

**CUADRILLA RESOURCES
LIMITED**



APPENDIX - F

**TRANSPORT ASSESSMENT
&
HIGHWAY STAGE 1 SAFETY AUDIT**

Cuadrilla Resources Limited
July 2010

Beaconsall Hydrocarbon Exploration Site
Planning Application [July 2010].
Prepared by Phil Mason

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CUADRILLA RESOURCES LIMITED

HYDROCARBON EXPLORATION SITE: BECCONSALL

TRANSPORT ASSESSMENT

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CUADRILLA RESOURCES LIMITED

HYDROCARBON EXPLORATION SITE: BECCONSALL

TRANSPORT ASSESSMENT

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Reference: DMM/AJB/M.038

July 2010

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1.0 INTRODUCTION

1.1 D M Mason Engineering Consultants Ltd has been instructed by Cuadrilla Resources Limited to prepare a Transport Assessment in support of the planning application for hydrocarbon exploration drilling at Marsh Road, Becconsall, West Lancashire.

1.2 This Transport Assessment describes the site and its access from the major highway network. It describes the proposed works and the traffic flows arising from the works. The Assessment reports on accidents on roads adjacent to the site.

1.3 This Transport Assessment concludes that the proposed development is acceptable in highway terms.

2.0 DESCRIPTION OF THE APPLICATION SITE AND THE ADJACENT ROAD NETWORK

- 2.1 The site lies to the north of the C142 Marsh Road, Hundred End, Becconsall, West Lancashire. The site lies to the east of the agricultural track serving Marsh Nurseries off Marsh Road. The site is presently agricultural land. A Location Plan, drawing M.038/1, an extract from the 1:50,000 Scale Ordnance Survey Mapping is given in Appendix 1. A Red-Line Plan, Figure (2), an extract from the 1:10,000 Scale Ordnance Survey Map is given in Appendix 2.
- 2.2 The application site has previously had permission for an exploration drilling site.
- 2.3 The track leading to Marsh Nurseries has a 4 metre wide gravel surface. One metre verges lie on each side of the track. The track has visibility splays with Marsh Road of 2.4 metres by 120 metres looking to the left and 2.4 metres by greater than 215 metres looking to the right. A plan of the junction of the track with Marsh Road, Entrance Detail showing Visibility Splays, Drawing 62169/001A by Fox (Owmbly) Ltd is given in Appendix 3.
- 2.4 The C142 Marsh Road is a lit rural road with a speed limit of 60 miles per hour adjacent to its junction with the track leading to Marsh Nurseries. To the west of the track the speed limit reduces to 50 miles per hour. As Marsh Road enters the built-up area of Banks, the speed limit reduces to 30 miles per hour.

- 2.5 The C142 New Lane Pace runs south from the western end of Marsh Road. At the southern end of New Lane Pace, the C142 turns right becoming Chapel Lane. At its western end, Chapel Lane becomes the C142 Church Road, thence becoming the C142 Ralph's Wife's Lane. At the western edge of Banks, the speed limit on Ralph's Wife's Lane becomes 40 miles per hour. All these roads are lit.
- 2.6 The C142 Ralphs Wife's Lane becomes the C142 Banks Road, where the speed limit on the road becomes 30 miles per hour as it enters Fiddler's Ferry. Banks Road meets the A565 Preston New Road/Water Lane at a roundabout junction. These roads are lit.
- 2.7 The A565 runs between Liverpool and the A59 junction at Tarleton. The A59 runs from the M6 junction 31.
- 2.8 Bus route 2 by Stagecoach runs along Marsh Road, New Lane Pace, Chapel Lane and Church Road. Bus route 47 by Arriva runs on Church Road, Ralph's Wife's Lane and Banks Road. There are shops on Church Road. Banks Methodist Primary School is on the south side of Chapel Lane.

3.0 DESCRIPTION OF THE APPLICATION PROPOSALS

3.1 The proposals involve the drilling of an hydrocarbon exploration well. The planning application which this Transport Assessment supports is solely for the drilling of the exploration well. Any future use of the site should the well prove exploitable reserves will be the subject of a separate planning application.

3.2 Exploration drilling consists of six separate operations. These are:-

Construction of the drilling site	4 weeks
Erection of the drilling rig	4 days
Drilling	4 to 6 weeks
Removal of the drilling rig	4 days
Testing	2 to 4 weeks
Removal of the drilling site	4 weeks

3.3 The removal of the drilling site is undertaken if the well proves no exploitable reserves.

4.0 TRAFFIC GENERATION

4.1 As noted in Section 3, the proposals involve six discrete phases. Details of traffic movements are given in Appendix 4.

Construction of the Drilling Site

4.2 The drilling is undertaken on a platform constructed of coarse aggregates. The site is reduced in level and an impermeable membrane laid with a coarse aggregate platform laid on the membrane. The site is constructed using typical heavy civil engineering plant. Site construction takes about four weeks.

4.3 The site access is constructed during the first week of site construction following arrival of the civil engineering plant and messing facilities. Four inbound and four outbound heavy goods vehicle movements arise from the site mobilisation. Three inbound and three outbound heavy goods vehicle movements arise from the site access construction. Four daily movements for plant operators arise during this period.

4.4 The coarse aggregate site and platform are prepared during the four weeks construction period. Between seven to ten inbound and seven to ten outbound heavy goods vehicle movements per day arise from this work with about 200 inbound and 200 outbound movements in total. Four daily movements for plant operators arise during this period.

4.5 Upon completion of the site construction, the civil engineering plant is removed causing six heavy goods vehicle movements.

Erection of the Drilling Rig

- 4.6 The drilling rig is erected in four days. Erection is undertaken using a team of about 15 erectors, generating about 30 light vehicle movements on each of the four days.
- 4.7 The rig and associated equipment arrives during the four days, generating a maximum of ten inbound and ten outbound heavy goods vehicle movements per day. Most movements are by articulated vehicles.

Drilling

- 4.8 Immediately prior to the start of drilling on the last day of rig erection and for the first five days of drilling, up to 15 inbound and 15 outbound heavy goods vehicle movements arise from the delivery of drill pipes, mud and other equipment.
- 4.9 During drilling, heavy goods vehicle movements are at a maximum of five inbound and five outbound per day.
- 4.10 Drill operatives work 12 hour shifts changing at 07.00 and 19.00. Approximately 30 light vehicle movements per day arise from operative movements.

Removal of the Drilling Rig

- 4.11 The drilling rig is dismantled in four days. Dismantling is undertaken using a team of about 15 erectors, generating about 30 light vehicle movements on each of the four days.
- 4.12 The rig and associated equipment departs during the four days, generating a maximum of ten inbound and ten outbound heavy goods vehicle movements per day. Most movements are by articulated vehicles.

Testing

- 4.13 Testing may involve the removal of oil by tanker for off-site analysis. Two tanker loads of oil per day are removed for this purpose. Personnel undertaking the work travel to the site daily by light vehicle.

Removal of the Drilling Site

- 4.14 Removal of the drilling site, if it occurs, has a movement pattern similar to that during construction of the drilling site.

Maximum Generated Flows

- 4.15 The maximum daily generated two-way flows during each of the phases of use of the site are therefore:-

Phase	Heavy Vehicles	Light Vehicles
Construction of the drilling site	6	4
Erection of the drilling rig	20	30
Drilling: first 5 days	30	30
Drilling: remaining period	0 to 10	30
Removal of the drilling rig	20	30
Testing	4	2
Removal of the drilling site	20	4

5.0 ACCESS TO THE SITE

- 5.1 The site is accessed from an agricultural track serving Marsh Nurseries off the C142 Marsh Road. Visibility splays of 2.4 metres by greater than 215 metres looking to the right (to the west) and 2.4 metres by tangential looking to the left (to the east) are available at the junction of the track and Marsh Road. The visibility splay to the east allows for visibility toward on-coming vehicles of 120 metres.
- 5.2 Adjacent to the site access track Marsh Road has a 60 mile per hour speed limit and is lit. Immediately to the east of the site access, Marsh Road enters shallow bends as it passes around Bunny Barn Farm. These bends tend to slow vehicles due to the lower forward visibility through the bends.
- 5.3 It is proposed that signing be erected on Marsh Road in advance of the site access warning approaching drivers of the presence of the site access. Suggested signing is given in Appendix 5. Appropriate signing will be agreed with the highways authority.
- 5.4 It is proposed that all drilling related heavy goods vehicle traffic travel to and from the A565 at Fiddler's Ferry. These heavy goods vehicles will therefore follow the routes of bus services 2 and 47. Bus route 2 runs along Marsh Road, New Lane Pace, Chapel Lane and Church Road. Bus route 47 runs on Church Road, Ralph's Wife's Lane and Banks Road. The access route for heavy goods vehicle traffic to the site is shown in Appendix 6.

- 5.5 The route to the site passes the Banks Methodist Primary School. To minimise the disturbance of heavy vehicle traffic on pedestrian movements to the school, heavy goods vehicle traffic will be managed to ensure that it does not pass the school between the hours of 08.30 to 09.15 and 14.45 to 15.15.

6.0 ACCIDENT DATA

- 6.1 Accident data has been obtained from the Lancashire County Council MARIO system and from the Sefton Council Road Safety Data system. Accident data for the most recent five years has been obtained. Accident data for the site access route from the A565 Preston New Road/Water Lane junction to the site access lane has been obtained.
- 6.2 Nine Accidents occurred on the A565 Preston New Road/Water Lane junction. Four accidents involved pedal cycles and two accidents involved motorised 2-wheeler vehicles. The remaining three accidents involved cars/taxis. The nine accidents caused 13 slight injuries.
- 6.3 One accident causing a fatal injury occurred on the C142 Banks Road in the Sefton Council area. This accident involved a single vehicle and was adjacent to the Three Pools Waterway bridge.
- 6.4 One accident causing two slight injuries occurred on the C142 Banks Road in Lancashire. The accident involved two cars. An accident causing one slight injury involving two cars occurred on the C142 Ralph's Wife's Lane. Both accidents occurred at bends in the road indicating speed and/or poor driving line problems.
- 6.5 Two accidents occurred at the C142 Church Road/Hoole Lane junction. One accident causing two slight injuries involved two cars. The other accident involving an HGV and two cars caused four slight injuries.
- 6.6 Two accidents on differing parts of the C142 Church Road involved pedestrians. Both accidents caused slight injury.

- 6.7 Two accidents at the C142 Church Road/Glebe Lane junction. One accident between two cars caused a serious and a slight injury. The other accident also between two cars caused two slight injuries of back seat passengers, possibly indicating that no rear seat belts were being worn.
- 6.8 A single vehicle accident involving a motorcycle occurred on the C142 Chapel Lane. The accident caused a serious injury. No reason for the accident can be inferred.
- 6.9 A single vehicle accident causing three slight injuries occurred at the C142 New Lane Pace/Marsh Road bend. Excessive speed would seem to be a possible cause of the accident.
- 6.10 A pedal cyclist was seriously injured in an accident with a car on the C142 Marsh Road. There does not appear to be a cause for the accident other than poor driver attention for one vehicle.
- 6.11 A single vehicle accident at the C142 Marsh Road/Rydings Lane junction caused one slight injury. This may have been a junction over-shoot accident.
- 6.12 Two accidents occurred on the C142 adjacent to Bonny Barn Farm. Marsh Road passes through a slight right and then left bend adjacent to the farm. One single car accident caused one slight injury whilst the other two car accident caused two slight injuries. Both accidents could have been caused by excessive speed/driver inattention.

- 6.13 The number of two-wheeler accidents on the A565 Preston New Road/Water Lane junction is high. This is not untypical of roundabout junctions. The increase in traffic flows from the proposed development will be small, and is unlikely to materially increase the risk to users of the roundabout.
- 6.14 A number of accidents involved single vehicles. It is unlikely that such accidents will arise from goods vehicle or operative trips to the site.
- 6.15 Other accidents are typical for urbanised areas and are not at a high rate.
- 6.16 There is not pattern of accidents that give rise to remedial action for the proposed development.

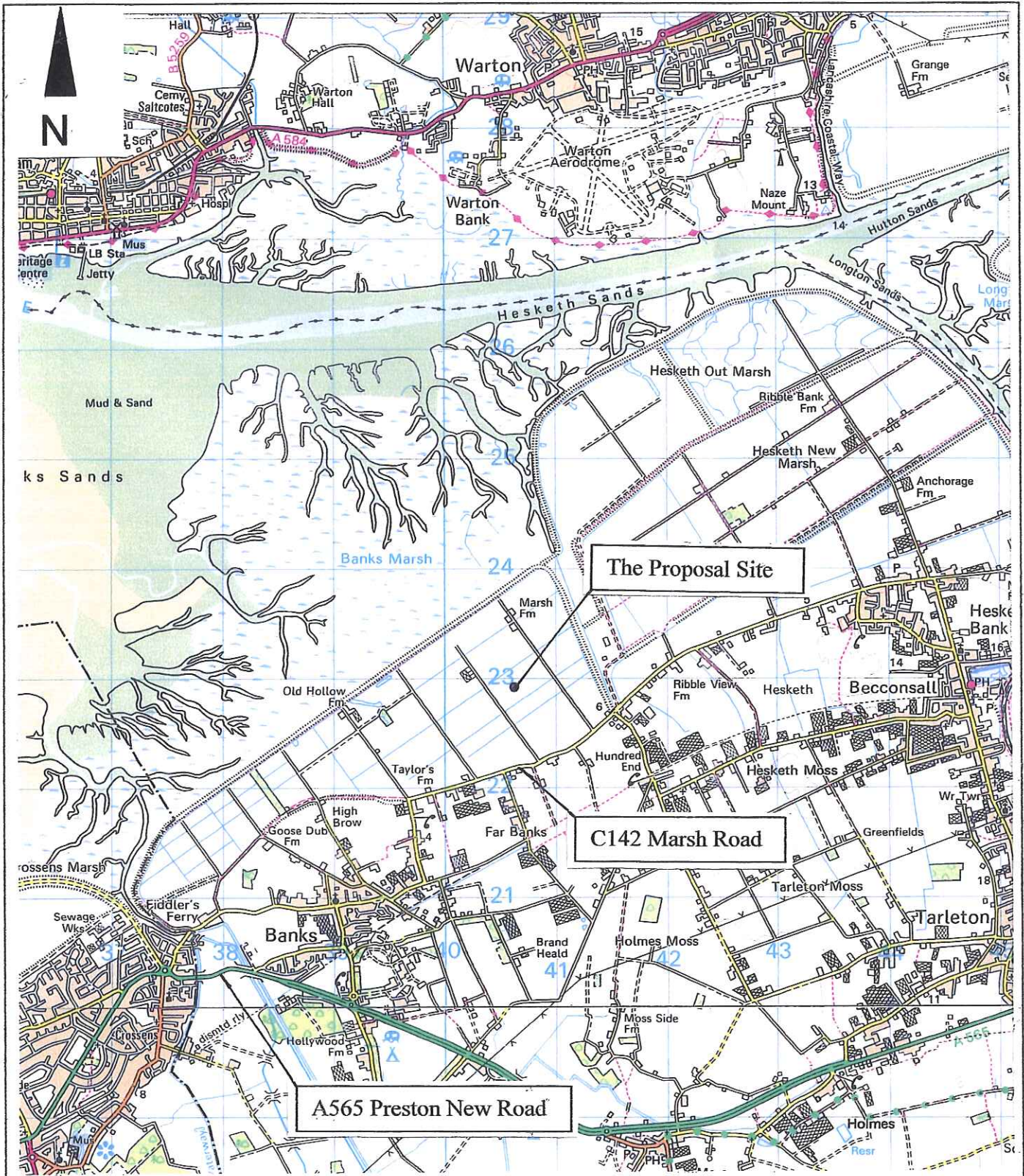
7.0 CONCLUSIONS

- 7.1 D M Mason Engineering Consultants Ltd has been instructed by Cuadrilla Resources Limited to prepare a Transport Assessment in support of the planning application for hydrocarbon exploration drilling at Marsh Road, Becconsall, West Lancashire.
- 7.2 The proposals involve the drilling of an hydrocarbon exploration well. The planning application which this Transport Assessment supports is solely for the drilling of the exploration well. Any future use of the site should the well prove exploitable reserves will be the subject of a separate planning application.
- 7.3 The site lies to the north of the C142 Marsh Road, Hundred End, Becconsall, West Lancashire. The site lies to the east of the agricultural track serving Marsh Nurseries off Marsh Road. The site is presently agricultural land.
- 7.4 Exploration drilling consists of six separate operations: construction of the drilling site, erection of the drilling rig, drilling, removal of the drilling rig, testing and removal of the drilling site. The maximum generated two-way flows during the busiest period of use of the site is 30 heavy goods vehicle movements and 30 light vehicle movements.
- 7.5 The site is accessed from an agricultural track serving Marsh Nurseries off the C142 Marsh Road. Immediately to the east of the site access, Marsh Road enters shallow bends as it passes around Bunny Barn Farm. These bends tend to slow vehicles due to the lower forward visibility through the bends. It is proposed that signing be erected on Marsh Road in advance of the site access warning approaching drivers of the presence of the site access. Appropriate signing will be agreed with the highways authority.

- 7.6 It is proposed that all drilling related heavy goods vehicle traffic travel to and from the A565 at Fiddler's Ferry. These heavy goods vehicles will therefore follow the routes of bus services 2 and 47. The route to the site passes the Banks Methodist Primary School. To minimise the disturbance of heavy vehicle traffic on pedestrian movements to the school, heavy goods vehicle traffic will be managed to ensure that it does not pass the school between the hours of 08.30 to 09.15 and 14.45 to 15.15.
- 7.7 Accident data has been obtained from the Lancashire County Council MARIO system and from the Sefton Council Road Safety Data system. Accident data for the most recent five years has been obtained. There is not pattern of accidents that give rise to remedial action for the proposed development.
- 7.8 The site access is adequate for the proposed uses. It is proposed that the site will be accessed by heavy goods vehicles at times which respect movements to the local school. There is no highway reason to refuse permission for the proposed application.

Appendix 1

**Drawing M.038/1, Location Plan, Extract
from the 1:50,000 Scale Ordnance Survey Map.**



D M Mason
 Engineering
 Consultants Ltd

161 Marlborough Road,
 Old Town, SWINDON, SN3 1NJ
 01793 611712

PROJECT

Hydrocarbon Exploration Site: Becconsall

DRAWING TITLE

Location Plan

DATE

July, 2010

SCALE

1:50,000

DRAWING No.

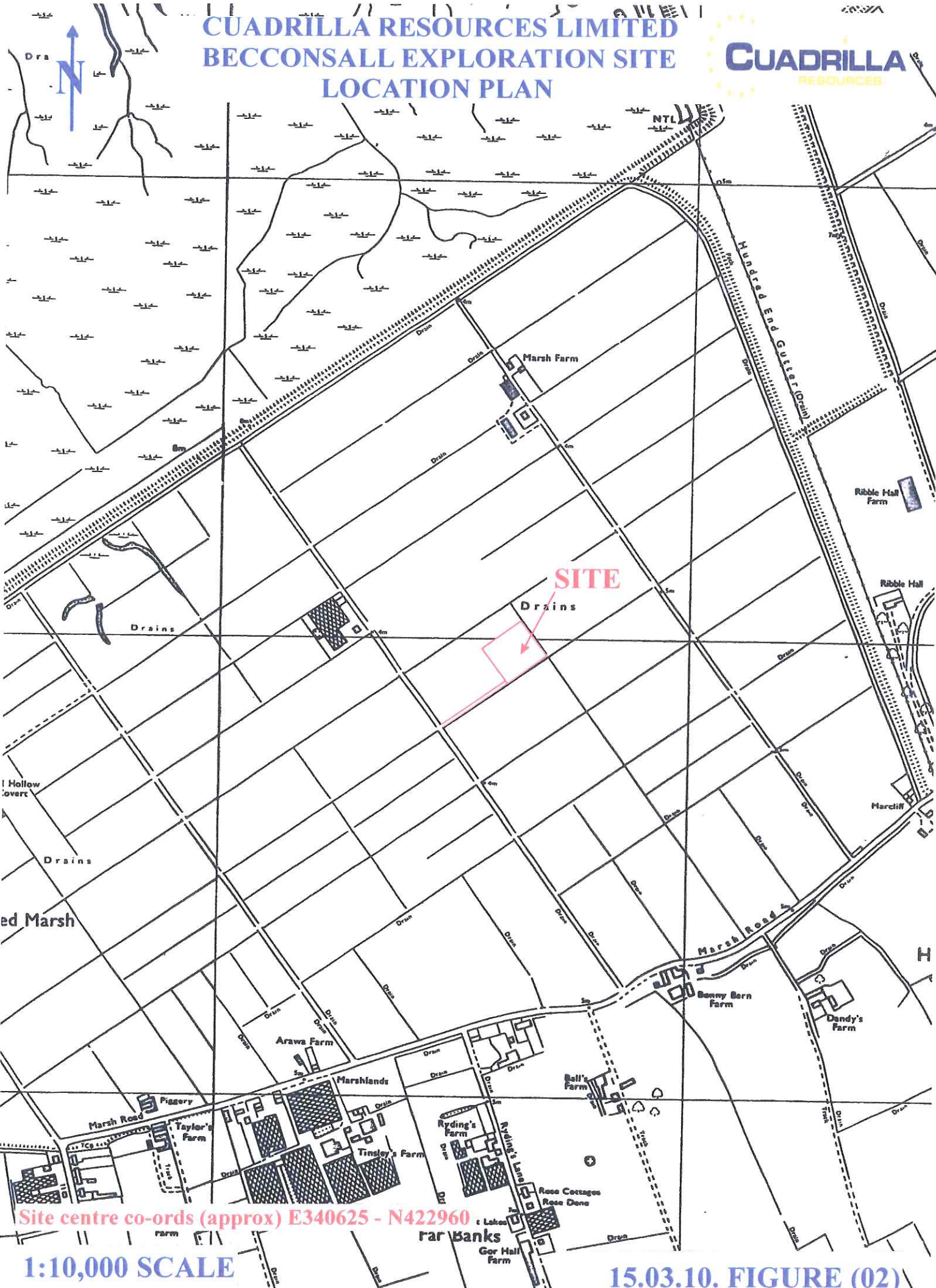
M.038/1

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Appendix 2

Red-Line Plan, Figure (2), Extract from the 1:10,000 Scale Ordnance Survey Map.

CUADRILLA RESOURCES LIMITED BECCONSALL EXPLORATION SITE LOCATION PLAN



Site centre co-ords (approx) E340625 - N422960

1:10,000 SCALE

15.03.10. FIGURE (02)

Appendix 3

Entrance Detail showing Visibility Splays, Drawing 62169/001A by Fox (Owmby) Ltd.



Bonny Barn Lane

Marsh Road

Banks

Visibility splays drawn to point set back 2.4m from edge of carriageway.

Visibility to the west extends beyond 215m

120m

215m

All drilling site traffic to turn left into and right out of proposed site access

Co-ordinate at central highway access point:
340870.864E
422232.797N

Notes:

Drawn	Date	01/01/10	bit
Issued for Approval	Date		bit
Issued for Construction	Date		bit

Rev	Date	Amendment
A	04/05/10	Start Dimensions

Scheme
Beaconsall Drilling Site

Client
Cuadrilla

Drawing title
Highway Access Point
Detail Showing
Visibility Splays

Scale	1:1000	Drawing Number	CRL-002	Rev.	A
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Date	Drawn	SB	Checked	LDS	Approved	LDS
25/04/10	25/04/10		25/04/10	25/04/10		25/04/10

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Appendix 4
Vehicle Movements.

HYDROCARBON EXPLORATION SITE, BECCONSALL

Approximate Vehicle Movements During Construction

CONSTRUCTION START-UP MACHINERY MOBILISATION: 1-2 DAYS
CONSTRUCTION: 4 WEEKS

Multiply approx numbers x (2) for total number of movements

Plant/ Vehicle Type	Approx No.	Type	Activity/Use
Day 1	1	HGV	45 ft step trailer abnormal loads bringing 1 x 24 tonne 360 degree excavator plus diesel tank.
Day 1	1-2	Car/vans	Personnel
Day 1	1	HGV	20 tonne max bringing 1-2 x cabins mess/toilet and lock-up.
During week 1	2	HGV	45 ft step trailer abnormal loads bringing (1) dump truck, a heavy roller and a 10 tonne bulldozer.
	1-3	HGV	20 tonne loads of tarmac for entrance.
	1	HGV	20 tonne load of concrete cellar rings
	1	HGV	20 tonne load of stabilising membrane
During week 1-4	200 7-10 per day	HGV	20 tonne loads of road stone & sand
During week 1-4	1-2 per day	Car/vans	Personnel
During week 1-4	1-2	HGV	12 tonne loads of concrete
During Week 4	1	HGV	45 ft step trailer abnormal loads removing 1 x 24 tonne 360 degree excavator plus diesel tank.
	2	HGV	45 ft step trailer abnormal loads removing (1) dump truck, a heavy roller and a 10 tonne bulldozer.

NOTE: The above is repeated if the drilling is unsuccessful and the site has to be restored.

Approximate Vehicle Movements During Erection of Drilling Rig

DRILLING RIG & ASSOCIATED MACHINERY MOBILISATION & SET UP: 2-4 DAYS

Multiply numbers x (2) for total number of movements

No	Plant/Load Description	Weight (Tonnes)	Load Dimensions (Metres)			Trailer Type
			L	W	H	
Day 1						
1	Crane	25-45				40FT
2	Cat Walk Extension	20	12.19	2.60	3.00	40FT
3	4½" Pipe Bin + 2 x Pipe Rack	27	12.19	2.60	2.50	40FT
4	4½" Pipe Bin	27	12.19	2.60	3.20	40FT
5	4½" Pipe Bin	25	12.19	2.60	2.50	40FT
6	Deck Annular BOP + Trip Tank	25	12.19	2.92	3.35	Low Loader
7	Dog Hut, Junk Bin & Choke	20	12.19	2.74	2.90	40FT
8	Rig Pads	24	12.19	2.95	2.70	40FT
9	F.B.G	25	12.19	2.60	2.50	40FT
10	F.B.G	25	12.19	2.60	2.50	40FT
Day 2						
11	Shaker Tank	25	12.19	2.86	3.16	40FT
12	Suction Tank	25	12.19	2.86	3.16	40FT
13	Mix Tank	25	13.10	2.60	2.80	40FT
14	Rig Ramp	24	12.19	2.95	2.70	40FT
15	Koomey	24	10.30	3.28	3.08	40FT
16	Camp & Ram BOP	24	10.00	2.55	2.61	40FT
17	Fuel, Pump & Screen Stores	25	12.19	2.60	2.70	40FT ADR
18	Stores & 2 Square Tanks	25	12.19	2.60	2.70	40FT T/L

Day 3						
19	Fitters & Round Water Tanks	25	12.19	2.60	2.70	40FT T/L
20	RIG	50	18.19	1.17	4.26	Self Prop
21	4¾" D.C & 6¼" D.C	25	12.19	2.60	2.00	40FT
22	5" HW & 2 Pipe Racks Kelly +6 x 6¼" D.C	25	12.19	2.60	2.00	40FT
23	PZ9 Pump No 2	20	6.00	3.06	2.54	T/Axle
24	PZ9 Engine No 2	20	9.40	2.80	3.40	Low Loader
25	PZ9 Pump No 1	20	6.00	3.06	2.54	T/Axle
26	PZ9 Engine No 1	20	9.40	2.80	3.40	Low Loader
27	PZ9 Lift Beam Pump Suctions	20	12.19	2.95	2.50	40FT
Day 4						
28	Logging Unit and BDF Stores					
29	Containers	25	12.19	2.60	2.50	40FT T/L
30	Fire Water Tank	16	9.50	2.75	3.35	Low Loader
31	Office ECT	18	9.70	2.60	3.12	45FT
32	Canteen & Drying Room	16	12.19	2.73	2.60	40FT T/L
33	3 x Hired Generators and Fuel Tanks	20	12.19	2.60	2.60	40FT
34	Forklift Truck and Shower Cabin	20	12.19	2.60	2.80	45FT

During day (4) there would be an additional 10–15 HGV loads delivering consumable such as drill pipe, drilling mud, casing, water, skips etc.

During the rig set up i.e days 1-4 there would be 10-15 light van and car visits per day.

Approximate Vehicle Movements During Drilling

DRILLING

For the first (5) days there would be 10–15 HGV loads delivering consumable such as drill pipe, drilling mud, casing, water, skips etc.

After the first (5) days of drilling the HGV deliveries range from none up to 3-5 per day.

Once drilling starts on day (5) the light van and car visits increases to cover the 12 hour shift changes to 15-25 visits per 24hours.

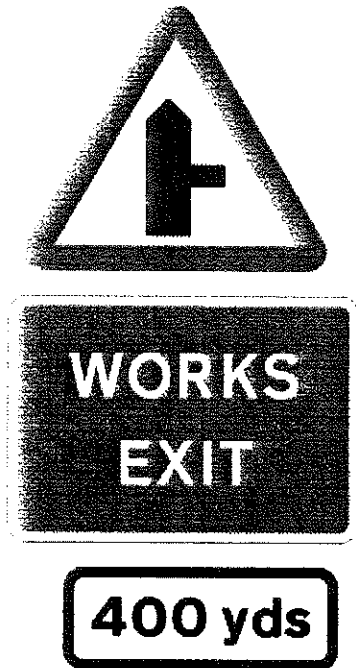
Appendix 5

Suggested Signing at C142 Marsh Road/Site Access Junction.

**Suggested Signs on C142 Marsh Road for Vehicles Approaching
the Site Access Track.**

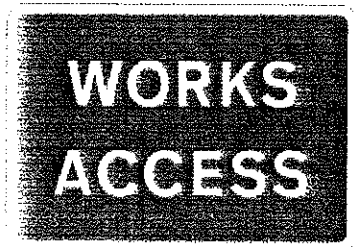
The 'X' height for sign text shall be 150 mm. The height of warning signs shall be 900 mm.

Signs on C142 Marsh Road for vehicles approaching from the east.



Signs may be placed at 400 yards from the site access as shown and at 800 yards from the site access with the distance plate amended to suit.

Sign on C142 Marsh Road at site access for vehicles approaching from the east.



Signs on C142 Marsh Road for vehicles approaching from the west.



Signs may be placed at 400 yards from the site access as shown and at 800 yards from the site access with the distance plate amended to suit.

Sign on C142 Marsh Road at site access for vehicles approaching from the west.

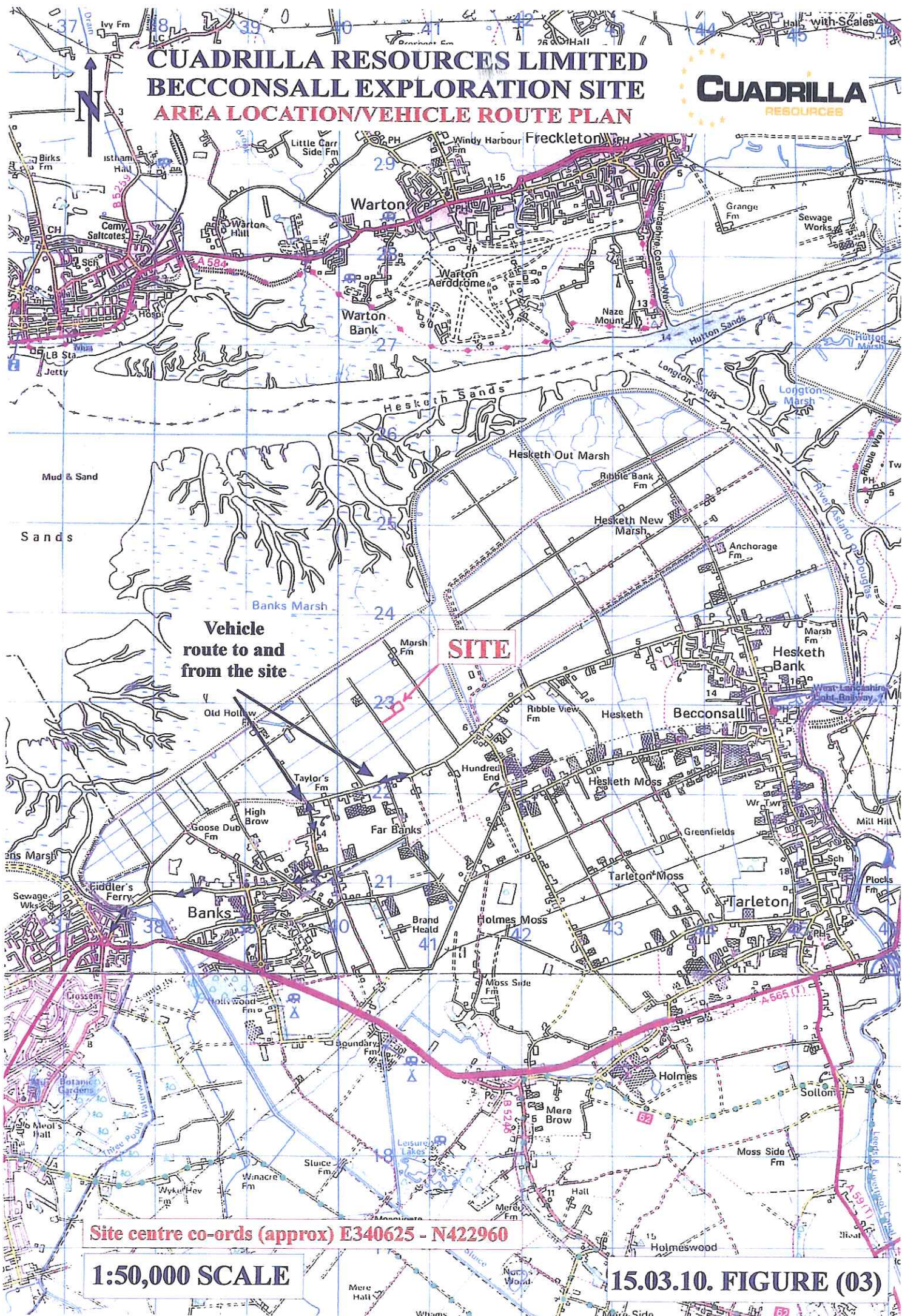


Appendix 6

Area Location/Vehicle Route Plan, Figure 03.

CUADRILLA RESOURCES LIMITED BECCONSALL EXPLORATION SITE AREA LOCATION/VEHICLE ROUTE PLAN

CUADRILLA
RESOURCES



**Vehicle
route to and
from the site**

SITE

Site centre co-ords (approx) E340625 - N422960

1:50,000 SCALE

15.03.10. FIGURE (03)

**“BECCONSALL DRILLING SITE”
MARSH ROAD, BECCONSALL, LANCASHIRE**

PROPOSED SITE ACCESS WORKS

**Road Safety Audit
Stage 1 - Preliminary Design**

July 2010

CONTENTS

- Introduction
- Items raised within this Stage 1 Road Safety Audit
- Audit Team Leader's Statement
- Appendix A List of Documents Examined
- Appendix B Key Plan

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INTRODUCTION

This report describes the results of a Stage 1 Preliminary Design Road Safety Audit, carried out on the proposed S278 Highway Works at Marsh Road, Becconsall, Near Preston, Lancashire, in connection with proposed access arrangements to the 'Becconsall Drilling Site'. The Safety Audit was carried out at the request of Phil Mason, Planning Consultant, The Cottage, Glebefields, Woodseaves, Stafford, Staffordshire, ST20 0LA, on behalf of Cuadrilla Resources Limited.

The object of this audit is to identify any existing safety related problems that may be exacerbated or any new problems that may be introduced, by the proposed works. Whilst details were provided of the approximate vehicle movements that may be associated with the exploration site construction, no details of any recorded accidents were available.

The audit team comprised Ted Smith and Steve Sierakowski, Consulting Highway Engineers specialising in Highway Safety and Traffic Engineering, who have operated independently of the design team responsible for the scheme and had no involvement with the design of the proposals.

The procedures followed by the audit are as described in the Highways Agency's Design Standard HD 19/03 (DMRB Volume 5: Section 2, Part 2), and the incorporated categories of checklists, as appropriate. The Audit has examined and reported only on the road safety implications of the scheme as presented in the drawings listed in the Appendix to this report, and has not examined or verified compliance of the design with any other criteria or standard.

This audit was carried out in the offices of the team members during April and July 2010, comprising of an examination of the documents listed in Appendix A. A site inspection was carried out during the early afternoon of Tuesday 27th April 2010 and photographic records gathered, during which time it was clear and dry, with only very light traffic flows. No pedestrians or cyclists were seen.

All of the problems identified in this report are considered to be of sufficient importance to warrant attention and are indicated on the Key Plan at Appendix B.

ITEMS RAISED WITHIN THIS STAGE 1 ROAD SAFETY AUDIT.

A1 GENERAL

A1.1 COMMENT

No Relaxations or Departures from Standards were reported by the Designer.

A1.2 PROBLEM

Location: Existing access track, at the junction with Marsh Road.

Summary: Risk of sunken inspection chamber cover.

Although no indication is currently given regarding any kerbing and/or paving construction modifications at the existing bellmouth, the existing ironwork of the inspection chamber cover located at the west side is sunken and the future increase of large vehicle passage across that feature may exacerbate the existing sunken conditions of the cover.

RECOMMENDATION

The existing ironwork associated with the existing chamber may need to be suitably raised to coincide with any surface changes at the bellmouth.

A2 LOCAL ALIGNMENT

No road safety related items are identified in this category at this stage.

A3 JUNCTIONS

A3.1 PROBLEM

Location: Existing access track at the junction with Marsh Road.

Summary: Risk of insufficient carriageway width at the bellmouth.

It is understood from the 'Designer' that at the junction of the existing access track with Marsh Road, all future large vehicle movements associated with the proposed drilling site are to be restricted to left turn into the access track from the main road and right turn onto the main road from it. Whilst the existing junction bellmouth may be suitable for the current conditions of agricultural vehicle movements and also the proposed temporary vehicle movements associated with the drilling site operations, if in connection with the drilling site any future prolonged or permanent use of the existing track and bellmouth arises, its width may not be adequate to accommodate frequent movements of large vehicles turning off the main road and safely passing beside a similar large vehicle waiting to turn right onto it.

Although no indication is currently given regarding any works to refurbish or replace the existing gravel surface of the access road bellmouth, the current conditions appear adequate for temporary operations at the drilling site.

RECOMMENDATION

Notwithstanding the existing junction bellmouth and access track adjoining the main road appear suitable for vehicle movements associated with the temporary drilling operations, the carriageway width and surface conditions at the junction may need to be reviewed again if the site becomes a permanent feature.

A4 NON MOTOR VEHICLE PROVISIONS

No road safety related items are identified in this category at this stage.

A5 SIGNS, ROAD MARKINGS AND STREET LIGHTING

A5.1 PROBLEM

Location: Marsh Road, at the approaches to the proposed site access track.

Summary: Warning of the access junction and of heavy goods vehicle turning movements.

Since this access is proposed on a rural single carriageway road consisting of double bends to the east side and a long sweeping bend to the west side, 'through' moving drivers may not clearly perceive the access and/or the possibility of slow moving heavy goods vehicles turning to enter and/or leave the site access track.

RECOMMENDATION

As part of the access works, provision of temporary back to back signing to TSRGD Diagram 7305 opposite the site access junction, combined with advance warning signing to TSRGD Diagram 7304, 7306 or 7307, including appropriate distance plates at the approaches to the junction, or other suitable signing for the existing carriageway alignment conditions, may each need to be investigated in consultation with the Highway Authority.

** ** No further road safety related items are identified at this stage. ** **

AUDIT TEAM LEADER'S STATEMENT

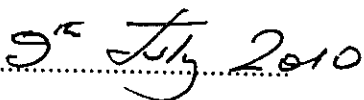
I certify that this audit has been carried out in accordance with HD 19/03.

AUDIT TEAM LEADER

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Signed 

Date 

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Notes.

Draft	Date	By	For
Issued for Approval	08.02.01		
Issued for Construction			

REV	Date	Description
A	04.05.10	Amendment to 08/01/2008

Scheme
Beaconsall Drilling Site

Client
Cuddalls

Drawing title
Entrance detail showing
Visibility splays

Scale	1:1000
Drawing Number	62169/001
Rev.	A

Date	Drawn	SB	Checked	LDS	Approved	LDS
02/12/03						
	25.04.10			28.04.10		25.04.10

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