

## Lighting Plan

Condition 16 requires that we provide details of the external lighting on the site.

The site lighting is made up of four VT-1 lighting units (see drawing number 1300/016 for details), each having four individually aimed floodlight luminaires. These are combined with fixed position lamps mounted on the drilling rig. The VT-1 units are 9m tall when in operation and will be angled downwards and into the site. The lighting units are typically positioned in each corner of the site to maximise the coverage of the site area as indicated in Drawing Ref: P185/054A, the HH102 Indicative Site Layout, below.

At the rig itself, the light distribution from the doghouse (SON-T) lamps are directed onto the rig and ground installations, and as such do not contribute to any spill around the site perimeter. The site arrangement which includes the use of acoustic fencing and porta-cabins, the rig itself and the associated carousel, all act as a shield. This, along with the light positions shown in the proposed drawing, ensures that there is minimal light spill outwith the site.

Drawing Ref: P185/095 illustrates that there are no receptors within 500m of the site (the nearest buildings, around 500m to the northwest are agricultural, with no residential element).



|                           |                             |
|---------------------------|-----------------------------|
| Single phase voltage      | 10kVA - 240V                |
| Frequency                 | 50Hz                        |
| R.P.M.                    | 1500                        |
| Engine Type               | Kubota D1105                |
| Number of Cylinders       | 3                           |
| Power                     | 13.7Hp                      |
| Displacement              | 1123cm <sup>3</sup>         |
| Cooling                   | Water                       |
| Starting System           | Electric                    |
| Fuel                      | Diesel                      |
| Fuel Tank Capacity        | 116 litres                  |
| Operating Hours           | 60 hrs                      |
| Specific Fuel Consumption | 265g/kWh                    |
| Noise Level               | 88 Lwa                      |
| Maximum Height            | 9 metres                    |
| Raising                   | Hydraulic                   |
| Section                   | 7                           |
| Erection Time             | <20 seconds                 |
| Floodlights               | Metal Halide                |
| Power                     | 360,000 lumens<br>4 x 1000W |
| Rotation °                | 360                         |
| Minimum Dimension LxWxH   | 3600 x 1420 x 2400mm        |
| Maximum Dimension LxWxH   | 3600 x 1820 x 2900mm        |
| Weight                    | 1100Kg                      |

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Project: 13th Round General

Title:

Drill Site Lighting Units

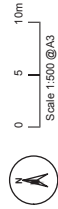
Date: 15.04.09 Scale: N/A Original paper size: A3

Drawn: nrf Checked: lc Rev:

Dwg Number: 1300/016

- ### Note

The position of the site gate and perimeter security fencing will be in the location shown. The location of the site facilities i.e., cabins, pumps, tanks, rig etc within the site will be in accordance with best operational practice and Health & Safety regulations.



**DART ENERGY**

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Project: 13th Round - PEDL 185 - Wrexham

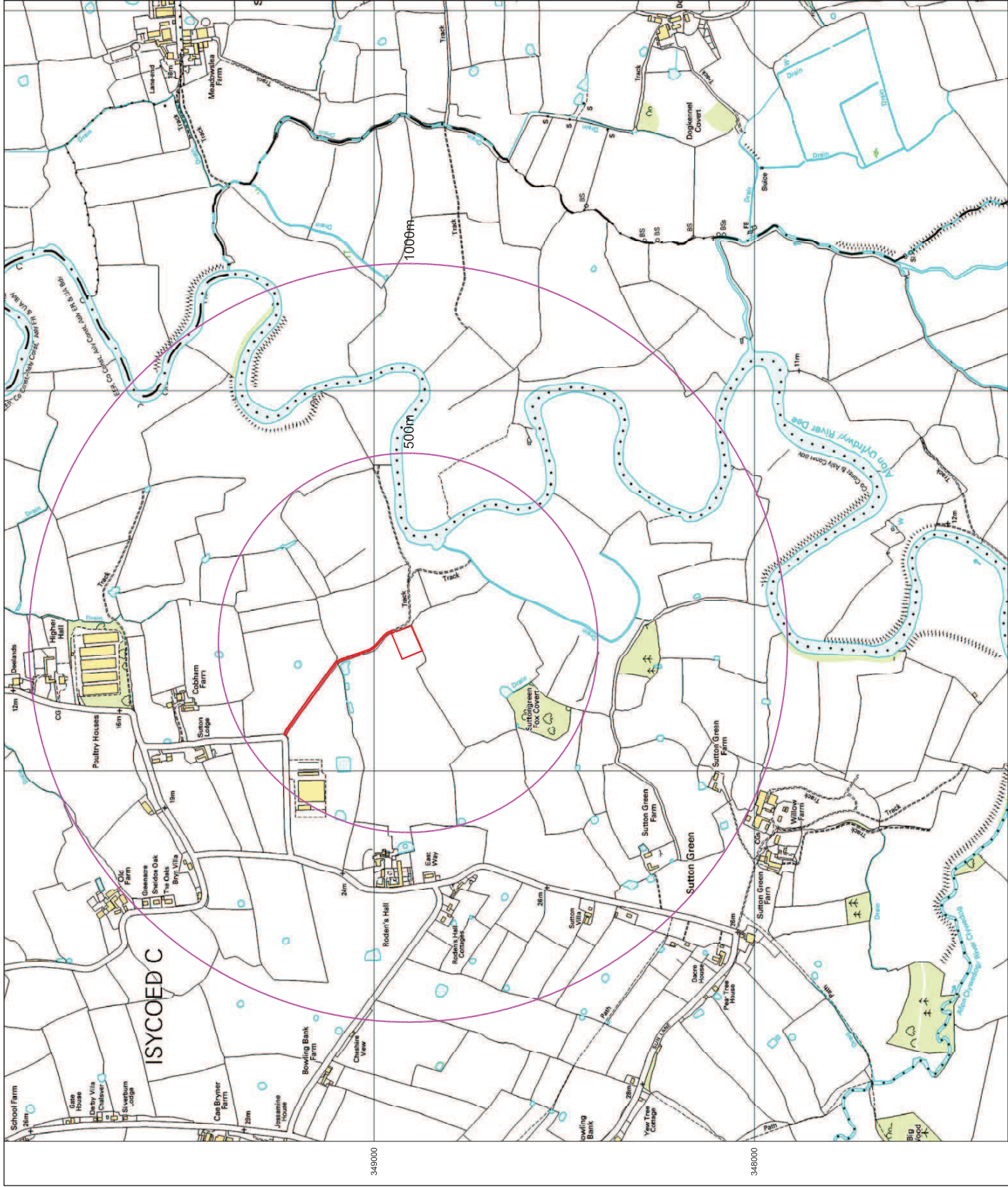
Title:

## HH102 Indicative Site Layout

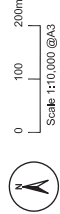
Date: 01/10/13 Scale: 1:500 Original Paper Size: A3

Drawn: cd      Checked: eb      Rev: A

Figure Number: 4



- Legend**
- Site Location
  - Location Offsets



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|                                                        |
|--------------------------------------------------------|
| Project: 13th Round - PEDL 185 - Wrexham               |
| Title: Site 8 - Location Offsets<br>PEDL 185 - SJ44    |
| Date: 23.06.10 Scale: 1:10,000 Original Paper Size: A3 |
| Drawn: nfr Checked: lc Rev:                            |
| Dwg Number: P185/095                                   |