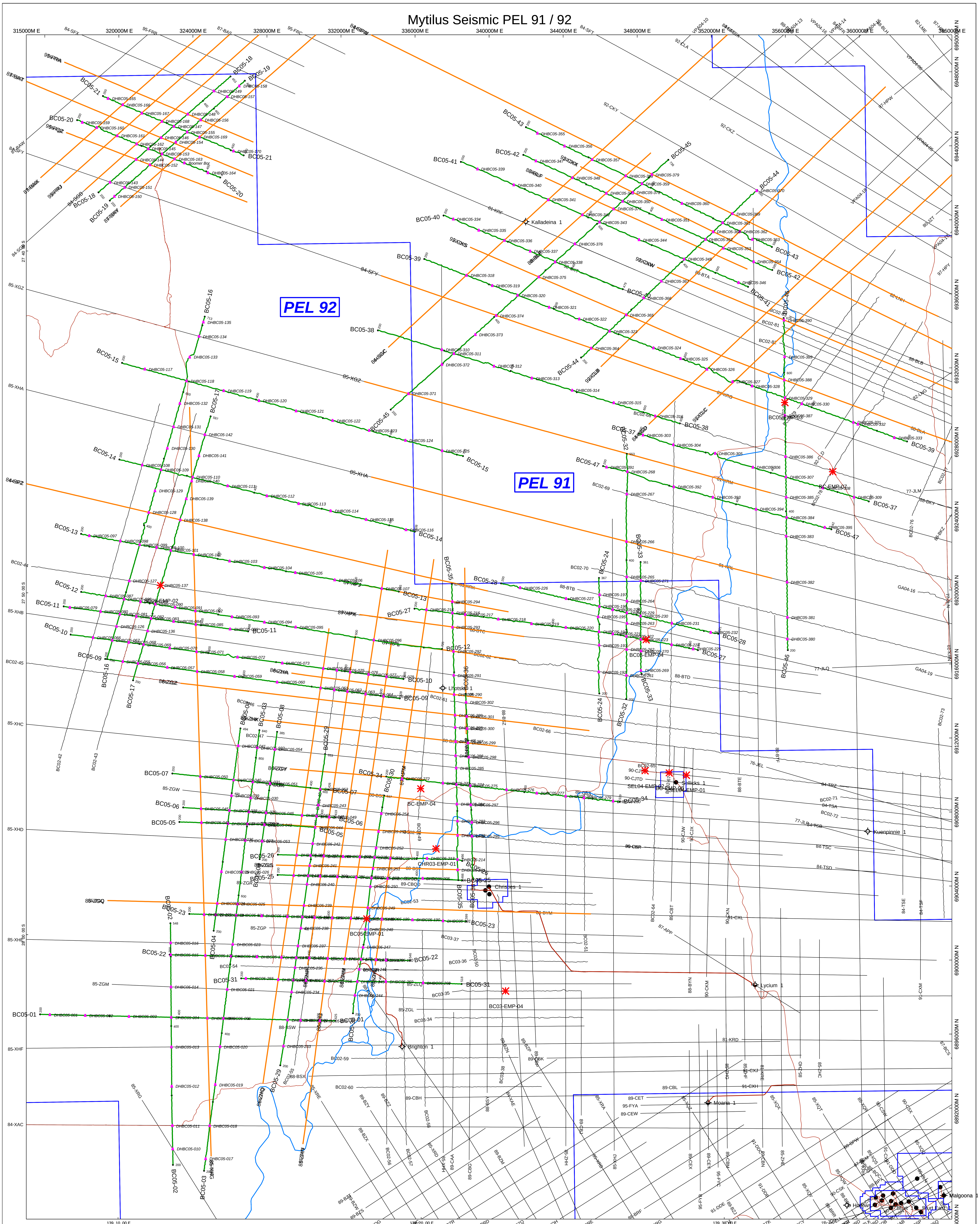
# PERSONNEL LIST

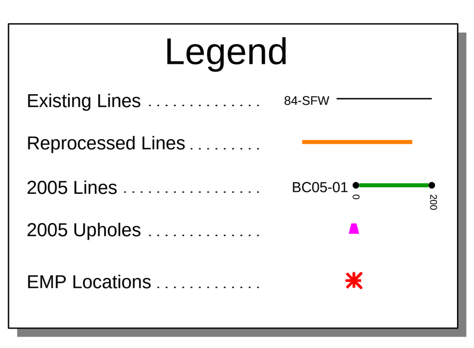
**All Clients**

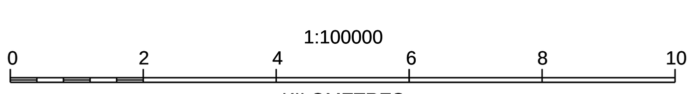
| POSITION | NAMES |
|---|---|
| Crew Manager | Turner Jon |
| APM/HSE | Hutchison Gary |
| Crew Manager | Kneipp Mark |
| HSE | Auckram Ray |
| HSE/APM | Byrne Nicky |
| | **Admin Staff** |
| Mechanic | Carmody Richard |
| Mechanic | Matthews Kenneth |
| Supply Driver | Tuite Allan |
| Supply Driver | McKenna Arnold |
| Supply Driver | Oswell Geoff |
| Cook | McComack Campbell |
| Cook | Foxon Mark |
| Cook | Iwasaki Masako |
| Campy | Tomlinson Peggy |
| Campy | Crossie Elizabeth |
| | **Camp Staff** |
| Observer | Carry Joel |
| Observer | Whitehead Frank |
| Observer | Helme Nik |
| Cable Repair | Fadian Scott |
| Cable Repair | Rea Darren |
| | **Technical** |
| Vib Op | Sauer Wayne |
| Vib Scout | Bates Steven |
| Vib Op | Lynch Dave |
| Vib Op | Shufflebotham Shane |
| Vib Op | Beetson Aaron |
| Vib Op | Oswell Geoff |
| Vib Op | James Dave |
| Vib Op | McKenna Arnold |
| Vib Op | Walker Shane |
| | **Vibrator Crew** |
| Vib Tech | Corbin Dennis |
| Vib Tech | Goosens Shane |
| | **Vib Tech** |
| Line Boss | Feldheim Simon |
| Line Boss | Hutchison Tony |
| | **Snr Line** |

| | |
|---|---|
| T/Shooter | Feldheim Simon |
| T/Shooter | Helme Nik |
| T/Shooter | Fisher Gavin |
| T/Shooter | Linnie James |
| T/Shooter | Campbell Warren |
| T/Shooter | Mower Quentin |
| | **Trouble Shooters** |
| Line Crew | Bishoff Daryn |
| Line Crew | Blake Shane |
| Line Crew | Campbell Warren |
| Line Crew | Capper Arlo |
| Line Crew | Creek Adam |
| Line Crew | Davies Jason |
| Line Crew | Dore Nick |
| Line Crew | Fadian Scott |
| Line Crew | Feldheim Simon |
| Line Crew | Fisher Gavin |
| Line Crew | Flavell Aaron |
| Line Crew | Grams Chris |
| Line Crew | Green Mathew |
| Line Crew | Henderson Andrew |
| Line Crew | Hill Andrew |
| Line Crew | Hockey Jeremy |
| Line Crew | Hodgins Julie |
| Line Crew | Hynes Jonathan |
| Line Crew | Kingston Dean |
| Line Crew | Koonwaiyou Tapa |
| Line Crew | Lavender Greg |
| Line Crew | Linnie James |
| Line Crew | Maker Mathew |
| Line Crew | McGinity Cheryl |
| Line Crew | Mitchell Kevin |
| Line Crew | Morrison Stephen |
| Line Crew | Mower Quentin |
| Line Crew | Nisbet Ty |
| Line Crew | Nicholson Dane |
| Line Crew | Oswell Geoff |
| Line Crew | Page Martin |
| Line Crew | Richardson John |
| Line Crew | Shufflebotham Shane |
| Line Crew | Shuttleworth Liam |
| Line Crew | Smith Kelley |
| Line Crew | Temple-Heald Derek |
| Line Crew | Michael Tobler |
| Line Crew | Walker Shane |
| Line Crew | Welsh Lisa |
| Line Crew | Whiu Tierre |
| Line Crew | Wilson David |
| Line Crew | Wood Susan |
| | Line Crew |

# Mytilus Seismic PEL 91 / 92




UNIVERSAL TRANSVERSE MERCATOR PROJECTION
G.R.S. 1980 SPHEROID
CENTRAL MERIDIAN 141 00 00 E
Mapsheet datum: "GDA94"

**Beach Petroleum Ltd**

2005 Mytilus Seismic Survey
PEL 91, PEL 92

New and Reprocessed Lines
Base Map

| Scale: 1:100000 | Date : January 23, 2006 | Encl No: 1 |
|---|---|---|
| Contour Interval: | Author: dcr | |
| Map File: | | |

# BEACH PETROLEUM 2005
# SEISMIC SURVEY
# MYTILUS 2D
# PELs 91 & 92

# OPERATIONS REPORT

**FOR**

# BEACH PETROLEUM

**MAY / JUNE 2005**

BY

J.L. TURNER

OF

TERREX SEISMIC
U2 / 37 HOWSON WAY
BIBRA LAKE
WESTERN AUSTRALIA 6163

# TABLE OF CONTENTS

# 1. INTRODUCTION

Terrex Seismic was contracted by Beach Petroleum to conduct the Mytilus 2D seismic survey on PELs 91 and 92 in South Australia. The contract consisted of 45, 2D lines with a total of 641 kms to be recorded.

Acquisition commenced on the 8th May after a two day mobilization from the Jackson /Naccowlah 3D prospect and was completed on the 7th June 2005.

## 1.1 Geographical Area

The prospect was located approximately 200 kms northwest of Moomba in South Australia, close to Sellicks bore.

The country mainly consisted of sand dunes and flat claypans. Camp 1 was located in the northern section of the prospect and was moved by camp staff on the 25th May to a location further south as the production moved that way. This took the camp staff the entire day and there were no delays to production.

**Typical Conditions on the Mytilus 2D**

## 1.2 Weather

The weather stayed predominantly fine and pleasant over the length of the seismic acquisition period with no standby time recorded for wet weather.

## 1.3 Logistics

All equipment was mobilized from the Jackson / Naccowlah 3D prospect by Terrex personnel on the 6th May 2005; the crew arrived at Innaminka at approximately 4.00pm and setup camp for an overnight stop. The crew departed Innaminka the following day at 7.30am and arrived at the Mytilus 2D prospect at 4.30pm on the afternoon of the 7th May, camp was setup and operational by 5.30pm.

**Line Clearing Operations on the Mytilus 2D**

Access to the lines was via local roads and farm tracks.

The accommodation facilities were in the form of mobile vans that were provided by Terrex Seismic and were capable of sleeping up to 45 people.

All meals were provided by the mobile kitchen and diner that was staffed by two cooks. All supplies were road transported into Moomba from Four Seasons in Adelaide.

Fuel for all vehicles was supplied by IOR Fuel agents in Eromanga.

All other logistics were supported out of Terrex Seismic Perth Office.

# 2. SURVEYING

## 2.1 RANGING / CHAINING / SURVEYING

Line chaining and survey for the entire program were completed by Dynamic Satellite Surveys personnel.

## 2.2 LINE CLEARING

All line clearing was performed by Denham and O'Keeffe.

## 2.3 PERMITTING

Permitting was carried out by Mr. Bruce Beer. Bruce was also the Client Representative on site for the entire contract.

# 3. RECORDING / PROCESSING

## 3.1 Recording Parameters

| | | | |
|---|---|---|---|
| Survey: | 2005 Mytilus Seismic Survey | PEL: | 92 & 91 |
| Lines: | BCO5-01 → BC05-47 | Areas: | Various |

**Instrumentation**

| | | |
|---|---|---|
| Instruments | : | Sercel 388 |
| No. Channels | : | 124 |
| Tape Drives | : | 3490E (x 2) |
| Tape Format | : | SEGD Revision 1 8058IEEE Demultiplexed,<br>Noise edited correlated summed 4 sec record |
| Filters | : | Hi cut 125 Hz, (half Nyquist - Linear)<br>Lo cut: Out |
| Sample Rate | : | 2 ms |
| Record Length | : | 7 sec (3 sec sweep, 4 sec listen) |
| RTC | : | Yes |
| Correlation Type | : | Zero Phase, After Sum |
| Stack | : | Diversity stack plus burst edit |

**Source Data**

| | | |
|---|---|---|
| Vibrators | : | 3 x I/O AHV IV's on 4x4 Buggies |
| Electronics | : | Pelton Advance III, VibPro |
| Sweep Frequency | : | Mono-sweep, 5-90 Hz |
| Sweep Length | : | 3 seconds |
| No. Sweeps | : | 2 standing |
| VP Interval | : | 37.5m |
| Vibrator Array | : | 3 vibs in line, 15m pad to pad standing. No move-up. |
| Sweep Amplitude Taper | : | 100% (none) |
| Drive Level | : | 90% varied by amplitude control function |
| End Tapers (cosine) | : | 0.2s |
| Phase Locking Type | : | Ground Force |
| Amplitude Control? | : | Peak to Peak |

**Receivers**

| | | |
|---|---|---|
| Receiver Group Interval | : | 37.5m |
| Number of live traces | : | 124 |
| Spread | : | Split, 2306.25-93.75-0-93.75-2306.75 |
| Geophones | : | Sensor SM4 10 Hz |
| Array | : | 12 in-line, centred on station, 3.125 spacing |
| Connection | : | Series/Parallel (6x2) |
| Multiplicity | : | 62 fold (60 fold processed) |

## 3.2 RECORDING - MYTILUS PROSPECT

The first production profile was recorded on line BC05-30 on the 8th May. Acquisition began at 13:00pm after the crew had laid spread and 5.025 kms of production was recorded for the day.

**Cable Operations at Mytilus 2D**

### Line BC05-30

Recording commenced at station 517 on the 8th and was completed at station 200 on the 9th May, a total of 11.8875 kms.

### Line BC05-01

Recording commenced on this line on the 9th May from station 625 and was completed the following day at station 200, a total of 15.9375 kms.

### Line BC05-02

Recording commenced on this line on the 10th May from station 200 and was completed that same day at station 548, a total of 13.050 kms.

**Line BC05-03**

Recording commenced on this line on the 10th May from station 200 and was completed the following day at station 840, a total of 24.0 kms.

**Line BC05-08**

Recording commenced on this line on the 11th May from station 385 and was completed that same day at station 200, a total of 6.9375 kms.

**Line BC05-25**

Recording commenced on this line on the 12th May from station 200 and was completed that same day at station 466, a total of 9.975 kms.

**Line BC05-26**

Recording commenced on this line on the 12th May from station 200 and was completed that same day at station 466, a total of 9.975 kms.

**Line BC05-05**

Recording commenced on this line on the 13th May from station 396 and was completed that same day at station 200, a total of 7.350 kms.

**Line BC05-06**

Recording commenced on this line on the 13th May from station 200 and was completed that same day at station 419, a total of 8.2125 kms.

**Line BC05-07**

Recording commenced on this line on the 13th May from station 426 and was completed the following day at station 200, a total of 8.4750 kms.

**Line BC05-04**

Recording commenced on this line on the 14th May from station 494 and was completed that same day at station 200, a total of 11.0250 kms.

**Line BC05-23**

Recording commenced on this line on the 14th May from station 201 and was completed the following day at station 599, a total of 14.925 kms.

**Line BC05-22**

Recording commenced on this line on the 15th May from station 546 and was completed that same day at station 200, a total of 12.975 kms.

**Line BC05-31**

Recording commenced on this line on the 15th May from station 200 and was completed the following day at station 518, a total of 11.925 kms.

**Line BC05-29**

Recording commenced on this line on the 16th May from station 200 and was completed that same day at station 653, a total of 16.9875 kms.

**Line BC05-09**

Recording commenced on this line on the 17th May from station 628 and was completed that same day at station 200, a total of 16.050 kms.

**Line BC05-10**

Recording commenced on this line on the 17th May from station 200 and was completed the following day at station 685, a total of 18.1875 kms.

**Line BC05-12**

Recording commenced on this line on the 18th May from station 726 and was completed the following day at station 200, a total of 19.725 kms.

**Line BC05-11**

Recording commenced on this line on the 19th May from station 200 and was completed that same day at station 468, a total of 10.050 kms.

**Line BC05-13**

Recording commenced on this line on the 20th May from station 200 and was completed that same day at station 665, a total of 17.4375 kms.

**Line BC05-14**

Recording commenced on this line on the 21st May from station 638 and was completed that same day at station 200, a total of 16.425 kms.

**Line BC05-17**

Recording commenced on this line on the 21st May from station 597 and was completed the following day at station 200, a total of 14.8875 kms.

**Line BC05-16**

Recording commenced on this line on the 22nd May from station 200 and was completed the following day at station 713, a total of 19.2375 kms.

**Line BC05-19**

Recording commenced on this line on the 23rd May from station 460 and was completed that same day at station 200, a total of 9.750 kms.

**Line BC05-18**

Recording commenced on this line on the 23rd May from station 200 and was completed the following day at station 453, a total of 9.4875 kms

**Line BC05-21**

Recording commenced on this line on the 24th May from station 420 and was completed that same day at station 200, a total of 8.250 kms

**Line BC05-20**

Recording commenced on this line on the 24th May from station 200 and was completed the following day at station 422, a total of 8.325 kms

**Line BC05-15**

Recording commenced on this line on the 25th May from station 200 and was completed the following day at station 709, a total of 19.0875 kms.

Camp staff moved camp to a location further south in the prospect, the move took the entire day and camp was setup and operational by 18:30pm, no delays in production were noted for today.

**Line BC05-45**

Recording commenced on this line on the 26th May from station 200 and was completed the following day at station 738, a total of 20.175 kms

**Line BC05-44**

Recording commenced on this line on the 27th May from station 550 and was completed the following day at station 200, a total of 13.125 kms.

**Line BC05-39**

Recording commenced on this line on the 28th May from station 946 and was completed the following day at station 200, a total of 27.975 kms.

**Line BC05-38**

Recording commenced on this line on the 29th May from station 200 and was completed that same day at station 655, a total of 17.0625 kms.

**Line BC05-40**

Recording commenced on this line on the 30th May from station 200 and was completed that same day at station 479, a total of 10.4625 kms.

**Line BC05-41**

Recording commenced on this line on the 30th May from station 200 and was completed the following day at station 651, a total of 16.9125 kms.

**Line BC05-42**

Recording commenced on this line on the 31st May from station 595 and was completed the following day at station 200, a total of 14.8125 kms.

**Line BC05-43**

Recording commenced on this line on the 1st June from station 200 and was completed that same day at station 594, a total of 14.775 kms.

**Line BC05-46**

Recording commenced on this line on the 1st June from station 679 and was completed the following day at station 200, a total of 17.9625 kms.

**Line BC05-37**

Recording commenced on this line on the 2nd June from station 200 and was completed that same day at station 547, a total of 13.0125 kms.

**Line BC05-47**

Recording commenced on this line on the 3rd June from station 543 and was completed that same day at station 200, a total of 12.8625 kms.

**Line BC05-32**

Recording commenced on this line on the 3rd June from station 553 and was completed the following day at station 200, a total of 13.2375 kms.

**Line BC05-24**

Recording commenced on this line on the 4th June from station 200 and was completed that same day at station 367, a total of 6.2625 kms.

**Line BC05-33**

Recording commenced on this line on the 4th June from station 361 and was completed that same day at station 200, a total of 6.0375 kms.

**Line BC05-28**

Recording commenced on this line on the 4th June from station 200 and was completed the following day at station 521, a total of 12.0375 kms.

**Line BC05-27**

Recording commenced on this line on the 5th June from station 613 and was completed that same day at station 200, a total of 15.4875 kms.

**Line BC05-35**

Recording commenced on this line on the 5th June from station 627 and was completed the following day at station 200, a total of 16.0125 kms.

**Line BC05-36**

Recording commenced on this line on the 6th June from station 200 and was completed that same day at station 468, a total of 10.05 kms.

**Line BC05-34**

Recording commenced on this line on the 6th June from station 539 and was completed the following day at station 200, a total of 12.7125 kms. The completion of this line represented the finish of the Mytilus 2D contract, a total of 641.5125 kms recorded. All equipment was picked up and packed into the vehicles for demobilization to the ACOR prospect the following day.

### 3.3 PROCESSING

All data ‘A’ tapes were sent to Fugro Seismic Imaging in Perth WA while the data ‘B’ tapes were sent to Beach Petroleum head office in Adelaide.

# APPENDIX A

## EQUIPMENT SPECIFICATIONS

**SEISMIC ACQUISITION CREW - EQUIPMENT**

**RECORDING EQUIPMENT, SOURCE EQUIPMENT AND VEHICLES**

**RECORDING EQUIPMENT (2D Surveys)**

- **SERCEL 388 - 24 Bit 3D Seismic Data Acquisition System**
    - Sun Monitor and Sun Sparc 5 Computer
    - OYO DFM 480 Plotter, UPS, LIM
    - One (1) Sercel Real Time APM - Sweep Correlator
    - Two (2) Fujitsu 3490 Tape Drives
    - One Hundred and Thirty Five (135) SU6 Telemetry units (810 Channels)
    - One Hundred and Thirty Five (135) Seismic Cables (810 Channels)
    - Twenty (20) Sercel PSUs and Three (3) Sercel CSUs
    - Twelve (12) CSU Patch Cables
    - Twenty Five (25) Battery case power Cords
    - Fifty (50) Batteries for SU6 units
    - Two (2) Sercel Handheld Cable Testers
    - Ten (10) Sercel Battery Chargers
    - **One (1) Pelton Adv 3 VibPro** Real Time Similarity System
    - One (1) 10 meter 6 DB Boost High Gain Antenna on Recording Truck
    - **Sensor SM4 10Hz High Specification Superphones**
    - Six Hundred (600) Geophone strings with 12 ph/group

### SOURCE EQUIPMENT

**Four I/O AHV IV Vibrators**

- Peak Force is 60 000 lbs
- Four Pelton Advance III VibPro Sweep Generators

# APPENDIX B

## OCCUPATIONAL HEALTH AND SAFETY STANDARDS

- Crew startup induction / safety meeting
- Sunday crew safety meeting
- Long sleeve shirts and covered footwear must be worn by field crew at all times
- Sunscreen
- Reflective vests for all recording personnel working along roads
- Satellite Phone in recorder
- Functional UHF Radio fitted in all line vehicles
- Random drug and alcohol tests
- Vehicles fitted with First Aid kits
- Line Vehicles fitted with flashing beacons
- Road Signs
- Gloves to protect hands

# APPENDIX C
## TAPE LISTING

| Tape # | Line | First FFID | Last FFID | First VP | Last VP | Date Recorded |
|---|---|---|---|---|---|---|
| 8000A | - | 1 | 5 | - | - | 8-May-05 |
| 1A | BC05-30 | 1 | 318 | 517.5 | 200.5 | 8-May-05 |
| 2A | BC05-01 | 1 | 424 | 625.5 | 200.5 | 9-10 May 05 |
| 3A | BC05-02 | 1 | 349 | 548.5 | 200.5 | 10-May-05 |
| 4A | BC05-03 | 1 | 641 | 200.5 | 840.5 | 10-11-May 05 |
| 5A | BC05-08 | 1 | 184 | 385.5 | 200.5 | 11-May-05 |
| 6A | BC05-25 | 1 | 258 | 200.5 | 466.5 | 12-May-05 |
| 7A | BC05-26 | 1 | 266 | 466.5 | 200.5 | 12-May-05 |
| 8A | BC05-05 | 1 | 192 | 396.5 | 200.5 | 13-May-05 |
| 9A | BC05-06 | 1 | 219 | 200.5 | 419.5 | 13-May-05 |
| 10A | BC05-07 | 1 | 220 | 426.5 | 200.5 | 13-14-May 05 |
| 11A | BC05-04 | 1 | 295 | 494.5 | 200.5 | 14-May-05 |
| 12A | BC05-23 | 1 | 396 | 201.5 | 599.5 | 14-15-May 05 |
| 13A | BC05-22 | 1 | 347 | 546.5 | 200.5 | 15-May-05 |
| 14A | BC05-31 | 1 | 310 | 200.5 | 518.5 | 15-16-May-05 |
| 15A | BC05-29 | 1 | 455 | 200.5 | 653.5 | 16-May-05 |
| 16A | BC05-09 | 1 | 422 | 628.5 | 200.5 | 17-May-05 |
| 17A | BC05-10 | 1 | 487 | 200.5 | 685.5 | 17-18-May |
| 8000 | Tap Test | | | | | 18-May-05 |
| 18A | BC05-12 | 1 | 519 | 726.5 | 200.5 | 18-19-May |
| 19A | BC05-11 | 1 | 267 | 200.5 | 468.5 | 19-May-05 |
| 20A | BC05-13 | 1 | 415 | 200.5 | 652.5 | 20-May-05 |
| 21A | BC05-14 | 2 | 423 | 638.5 | 200.5 | 21-May-05 |
| 22A | BC05-17 | 1 | 398 | 597.5 | 200.5 | 21-22-May |
| 23A | BC05-16 | 1 | 515 | 200.5 | 713.5 | 22-23-May |
| 24A | BC05-19 | 1 | 258 | 460.5 | 200.5 | 23-May-05 |
| 25A | BC05-18 | 1 | 255 | 200.5 | 453.5 | 24-May-05 |
| 26A | BC05-21 | 1 | 218 | 420.5 | 200.5 | 24-May-05 |
| 27A | BC05-20 | 1 | 223 | 200.5 | 422.5 | 24/25-May-2005 |
| 28A | BC05-15 | 1 | 508 | 200.5 | 709.5 | 25/26-May-2005 |
| 29A | BC05-45 | 1 | 482 | 200.5 | 738.5 | 26/27-May-2005 |
| 30A | BC05-44 | 1 | 350 | 550.5 | 200.5 | 27/28-May-2005 |
| 31A | BC05-39 | 1 | 560 | 946.5 | 384.5 | 28-May-05 |
| 32A | BC05-39 | 561 | 732 | 383.5 | 200.5 | 29-May-05 |
| 33A | BC05-38 | 1 | 451 | 200.5 | 655.5 | 29-May-05 |
| 34A | BC05-40 | 1 | 277 | 479.5 | 200.5 | 30-May-05 |
| 35A | BC05-41 | 1 | 435 | 200.5 | 651.5 | 30/31-May-2005 |
| 36A | BC05-42 | 1 | 397 | 595.5 | 200.5 | 31-May/1-June-2005 |
| 37A | BC05-43 | 1 | 395 | 200.5 | 594.5 | 1-Jun-05 |
| 38 A | BC05-46 | 1 | 479 | 679 | 200 | 1-Jun-05 |
| 39 A | BC05-37 | 1 | 347 | 200 | 547 | 2-Jun-05 |
| 40 A | BC05-47 | 1 | 341 | 543 | 200 | 3-Jun-05 |
| 41 A | BC05-32 | 1 | 356 | 553 | 200 | 3-Jun-05 |
| 42 A | BC05-24 | 1 | 168 | 200 | 367 | 4-Jun-05 |
| 43 A | BC05-33 | 1 | 162 | 361 | 200 | 4-Jun-05 |
| 44 A | BC05-28 | 1 | 319 | 201 | 521 | 5-Jun-05 |
| 45 A | BC05-27 | 1 | 407 | 613 | 200 | 5-Jun-05 |
| 46 A | BC05-35 | 1 | 427 | 627 | 200 | 6-Jun-05 |
| 47 A | BC05-36 | 1 | 269 | 200 | 468 | 6-Jun-05 |
| 48 A | BC05-34 | 1 | 338 | 539 | 200 | 6-Jun-05 |

# APPENDIX D

## MYTILUS 2D SURVEY
### HSE END OF CONTRACT REPORT

**Safety Statistics**

| | |
|---|---|
| Terrex Seismic Man-hours | 13,260 |
| Fatalities | 0 |
| LTI | 0 |
| MTI | 0 |
| First Aid / Medical Cases | 19 |
| Incident / Accident Reports | 2 |
| Hazard Identification Reports | 21 |
| Training Hours | 108.7 |
| Tool Box / Safety Meeting Manhours | 250 |
| Audits / Inspections | 32 |
| Drills | 1 |
| Land Spills (< 5 litres) | 0 |
| | |

**Audits & Inspections Conducted**

| **Audits & Inspections** | |
|---|---|
| Camp | 2 |
| Vehicles | 15 |
| Environmental | 10 |
| Fire Extinguishers | 2 |
| Field Inspection | 3 |
| TOTAL | 32 |

**Medical Statistics**

| **Clinic Attendance** | |
|---|---|
| Colds, Influenza type infections | 12 |
| Diarrhoea, nausea | 1 |
| Wound care, lacerations, dressings | 2 |
| Muscle | 3 |
| Stomach & Digestion | 1 |
| **TOTAL** | 19 |

**Remarks**

Report compiled by: Nicky Byrne - HSE Advisor

# APPENDIX E
# SAFETY MEETING

**Date:** 15th May 2005
**Location:** Mytilus 2D
**Crew:** 402
**Client:** Beach Petroleum
**Conducted by:** Mark Kniepp
**Attendance:** All
**Meeting opened:** 6:00am
**Meeting closed:** 6:20am

**Meeting Opened**

**Mark Kniepp (Party Manager)**
**Lifting and Handling -** The weather is getting much colder in the mornings. Be careful with lifting and handling as muscles are not warmed up properly. Warming up before starting to perform physical work and using proper lifting, handling and stepping techniques will minimise the chances of muscle and back strain.

**Gary Hutchison (HSE)**
**Fire Plan –** We have just received a new fire alarm. Richard the mechanic will mount it on the diner wall within the next few days and we will sound the alarm at toolbox meeting this week so everyone is aware of the sound. We have also mounted air-horns at the mechanics workshop, kitchen and the far accommodation van. Be aware of the air-horns as they are very loud. 120 decibels.
**Vehicle Checklists** – We now have vehicle checklists in book form. These are to be kept in the glove box of each vehicle and filled out on a daily basis. The top page is then put in the box next to the Journey Management folder. Also at the mechanics there are weekly log books for each vehicle that are more comprehensive and need to be filled in each Saturday when vehicles come in. These will be kept at the mechanics workshop.
**First Aid Courses –** Those who are going on break this week and wish to do the St.John's Ambulance Senior First Aid Certificate will need to come and see me tonight. We need to arrange a time and place and then I will get head office in Perth make bookings.

**Joel Carry (Senior Observer)**
**Maps –** We need to make sure that when new employees are inducted they are all given a course in how to read a seismic map. Also when going onto a new prospect and changing between 2D and 3D all personnel are made aware of the distances and differences in the maps. Good maps need to be provided for those going out and coming in on crew changes.

**Bruce Beer (Client Representative)**
**Prospect –** Beach Petroleum are very pleased with the way the job is going. We had a very good first week with only one minor incident, Ken the mechanic jamming his thumb.

**Driving –** While driving, make sure that is the only thing you are concentrating on. If you need to read a map or perform another task, stop the vehicle. There are a lot of heavy vehicles on the road to Moomba. At least five tankers do the trip form Christies Well to Moomba each day.

**Meeting Ended.**

# SAFETY MEETING

**Date:** 22nd May 2005
**Location:** Mytilus 2D
**Crew:** 402
**Client:** Beach Petroleum
**Conducted by:** Mark Kniepp
**Attendance:** All
**Meeting opened:** 6:00am
**Meeting closed:** 6:20am

**Meeting Opened**

**Mark Kniepp (Party Manager)**
**Fire Drill –** There are still a couple of things that can be improved on from this morning's fire drill. We need to be more efficient with our response. The air horn didn't last long which shows we may need to do a weekly test of the alarms. There were only two torches at the muster point which were not freshly charged. The main concern was that an absent crew member was counted as being present. This shows we will still need to do a complete roll call from the list at the muster point. The Room search team must still do a complete room search even if everyone is accounted for at the muster point. A reason for this could be if we are in urban area and a non crew member who is not listed on the muster point stays in our camp and in an emergency situation is forgotten about.
**Driving –** Driving is our biggest hazard out in the field. Please take extreme care, especially in the sand dunes.
**Camp Move –** We should be moving camp on Tuesday. Peggy will have plastic bags on your beds for you to put all your bedding in. We will go over more details over the next two days.

**Joel Carry (Senior Observer)**
**Wheel Tracks –** When driving around side cuts at the foot of sand dunes or up any steep sandy hills, make sure you stay close to the bank. Remember any heavier vehicle following the tracks will be in a safer position from tipping. If the tyre tracks are cut to close too the edge of a hill or slope it could cause a heavy vehicle to slip or roll.

**Bruce Beer (Client Representative)**
**Side Rails for Steps –** Four steps or more requires a hand rail to be installed at all times. The recording unit must make installing the hand rail apart of the recorder set-up after every move.
**Incident free week –** Safety wise we have had an excellent week with no incidences so far. Keep up the good work.

**Aaron Beatson (Vibrator Operator)**
**Don't follow too close –** On 2D quite often vehicles will get stuck behind a vibe. Make sure that when you approach a vibe from the rear that you stay a least three vibe lengths

behind so that the rear vibe can see your vehicle. At times the vibes will need to reverse so it is very important that you are not following too close behind as you may not be seen.
**Mark Kneipp (Party Manager)**
Everyone should be calling the recorder to check when it is okay to pass the vibes.

**Matthew Green (Jugs)**
**Steering bad on Jug truck –** Yesterday when the jug truck was loaded, the steering was shaking quite violently making it very hard to drive.

**Quentin Mower (Cable)**
**Big loads drive careful –** Take extra care when driving or if you are on the back of the cable truck with the big loads we are currently doing.

**Richard Carmody (Mechanic)**
**Mechanics Restricted Area –** Only the mechanics and the supply driver are permitted in the work shop area as there are hazardous materials and dangerous equipment or work operations.

**Tony Hutchison**
**Maps –** I has new maps for everyone to collect after the meeting.

**Nicky Byrne (HSE)**
**Smoke Alarms –** I did an inspection yesterday on smoke alarms. They all tested well but I did find two alarms off the ceiling. It is your responsibility to ensure that your alarm is mounted and working. Please come and see me if it needs replacing. Make sure that you take the smoke alarm down before camp move on Tuesday so that it does not get damaged. And mount the alarm back onto the ceiling when setting up camp.

**Meeting Closed.**

# SAFETY MEETING

**Date:** 29th May2005
**Location:** Mytilus 2D
**Crew:** 402
**Client:** Beach Petroleum
**Conducted by:** Mark Kniepp
**Attendance:** All
**Meeting opened:** 6:00am
**Meeting closed:** 6:20am

**Meeting Opened**

**Mark Kniepp (Party Manager)**
**Dust and dawn sunlight –** As you are going out and coming in from the field you will encounter the morning sunrise and late sunset. Drive to the conditions and be aware of wildlife and the odd stock wondering around.
**Hot Exhaust –** The hot exhaust which acted as an ignition resulted in a small bush catching fire the other morning. This demonstrates how dry it is out here. Keep in mind your vehicle will heat up on the long drive out to the field and throughout the day. Remember to keep checking your radiators for any leaves and sticks and blow them out.
**Vehicle shocks –** A few vehicle shocks are being damaged due to holes in sand dunes, mostly caused by the vibes. When possible try to avoid any holes and bumps or drive a little slower so we can keep the wear and tear on the vehicles down.

**Nicky Byrne (HSE Advisor)**
**Hazard and Incident Reporting Cards –** I have received a number of reporting cards which have been great. The reporting cards help address important issues and also establish a broader hazard register.
**Flags on dune poles –** One Hazard Report card by Lisa showed that some dune poles do not have flags on them. This is a really important issue as there are some big sand dunes out in the field. If you have two vehicles going up a dune from either side, the first indication of another vehicle will be the dune poll. So if your vehicle has not got a flag, grab a rag from the mechanics workshop and tie it on the top of the dune poll.
**Cable loads –** We will be setting the maximum load of cable to eight. This will ensure that the person pulling on in the back of the cage will remain inside the safety bars. The cable truck cages were designed bigger so that the cable will sit lower in the cage keeping the person on the back down inside the safety bars.

**Joel Carry (Senior Observer)**
**Sunlight destroys vision –** Most mornings I will be moving the recorder up. When I travel east up the line I often can not see any vehicles travelling west because of the sun. Be aware that there are other vehicles including the recorder.
**Suggested:** To radio in or sound your horn as you are going over a large blind dune.

**Bruce Beer (Client Representative)**

**Incident free week –** We have had another incident free week. Keep up the good work.

**Rollovers & safety belts –** Soft dunes, corners, low tire pressure, big loads and most importantly speed. These factors could contribute to a possible rollover. This has been demonstrated before, even in reverse. Please watch your speed and perhaps secure your loads if you are not doing so already. Another point is to secure your self. Seat belts must be worn at all times. Apart from the exemption we have when people are on the back of the truck behind the safety bars working.

**Richard Carmody (Mechanic)**
**Vehicle recovery points –** Make sure when you are recovering a vehicle you do not use the bull bar or the tow ball. They are not secure enough to do a recovery and will act as missile if it does come loose. We are still waiting on recovery points to arrive for the vehicles from Motorama.

**Darren Rea (Cable Repair Technician)**
**Unsecured take-outs –** We are still looking at a successful way to secure the takeouts to the cable. Zip ties and taping the take out to the cable has not worked. In the meantime please take care when pulling on cable as it really hurts when the take out swings in and gets you in the face.

**Tony Hutchison**
**Maps –** I has new maps for everyone to collect after the meeting.
**Sunglasses** – If you have trouble seeing out of your sunglasses as they are too scratched see Nicky for another pair. They will protect your eyes if you walk into a branch.

**Meeting Closed.**

# SAFETY MEETING

**Date:** 5th June 2005
**Location:** Mytilus 2D
**Crew:** 402
**Client:** Beach Petroleum
**Conducted by:** Jon Turner
**Attendance:** All
**Meeting opened:** 6:15am
**Meeting closed:** 6:35am

**Meeting Opened**

**Jon Turner (Party Manager)**
**Dry Area/Fire Risk –** Take care where you turn around out in the field. Try not to drive over any bushes. It is still very dry out here. Keep in mind your vehicles will get hot with all the driving and climbing over the dunes.

**Bruce Beer (Client Representative)**
**Incident free week –** We have had another incident free week. Two more days to complete and it will be a perfect job for Beach Petroleum. Excellent work so far, keep it up.

**Nicky Byrne (HSE Advisor)**
**Lifting & Handling Techniques –** I have had a few people come and see me with complaints of muscle strains. With the colder weather it is important to warm your muscles by doing light exercises before doing anything physical. By using correct lifting and handling techniques you will minimise any muscle or back strains. Especially when lifting heavy equipment like batteries you must keep it close to your body. Do not twist the trunk of your body and if you find the equipment to be too heavy, use two people.
**Dust –** Last night there was a lot of dust lingering around as everyone was coming in from the field. Remember to keep your distance and drive to the conditions. Always have your headlights on, it helps other vehicles to see your vehicle. If you can not see pull off to the side of the road and wait till the dust settles.

**Joel Carry (Senior Observer)**
**Vehicle Checks –** We have had problems with a few vehicles fan belts over the past week. Make sure you are checking the fan belts in your daily vehicle checks every morning.
**Passing Vibes –** There are a lot of blind spots with big dunes in the field. Therefore it is very important to ask permission before overtaking the vibes as they often can not see you.
**Tyre Pressure –** If you need to let your tyres down in the field. Drop by the recorder or service truck to refill and check your tyre pressure.

**Tony Hutchison (Line Boss)**

**Excellent work –** Big effort from everyone yesterday. Cable trucks did well to catch up to back crew. Back crew also went hard to catch up and stay with the back number. Front crew powered on and did really well with only three people most of the day.
**Pinnies and Pegs –** Collection of pinnies and pegs have been really good. Remember to keep dropping them off every night and DSS will collect them at some stage.

**Kevin Mitchell (Front Crew)**
**Be Aware –** Look out for low lying branches that could poke you in the eye. And any sticks or trip hazards including wiggle sticks like snakes that may be out looking for sun.

**Simon Feldheim (Back Crew/Trouble Shooter)**
**Snakes –** Yesterday afternoon we found a semi fresh snake skin. Be aware snakes are out and about.

**Quentin Mower (Cable Truck)**
**Holes –** The vibes have caused big holes in some sand dune hills. When you have someone on the back of the cable truck pulling on, drive slowly taking extra care. Quite often when you drive down off the top of the dune you can not see that there is a big hole till it is too late.

**Shane Goosens (Vibe Technician)**
**Tyre Pressure –** If everyone lets there tyres down to 20psi in the morning while it is cold. You should find that you can get up the sand dunes with or with out a load on. We need to look at getting sand tyres sent out here for the Toyotas, like the radials. The current tyres we have aren't built for the sand and the inside walls are getting eaten out because they are running them to low to get up the dunes. Tyre gauges were ordered a while ago for each of the vehicles can we look into seeing where they are.

**Geoff Oswell (Supply Driver)**
**Radiators Overheating –** We have had a number of radiators over heating. It is extremely dangerous to open the cap when radiator is hot and under pressure. When you think the radiator has cooled down enough. Test the top hose by feeling if it is tight or not. If the hose is tight then it is still under pressure and you should not attempt to remove the cap.
**Jon Turner –** Just be careful with the radiators. Keep an eye on your gauges. Call up the recorder if you notice your vehicle over heating. We will get one of the mechanics and Turbo down there to look at it.

**Lisa Welsh (Jug Truck)**
**Fences –** There are a few drop fences that are particularly tight which you need to be careful of. Drive slowly keeping a watchful eye on the wire of the drop fence so that it does not catch on your vehicle as you drive over it.

**Nick Helme (Junior Observer/Trouble Shooter**
**Possible Vehicle Damage –** Keep your speed down when driving over sticks and debris. It will help prevent sticks flicking up and possible damage to the vehicles.
**Overhanging branches –** Trouble shooters are constantly turning their vehicle around out on line. When doing a three point turn take care of over hanging branches that you may not see in your mirrors or your blind spot.

**Jon Turner**
**Camp move –** At this stage we aim for everyone to help move camp on Wednesday. Hopefully have camp set up by lunch time and start laying spread by the afternoon. Crew change will still be on Thursday.

**Meeting Closed.**

# APPENDIX F
## VEHICLE LIST

| VEHICLE | REGISTRATION |
|---|---|
| 100 Series Landcruiser Wagon (Client) | 929 IDH |
| 100 Series Landcruiser Wagon | 093 IIU |
| 100 Series Landcruiser Wagon | 094 IIU |
| 100 Series Landcruiser Wagon | 095 IIU |
| 100 Series Landcruiser Wagon | 096 IIU |
| Landcruiser Trayback (Cable) | 307-IJX |
| Landcruiser Trayback (Cable) | 308-IJX |
| Landcruiser Trayback (Cable) | 309-IJX |
| Landcruiser Trayback (Cable) | 1BRD 037 |
| Landcruiser Trayback (Cable) | 092-IIU |
| Landcruiser Trayback (Geophone) | 1BSR 496 |
| Landcruiser Trayback (Geophone) | 310-IJX |
| Landcruiser Trayback (T/S) | 343-IJX |
| Landcruiser Trayback (T/S) | 344-IJX |
| Landcruiser Trayback (Trayback) | 588-IMH |
| Landcruiser Trayback (Trayback) | 118-IIU |
| Landcruiser Trayback (Mechanics) | 311-IJX |
| I/O AHV-IV Vibrator | C 32657 |
| I/O AHV-IV Vibrator | C 32658 |
| I/O AHV-IV Vibrator | C 32659 |
| I/O AHV-IV Vibrator | C 32660 |
| Isuzu Recorder | 1BSB 131 |
| Paystar Water Truck | 688 IFS |
| MAN Water Truck | G 12833 |
| Kenworth Water Truck | 1AGB 177 |
| Paystar Spread Truck | 686 IFS |
| Paystar Vibe Service Truck | 875 HJU |
| Kenworth Spread Truck | 874 HJU |
| Hino Spread Truck | 7DT 982 |
| Hino Spread Truck | BD 610 |
| Isuzu Spread Truck | IAOR 420 |
| Isuzu Generator Truck | 1AMI 165 |
| Paystar Mechos | 685 IFS |
| Isuzu Truck | 9DL 970 |
| Hino Fuel Tanker | RMR 625 |

# APPENDIX G

### CREW LIST FOR BEACH PETROLEUM
### MYTILUS 2D SEISMIC SURVEY

| NAME | POSITION | DAYS ON CREW |
|---|---|---|
| Jon Turner | Crew Manager | 11 |
| Mark Kneipp | Crew Manager | 24 |
| | | |
| Nicola Byrne | HSE | 22 |
| Gary Hutchison | HSE | 13 |
| | | |
| Richard Carmody | Mechanic | 27 |
| Kenneth Matthews | Mechanic | 12 |
| Allan Tuite | Supply Driver | 27 |
| Arnold McKenna | Supply Driver | 2 |
| Geoff Oswell | Supply Driver | 31 |
| | | |
| Campbell McCormack | Cook | 33 |
| Mark Foxon | Cook | 27 |
| Masako Iwasaki | Cook | 6 |
| | | |
| Peggy Tomlinson | Camp Attendant | 22 |
| Elizabeth Crossie | Camp Attendant | 13 |
| | | |
| Joel Carry | Observer | 33 |
| Nicolas Helme | Observer | 11 |
| Darren Rea | Cable Technician | 27 |
| | | |
| Wayne Sauer | Vibrator Operator | 2 |
| Steven Bates | Vibrator Operator | 13 |
| David Lynch | Vibrator Operator | 33 |
| Shane Shufflebotham | Vibrator Operator | 20 |
| Aaron Beatson | Vibrator Operator | 27 |
| David James | Vibrator Operator | 20 |
| Shane Walker | Vibrator Operator | 13 |
| | | |
| Dennis Corbin | Vibrator Technician | 8 |
| Shane Goossens | Vibrator Technician | 27 |
| | | |
| Tony Hutchison | Trouble Shooter | 33 |
| Simon Feldheim | Trouble Shooter | 7 |
| Gavin Fisher | Trouble Shooter | 20 |
| Warren Campbell | Trouble Shooter | 16 |
| | | |
| Darryn Bishoff | Line Crew | 13 |
| Arlo Capper | Line Crew | 27 |
| Adam Creek | Line Crew | 13 |
| Aaron Flavel | Line Crew | 6 |
| Chris Grams | Line Crew | 13 |
| Matthew Green | Line Crew | 14 |

| | | |
|---|---|---|
| Andrew Henderson | Line Crew | 33 |
| Andrew Hill | Line Crew | 13 |
| Jonathon Hynes | Line Crew | 13 |
| Dean Kingston | Line Crew | 13 |
| Tapa Koonwaiyou | Line Crew | 33 |
| Greg Lavender | Line Crew | 13 |
| James Linnie | Line Crew | 12 |
| Cheryl McGinity | Line Crew | 14 |
| Kevin Mitchell | Line Crew | 33 |
| Quentin Mower | Line Crew | 27 |
| Ty Nisbett | Line Crew | 19 |
| Dane Nicholson | Line Crew | 6 |
| John Richardson | Line Crew | 33 |
| Kelley Smith | Line Crew | 19 |
| Derek Temple-Held | Line Crew | 19 |
| Michael Tobler | Line Crew | 12 |
| Lisa Welsh | Line Crew | 33 |
| Tierre Whui | Line Crew | 19 |
| David Wilson | Line Crew | 19 |
| Susan Wood | Line Crew | 19 |

# BEACH PETROLEUM - MYTILUS 2D SEISMIC SURVEY 2005 :  STATISTICS

| Date | Travel Time | Extra Travel Time | Test Time | Recording Time | Line Change | Mobilisation | Vibes | WOS | Recorder Shutdown | Recorder Move | Safety & Other Charge | Detours & Terrain | Inductions | Troubleshoot | Laying Out, QC & Pickup Spread | Experimental Time | Total Stand-by Rate | Total Extra Travel | Total Downtime | Total Operational Hours | Total Km's |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | | | | | | |
| 6 May 2005 | | | | | | 6.00 | | | | | | | | | | | - | - | - | | - |
| 7 May 2005 | | | | | | 9.00 | | | | | | | | | | | - | - | - | | - |
| 8 May 2005 | 0.30 | | 0.40 | 1.80 | | | 2.70 | | | | 0.30 | | 0.50 | 1.00 | 5.30 | | 0.80 | - | 3.70 | 7.80 | 5.0250 |
| 9 May 2005 | 1.10 | | | 6.00 | 0.80 | | | | | 1.90 | 0.30 | 1.30 | | 1.10 | | | 0.30 | - | 1.10 | 11.10 | 19.0120 |
| 10 May 2005 | 1.40 | | | 7.00 | 1.10 | | 0.30 | | | | 0.30 | 1.00 | | 1.00 | | | 0.30 | - | 1.30 | 10.50 | 23.2130 |
| 11 May 2005 | 0.70 | | | 7.30 | 2.10 | | | | | 0.70 | 0.30 | | | 0.90 | | | 0.30 | - | 0.90 | 10.80 | 24.5625 |
| 12 May 2005 | 0.90 | | | 6.00 | 1.90 | | | | 0.60 | | 0.30 | | | 2.30 | | | 0.30 | - | 2.90 | 8.80 | 19.9500 |
| 13 May 2005 | 1.00 | | | 6.60 | 1.20 | | | | | | 0.30 | 1.80 | | 1.30 | | | 0.30 | - | 1.30 | 10.60 | 20.9250 |
| 14 May 2005 | 0.70 | | | 6.50 | 1.20 | | | | | 0.80 | 0.30 | 2.50 | | 0.40 | | | 0.30 | - | 0.40 | 11.70 | 22.3125 |
| 15 May 2005 | 0.40 | | | 7.60 | 1.60 | | 0.30 | | | | 0.30 | 0.20 | | 1.90 | | | 0.30 | - | 2.20 | 9.80 | 25.0875 |
| 16 May 2005 | 0.70 | | | 7.00 | 1.50 | | | | | 1.40 | 0.30 | 0.50 | | 0.50 | | | 0.30 | - | 0.50 | 11.10 | 23.5875 |
| 17 May 2005 | 1.00 | | | 7.10 | 0.40 | | | | | 2.10 | 0.30 | 0.70 | | 0.80 | | | 0.30 | - | 0.80 | 11.30 | 22.6875 |
| 18 May 2005 | 1.00 | | | 6.80 | 0.70 | | | | | 1.20 | 0.30 | 1.50 | | 1.20 | | | 0.30 | - | 1.20 | 11.20 | 21.5625 |
| 19 May 2005 | 1.10 | | | 6.20 | 0.80 | | | 1.00 | | 0.70 | 0.30 | 0.60 | | 1.40 | | | 0.30 | - | 2.40 | 9.40 | 19.7625 |
| 20 May 2005 | 1.40 | | | 4.80 | 2.00 | | | 1.00 | | 0.70 | 0.30 | 0.40 | | 1.20 | | | 0.30 | - | 2.20 | 9.30 | 17.4375 |
| 21 May 2005 | 1.50 | | | 6.90 | 0.80 | | | | | 1.00 | 0.30 | 0.70 | | 0.70 | | | 0.30 | - | 0.70 | 10.90 | 21.7500 |
| 22 May 2005 | 1.50 | 0.30 | | 6.80 | 0.60 | | | | | 0.80 | 0.30 | | | 1.50 | | | 0.30 | 0.30 | 1.50 | 10.00 | 23.0625 |
| 23 May 2005 | 1.50 | 0.50 | | 5.40 | 1.60 | | | | | | 0.30 | 0.80 | | 2.10 | | | 0.30 | 0.50 | 2.10 | 9.80 | 17.9250 |
| 24 May 2005 | 1.50 | 0.90 | | 5.90 | 2.70 | | | | | | 0.30 | 0.30 | | 0.60 | | | 0.30 | 0.90 | 0.60 | 11.30 | 20.0625 |
| 25 May 2005 | 1.50 | 1.30 | | 3.60 | 1.20 | | | | 3.20 | | 0.30 | | | 0.70 | | | 0.30 | 1.30 | 3.90 | 7.60 | 11.5125 |
| 26 May 2005 | 1.50 | 0.70 | | 6.00 | 1.20 | | | | | 0.70 | 0.30 | 0.70 | | 0.60 | | | 0.30 | 0.70 | 0.60 | 10.80 | 21.9750 |
| 27 May 2005 | 1.40 | | | 6.20 | 1.00 | | | | | 1.60 | 0.30 | 0.40 | | 0.80 | | | 0.30 | - | 0.80 | 10.60 | 20.5500 |
| 28 May 2005 | 1.10 | | | 6.60 | 0.90 | | | | | 1.10 | 0.30 | 0.30 | | 1.20 | | | 0.30 | - | 1.20 | 10.00 | 22.9500 |
| 29 May 2005 | 0.90 | | | 7.60 | 1.70 | | | | | | 0.30 | 0.50 | | 1.10 | | | 0.30 | - | 1.10 | 10.70 | 23.9625 |
| 30 May 2005 | 0.90 | | | 7.00 | 1.40 | | | | | 0.60 | 0.30 | 1.00 | | 0.90 | | | 0.30 | - | 0.90 | 10.90 | 23.5875 |
| 31 May 2005 | 1.20 | | | 5.20 | 0.70 | | | | 3.70 | 0.70 | 0.30 | 0.10 | | 0.30 | | | 0.30 | - | 4.00 | 7.90 | 16.5750 |
| 1 June 2005 | 1.10 | | | 6.80 | 2.00 | | | | | | 0.30 | 0.20 | | 1.20 | | | 0.30 | - | 1.20 | 10.10 | 23.5125 |
| 2 June 2005 | 0.60 | | | 6.80 | 2.30 | | | 0.90 | | | 0.30 | 0.20 | | 0.30 | | | 0.30 | - | 1.20 | 9.90 | 24.2625 |
| 3 June 2005 | 0.40 | | | 7.50 | 0.70 | | 0.40 | | | | 0.30 | 0.10 | | 1.80 | | | 0.30 | - | 2.20 | 8.70 | 24.2625 |
| 4 June 2005 | 0.80 | | | 7.00 | 1.60 | | 0.10 | | | | 0.30 | | | 1.60 | | | 0.30 | - | 1.70 | 9.40 | 22.9500 |
| 5 June 2005 | 0.60 | | | 7.10 | 1.60 | | | | | 0.70 | 0.30 | 0.60 | | 0.80 | | | 0.30 | - | 0.80 | 10.60 | 23.9250 |
| 6 June 2005 | 1.00 | | | 8.30 | 1.00 | | | | | | 0.30 | | | 0.70 | | | 0.30 | - | 0.70 | 10.30 | 27.3750 |
| 7 June 2005 | 1.20 | | | 2.30 | | | | | | | 0.30 | | | 0.60 | 2.60 | | 0.30 | - | 0.60 | 6.10 | 6.1875 |
| | | | | | | | | | | | | | | | | | | | | | |
| **Total** | **31.9000** | **3.7000** | **0.4000** | **193.7000** | **38.3000** | **15.0000** | **3.8000** | **2.9000** | **7.5000** | **16.7000** | **9.3000** | **16.4000** | **0.5000** | **32.5000** | **7.9000** | **0.0000** | **9.8000** | **3.7000** | **46.7000** | **309.0000** | **641.5125** |

# Dynamic Satellite Surveys

**05007**

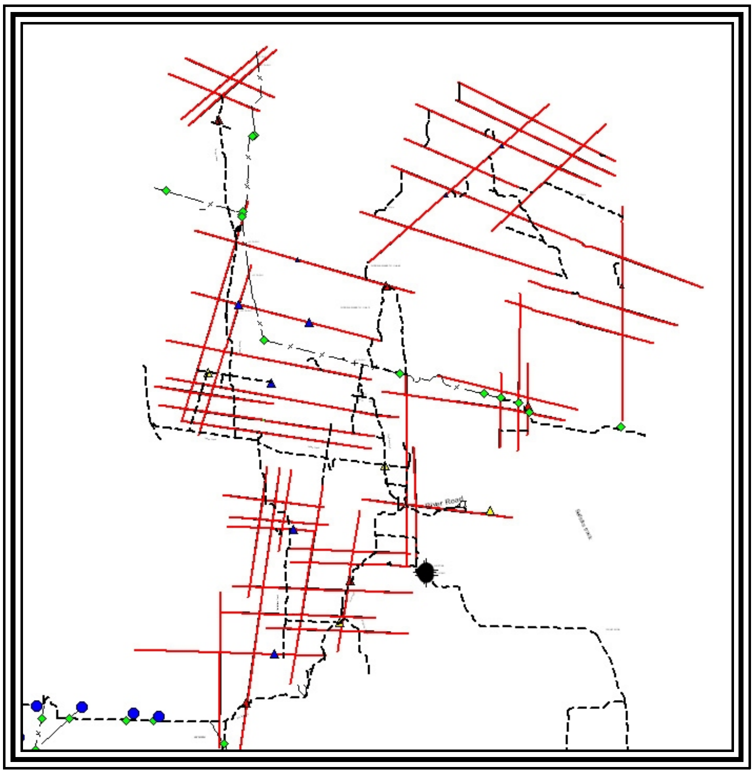
*Final Operations Report*
*on the*

## *2005 Mytilus 2D Seismic Survey*

*for*

## *Beach Petroleum Ltd*
## *and*
## *Terrex Seismic Pty Ltd*

*April to May 2005*



The Director
Dynamic Satellite Surveys Pty Ltd
PO Box 713
Yeppoon QLD 4703
Telephone: 07 4939 2866
International: +61 7 4939 2866
Facsimile: 07 4939 2867
E-mail: yeppoon@dss.com.au

Quality System

Quality Endorsed Company
ISO 9001:2000
Lic QEC10046
SAI Global

# Table of Contents

# 1

# *INTRODUCTION*

The following report covers the **2005 Mytilus 2D Seismic Survey**, performed by **Dynamic Satellite Surveys Pty Ltd** (DSS) whilst contracted to **Terrex Seismic Pty Ltd** for **Beach Petroleum Ltd.**

The survey operation was situated approximately 132km's north west of Moomba within the exploration lease PEL 91 and 92, South Australia.

A total of forty seven (47) 2D seismic lines were surveyed totalling **641.55 kilometres** at 37.5m station intervals. All lines were covered in 35 days giving an average of 18.3km's per day.

The survey operations were completed between the 23rd April and the 27th May 2005.

# 2

# *INSTRUMENTATION AND PERSONNEL*

## *2.1 Personnel and Logistics*

DSS personnel involved in the survey were as follows:

| | | |
|---|---|---|
| **Ben Allsopp** | - | Bachelor of Surveying - Curtin University of Technology |
| **Mike Borthwick** | - | RNZN Certificate in Hydrographic Surveying |
| **Dean Hausmann** | - | Bachelor of Surveying - QUT |
| **Mark Lefebvre** | - | Bachelor of Applied Science (Surveying) - RMIT |
| **Shane McDonald** | - | 20 years Seismic Survey Experience |
| **Frank Tangney** | - | Certificate in Surveying |

Personnel and equipment logistics were supported by the DSS Yeppoon office.

Survey operations were based out of the Denham and O'Keefe camp sites which were positioned as close to the lines as possible to minimise the amount of travel time.

3

# *SURVEY REFERENCE SYSTEMS*

## *3.1 Geodetic Datum*

This project was based on the Geocentric Datum of Australia 1994 (GDA94) which is based on the Geodetic Reference System 1980 (GRS80) model defined by the following parameters:

| | |
|---|---|
| *Datum:* | GDA94(Geocentric Datum of Australia 1994) |
| *Spheroid:* | GRS80 |
| *Reference Frame:* | ITRF92 (International Terrestrial Reference Frame) |
| *Semi-Major Axis Length:* | 6 378 137.0 |
| *Inverse Flattening:* | 298.257222101 |
| *The Unit of Measure:* | International Metre |

## *3.2 Map Projection*

Final rectangular co-ordinates were based on the Map Grid of Australia 1994 (MGA94). Parameters for this projection are as follows:

| | |
|---|---|
| *Projection:* | Universal Transverse Mercator (MGA Zone 54) |
| *Latitude of Origin:* | 0° |
| *Central Meridian (CM):* | 141° E |
| *Scale Factor at CM:* | 0.9996 |
| *False Easting:* | 500 000 |
| *False Northing:* | 10 000 000 |
| *The Unit of Measure:* | International Metre |

## *3.3 Height Datum*

All elevations obtained relative to GDA94 have been reduced to the Australian Height Datum (AHD) using the AUSGEOID98 Geoid - Spheroid separation model to determine the geoid-ellipsoid separation (N) for the particular area.

GPS observations are made on the GDA94 datum. The height associated with this datum is an ellipsoidal height (h). The Australian Height Datum (AHD), the height datum associated with MGA94, is an orthometric height which is measured as the height above mean sea level, or the geoid (H).

The function that defines the relationship between the ellipsoid and orthometric heights is:

$$\mathbf{H = h - N}$$

Or

**AHD = GDA94 - (Geoid / Ellipsoid Separation)**

The value for the geoid/spheroid separation is interpolated from a national model called Ausgeoid98.

## 2.2 Equipment

Equipment provided by DSS and used on this project:

| | Description | Qty |
|---|---|---|
| ***Vehicles*** | Toyota Landcruiser Trayback - DSS | 4 |
| | | |
| ***GPS receivers*** | NovAtel RT2 millennium c/w VHF Telemetry | 4 |
| | NovAtel RT20 | 5 |
| | Garmin 72 Handheld | 1 |
| | | |
| ***Computers*** | Dell Inspiron 5100 | 1 |
| | GRiD 386 Field PCs | 10 |
| | Fujitsu Tablet | 1 |
| | | |
| ***Software*** | GravNav / GravNet GPS post-processing - Waypoint Consultancy | Ver6.03b |
| | Nav98-4 field software - DSS | Ver4.2 |
| | MIB2003 for Windows - DSS | Ver5.0.3 |
| | TransIt 2000 - DSS | Ver2.04 |
| | | |
| ***Printer*** | Canon i6100 | 1 |
| | | |
| ***Survey Instruments*** | Rapid Elevation Meter - DSS | 1 |
| | | |
| ***Miscellaneous*** | Sundry office and transport equipment | |
| | Field and Office Consumables | |

AUSGEOID98 is the third in a series of national geoid models produced for Australia by the Australian Surveying and Land Information Group (AUSLIG). The geoid-ellipsoid data is prepared for the Australian region from:

- EGM96 Global Geopotential Model;
- 1996 Australian Gravity DataBase, from the Australian Geological Survey Organisation (AGSO);
- AUSLIG / AGSO GEODATA nine-second digital elevation model;
- Satellite altimeter - derived free air gravity anomalies offshore;
- Theories, techniques and software developed by Associate Professor Will Featherstone, Curtin University of Technology[1].

AUSGEOID98 N values were interpolated using the GrafNet Version 6.03b software, distributed by Waypoint. Consulting Inc.

[1] Johnston, G.M., Featherstone, W.E. (1998) AUSGEOID98: A New Gravimetric Model for Australia

# 4

# *SURVEY CONTROL*

Survey Control was based on a mark installed on DSS Job # 02011, located centrally to the 2005 program.

Check observations were made from each of the base stations during the real-time surveys and these miscloses and ties can also be seen in **Appendix A - Survey Control, Miscloses and Ties.**

# 5

# *MONUMENTATION*

All lines were pegged at a 37.5m station interval. Wooden pegs were placed at every fifth station and were numbered on both sides. Pinflags were placed at all other stations.

Several new control stations were established for the survey and left in the ground for future reference. Control stations consisted of a 1.65m steel star picket driven to give 1.2m above ground, and tagged with an aluminium plate stating the control number details.

The control stations are listed at **Appendix A - Survey Control, Miscloses and Ties**.

Upholes were pegged at designated locations as specified by the client. Wooden pegs were placed at each uphole location and numbered on both sides with yellow flagging tied around the peg.

The uphole locations are listed at **Appendix C - Upholes.**

Environmental Monitoring Point's (EMP) were placed at various locations depicting the varying environmental conditions encountered throughout the prospect. EMPs consisted of a 1.65m steel star picket driven to give 1.2m above ground and tagged with an aluminium plate stating line, station number and the EMP number.

The EMP locations are listed at **Appendix G - EMP List.**

# 6

# *METHOD OF SURVEY*

## *6.1 Line Ranging*

All lines were cleared by Denham and O'Keefe Earthmoving contractors. The equipment supplied to perform the clearing was two Komatsu D65 bulldozers and a Caterpillar 12G grader.

The operators were experienced in preparation of seismic lines with regards to environmental issues and easily learnt the GPS guidance techniques.

A NovAtel RT20 GPS receiver was mounted on each of the dozers. Each line's co-ordinates and bend points for cultural heritage sites (supplied by the client) were uploaded onto a Grid 386 field PC which ensured that the lines were cut to +/- 20m of preplan position as required for environmentally correct line clearance techniques.

The DSS vehicle assigned to supervising line clearance operations was fitted out with a Fujitsu Tablet which was interfaced with a NovAtel RT2 receiver. This enabled all mapping to be done real time in the field.

## *6.2 Surveying and Chaining*

The lines were surveyed using DSS' RT2 real-time kinematic surveying technique.

RT2 enables both position and elevation co-ordinates to be acquired in real-time and on the appropriate datum.

The survey method utilised phase data received from US Navy NAVSTAR Satellites to provide three-dimensional positioning. One receiver was set up as a base station at a known location while other receivers were used as remote rovers.

To obtain real-time capabilities, VHF telemetry is required between the base and the remote GPS receiver. Numerous remote receivers can be used at any given time with any base station.

NovAtel real-time kinematic methods can achieve accuracies of better than +/-0.05m in position and elevation, depending on base line length. The expected precision for locating pegged positions is better than 0.3m and is generally better than 0.2m.

Initialisation of the RT2 rover GPS usually takes as little as 1-2 minutes, although this is greatly dependant on satellite geometry, availability and base line length.

Several lines crossed large salt lakes and thus the lines were cleared around the edges of the lakes and source points were pegged on the detours. A backpack mounted GPS was used to position receiver stations on the salt lakes.

## *6.3 GPS Processing and Quality Control*

When using RT2, all data is recorded internally in GRiD palmtop data loggers and downloaded to the office computer each evening.

Quality of the satellite data is monitored by careful examination of the various on-screen quality control statistics produced by the software.

These checks on data integrity are in the form of standard deviation (or sigma) values for Easting, Northing and Height and are generally better than 0.05m.

Any recording of positions when the standard deviation values are in excess of 0.1m is highlighted to the surveyor at the time of recording, and the GPS may be re-initialised until a more accurate solution is calculated.

Any position which falls outside the required tolerances is flagged for further investigation and re-recording if necessary.

Numerous checks on pre-recorded marks were observed during each days survey. These observations confirm the integrity of the GPS base receiver and the placed markers.

The co-ordinates are then checked by determining point to point direction and distance.

Profile plots are examined to identify any height anomalies.

# 7

# *DATA PRESENTATION*

All line files were checked and finalised before the survey crew demobilised from the prospect.

All final data was in UTM grid co-ordinate format on the MGA94 datum on the GDA94 reference spheroid. All elevations were on the Australian Height Datum (AHD71).

Files produced were:

| | |
|---|---|
| **BC05-XX.uka** | Line data in UKOOA format for all 47 lines. |
| **BC05-XX.seg** | Line data in SegP1 format for all 47 lines. |
| | |
| **05007_Upholes.xls** | Listing of all upholes placed. |
| **PM_Ties.xls** | Connections to existing PMs. |
| **Intersec.crd** | All new line intersections in .crd format. |
| | |
| **MapInfo Directory** | All mapping data that DSS observed during the project. |
| **EMPs Directory** | Four Environmental Monitoring Point Diagrams. |
| **Trace Diagrams Directory** | All in PDF Format. |

All files are backed up on digital disks in the Yeppoon office for future reference.

No hard copy data was provided.

# 8

# SAFETY

DSS personnel are aware of safety conditions concerning all exploration seismic surveys. The DSS "Quality Policy Statement" and "Health, Safety and Environment Policy" were adhered to at all times.

Each vehicle was fitted with a UHF radio, SSB radio, shovel, fire extinguisher, first-aid kit, vehicle recovery equipment and weekly vehicle maintenance check lists.

UHF radio contact was always available between surveyors and with the line clearing contractors. Regular contact was made throughout each day to ensure trouble free operations. Personnel were required to contact each other before leaving the field.

Evening toolbox meetings highlighted any safety concerns which personnel encountered during the previous day and ensured everyone was informed about planned lines and progress. Safety/Operations meetings were also held weekly. Some important points that were noted were:

- Dozer drivers inform everyone on radio if he is walking along access tracks.
- Make sure you have a sufficient supply of water and consume water frequently.
- Look for dune flags when coming to a dune crest - radio that you are on line xx heading in a westerly direction.
- Beware of snakes as they are still around.
- Always contact operators when near machines to let them know you are there and receive acknowledgment of your presence.

# 9

# *OPERATIONAL ASPECTS*

All personnel were involved in Aboriginal Heritage Inductions before the commencement of survey operations.

Temporary gates or drop-down facilities were placed where gates could not be found near the lines.

The average daily production for the job was lower then anticipated due to the shorter amount of daylight hours at that time of year and the long travel times from camp to the lines. Survey production matched dozer production daily throughout the program. The terrain did not allow the camp to be positioned in such a manner to reduce travel times.

There were some instances where lines were positioned in excess of the +/-20m tolerance specified. The client field representative was consulted and approved all line deviations that exceeded the programmed tolerance of 20m. The main reasons for larger cross line deviations was to minimise the impact on the environment, i.e larger dunes that would have required extensive dozing, salt lakes and clay pans etc.

Line Trace Diagrams and Access Maps were provided to the Terrex crew before the commencement of each area to aid in line traversing.

# 10

## CONCLUSIONS AND RECOMMENDATIONS

The project generally ran smoothly for line clearing and survey. It is believed this is due in a large part to the people involved being experienced at their relevant tasks.

The GPS equipment functioned well with little down time for line clearing and none for survey. The down time for line clearing was usually loose connections due to the constant vibration of the dozer, these were quickly rectified either by the operator, dozer pointer or one of the surveyors who were always nearby.

There were a few sections of lines that had many bends for cultural heritage sites which resulted in some in-line station intervals on the cut line being longer or shorter than normal. DSS personnel were concerned that this could affect the processing of seismic data and asked the client field representative to confirm that the position of stations was acceptable.

Because of the limited daylight hours at the time of year the survey was conducted and the long travel times to the lines it was impossible for the dozers to work a twelve hour day and travel to and from camp in daylight hours. This resulted in personnel travelling along tracks through sand dunes at night. This is not deemed to be a safe practice and it is recommended that this should be taken into consideration if future large regional 2D surveys are to be conducted at similar times of the year.

There were no safety incidents on the project.

Signed,

Shane McDonald

# 11

# *APPENDICES*

# *Survey Control, Miscloses and Ties*

## Survey Control, Miscloses and Ties

All values are MGA 94 (Zone 54), AHD71

### Control Stations Used

| Station | Easting | Northing | Height | Comments |
|---|---|---|---|---|
| BC0244 | 321502.20 | 6920364.53 | 47.78 | Published-3D |
| BC0246 | 336346.80 | 6912776.21 | 18.82 | Published-3D |
| BC0251 | 345153.46 | 6909112.78 | 18.62 | Published-3D |
| BC51 | 345153.29 | 6909112.82 | 18.64 | Static Survey |
| MAR1 | 315419.95 | 6891112.75 | 41.40 | Static Survey |
| MYT01 | 333618.45 | 6903115.05 | 21.22 | Static Survey |
| MYT02 | 336276.14 | 6927864.51 | 50.14 | Static Survey |
| MYT03 | 325097.73 | 6892695.83 | 26.09 | Static Survey |
| MYT04 | 348187.38 | 6917952.30 | 32.24 | Static Survey |
| MYT05 | 322030.90 | 6941602.76 | 53.32 | Static Survey |
| MYT06 | 355905.54 | 6928080.54 | 31.26 | Static Survey |

## Survey Control, Miscloses and Ties

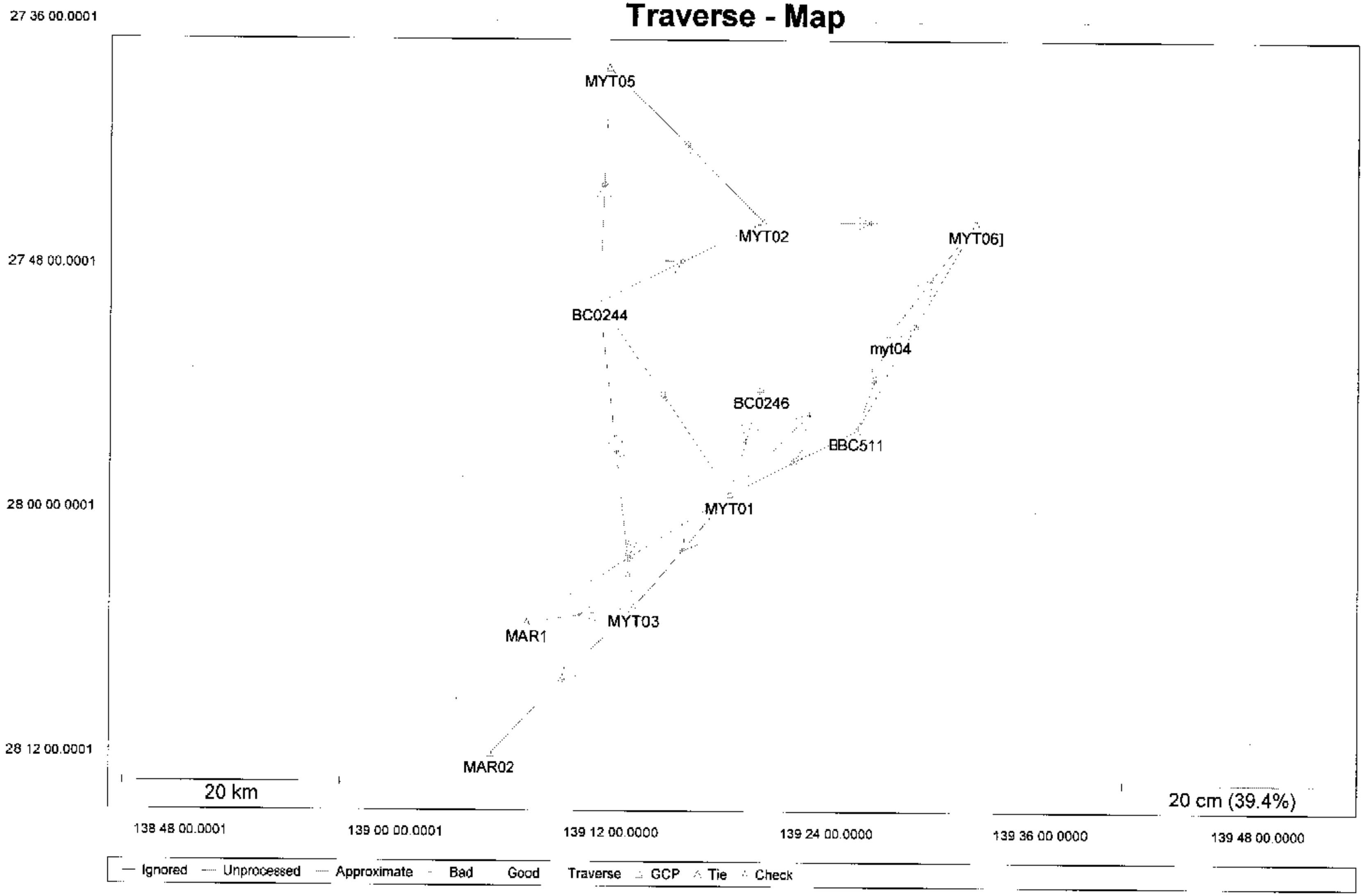
Co-ordinates are MGA94 (Zone 54) and AHD71

### Checks to Old/Existing PMs

| Line | Station | Easting | Northing | Height | Comments |
|---|---|---|---|---|---|
| 86-ZGX | 227 | 330109.681 | 6909324.104 | 30.720 | |
| | | 330112.553 | 6909321.654 | 29.467 | DSS RTK |
| | | 2.872 | -2.450 | -1.253 | |
| 87-APJ | 226 | 334201.684 | 6920079.080 | 20.750 | |
| | | 334205.872 | 6920075.237 | 19.738 | DSS RTK |
| | | 4.188 | -3.843 | -1.012 | |
| 84-SGB | 925 | 322224.044 | 6945230.056 | 39.920 | |
| | | 322223.750 | 6945227.356 | 38.960 | DSS RTK |
| | | -0.294 | -2.700 | -0.960 | |
| 92-CKS | 692 | 355948.755 | 6931352.446 | 21.800 | |
| | | 355948.089 | 6931351.376 | 21.626 | DSS RTK |
| | | -0.666 | -1.070 | -0.174 | |
| 92-CLC | 350 | 355924.059 | 6933820.836 | 22.600 | X 81-KRF |
| | | 355923.118 | 6933819.569 | 21.996 | DSS RTK |
| | | -0.941 | -1.267 | -0.604 | |
| BC02-79 | 210 | 356886.100 | 6930071.500 | 20.500 | Track |
| | | 356886.011 | 6930071.734 | 20.449 | DSS RTK |
| | | -0.089 | 0.234 | -0.051 | |
| 85-XGZ | 1702 | 352094.656 | 6926095.055 | 20.250 | |
| | | 352095.707 | 6926095.697 | 19.078 | DSS RTK |
| | | 1.051 | 0.642 | -1.172 | |
| BC02-70 | 320 | 349892.500 | 6920123.500 | 19.500 | x BC02-67 Stn 647 |
| | | 349892.433 | 6920123.392 | 19.367 | DSS RTK |
| | | -0.067 | -0.108 | -0.133 | |

# *Network Diagram*

# Traverse - Map



# *Upholes*

## Uphole Listing

Co-ordinates are Map Grid of Australia 1994 (MGA Zone 54) and AHD71

| Line | Station | Easting | Northing | Height | Uphole Number |
|---|---|---|---|---|---|
| BC05-01 | 214 | 316272.913 | 6897051.258 | 32.584 | UH B001 |
| BC05-01 | 265 | 318184.839 | 6897010.054 | 28.437 | UH B002 |
| BC05-01 | 328 | 320546.350 | 6896953.517 | 25.620 | UH B003 |
| BC05-01 | 389 | 322832.988 | 6896905.667 | 34.962 | UH B004 |
| BC05-01 | 441 | 324782.877 | 6896867.019 | 30.916 | UH B005 |
| BC05-01 | 464 | 325646.249 | 6896852.057 | 13.945 | UH B006 |
| BC05-01 | 556+23 | 329118.173 | 6896768.998 | 17.353 | UH B007 |
| BC05-01 | 575+7 | 329814.209 | 6896749.847 | 16.448 | UH B008 |
| BC05-01 | 603 | 330856.895 | 6896723.637 | 16.755 | UH B009 |
| | | | | | |
| BC05-02 | 456+16 | 322819.324 | 6898549.591 | 29.618 | UH B014 |
| BC05-02 | 502+34 | 322804.020 | 6900292.332 | 35.891 | UH B015 |
| BC05-02 | 520 | 322800.167 | 6900933.187 | 33.712 | UH B016 |
| BC05-02 | 369+34 | 322839.729 | 6895304.871 | 23.114 | UH B013 |
| BC05-02 | 313+10 | 322856.489 | 6893181.173 | 35.917 | UH B012 |
| BC05-02 | 223+1 | 322908.896 | 6889797.044 | 17.290 | UH B010 |
| BC05-02 | 256+24 | 322891.845 | 6891058.206 | 17.111 | UH B011 |
| | | | | | |
| BC05-03 | 265+17 | 324903.317 | 6891050.220 | 16.445 | UH B018 |
| BC05-03 | 217+19 | 324687.075 | 6889264.876 | 20.535 | UH B017 |
| BC05-03 | 325+15 | 325211.004 | 6893276.879 | 19.780 | UH B019 |
| BC05-03 | 380+17 | 325469.896 | 6895324.319 | 19.106 | UH B020 |
| BC05-03 | 463+22 | 325854.439 | 6898418.450 | 17.383 | UH B021 |
| BC05-03 | 511+25 | 326056.619 | 6900210.251 | 26.848 | UH B022 |
| BC05-03 | 529 | 326151.299 | 6900853.940 | 25.776 | UH B023 |
| BC05-03 | 571+5 | 326337.831 | 6902422.710 | 27.779 | UH B024 |
| BC05-03 | 587+21 | 326412.149 | 6903034.388 | 27.913 | UH B025 |
| BC05-03 | 634 | 326625.097 | 6904762.812 | 18.391 | UH B026 |
| BC05-03 | 680+5 | 326824.747 | 6906472.293 | 22.264 | UH B027 |
| BC05-03 | 704 | 326939.550 | 6907360.134 | 20.459 | UH B028 |
| BC05-03 | 721+19 | 327021.476 | 6908011.594 | 16.241 | UH B029 |
| BC05-03 | 741+32 | 327123.066 | 6908767.307 | 20.713 | UH B030 |
| BC05-03 | 765+4 | 327232.190 | 6909632.467 | 27.332 | UH B031 |

## Uphole Listing

Co-ordinates are Map Grid of Australia 1994 (MGA Zone 54) and AHD71

| Line | Station | Easting | Northing | Height | Uphole Number |
|---|---|---|---|---|---|
| BC05-03 | 814+31 | 327474.856 | 6911481.859 | 33.849 | UH B032 |
| | | | | | |
| BC05-04 | 223+6 | 325231.905 | 6902446.808 | 29.898 | UH B033 |
| BC05-04 | 239+30 | 325318.859 | 6903065.073 | 20.817 | UH B034 |
| BC05-04 | 286 | 325542.040 | 6904783.038 | 28.700 | UH B035 |
| BC05-04 | 332+31 | 325770.078 | 6906524.693 | 34.479 | UH B036 |
| BC05-04 | 355+34 | 325893.536 | 6907380.751 | 35.568 | UH B037 |
| BC05-04 | 374+33 | 325974.856 | 6908087.615 | 30.381 | UH B038 |
| BC05-04 | 396+15 | 326082.408 | 6908887.818 | 35.241 | UH B039 |
| BC05-04 | 419+6 | 326196.077 | 6909734.028 | 19.874 | UH B040 |
| BC05-04 | 468+35 | 326450.858 | 6911583.160 | 22.770 | UH B041 |
| | | | | | |
| BC05-05 | 231+28 | 324463.361 | 6907430.863 | 26.951 | UH B042 |
| BC05-05 | 322+19 | 327864.988 | 6907314.780 | 18.342 | UH B043 |
| BC05-05 | 395+24 | 330603.288 | 6907173.865 | 30.213 | UH B044 |
| | | | | | |
| BC05-06 | 225+28 | 324441.490 | 6908182.067 | 27.453 | UH B045 |
| BC05-06 | 319+18 | 327949.865 | 6907956.551 | 19.328 | UH B046 |
| BC05-06 | 371+17 | 329893.924 | 6907818.921 | 28.782 | UH B047 |
| BC05-06 | 392+19 | 330682.074 | 6907776.295 | 21.221 | UH B048 |
| BC05-06 | 410+28 | 331364.581 | 6907728.150 | 32.411 | UH B049 |
| | | | | | |
| BC05-07 | 240+21 | 324404.297 | 6909921.081 | 32.857 | UH B050 |
| BC05-07 | 341+17 | 328168.221 | 6909541.353 | 31.451 | UH B051 |
| BC05-07 | 414+5 | 330877.328 | 6909240.423 | 33.893 | UH B052 |
| | | | | | |
| BC05-08 | 226+6 | 327736.493 | 6906426.868 | 17.234 | UH B053 |
| BC05-08 | 359+24 | 328424.120 | 6911385.085 | 39.373 | UH B054 |
| | | | | | |
| BC05-09 | 225+21 | 320215.213 | 6916137.269 | 47.694 | UH B055 |
| BC05-09 | 247+23 | 321034.605 | 6916027.699 | 42.973 | UH B056 |
| BC05-09 | 290+9 | 322619.214 | 6915818.612 | 47.054 | UH B057 |
| BC05-09 | 333+21 | 324228.491 | 6915597.509 | 29.157 | UH B058 |

## Uphole Listing

Co-ordinates are Map Grid of Australia 1994 (MGA Zone 54) and AHD71

| Line | Station | Easting | Northing | Height | Uphole Number |
|---|---|---|---|---|---|
| BC05-09 | 388 | 326253.139 | 6915332.373 | 20.613 | UH B059 |
| BC05-09 | 449+29 | 328548.856 | 6915022.191 | 29.430 | UH B060 |
| BC05-09 | 513 | 330898.926 | 6914705.226 | 36.449 | UH B061 |
| BC05-09 | 532+31 | 331634.412 | 6914601.991 | 16.851 | UH B062 |
| BC05-09 | 552 | 332348.201 | 6914515.762 | 19.718 | UH B063 |
| BC05-09 | 578+14 | 333327.829 | 6914376.519 | 16.675 | UH B064 |
| BC05-09 | 604+16 | 334298.082 | 6914260.442 | 22.470 | UH B065 |
| | | | | | |
| BC05-10 | 232+21 | 318607.660 | 6917431.552 | 44.371 | UH B066 |
| BC05-10 | 260+17 | 319644.135 | 6917286.236 | 53.093 | UH B067 |
| BC05-10 | 284+12 | 320531.613 | 6917171.030 | 43.699 | UH B068 |
| BC05-10 | 305+33 | 321332.073 | 6917055.917 | 36.696 | UH B069 |
| BC05-10 | 344 | 322748.249 | 6916863.054 | 40.100 | UH B070 |
| BC05-10 | 383 | 324197.183 | 6916667.796 | 34.017 | UH B071 |
| BC05-10 | 444 | 326410.959 | 6916373.668 | 19.557 | UH B072 |
| BC05-10 | 509 | 328827.650 | 6916051.524 | 37.417 | UH B073 |
| BC05-10 | 568+21 | 331042.490 | 6915760.620 | 25.458 | UH B074 |
| BC05-10 | 588+9 | 331774.465 | 6915666.178 | 17.128 | UH B075 |
| BC05-10 | 607+28 | 332498.705 | 6915566.899 | 27.474 | UH B076 |
| BC05-10 | 634+15 | 333489.421 | 6915437.062 | 17.069 | UH B077 |
| BC05-10 | 660+14 | 334455.528 | 6915309.558 | 20.077 | UH B078 |
| | | | | | |
| BC05-11 | 209+36 | 317355.579 | 6919055.319 | 45.030 | UH B079 |
| BC05-11 | 253+19 | 319010.664 | 6918837.214 | 42.575 | UH B080 |
| BC05-11 | 281+23 | 320054.967 | 6918697.085 | 47.680 | UH B081 |
| BC05-11 | 305+21 | 320944.213 | 6918570.626 | 51.410 | UH B082 |
| BC05-11 | 327+3 | 321744.277 | 6918462.458 | 51.258 | UH B083 |
| BC05-11 | 359+27 | 322957.779 | 6918302.459 | 50.902 | UH B084 |
| BC05-11 | 392 | 324156.673 | 6918135.288 | 34.207 | UH B085 |
| BC05-11 | 441+30 | 326007.818 | 6917889.540 | 23.467 | UH B086 |
| | | | | | |
| BC05-12 | 235+27 | 319290.555 | 6919681.707 | 40.549 | UH B087 |
| BC05-12 | 262+22 | 320283.261 | 6919510.816 | 42.830 | UH B088 |

## Uphole Listing

Co-ordinates are Map Grid of Australia 1994 (MGA Zone 54) and AHD71

| Line | Station | Easting | Northing | Height | Uphole Number |
|---|---|---|---|---|---|
| BC05-12 | 286+20 | 321169.562 | 6919368.022 | 41.727 | UH B089 |
| BC05-12 | 308+8 | 321971.389 | 6919231.664 | 40.661 | UH B090 |
| BC05-12 | 337+27 | 323065.466 | 6919067.934 | 39.384 | UH B091 |
| BC05-12 | 366+27 | 324135.612 | 6918871.885 | 34.456 | UH B092 |
| BC05-12 | 420 | 326107.123 | 6918549.862 | 29.118 | UH B093 |
| BC05-12 | 467+18 | 327864.039 | 6918260.904 | 36.911 | UH B094 |
| BC05-12 | 513 | 329550.703 | 6917996.705 | 21.811 | UH B095 |
| BC05-12 | 627+4 | 333771.871 | 6917298.023 | 19.770 | UH B096 |
| | | | | | |
| BC05-13 | 212 | 318402.716 | 6922934.526 | 44.211 | UH B097 |
| BC05-13 | 257+14 | 320079.885 | 6922646.509 | 51.286 | UH B098 |
| BC05-13 | 285+28 | 321125.912 | 6922454.025 | 37.010 | UH B099 |
| BC05-13 | 310+15 | 322037.154 | 6922297.330 | 36.628 | UH B100 |
| BC05-13 | 331+13 | 322807.888 | 6922143.149 | 36.887 | UH B101 |
| BC05-13 | 640+7 | 334203.840 | 6920080.418 | 19.720 | UH B107 |
| BC05-13 | 571+9 | 331660.089 | 6920543.603 | 14.335 | UH B106 |
| BC05-13 | 513+21 | 329533.609 | 6920939.652 | 15.087 | UH B105 |
| BC05-13 | 468+12 | 327859.208 | 6921214.695 | 25.071 | UH B104 |
| BC05-13 | 417+13 | 325980.155 | 6921561.663 | 37.424 | UH B103 |
| BC05-13 | 365 | 324049.830 | 6921918.372 | 40.554 | UH B102 |
| | | | | | |
| BC05-14 | 233+31 | 321265.229 | 6926755.120 | 37.745 | UH B108 |
| BC05-14 | 261+24 | 322277.663 | 6926500.424 | 38.890 | UH B109 |
| BC05-14 | 308+18 | 323987.931 | 6926101.423 | 59.216 | UH B110 |
| BC05-14 | 360+15 | 325876.500 | 6925628.472 | 41.530 | UH B111 |
| BC05-14 | 418+27 | 327995.047 | 6925085.787 | 29.594 | UH B112 |
| BC05-14 | 465+29 | 329709.647 | 6924667.839 | 33.528 | UH B113 |
| BC05-14 | 513+3 | 331440.078 | 6924276.610 | 41.589 | UH B114 |
| BC05-14 | 565+25 | 333356.228 | 6923809.620 | 31.408 | UH B115 |
| BC05-14 | 625 | 335510.519 | 6923255.576 | 16.422 | UH B116 |
| | | | | | |
| BC05-15 | 234 | 321407.099 | 6931937.831 | 34.403 | UH B117 |
| BC05-15 | 296+11 | 323654.782 | 6931300.492 | 36.699 | UH B118 |

## Uphole Listing

Co-ordinates are Map Grid of Australia 1994 (MGA Zone 54) and AHD71

| Line | Station | Easting | Northing | Height | Uphole Number |
|---|---|---|---|---|---|
| BC05-15 | 678 | 337462.952 | 6927530.241 | 16.743 | UH B125 |
| BC05-15 | 623+5 | 335481.676 | 6928084.777 | 32.815 | UH B124 |
| BC05-15 | 569 | 333524.059 | 6928622.050 | 36.903 | UH B123 |
| BC05-15 | 514+13 | 331546.297 | 6929158.588 | 35.176 | UH B122 |
| BC05-15 | 461+23 | 329633.836 | 6929663.760 | 40.542 | UH B121 |
| BC05-15 | 404+19 | 327569.092 | 6930232.479 | 39.869 | UH B120 |
| BC05-15 | 351+23 | 325660.277 | 6930771.105 | 36.510 | UH B119 |
| | | | | | |
| BC05-16 | 249+2 | 319873.765 | 6918036.506 | 51.269 | UH B126 |
| BC05-16 | 317+4 | 320563.791 | 6920493.539 | 44.212 | UH B127 |
| BC05-16 | 419+22 | 321614.937 | 6924189.736 | 39.868 | UH B128 |
| BC05-16 | 452 | 321953.320 | 6925357.417 | 41.250 | UH B129 |
| BC05-16 | 516 | 322620.939 | 6927662.439 | 39.312 | UH B130 |
| BC05-16 | 548+6 | 322954.952 | 6928821.935 | 39.979 | UH B131 |
| BC05-16 | 583 | 323294.024 | 6930082.894 | 36.478 | UH B132 |
| BC05-16 | 651 | 323826.454 | 6932583.350 | 41.231 | UH B133 |
| BC05-16 | 683+20 | 324330.539 | 6933708.293 | 37.019 | UH B134 |
| BC05-16 | 705 | 324566.489 | 6934478.243 | 41.499 | UH B135 |
| | | | | | |
| BC05-17 | 274+14 | 321554.801 | 6917792.284 | 47.387 | UH B136 |
| BC05-17 | 342+19 | 322253.962 | 6920250.364 | 36.231 | UH B137 |
| BC05-17 | 441+28 | 323317.661 | 6923791.057 | 35.100 | UH B138 |
| BC05-17 | 473+12 | 323640.915 | 6924930.728 | 41.388 | UH B139 |
| BC05-17 | 538 | 324328.337 | 6927256.842 | 51.950 | UH B141 |
| BC05-17 | 500+5 | 323935.928 | 6925891.428 | 59.073 | UH B140 |
| BC05-17 | 569+17 | 324648.309 | 6928391.691 | 33.922 | UH B142 |
| | | | | | |
| BC05-18 | 222+2 | 319519.900 | 6942034.257 | 64.911 | UH B143 |
| BC05-18 | 271+36 | 320928.552 | 6943266.395 | 29.262 | UH B144 |
| BC05-18 | 320 | 322289.869 | 6944446.153 | 38.395 | UH B146 |
| BC05-18 | 371 | 323721.255 | 6945714.861 | 40.050 | UH B148 |
| BC05-18 | 421+11 | 325130.870 | 6946967.871 | 40.980 | UH B149 |
| BC05-18 | 310+16 | 321591.262 | 6943841.586 | 29.866 | UH B145 |

## Uphole Listing

Co-ordinates are Map Grid of Australia 1994 (MGA Zone 54) and AHD71

| Line | Station | Easting | Northing | Height | Uphole Number |
|---|---|---|---|---|---|
| BC05-19 | 209 | 319760.482 | 6941271.887 | 66.336 | UH B150 |
| BC05-19 | 228+22 | 320311.022 | 6941758.914 | 53.694 | UH B151 |
| BC05-19 | 277+20 | 321683.475 | 6942976.976 | 29.748 | UH B152 |
| BC05-19 | 327 | 323074.994 | 6944203.778 | 37.146 | UH B154 |
| BC05-19 | 375+2 | 324420.163 | 6945403.316 | 48.096 | UH B156 |
| BC05-19 | 425+35 | 325857.549 | 6946658.534 | 39.734 | UH B157 |
| BC05-19 | 449 | 326501.688 | 6947235.422 | 57.355 | UH B158 |
| | | | | | |
| BC05-20 | 208 | 318026.188 | 6945270.877 | 45.657 | UH B159 |
| BC05-20 | 230 | 318801.293 | 6944987.759 | 52.546 | UH B160 |
| BC05-20 | 262 | 319916.451 | 6944544.954 | 46.371 | UH B161 |
| BC05-20 | 292+8 | 320960.353 | 6944103.382 | 29.327 | UH B162 |
| BC05-20 | 331+23 | 322336.150 | 6943565.571 | 35.203 | UH B153 |
| BC05-20 | 351 | 323011.297 | 6943295.159 | 36.449 | UH B163 |
| BC05-20 | 403 | 324812.284 | 6942546.877 | 39.447 | UH B164 |
| | | | | | |
| BC05-21 | 208 | 319415.751 | 6946560.888 | 39.783 | UH B165 |
| BC05-21 | 231 | 320210.072 | 6946224.248 | 34.400 | UH B166 |
| BC05-21 | 261+6 | 321239.552 | 6945767.480 | 37.195 | UH B167 |
| BC05-21 | 292+18 | 322324.885 | 6945319.797 | 39.973 | UH B168 |
| BC05-21 | 311+8 | 322974.944 | 6945053.258 | 46.468 | UH B147 |
| BC05-21 | 332 | 323692.514 | 6944747.676 | 39.231 | UH B155 |
| BC05-21 | 351+8 | 324358.418 | 6944472.403 | 50.825 | UH B169 |
| BC05-21 | 404 | 326190.192 | 6943722.262 | 38.628 | UH B170 |
| | | | | | |
| BC05-22 | 251+16 | 324672.998 | 6900254.198 | 30.058 | UH B171 |
| BC05-22 | 325+8 | 327439.550 | 6900183.851 | 22.616 | UH B172 |
| BC05-22 | 361+3 | 328783.960 | 6900151.123 | 27.197 | UH B173 |
| BC05-22 | 382+11 | 329579.132 | 6900129.332 | 17.123 | UH B174 |
| BC05-22 | 401+9 | 330289.656 | 6900118.343 | 16.504 | UH B175 |
| BC05-22 | 427+28 | 331282.966 | 6900089.440 | 17.561 | UH B176 |
| BC05-22 | 452+20 | 332212.126 | 6900071.085 | 19.346 | UH B177 |
| BC05-22 | 475+26 | 333080.210 | 6900043.624 | 17.800 | UH B178 |

## Uphole Listing

Co-ordinates are Map Grid of Australia 1994 (MGA Zone 54) and AHD71

| Line | Station | Easting | Northing | Height | Uphole Number |
|---|---|---|---|---|---|
| BC05-22 | 497+13 | 333892.535 | 6900020.555 | 22.760 | UH B179 |
| BC05-22 | 511+27 | 334430.779 | 6900001.577 | 19.344 | UH B180 |
| | | | | | |
| BC05-23 | 221+14 | 324606.842 | 6902463.061 | 27.957 | UH B181 |
| BC05-23 | 304+9 | 327713.914 | 6902394.135 | 22.605 | UH B182 |
| BC05-23 | 341+14 | 329105.792 | 6902349.718 | 18.038 | UH B183 |
| BC05-23 | 362+32 | 329910.387 | 6902326.170 | 18.172 | UH B184 |
| BC05-23 | 381+8 | 330576.853 | 6902306.132 | 18.236 | UH B185 |
| BC05-23 | 405+33 | 331522.883 | 6902281.625 | 34.049 | UH B186 |
| BC05-23 | 432+33 | 332535.601 | 6902263.310 | 16.856 | UH B187 |
| BC05-23 | 455+19 | 333383.585 | 6902239.869 | 15.708 | UH B188 |
| BC05-23 | 477+19 | 334208.444 | 6902216.217 | 20.280 | UH B189 |
| BC05-23 | 521+19 | 335857.922 | 6902175.510 | 16.280 | UH B190 |
| BC05-23 | 565+22 | 337510.297 | 6902122.920 | 24.435 | UH B191 |
| | | | | | |
| BC05-24 | 231+13 | 345922.893 | 6915577.834 | 28.048 | UH B192 |
| BC05-24 | 270 | 345943.679 | 6917025.191 | 19.276 | UH B193 |
| BC05-24 | 289+16 | 345939.259 | 6917747.634 | 23.859 | UH B194 |
| BC05-24 | 311 | 345891.447 | 6918549.048 | 19.466 | UH B195 |
| BC05-24 | 326+6 | 345958.699 | 6919113.809 | 17.812 | UH B196 |
| BC05-24 | 343 | 345966.930 | 6919744.360 | 20.070 | UH B197 |
| | | | | | |
| BC05-25 | 223 | 329442.846 | 6904574.182 | 29.556 | UH B198 |
| BC05-25 | 244 | 330230.435 | 6904553.925 | 19.048 | UH B199 |
| BC05-25 | 261 | 330867.678 | 6904537.153 | 19.179 | UH B200 |
| BC05-25 | 286 | 331804.182 | 6904505.882 | 20.805 | UH B201 |
| BC05-25 | 313 | 332816.612 | 6904475.859 | 19.065 | UH B202 |
| BC05-25 | 335+7 | 333644.376 | 6904434.110 | 17.038 | UH B203 |
| BC05-25 | 358+5 | 334514.436 | 6904410.491 | 18.139 | UH B204 |
| BC05-25 | 409 | 336412.333 | 6904417.619 | 18.096 | UH B205 |
| | | | | | |
| BC05-26 | 227 | 329606.036 | 6905672.231 | 28.548 | UH B206 |
| BC05-26 | 247 | 330354.361 | 6905657.726 | 18.663 | UH B207 |

# Uphole Listing

Co-ordinates are Map Grid of Australia 1994 (MGA Zone 54) and AHD71

| Line | Station | Easting | Northing | Height | Uphole Number |
|---|---|---|---|---|---|
| BC05-26 | 266 | 331067.328 | 6905626.905 | 18.155 | UH B208 |
| BC05-26 | 294 | 332117.085 | 6905600.878 | 18.127 | UH B209 |
| BC05-26 | 318 | 333016.183 | 6905574.022 | 22.464 | UH B210 |
| BC05-26 | 339 | 333814.352 | 6905554.723 | 18.260 | UH B211 |
| BC05-26 | 362 | 334664.410 | 6905500.881 | 19.560 | UH B212 |
| BC05-26 | 415 | 336649.924 | 6905496.738 | 17.217 | UH B213 |
| BC05-26 | 459 | 338293.180 | 6905435.777 | 20.343 | UH B214 |
| | | | | | |
| BC05-27 | 217+8 | 336616.028 | 6918934.898 | 38.111 | UH B215 |
| BC05-27 | 254+33 | 338017.562 | 6918761.059 | 19.297 | UH B216 |
| BC05-27 | 273+17 | 338708.577 | 6918671.838 | 19.823 | UH B217 |
| BC05-27 | 321+21 | 340496.229 | 6918426.929 | 18.764 | UH B218 |
| BC05-27 | 370+7 | 342289.665 | 6918178.423 | 18.008 | UH B219 |
| BC05-27 | 421+3 | 344187.318 | 6917974.892 | 20.236 | UH B220 |
| BC05-27 | 488+7 | 346679.787 | 6917627.769 | 20.248 | UH B221 |
| BC05-27 | 508+6 | 347417.060 | 6917497.465 | 20.186 | UH B222 |
| BC05-27 | 529+7 | 348189.721 | 6917336.708 | 20.652 | UH B223 |
| BC05-27 | 574+11 | 349855.948 | 6917044.835 | 19.336 | UH B224 |
| BC05-27 | 606 | 351022.392 | 6916815.959 | 22.623 | UH B225 |
| | | | | | |
| BC05-28 | 228 | 341676.095 | 6920123.708 | 20.909 | UH B226 |
| BC05-28 | 296 | 344157.127 | 6919536.812 | 26.435 | UH B227 |
| BC05-28 | 365 | 346674.350 | 6918938.055 | 19.771 | UH B228 |
| BC05-28 | 385+35 | 347439.156 | 6918761.694 | 19.477 | UH B229 |
| BC05-28 | 406+12 | 348185.201 | 6918592.485 | 27.583 | UH B230 |
| BC05-28 | 452+19 | 349873.546 | 6918207.027 | 18.910 | UH B231 |
| BC05-28 | 510 | 351971.386 | 6917708.664 | 19.627 | UH B232 |
| | | | | | |
| BC05-29 | 342+16 | 329516.831 | 6899595.488 | 17.160 | UH B236 |
| BC05-29 | 374 | 329676.004 | 6900768.778 | 20.692 | UH B237 |
| BC05-29 | 400 | 329839.491 | 6901729.366 | 19.740 | UH B238 |
| BC05-29 | 433 | 330000.335 | 6902957.111 | 28.147 | UH B239 |
| BC05-29 | 491 | 330307.018 | 6905110.202 | 24.901 | UH B241 |

## Uphole Listing

Co-ordinates are Map Grid of Australia 1994 (MGA Zone 54) and AHD71

| Line | Station | Easting | Northing | Height | Uphole Number |
|---|---|---|---|---|---|
| BC05-29 | 523 | 330468.692 | 6906299.990 | 19.487 | UH B242 |
| BC05-29 | 579 | 330774.299 | 6908376.985 | 25.073 | UH B243 |
| BC05-29 | 307+1 | 329331.992 | 6898280.336 | 29.023 | UH B234 |
| BC05-29 | 275 | 329420.165 | 6898921.081 | 24.440 | UH B235 |
| BC05-29 | 228+8 | 328891.527 | 6895358.726 | 18.683 | UH B233 |
| BC05-29 | 464 | 330164.855 | 6904107.875 | 18.801 | UH B240 |
| | | | | | |
| BC05-30 | 226+7 | 332754.276 | 6898098.965 | 17.100 | UH B244 |
| BC05-30 | 246+14 | 332880.926 | 6898845.554 | 16.352 | UH B245 |
| BC05-30 | 264+8 | 332986.161 | 6899506.285 | 17.568 | UH B246 |
| BC05-30 | 296+12 | 333190.973 | 6900692.688 | 16.487 | UH B247 |
| BC05-30 | 322+31 | 333321.719 | 6901674.896 | 17.158 | UH B248 |
| BC05-30 | 354 | 333448.310 | 6902836.380 | 17.301 | UH B249 |
| BC05-30 | 384+21 | 333583.522 | 6903974.124 | 19.983 | UH B250 |
| BC05-30 | 411 | 333730.278 | 6904955.348 | 16.713 | UH B251 |
| BC05-30 | 441 | 333895.068 | 6906067.980 | 21.501 | UH B252 |
| BC05-30 | 465 | 334027.717 | 6906958.290 | 16.819 | UH B253 |
| BC05-30 | 491 | 334175.766 | 6907921.812 | 24.450 | UH B254 |
| | | | | | |
| BC05-31 | 206+25 | 326860.958 | 6899006.411 | 17.270 | UH B255 |
| BC05-31 | 253+12 | 328609.698 | 6898945.256 | 22.283 | UH B256 |
| BC05-31 | 293+11 | 330108.228 | 6898901.227 | 22.592 | UH B257 |
| BC05-31 | 320+2 | 331111.072 | 6898860.653 | 18.059 | UH B258 |
| BC05-31 | 408+35 | 334424.915 | 6898846.362 | 15.890 | UH B259 |
| BC05-31 | 462+21 | 336434.347 | 6898771.569 | 16.689 | UH B260 |
| | | | | | |
| BC05-32 | 234 | 347414.507 | 6915386.878 | 19.060 | UH B261 |
| BC05-32 | 271+15 | 347432.849 | 6916789.984 | 19.802 | UH B262 |
| BC05-32 | 309 | 347448.298 | 6918199.106 | 27.021 | UH B263 |
| BC05-32 | 341 | 347447.510 | 6919399.045 | 20.423 | UH B264 |
| BC05-32 | 376 | 347433.242 | 6920711.706 | 23.900 | UH B265 |
| BC05-32 | 426+34 | 347420.642 | 6922620.373 | 36.568 | UH B266 |
| BC05-32 | 495+14 | 347438.112 | 6925187.182 | 21.448 | UH B267 |

## Uphole Listing

Co-ordinates are Map Grid of Australia 1994 (MGA Zone 54) and AHD71

| Line | Station | Easting | Northing | Height | Uphole Number |
|---|---|---|---|---|---|
| BC05-32 | 527+24 | 347469.302 | 6926396.336 | 18.632 | UH B268 |
| | | | | | |
| BC05-33 | 205 | 348200.783 | 6915653.423 | 18.277 | UH B269 |
| BC05-33 | 233 | 348206.485 | 6916703.490 | 19.027 | UH B270 |
| BC05-33 | 334+22 | 348198.750 | 6920512.670 | 28.373 | UH B271 |
| | | | | | |
| BC05-34 | 222+30 | 335296.014 | 6909795.314 | 34.990 | UH B272 |
| BC05-34 | 282 | 337504.469 | 6909567.803 | 17.846 | UH B273 |
| BC05-34 | 301+21 | 338233.937 | 6909493.600 | 16.622 | UH B274 |
| BC05-34 | 321+24 | 338983.822 | 6909423.609 | 16.945 | UH B275 |
| BC05-34 | 374+6 | 340941.725 | 6909208.761 | 18.074 | UH B276 |
| BC05-34 | 418 | 342575.103 | 6909023.852 | 18.858 | UH B277 |
| BC05-34 | 460+6 | 344136.568 | 6908855.814 | 18.492 | UH B278 |
| BC05-34 | 487+1 | 345120.607 | 6908771.178 | 19.027 | UH B279 |
| BC05-34 | 529+29 | 346699.438 | 6908592.195 | 17.630 | UH B280 |
| | | | | | |
| BC05-35 | 215 | 338299.439 | 6904882.164 | 19.656 | UH B281 |
| BC05-35 | 265 | 338296.190 | 6906744.973 | 18.654 | UH B282 |
| BC05-35 | 285+24 | 338291.950 | 6907518.979 | 16.538 | UH B283 |
| BC05-35 | 310+4 | 338258.108 | 6908435.502 | 17.137 | UH B284 |
| BC05-35 | 362 | 338222.256 | 6910381.829 | 16.727 | UH B285 |
| BC05-35 | 379+28 | 338189.398 | 6911046.612 | 16.523 | UH B286 |
| BC05-35 | 400 | 338193.434 | 6911806.466 | 16.254 | UH B287 |
| BC05-35 | 420+19 | 338164.602 | 6912575.010 | 16.120 | UH B288 |
| BC05-35 | 438+8 | 338160.439 | 6913238.671 | 16.765 | UH B289 |
| BC05-35 | 467+32 | 338109.376 | 6914350.045 | 16.466 | UH B290 |
| BC05-35 | 495+29 | 338091.454 | 6915396.607 | 16.176 | UH B291 |
| BC05-35 | 530+5 | 338076.260 | 6916685.253 | 16.751 | UH B292 |
| BC05-35 | 565 | 338023.524 | 6917991.628 | 19.000 | UH B293 |
| BC05-35 | 601+34 | 338017.183 | 6919375.440 | 19.412 | UH B294 |
| BC05-36 | 262+9 | 339075.523 | 6906695.024 | 17.091 | UH B295 |
| BC05-36 | 282+9 | 339065.892 | 6907445.683 | 17.467 | UH B296 |
| BC05-36 | 307+18 | 339008.899 | 6908390.252 | 17.045 | UH B297 |

## Uphole Listing

Co-ordinates are Map Grid of Australia 1994 (MGA Zone 54) and AHD71

| Line | Station | Easting | Northing | Height | Uphole Number |
|---|---|---|---|---|---|
| BC05-36 | 376+15 | 338900.555 | 6910972.483 | 18.009 | UH B298 |
| BC05-36 | 396+27 | 338864.926 | 6911733.683 | 19.367 | UH B299 |
| BC05-36 | 417+19 | 338808.501 | 6912511.102 | 20.256 | UH B300 |
| BC05-36 | 435 | 338793.278 | 6913167.490 | 18.416 | UH B301 |
| BC05-36 | 455+30 | 338757.718 | 6913932.728 | 18.720 | UH B302 |
| | | | | | |
| BC05-37 | 206 | 348313.896 | 6928370.594 | 18.516 | UH B303 |
| BC05-37 | 252 | 349952.888 | 6927846.210 | 19.076 | UH B304 |
| BC05-37 | 314 | 352214.459 | 6927384.036 | 23.565 | UH B305 |
| BC05-37 | 373 | 354250.068 | 6926632.477 | 18.111 | UH B306 |
| BC05-37 | 422+24 | 356034.756 | 6926105.350 | 27.376 | UH B307 |
| BC05-37 | 473+32 | 357888.247 | 6925598.277 | 22.290 | UH B308 |
| BC05-37 | 524+33 | 359711.083 | 6925016.144 | 20.223 | UH B309 |
| | | | | | |
| BC05-38 | 620+18 | 349061.156 | 6929370.816 | 24.304 | UH B317 |
| BC05-38 | 618+5 | 348977.784 | 6929401.933 | 23.375 | UH B316 |
| BC05-38 | 555+8 | 346729.316 | 6930116.275 | 19.284 | UH B315 |
| BC05-38 | 492+24 | 344480.466 | 6930787.030 | 35.800 | UH B314 |
| BC05-38 | 432 | 342306.059 | 6931451.262 | 40.701 | UH B313 |
| BC05-38 | 374+15 | 340247.994 | 6932106.646 | 19.581 | UH B312 |
| BC05-38 | 296+5 | 337446.528 | 6932984.509 | 22.425 | UH B310 |
| BC05-38 | 314+14 | 338098.663 | 6932775.768 | 33.760 | UH B311 |
| | | | | | |
| BC05-39 | 265+5 | 338779.667 | 6937003.337 | 22.073 | UH B318 |
| BC05-39 | 305+6 | 340174.450 | 6936448.390 | 21.172 | UH B319 |
| BC05-39 | 344 | 341533.278 | 6935923.972 | 16.041 | UH B320 |
| BC05-39 | 392+26 | 343240.877 | 6935276.573 | 31.468 | UH B321 |
| BC05-39 | 439+13 | 344871.522 | 6934642.050 | 23.403 | UH B322 |
| BC05-39 | 486+13 | 346507.032 | 6933986.019 | 20.557 | UH B323 |
| BC05-39 | 554 | 348877.427 | 6933081.659 | 19.625 | UH B324 |
| BC05-39 | 596 | 350343.021 | 6932504.315 | 19.782 | UH B325 |
| BC05-39 | 637 | 351767.460 | 6931929.113 | 20.497 | UH B326 |
| BC05-39 | 679 | 353149.737 | 6931255.309 | 22.088 | UH B327 |

## Uphole Listing

Co-ordinates are Map Grid of Australia 1994 (MGA Zone 54) and AHD71

| Line | Station | Easting | Northing | Height | Uphole Number |
|---|---|---|---|---|---|
| BC05-39 | 709 | 354206.534 | 6931020.661 | 28.542 | UH B328 |
| BC05-39 | 759 | 355984.173 | 6930395.111 | 20.792 | UH B329 |
| BC05-39 | 785 | 356891.435 | 6930065.418 | 20.528 | UH B330 |
| BC05-39 | 864 | 359677.622 | 6929057.802 | 17.508 | UH B331 |
| BC05-39 | 871 | 359921.043 | 6928958.864 | 17.489 | UH B332 |
| BC05-39 | 927 | 361891.178 | 6928231.060 | 22.881 | UH B333 |
| | | | | | |
| BC05-40 | 254+25 | 339432.166 | 6939441.677 | 19.954 | UH B335 |
| BC05-40 | 213+28 | 338029.769 | 6940064.016 | 27.127 | UH B334 |
| BC05-40 | 294+11 | 340816.529 | 6938899.174 | 30.802 | UH B336 |
| BC05-40 | 334+10 | 342200.604 | 6938325.174 | 26.632 | UH B337 |
| BC05-40 | 374+1 | 343566.918 | 6937727.312 | 23.839 | UH B338 |
| | | | | | |
| BC05-41 | 417+23 | 345963.801 | 6939881.232 | 33.330 | UH B343 |
| BC05-41 | 390+32 | 345040.501 | 6940273.996 | 16.752 | UH B342 |
| BC05-41 | 337+4 | 343196.409 | 6941086.039 | 24.607 | UH B341 |
| BC05-41 | 283+5 | 341339.152 | 6941890.690 | 41.290 | UH B340 |
| BC05-41 | 226+34 | 339404.552 | 6942731.315 | 56.497 | UH B339 |
| BC05-41 | 636 | 353471.588 | 6936609.727 | 20.453 | UH B346 |
| BC05-41 | 550+25 | 350535.341 | 6937880.312 | 30.970 | UH B345 |
| BC05-41 | 480+9 | 348109.256 | 6938924.144 | 18.974 | UH B344 |
| | | | | | |
| BC05-42 | 489+7 | 351688.189 | 6938945.762 | 30.797 | UH B352 |
| BC05-42 | 518 | 352659.703 | 6938471.292 | 21.221 | UH B353 |
| BC05-42 | 565+25 | 354289.685 | 6937739.174 | 19.931 | UH B354 |
| BC05-42 | 422+1 | 349396.374 | 6939990.602 | 25.369 | UH B351 |
| BC05-42 | 220+4 | 342531.241 | 6943185.530 | 28.369 | UH B347 |
| BC05-42 | 277+33 | 344499.369 | 6942278.830 | 28.311 | UH B348 |
| BC05-42 | 331+24 | 346332.020 | 6941437.597 | 37.208 | UH B349 |
| BC05-42 | 357+33 | 347215.445 | 6941005.758 | 31.433 | UH B350 |
| | | | | | |
| BC05-43 | 514+35 | 352615.408 | 6939847.732 | 27.104 | UH B361 |
| BC05-43 | 542+20 | 353537.308 | 6939378.072 | 34.972 | UH B362 |

## Uphole Listing

Co-ordinates are Map Grid of Australia 1994 (MGA Zone 54) and AHD71

| Line | Station | Easting | Northing | Height | Uphole Number |
|---|---|---|---|---|---|
| BC05-43 | 564 | 354223.806 | 6938948.729 | 21.646 | UH B363 |
| BC05-43 | 449+19 | 350399.780 | 6940902.091 | 20.140 | UH B360 |
| BC05-43 | 359+32 | 347380.342 | 6942381.792 | 28.953 | UH B358 |
| BC05-43 | 385+32 | 348259.042 | 6941957.837 | 23.874 | UH B359 |
| BC05-43 | 306+5 | 345567.272 | 6943260.434 | 41.131 | UH B357 |
| BC05-43 | 262+6 | 344086.171 | 6943984.089 | 39.574 | UH B356 |
| BC05-43 | 218+25 | 342611.780 | 6944683.117 | 34.229 | UH B355 |
| | | | | | |
| BC05-44 | 219+33 | 345516.418 | 6933066.044 | 21.599 | UH B364 |
| BC05-44 | 289+22 | 347410.190 | 6934867.736 | 20.520 | UH B365 |
| BC05-44 | 324+26 | 348351.295 | 6935788.649 | 20.169 | UH B366 |
| BC05-44 | 359+22 | 349300.728 | 6936689.095 | 24.344 | UH B367 |
| BC05-44 | 462+32 | 352106.726 | 6939358.269 | 34.193 | UH B368 |
| BC05-44 | 501 | 353146.429 | 6940340.129 | 20.977 | UH B369 |
| BC05-44 | 549 | 354450.696 | 6941580.601 | 24.179 | UH B370 |
| | | | | | |
| BC05-45 | 234+16 | 335645.417 | 6930608.623 | 25.479 | UH B371 |
| BC05-45 | 298+36 | 337466.967 | 6932202.910 | 17.879 | UH B372 |
| BC05-45 | 363 | 339258.274 | 6933801.891 | 27.869 | UH B373 |
| BC05-45 | 403+30 | 340386.065 | 6934835.982 | 21.046 | UH B374 |
| BC05-45 | 486+15 | 342681.836 | 6936915.992 | 17.119 | UH B375 |
| BC05-45 | 557+4 | 344636.572 | 6938707.210 | 30.732 | UH B376 |
| BC05-45 | 632 | 346720.147 | 6940590.908 | 35.141 | UH B377 |
| BC05-45 | 706+14 | 348793.367 | 6942455.984 | 25.699 | UH B379 |
| BC05-45 | 668+21 | 347757.363 | 6941487.659 | 33.616 | UH B378 |
| | | | | | |
| BC05-46 | 216 | 356109.160 | 6917351.961 | 20.170 | UH B380 |
| BC05-46 | 247+12 | 356113.795 | 6918526.522 | 30.698 | UH B381 |
| BC05-46 | 298 | 356096.584 | 6920426.772 | 32.149 | UH B382 |
| BC05-46 | 364+9 | 356045.337 | 6922910.005 | 33.000 | UH B383 |
| BC05-46 | 391+6 | 356068.456 | 6923920.286 | 23.849 | UH B384 |
| BC05-46 | 420+17 | 356049.192 | 6925018.317 | 23.522 | UH B385 |
| BC05-46 | 480 | 356014.514 | 6927251.716 | 32.015 | UH B386 |

## Uphole Listing

Co-ordinates are Map Grid of Australia 1994 (MGA Zone 54) and AHD71

| Line | Station | Easting | Northing | Height | Uphole Number |
|---|---|---|---|---|---|
| BC05-46 | 538+13 | 355973.959 | 6929433.893 | 19.952 | UH B387 |
| BC05-46 | 589 | 355945.260 | 6931351.374 | 21.598 | UH B388 |
| BC05-46 | 623 | 355960.193 | 6932607.360 | 21.648 | UH B389 |
| BC05-46 | 676+9 | 355927.482 | 6934587.331 | 19.552 | UH B390 |
| | | | | | |
| BC05-47 | 204+9 | 346312.868 | 6926647.963 | 31.007 | UH B391 |
| BC05-47 | 306+22 | 349970.721 | 6925579.898 | 19.081 | UH B392 |
| BC05-47 | 365 | 352086.492 | 6925009.861 | 19.292 | UH B393 |
| BC05-47 | 429+25 | 354419.439 | 6924365.435 | 18.332 | UH B394 |
| BC05-47 | 532 | 358129.979 | 6923384.726 | 23.719 | UH B395 |

## *Line Length Summary*

## Line Length Summary

## 2005 Mytilus 2D Seismic Survey

Station Interval = 37.5 m

| Line | SOL Station | EOL Station | Line Km's |
|---|---|---|---|
| BC05-01 | 200 | 625 | 15.938 |
| BC05-02 | 200 | 548 | 13.050 |
| BC05-03 | 200 | 840 | 24.000 |
| BC05-04 | 200 | 494 | 11.025 |
| BC05-05 | 200 | 396 | 7.350 |
| BC05-06 | 200 | 419 | 8.213 |
| BC05-07 | 200 | 426 | 8.475 |
| BC05-08 | 200 | 385 | 6.938 |
| BC05-09 | 200 | 628 | 16.050 |
| BC05-10 | 200 | 685 | 18.188 |
| BC05-11 | 200 | 468 | 10.050 |
| BC05-12 | 200 | 726 | 19.725 |
| BC05-13 | 200 | 665 | 17.438 |
| BC05-14 | 200 | 638 | 16.425 |
| BC05-15 | 200 | 709 | 19.088 |
| BC05-16 | 200 | 713 | 19.238 |
| BC05-17 | 200 | 597 | 14.888 |
| BC05-18 | 200 | 453 | 9.488 |
| BC05-19 | 200 | 460 | 9.750 |
| BC05-20 | 200 | 422 | 8.325 |
| BC05-21 | 200 | 420 | 8.250 |
| BC05-22 | 200 | 546 | 12.975 |
| BC05-23 | 200 | 599 | 14.963 |
| BC05-24 | 200 | 367 | 6.263 |
| BC05-25 | 200 | 466 | 9.975 |
| BC05-26 | 200 | 466 | 9.975 |
| BC05-27 | 200 | 613 | 15.487 |
| BC05-28 | 200 | 521 | 12.038 |
| BC05-29 | 200 | 653 | 16.988 |
| BC05-30 | 200 | 517 | 11.888 |
| BC05-31 | 200 | 518 | 11.925 |

| Line | SOL Station | EOL Station | Line Km's |
|---|---|---|---|
| BC05-32 | 200 | 553 | 13.237 |
| BC05-33 | 200 | 361 | 6.038 |
| BC05-34 | 200 | 539 | 12.713 |
| BC05-35 | 200 | 627 | 16.013 |
| BC05-36 | 200 | 468 | 10.050 |
| BC05-37 | 200 | 547 | 13.013 |
| BC05-38 | 200 | 655 | 17.062 |
| BC05-39 | 200 | 946 | 27.975 |
| BC05-40 | 200 | 479 | 10.463 |
| BC05-41 | 200 | 651 | 16.912 |
| BC05-42 | 200 | 595 | 14.813 |
| BC05-43 | 200 | 594 | 14.775 |
| BC05-44 | 200 | 550 | 13.125 |
| BC05-45 | 200 | 738 | 20.175 |
| BC05-46 | 200 | 679 | 17.963 |
| BC05-47 | 200 | 543 | 12.863 |
| | | **Total** | **641.550 kms** |

## *Line Intersection Listing*

## Line Intersection Listing

Co-ordinates are Map Grid of Australia 1994 (MGA Zone 54) and AHD71

| Line / Station | X Line / Station | Easting | Northing | Height |
|---|---|---|---|---|
| BC05-01/388+31 | BC05-02/412+23 | 322826.60 | 6896906.46 | 34.79 |
| BC05-01/464+07 | BC05-03/421+18 | 325651.61 | 6896851.94 | 14.27 |
| BC05-01/556+17 | BC05-29/266+12 | 329112.18 | 6896769.70 | 17.44 |
| BC05-02/502+30 | BC05-22/201+22 | 322803.92 | 6900288.27 | 35.82 |
| BC05-03/703+31 | BC05-05/297+30 | 326939.00 | 6907354.21 | 20.45 |
| BC05-03/721+18 | BC05-06/294+27 | 327022.20 | 6908010.74 | 16.20 |
| BC05-03/764+29 | BC05-07/316+14 | 327231.30 | 6909627.48 | 27.28 |
| BC05-03/511+29 | BC05-22/288+15 | 326059.43 | 6900213.56 | 26.58 |
| BC05-03/571+11 | BC05-23/267+20 | 326338.67 | 6902427.56 | 27.77 |
| BC05-04/355+33 | BC05-05/269+33 | 325891.21 | 6907377.64 | 32.50 |
| BC05-04/374+24 | BC05-06/266+26 | 325974.32 | 6908078.88 | 30.14 |
| BC05-04/419+13 | BC05-07/288+26 | 326198.52 | 6909739.87 | 19.85 |
| BC05-04/223+14 | BC05-23/238+04 | 325234.96 | 6902454.37 | 29.88 |
| BC05-05/322+14 | BC05-08/250+05 | 327858.85 | 6907315.99 | 18.10 |
| BC05-05/395+28 | BC05-29/546+21 | 330606.27 | 6907171.95 | 30.66 |
| BC05-06/319+18 | BC05-08/267+13 | 327949.54 | 6907955.87 | 19.37 |
| BC05-06/392+25 | BC05-29/562+26 | 330687.22 | 6907772.08 | 21.11 |
| BC05-07/341+12 | BC05-08/310+01 | 328163.71 | 6909542.00 | 31.05 |
| BC05-07/414+08 | BC05-29/602+05 | 330881.11 | 6909238.04 | 34.28 |
| BC05-09/247+18 | BC05-17/225+14 | 321029.52 | 6916031.60 | 43.32 |
| BC05-10/260+21 | BC05-16/228+05 | 319647.00 | 6917284.69 | 53.36 |
| BC05-10/305+33 | BC05-17/253+32 | 321331.60 | 6917056.16 | 36.79 |
| BC05-11/281+24 | BC05-16/267+11 | 320055.92 | 6918695.72 | 47.99 |
| BC05-11/326+36 | BC05-17/292+34 | 321739.75 | 6918463.37 | 51.10 |
| BC05-12/262+25 | BC05-16/289+34 | 320286.04 | 6919511.95 | 41.79 |
| BC05-12/308+08 | BC05-17/314+11 | 321970.60 | 6919231.21 | 40.74 |
| BC05-13/285+27 | BC05-16/371+18 | 321125.68 | 6922453.18 | 37.02 |
| BC05-13/331+13 | BC05-17/395+00 | 322806.30 | 6922139.88 | 36.87 |
| BC05-14/261+27 | BC05-16/483+25 | 322278.54 | 6926499.33 | 38.84 |
| BC05-14/308+18 | BC05-17/505+31 | 323986.65 | 6926099.62 | 59.00 |
| BC05-15/296+12 | BC05-16/616+34 | 323655.57 | 6931301.77 | 36.71 |
| BC05-18/295+13 | BC05-20/310+17 | 321591.46 | 6943841.34 | 29.84 |
| BC05-18/344+16 | BC05-21/311+09 | 322975.74 | 6945053.01 | 46.65 |
| BC05-19/300+36 | BC05-20/331+21 | 322334.63 | 6943566.31 | 35.22 |
| BC05-19/348+35 | BC05-21/331+38 | 323692.13 | 6944747.85 | 39.00 |
| BC05-22/382+14 | BC05-29/356+28 | 329581.74 | 6900128.60 | 17.40 |
| BC05-22/475+26 | BC05-30/278+27 | 333080.72 | 6900041.35 | 17.42 |

## Line Intersection Listing

Co-ordinates are Map Grid of Australia 1994 (MGA Zone 54) and AHD71

| Line / Station | X Line / Station | Easting | Northing | Height |
|---|---|---|---|---|
| BC05-23/362+26 | BC05-29/416+01 | 329904.98 | 6902327.42 | 18.17 |
| BC05-23/455+17 | BC05-30/338+01 | 333382.49 | 6902240.80 | 15.82 |
| BC05-24/289+11 | BC05-27/468+01 | 345932.78 | 6917743.68 | 23.51 |
| BC05-24/326+06 | BC05-28/345+14 | 345959.42 | 6919113.73 | 17.84 |
| BC05-25/243+34 | BC05-29/476+01 | 330227.10 | 6904554.10 | 19.10 |
| BC05-25/335+13 | BC05-30/396+34 | 333650.56 | 6904432.66 | 16.98 |
| BC05-26/247+14 | BC05-29/505+25 | 330368.47 | 6905657.07 | 19.90 |
| BC05-26/339+16 | BC05-30/427+07 | 333820.17 | 6905555.83 | 18.39 |
| BC05-26/459+00 | BC05-35/229+28 | 338293.26 | 6905435.76 | 20.35 |
| BC05-27/508+09 | BC05-32/290+08 | 347419.93 | 6917494.79 | 20.09 |
| BC05-27/529+20 | BC05-33/249+32 | 348201.22 | 6917336.52 | 20.54 |
| BC05-27/254+31 | BC05-35/585+16 | 338015.08 | 6918757.71 | 19.30 |
| BC05-28/385+35 | BC05-32/323+37 | 347438.66 | 6918761.31 | 19.67 |
| BC05-28/406+15 | BC05-33/283+14 | 348188.08 | 6918592.76 | 27.17 |
| BC05-29/324+10 | BC05-31/274+35 | 329420.01 | 6898921.09 | 24.50 |
| BC05-30/246+17 | BC05-31/367+30 | 332881.25 | 6898847.36 | 16.36 |
| BC05-32/527+20 | BC05-47/235+31 | 347467.17 | 6926392.94 | 18.71 |
| BC05-34/301+20 | BC05-35/338+13 | 338232.92 | 6909494.05 | 16.69 |
| BC05-34/321+25 | BC05-36/334+34 | 338984.66 | 6909418.74 | 16.99 |
| BC05-37/422+19 | BC05-46/449+16 | 356028.45 | 6926104.95 | 28.07 |
| BC05-38/314+12 | BC05-45/321+28 | 338096.79 | 6932780.59 | 33.50 |
| BC05-39/486+11 | BC05-44/255+32 | 346504.02 | 6933984.56 | 20.52 |
| BC05-39/345+02 | BC05-45/446+25 | 341573.85 | 6935919.03 | 14.91 |
| BC05-39/759+09 | BC05-46/563+34 | 355981.53 | 6930391.12 | 20.71 |
| BC05-40/374+04 | BC05-45/518+19 | 343571.16 | 6937726.51 | 23.76 |
| BC05-41/550+33 | BC05-44/405+14 | 350539.20 | 6937876.56 | 30.87 |
| BC05-41/417+27 | BC05-45/604+15 | 345966.26 | 6939878.96 | 33.36 |
| BC05-42/489+05 | BC05-44/447+07 | 351686.64 | 6938947.16 | 30.48 |
| BC05-42/357+36 | BC05-45/649+11 | 347217.70 | 6941005.37 | 31.43 |
| BC05-43/514+37 | BC05-44/481+26 | 352615.47 | 6939847.47 | 27.00 |
| BC05-43/385+32 | BC05-45/686+35 | 348258.34 | 6941958.61 | 23.87 |
| BC05-46/391+07 | BC05-47/475+08 | 356068.68 | 6923920.94 | 24.09 |

# *Photographs*

Heritage Site.



Line BC05-07 near EMP 3.

Example of wildlife and terrain.

# *EMP List*

# *Chronological Summary*

## Chronological Summary

| DATE | OPERATIONS |
|---|---|
| 19th April | Ben Allsopp mobilises from Yeppoon. |
| 20th April | Mark Lefebvre mobilises from Yeppoon. |
| 21st April | Dean Hausmann and Mike Borthwick mobilise from Yeppoon. |
| 22nd April | All DSS personnel mobilising. |
| 23rd April | All DSS personnel and equipment on site. Initial control survey completed. Tracks mapped and plotted on maps for survey and line preparation crews. Dozers commenced at 0900hrs. Grader on standby waiting for enough dozed line. Evening toolbox meeting.<br>***Dozer production 10.238km*** |
| 24th April | Line pegging commenced. Continued mapping. Evening toolbox meeting.<br>***Dozer production 18.188km***<br>***Survey production 22.013km*** |
| 25th April | Dozer production 17.588km. Evening toolbox meeting.<br>***Survey production 22.875km*** |
| 26th April | Mapping and scouting. Control extended. Evening toolbox meeting.<br>***Dozer production 19.725km***<br>***Survey production 20.850km*** |
| 27th April | Mapping and scouting. Mike Borthwick departs crew. Evening toolbox meeting.<br>***Dozer production 18.975km***<br>***Survey production 18.975km*** |
| 28th April | Scouted new camp site. Evening toolbox meeting.<br>***Dozer production 19.312km***<br>***Survey production 16.500km*** |

| | |
|---|---|
| 29th April | Evening toolbox meeting.<br>***Dozer production 14.025km***<br>***Survey production 16.800km*** |
| 30th April | Dozer 6 down for 1.5 hrs due to hydraulic hose. Evening toolbox meeting.<br>***Dozer production 18.263km***<br>***Survey production 17.363km*** |
| 1st May | Evening toolbox meeting.<br>***Dozer production 20.438km***<br>***Survey production 21.338km*** |
| 2nd May | Evening safety meeting.<br>***Dozer production 15.450km***<br>***Survey production 15.450km*** |
| 3rd May | Evening toolbox meeting.<br>***Dozer production 16.238km***<br>***Survey production 16.238km*** |
| 4th May | Evening toolbox meeting.<br>***Dozer production 15.600km***<br>***Survey production 15.600km*** |
| 5th May | Evening toolbox meeting.<br>***Dozer production 11.213km***<br>***Survey production 11.213km*** |
| 6th May | Bruce Beer arrives. Shane McDonald arrives on crew. Evening toolbox meeting.<br>***Dozer production 13.613km***<br>***Survey production 9.375km*** |
| 7th May | Bruce spoke with dozer operators and requested more cross track weaving out to maximum of +/-20m. Terrex arrive late afternoon. Dean Hausmann departs crew. Evening toolbox meeting.<br>***Dozer production 17.925km***<br>***Survey production 22.163km*** |

| | |
|---|---|
| 8th May | Evening toolbox meeting. |
| | ***Dozer production 21.188km*** |
| | ***Survey production 21.188km*** |
| 9th May | Frank Tangney arrives on crew. Evening safety meeting. |
| | ***Dozer production 16.538km*** |
| | ***Survey production 16.538km*** |
| 10th May | Evening toolbox meeting. |
| | ***Dozer production 17.888km*** |
| | ***Survey production 17.888km*** |
| 11th May | Mark Lefebvre departs crew. Evening toolbox meeting. |
| | ***Dozer production 12.600km*** |
| | ***Survey production 12.600km*** |
| 12th May | Evening toolbox meeting. |
| | ***Dozer production 16.650km*** |
| | ***Survey production 16.650km*** |
| 13th May | Evening toolbox meeting. |
| | ***Dozer production 10.388km*** |
| | ***Survey production 10.388km*** |
| 14th May | Evening toolbox meeting. |
| | ***Dozer production 17.738km*** |
| | ***Survey production 17.738km*** |
| 15th May | Evening toolbox meeting. |
| | ***Dozer production 12.713km*** |
| | ***Survey production 12.713km*** |
| 16th May | Evening safety meeting. |
| | ***Dozer production 17.325km*** |
| | ***Survey production 17.325km*** |
| 17th May | Camp move. Evening toolbox meeting. |
| | ***Dozer production 18.300km*** |
| | ***Survey production 18.300km*** |

18th May Evening toolbox meeting.

***Dozer production 19.238km***
***Survey production 19.238km***

19th May Evening toolbox meeting.

***Dozer production 18.975km***
***Survey production 18.975km***

20th May Evening toolbox meeting.

***Dozer production 19.613km***
***Survey production 19.613km***

21st May Evening toolbox meeting.

***Dozer production 28.238km***
***Survey production 28.238km***

22nd May Evening toolbox meeting.

***Dozer production 25.200km***
***Survey production 25.200km***

23rd May Evening toolbox meeting. Ben Allsopp departs crew. Dean Hausmann arrives crew.

***Dozer production 23.625km***
***Survey production 23.625km***

24th May Evening toolbox meeting.

***Dozer production 30.675km***
***Survey production 30.675km.***

25th May Evening toolbox meeting.

***Dozer production 27.675km***
***Survey production 27.675km***

26th May Evening toolbox meeting.

***Dozer production 30.300km***
***Survey production 30.300km***

27th May Evening toolbox meeting. Dozing and pegging complete. All personnel given ACOR induction in evening.

***Dozer production 9.938km***
***Survey production 9.938km***

## *Mud Maps*

Dynamic Satellite Surveys

# TRACE DIAGRAM

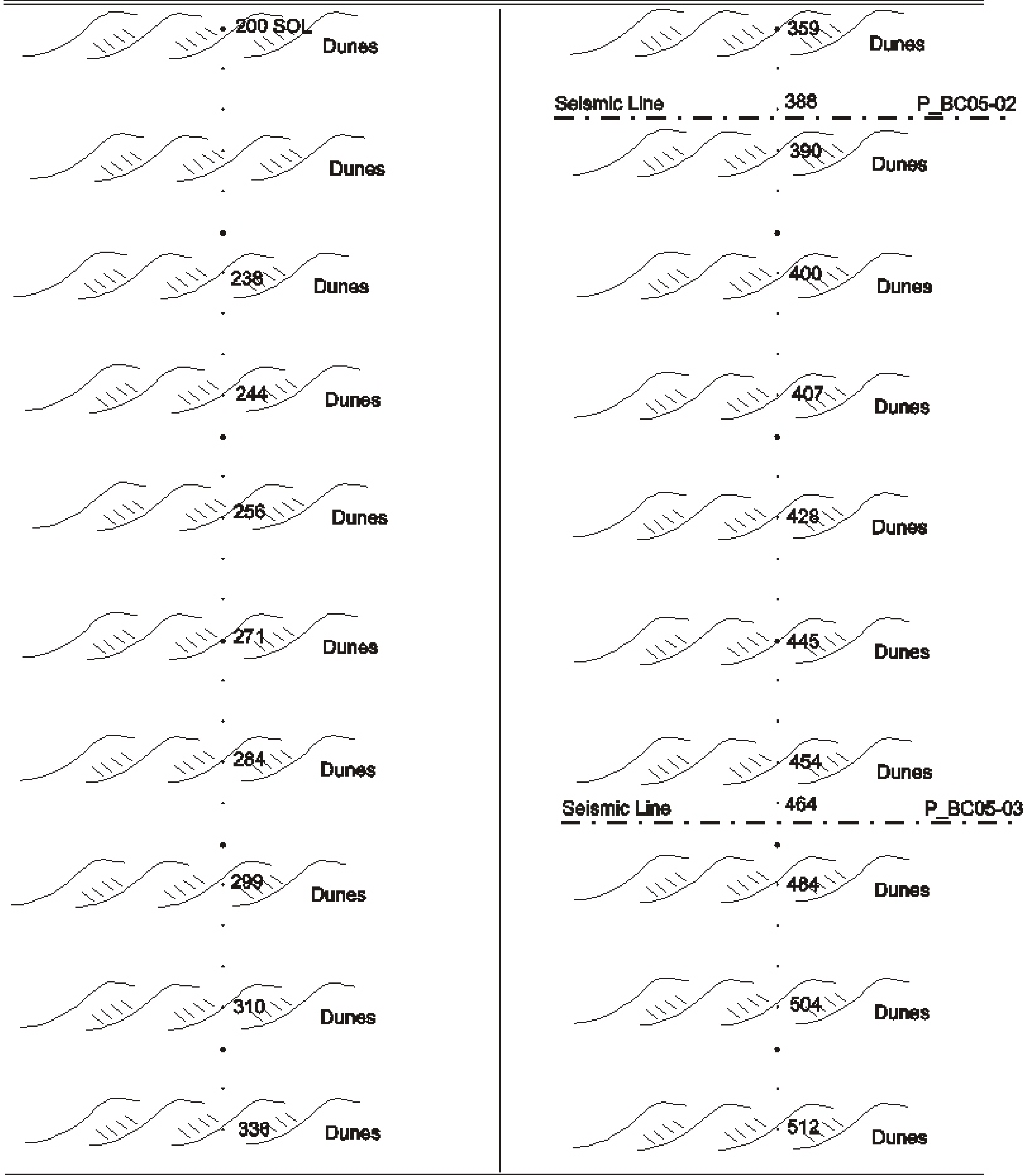
DSS-FF-07
REV 8.0
August 2004

## LINE: BC05-01

PROJECT/JOB # 05007 CLIENT Terrex / Beach

PAGE 1 OF 2 AREA: MYTILUS STN INTERVAL: 37.5 m SHOT INTERVAL: ____ m

FROM STN 200 TO STN 512 SHOOTING DIRECTION: Direction BEARING: ____ °



Dynamic Satellite Surveys

# TRACE DIAGRAM

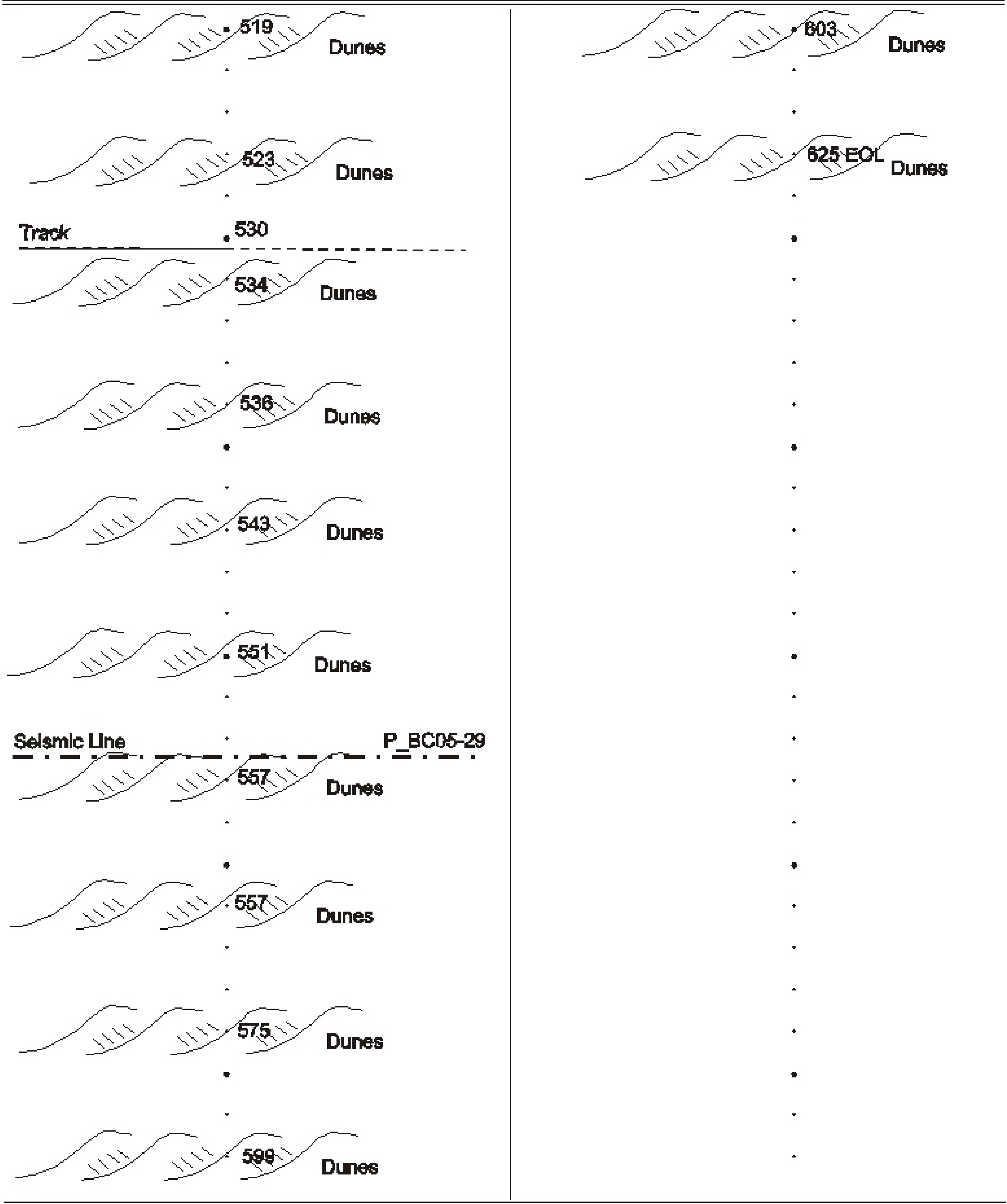
DSS-FF-07
REV 8.0
August 2004

LINE: BC05-01

PROJECT/JOB # 05007 CLIENT Terrex / Beach

PAGE 2 OF 2 AREA: MYTILUS STN INTERVAL: 37.5 m SHOT INTERVAL: ____ m

FROM STN 519 TO STN 625 SHOOTING DIRECTION: ____________ BEARING: ______ °



**Dynamic Satellite Surveys**

# TRACE DIAGRAM

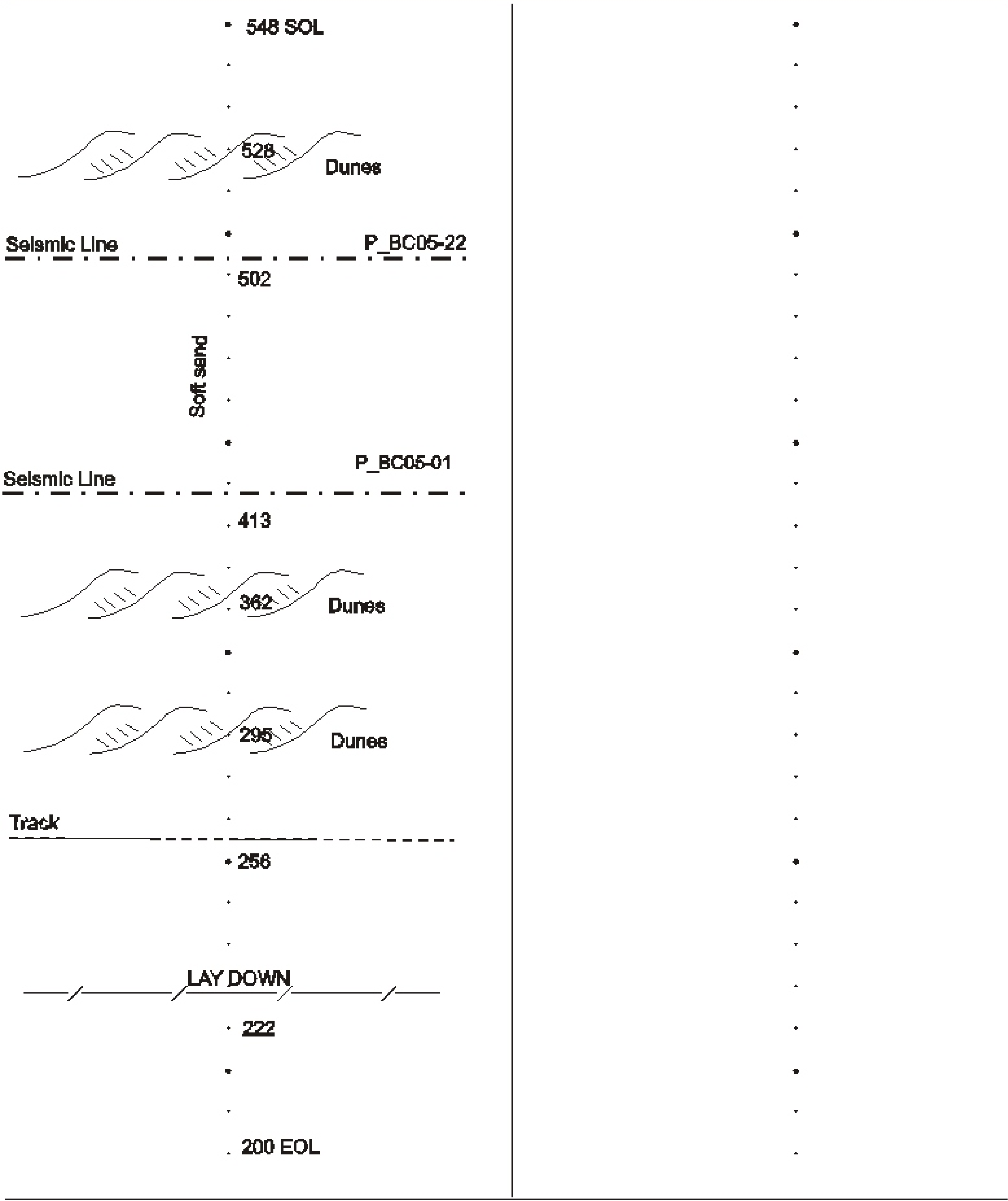
DSS-FF-07
REV 8.0
August 2004

## LINE: BC05-02

PROJECT/JOB # 05007 CLIENT Terrex / Beach

PAGE 1 OF 1 AREA: MYTILUS STN INTERVAL: 37.5 m SHOT INTERVAL: ______ m

FROM STN 200 TO STN 548 SHOOTING DIRECTION: North to South BEARING: ______ °



Dynamic Satellite Surveys

## TRACE DIAGRAM

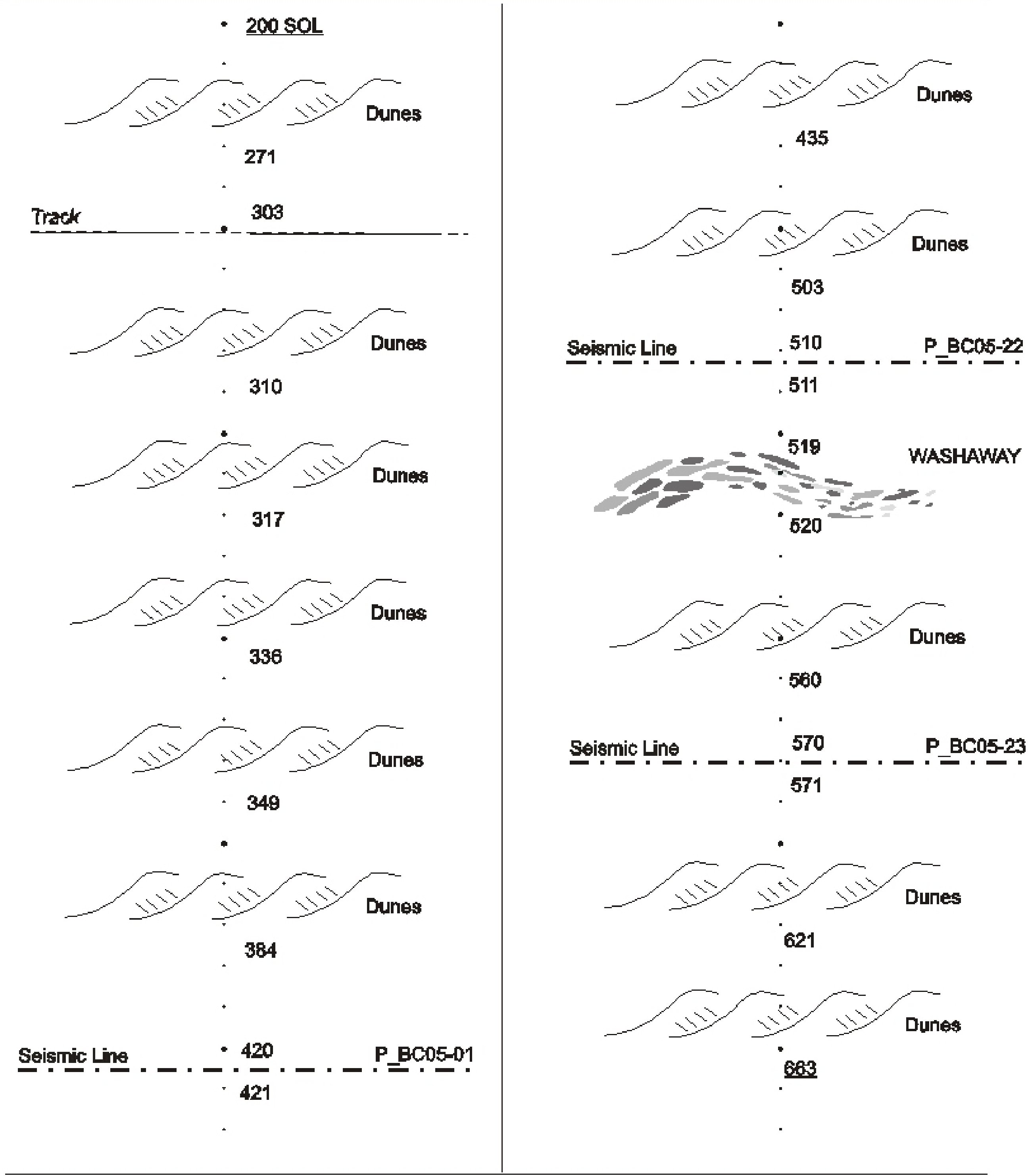
DSS-FF-07
REV 8.0
August 2004

## LINE: BC05-03

PROJECT/JOB # 05007 CLIENT Terrex / Beach

PAGE 1 OF 2 AREA: MYTILUS STN INTERVAL: 37.5 m SHOT INTERVAL: ______ m

FROM STN 200 TO STN 663 SHOOTING DIRECTION: Direction BEARING: ### °



Dynamic Satellite Surveys

# TRACE DIAGRAM

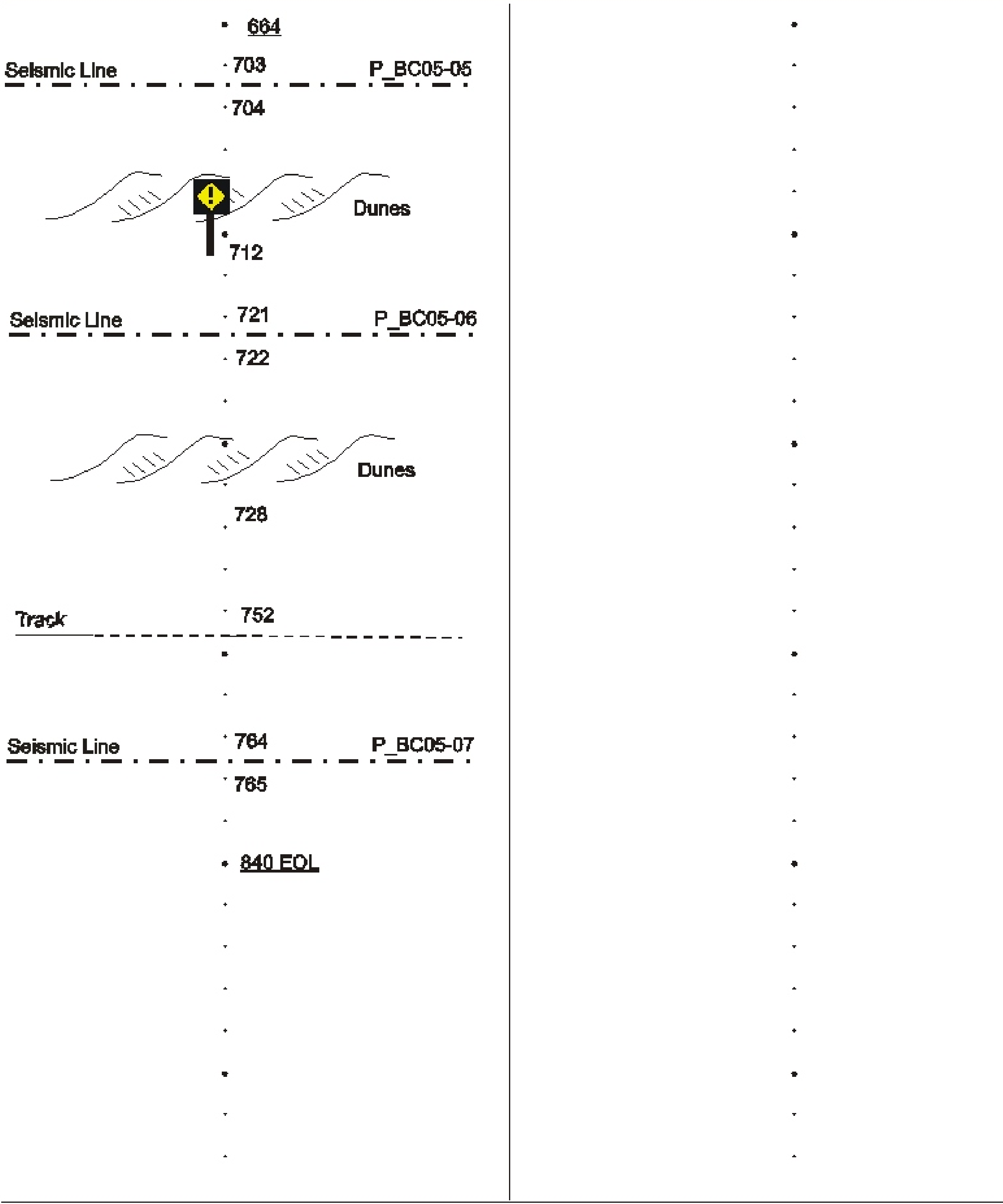
DSS-FF-07
REV 8.0
August 2004

## LINE: BC05-03

PROJECT/JOB # 05007 CLIENT Terrex / Beach

PAGE 2 OF 2 AREA: MYTILUS STN INTERVAL: 37.5 m SHOT INTERVAL: ____ m

FROM STN 664 TO STN 840 SHOOTING DIRECTION: Direction BEARING: ### °



Dynamic Satellite Surveys

TRACE DIAGRAM

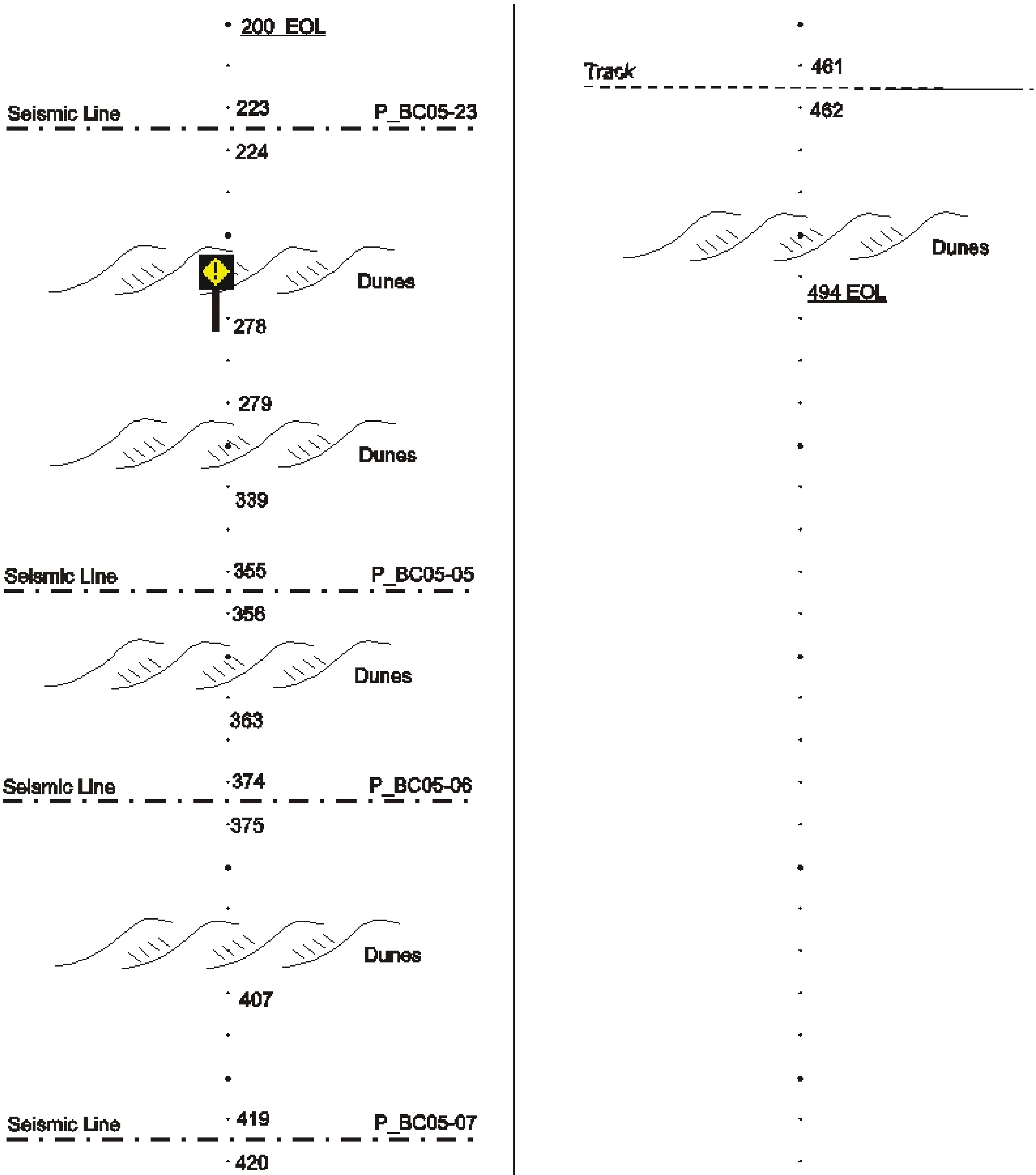
DSS-FF-07
REV 8.0
August 2004

LINE: BC05-04

PROJECT/JOB # 05007 CLIENT Terrex / Beach

PAGE 1 OF 1 AREA: MYTILUS STN INTERVAL: 37.5 m SHOT INTERVAL: ____ m

FROM STN 200 TO STN 494 SHOOTING DIRECTION: Direction BEARING: ### °



**Dynamic Satellite Surveys**

TRACE DIAGRAM

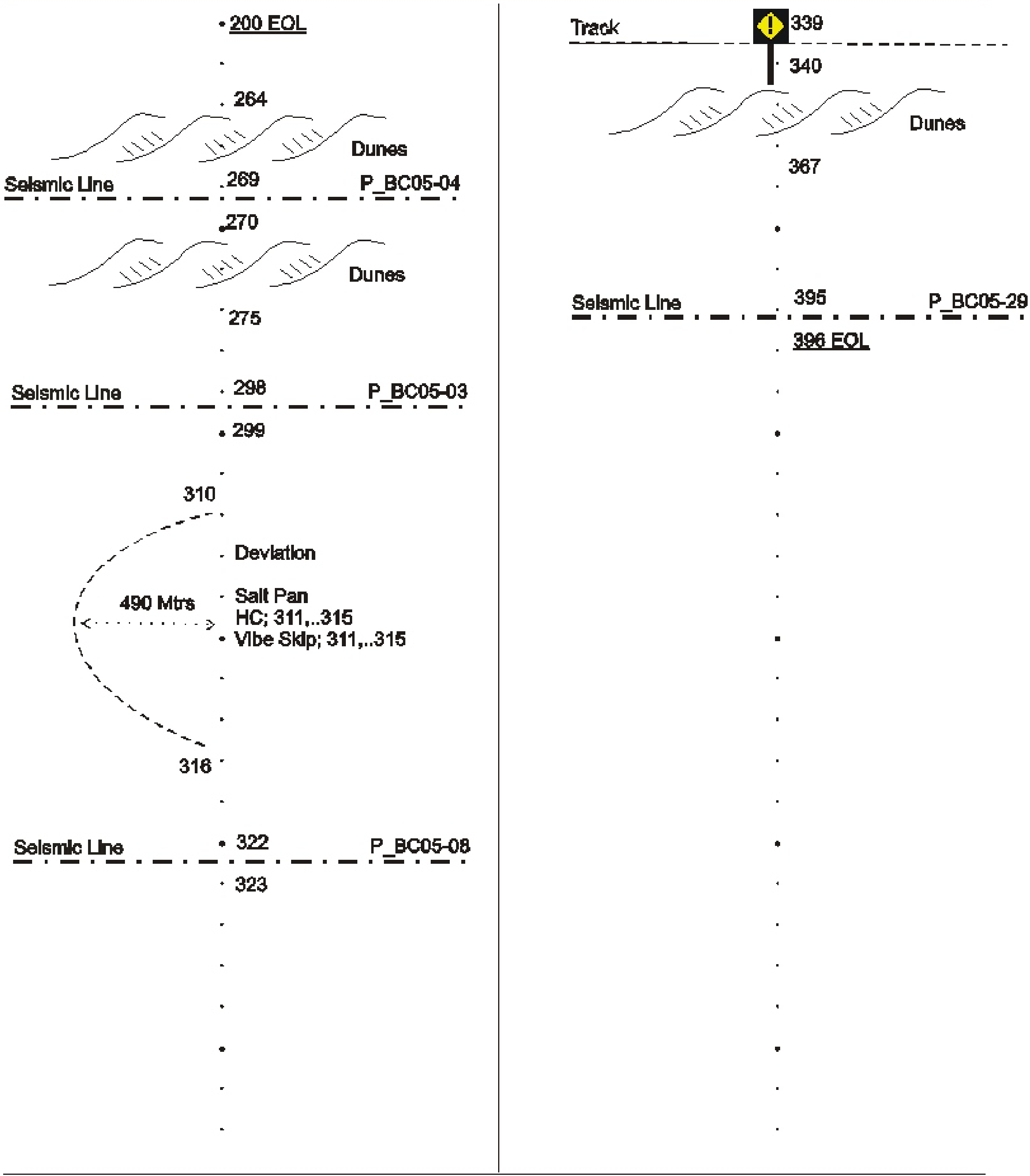
DSS-FF-07
REV 8.0
August 2004

LINE: **BC05-05**

PROJECT/JOB # 05007 CLIENT Terrex / Beach

PAGE 1 OF 1 AREA: MYTILUS STN INTERVAL: 37.5 m SHOT INTERVAL: ____ m

FROM STN 200 TO STN 398 SHOOTING DIRECTION: Direction BEARING: ### °



**Dynamic Satellite Surveys**

# TRACE DIAGRAM

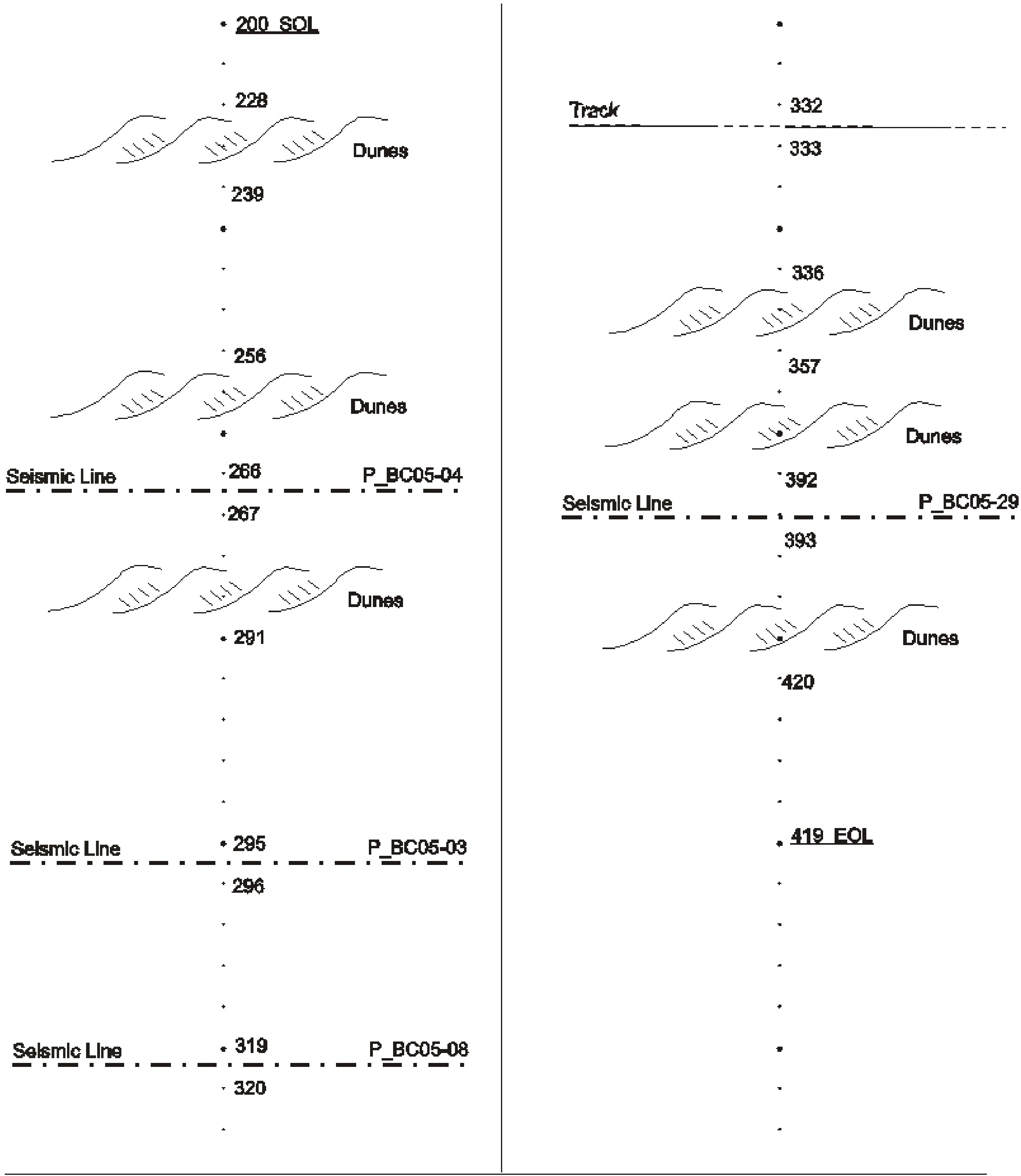
DSS-FF-07
REV 8.0
August 2004

## LINE: BC05-06

PROJECT/JOB # 05007 CLIENT Terrex / Beach

PAGE 1 OF 1 AREA: MYTILUS STN INTERVAL: 37.5 m SHOT INTERVAL: ____ m

FROM STN 200 TO STN 419 SHOOTING DIRECTION: West to East BEARING: ### °



Dynamic Satellite Surveys

TRACE DIAGRAM

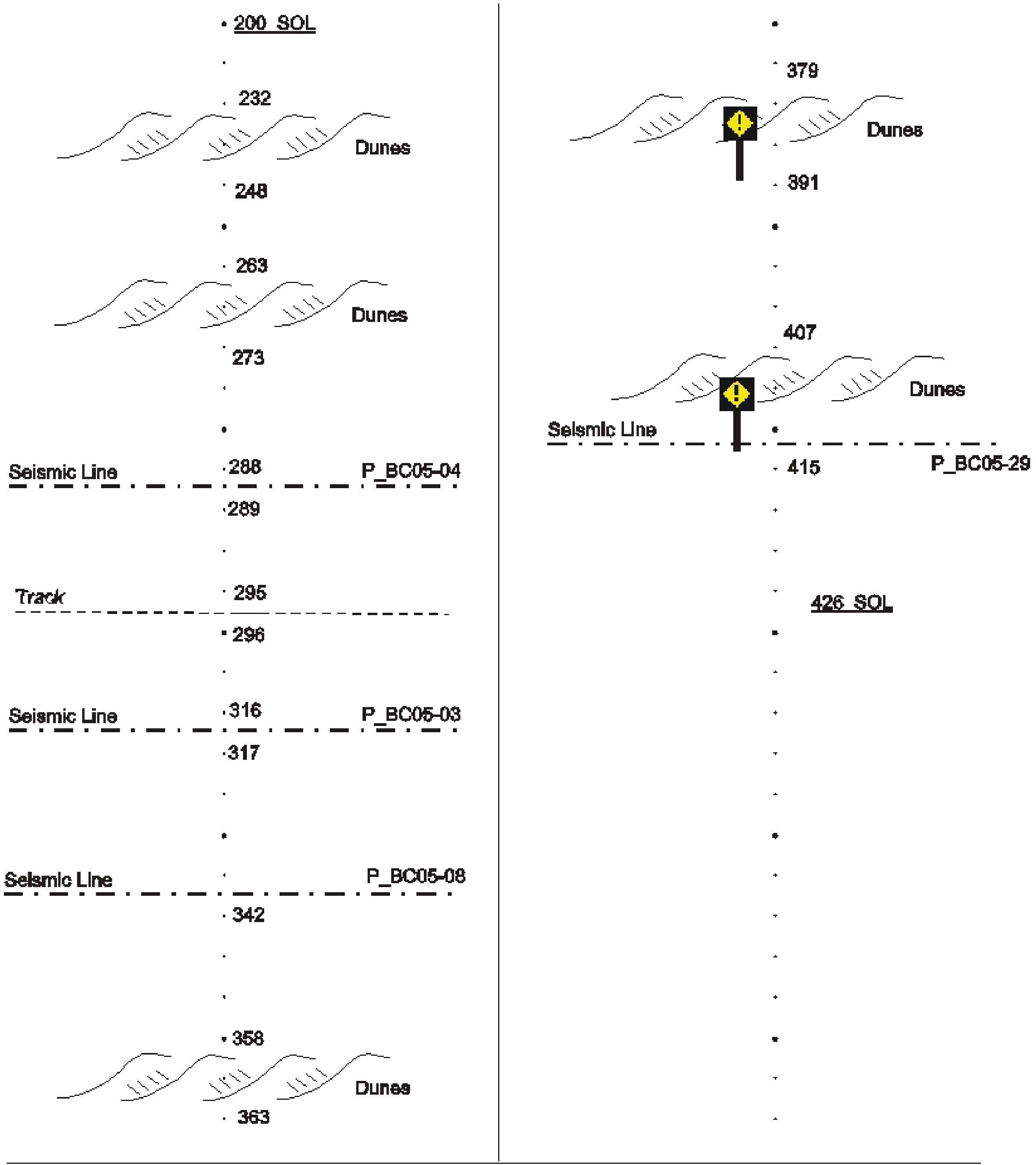
DSS-FF-07
REV 8.0
August 2004

LINE: BC05-07

PROJECT/JOB # 05007 CLIENT Terrex / Beach

PAGE 1 OF 1 AREA: MYTILUS STN INTERVAL: 37.5 m SHOT INTERVAL: ____ m

FROM STN 200 TO STN 426 SHOOTING DIRECTION: East to West BEARING: ____ °



Dynamic Satellite Surveys

# TRACE DIAGRAM

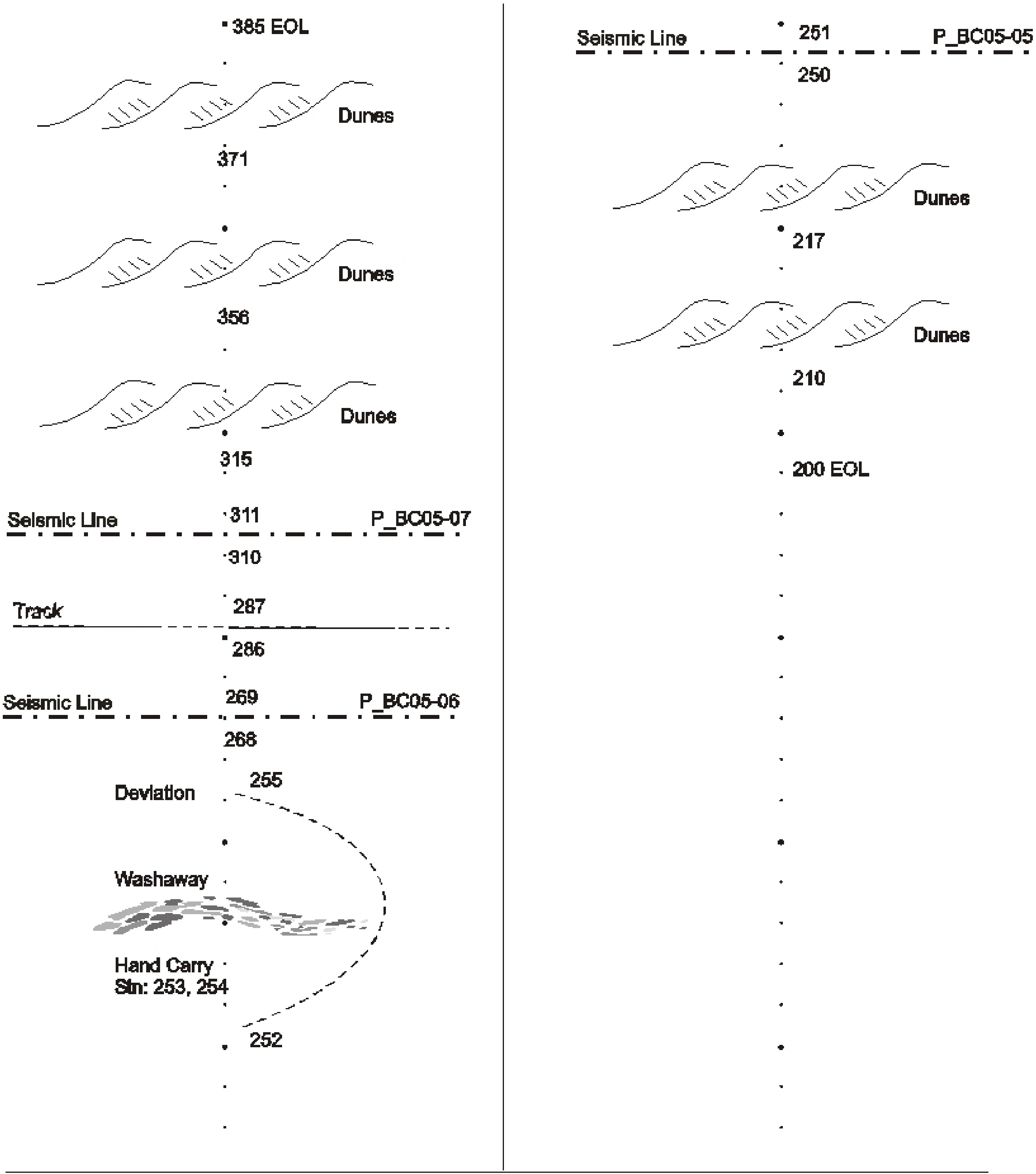
DSS-FF-07
REV 8.0
August 2004

## LINE: BC05-08

PROJECT/JOB # 05007 CLIENT Terrex / Beach

PAGE 1 OF 1 AREA: MYTILUS STN INTERVAL: 37.5 m SHOT INTERVAL: ______ m

FROM STN 200 TO STN 385 SHOOTING DIRECTION: Direction BEARING: ### °



Dynamic Satellite Surveys

# TRACE DIAGRAM

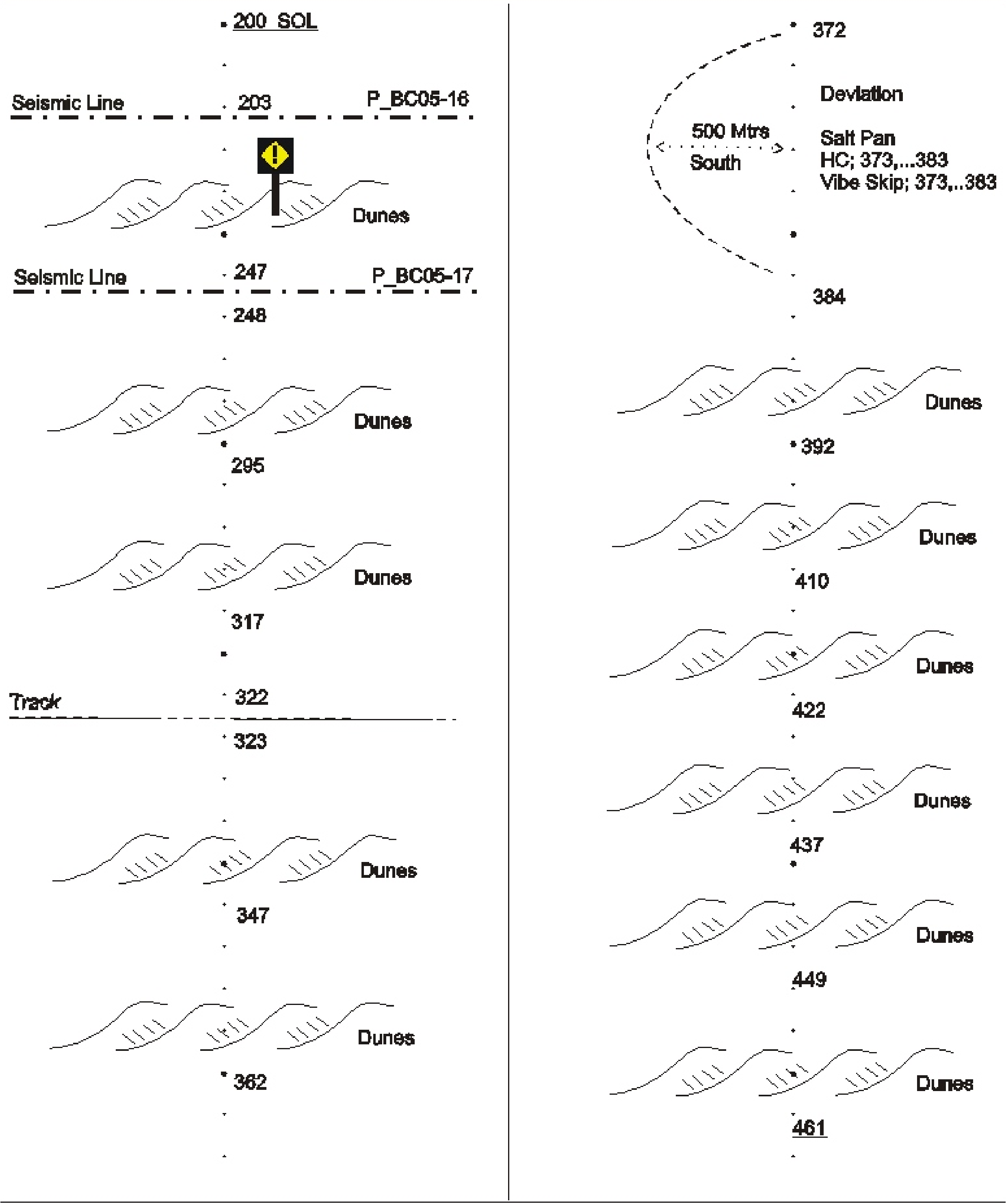
DSS-FF-07
REV 8.0
August 2004

LINE: BC05-09

PROJECT/JOB # 05007 CLIENT Terrex / Beach

PAGE 1 OF 2 AREA: MYTILUS STN INTERVAL: 37.5 m SHOT INTERVAL: ____ m

FROM STN 200 TO STN 461 SHOOTING DIRECTION: East to West BEARING: ____ °



Dynamic Satellite Surveys

# TRACE DIAGRAM

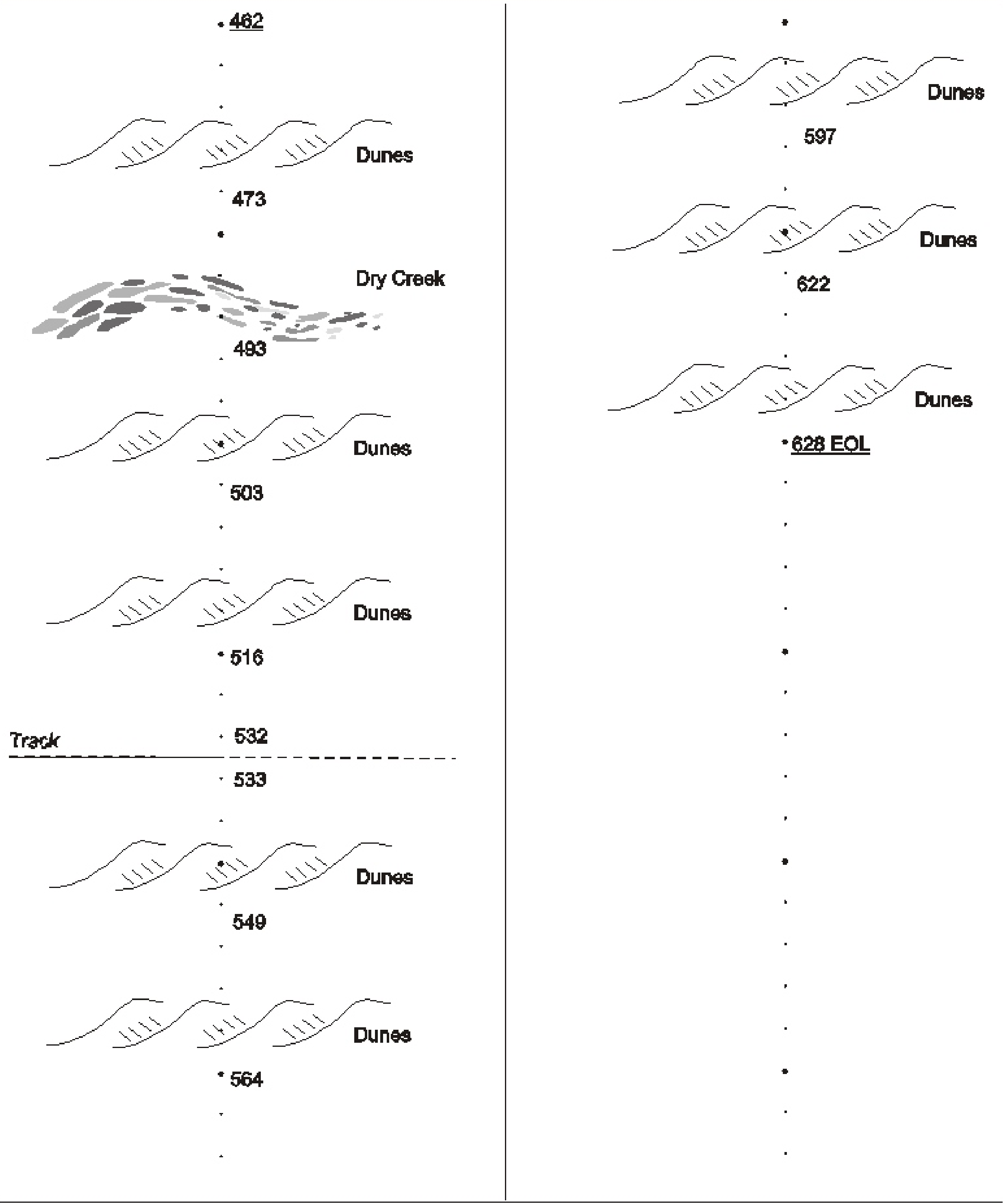
DSS-FF-07
REV 8.0
August 2004

## LINE: BC05-09

PROJECT/JOB # 05007 CLIENT Terrex / Beach

PAGE 2 OF 2 AREA: MYTILUS STN INTERVAL: 37.5 m SHOT INTERVAL: ____ m

FROM STN 462 TO STN 628 SHOOTING DIRECTION: East to West BEARING: ____ °



Dynamic Satellite Surveys

TRACE DIAGRAM

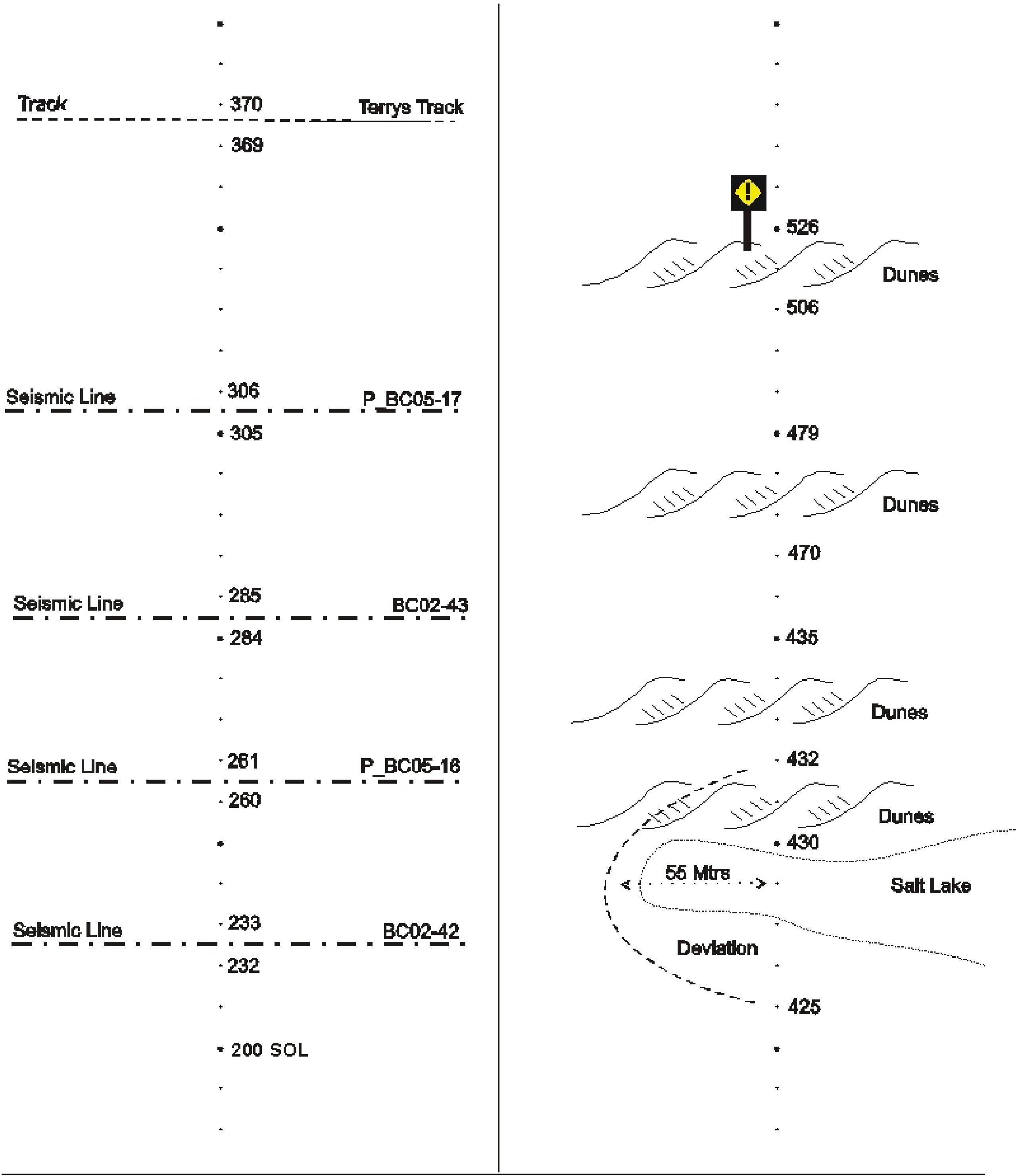
DSS-FF-07
REV 8.0
August 2004

LINE: BC05-10

PROJECT/JOB # 05007 CLIENT Terrex / Beach

PAGE 1 OF 2 AREA: MYTILUS STN INTERVAL: 37.5 m SHOT INTERVAL: ____ m

FROM STN 200 TO STN 685 SHOOTING DIRECTION: West to East BEARING: ____ °



Dynamic Satellite Surveys

# TRACE DIAGRAM

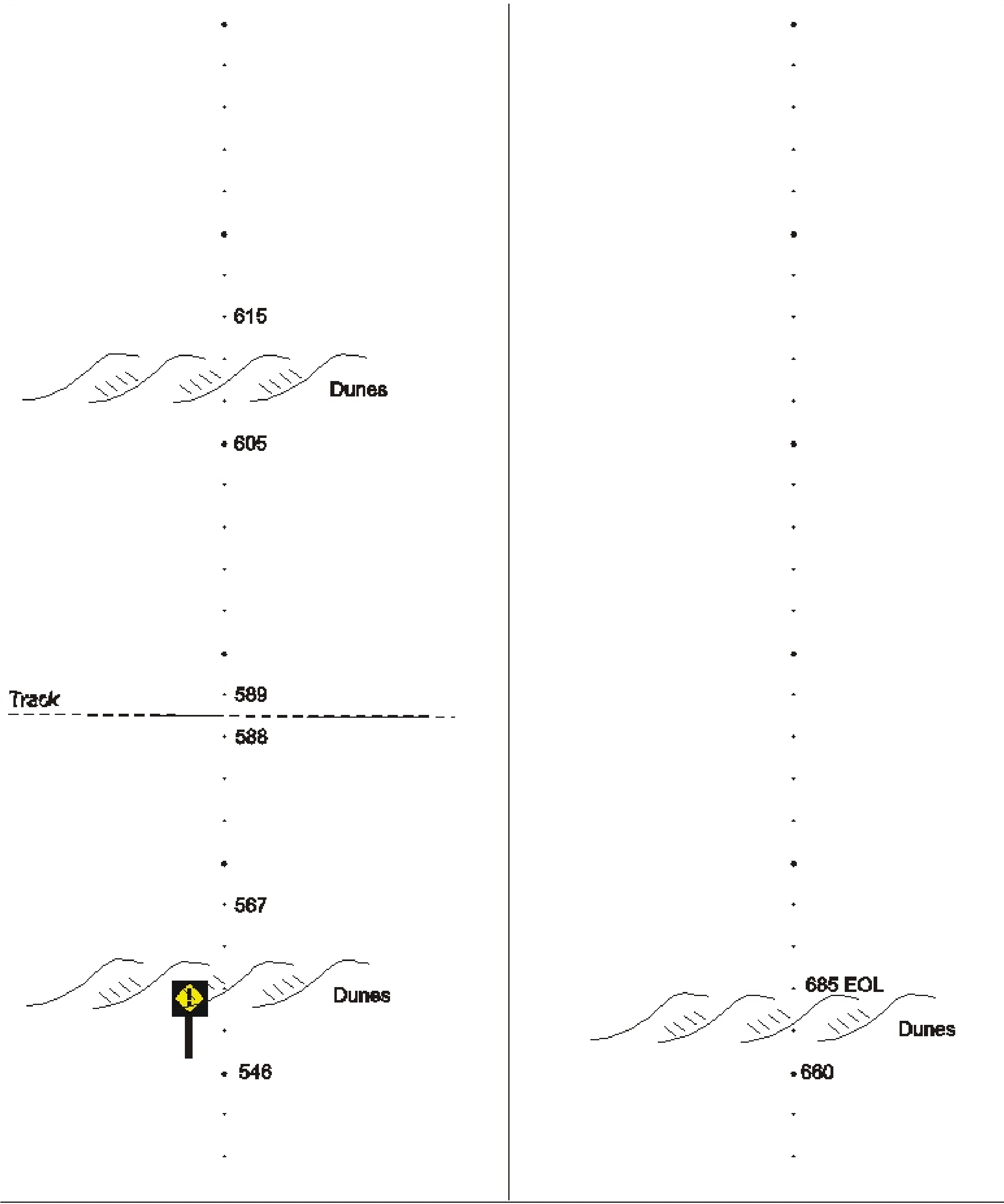
DSS-FF-07
REV 8.0
August 2004

LINE: **BC05-10**

PROJECT/JOB # 05007 CLIENT Terrex / Beach

PAGE 2 OF 2 AREA: MYTILUS STN INTERVAL: 37.5 m SHOT INTERVAL: ____ m

FROM STN 200 TO STN 685 SHOOTING DIRECTION: West to East BEARING: ____ °



Dynamic Satellite Surveys

## TRACE DIAGRAM

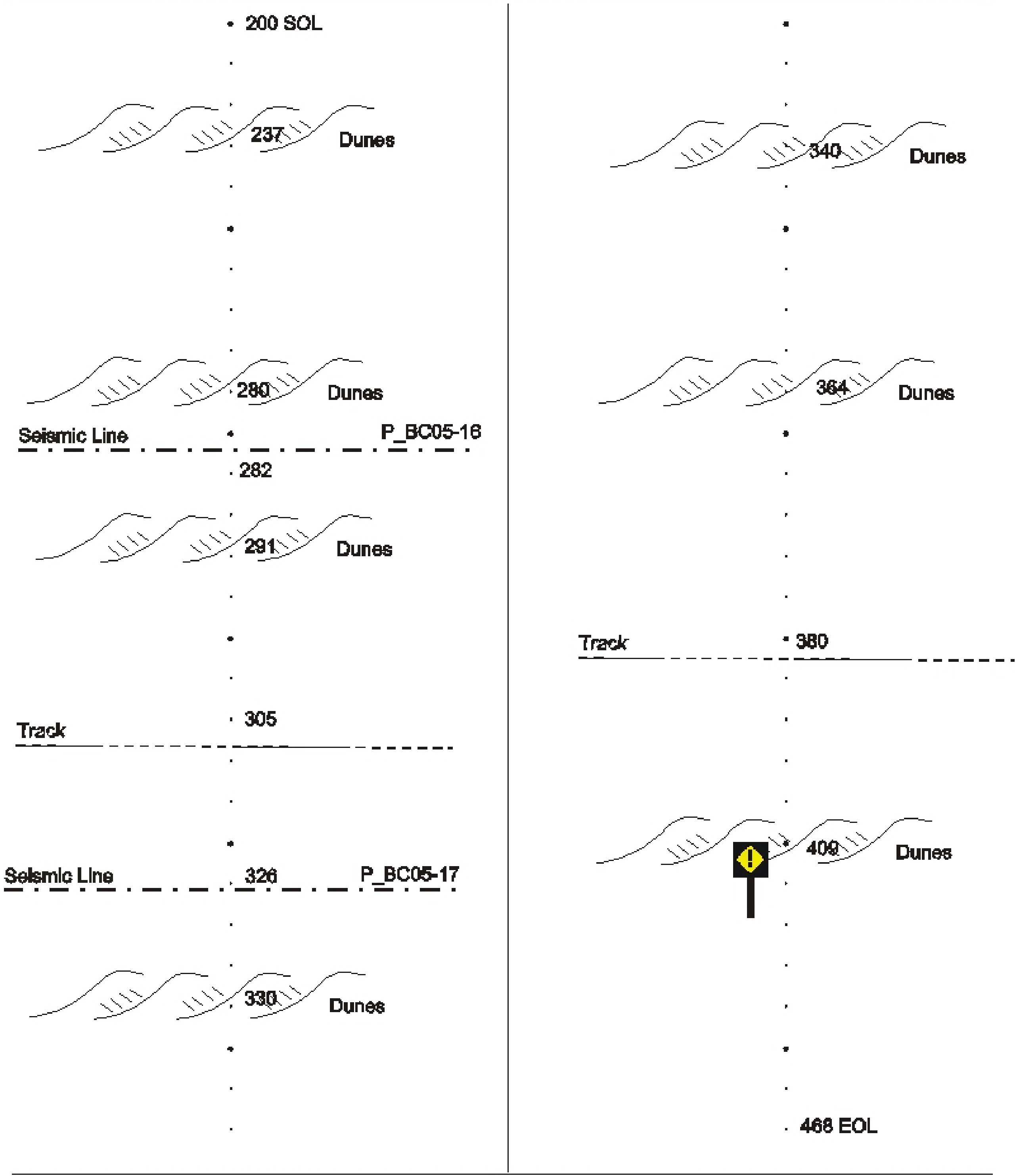
DSS-FF-07
REV 8.0
August 2004

LINE: BC05-11

PROJECT/JOB # 05007 CLIENT Terrex / Beach

PAGE 1 OF 1 AREA: MYTILUS STN INTERVAL: 37.5 m SHOT INTERVAL: ______ m

FROM STN 200 TO STN 468 SHOOTING DIRECTION: West to East BEARING: ______ °



Dynamic Satellite Surveys

# TRACE DIAGRAM

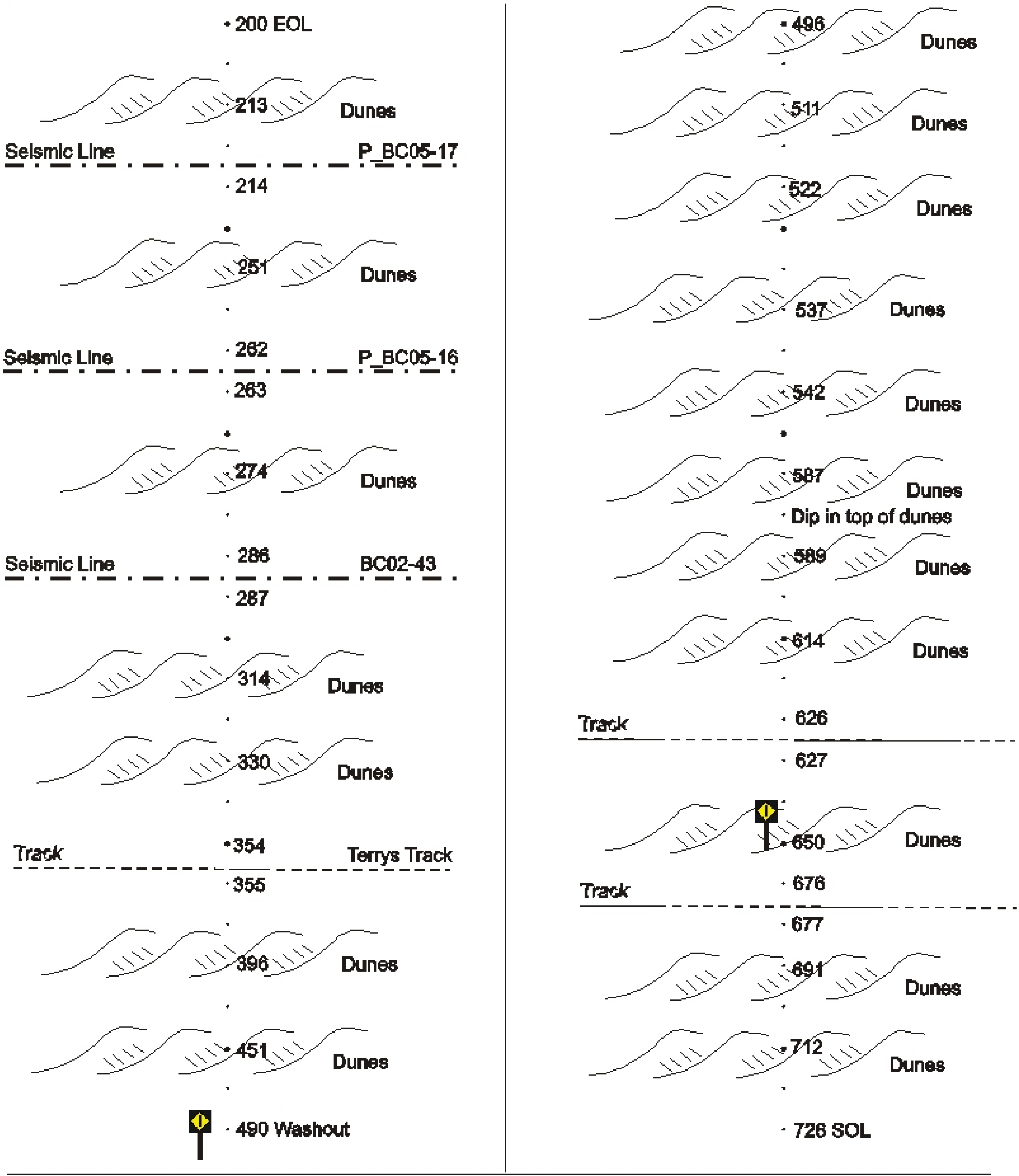
DSS-FF-07
REV 8.0
August 2004

## LINE: BC05-12

PROJECT/JOB # 05007 CLIENT Terrex / Beach

PAGE 1 OF 1 AREA: MYTILUS STN INTERVAL: 37.5 m SHOT INTERVAL: ______ m

FROM STN 200 TO STN 726 SHOOTING DIRECTION: East to West BEARING: ______ °



Dynamic Satellite Surveys

# TRACE DIAGRAM

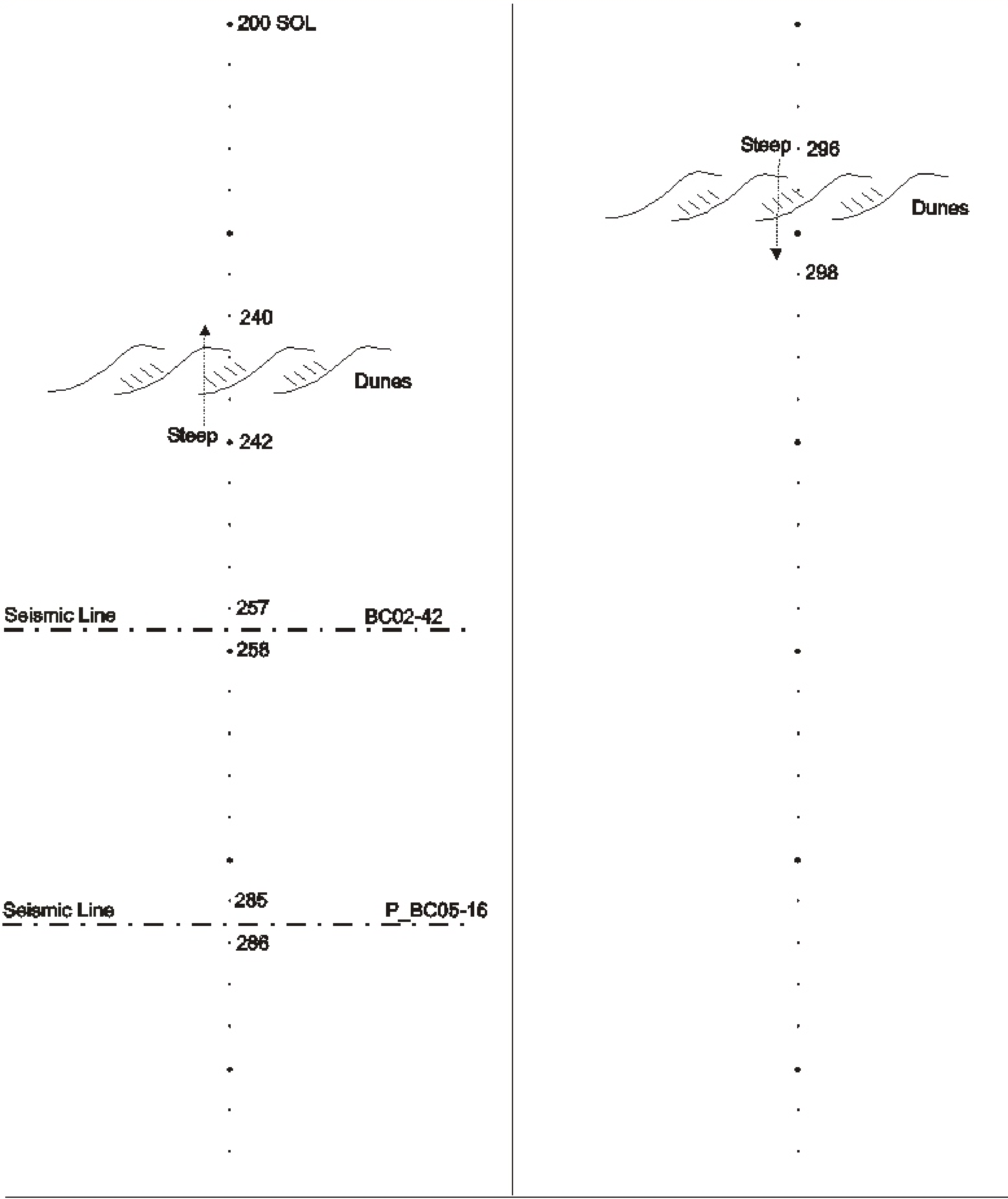
DSS-FF-07
REV 8.0
August 2004

## LINE: BC05-13

PROJECT/JOB # 05007 CLIENT Terrex / Beach

PAGE 1 OF 2 AREA: MYTILUS STN INTERVAL: 37.5 m SHOT INTERVAL: ______ m

FROM STN 200 TO STN 665 SHOOTING DIRECTION: West to East BEARING: ______ °



Dynamic Satellite Surveys

TRACE DIAGRAM

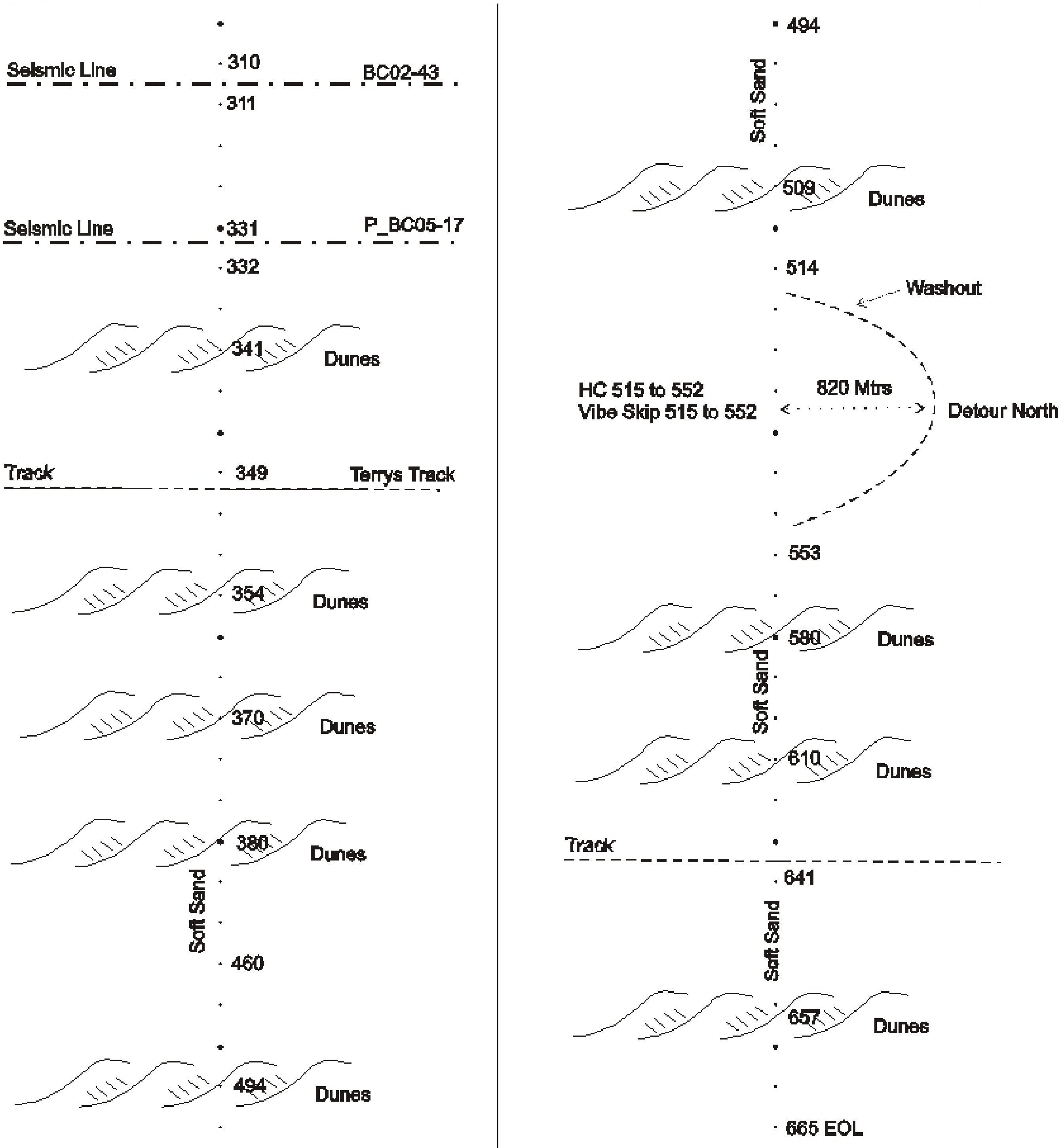
LINE: **BC05-13**

DSS-FF-07
REV 8.0
August 2004

PROJECT/JOB # **05007** CLIENT **Terrex / Beach**

PAGE **2** OF **2** AREA: **MYTILUS** STN INTERVAL: **37.5** m SHOT INTERVAL: ____ m

FROM STN **200** TO STN **665 EOL** SHOOTING DIRECTION: **West to East** BEARING: ____ °



Dynamic Satellite Surveys

# TRACE DIAGRAM

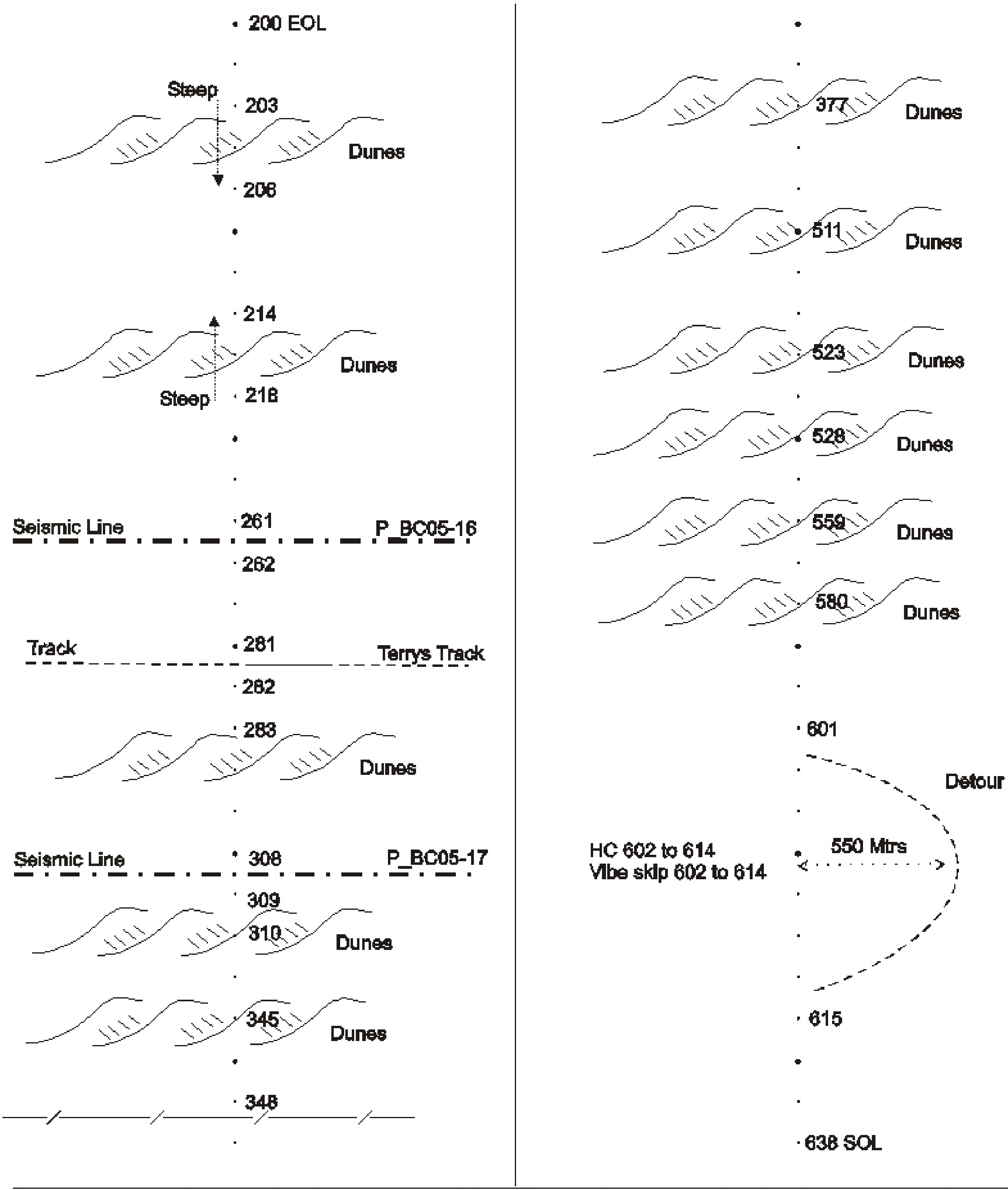
DSS-FF-07
REV 8.0
August 2004

LINE: BC05-14

PROJECT/JOB # 05007 CLIENT Terrex / Beach

PAGE 1 OF 1 AREA: MYTILUS STN INTERVAL: 37.5 m SHOT INTERVAL: ______ m

FROM STN 200 TO STN 638 SHOOTING DIRECTION: East to West BEARING: ______ °



Dynamic Satellite Surveys

## TRACE DIAGRAM

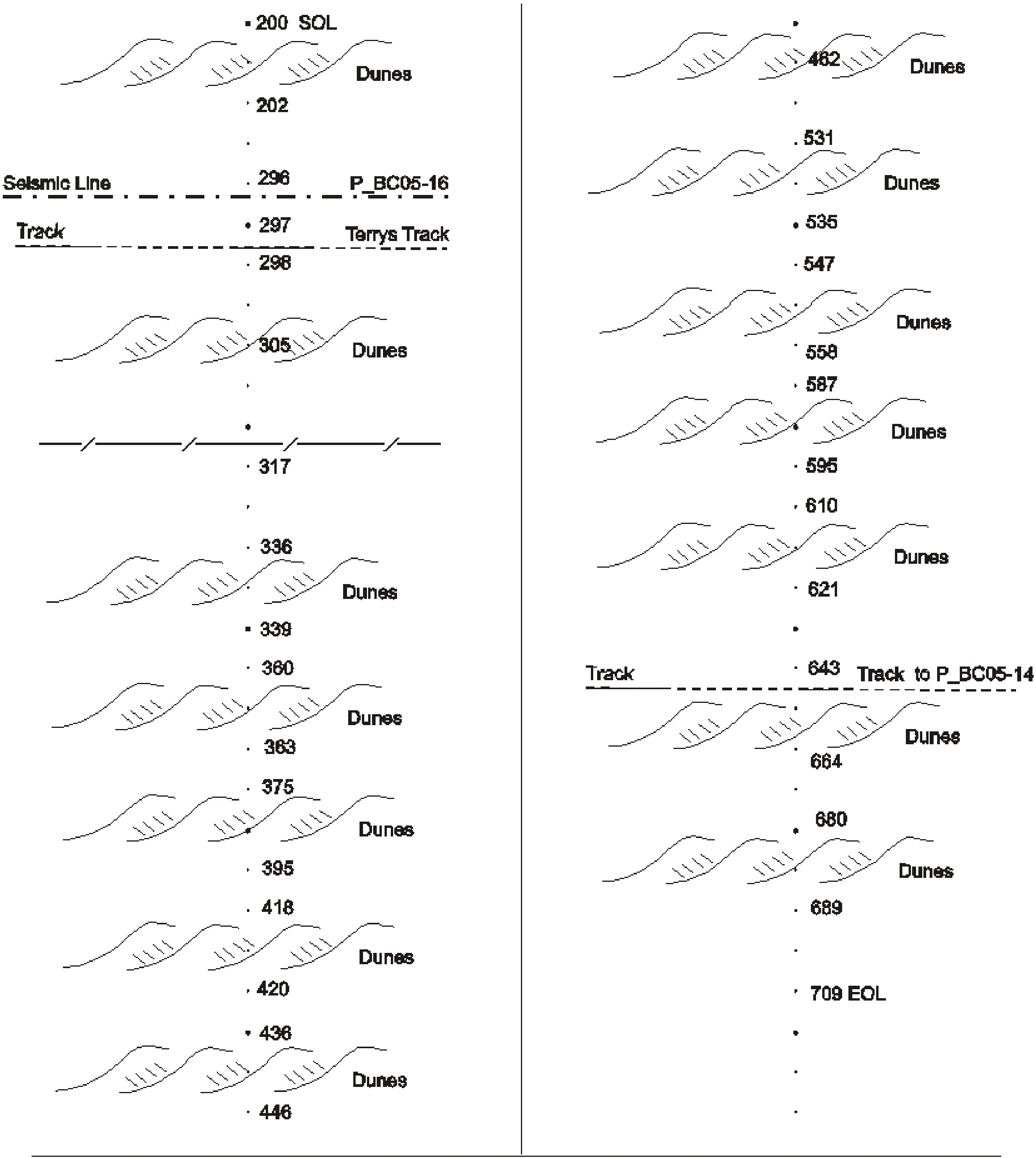
DSS-FF-07
REV 8.0
August 2004

LINE: BC05-15

PROJECT/JOB # 05007 CLIENT Terrex / Beach

PAGE 1 OF 1 AREA: MYTILUS STN INTERVAL: 37.5 m SHOT INTERVAL: ____ m

FROM STN 200 TO STN 709 SHOOTING DIRECTION: West to East BEARING: ____ °



Dynamic Satellite Surveys

# TRACE DIAGRAM

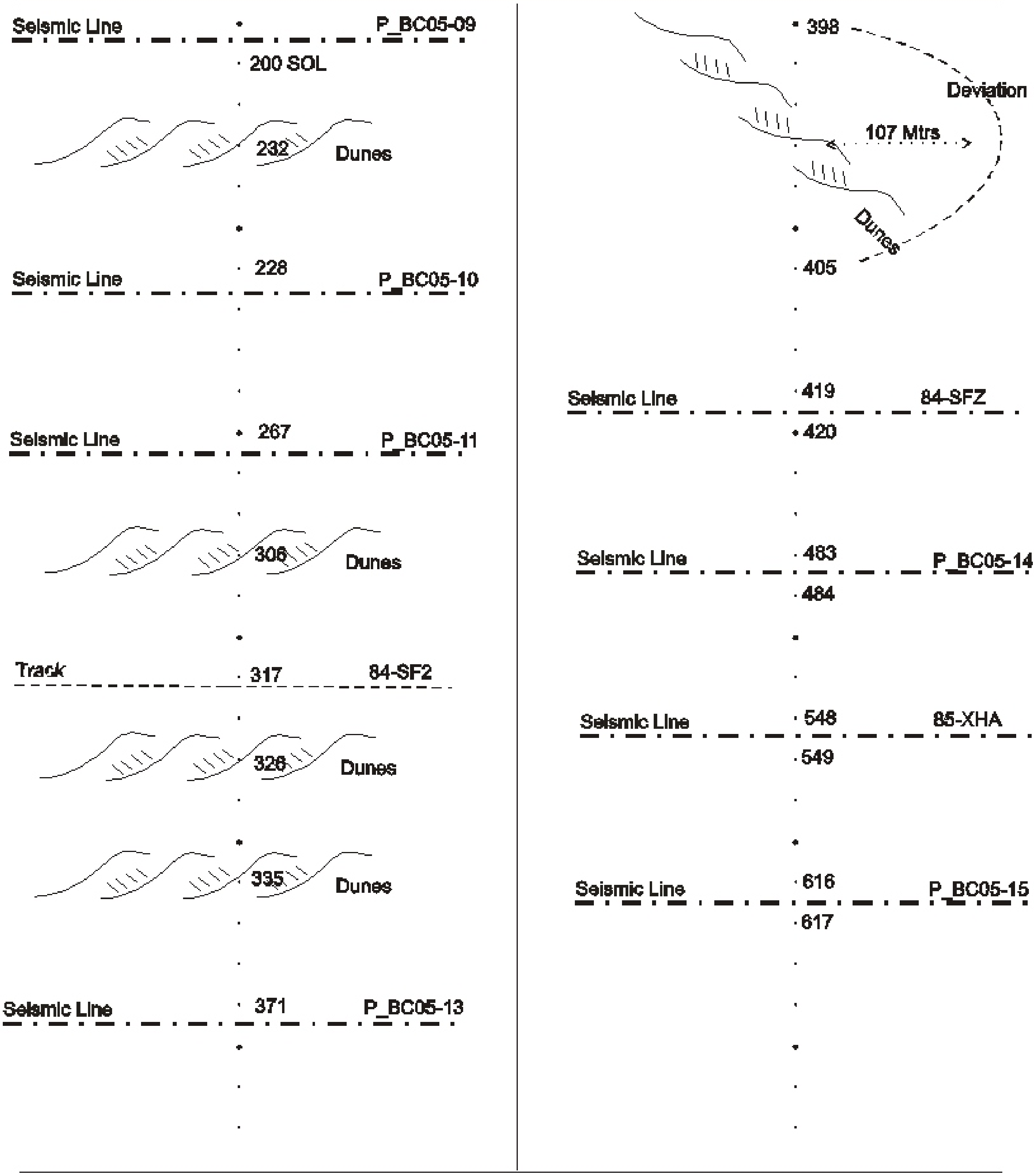
DSS-FF-07
REV 8.0
August 2004

LINE: BC05-16

PROJECT/JOB # 05007 CLIENT Terrex / Beach

PAGE 1 OF 2 AREA: MYTILUS STN INTERVAL: 37.5 m SHOT INTERVAL: ____ m

FROM STN 200 TO STN 713 SHOOTING DIRECTION: South to North BEARING: ____ °



Dynamic Satellite Surveys

TRACE DIAGRAM

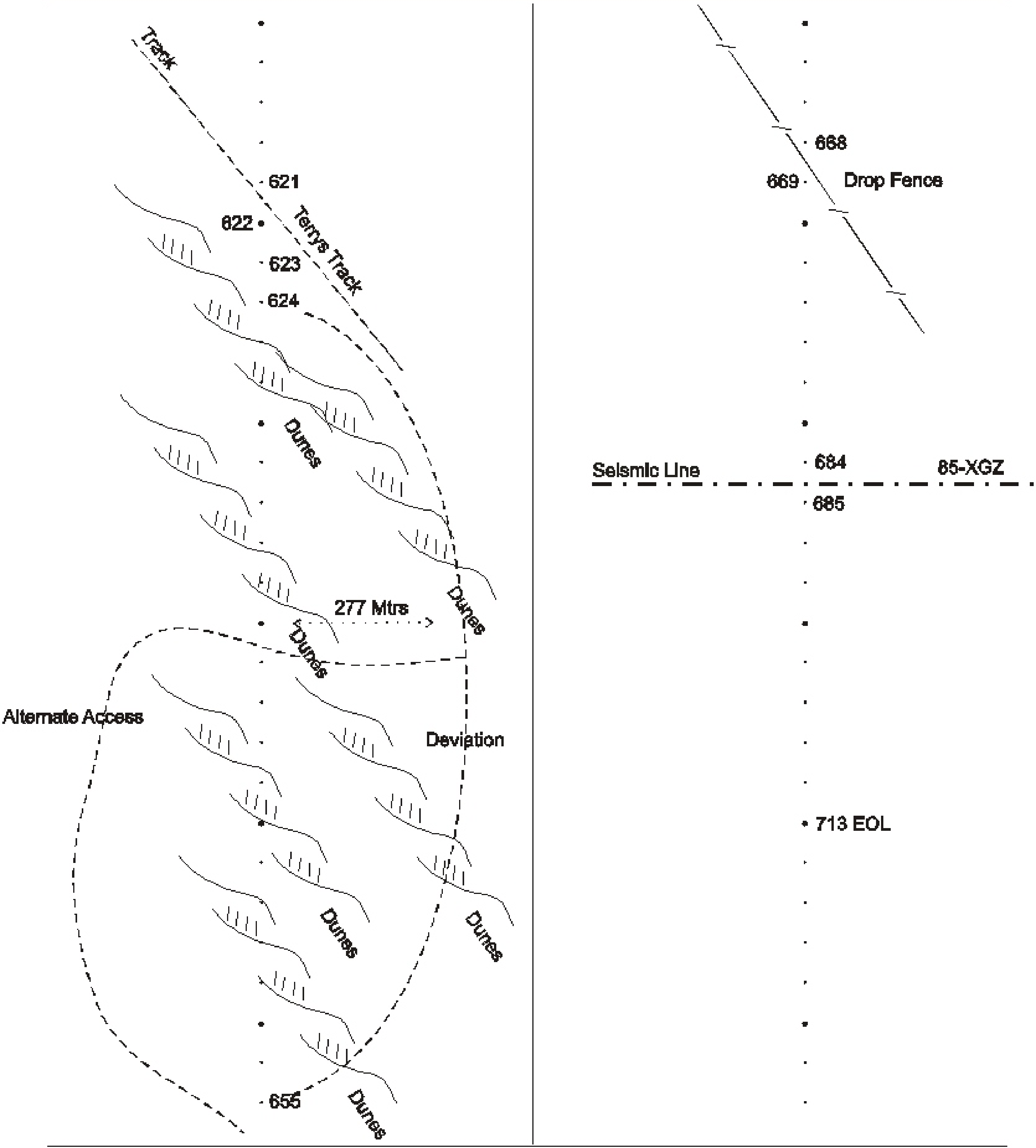
DSS-FF-07
REV 8.0
August 2004

LINE: BC05-16

PROJECT/JOB # 05007 CLIENT Terrex / Beach

PAGE 2 OF 2 AREA: MYTILUS STN INTERVAL: 37.5 m SHOT INTERVAL: ____ m

FROM STN 200 TO STN 713 SHOOTING DIRECTION: South to North BEARING: ____ °



Dynamic Satellite Surveys

# TRACE DIAGRAM

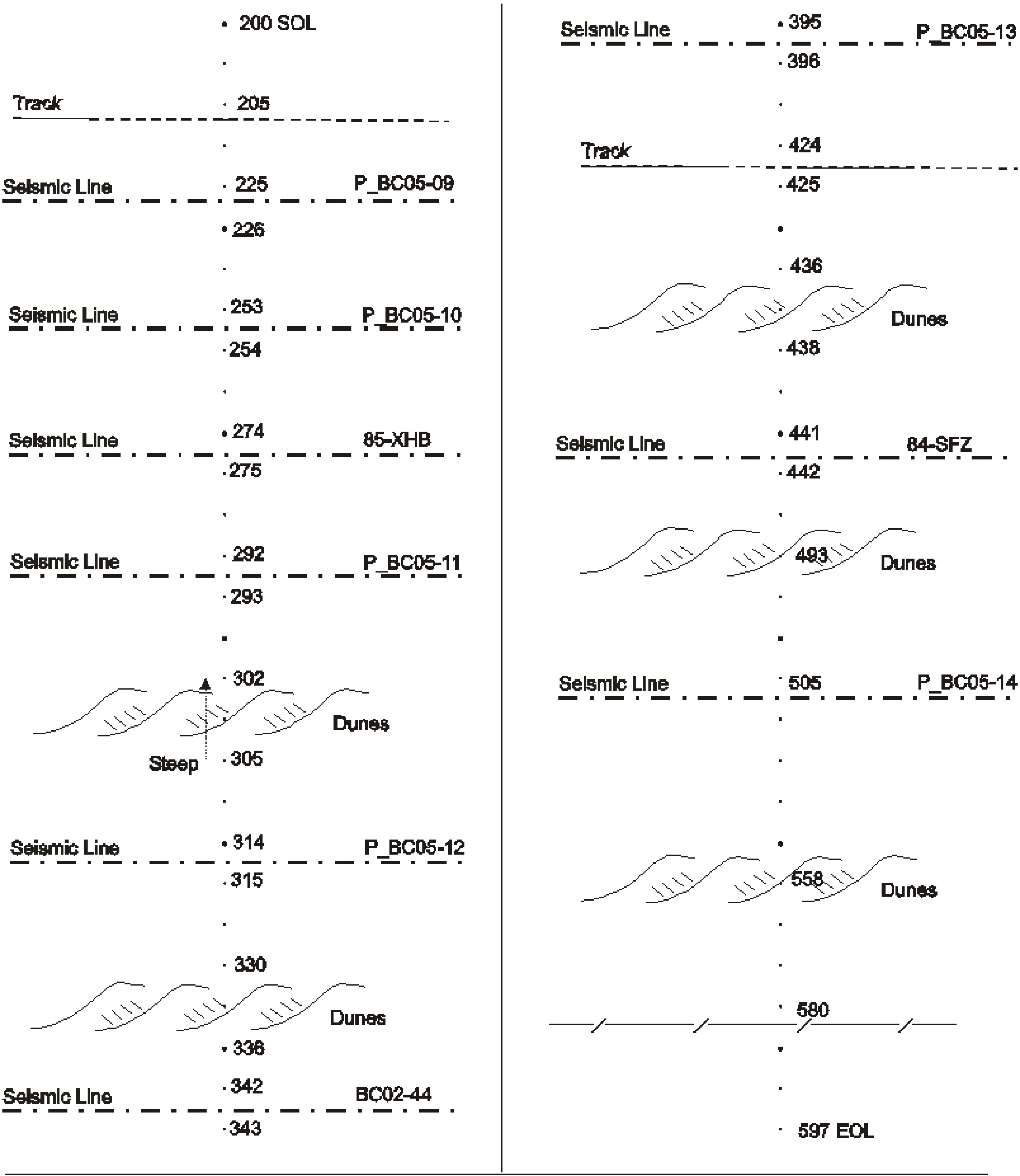
DSS-FF-07
REV 8.0
August 2004

## LINE: BC05-17

PROJECT/JOB # 05007 CLIENT Terrex / Beach

PAGE 1 OF 1 AREA: MYTILUS STN INTERVAL: 37.5 m SHOT INTERVAL: ____ m

FROM STN 200 TO STN 597 SHOOTING DIRECTION: North to South BEARING: ____ °



Dynamic Satellite Surveys

TRACE DIAGRAM

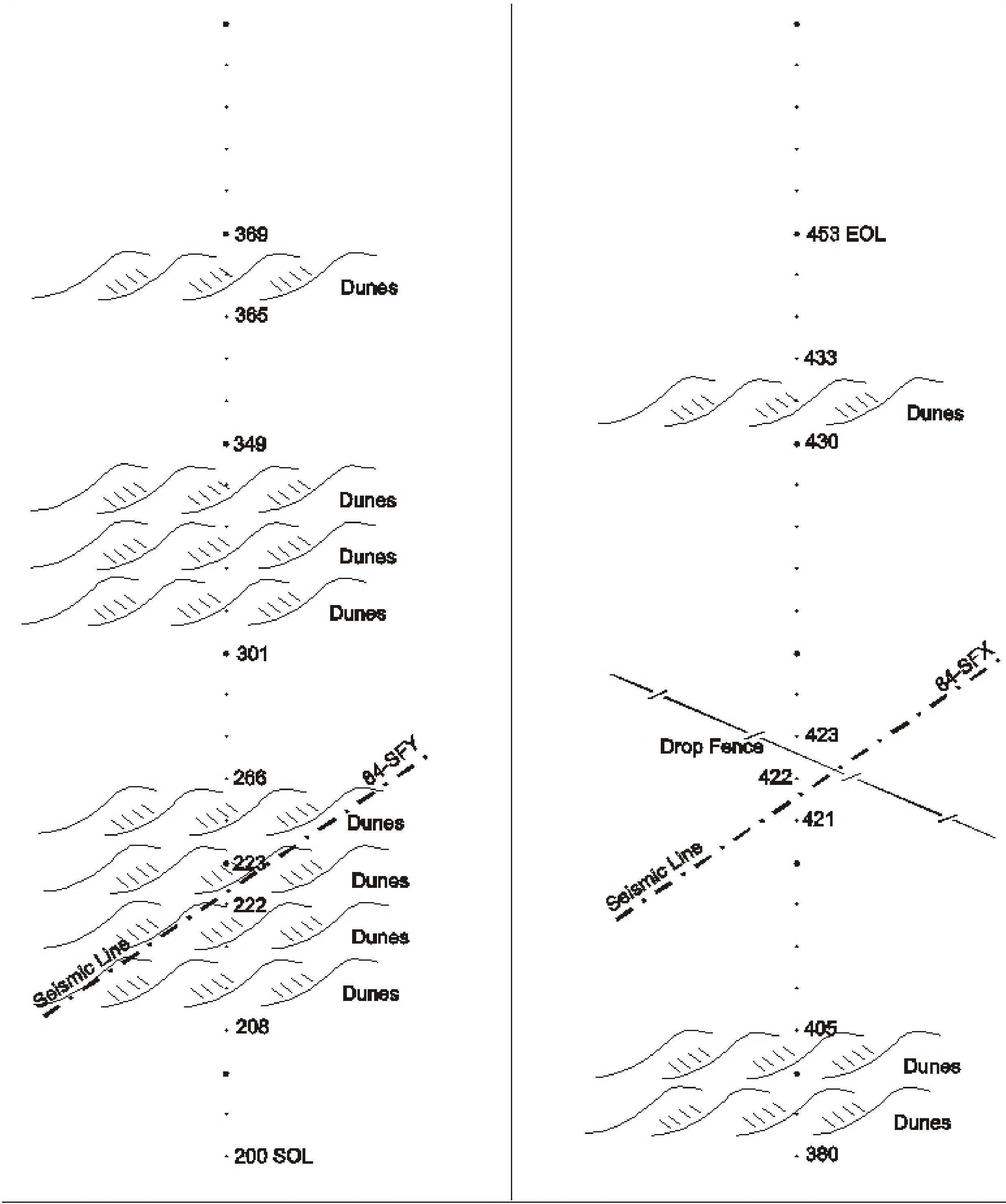
DSS-FF-07
REV 8.0
August 2004

LINE: BC05-18

PROJECT/JOB # 05007 CLIENT Terrex / Beach

PAGE 1 OF 1 AREA: MYTILUS STN INTERVAL: 37.5 m SHOT INTERVAL: ____ m

FROM STN 200 TO STN 453 SHOOTING DIRECTION: South to North BEARING: ____ °



**Dynamic Satellite Surveys**

# TRACE DIAGRAM

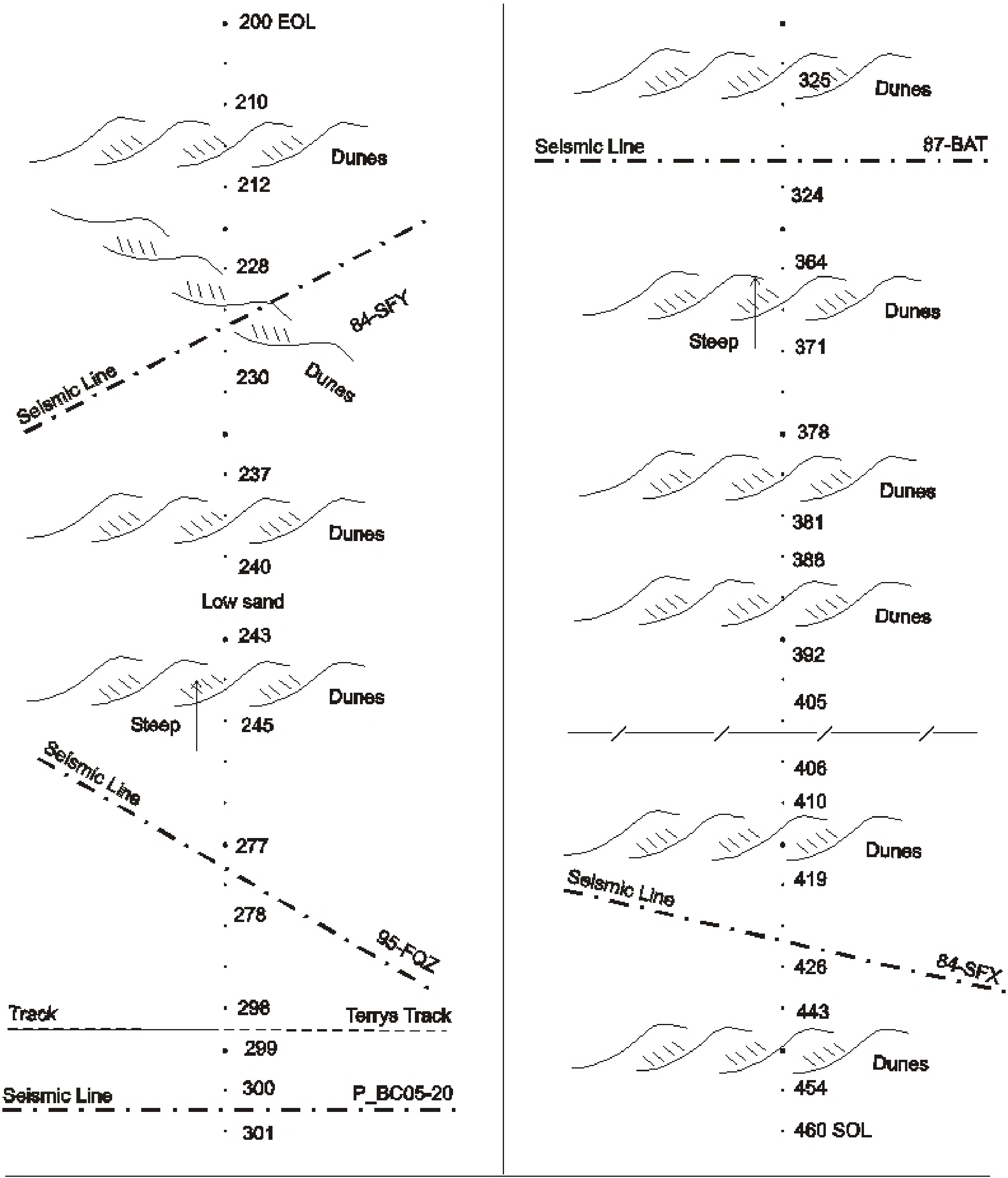
DSS-FF-07
REV 8.0
August 2004

LINE: BC05-19

PROJECT/JOB # 05007 CLIENT Terrex / Beach

PAGE 1 OF 1 AREA: MYTILUS STN INTERVAL: 37.5 m SHOT INTERVAL: ____ m

FROM STN 200 TO STN 460 SHOOTING DIRECTION: North to South BEARING: ____ °



Dynamic Satellite Surveys

TRACE DIAGRAM

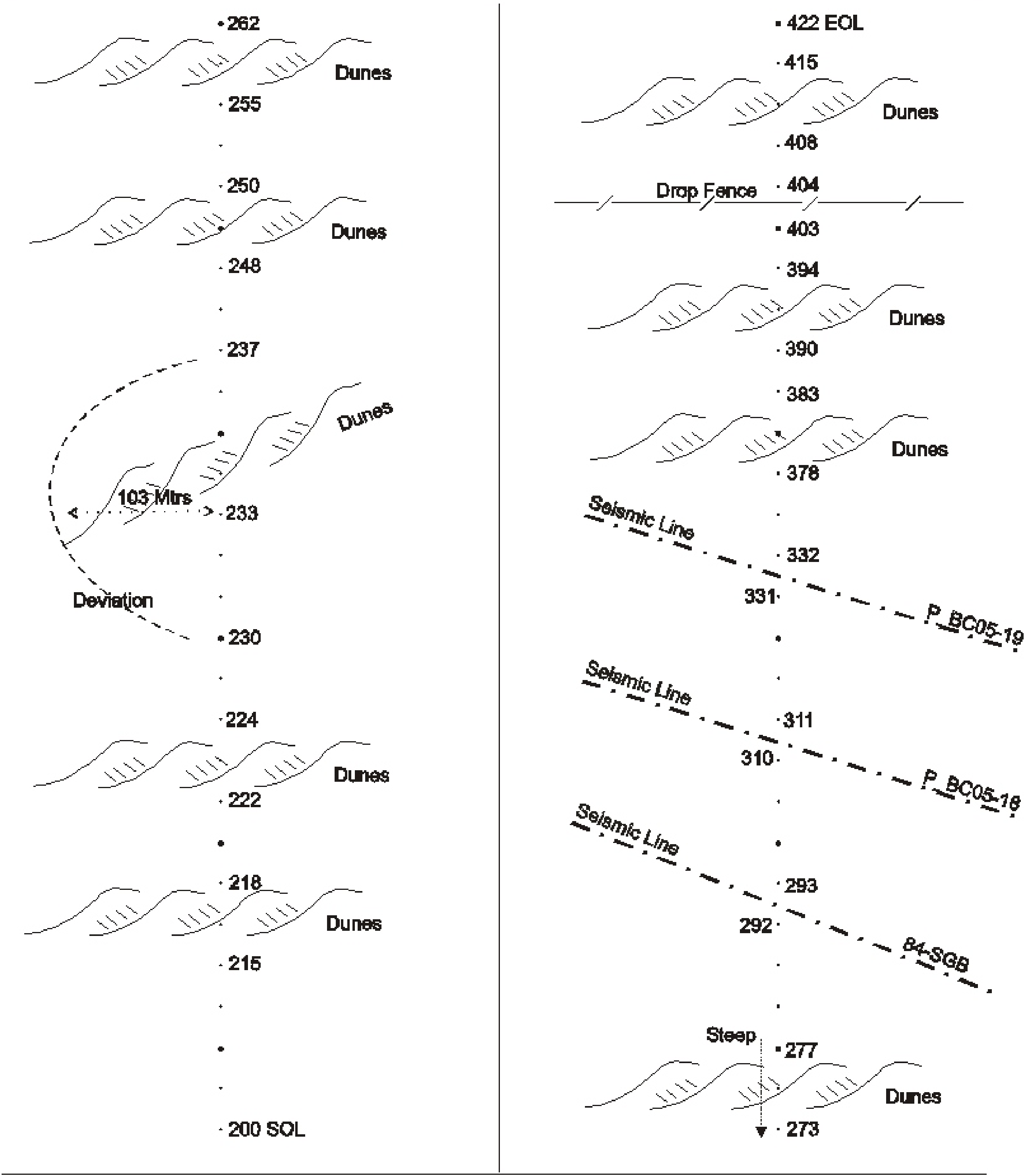
DSS-FF-07
REV 8.0
August 2004

LINE: BC05-20

PROJECT/JOB # 05007 CLIENT Terrex / Beach

PAGE 1 OF 1 AREA: MYTILUS STN INTERVAL: 37.5 m SHOT INTERVAL: ____ m

FROM STN 200 TO STN 422 SHOOTING DIRECTION: West to East BEARING: ____ °



Dynamic Satellite Surveys

TRACE DIAGRAM

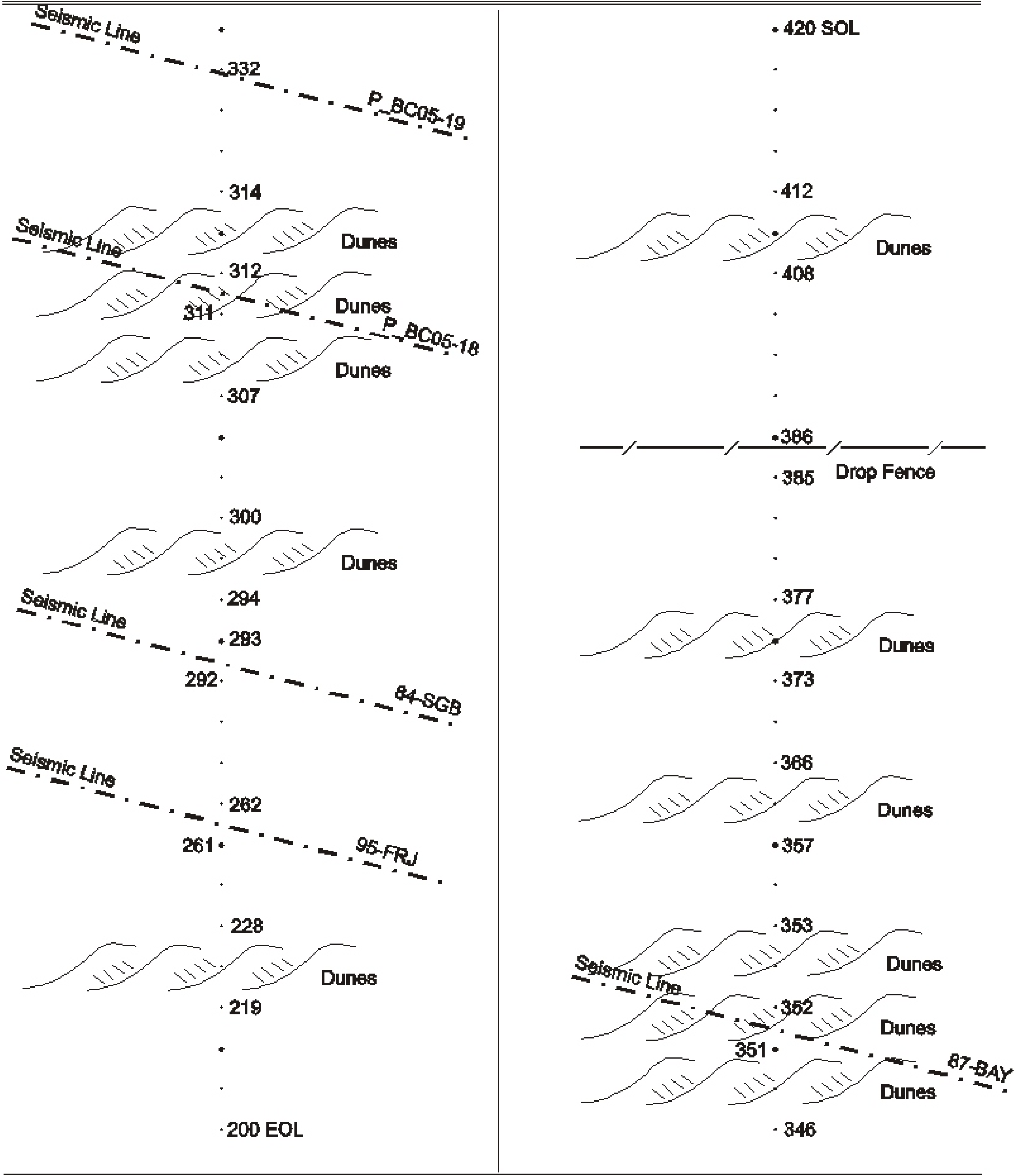
DSS-FF-07
REV 8.0
August 2004

LINE: BC05-21

PROJECT/JOB # 05007 CLIENT Terrex / Beach

PAGE 1 OF 1 AREA: MYTILUS STN INTERVAL: 37.5 m SHOT INTERVAL: ____ m

FROM STN 200 TO STN 420 SHOOTING DIRECTION: East to West BEARING: ____ °



Dynamic Satellite Surveys

## TRACE DIAGRAM

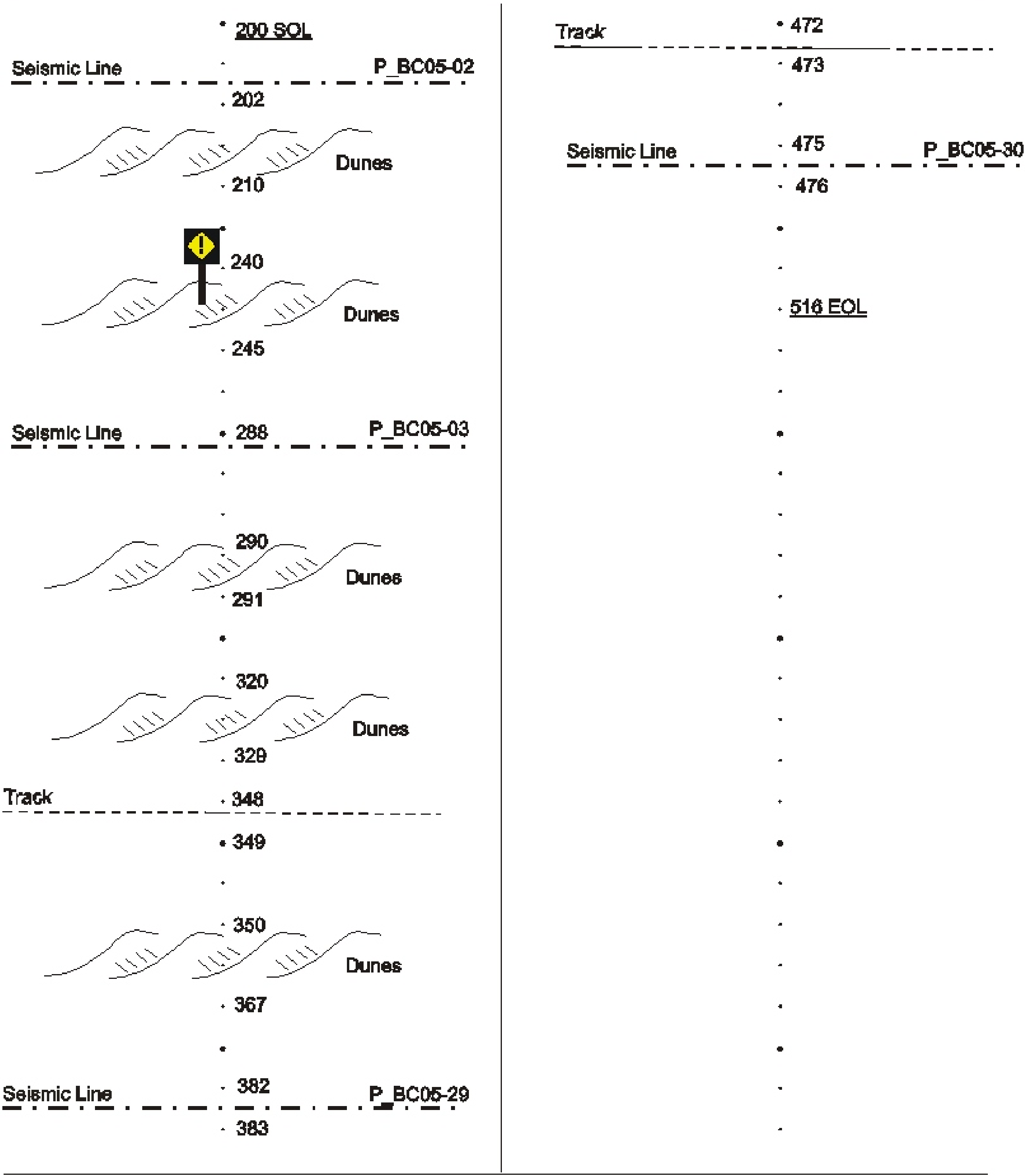
DSS-FF-07
REV 8.0
August 2004

LINE: BC05-22

PROJECT/JOB # 05007 CLIENT Terrex / Beach

PAGE 1 OF 1 AREA: MYTILUS STN INTERVAL: 37.5 m SHOT INTERVAL: ____ m

FROM STN 200 TO STN 516 SHOOTING DIRECTION: East to West BEARING: ### °



Dynamic Satellite Surveys

TRACE DIAGRAM

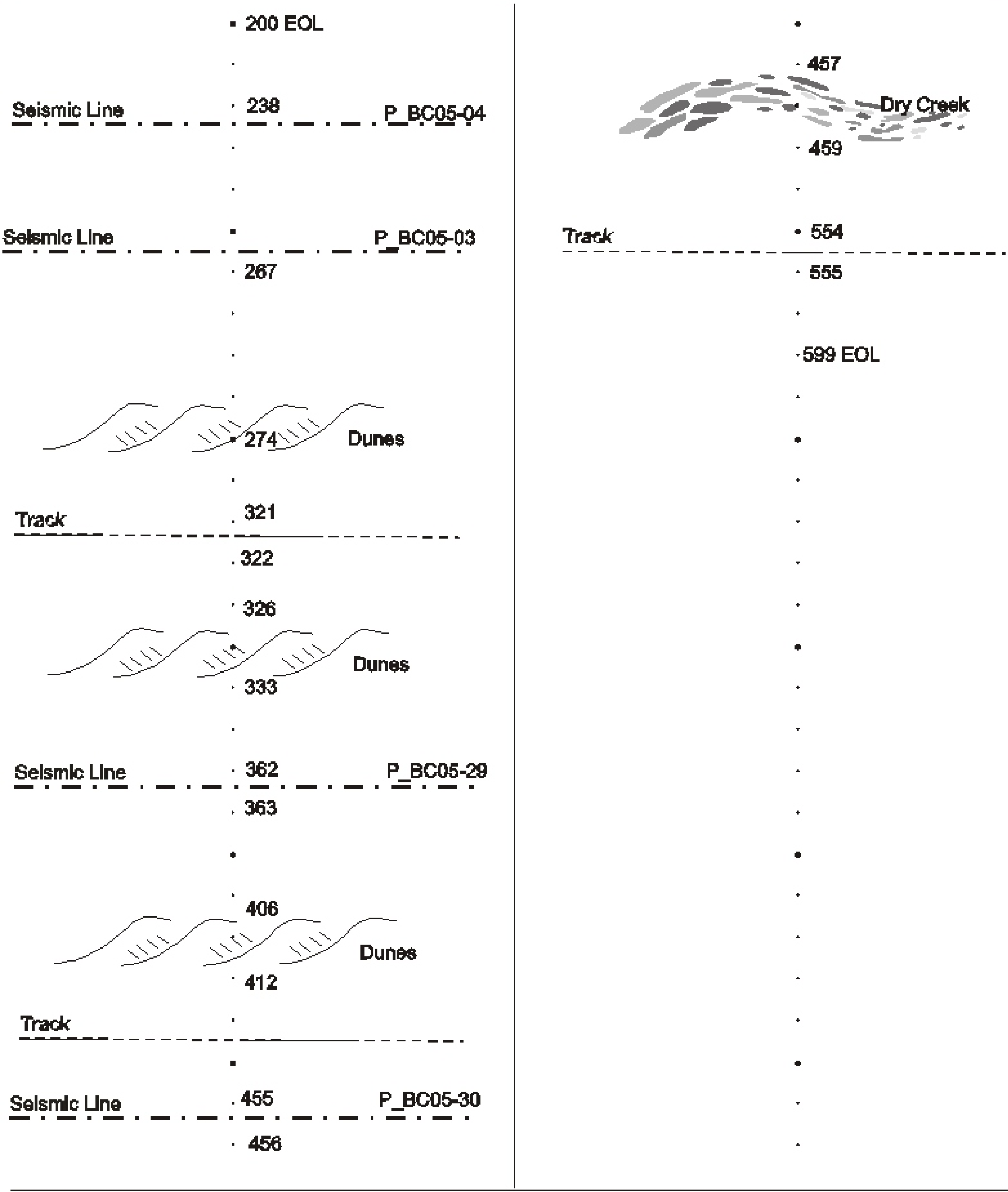
DSS-FF-07
REV 8.0
August 2004

LINE: BC05-23

PROJECT/JOB # 05007 CLIENT Terrex / Beach

PAGE 1 OF 1 AREA: MYTILUS STN INTERVAL: 37.5m SHOT INTERVAL: ______ m

FROM STN 200 TO STN 599 SHOOTING DIRECTION: West to East BEARING: ______ °



Dynamic Satellite Surveys

# TRACE DIAGRAM

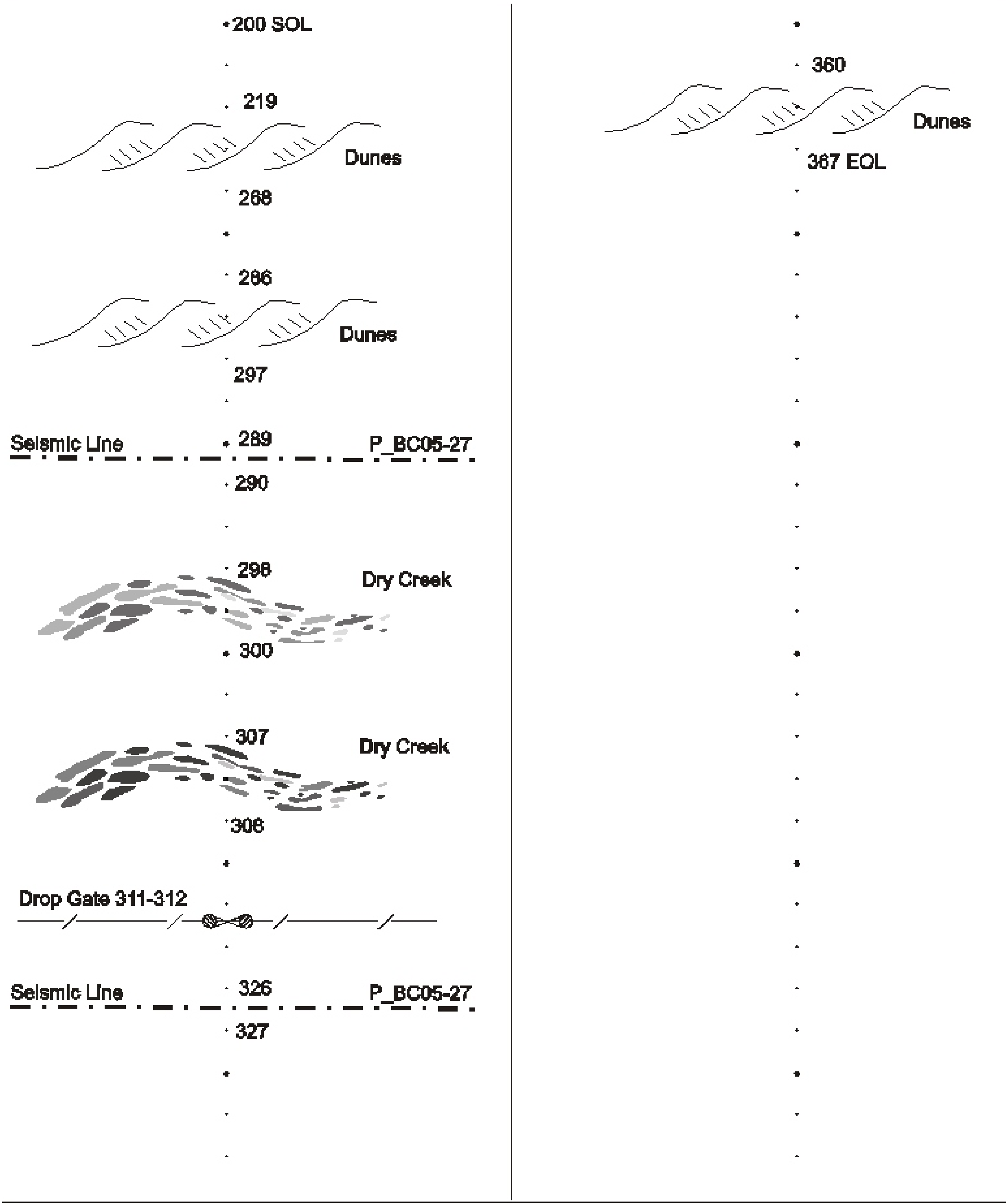
DSS-FF-07
REV 8.0
August 2004

## LINE: BC05-24

PROJECT/JOB # 05007 CLIENT Terrex / Beach

PAGE 1 OF 1 AREA: MYTILUS STN INTERVAL: 37.5 m SHOT INTERVAL: ____ m

FROM STN 200 TO STN 367 SHOOTING DIRECTION: South to North BEARING: ____ °



Dynamic Satellite Surveys

# TRACE DIAGRAM

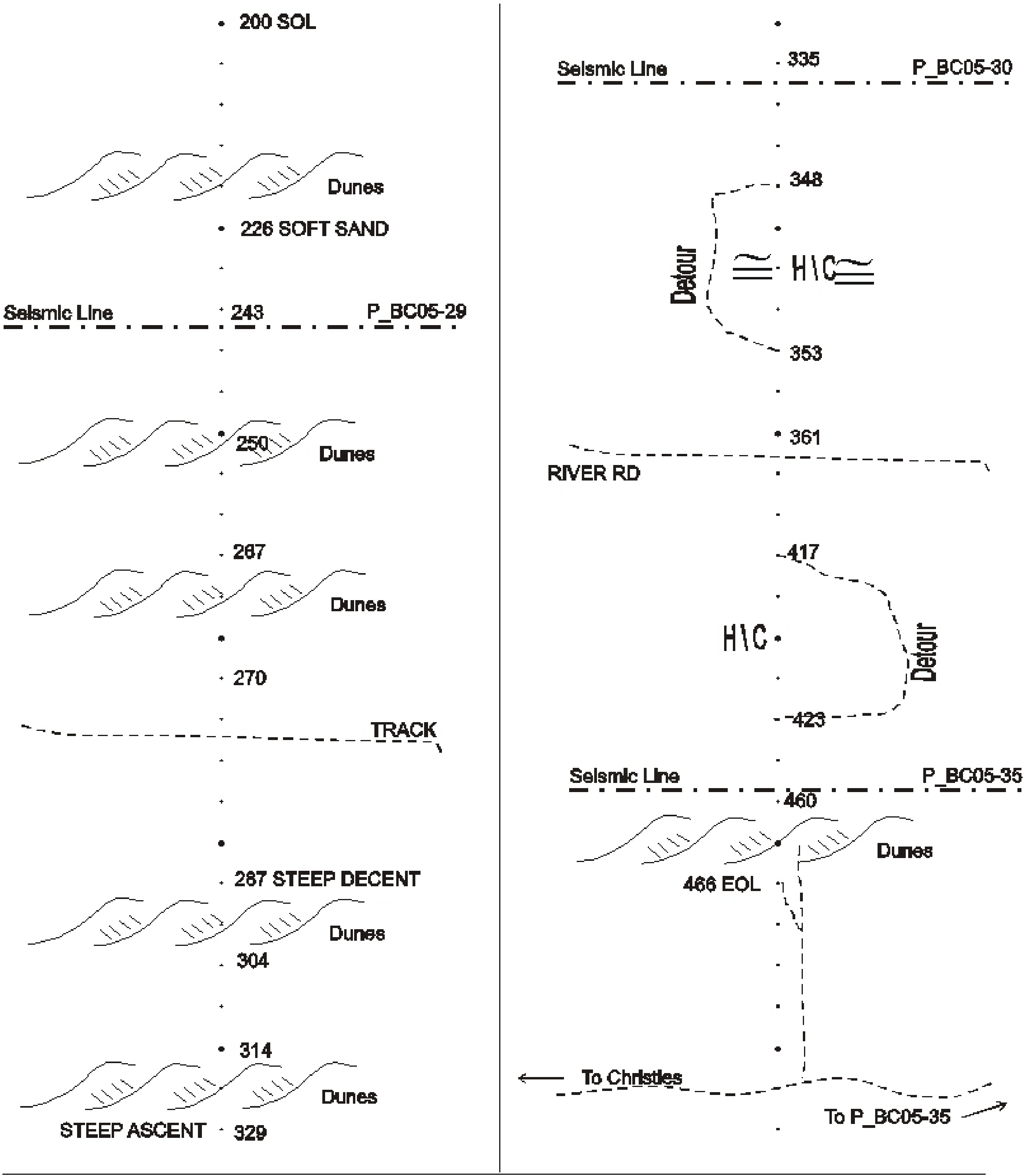
DSS-FF-07
REV 8.0
August 2004

LINE: BC05-25

PROJECT/JOB # 05007 CLIENT TERREX / BEACH

PAGE 1 OF 1 AREA: MYTILUS STN INTERVAL: 37.5 m SHOT INTERVAL: ____ m

FROM STN 200 TO STN 466 SHOOTING DIRECTION: WEST - EAST BEARING: 90 °



**Dynamic Satellite Surveys**

# TRACE DIAGRAM

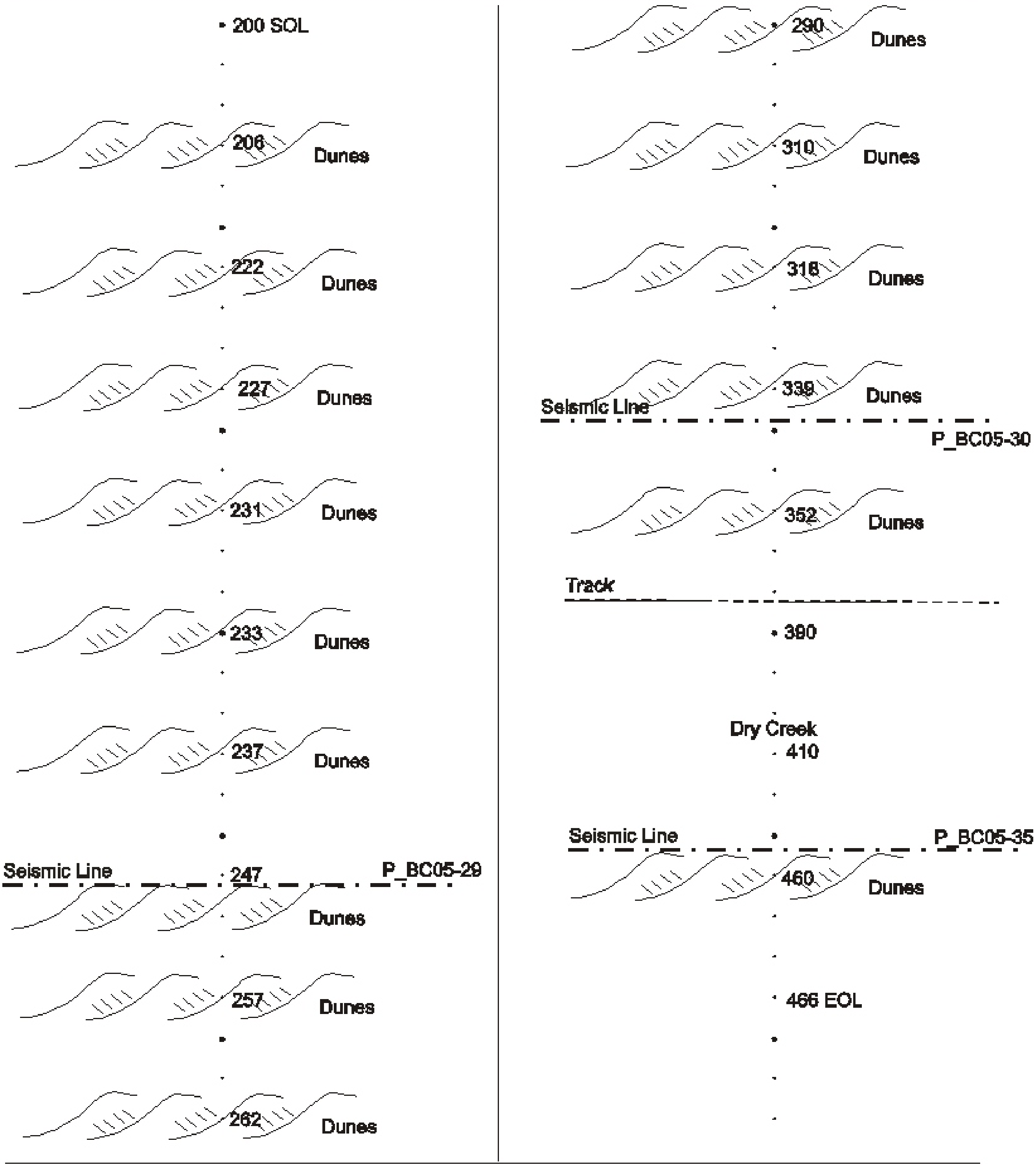
DSS-FF-07
REV 8.0
August 2004

## LINE: BC05-26

PROJECT/JOB # 05007 CLIENT Terrex / Beach

PAGE 1 OF 1 AREA: MYTILUS STN INTERVAL: 37.5 m SHOT INTERVAL: ____ m

FROM STN 200 TO STN 466 SHOOTING DIRECTION: East to West BEARING: ____ °



Dynamic Satellite Surveys

# TRACE DIAGRAM

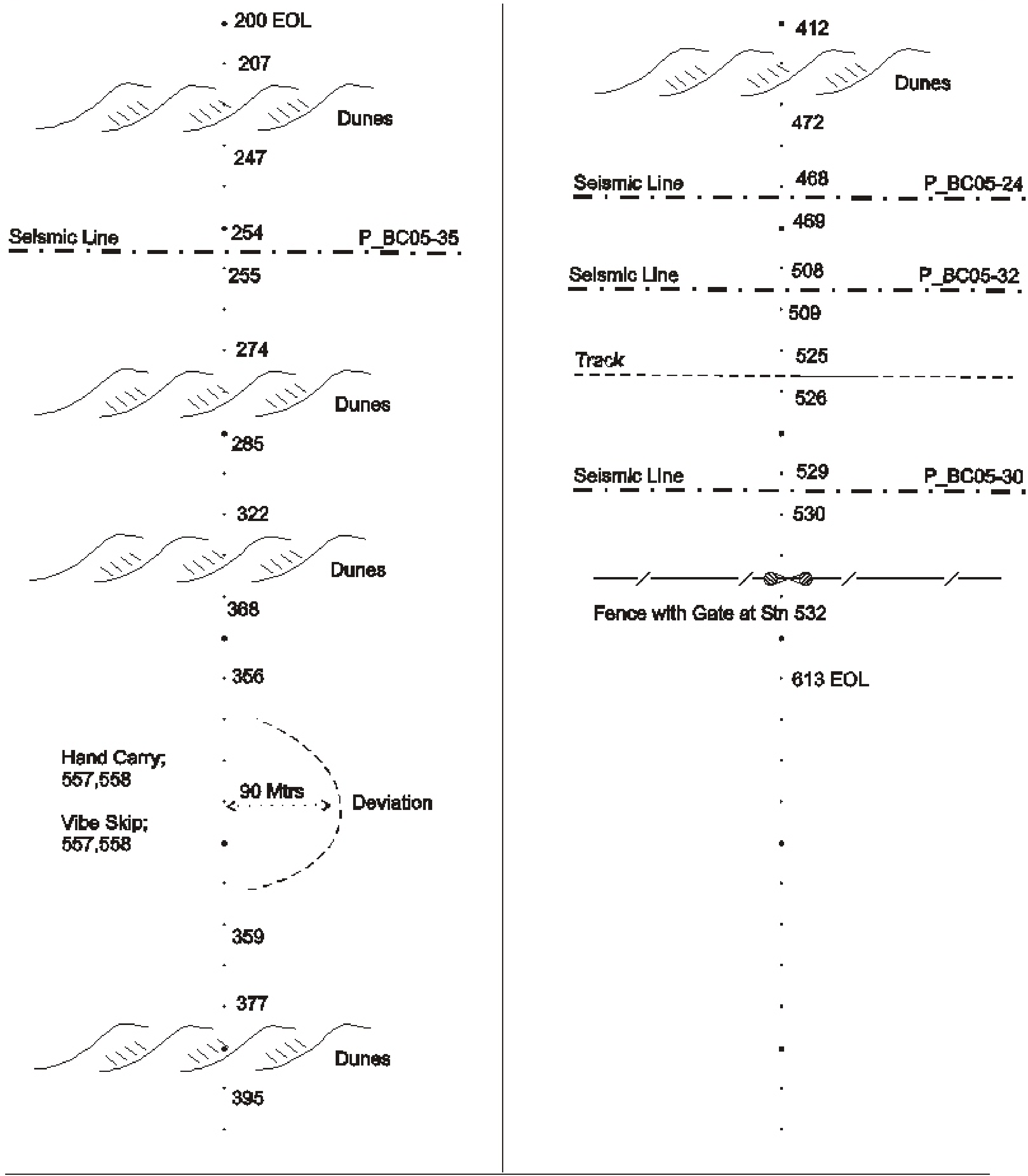
DSS-FF-07
REV 8.0
August 2004

LINE: BC05-27

PROJECT/JOB # 05007 CLIENT Terrex / Beach

PAGE 1 OF 1 AREA: MYTILUS STN INTERVAL: 37.5 m SHOT INTERVAL: ____ m

FROM STN 200 TO STN 613 SHOOTING DIRECTION: East to West BEARING: ____ °



**Dynamic Satellite Surveys**

TRACE DIAGRAM

DSS-FF-07
REV 8.0
August 2004

LINE: BC05-28

PROJECT/JOB # 05007 CLIENT Terrex / Beach

PAGE 1 OF 2 AREA: MYTILUS STN INTERVAL: 37.5 m SHOT INTERVAL: ____ m

FROM STN 200 TO STN 521 SHOOTING DIRECTION: West to East BEARING: ____ °

Dynamic Satellite Surveys

TRACE DIAGRAM

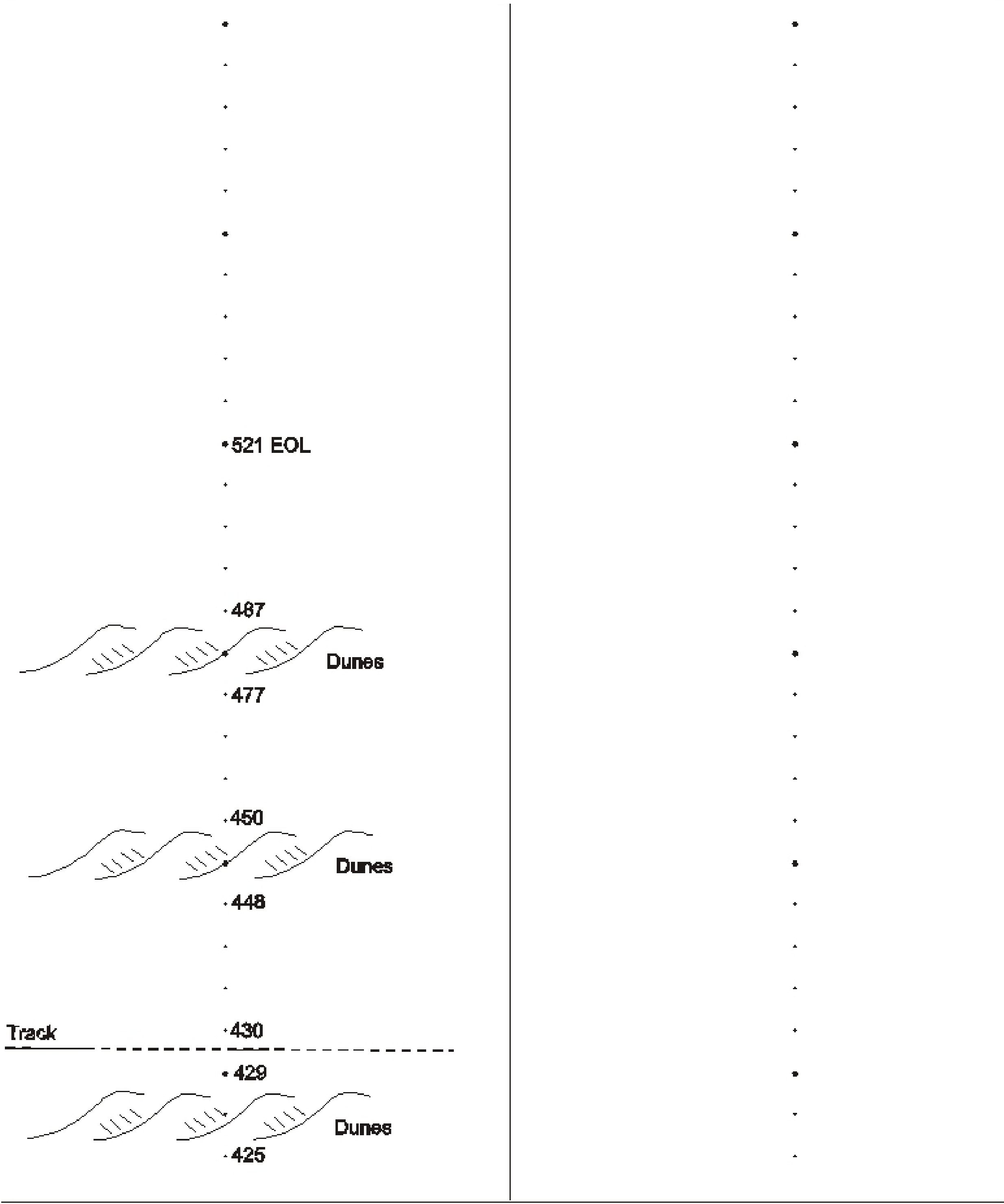
DSS-FF-07
REV 8.0
August 2004

LINE: BC05-28

PROJECT/JOB # 05007 CLIENT Terrex / Beach

PAGE 2 OF 2 AREA: MYTILUS STN INTERVAL: 37.5 m SHOT INTERVAL: ____ m

FROM STN 200 TO STN 521 SHOOTING DIRECTION: West to East BEARING: ____ °



Dynamic Satellite Surveys

TRACE DIAGRAM

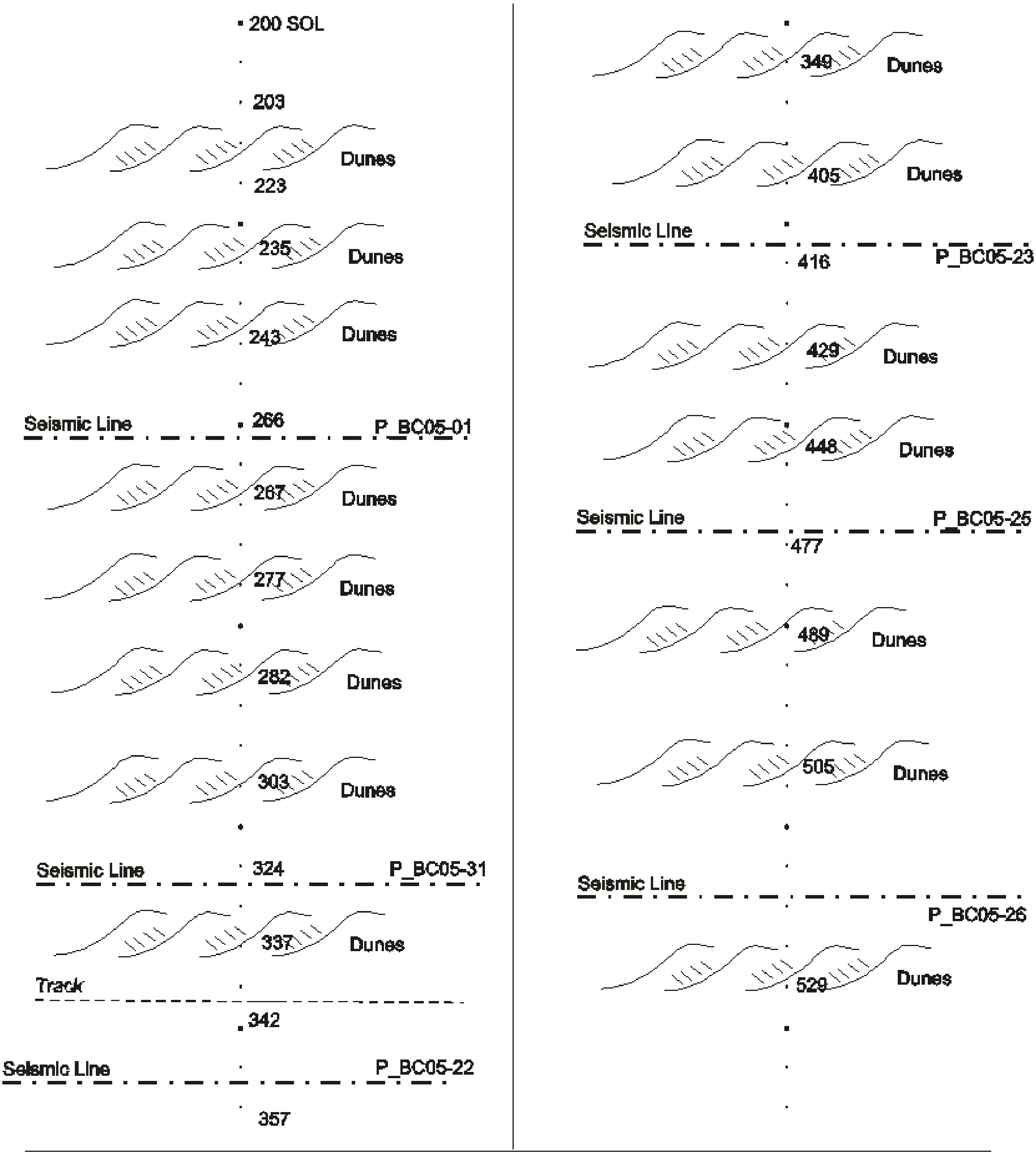
DSS-FF-07
REV 8.0
August 2004

LINE: BC05-29

PROJECT/JOB # 05007 CLIENT Terrex / Beach

PAGE 1 OF 2 AREA: MYTILUS STN INTERVAL: 37.5 m SHOT INTERVAL: ____ m

FROM STN 200 TO STN 529 SHOOTING DIRECTION: South to North BEARING: ____ °



Dynamic Satellite Surveys

## TRACE DIAGRAM

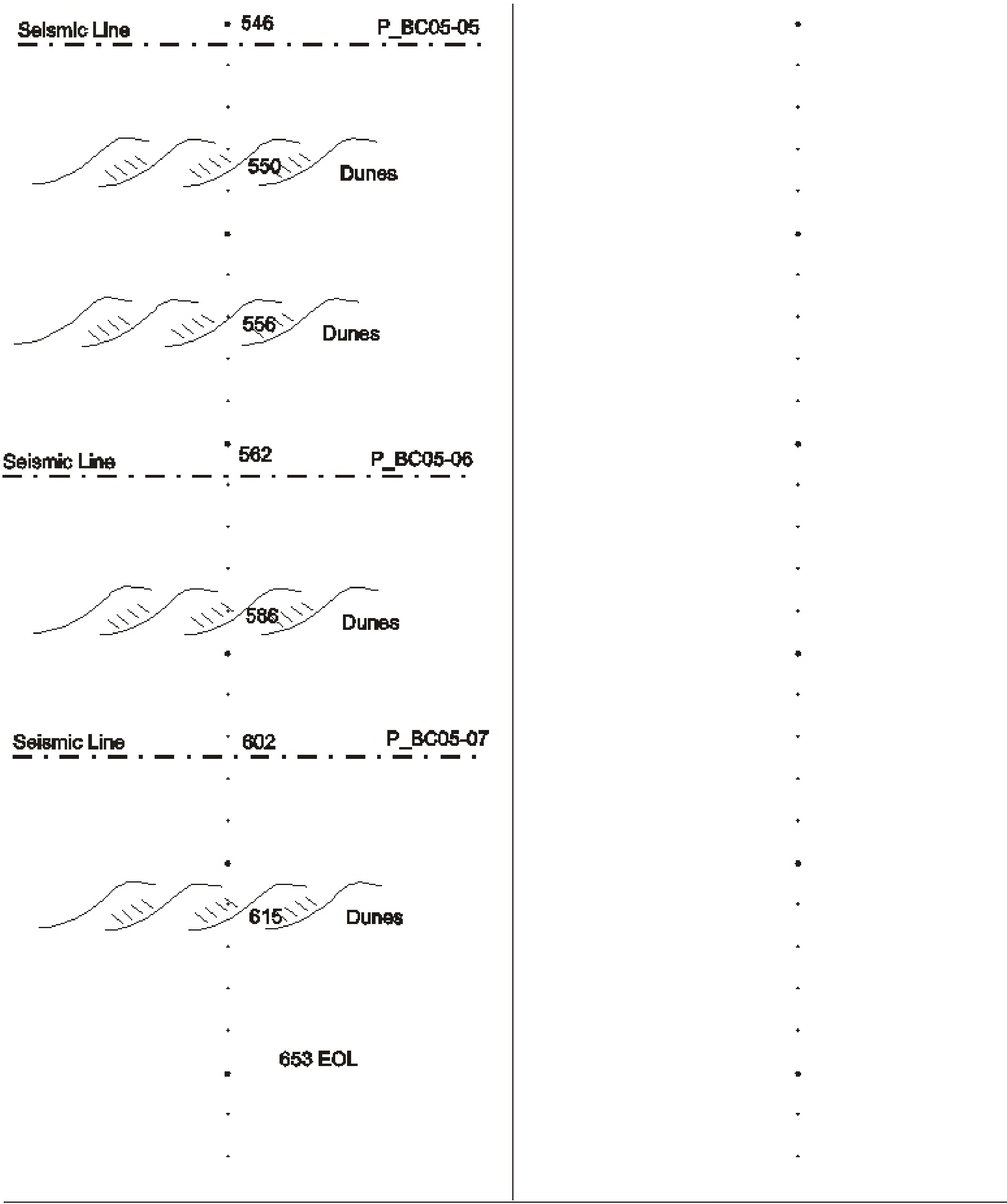
DSS-FF-07
REV 8.0
August 2004

LINE: BC05-29

PROJECT/JOB # 05007 CLIENT Terrex / Beach

PAGE 2 OF 2 AREA: MYTILUS STN INTERVAL: 37.5 m SHOT INTERVAL: ____ m

FROM STN 529 TO STN 653 SHOOTING DIRECTION: South to North BEARING: ### °



**Dynamic Satellite Surveys**

TRACE DIAGRAM

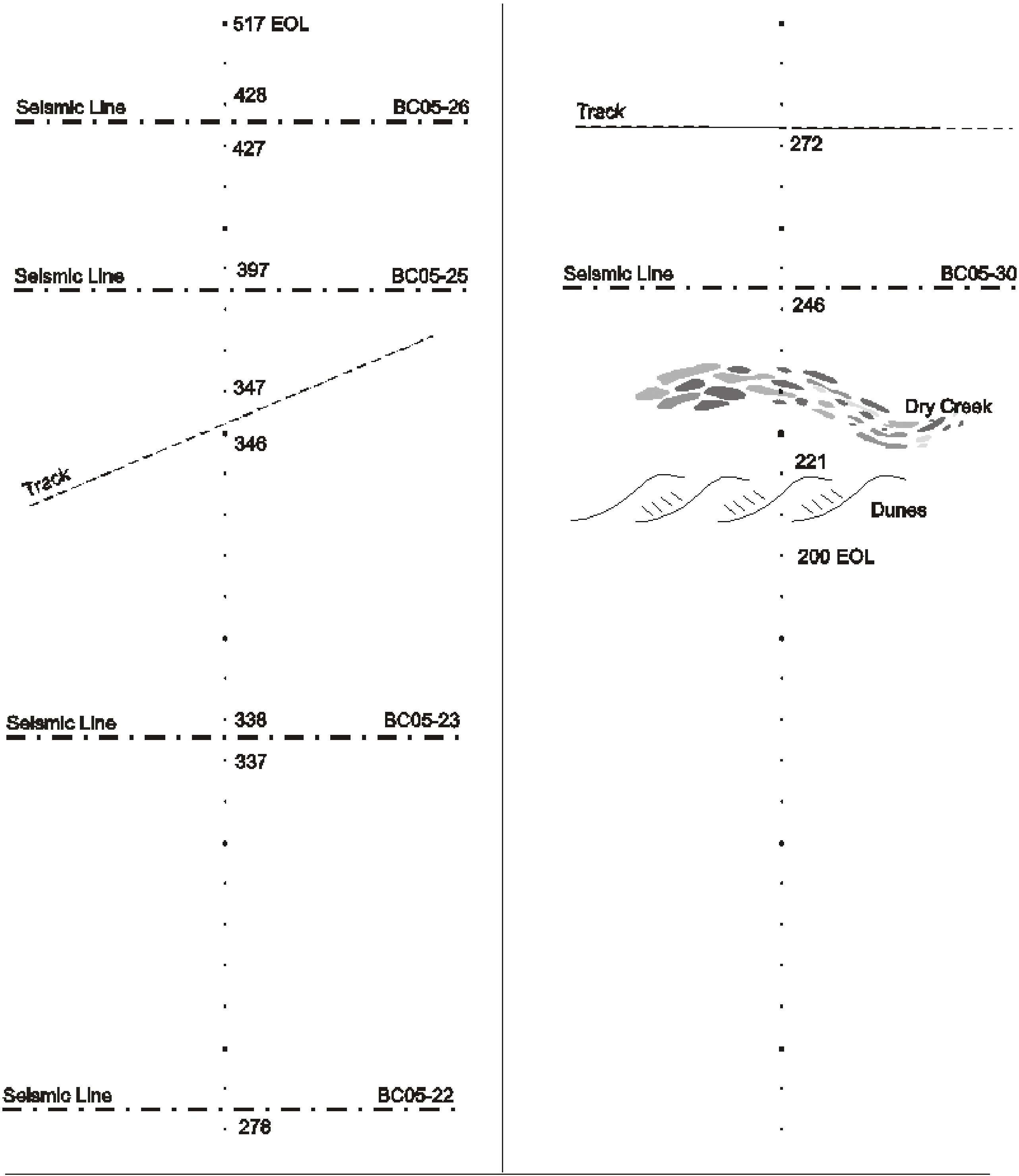
DSS-FF-07
REV 8.0
August 2004

LINE: BC05-30

PROJECT/JOB # 05007 CLIENT Terrex / Beach

PAGE 1 OF 1 AREA: MYTILUS STN INTERVAL: 37.5 m SHOT INTERVAL: ____ m

FROM STN 517 TO STN 200 SHOOTING DIRECTION: ____ BEARING: ____ °



Dynamic Satellite Surveys

## TRACE DIAGRAM

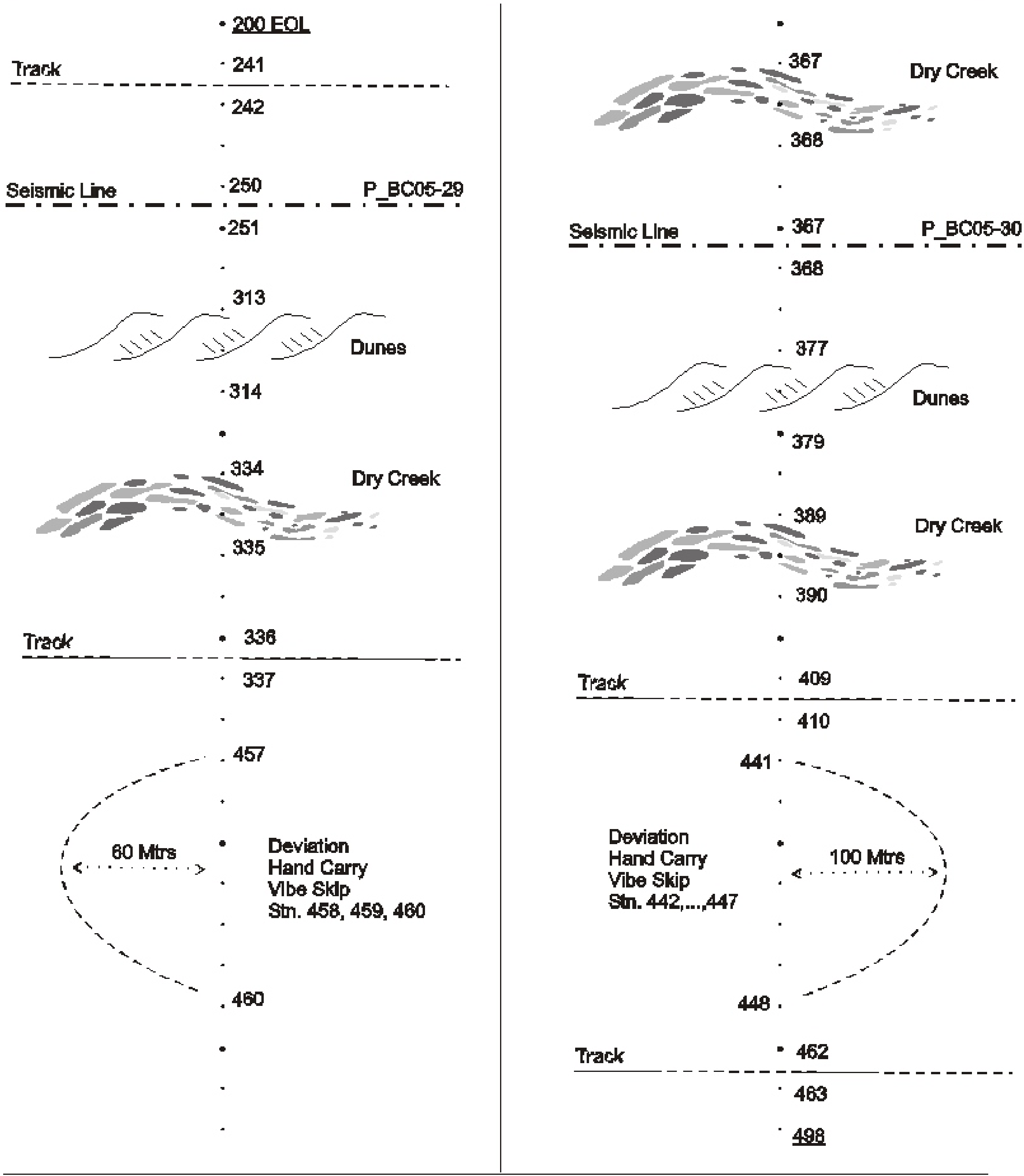
DSS-FF-07
REV 8.0
August 2004

LINE: BC05-31

PROJECT/JOB # 05007 CLIENT Terrex / Beach

PAGE 1 OF 2 AREA: MYTILUS STN INTERVAL: 37.5 m SHOT INTERVAL: ______ m

FROM STN 200 TO STN 498 SHOOTING DIRECTION: West to East BEARING: ______ °



Dynamic Satellite Surveys

# TRACE DIAGRAM

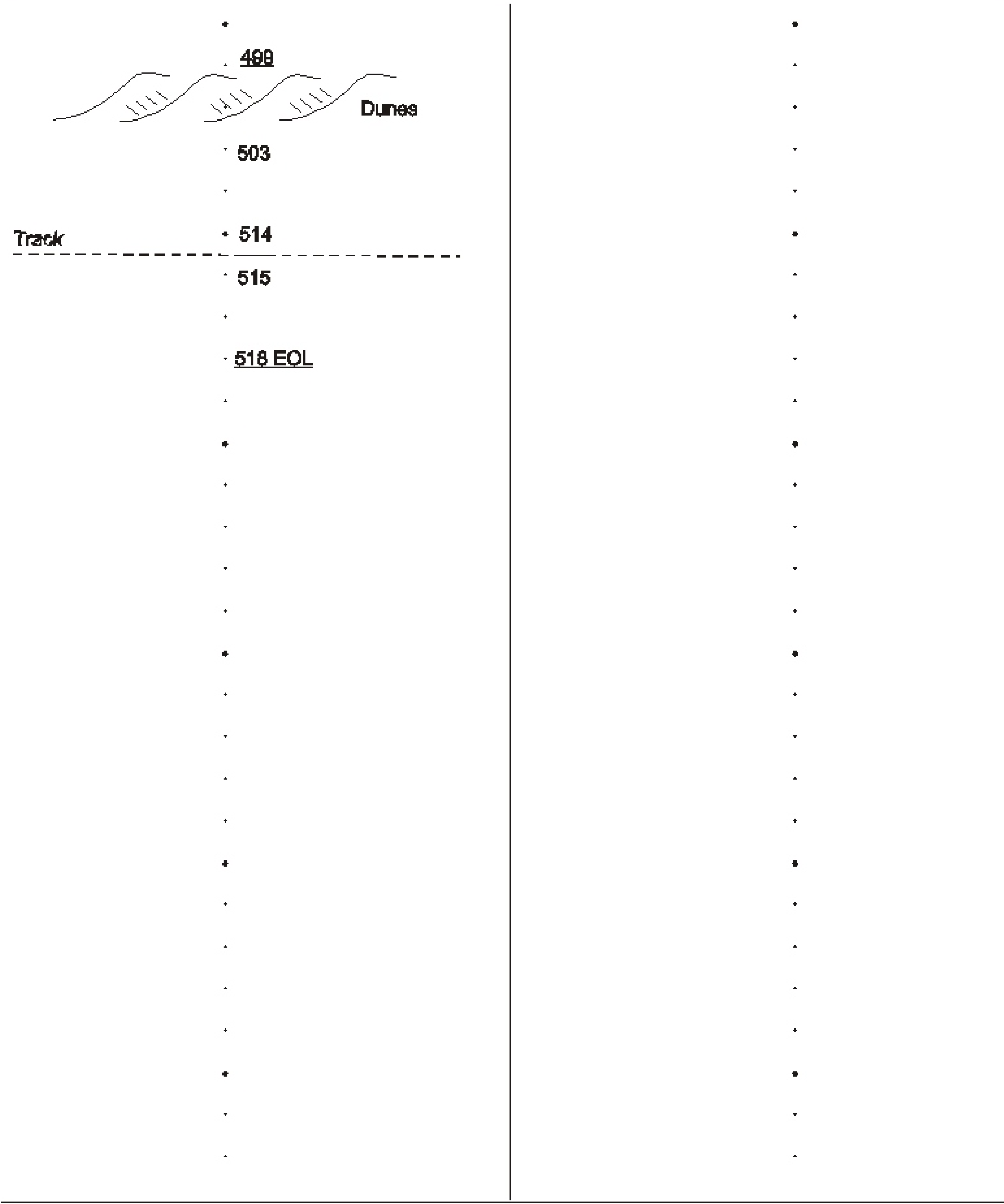
DSS-FF-07
REV 8.0
August 2004

LINE: BC05-31

PROJECT/JOB # 05007 CLIENT Terrex / Beach

PAGE 2 OF 2 AREA: MYTILUS STN INTERVAL: 37.5 m SHOT INTERVAL: ____ m

FROM STN 499 TO STN 518 SHOOTING DIRECTION: West to East BEARING: ____ °



Dynamic Satellite Surveys

## TRACE DIAGRAM

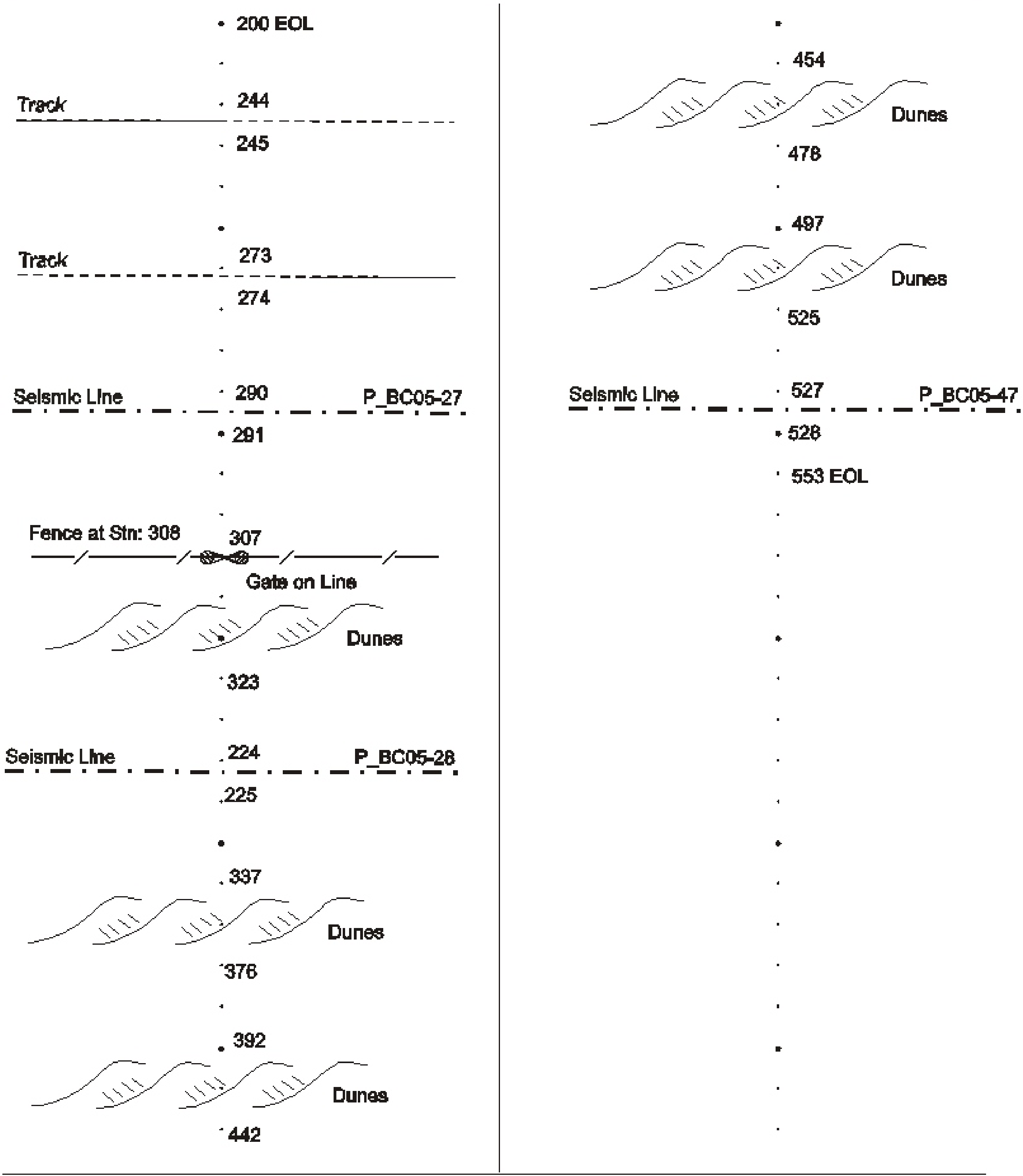
DSS-FF-07
REV 8.0
August 2004

LINE: BC05-32

PROJECT/JOB # 05007 CLIENT Terrex / Beach

PAGE 1 OF 1 AREA: MYTILUS STN INTERVAL: 37.5 m SHOT INTERVAL: ______ m

FROM STN 200 TO STN 553 SHOOTING DIRECTION: North to South BEARING: ______ °



Dynamic Satellite Surveys

# TRACE DIAGRAM

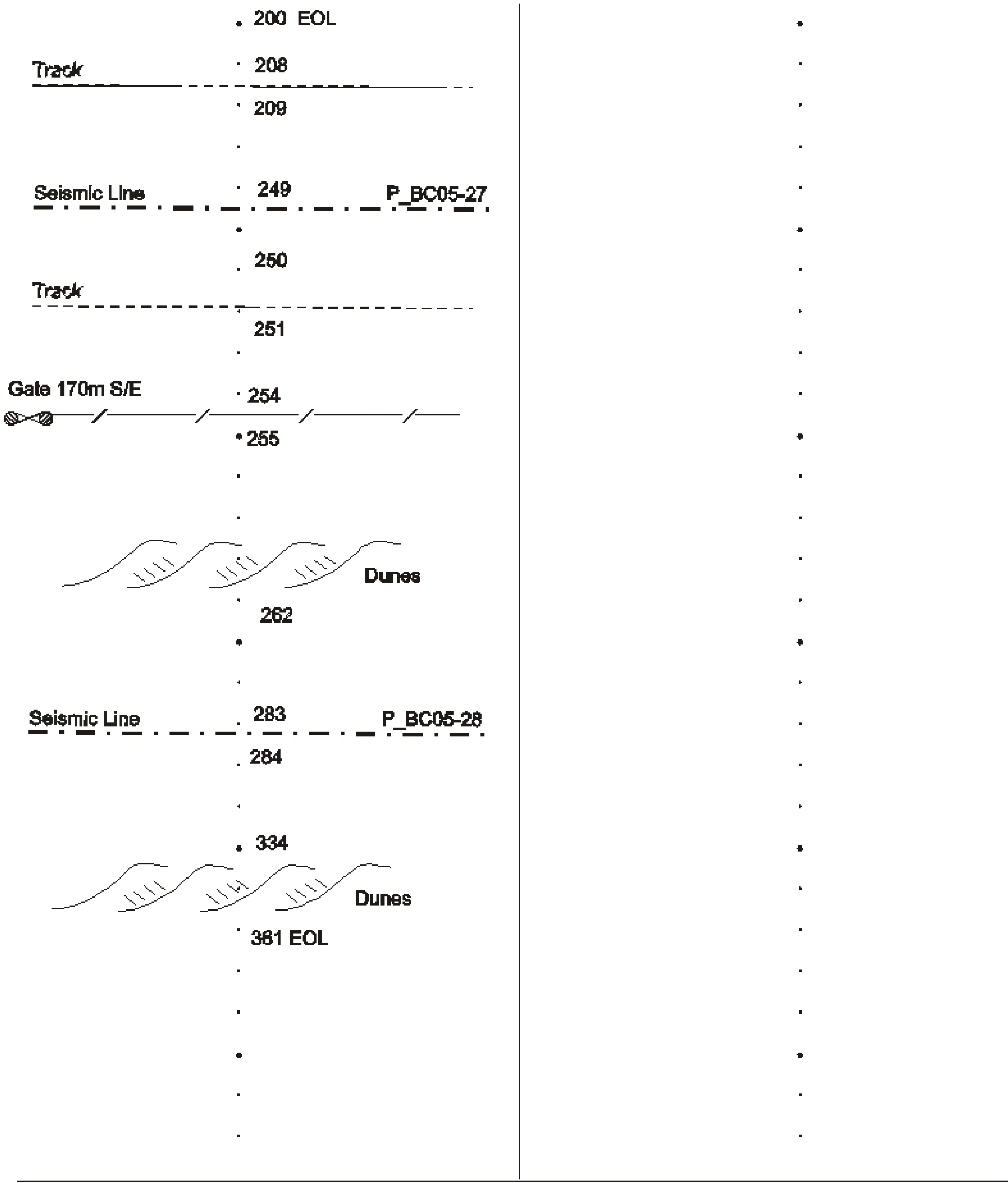
DSS-FF-07
REV 8.0
August 2004

LINE: BC05-33

PROJECT/JOB # 05007 CLIENT Terrex / Beach

PAGE 1 OF 1 AREA: MYTILUS STN INTERVAL: 37.5 m SHOT INTERVAL: ____ m

FROM STN 200 TO STN 361 SHOOTING DIRECTION: North to South BEARING: ____ °



**Dynamic Satellite Surveys**

# TRACE DIAGRAM

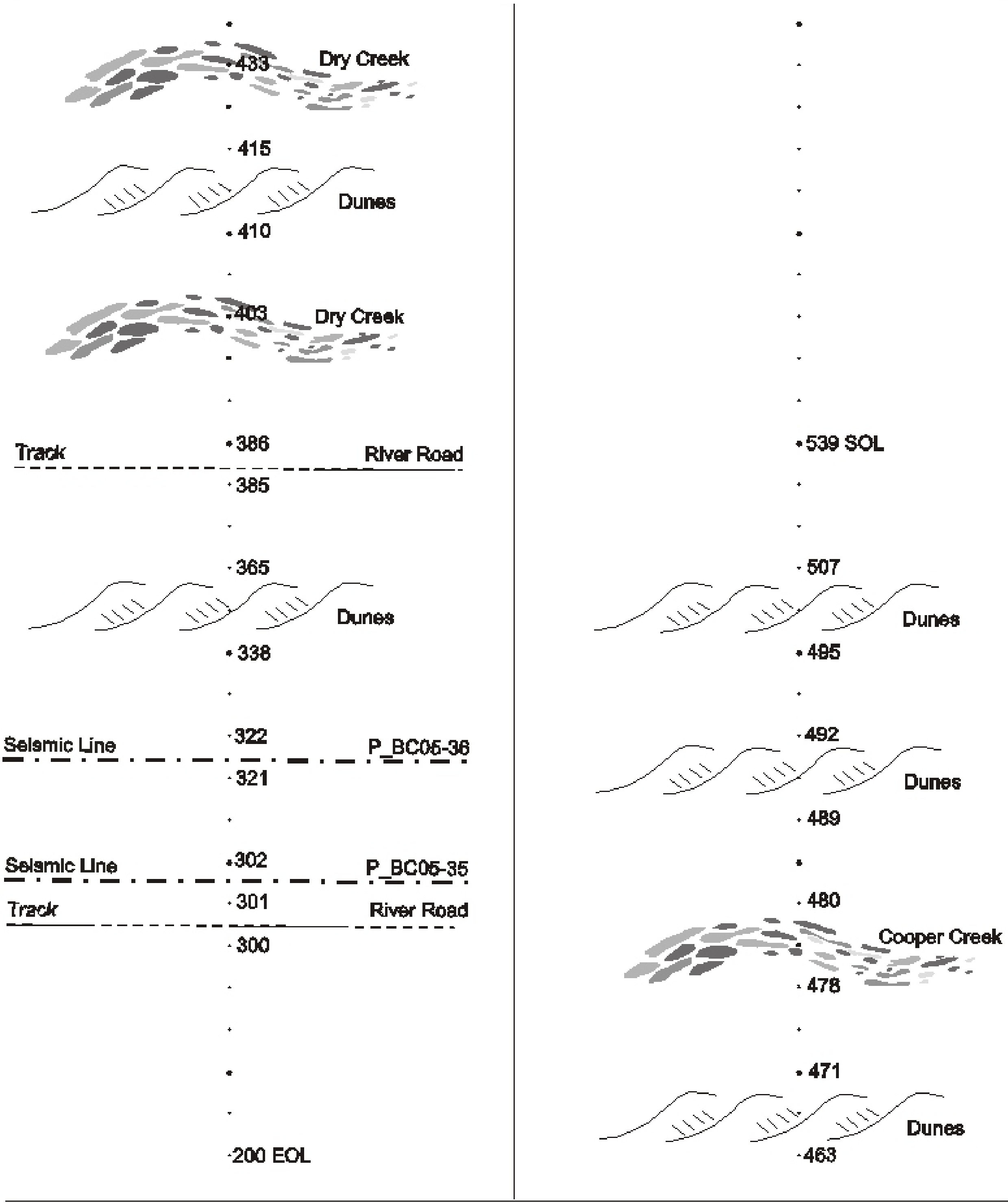
DSS-FF-07
REV 8.0
August 2004

## LINE: BC05-34

PROJECT/JOB # 05007 CLIENT Terrex / Beach

PAGE 1 OF 1 AREA: MYTILUS STN INTERVAL: 37.5 m SHOT INTERVAL: ______ m

FROM STN 200 TO STN 539 SHOOTING DIRECTION: East to West BEARING: ______ °



Dynamic Satellite Surveys

# TRACE DIAGRAM

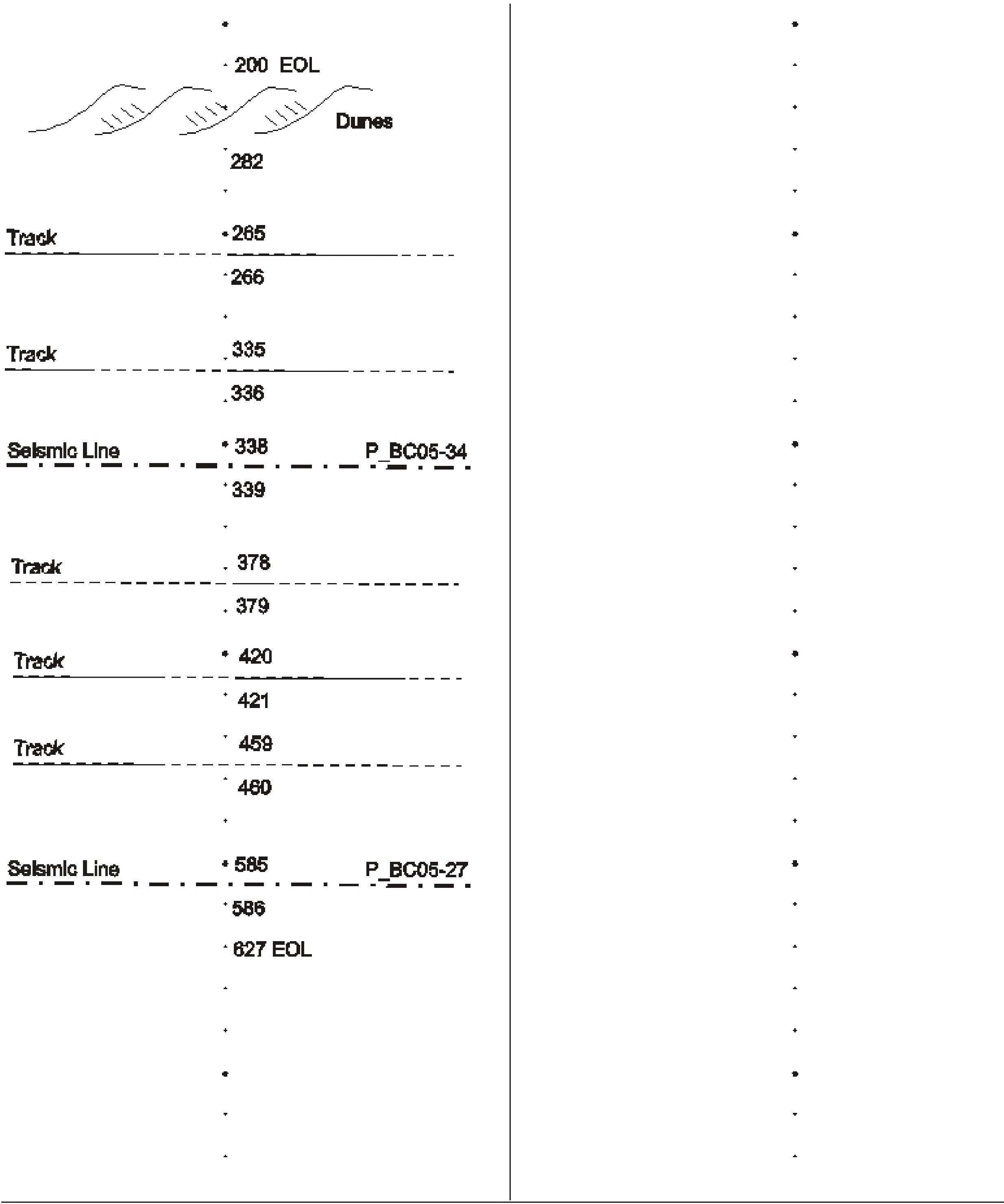
DSS-FF-07
REV 8.0
August 2004

LINE: BC05-35

PROJECT/JOB # 05007 CLIENT Terrex / Beach

PAGE 1 OF 1 AREA: MYTILUS STN INTERVAL: 37.5 m SHOT INTERVAL: ____ m

FROM STN 200 TO STN 627 SHOOTING DIRECTION: North to South BEARING: ____ °



**Dynamic Satellite Surveys**

# TRACE DIAGRAM

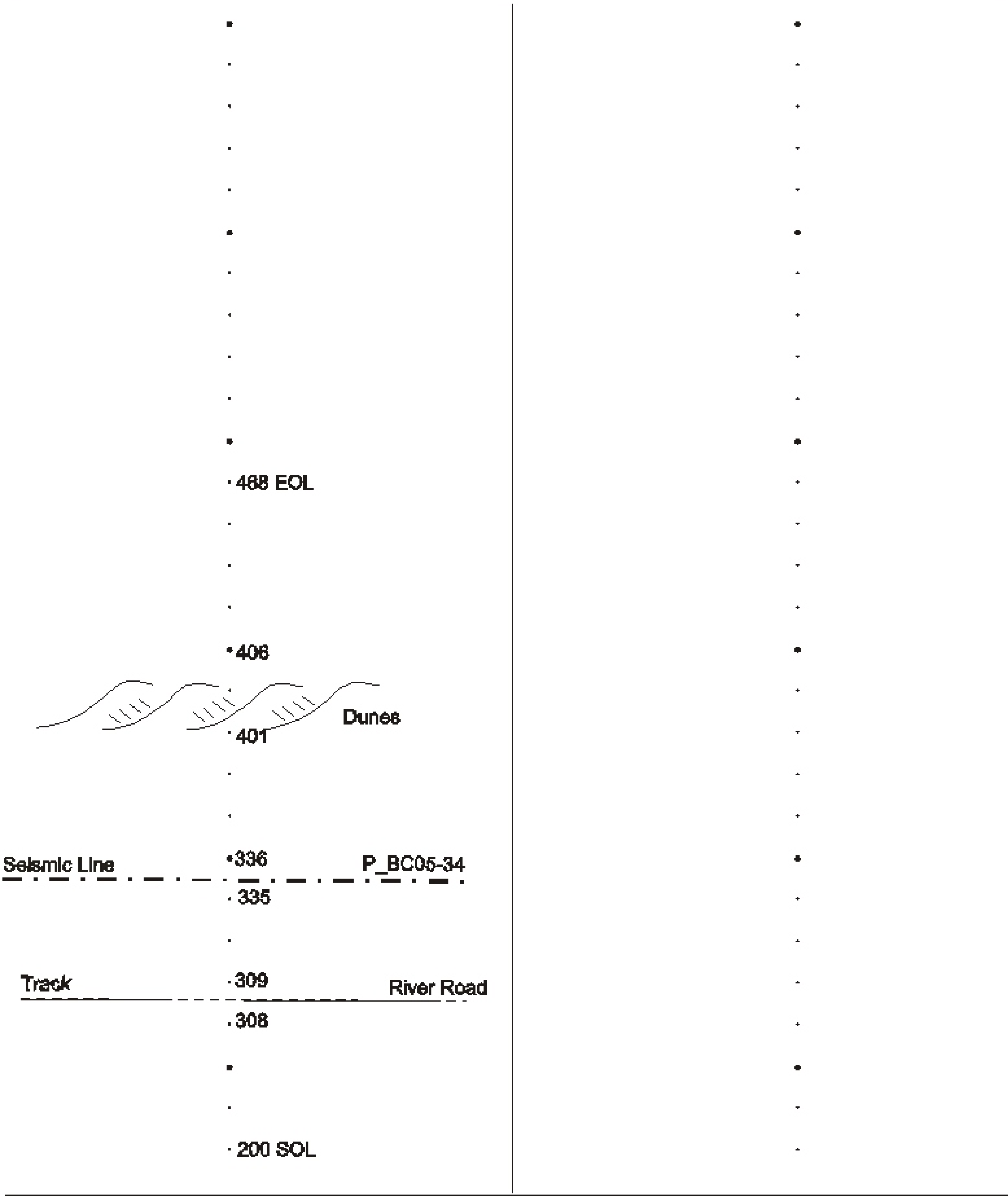
DSS-FF-07
REV 8.0
August 2004

LINE: BC05-36

PROJECT/JOB # 05007 CLIENT Terrex / Beach

PAGE 1 OF 1 AREA: MYTILUS STN INTERVAL: 37.5 m SHOT INTERVAL: ____ m

FROM STN 200 TO STN 468 SHOOTING DIRECTION: South to North BEARING: ____ °



Dynamic Satellite Surveys

# TRACE DIAGRAM

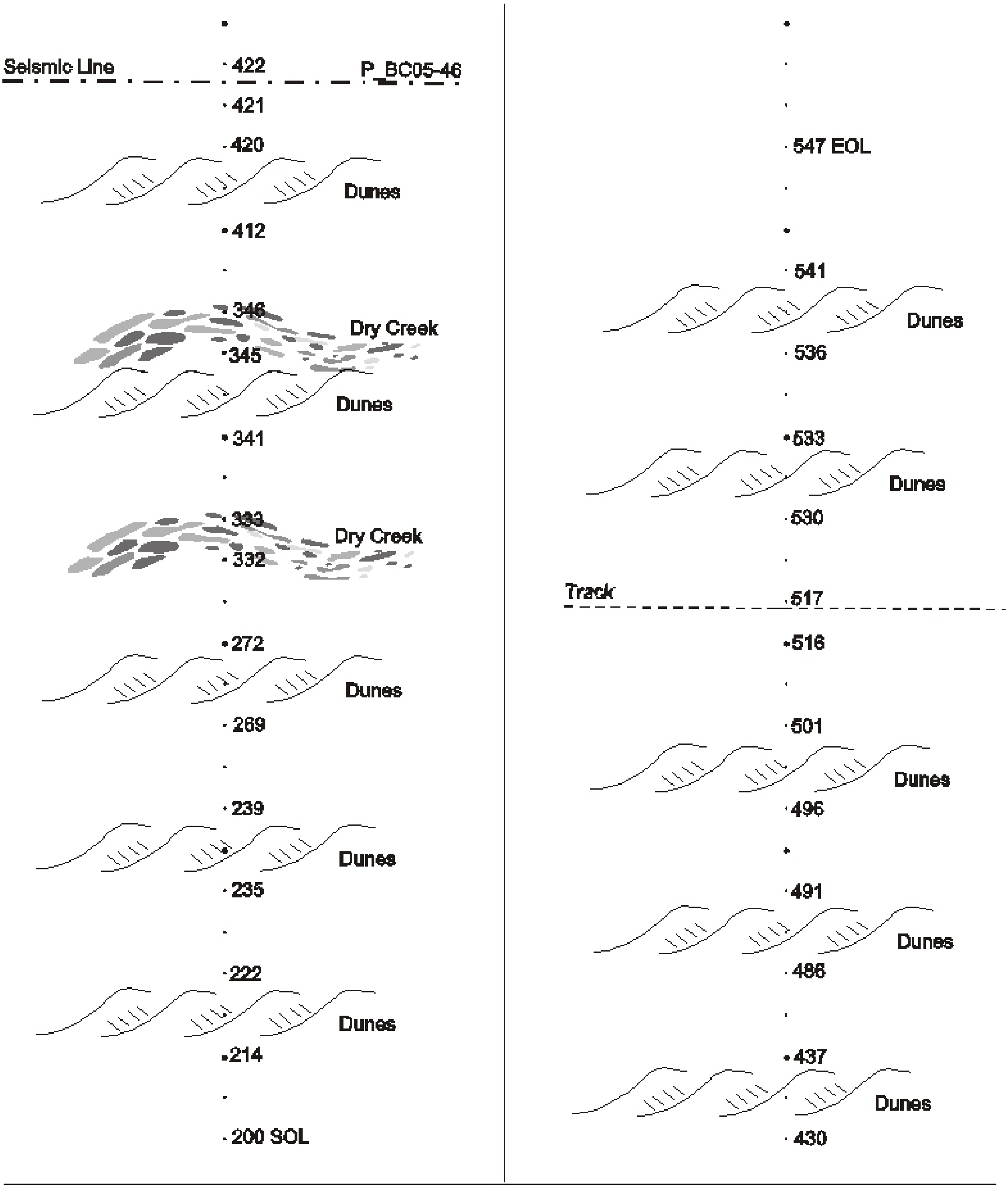
DSS-FF-07
REV 8.0
August 2004

LINE: BC05-37

PROJECT/JOB # 05007 CLIENT Terrex / Beach

PAGE 1 OF 1 AREA: MYTILUS STN INTERVAL: 37.5 m SHOT INTERVAL: ____ m

FROM STN 200 TO STN 547 SHOOTING DIRECTION: West to East BEARING: ____ °



Dynamic Satellite Surveys

# TRACE DIAGRAM

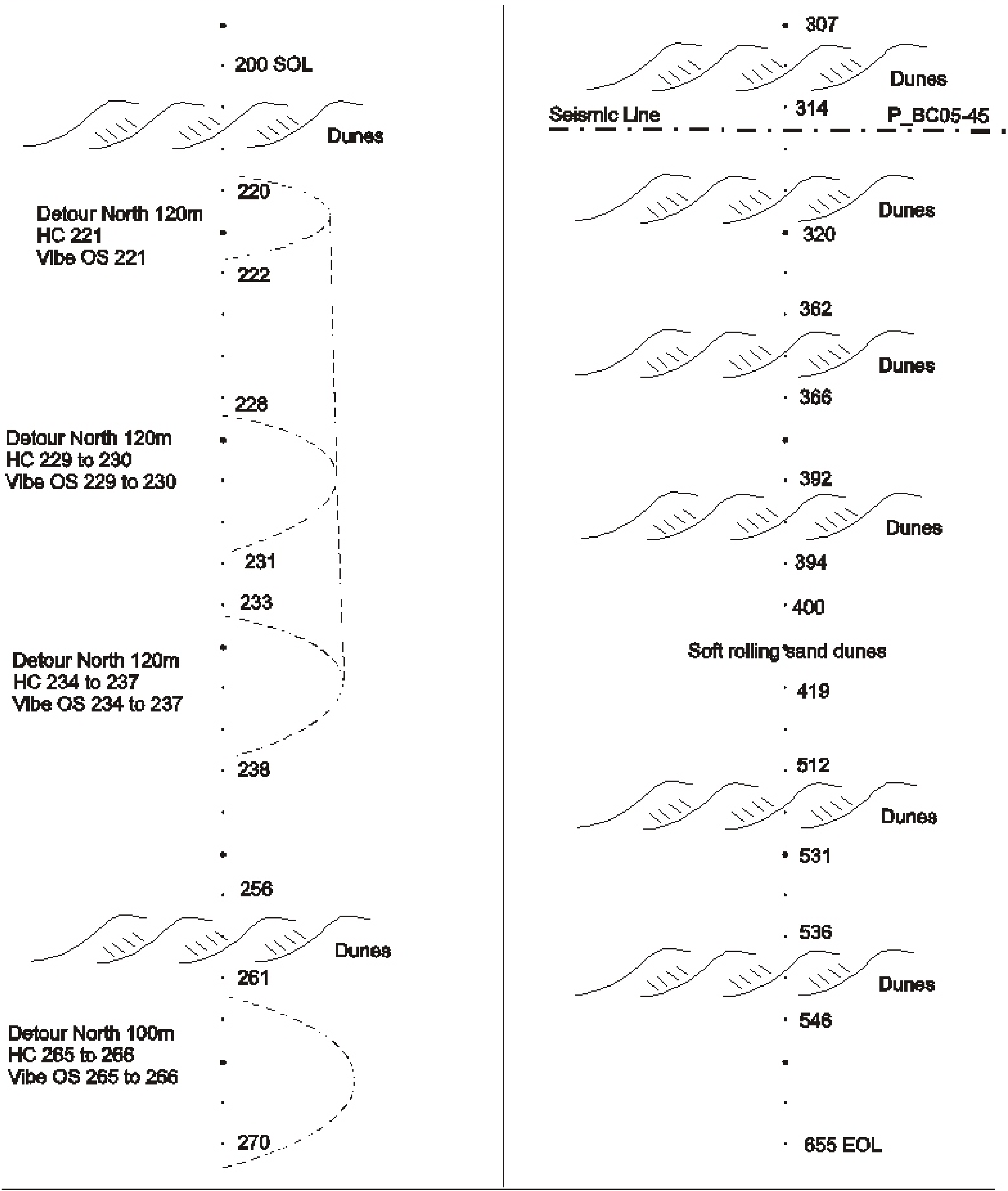
DSS-FF-07
REV 8.0
August 2004

LINE: BC05-38

PROJECT/JOB # 05007 CLIENT Terrex / Beach

PAGE 1 OF 1 AREA: MYTILUS STN INTERVAL: 37.5 m SHOT INTERVAL: ____ m

FROM STN 200 TO STN 655 SHOOTING DIRECTION: West to East BEARING: ____ °



Dynamic Satellite Surveys

## TRACE DIAGRAM

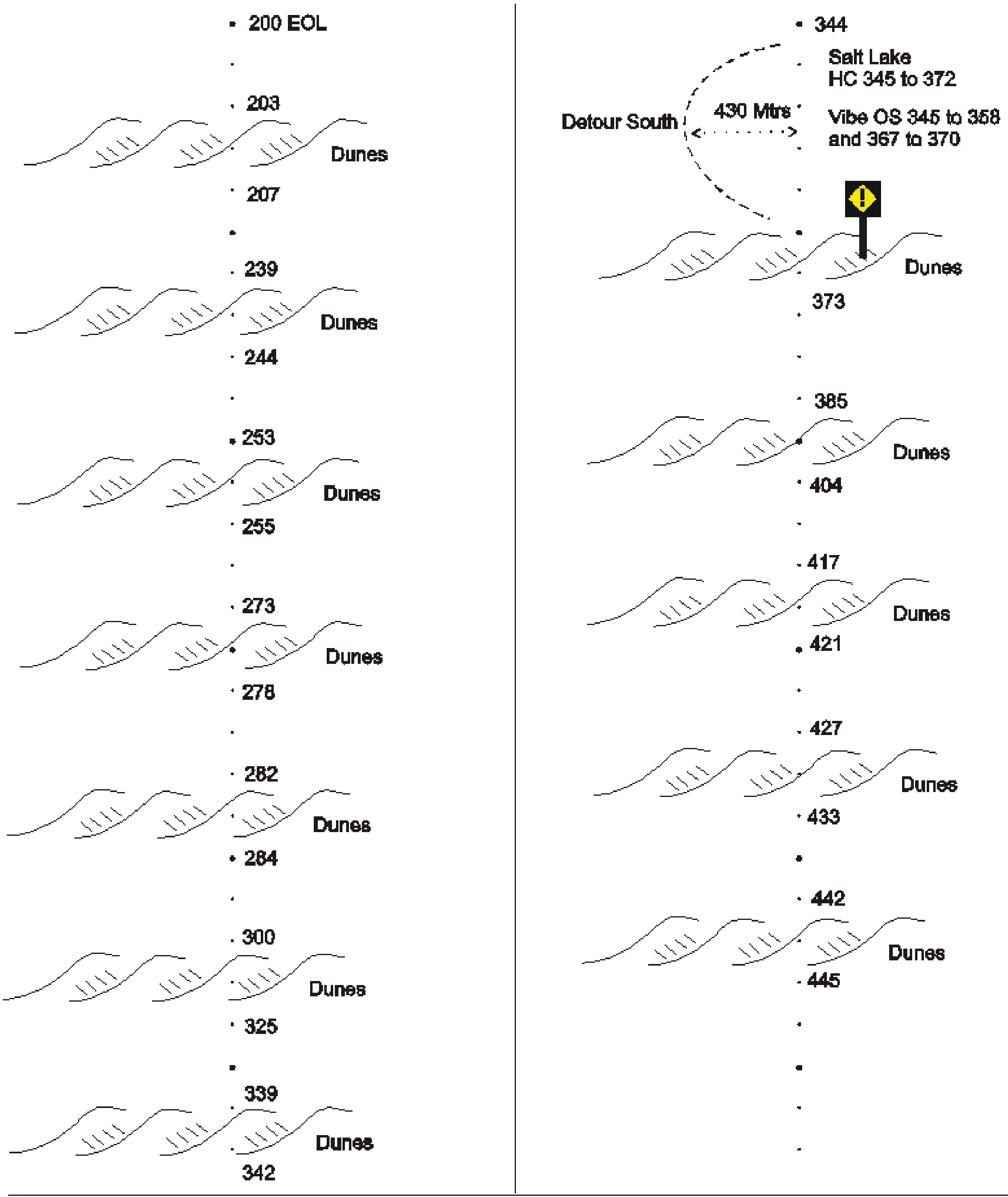
DSS-FF-07
REV 8.0
August 2004

LINE: BC05-39

PROJECT/JOB # 05007 CLIENT Terrex / Beach

PAGE 1 OF 2 AREA: MYTILUS STN INTERVAL: 37.5 m SHOT INTERVAL: ______ m

FROM STN 200 TO STN 946 SHOOTING DIRECTION: East to West BEARING: ______ °



Dynamic Satellite Surveys

TRACE DIAGRAM

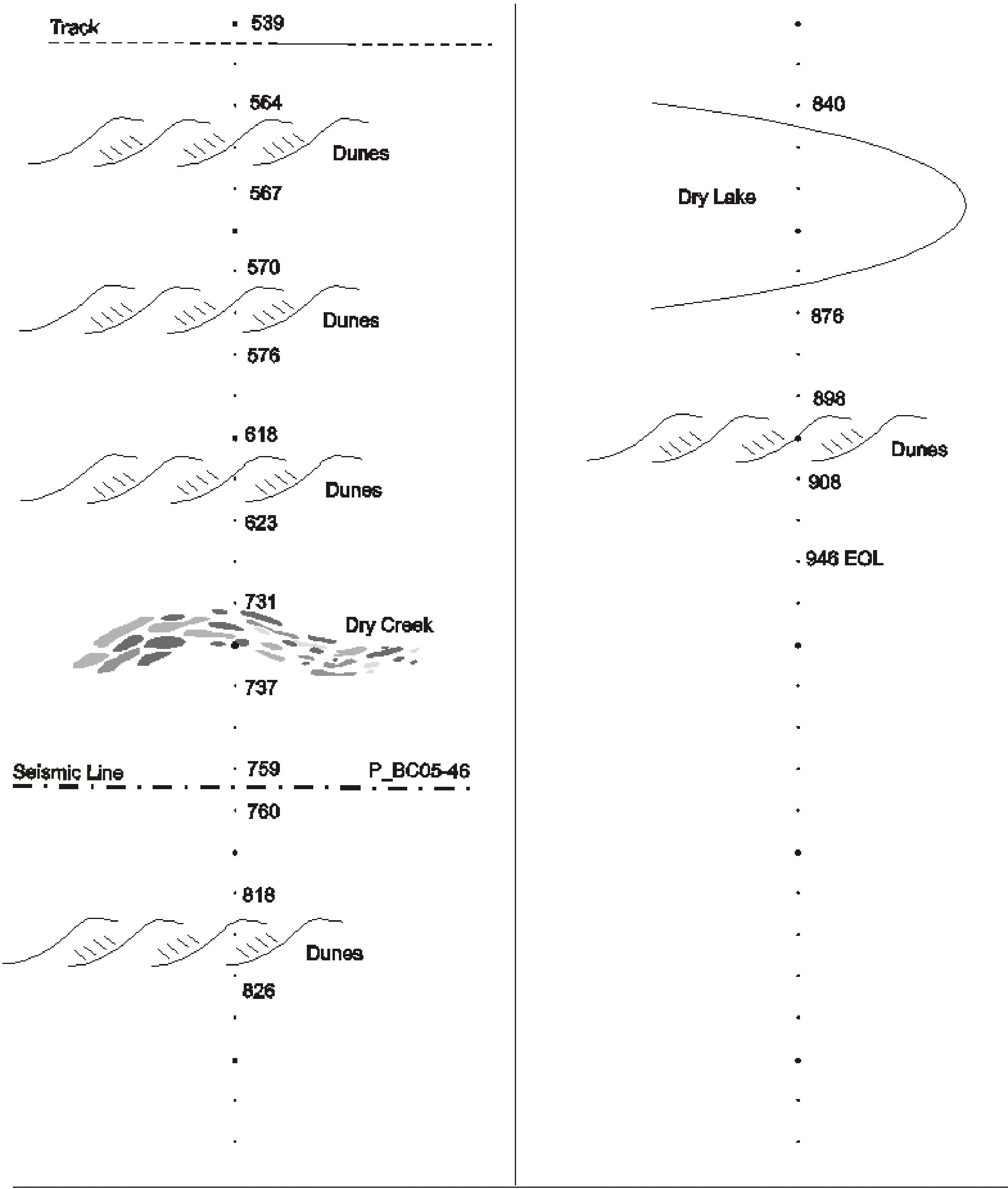
DSS-FF-07
REV 8.0
August 2004

LINE: **BC05-39**

PROJECT/JOB # **05007** CLIENT **Terrex / Beach**

PAGE **2** OF **2** AREA: **MYTILUS** STN INTERVAL: **37.5** m SHOT INTERVAL: ______ m

FROM STN **200** TO STN **946** SHOOTING DIRECTION: **East to West** BEARING: ______ °



Dynamic Satellite Surveys

TRACE DIAGRAM

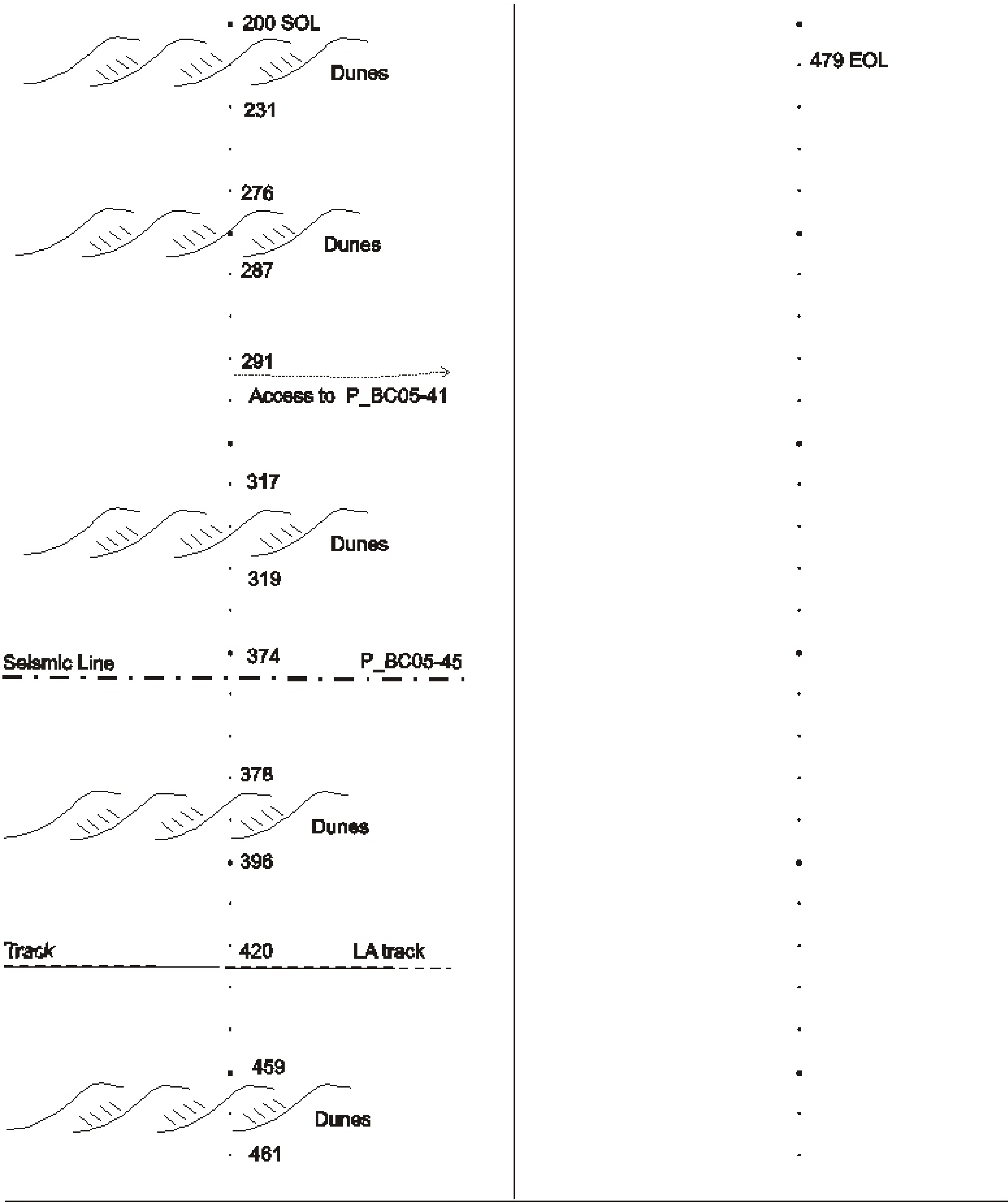
DSS-FF-07
REV 8.0
August 2004

LINE: BC05-40

PROJECT/JOB # 05007 CLIENT Terrex / Beach

PAGE 1 OF 1 AREA: MYTILUS STN INTERVAL: 37.5 m SHOT INTERVAL: ____ m

FROM STN 200 TO STN 479 SHOOTING DIRECTION: East to West BEARING: ____ °



**Dynamic Satellite Surveys**

TRACE DIAGRAM

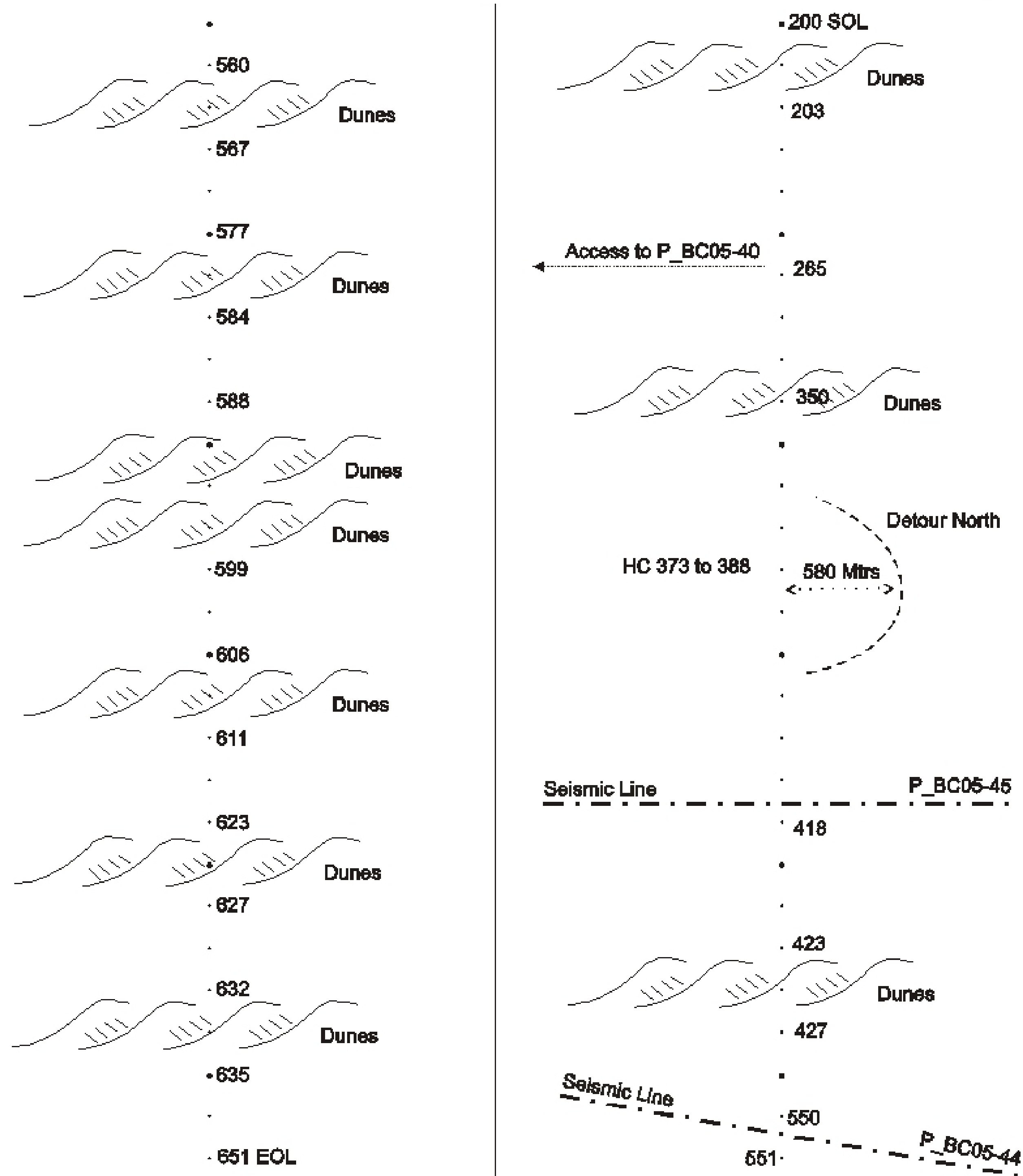
DSS-FF-07
REV 8.0
August 2004

LINE: BC05-41

PROJECT/JOB # 05007 CLIENT Terrex / Beach

PAGE 1 OF 1 AREA: MYTILUS STN INTERVAL: 37.5 m SHOT INTERVAL: ____ m

FROM STN 200 TO STN 651 SHOOTING DIRECTION: West to East BEARING: ____ °



**Dynamic Satellite Surveys**

# TRACE DIAGRAM

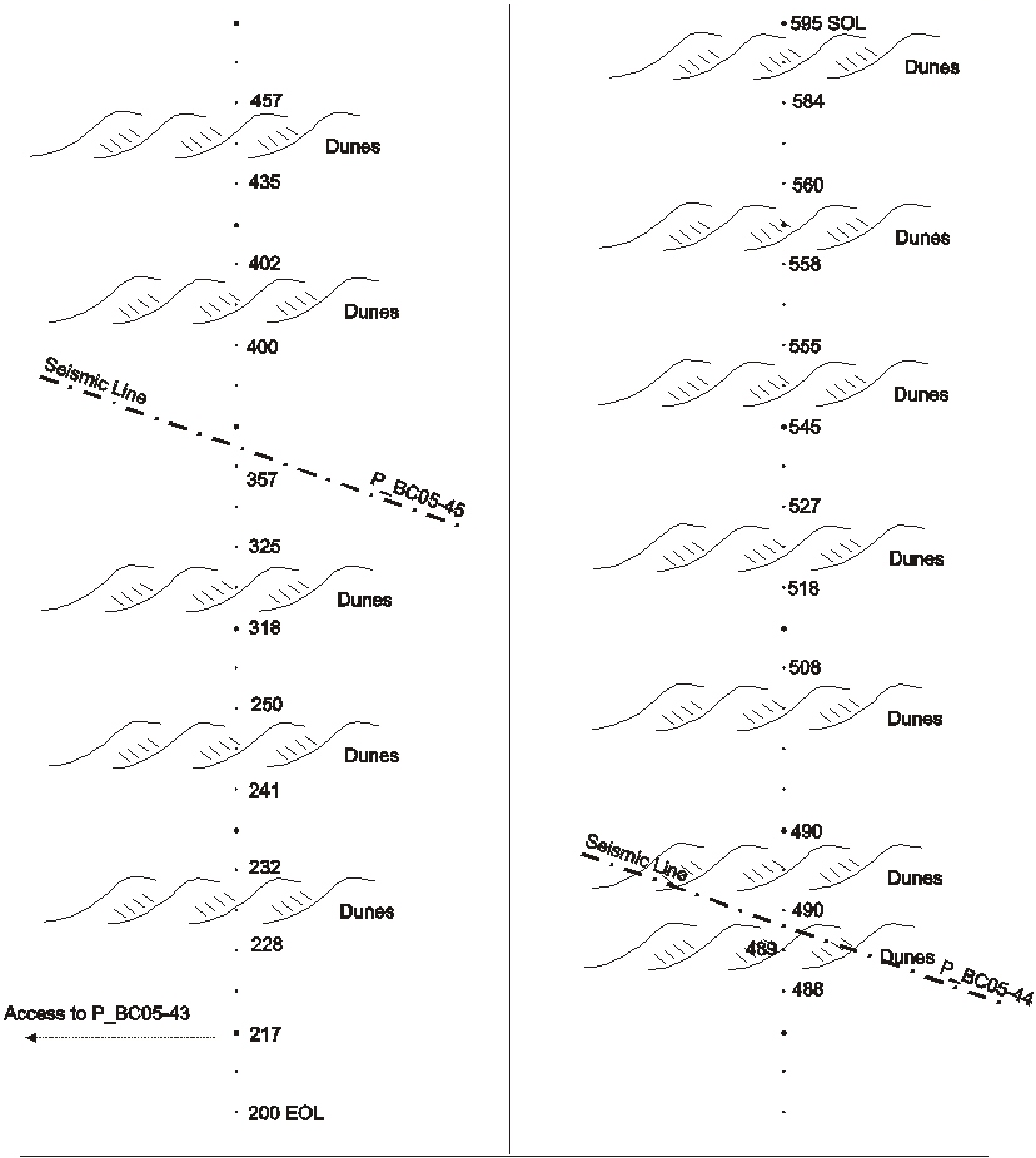
DSS-FF-07
REV 8.0
August 2004

## LINE: BC05-42

PROJECT/JOB # 05007 CLIENT Terrex / Beach

PAGE 1 OF 1 AREA: MYTILUS STN INTERVAL: 37.5 m SHOT INTERVAL: ______ m

FROM STN 200 TO STN 595 SHOOTING DIRECTION: East to West BEARING: ______ °



Dynamic Satellite Surveys

## TRACE DIAGRAM

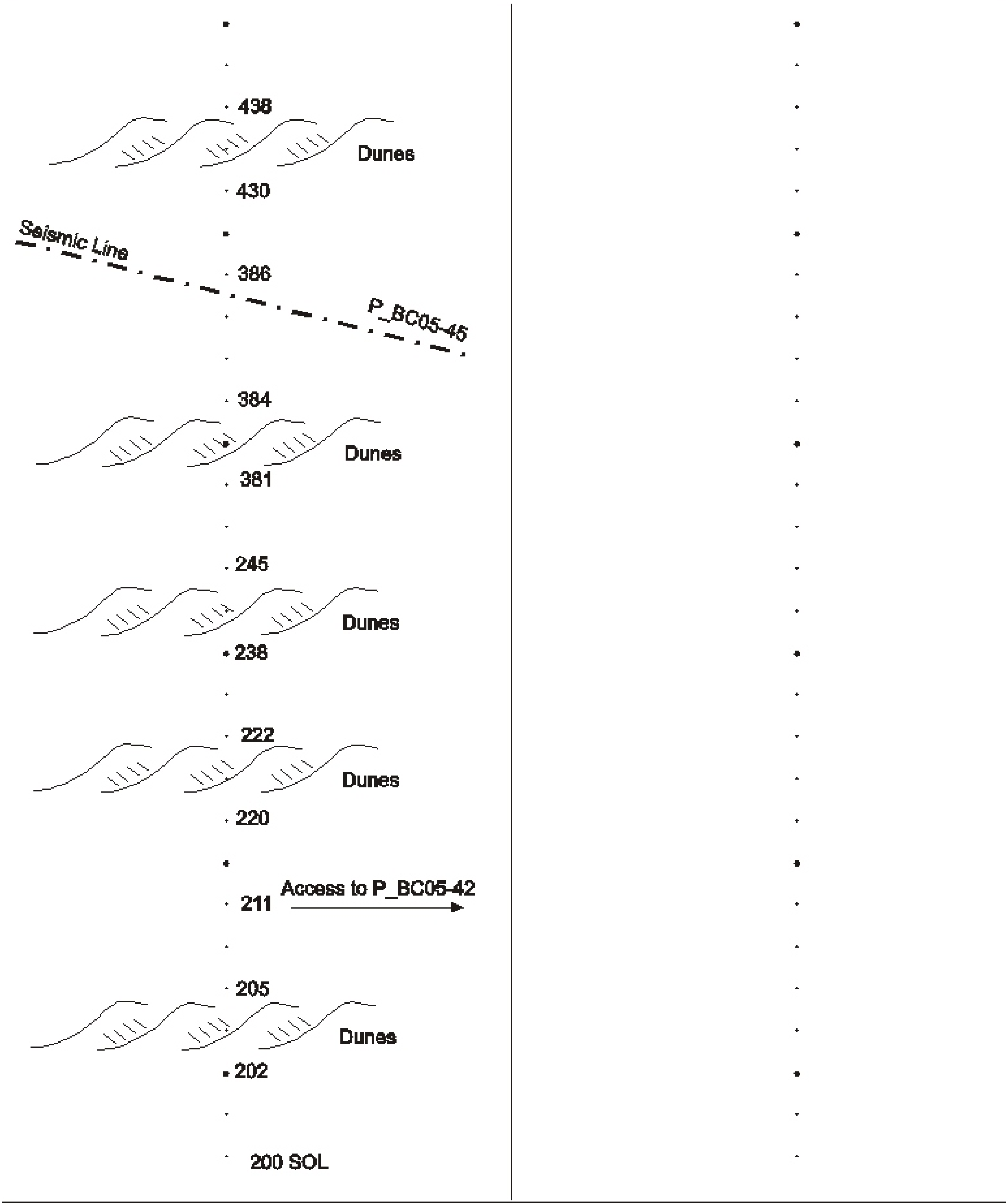
DSS-FF-07
REV 8.0
August 2004

LINE: BC05-43

PROJECT/JOB # 05007 CLIENT Terrex / Beach

PAGE 1 OF 2 AREA: MYTILUS STN INTERVAL: 37.5 m SHOT INTERVAL: ______ m

FROM STN 200 TO STN 594 SHOOTING DIRECTION: West to East BEARING: ______ °



Dynamic Satellite Surveys

# TRACE DIAGRAM

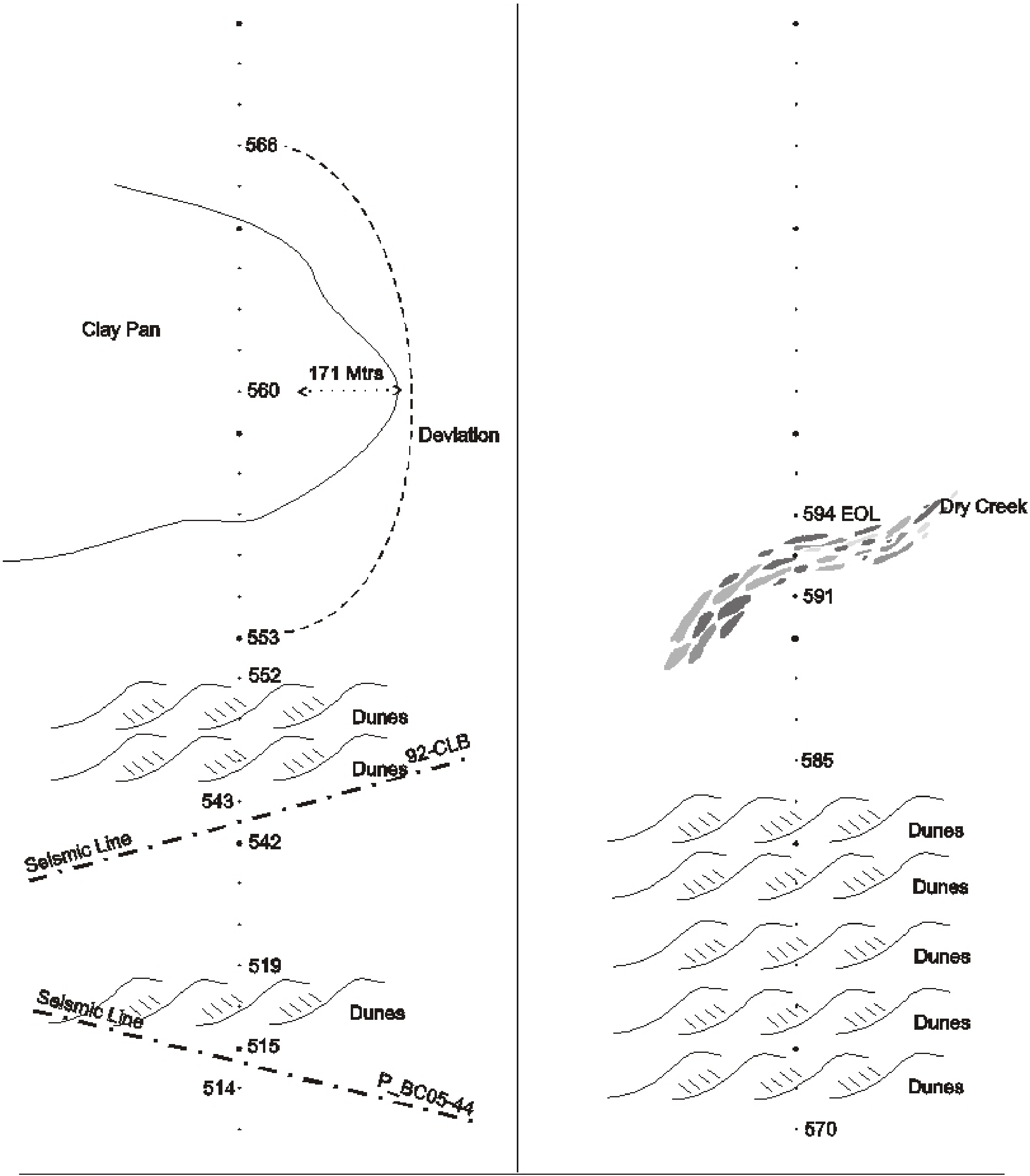
DSS-FF-07
REV 8.0
August 2004

LINE: BC05-43

PROJECT/JOB # 05007 CLIENT Terrex / Beach

PAGE 2 OF 2 AREA: MYTILUS STN INTERVAL: 37.5 m SHOT INTERVAL: ____ m

FROM STN 200 TO STN 594 SHOOTING DIRECTION: West to East BEARING: ____ °



Dynamic Satellite Surveys

TRACE DIAGRAM

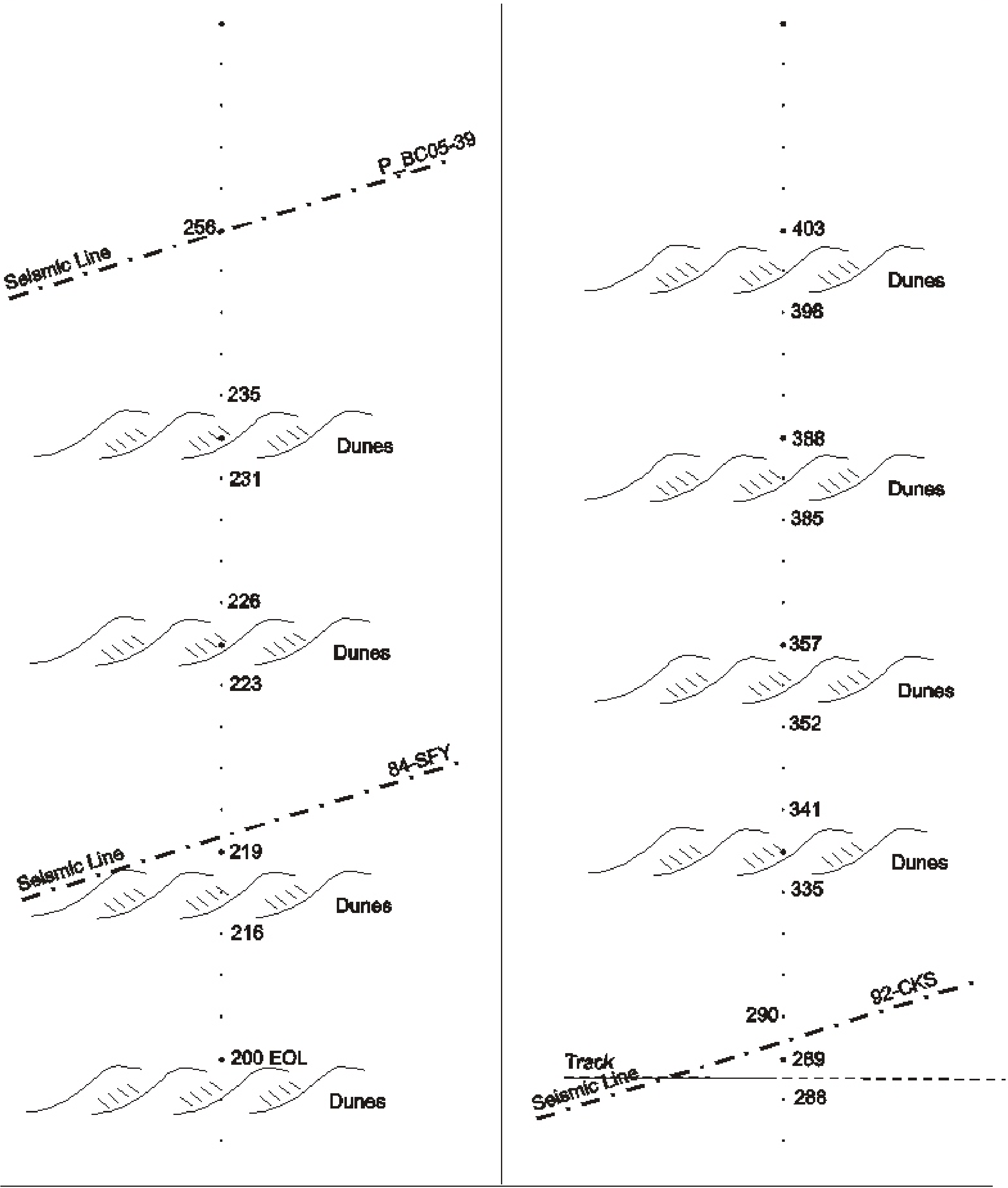
DSS-FF-07
REV 8.0
August 2004

LINE: BC05-44

PROJECT/JOB # 05007 CLIENT Terrex / Beach

PAGE 1 OF 2 AREA: MYTILUS STN INTERVAL: 37.5 m SHOT INTERVAL: ____ m

FROM STN 200 TO STN 550 SHOOTING DIRECTION: North to South BEARING: ____ °



Dynamic Satellite Surveys

# TRACE DIAGRAM

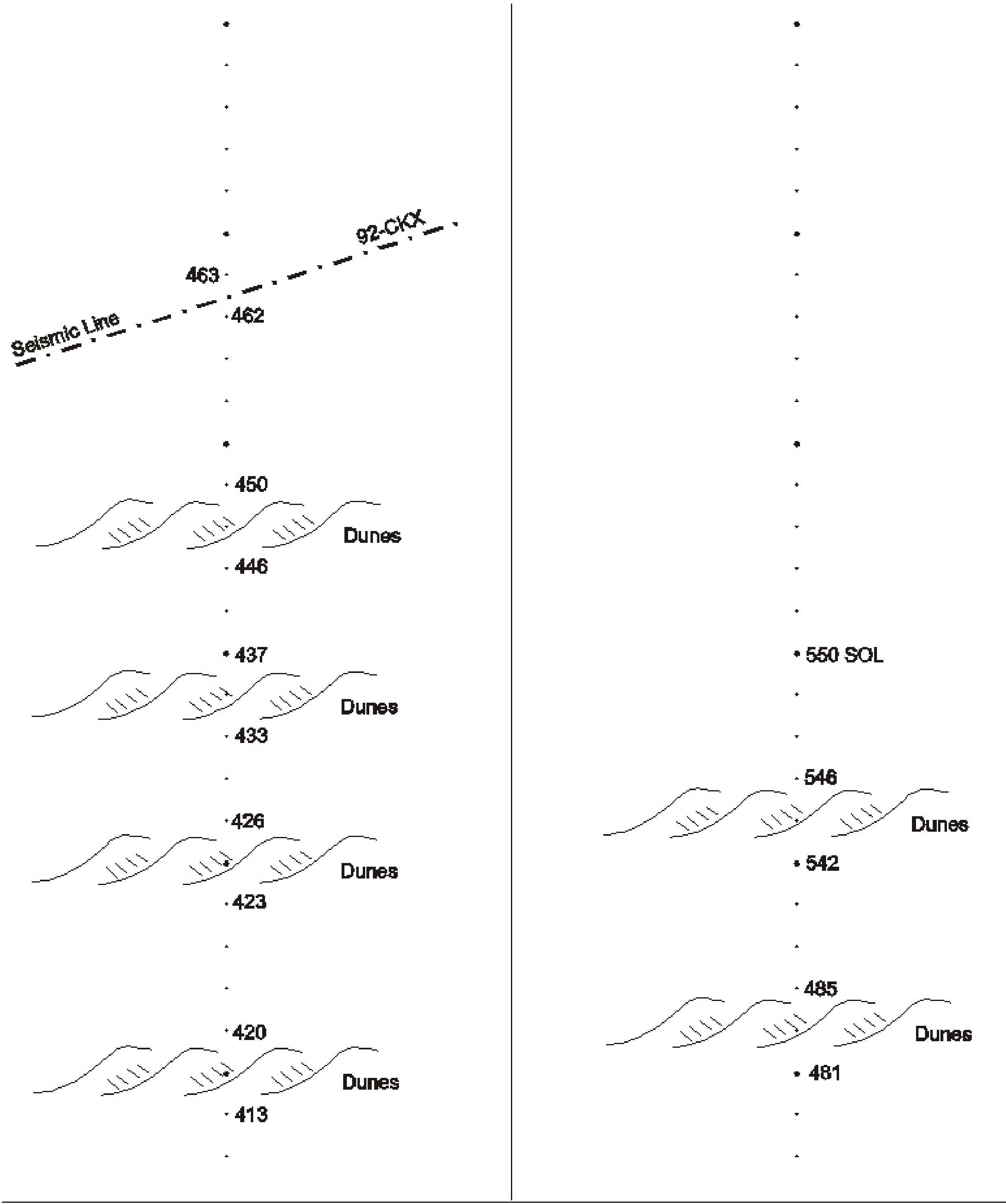
DSS-FF-07
REV 8.0
August 2004

LINE: BC05-44

PROJECT/JOB # 05007 CLIENT Terrex / Beach

PAGE 2 OF 2 AREA: MYTILUS STN INTERVAL: 37.5 m SHOT INTERVAL: ______ m

FROM STN 200 TO STN 550 SHOOTING DIRECTION: North to South BEARING: ______ °



Dynamic Satellite Surveys

# TRACE DIAGRAM

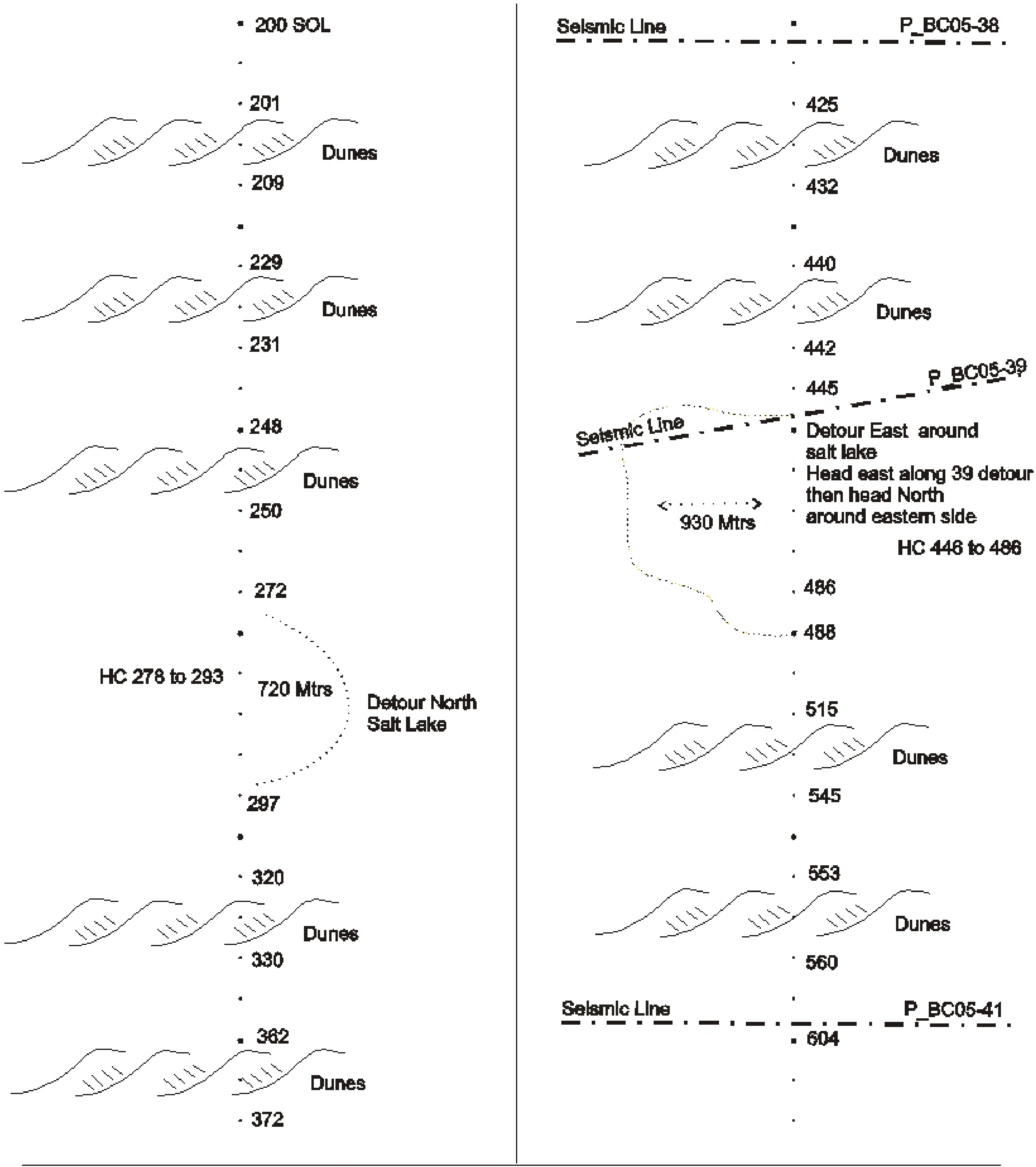
DSS-FF-07
REV 8.0
August 2004

LINE: BC05-45

PROJECT/JOB # 05007 CLIENT Terrex / Beach

PAGE 1 OF 2 AREA: MYTILUS STN INTERVAL: 37.5 m SHOT INTERVAL: ____ m

FROM STN 200 TO STN 738 SHOOTING DIRECTION: South to North BEARING: ____ °



Dynamic Satellite Surveys

# TRACE DIAGRAM

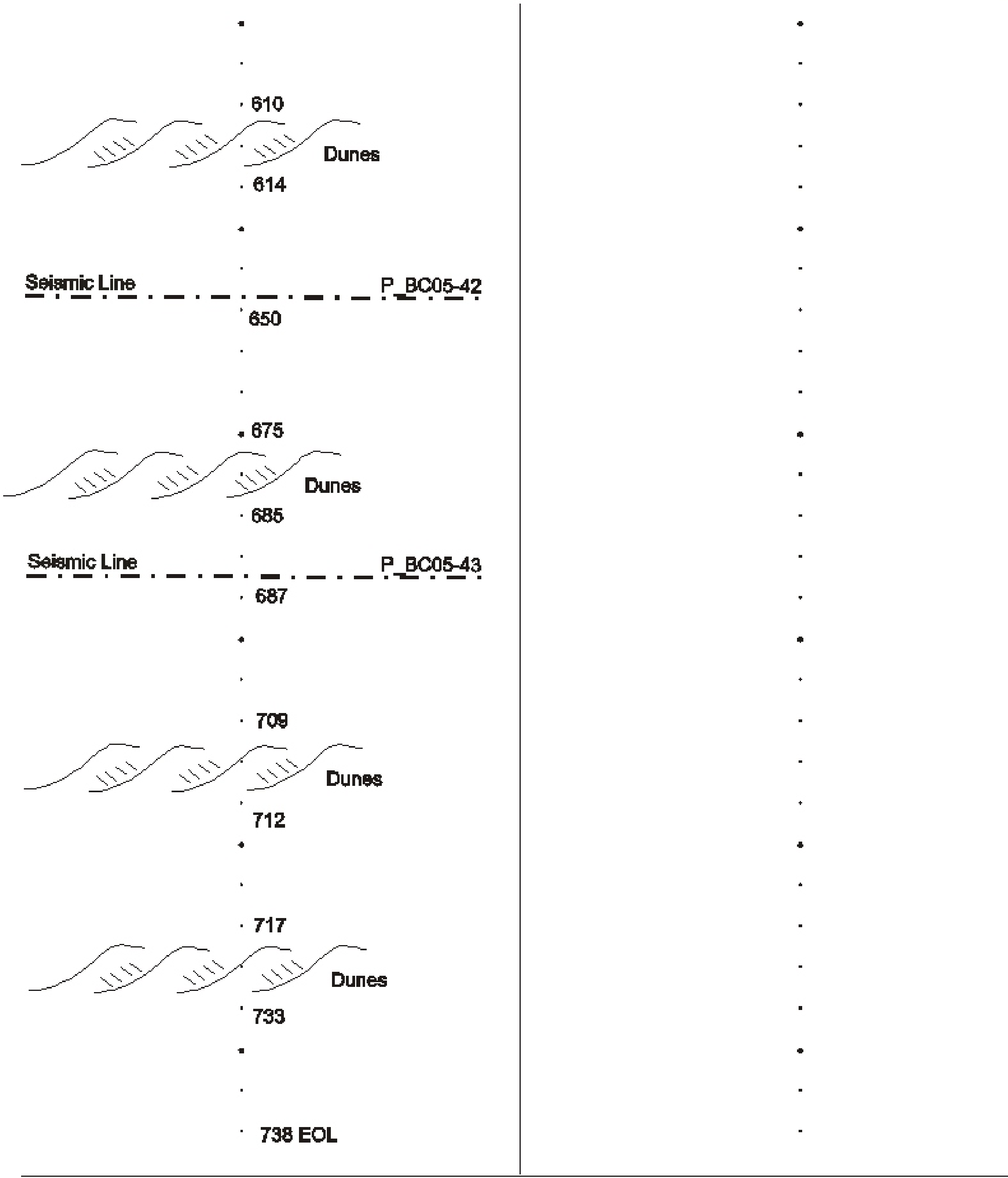
DSS-FF-07
REV 8.0
August 2004

## LINE: BC05-45

PROJECT/JOB # 05007 CLIENT Terrex / Beach

PAGE 2 OF 2 AREA: MYTILUS STN INTERVAL: 37.5 m SHOT INTERVAL: ______ m

FROM STN 200 TO STN 738 SHOOTING DIRECTION: South to North BEARING: ______ °



Dynamic Satellite Surveys

## TRACE DIAGRAM

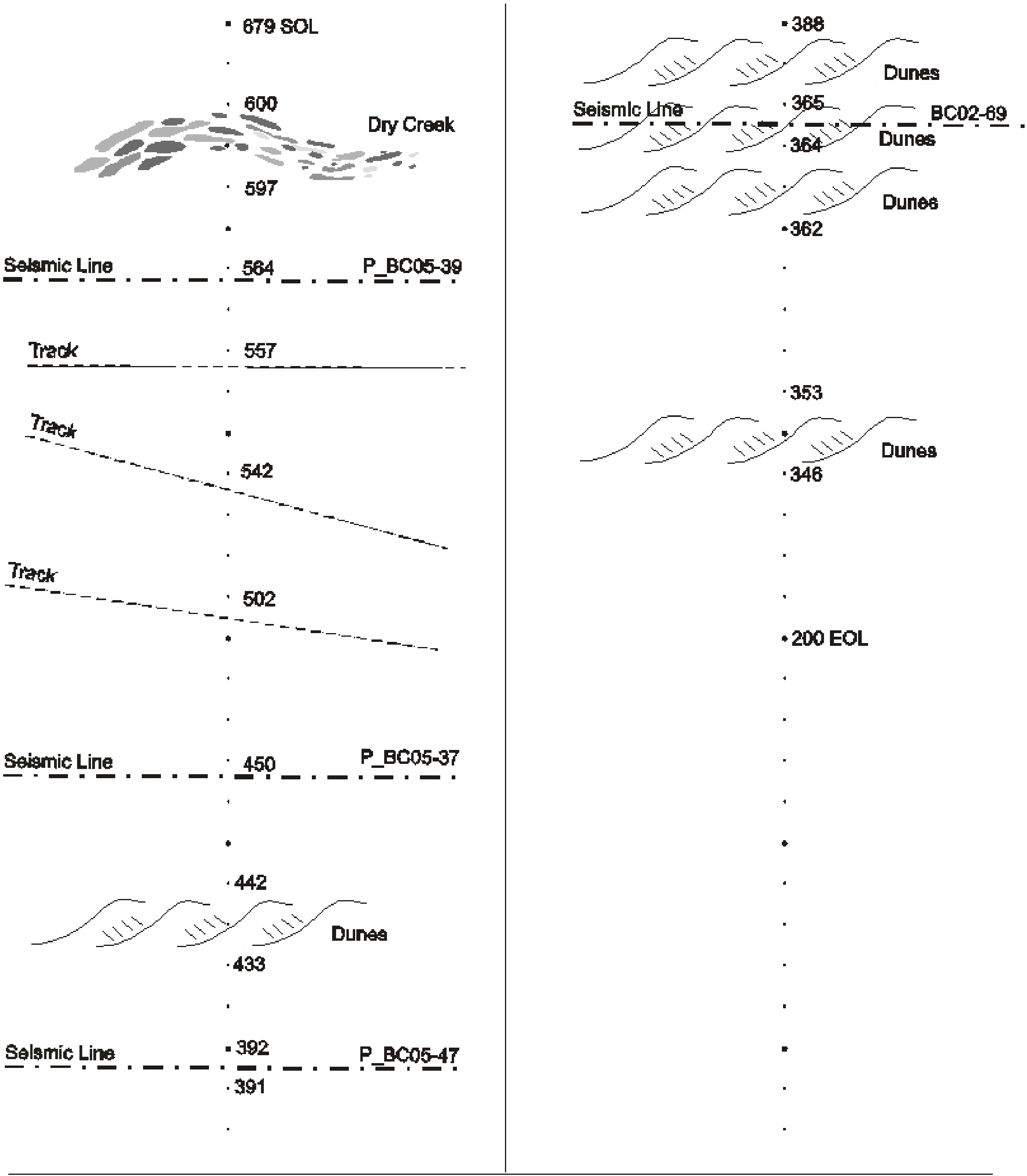
DSS-FF-07
REV 8.0
August 2004

LINE: BC05-46

PROJECT/JOB # 05007 CLIENT Terrex / Beach

PAGE 1 OF 1 AREA: MYTILUS STN INTERVAL: 37.5 m SHOT INTERVAL: ____ m

FROM STN 200 TO STN 679 SHOOTING DIRECTION: North to South BEARING: ____ °



**Dynamic Satellite Surveys**

# TRACE DIAGRAM

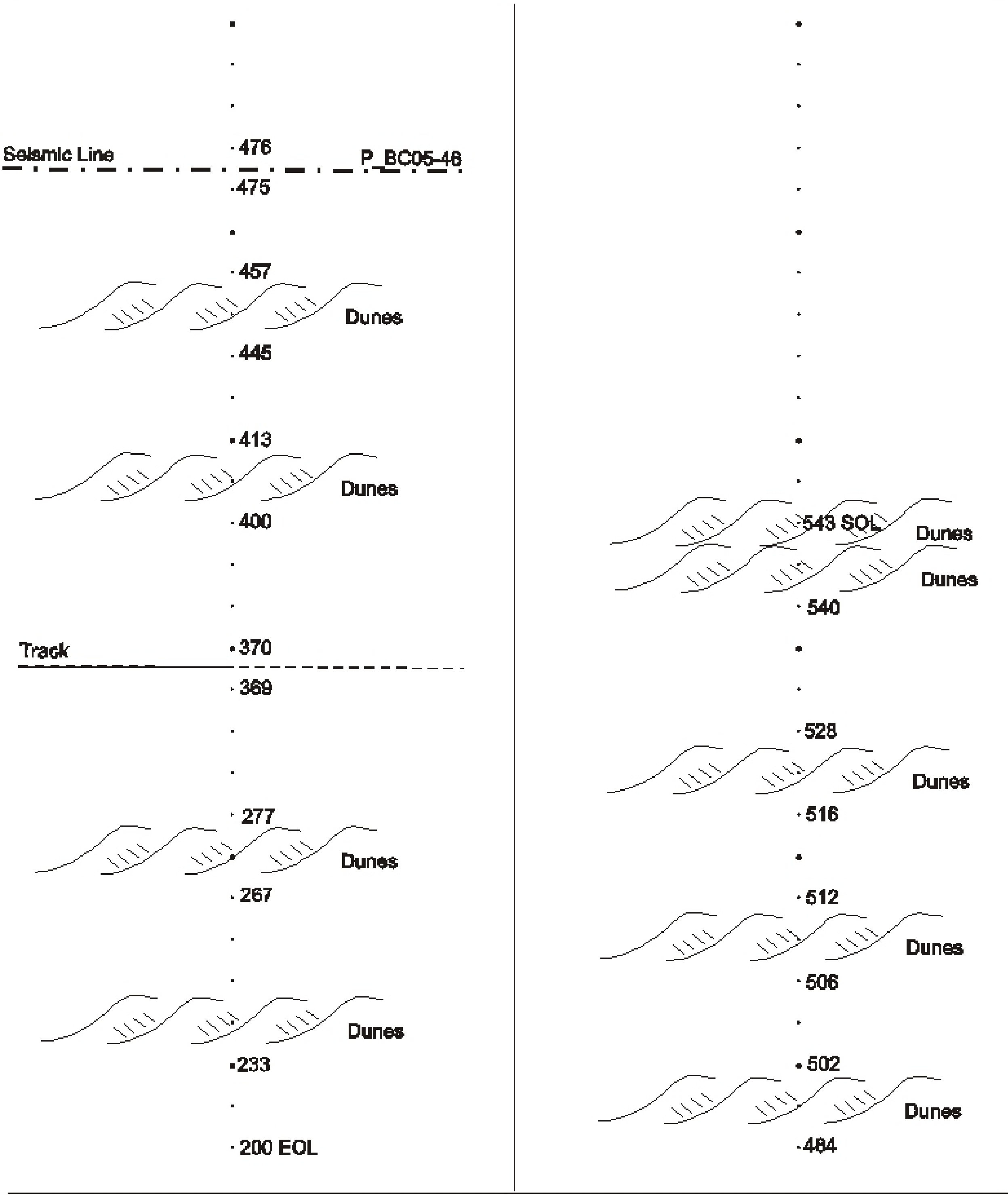
DSS-FF-07
REV 8.0
August 2004

LINE: **BC05-47**

PROJECT/JOB # 05007 CLIENT Terrex / Beach

PAGE 1 OF 1 AREA: MYTILUS STN INTERVAL: 37.5 m SHOT INTERVAL: ______ m

FROM STN 200 TO STN 543 SHOOTING DIRECTION: East to West BEARING: ______ °



FUGRO SEISMIC IMAGING PTY LTD

# SEISMIC DATA PROCESSING REPORT

# FOR

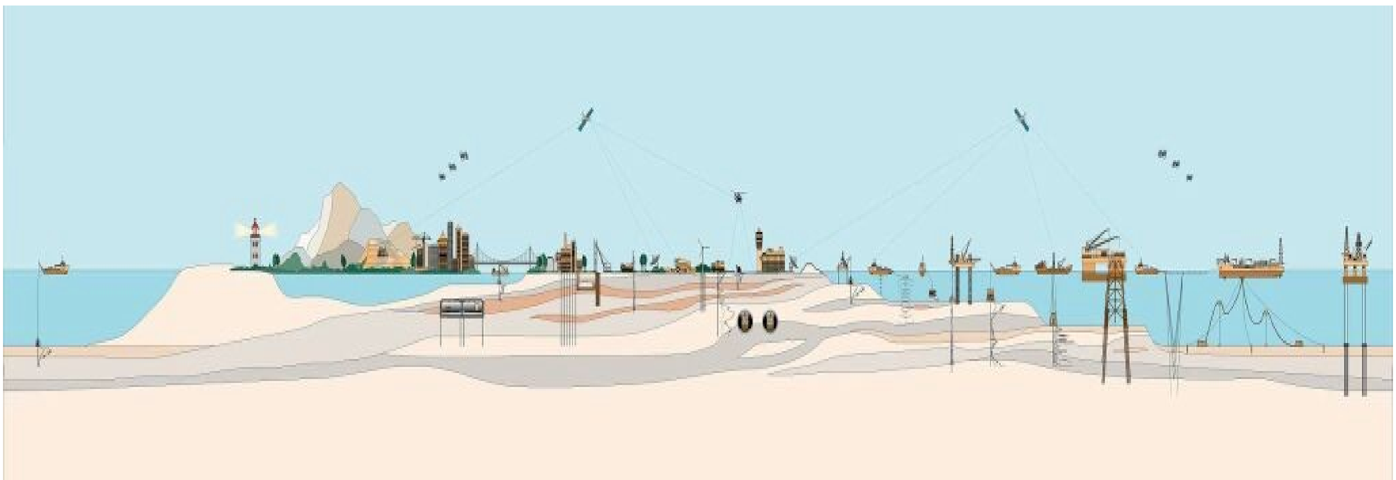
# BEACH PETROLEUM LIMITED

Location : Cooper Basin, South Australia
Permit : PELS 91 and 92
Surveys : 2005 Mytilus 2D Seismic Survey

Date : April 2006

Fugro Seismic Imaging Pty Ltd
69 Outram Street
West Perth WA 6005

Tel: +61 (0)8 9322 2490
Fax: +61 (0)8 9481 6721
E-mail: info@fugro-fsi.com.au



# TABLE OF CONTENTS

# 1 INTRODUCTION

The 2005 Mytilus 2D Seismic Survey reprocessing in Pel's 91 and 92, Cooper Basin, South Australia was processed by Fugro Seismic Imaging at its Perth office from May 2005 to April 2006.

A total of 47 new acquisition lines were combined with 32 reprocessing lines from 8 different vintages spanning 1984 through 1995. A further 9 reprocessing lines were added at a later date. The total length of the survey was approximately 1430 km.

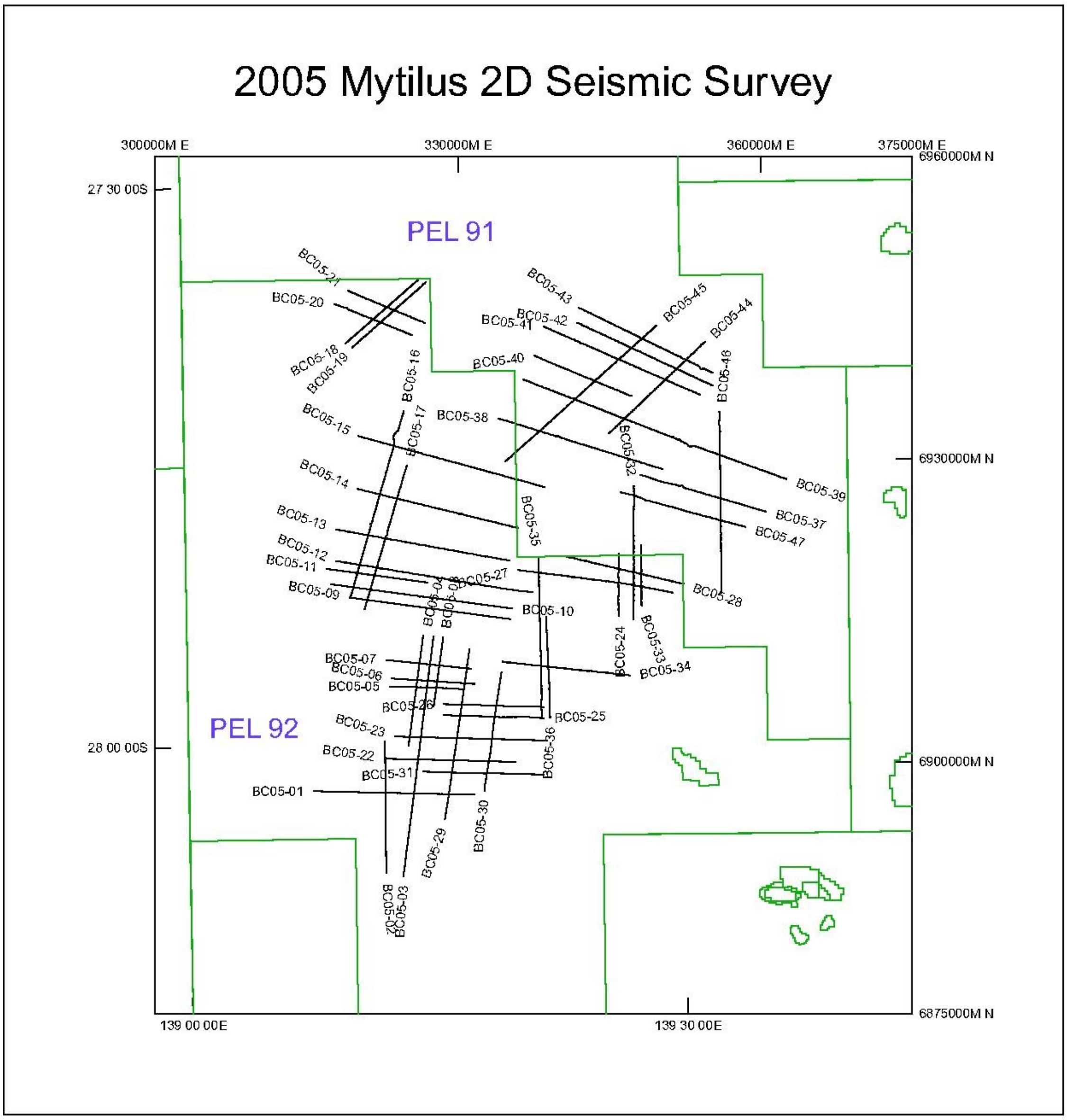
A line summary is given in section 3.0.

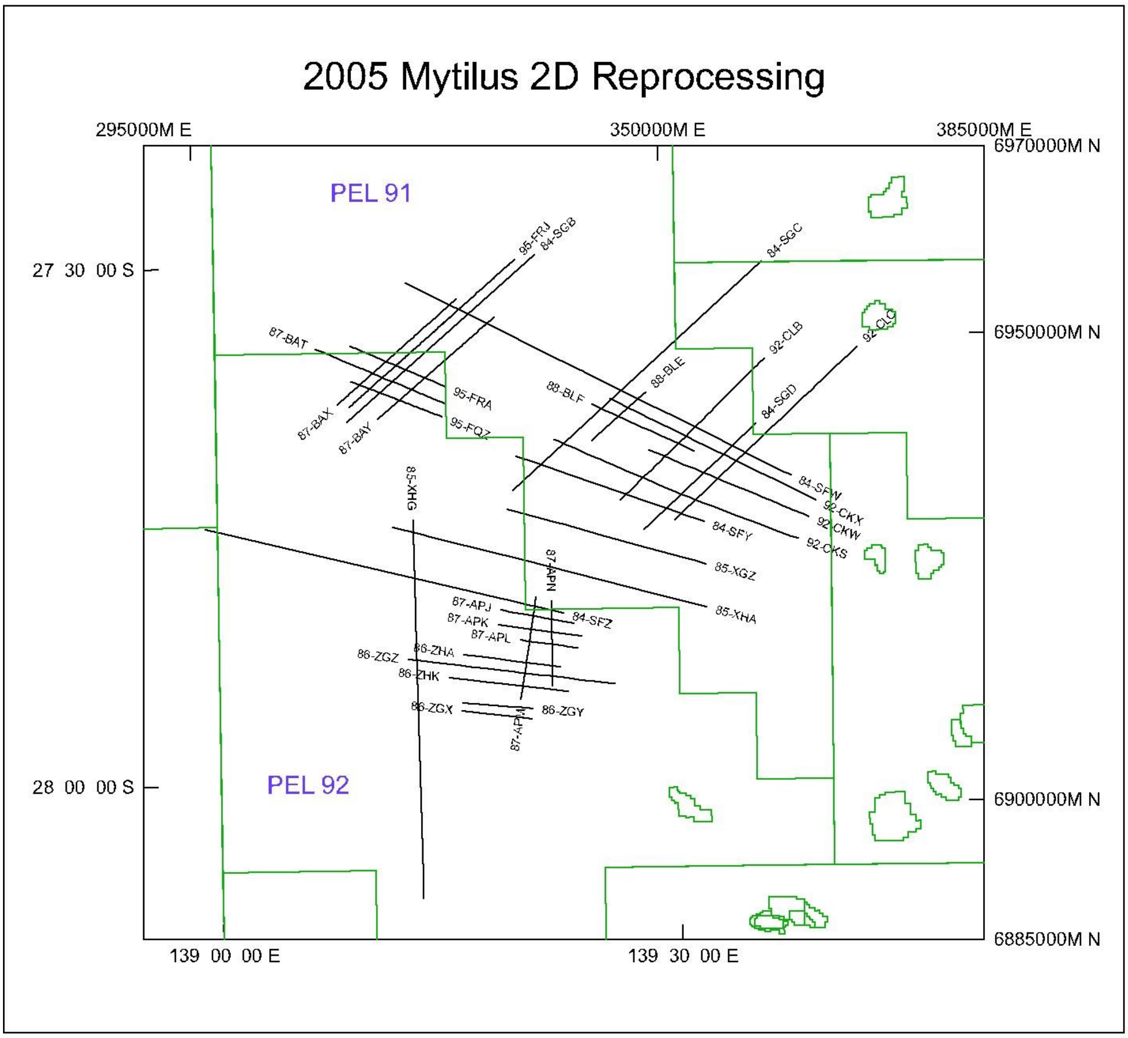
Field data was acquired by Terrex seismic crew 402 in May 2005.

# 2 ACQUISITION PARAMETERS

| *2005 Mytilus 2D Seismic Survey* | |
|---|---|
| *Data recorded by:* | Terrex seismic crew 402 |
| *Date recorded:* | PEL 91 92 May 2005 |
| | |
| *Seismic source:* | 4 vibrators in line |
| *Source type:* | Paystar Hemi 44 |
| *Vibe spacing:* | 12.5 m pad to pad |
| *Vibe move up:* | Standing sweeps |
| *Sweeps per vp:* | 2 |
| *Sweep frequency:* | 5-90 Hz |
| *Sweep type:* | Linear 200 ms taper |
| *Vp interval:* | 37.5 m |
| | |
| *Recording system:* | Sercels sn 388 |
| *Record length:* | 3 sec sweep + 4 sec listen |
| *Sample rate:* | 2 milliseconds |
| *Tape format:* | SEG-D 3490 zero phase |
| *Field filters:* | 3-125 Hz |
| *Data channels:* | 124 |
| *Coverage:* | 62 fold |
| *Geophone type:* | SM4 10 Hz |
| *Geophone array:* | 12 in line over 34.375 m |
| *Element spacing:* | 3.125 m |
| *Group interval:* | 37.5 m |
| *Split spread:* | 2306.25-18.75-vp-18.75-2306.25m |

# 3 SURVEY MAP


2005 Mytilus 2D Seismic Survey
300000M E
330000M E
360000M E
375000M E
6960000M N
6930000M N
6900000M N
6875000M N
27 30 00S
28 00 00S
139 00 00E
139 30 00E
PEL 91
PEL 92


2005 Mytilus 2D Reprocessing
295000M E
350000M E
385000M E
6970000M N
6950000M N
6900000M N
6885000M N
27 30 00 S
28 00 00 S
139 00 00 E
139 30 00 E
PEL 91
PEL 92
95-FRJ
84-SGB
84-SGC
87-BAT
87-BAX
87-BAY
95-FRA
95-FQZ
88-BLF
88-BLE
92-CLB
92-CLC
84-SGD
84-SFW
92-CKX
92-CKW
92-CKS
84-SFY
85-XGZ
85-XHA
85-XHG
87-APN
87-APJ
87-APK
87-APL
84-SFZ
86-ZHA
86-ZGZ
86-ZHK
86-ZGX
86-ZGY
87-APM

# 4 LINE SUMMARY

## 2005 Mytilus 2D Seismic Survey:

## PEL 91

| Line | SP Range | Length |
|---|---|---|
| BC05-32 | 375-553 | 6.5 |
| BC05-37 | 200-547 | 13.05 |
| BC05-38 | 200-655 | 17.1 |
| BC05-39 | 200-946 | 28.01 |
| BC05-40 | 200-479 | 10.5 |
| BC05-41 | 200-651 | 16.95 |
| BC05-42 | 200-595 | 14.85 |
| BC05-43 | 200-594 | 14.81 |
| BC05-44 | 200-550 | 13.16 |
| BC05-45 | 200-738 | 20.21 |
| BC05-46 | 200-679 | 18 |
| BC05-47 | 200-543 | 12.9 |

| Line | SP Range | Length |
|---|---|---|
| 84-SFW | 800-2052 | 48.78 |
| 84-SFY | 1240-1830 | 23.96 |
| 84-SGC | 223-1167 | 36.6 |
| 84-SGD | 200-720 | 21.34 |
| 85-XGZ | 1180-1788 | 24.64 |
| 85-XHA | 758-1646 | 35.18 |
| 88-BLE | 200-408 | 7.84 |
| 88-BLF | 200-520 | 12.04 |
| 92-CKS | 200-952 | 28.24 |
| 92-CKW | 200-696 | 18.64 |
| 92-CKX | 200-856 | 24.64 |
| 92-CLB | 200-776 | 21.64 |
| 92-CLC | 200-920 | 27.04 |

## PEL 92

| Line | SP Range | Length |
|---|---|---|
| BC05-01 | 200-625 | 15.98 |
| BC05-02 | 200-548 | 13.09 |
| BC05-03 | 200-840 | 24.04 |
| BC05-04 | 200-494 | 11.06 |
| BC05-05 | 200-396 | 7.39 |
| BC05-06 | 200-419 | 8.25 |
| BC05-07 | 200-426 | 8.51 |
| BC05-08 | 200-385 | 6.98 |
| BC05-09 | 200-626 | 16.09 |
| BC05-10 | 200-685 | 18.23 |
| BC05-11 | 200-468 | 10.09 |
| BC05-12 | 200-726 | 19.76 |
| BC05-13 | 200-652 | 16.99 |
| BC05-14 | 200-638 | 16.46 |
| BC05-15 | 200-709 | 19.13 |
| BC05-16 | 200-713 | 19.28 |
| BC05-17 | 200-597 | 14.93 |
| BC05-18 | 200-453 | 9.53 |
| BC05-19 | 200-460 | 9.79 |
| BC05-20 | 200-422 | 8.36 |
| BC05-21 | 200-420 | 8.29 |
| BC05-22 | 200-546 | 13.01 |
| BC05-23 | 201-599 | 15 |
| BC05-24 | 200-367 | 6.3 |
| BC05-25 | 200-466 | 10.01 |
| BC05-26 | 200-466 | 10.01 |
| BC05-27 | 200-613 | 15.53 |
| BC05-28 | 200-521 | 12.08 |
| BC05-29 | 200-653 | 17.03 |
| BC05-30 | 200-517 | 11.93 |
| BC05-31 | 200-518 | 11.96 |
| BC05-32 | 200-375 | 6.5 |

| Line | SP Range | Length |
|---|---|---|
| BC05-33 | 200-361 | 6.08 |
| BC05-34 | 200-539 | 12.75 |
| BC05-35 | 200-627 | 16.05 |
| BC05-36 | 200-468 | 10.09 |
| 84-SFZ | 200-1250 | 39.41 |
| 84-SGB | 780-1400 | 26.89 |
| 85-XHG | 120-1200 | 40.54 |
| 85-ZGQ | 200-898 | 26.21 |
| 85-ZGS | 200-460 | 9.79 |
| 85-ZGT | 200-458 | 9.71 |
| 85-ZHL | 200-522 | 12.11 |
| 85-ZHN | 200-448 | 9.34 |
| 86-ZHJ | 200-870 | 25.16 |
| 86-ZHM | 200-672 | 17.74 |
| 86-ZHP | 200-680 | 18.04 |
| 86-ZHQ | 224-888 | 24.94 |
| 86-ZGX | 200-400 | 7.54 |
| 86-ZGY | 205-398 | 7.46 |
| 86-ZGZ | 200-794 | 22.31 |
| 86-ZHA | 200-478 | 10.46 |
| 86-ZHK | 200-542 | 12.86 |
| 87-APJ | 200-412 | 7.99 |
| 87-APK | 200-440 | 9.04 |
| 87-APL | 200-364 | 6.19 |
| 87-APM | 200-496 | 11.14 |
| 87-APN | 200-440 | 9.04 |
| 87-BAT | 200-600 | 15.04 |
| 87-BAX | 200-654 | 17.06 |
| 87-BAY | 200-640 | 16.54 |
| 95-FQZ | 200-550 | 10.53 |
| 95-FRA | 200-570 | 11.13 |
| 95-FRJ | 200-990 | 23.73 |

# 5 PARAMETER TESTING

The acquisition was the same for recent surveys in this area and therefore testing was not required as it was decided to use the same flow as previously used. Some fine tuning was required especially with the reprocessed lines and they are listed below.

The processing test sequence included review of the following processing phases and parameter choices:

1. Initial gain correction to compensate for spherical divergence and absorption losses.

2. Predictive Deconvolution

   Comparison of stack sections with varying design windows, operator lengths, gap lengths in the X-T domain.
   operator length 120 ms and gap length 2 ms
   operator length 120 ms and gap length 8 ms
   operator length 120 ms and gap length 12 ms
   operator length 120 ms and gap length 16 ms
   operator length 120 ms and gap length 20 ms
   operator length 200 ms and gap length 2 ms
   operator length 300 ms and gap length 2 ms

   Surface consistent deconvolution
   operator length 120 ms and gap length 2 ms

3. Mute Testing.

   Mutes were selected by inspecting a series of stacked panels with increasing offsets. Selected mute was checked by displaying a range of NMO corrected cdp gathers with the mute annotated but not applied.

4. Post Stack Deconvolution tests:

   Predictive deconvolution after stack was used to attenuate any remnant short period reverberations. A variety of gaps were tested ranging from 4 to 32 ms. Stacked panels with auto-correlations were used to verify the deconvolution design.

# 6 PROCESSING SEQUENCE

## 6.1 TRANSCRIPTION

Field data were converted from SEG-D format to Fugro's internal format .

## 6.2 GAIN RECOVERY

Spherical divergence gain function was used.
Gain (db) = 3.0t + 10Log(t)

## 6.3 PHASE CONVERSION

Convert zero phase to minimum phase.

## 6.4 CDP GATHER

Shot records were sorted into common depth point gathers.
Nominal fold = 62 CDP interval = 18.75m

## 6.5 DECONVOLUTION

Surface consistent spiking deconvolution using two windows

| | | | | |
|---|---|---|---|---|
| Operator | | 120 | 120 | ms |
| Gaps | | 2 | 2 | ms |
| White noise | | 0.1 | 0.1 | % |
| Design | 19 m | 200-2300 | 1800-3500 | ms |
| | 2307 m | 1400-2500 | 2000-3500 | ms |

## 6.6 REFRACTION STATICS

Refraction first breaks were picked using Green Mountain Refraction Statics Delay Time Method which estimates the refractor velocities to model the weathering thickness. Weathering velocities were interpreted at uphole locations along the lines. These upholes were used as calibration points for the GMG statics.

## 6.7 SPECTRAL BALANCE

Pre-stack spectral whitening uses the SPECB module which allows equalisation of the amplitude spectrum of a trace with a given frequency range. This frequency range is divided into an equal number of trapezoidal filters, which may overlap the other. The trace is then filtered through each of these filters, AGC and summed. This technique suppresses the low frequency (ground roll) better and enhances the higher frequency. Production filter of 5-10-90-95 Hz was used.

## 6.8 FIRST PASS VELOCITY ANALYSIS

First pass velocities were interpreted using Fugro's interactive velocity analyses program "MGIVA". Each analysis comprised a 20 CDP stacked panel, repeated 15 times with a different NMO velocity functions. The velocity function displayed at +/-3 %, +/-6%, +/-9%, +/-12%, +/-16%, +/-20% and +25% increments from a central velocity function which was based on a regional velocity function. The MGIVA velocity analysis is a 'map driven' package, where the user can instantly see modifications to the velocity field in map or section view. Neighbouring velocity functions are superimposed on the current location for easy recognition of velocity trends. Velocity interpretation is performed on the pre-computed stack suite, or on a colour contoured semblance display. Semblance interpretation is assisted with markers illustrating the position of potential multiples, and with an interval velocity curve. Analyses were performed at 1.5 km intervals.

## 6.9 FIRST PASS RESIDUAL STATICS

Fugro "NEBULA" Surface-consistent Residual Statics Package computes statics based on summed cross-correlations at source and receiver locations. A pilot trace is constructed at each CDP using a weighted mix of stacked traces. Cross-correlations of the pilot trace with traces in the respective CDP gather are summed into buffers for each source and receiver station number before being resampled and picked to derive a static value.

## 6.10 SECOND PASS VELOCITY ANALYSIS

Second pass velocity analysis was performed on gathers with first pass residuals statics applied. The first pass velocity field was used as centre function for Fugro's interactive velocity analysis package, MGIVA. Analyses were performed at 1.0km intervals.

## 6.11 SECOND PASS RESIDUAL STATICS

Second pass residual statics was run using the picked second pass velocity field as input to NMO corrections.

## 6.12 DMO

Log stretch DMO using Hale algorithm.

## 6.13 THIRD PASS VELOCITY ANALYSIS

Third pass velocity analysis was performed on DMO gathers with both first and second pass residuals statics applied. The second pass velocity field was used as centre function for Fugro's interactive velocity analysis package, MGIVA. Analyses were performed at 0.5km intervals.

## 6.14 NMO CORRECTION

Fourth order NMO correction was performed using the third pass velocity functions.

## 6.15 MUTE

A post NMO outer trace mute was applied for two main reasons :

- to remove any coherent noise on the outer traces and
- to reduce contamination from the effect of NMO stretch on the far offsets.

**Outer trace mute**

| | | | | | |
|---|---|---|---|---|---|
| Offset (m): | 150 | 200 | 650 | 1330 | 2307 |
| Time (ms): | 0 | 200 | 500 | 1200 | 1900 |

## 6.16 PRE-STACK SCALING

The CDP gather traces were modulated to compensate for amplitude irregularities by scaling each trace using 500 ms AGC .

## 6.17 STATICS

Floating datum to final seismic reference component of the statics is applied prior to stack. This corrects the data from floating datum to a final datum at mean sea level. To avoid losing data above datum, data was time shifted by 200ms prior to static correction to datum and a new time origin of -200ms was established.

## 6.18 COMMON DEPTH POINT STACK

The traces within each common depth point gather were summed using 1/root(N) stack compensation with 62 fold coverage and CDP interval of 18.75 m.

## 6.19 CDP TRIM STATICS

Fugro's "PASTA" package was used to compute cdp consistent residual statics. "PASTA" is an automatic residual statics program which applies static shifts on a CDP consistent basis, using cross-correlations of NMO-corrected CDP gather traces with a CDP pilot trace for each depth point.

## 6.20 DECONVOLUTION AFTER STACK

Predictive deconvolution was utilised to attenuate any remnant short period reverberations.

| | |
|---|---|
| Operator Length: | 120 ms |
| Gap: | 20 ms |
| Design window: | 300 – 2400 ms |
| White noise: | 0.1 % |

## 6.21 MIGRATION

Finite Difference Migration uses the technique of downward continuation in order to map reflectors to their true time position. It is performed in the frequency – space domain. Steep dip second order solution ( 65 degrees ) and depth step of 12m were used.

## 6.22 BAND PASS FILTER

Unwanted noise that lay outside the frequency range of the desired reflection and diffraction data were removed by the application of a series of time variant filters.

| Time (ms) | Frequency (Hz) |
|---|---|
| 500 | 8 / 12 - 80/90 |
| 1500 | 8 / 12 - 70/80 |
| 2500 | 8 / 12 - 60/70 |

## 6.23 POST STACK SCALING

Dual window AGC with window lengths of 1000 ms and 400 ms.
Equalisation applied : 50%

## 6.24 PHASE ANALYSIS

Post stack phase and time shifts were applied to the following reprocessing data in order to tie with the new 2005 Mytilus 2D survey.

| Vintage | Field Crew | Phase Shift | Time Shift |
|---|---|---|---|
| 84-S* | SSL 327 | +90 degrees | 0 |
| 84-SGB | SSL 327 | 0 | -7 |
| 85-X* | SSL 413 | 0 | -7 |
| 85-Z* | SSL | -90 | -7 |
| 86-Z* | SSL | -90 | -7 |
| 87-A* | GSI 1847 | +90 | 0 |
| 87-B | SSL 574 | -90 | 0 |
| 88-B* | SSL 574 | -90 | 0 |
| 92-C* | HALIBURTON | 0 | 0 |
| 95-F** | SHLUMBERGER | 0 | 0 |

# 7 PROCESSING SEQUENCE DIAGRAM

TRANSCRIPTION
|
GAIN RECOVERY
|
PHASE CONVERSION
|
CDP SORT
|
DECONVOLUTION
|
SPECTRAL BALANCE
|
FLOATING DATUM CORRECTION
|
VELOCITY ANALYSIS ( 1st pass )
|
RESIDUAL STATICS ( 1st pass )
|
VELOCITY ANALYSIS ( 2nd pass )
||
RESIDUAL STATICS ( 2nd pass )
|
DMO
|
VELOCITY ANALYSIS ( 3rd pass )
|
NMO CORRECTION
|
MUTE
|
PRE-STACK EQUALISATION
|
FLOATING DATUM TO FINAL DATUM
|
CDP TRIM STATICS
|
CDP STACK
|
DECONVOLUTION AFTER STACK
|
F.D. MIGRATION
|
BANDPASS FILTER
|
POST STACK SCALING

# 8 FINAL DISPLAYS

Final displays of final & migrated stack were produced in CGM+ format

Horizontal scale: 1 : 20,000 ( 27 traces per inch )
Vertical scale: 10 cm/sec

# 9 ARCHIVES

Final migrated stacks, final stacks, raw stacks, raw migrated stacks and raw gathers of each line were written onto DVD in SEGY format for workstation interpretation and archival.

Trace headers summary

| BYTE | DESCRIPTION | BYTE | DESCRIPTION |
|---|---|---|---|
| 17-20 (32-bit) | SPNO | 97-98 (16-bit) | source residual static |
| 21-24 (32-bit) | CDP number | 99-100 (16-bit) | receiver residual static |
| 41-44 (32-bit) | Elevation | 101-102 (16-bit) | Receiver static |
| 81-84 (32-bit) | CDP easting | 103-104 (16-bit) | Datum static applied |
| 85-88 (32-bit) | CDP northing | 109-110 (16-bit) | Time of first sample |
| 91-92 (16-bit) | weathering vel | 115-116 (16-bit) | Number of samples |
| 93-94 (16-bit) | refractor vel | 117-118 (16-bit) | Sample interval |
| | | 189-192 (32-bit) | SP number |

# 10 DATA DISPOSITION

**To Beach Petroleum Limited**

The data was split to each PEL 91 and PEL 92

- 3 DVD of digital prints in CGM+ format, final velocities in Western format and static listings for all lines.
- 3 DVD archive containing Migrated stack, final stack, raw stack and raw migrated stack.
- 3 DVD archive containing raw gathers
- One CD containing Processing Report.
- Returning 2004 Mytilus field tapes
- Returning Mytilus Obs logs and support data.
- Returning 2004 Mytilus uphole plots

# 11 CONCLUSION

Overall this 2005 Mytilus 2D processing project preceeded in a smooth and timely manner. Reprocessing data responded well to the proven Cooper Basin processing flow with higher frequency better resolved to most of the early 1980 vintages.

The upholes and statics in the area was the cause of most concerns. Initially all upholes were calculated and used in the tying of the statics. Unfortunately, not all the upholes were received and the calculations and solutions needed to be revisited again. Then there were some extraneous results discovered that questioned the validity of some of the upholes. The Beach petroleum representatives were kept busy checking and testing until they were sure that they were happy with the result.

Another area that caused concern was the phase shifting of the various vintages of reprocessing. Although there are rough rules of phase shifting depending on acquisition contractor and crew and year acquired, this proved to not always be the case. In the end it was decided to only phase shift data +/- 90 or 180 degrees and any bulk shifting was to be done on the work stations at Beach Petroleum.

All these things contributed to the contract taking longer than originally planned, however a satisfactory conclusion was reached in the end.

The final deliverables then had listed phase and time shifts applied.

We would like to thank Doug Roberts and Luke Gardiner for their quick response to our enquiries and their efforts in retrieving and providing precise information of the repro data where a great many upholes were involved.

Mick Curran
Processing Geophysicist

# BEACH PETROLEUM LIMITED
# SEISMIC SURVEY
## PEL 91 & 92, South Australia

## ENVIRONMENTAL REPORT

# 2005 PEL 91 & 92 MYTILUS 2D SEISMIC SURVEY

**Recorded May 8th to June 7th, 2005**

REVISITS

BEACH PETROLEUM

**(ABN 20 007 617 969)**

**Prepared by: Bruce Beer**
**November, 2005**

# CONTENTS

# INTRODUCTION

The Beach Petroleum 2005 PEL 91 & 92 Mytilus Seismic Survey was located across a wide area in the western Cooper Basin, SA. The program extended from Waukatanna Waterhole in the south to about 10 km south of Hoolendinnie #1 in the north.

Recording activities were conducted between May 8th and June 7th, 2005. Line preparation took place between the 23rd of April and the 27th of May, 2005, while uphole drilling was carried out between May 24th and August 4th, 2005.

A total of 641.5125 km of 2D seismic lines were recorded on 47 lines and 396 upholes were drilled. The PEL 91 component of recorded lines was 185.775 km and the PEL 92 component was 455.7375 km.

To assess the environmental impact of this survey and to allow systematic monitoring of the natural restoration and re-vegetation rates, four environmental monitoring points (EMP's) were established. One was in PEL 91 and three were in PEL 92.

Photographs were taken at EMP locations (photo points) in the direction of the lines following completion of recording operations. It is intended that these photographs will form the base line for ongoing monitoring.

Pastoral leases affected by this survey included Clifton Hills Station, managed by Travis and Teresa Gilby and Mungeranie Station owned by Graham Betts and managed by Rodney and Narelle Fullarton.

**Fig. # 1.1: Beach Petroleum Limited 2005 Mytilus Seismic Survey (red lines)**

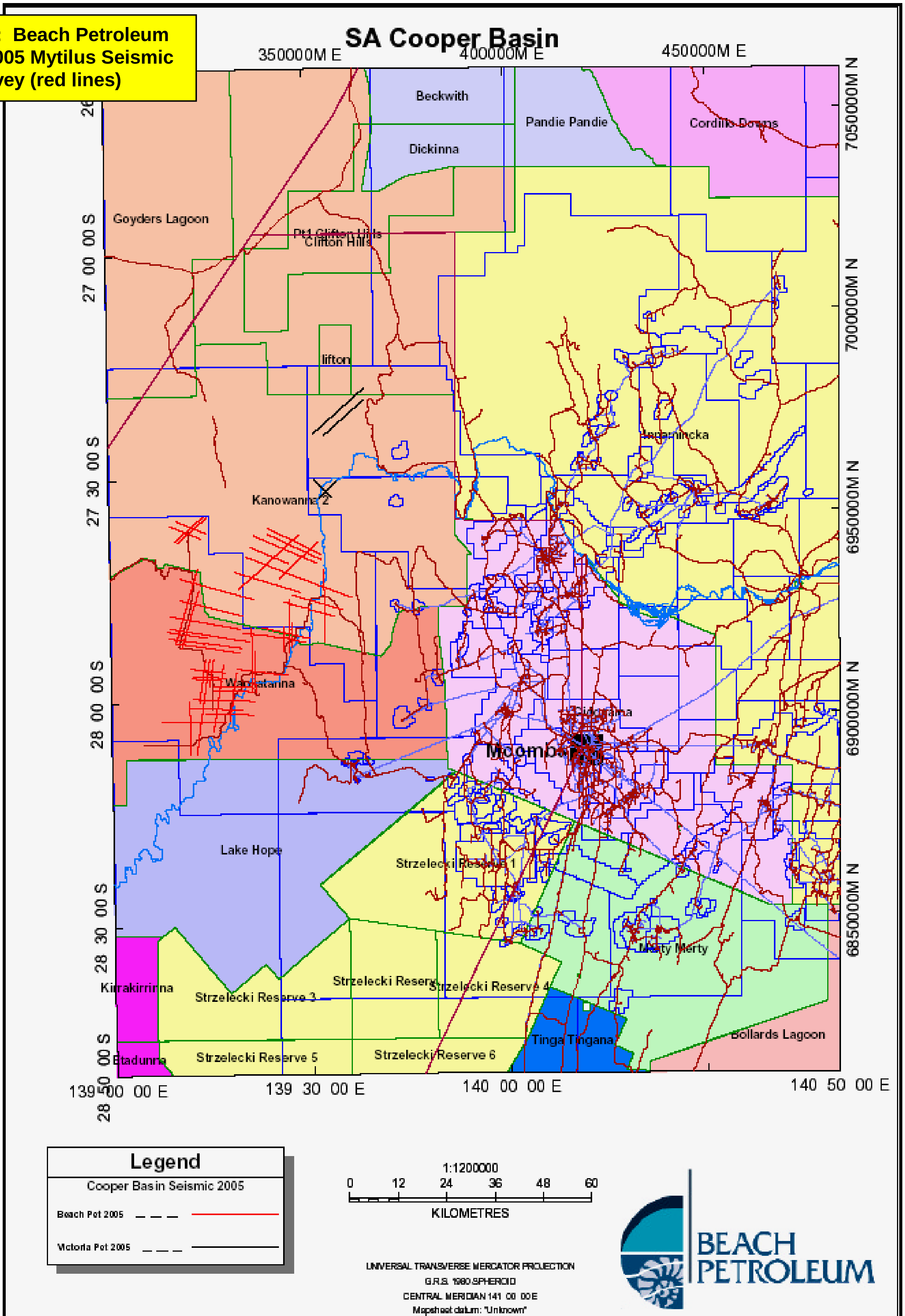
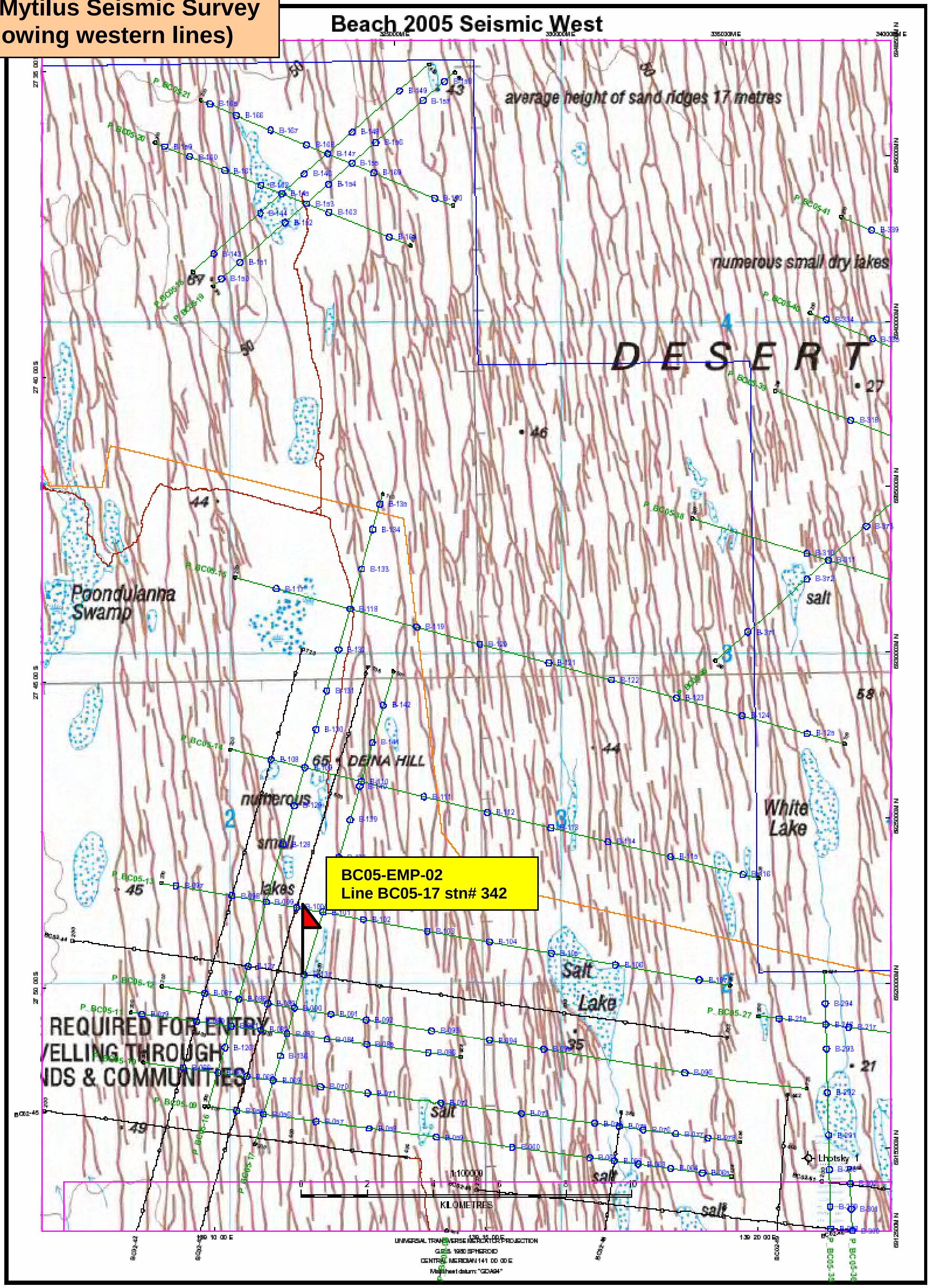


**Fig. # 1-2: Beach Petroleum 2005 Mytilus Seismic Survey (showing western lines)**



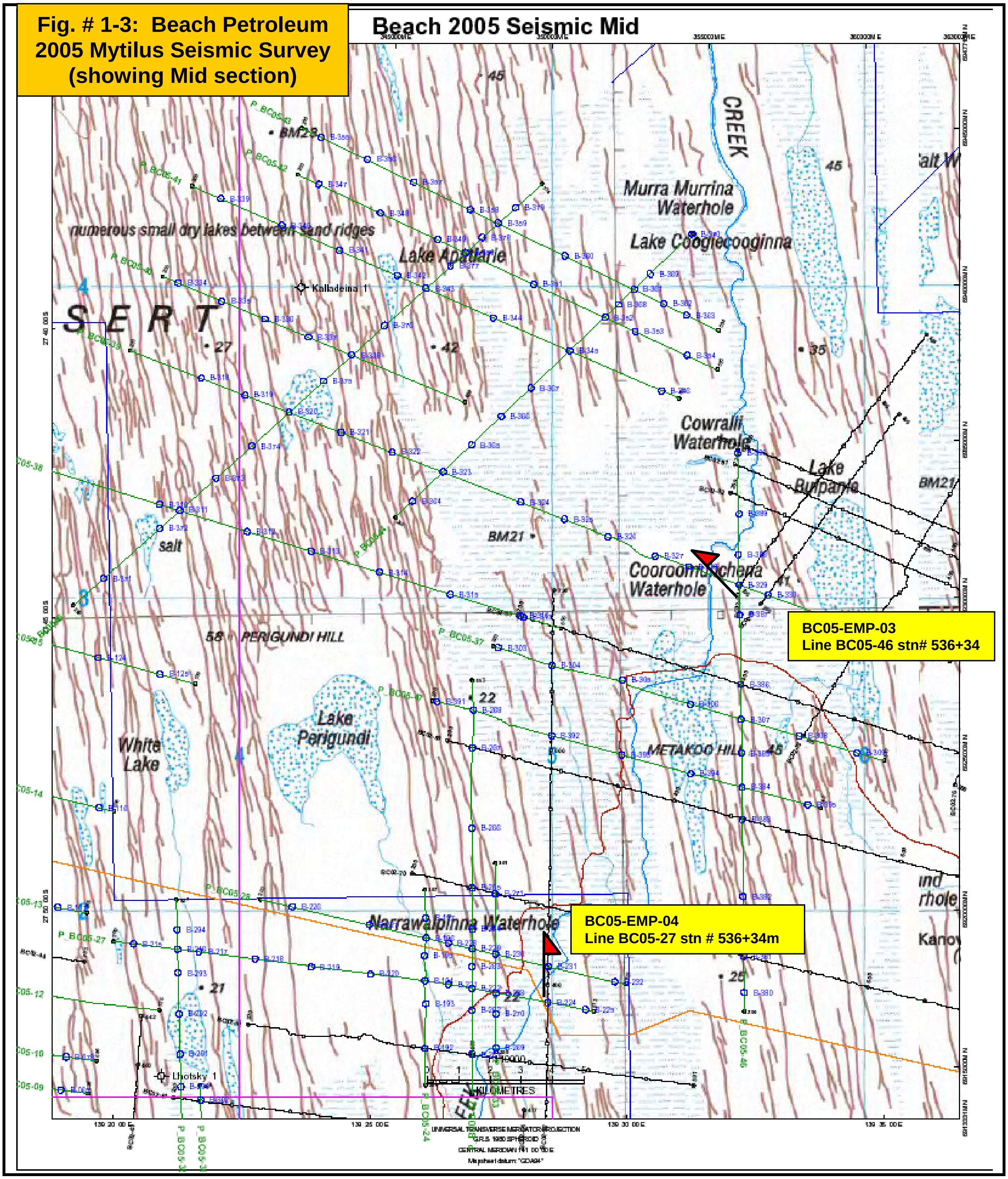
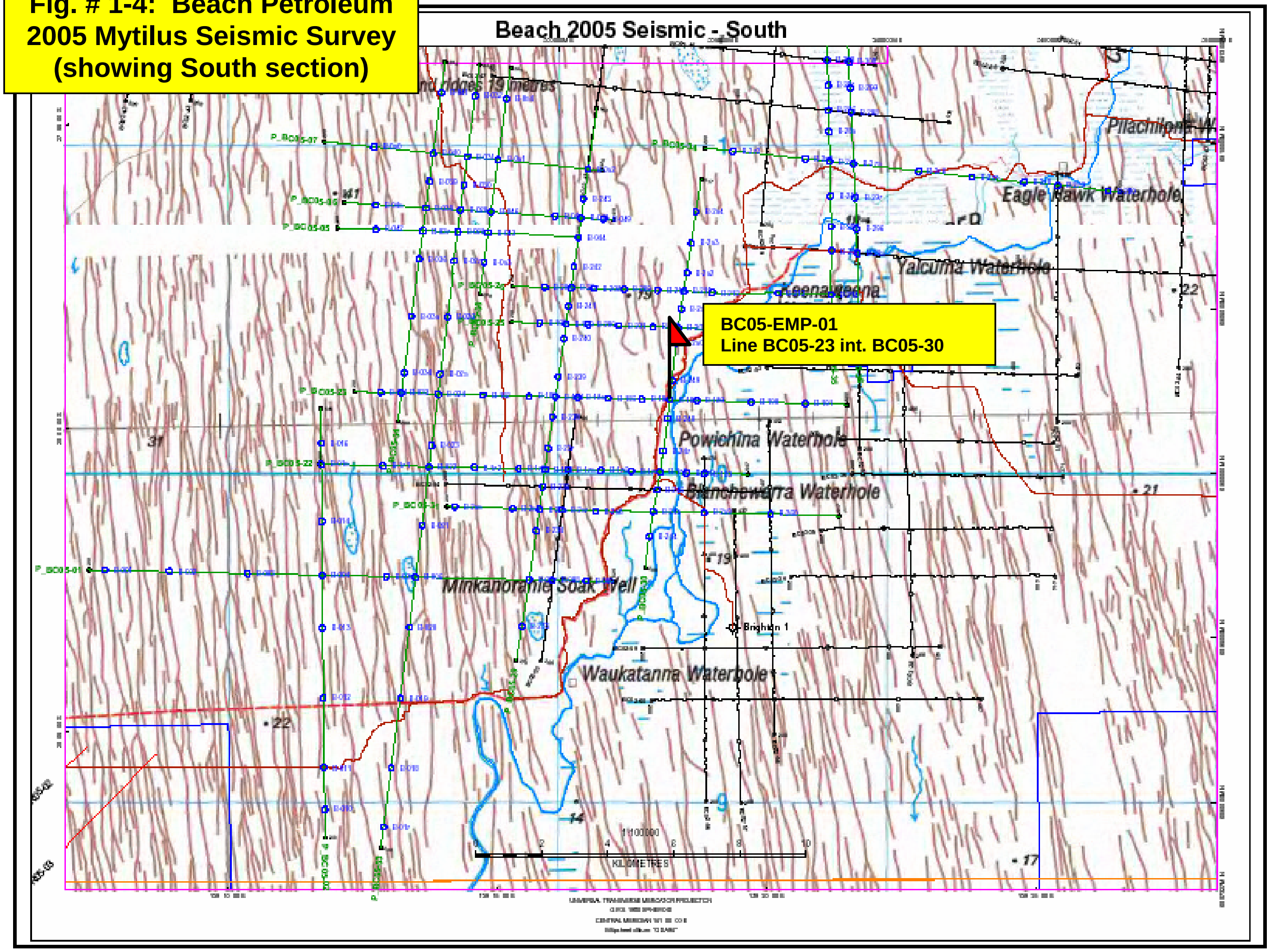


Fig. # 1-3: Beach Petroleum 2005 Mytilus Seismic Survey (showing Mid section)
Beach 2005 Seismic Mid
numerous small dry lakes between sand ridges
Lake Apatarie
Kalladeina 1
Murra Murrina Waterhole
Lake Coogiecooginna
CREEK
Cowralli Waterhole
Lake Buripanie
Cooroominchena Waterhole
PERIGUNDI HILL
Lake Perigundi
White Lake
METAKOO HILL
Narrawalpinna Waterhole
Lhotsky 1
KILOMETRES
BC05-EMP-03
Line BC05-46 stn# 536+34
BC05-EMP-04
Line BC05-27 stn # 536+34m
UNIVERSAL TRANSVERSE MERCATOR PROJECTION
CENTRAL MERIDIAN 141 00 00 E

**Fig. # 1-4: Beach Petroleum 2005 Mytilus Seismic Survey (showing South section)**



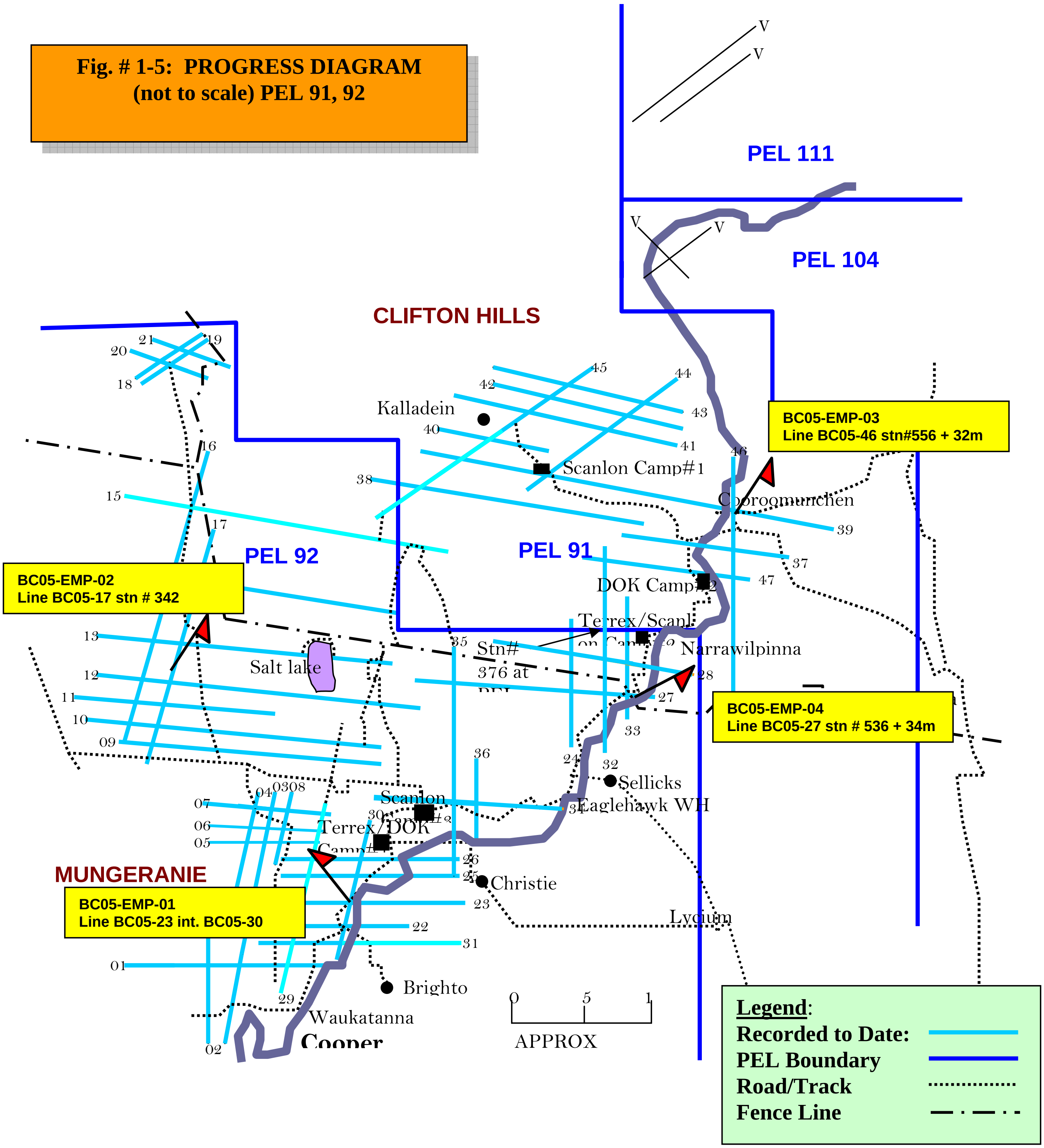


Fig. # 1-5: PROGRESS DIAGRAM
(not to scale) PEL 91, 92
PEL 111
PEL 104
CLIFTON HILLS
PEL 92
PEL 91
MUNGERANIE
BC05-EMP-01
Line BC05-23 int. BC05-30
BC05-EMP-02
Line BC05-17 stn # 342
BC05-EMP-03
Line BC05-46 stn#556 + 32m
BC05-EMP-04
Line BC05-27 stn # 536 + 34m
Kalladein
Scanlon Camp#1
DOK Camp#2
Narrawilpinna
Salt lake
Sellicks
Eaglehawk WH
Christie
Lycium
Brighto
Waukatanna
APPROX
Legend:
Recorded to Date:
PEL Boundary
Road/Track
Fence Line

# TERRAIN, VEGETATION AND GAS AUDITS

The terrain in the 2005 PEL 91 & 92 Mytilus Seismic Survey was a mixture of north south trending sand dunes of varying heights, floodplains and wetlands along the Cooper Creek and some gibber in the west and far northwest.

The sand dunes were vegetated by sand-hill cane-grass, spinifex and marpoo. The floodplains and wetlands had stands of River Cooba, River Red Gum, Coolibah and Yapunyah. There was also a small area of lignum swamp. The gibber areas were void of vegetation except for ephemeral grasses.

Access within the prospect was good along the Cooper areas and in the PEL 91 area using the Kalladeina # 1 track. The "Rabbitter's Track" was also useful for the southern area. But the western and north western areas could only be accessed by using a 2004 line and travel was long. Once there there was a track which we named "Terry's Track" because Terry Grocke found it.

## 2.1 GAS Audits

Conducted by Bruce Beer in May, June, 2005.

Selected sections of lines were audited using the Goal Attainment Scaling (GAS) System. A GAS audit was also undertaken at the EMP locations.

The audited lines were:

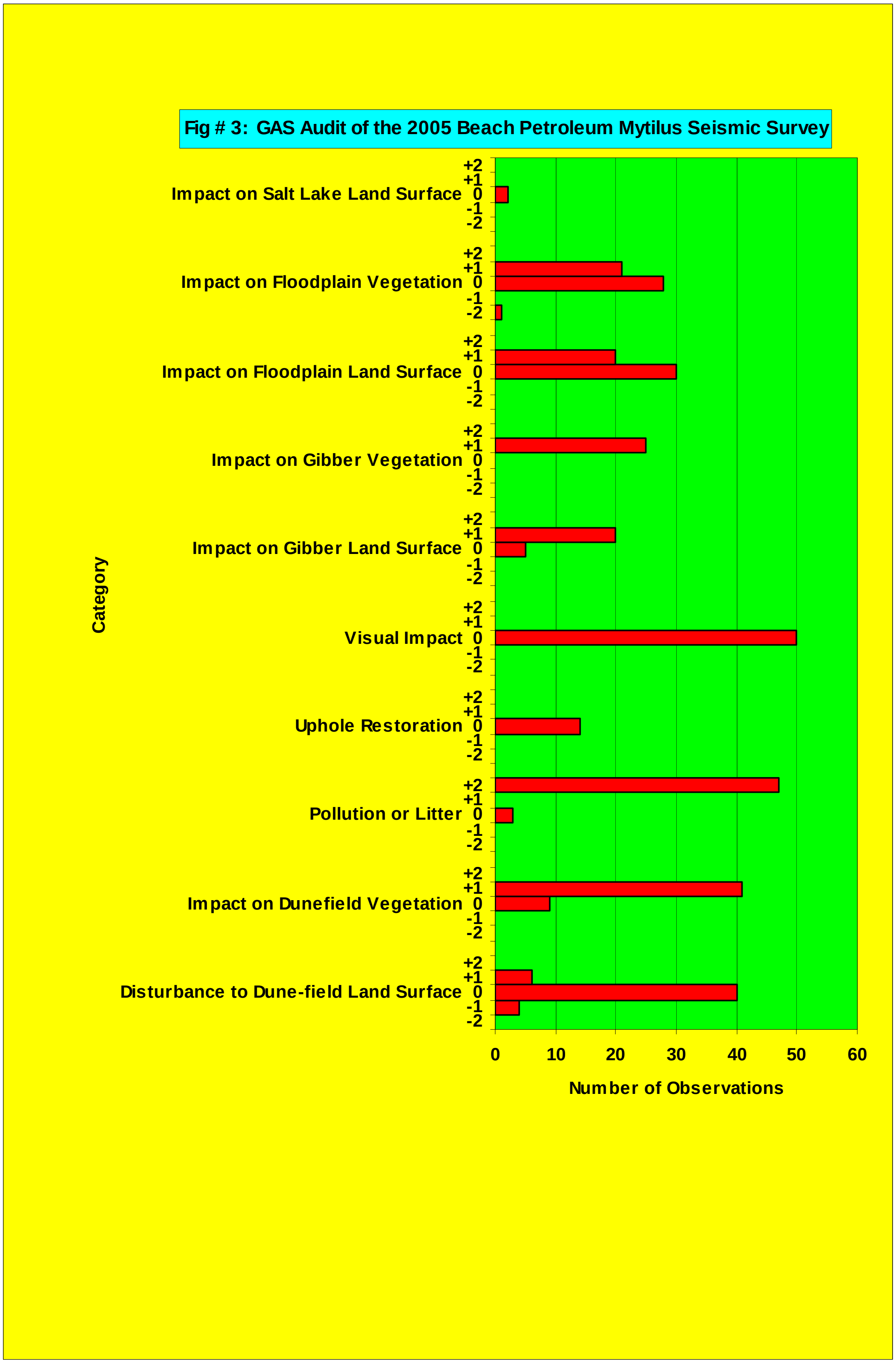
**Table 1: GAS Audited Areas in the 2005 Mytilus Seismic Survey**

| Line | Section |
|---|---|
| BC05-01 to BC05-47 | various |

Lines audited were in various types of terrain. The codes of practice for line preparation had been followed in that:

- Lines were weaved to break the line of sight;
- Dunes had minimal cuts;
- Swales were un-bladed or had minimal windrows;
- Priority 1,2 and 3 trees and shrubs were left untouched; only priority 4 vegetation was removed where necessary;
- Gibber areas were left unbladed;
- Lines were weaved through trees in floodplain areas;
- No windrows that could block water flow were left in floodplain areas;
- Cuttings from up-holes were dispersed so as not to form piles;
- No litter was in evidence;
- Offline traffic was limited to up-hole locations, vibrator passing spots and dogbox setups;

The scores were assigned by GAS category as shown in Fig. # 3:




Some photos illustrating the audited areas follow:

**Picture # 1: Line BC05-21; a mixture of gibber and sand dunes; gibber has not been bladed**

**Picture # 2: Line BC05-16 stn # 455 looking west; not much weaving here**

**Picture # 3: Line BC05-16 looking south from Terry's Track; no bladework on gibber**

**Picture # 4: a rare piece of litter found on line; the crewmembers were shown this picture**

**Picture # 5: Line BC05-12; good weaving**

**Picture # 6: salt lake on line BC05-13; no vehicles on lake, foot tracks only**

**Picture # 7: line BC05-13; offset dune cuts break line of sight**

**Picture # 8: Line BC05-28 stn # 420 looking east; line weaves thru trees**

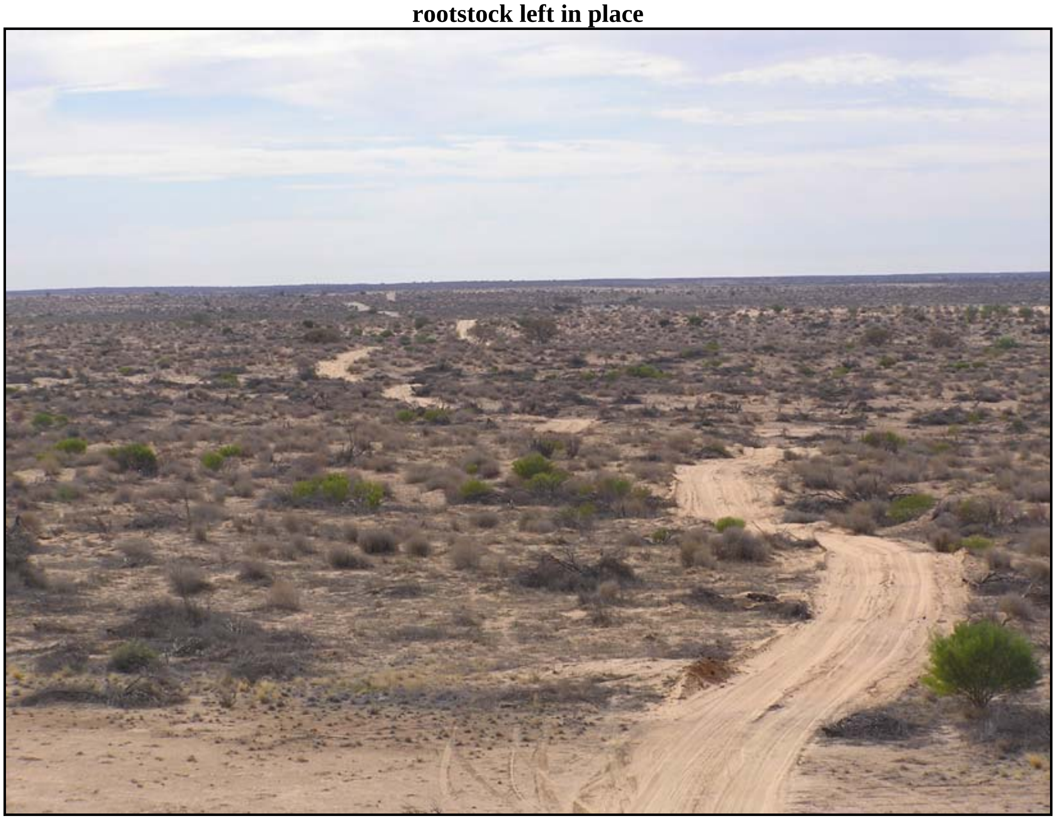
**Picture # 9: line BC05-28 stn # 407 looking east; line descends off a dune and weaves into floodplain trees**

**Picture # 10: good weaving and no bladework in swale on line BC05-45**

**Picture # 11: salt lake near the intersection of line BC05-39 and BC05-45**

**Picture # 12: side cut on a dune on line BC05-45**

**Picture # 13: line passes through a patch of lignum and swamp canegrass on line BC05-38; no windrows and rootstock left in place**



**Picture # 14: line BC05-45; excellent use of weaving to break line of sight**

**Picture # 15: line BC05-22. This picture was taken by Rob Langley of PIRSA and is the reason for the -2 GAS score in the "impact on floodplain vegetation" score chart. It is an uncharacteristic and isolated incident which was vigorously denied by the DOK operators, but ………… !**

Summary

Line preparation began in the south of PEL 92 and worked north. It was not until the dozers were working around the Line BC05-10 area that the operators were instructed to use the full 40m corridor allowed for weaving. The weaving did improve dramatically after this.

The photos taken by Rob Langley on line BC05-22 came as a shock to the DOK operators when they were shown at another location. They deny having done it and there has not been an opportunity to take the accused operator back there to investigate. If it is true then it is certainly an aberration and not indicative of the generally good job done by the DOK operators throughout the survey.

.

# 3. ENVIRONMENTAL MONITORING POINTS (EMPS) DESCRIPTION

Standard practice requires the establishment of EMPs wherever 2D or 3D seismic surveys are carried out. Ideally, these points are to be positioned at the intersection of 2D lines or of source and receiver lines in 3D, and where the landform and vegetation is representative of the survey area. Preference is to be given to complying intersections close to tracks or roads so that they may be readily located and accessed in the future, without any further impact the area.

Appropriately tagged monuments identifying each EMP are to be installed.

Photographs in each line direction are to be taken prior to line preparation then again following the completion of all activities. It is envisaged that these lines will be photographed at intervals in the future in order to assess the natural restoration and re-vegetation rates of prepared seismic lines.

During the preparation phase, DSS surveyors selected four locations for EMPs. Only one was on an intersection. "Before" line prep and "after" recording photos were taken.

A steel dropper was installed at each EMP with an identifying aluminium tag attached to each.

## 3.1 After Recording

Bruce Beer, (Beach Petroleum Limited Field Representative), undertook this initial photo monitoring and report.

BC05-EMP-01 (Line BC05-23 int. BC05-30)

To the north the line weaves around trees with only wheel tracks disturbing the grey clay surface.
To the east the line weaves around trees with only wheel tracks disturbing the grey clay surface.
To the south the line weaves around trees with only wheel tracks disturbing the white sandy surface.
To the west the line weaves around trees with only wheel tracks disturbing the grey sandy surface
Disturbance to floodplain Land Surface; GAS = 0

BC05-EMP-02 (Line BC05-17 stn # 342)

In the northerly direction the line weaves off on a gibber inter-dunal corridor devoid of vegetation. There is evidence of off line traffic so the Disturbance to gibber Land Surface; GAS = -1

In the southerly direction the line crosses a short section of gibber before climbing a dune with a weaving minimal cut. There is evidence of off line traffic so the Disturbance to gibber Land Surface; GAS = -1

BC05-EMP-03 (Line BC05-46 stn # 556+32m)

In the northerly direction the line weaves through some sparsely vegetated floodplains with lignum and swamp cane-grass. There are no windrows and rootstock has been left in place. Disturbance to floodplain Land Surface; GAS = 0

In the southerly direction the line crosses a parched semi crab-hole plain almost devoid of vegetation. Only wheel tracks are evident. Disturbance to floodplain Land Surface; GAS = +1.

BC05-EMP-04 (Line BC05-27 stn # 536+34m)

In the easterly direction the line crosses a crab-holy floodplain with sparse lignum. There are no windrows. Disturbance to floodplain Land Surface; GAS = 0.

In the westerly direction the line parallels the fence line with only wheel tracks evident. Disturbance to floodplain Land Surface; GAS = 0.

.

## 3.2 One Year After Recording

## 3.3 Two Years After Recording

## 3.4 Four Years After Recording

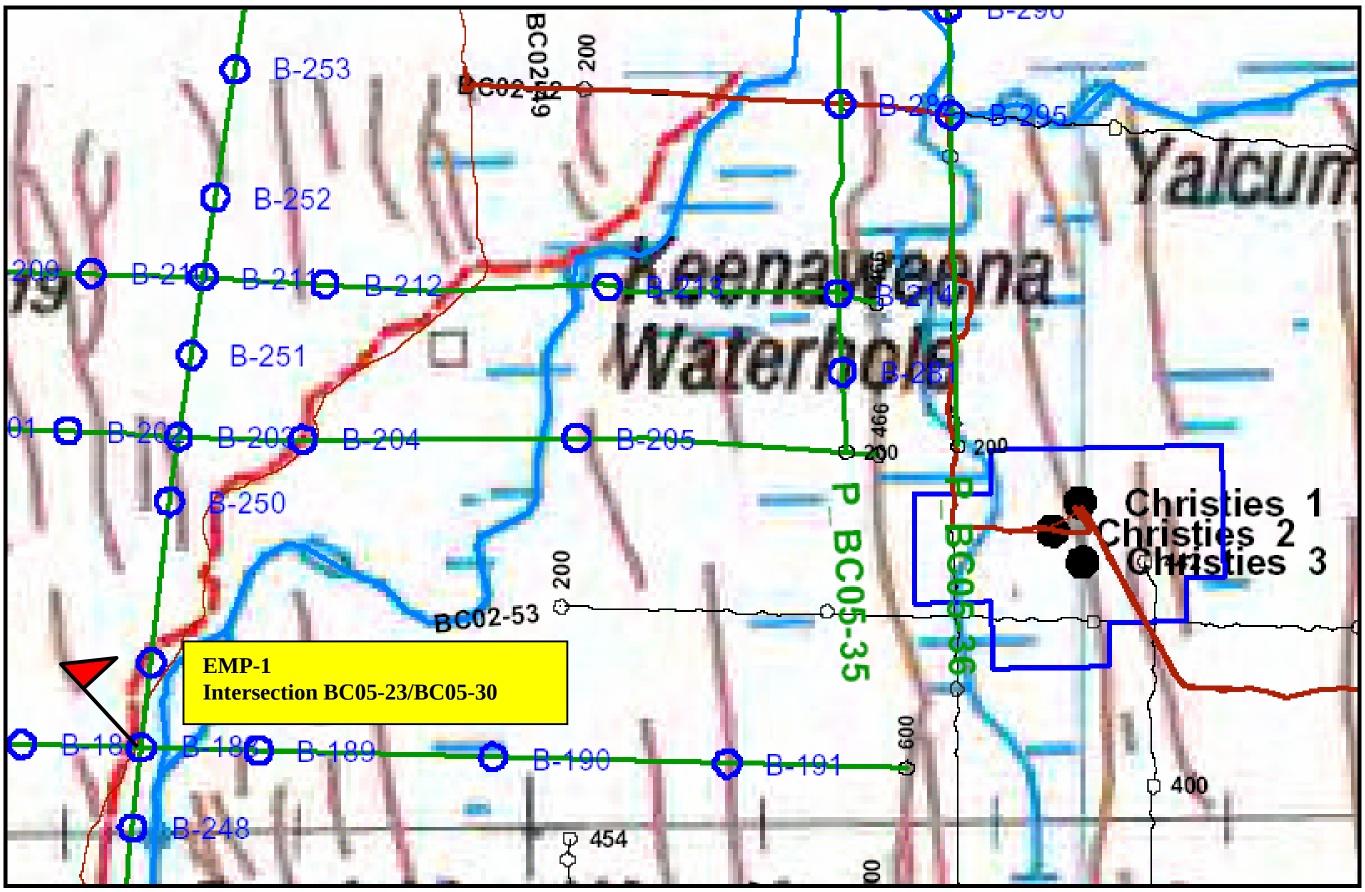
## 4.1 BC05-EMP-1


**Tag # EMP- 1**

**Line:** BC05-23 int. BC05-30

**Coordinates:**
MGA E 333 385 N 6 902 230
GDA Lat. -27 deg 59' 40.9"
GDA Long. 139 deg 18' 20.3"

**EMP-1** Permanent Marker on the intersection of lines BC05-23 and BC05-30; Mungeranie Station)
Star Picket tagged with an aluminium plate as pictured.
To locate EMP-1, travel to where the Christies road meets the River Road on the western side of the Cooper. Travel south on the River Road approximately 5 km where line BC05-23 crosses. EMP-1 is 50m east of the track.



**BEFORE LINE PREP**


BC05-EMP-1: Line BC05-23 intersection line BC05-30 looking north on BC05-30

**AFTER RECORDING**

**4 YEARS AFTER**

**2 YEARS AFTER**

**1 YEAR AFTER**

**BEFORE LINE PREP**


BC05-EMP-1: Line BC05-23 intersection line BC05-30 looking east on BC05-23

**AFTER RECORDING**

**4 YEARS AFTER**

**2 YEARS AFTER**

**1 YEAR AFTER**

**BEFORE LINE PREP**


BC05-EMP-1: Line BC05-23 intersection line BC05-30 looking south on BC05-30

**AFTER RECORDING**

**4 YEARS AFTER**

**2 YEARS AFTER**

**1 YEAR AFTER**

**BEFORE LINE PREP**


BC05-EMP-1: Line BC05-23 intersection line BC05-30 looking west on BC05-23

**AFTER RECORDING**

**4 YEARS AFTER**

**2 YEARS AFTER**

**1 YEAR AFTER**

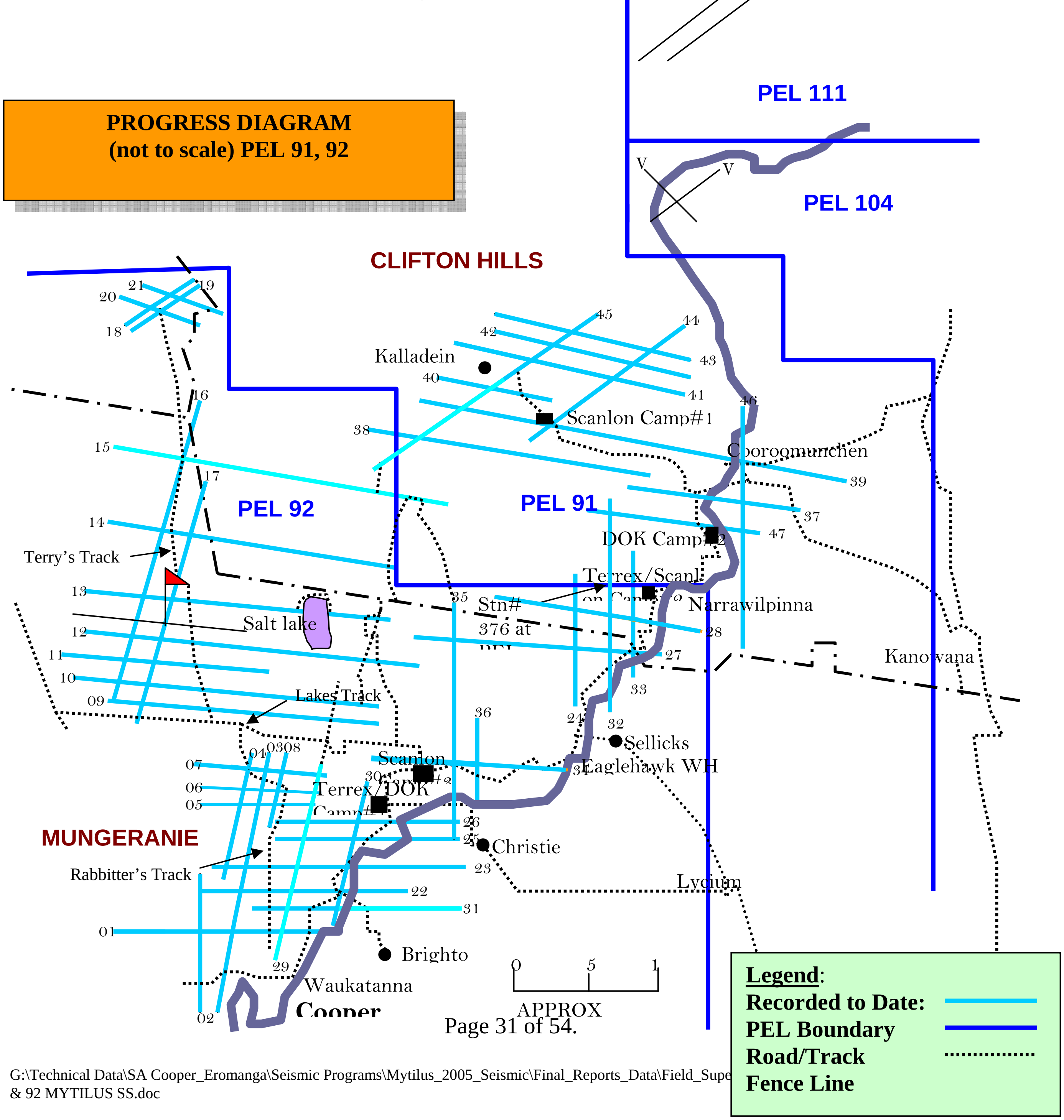
## 4.1 BC05-EMP-2

**Line:** BC05-17 station# 342


**Tag # EMP- 2**

**Coordinates:**
MGA Easting: 322 250 Northing: 6 920 245
Lat. -27 deg 49’ 50.5”, Long. 139 deg 11’ 42.5”

**EMP-2** Permanent Marker on line BC05-17 stn# 342 (Clifton Hills Station)
Star Picket tagged with an aluminium plate as shown in picture.
To get to EMP-2, proceed north along Terry’s Track (access from lakes track or rabbitters track). Approximately 5 km north of the lakes track and about 1 km north of line BC05-12 you come to old line BC93-44. Proceed west along this line for approximately 1 km to the intersection of line BC05-17. EMP-1 is right there.



**BEFORE LINE PREP**


BC05-EMP-2 Line BC05-17stn# 342 looking north

**AFTER RECORDING**

**4 YEARS AFTER**

**2 YEARS AFTER**

**1 YEAR AFTER**

**BEFORE LINE PREP**


BC05-EMP-2 Line BC05-17stn# 342 looking south

**AFTER RECORDING**

**4 YEARS AFTER**

**2 YEARS AFTER**

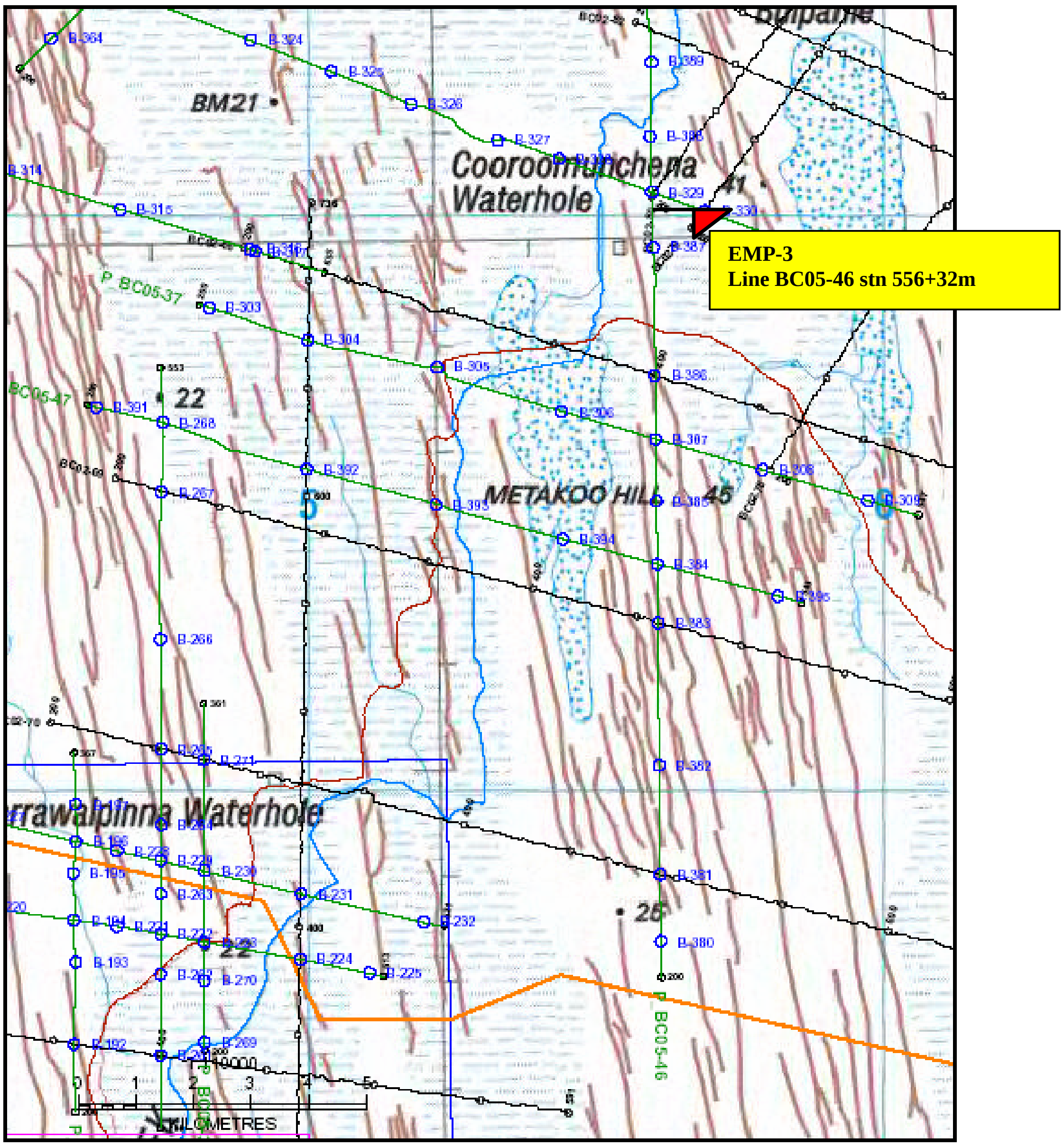
**1 YEAR AFTER**

## 4.1 BC05-EMP-3

**Line:** BC05-46 station# 556+32m

**Coordinates:**
MGA Easting: 355 974.2 Northing: 6 930 128.1
GDA Lat. -27 deg 44' 43.99" Long. 139 deg 32' 19.24"

**EMP-3** Permanent Marker on line BC05-46 stn# 556+32m (Clifton Hills Station)
Star Picket tagged with an aluminium plate.
To get to EMP-3 go past Sellicks to where the track meets the River Road. Turn north on the River Road and go 7.7 km to the gate in the boundary fence between Mungeranie and Clifton Hills. Go through the gate and travel another 13.3 km to a fork in the track. Veer right and travel east for 4.1 km until you meet a track heading north. Travel 2.2 km up this track. EMP-3 is on the edge of the floodplain and is 1 km east of Cooroomunchena Waterhole.



**BEFORE LINE PREP**


BC05-EMP-3 Line BC05-46 stn# 556+32m looking north

**AFTER RECORDING**

**4 YEARS AFTER**

**2 YEARS AFTER**

**1 YEAR AFTER**

**BEFORE LINE PREP**


BC05-EMP-3 Line BC05-46 stn# 556+32m looking south

**AFTER RECORDING**

**4 YEARS AFTER**

**2 YEARS AFTER**

**1 YEAR AFTER**

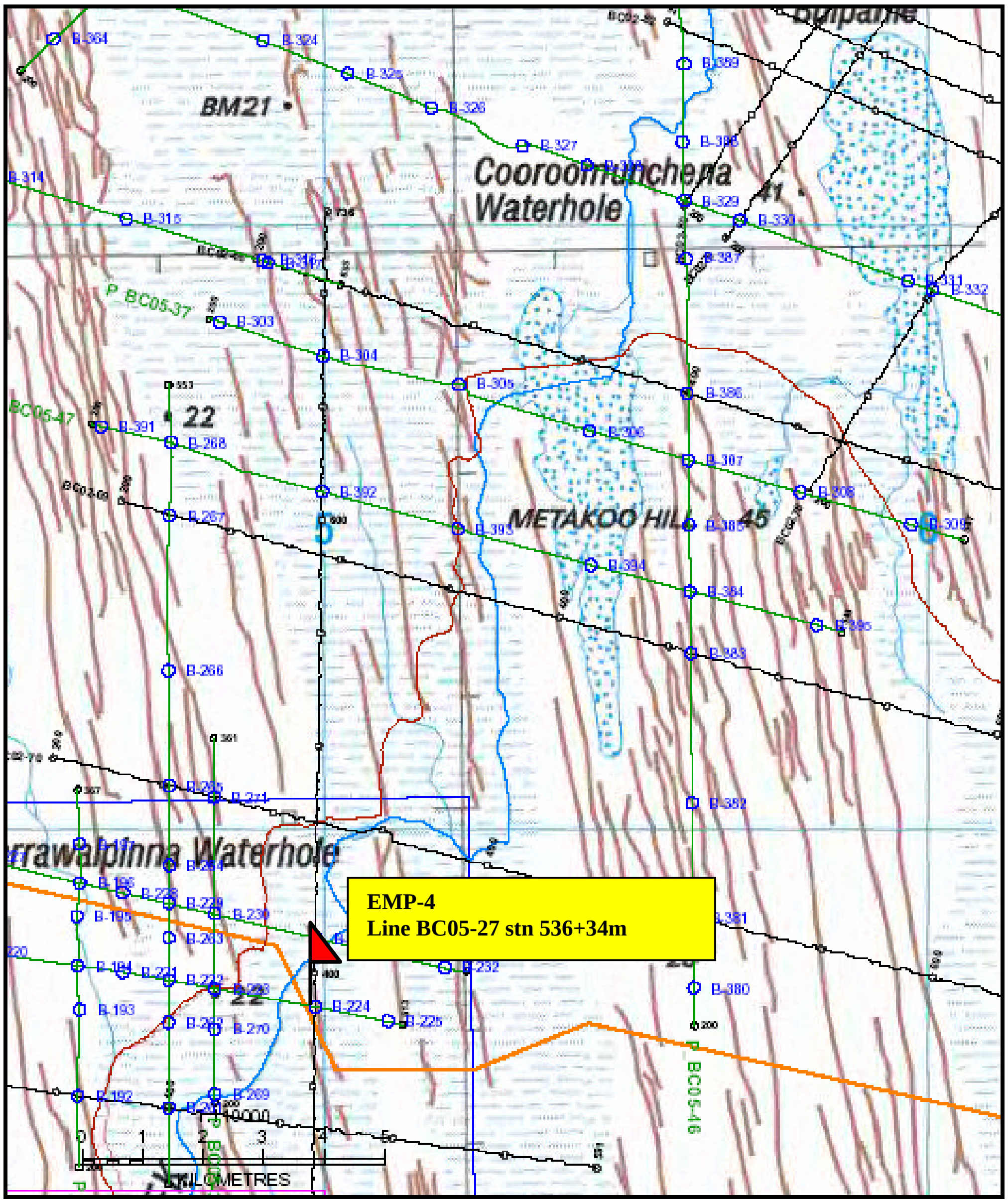
## BC05-EMP-4


**Tag # EMP- 4**

**Line:** BC05-27 station# 536+35m

**Coordinates:**
MGA Easting: 348 478.2 Northing: 6 917 307.4
GDA Lat: -27 deg 51' 37.5" Long. 139 deg 27' 39.7"

**EMP-4** Permanent Marker on line BC05-27 stn # 536+35m (Clifton Hills Station)
Star Picket tagged with an aluminium plate.
To get to EMP-4 travel from Sellicks to the River Road then north 7.7 km to the boundary gate. Go through the gate then turn east along the fence line. The EMP is 100m east of the fence-line on a corner.



**BEFORE LINE PREP**


BC05-EMP-4 Line BC05-27 stn# 536+35m looking east

**AFTER RECORDING**

**4 YEARS AFTER**

**2 YEARS AFTER**

**1 YEAR AFTER**

**BEFORE LINE PREP**


BC05-EMP-4 Line BC05-27 stn# 536+35m looking west

**AFTER RECORDING**

**4 YEARS AFTER**

**2 YEARS AFTER**

**1 YEAR AFTER**

## GAS criteria for assessing seismic lines on completion of survey in the Cooper and Eromanga Basins, South Australia

| LAND SYSTEM | MEASURE (Associated goals)[(a)] | SCORE +2[(b, c)] | +1[(b, c)] | 0[(b, c)] | -1 | -2[(d)] |
|---|---|---|---|---|---|---|
| **Non land system specific** | *Impact on infrastructure* 2.6 | • No impact to any pastoral, tourist or production infrastructure. | • No observable repair or damage to infrastructure. | • Any impact to infrastructure has been reported and reinstated or repaired. | • Repair to damaged infrastructure is incomplete or inappropriate.<br>• Damage has not been reported. | • Damage to any infrastructure has been left unrepaired and not reported. |
| | *Visual impact* 2.5, 2.7 | • No evidence of seismic operations. | • Only wheel tracks are evident.<br>• Line weaves.<br>• Line of sight is impaired. | • Established roads and tracks have been reshouldered.<br>• Doglegs have been placed at established roads and tracks in vegetated areas.<br>• Dozer or grader has been walked 40 m either side of established road or track.<br>• Line weaves through vegetated areas.<br>• Line of sight is impaired. | • No doglegs at established roads or tracks in vegetated areas.<br>• No weaving through vegetated areas.<br>• Line of sight is unimpaired. | • Line is clearly evident and dominates the landscape. |
| | *Uphole site restoration* 2.3, 2.5[(e)] | • No evidence of upholes. | • No evidence of cuttings.<br>• Some evidence of operations. | • Cuttings are evident but dispersed around hole.<br>• No subsidence. | • Hole is plugged.<br>• Cuttings form mound <0.5 m high.<br>• Subsidence is evident. | • Hole is open.<br>• Cuttings form mound >0.5 m high. |
| | *Pollution or litter* 2.1, 2.2, 2.3, 2.5 | • No pollution or litter. | • No evidence of water or oil pollution.<br>• Maximum of 1 pin flag/km.<br>• No other litter. | • Waste water and vehicle oil spills have been managed appropriately.<br>• Maximum of 2 pin flags/km.<br>• Maximum of 1 item of other litter/km. | • Waste water forms ponds or extensive boggy ground.<br>• Vehicle oil spills have not been remedied.<br>• Maximum of 3–4 pin flags/km.<br>• Maximum of 1–4 items of other litter/km. | • Extensive waste water ponding.<br>• Oil spills of more than 20 L have not been remedied.<br>• Five or more pin flags/km.<br>• Five or more items of other litter/km. |
| **Dunefield** | *Impact on vegetation* 2.1, 2.2[(f)] | • No removal of vegetation. | • No removal of Priority 3 shrubs <1 m high. | • No removal of Priority 1 and 2 vegetation.<br>• No removal of Priority 3 shrubs >2 m high.<br>• Less than 30% of tree branches have been removed. | • Priority 1 or 2 vegetation <2 m high have been removed, including rootstock.<br>• Priority 3 shrubs >2 m high have been removed, including rootstock. | • Priority 1 or 2 vegetation >2 m high have been removed, including rootstock. |
| | *Disturbance to land surface* 2.2, 2.3[(e)] | • No dune cuts.<br>• No windrows. | • Dune cuts are <0.5 m deep.<br>• Windrows in swale are <100 mm high. | • Dune crest cuts are 0.5–2 m deep.<br>• Side cuts are <1.5 m deep.<br>• Sand is stacked along side of cut.<br>• Windrows in swale are <0.3 m high.<br>• Clay-rich dune cuts are <1 m deep. | • Dune crest cuts are 2–4 m deep.<br>• Side cuts are 1.5–3 m deep.<br>• Minor ramping of sand onto swale.<br>• Windrows in swale are 0.3–0.5 m high.<br>• Clay-rich dune cuts are >1 m deep but rehabilitated. | • Dune crest cuts are >4 m deep.<br>• Extensive ramping of sand onto swale.<br>• Side cuts are >3 m deep.<br>• Claypans have been cut.<br>• Windrows in swales are >0.5 m high. |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | | | | • Off line trafficking is evident. | |

(…/cont.)

(Table A2.2 cont.)

| LAND SYSTEM | MEASURE (Associated goals)[a] | SCORE +2[b, c] | +1[b, c] | 0[b, c] | -1 | -2[d] |
|---|---|---|---|---|---|---|
| **Floodplain and wetlands** | *Impact on vegetation*<br>2.1, 2.2[f] | • No removal of vegetation. | • No removal of Priority 3 shrubs 1–2 m high. | • No removal of Priority 1 and 2 vegetation.<br>• No removal of Priority 3 shrubs >2 m high.<br>• Less than 30% of tree branches have been removed.<br>• Rootstock is intact. | • Priority 1 and 2 vegetation <2 m high have been removed.<br>• Priority 3 shrubs >2 m high have been removed.<br>• Rootstock is intact. | • Trees and/or shrubs >2 m high have been removed.<br>• Rootstock has been removed. |
| | *Disturbance to land surface*<br>2.2, 2.3, 2.4, 2.5[e] | • No windrows.<br>• No interference with drainage channels. | • Windrows are <100 mm high for >50% of line.<br>• Only creek banks <0.5 m high have been cut. | • Windrows are <100 mm high.<br>• Creek banks 0.5–1 m high have been cut.<br>• Creeks are not blocked.<br>• Wheel tracks are <100 mm deep. | • Windrows are <0.3 m high.<br>• Creek banks 1–2 m high have been cut and not restored.<br>• Creeks are blocked by material <1 m deep. | • Windrows are >0.3 m high.<br>• Creek banks >2 m high have been cut.<br>• Creeks are blocked by material >1 m deep.<br>• Wheel tracks are >0.2 m deep.<br>• Soil compaction is evident. |
| **Gibber plain and tableland** | *Impact on vegetation*<br>2.1, 2.2 | • No disturbance to vegetation. | • No removal of vegetation. | • Maximum of two trees 1–3 m high have been unavoidably removed at creek crossings.<br>• Less than 30% of tree branches have been removed.<br>• Creek crossings are doglegged. | • Vegetation has been removed unnecessarily.<br>• Three or more trees 1–3 m high have been removed at creek crossings. | • Trees have been removed unnecessarily.<br>• Two or more trees >3 m high have been removed at creek crossings. |
| | *Disturbance to land surface*<br>2.2, 2.3, 2.5[e] | • No evidence of seismic line. | • Only wheel tracks are evident. | • Line has been rolled or walked.<br>• No blade work.<br>• Creek banks have been cut only where necessary.<br>• Creeks are not blocked. | • Creek banks 1–2 m high have been cut and not restored.<br>• Creeks are blocked by material <1 m deep.<br>• ‘Windrows’[d] exist but are <50 mm high.<br>• Off line trafficking is evident. | • Gibber mantle has been removed.<br>• Creek banks >2 m high have been cut and not restored.<br>• Creeks are blocked by material >1 m deep.<br>• ‘Windrows’[g] are >50 mm high. |
| **Salt lake** | *Disturbance to land surface*<br>2.3, 2.5[e] | • No evidence of seismic line. | • No evidence of shotholes.<br>• Little evidence of foot trafficking. | • Only footprints are evident.<br>• No significant evidence of shotholes. | • Wheel tracks are <0.2 m deep.<br>• Minor evidence of shotholes. | • Wheel tracks are >0.2 m deep.<br>• Bog holes are evident.<br>• Dominant evidence of shotholes (e.g. cratering, blow out, discolouration). |

**(a)** Goals under Objective 2:

2.1 Clearing or other impacts on native vegetation are minimised.

2.2 Disturbance or other impacts on native fauna and their habitats are minimised.

2.3 Impact on soil is minimised.

2.4 Impact on surface drainage is minimised

2.5 Visual impact of operations (including litter) is minimised.

2.6 Impact on other land users is minimised.

2.7 Third party use of sites, following the completion of operations, is discouraged.

(b) If any criterion (dot point) within a -1 or -2 cell occurs, then a score of -1 or -2 will be allocated.

(c) For 0,+1 and +2 cells, all relevant criteria (dot point) within the cell must be satisfied to score at that level.

(d) Some criteria at -2 level may also be subject to defined conditions, but are included in this table to ensure that they are clearly identified.

(e) All vertical measurements to be measured from normal ground surface.

(f) Priority classification refers to Wiltshire and Schmidt (1977).

(g) 'Windrows' in this context means mounding of gibbers through the action of wheel trafficking and associated dispersal of gibbers away from wheel tracks.

## GAS criteria for assessing the level of rehabilitation of seismic lines in the Cooper and Eromanga Basins, South Australia

| LAND SYSTEM | MEASURE (Associated goals)[a] | SCORE +2[b,c] | +1[b,c] | 0[b,c] | -1 | -2[d] |
|---|---|---|---|---|---|---|
| **Non land system specific** | *Vegetation regrowth* 2.1, 2.2 | • Line is virtually indistinguishable from the surrounding flora.<br>• All vegetation has approximately the same natural variability on or off line. | • Vegetation on line is well established, but is only ~50% of the height and distribution of the surrounding flora. | • Regrowth is evident; new shoots are appearing (grasses, shrubs, annuals).<br>• Density of new vegetation is ~50% of that of the surrounding vegetation.<br>• No weed infestation. | • Some regrowth is evident, but at a density well below 50% of the surrounding vegetation.<br>• Some weed infestation. | • Line is clearly distinguishable from surrounding flora.<br>• Extensive weed infestation. |
| | *Visual impact* 2.5 | • No evidence of seismic operations. | • Line is only evident when occupying a known reference point. | • Line weaves through vegetated areas.<br>• Line of sight is impaired. | • No doglegs in vegetated areas.<br>• No weaving.<br>• Line of sight is unimpaired. | • Line is clearly evident and dominates the landscape. |
| | *Third party use* 2.7 | • No third party use. | • Very little evidence of third party use. | • Little evidence of third party use. | • Significant third party use. | • Line has become a major track. |
| | *Uphole site restoration* 2.3, 2.5[e] | • No evidence of upholes. | • Evidence of upholes is difficult to discern. | • Cuttings are evident but dispersed around hole.<br>• No subsidence. | • Hole is plugged.<br>• Cuttings form mound <0.3 m high.<br>• Subsidence is evident. | • Hole is open.<br>• Cuttings form mound >0.3 m high. |
| | *Pollution or litter* 2.1, 2.2, 2.3, 2.5 | • No pollution or litter. | • No water or oil pollution.<br>• Maximum of 1 pin flag/2 km.<br>• No other litter. | • No evidence of water or oil pollution.<br>• Maximum of 1 pin flag/km.<br>• No other litter. | • Minor evidence of vehicle oil spills.<br>• Maximum of 2 pin flags/km.<br>• Maximum of 1 item of other litter/km. | • Waste water has changed the microenvironment.<br>• Oil spillage is clearly evident.<br>• Three or more pin flags/km.<br>• Two or more items of other litter/km. |
| | *Erosion* 2.3[e] | • No evidence of erosion. | • Minor localised erosion. | • Minor erosion.<br>• No gullies. | • Significant erosion.<br>• Gullies <0.3 m deep have formed.<br>• Floodwaters have been diverted along seismic lines. | • Severe erosion.<br>• Gullies >0.3 m deep have formed.<br>• Watercourses have been altered by seismic line; line has become a creek. |
| ***Dunefield*** | *Disturbance to land surface* 2.3, 2.5[e] | • No evidence of seismic operations. | • Dune cuts <0.5 m deep are still evident.<br>• Windrows in swales are <100 mm high and occur for <50% of line.<br>• Disturbance to dune flanks is barely visible. | • Dune cuts <1 m deep are still evident, providing cut is not vertical.<br>• Side cuts are <0.5 m deep.<br>• Windrows in swales are <100 mm high. | • Dune cuts are 1–3 m deep.<br>• Side cuts are <2 m deep.<br>• Windrows are <0.3 m high. | • Dune cuts are >3 m deep.<br>• Side cuts are >2 m deep.<br>• Dune cuts are vertical.<br>• Sand is ramped into corridor.<br>• Windrows are >0.3 m high. |

*(…/cont.)*

*(Table A2.3 cont.)*

| LAND SYSTEM | MEASURE (Associated goals) (a) | SCORE | | | | |
|---|---|---|---|---|---|---|
| | | +2 (b,c) | +1 (b,c) | 0 (b,c) | -1 | -2 (d) |
| **Floodplain and wetlands** | *Disturbance to land surface* 2.2, 2.3, 2.4, 2.5 (e) | • No evidence of seismic operations. | • Windrows are <50 mm high and occur for <50% of line.<br>• Only wheel tracks are evident. | • Windrows are <50 mm high.<br>• Creek bank cuts <1 m deep have reformed.<br>• Creeks are not blocked. | • Windrows are consistently <100 mm high.<br>• Creek bank cuts < 2 m deep have not reformed.<br>• Creeks are blocked by material <1 m deep.<br>• Wheel tracks are <100 mm deep. | • Windrows are consistently >100 mm high.<br>• Creek bank cuts >2 m deep have not reformed.<br>• Creeks are blocked by material >1 m deep.<br>• Wheel tracks are >100 mm deep.<br>• Soil compaction is evident. |
| **Gibber plain and tableland** | *Disturbance to land surface* 2.2, 2.3, 2.5 (e,f) | • No evidence of seismic operations. | • Slight evidence of wheel tracks. | • Wheel tracks are evident but <50 mm deep.<br>• Creeks are not blocked.<br>• No 'windrows' (f). | • Wheel tracks are >50 mm deep.<br>• Creek banks have not reformed.<br>• 'Windrows' (f) exist but are <50 mm high. | • Creeks are blocked.<br>• 'Windrows' (f) are >50 mm high.<br>• Significant evidence of erosion. |
| **Salt lake** | *Disturbance to land surface* 2.3, 2.4 (e) | • No evidence of seismic operations. | • Little evidence of seismic operations.<br>• No evidence of shotholes. | • No wheel tracks are evident.<br>• Little evidence of foot trafficking.<br>• No significant evidence of shotholes. | • Wheel tracks are <0.2 m deep.<br>• Minor evidence of shotholes. | • Wheel tracks are >0.2 m deep.<br>• Bog holes are evident.<br>• Dominant evidence of shotholes (e.g. cratering, blow out, discolouration) |

(a) Goals under Objective 2:

2.1 Clearing or other impacts on native vegetation are minimised.

2.2 Disturbance or other impacts on native fauna and their habitats are minimised.

2.3 Impact on soil is minimised.

2.4 Impact on surface drainage is minimised.

2.5 Visual impact of operations (including litter) is minimised.

2.6 Impact on other land users is minimised.

2.7 Third party use of sites, following the completion of operations, is discouraged.

(b) If any criterion (dot point) within a -1 or -2 cell occurs, then a score of -1 or -2 will be allocated.

(c) For 0,+1 and +2 cells, all relevant criteria (dot point) within the cell must be satisfied to score at that level.

(d) Some criteria at -2 level may also be subject to defined conditions, but are included in this table to ensure that they are clearly identified.

(e) All vertical measurements to be measured from normal ground surface.

(f) 'Windrows' in this context means mounding of gibbers through the action of wheel trafficking and associated dispersal of gibbers away from wheel tracks.

## GAS scores for assessing seismic lines on completion of survey in the Cooper Basin, South Australia

Beach Petroleum Limited.: 2005 PEL 91 & 92 Mytilus 2D Seismic Survey: Recorded May 8th – June 7th, 2005: Audited by: Bruce Beer

| LAND SYSTEM (Locations) | MEASURE (Associated goals) [a] | SCORE +2 [b, c] | +1 [b, c] | 0 [b, c] | -1 | -2 [d] |
|---|---|---|---|---|---|---|
| **Non land system specific**<br>**EMP Locations**<br>a) EMP-1, BC05-23/BC05-30<br>b) EMP-2, BC05-17 stn# 342<br>c) EMP-3, BC05-46 stn# 556+32m<br>d) EMP-4, BC05-27 stn# 536+34m | *Impact on infrastructure*<br>2.6 | | | • N/A | • | • |
| | *Visual impact*<br>2.5, 2.7 | • | • | **a), b), c), d)** | • | • |
| | *Uphole site restoration*<br>2.3, 2.5 [e] | • | • | **a)** | • | • |
| **Note: GAS scores refer to the area 500m either side of the EMP location** | *Pollution or litter*<br>2.1, 2.2, 2.3, 2.5 | **b),c), d)** | • | **a)** | • | • |
| **Dunefield** | *Impact on vegetation*<br>2.1, 2.2 [f] | • | | | • | • |
| | *Disturbance to land surface*<br>2.2, 2.3 [e] | • | | | • | • |

*(…/cont.)*

*(Table A2.2 cont.)*

| LAND SYSTEM | MEASURE (Associated goals) [(a)] | SCORE +2[(b, c)] | +1[(b, c)] | 0[(b, c)] | -1 | -2[(d)] |
|---|---|---|---|---|---|---|
| **Floodplain and wetlands** | *Impact on vegetation* 2.1, 2.2[(f)] | • | | **a), c), d)** | • | • |
| | *Disturbance to land surface* 2.2, 2.3, 2.4, 2.5[(e)] | • | **a), c), d)** | | • | • |
| **Gibber plain and tableland** | *Impact on vegetation* 2.1, 2.2 | • | • | • **b)** | • | • |
| | *Disturbance to land surface* 2.2, 2.3, 2.5[(e)] | • | • | • | • **b)** | • |
| **Salt lake** | *Disturbance to land surface* 2.3, 2.5[(e)] | • | • | • | • | • |

**(a)** Goals under Objective 2:

- 2.1 Clearing or other impacts on native vegetation are minimised.
- 2.2 Disturbance or other impacts on native fauna and their habitats are minimised.
- 2.3 Impact on soil is minimised.
- 2.4 Impact on surface drainage is minimised
- 2.5 Visual impact of operations (including litter) is minimised.
- 2.6 Impact on other land users is minimised.
- 2.7 Third party use of sites, following the completion of operations, is discouraged.

(b) If any criterion (dot point) within a -1 or -2 cell occurs, then a score of -1 or -2 will be allocated.

(c) For 0,+1 and +2 cells, all relevant criteria (dot point) within the cell must be satisfied to score at that level.

(d) Some criteria at -2 level may also be subject to defined conditions, but are included in this table to ensure that they are clearly identified.

(e) All vertical measurements to be measured from normal ground surface.

(f) Priority classification refers to Wiltshire and Schmidt (1977).

(g) 'Windrows' in this context means mounding of gibbers through the action of wheel trafficking and associated dispersal of gibbers away from wheel tracks.

## GAS scores for assessing the level of rehabilitation of seismic lines in the Cooper and Eromanga Basins, South Australia

Beach Petroleum Limited.: 2005 PEL 91 & 92 Mytilus 2D Seismic Survey: Recorded May 8th – June 7th, 2005:
Audited by: ?
:

| LAND SYSTEM | MEASURE (Associated goals) [a] | SCORE | | | | |
|---|---|---|---|---|---|---|
| | | +2 [b,c] | +1 [b,c] | 0 [b,c] | -1 | -2 [d] |
| **Non land system specific**<br>**EMP Locations**<br>a) EMP-1, BC05-23/BC05-30<br>b) EMP-2, BC05-17 stn# 342<br>c) EMP-3, BC05-46 stn# 556+32m<br>d) EMP-4, BC05-27 stn# 536+34m | *Vegetation regrowth*<br>2.1, 2.2 | • | • | • | • | • |
| | *Visual impact*<br>2.5 | • | • | • | • | • |
| | *Third party use*<br>2.7 | • | • | • | • | • |
| **Note: GAS scores refer to the area 500m either side of the EMP location** | *Uphole site restoration*<br>2.3, 2.5 [e] | • | • | • | • | • |
| | *Pollution or litter*<br>2.1, 2.2, 2.3, 2.5 | • | • | • | • | • |
| | *Erosion*<br>2.3 [e] | • | • | • | • | • |
| ***Dunefield*** | *Disturbance to land surface*<br>2.3, 2.5 [e] | • | • | • | | • |

*(…/cont.)*

*(Table A2.3 cont.)*

| LAND SYSTEM | MEASURE (Associated goals) [a] | SCORE +2[b,c] | +1[b,c] | 0[b,c] | -1 | -2[d] |
|---|---|---|---|---|---|---|
| **Floodplain and wetlands** | *Disturbance to land surface* 2.2, 2.3, 2.4, 2.5[e] | | • | • | • | • |
| **Gibber plain and tableland** | *Disturbance to land surface* 2.2, 2.3, 2.5[e,f] | • | • | • | • | • |
| **Salt lake** | *Disturbance to land surface* 2.3, 2.4 [e] | • | • | • | • | • |

(a) Goals under Objective 2:

- 2.1 Clearing or other impacts on native vegetation are minimised.
- 2.2 Disturbance or other impacts on native fauna and their habitats are minimised.
- 2.3 Impact on soil is minimised.
- 2.4 Impact on surface drainage is minimised.
- 2.5 Visual impact of operations (including litter) is minimised.
- 2.6 Impact on other land users is minimised.
- 2.7 Third party use of sites, following the completion of operations, is discouraged.

(b) If any criterion (dot point) within a -1 or -2 cell occurs, then a score of -1 or -2 will be allocated.

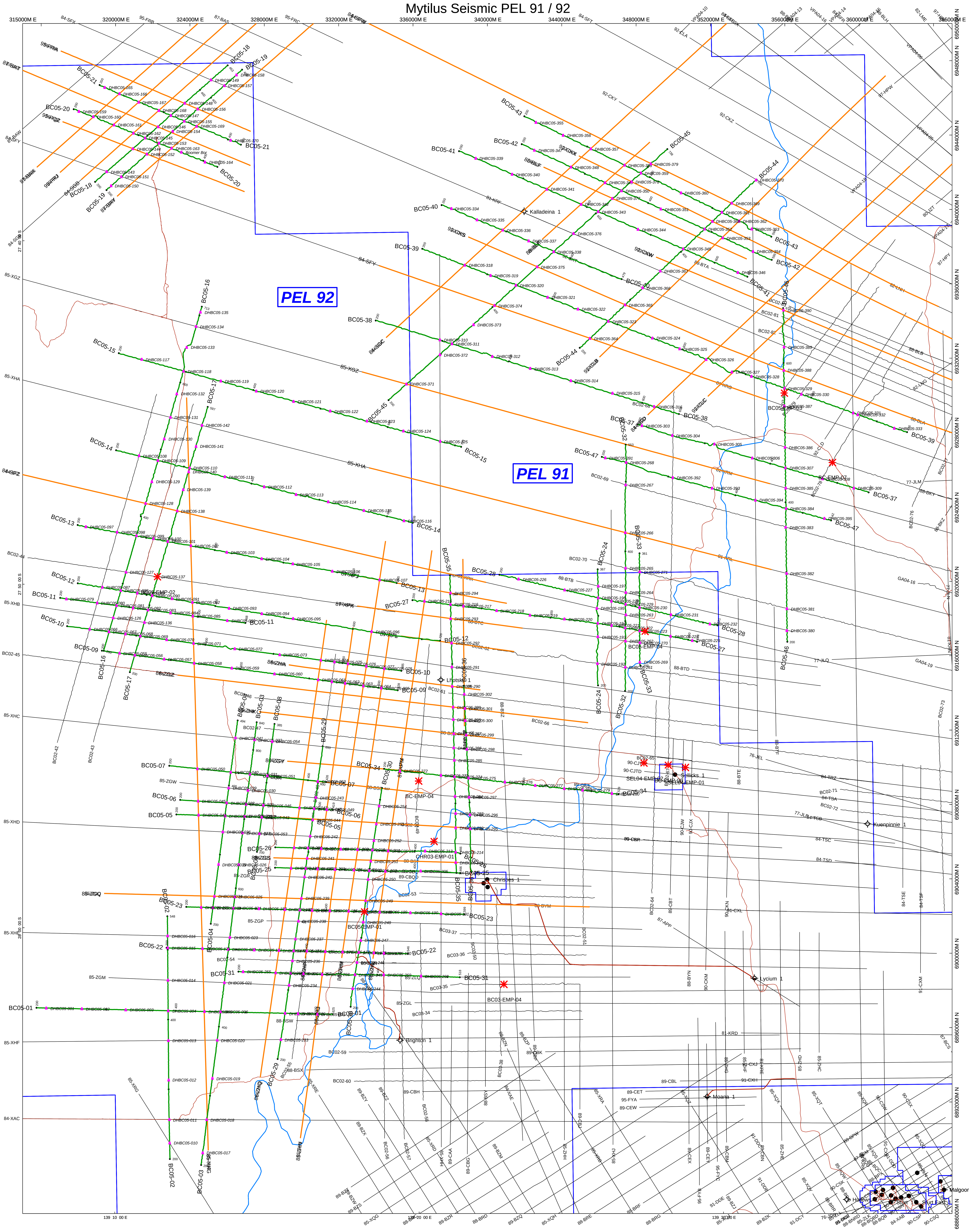
(c) For 0,+1 and +2 cells, all relevant criteria (dot point) within the cell must be satisfied to score at that level.

(d) Some criteria at -2 level may also be subject to defined conditions, but are included in this table to ensure that they are clearly identified.

(e) All vertical measurements to be measured from normal ground surface.

(f) ‘Windrows’ in this context means mounding of gibbers through the action of wheel trafficking and associated dispersal of gibbers away from wheel tracks

# Mytilus Seismic PEL 91 / 92




## Legend

Existing Lines ............... 84-SFW

Reprocessed Lines ..........

2005 Lines ................... BC05-01

2005 Upholes ..................

EMP Locations ...............

1:100000

0 2 4 6 8 10

KILOMETRES

UNIVERSAL TRANSVERSE MERCATOR PROJECTION
G.R.S. 1980 SPHEROID
CENTRAL MERIDIAN 141 00 00 E
Mapsheet datum: "GDA94"

## Beach Petroleum Ltd

2005 Mytilus Seismic Survey
PEL 91, PEL 92

New and Reprocessed Lines
Base Map

| | | |
|---|---|---|
| Scale: 1:100000 | Date : January 23, 2006 | Encl No: |
| Contour Interval: | Author: dcr | 1 |
| Map File: | | |