



This form will report compliance with your permit as determined by an Environment Agency officer

Site	Preston New Road Exploration Site EPR/AB3101MW		Permit Ref	UP3431VF		
Operator/ Permit holder	Cuadrilla Bowland Limited					
Date	12/10/2018		Time in	10:45	Out	16:30
What parts of the permit were assessed	Operations - Pre-hydraulic fracturing site set-up					
Assessment	Site Inspection	EPR Activity:	Installation	X	Waste Op	Water Discharge
Recipient's name/position	HSE&P Manager					
Officer's name	EA Installations		Date issued	31/10/2018		

Section 1 - Compliance Assessment Summary

This is based on the requirements of the permit under the Environmental Permitting Regulations. A detailed explanation and any action you may need to take are given in the "Detailed Assessment of Compliance" (section 3). This summary details where we believe any non-compliance with the permit has occurred, the relevant condition and how the non-compliance has been categorised using our [Compliance Classification Scheme](#) (CCS). CCS scores can be consolidated or suspended, where appropriate, to reflect the impact of some non-compliances more accurately. For more details of our CCS scheme, contact your [local office](#).

Permit Conditions and Compliance Summary

Condition(s) breached

Permit Conditions and Compliance Summary			Condition(s) breached
a) Permitted activities	1. Specified by permit	A	
b) Infrastructure	1. Engineering for prevention & control of pollution	N	
	2. Closure & decommissioning	NA	
	3. Site drainage engineering (clean & foul)	N	
	4. Containment of stored materials	N	
	5. Plant and equipment	N	
c) General management	1. Staff competency/ training	N	
	2. Management system & operating procedures	A	
	3. Materials acceptance	N	
	4. Storage handling, labelling, segregation	N	
d) Incident management	1. Site security	N	
	2. Accident, emergency & incident planning	N	
e) Emissions	1. Air	N	
	2. Land & Groundwater	N	
	3. Surface water	N	
	4. Sewer	N	
	5. Waste	N	
f) Amenity	1. Odour	N	
	2. Noise	N	
	3. Dust/fibres/particulates & litter	N	
	4. Pests, birds & scavengers	N	
	5. Deposits on road	N	
g) Monitoring and records, maintenance and reporting	1. Monitoring of emissions & environment	N	
	2. Records of activity, site diary, journal & events	N	
	3. Maintenance records	N	
	4. Reporting & notification	N	
h) Resource efficiency	1. Efficient use of raw materials	N	
	2. Energy	N	

KEY: C1, C2, C3, C4 = CCS breach category (* suspended scores are marked with an asterisk), A = Assessed (no evidence of non-compliance), N = Not assessed, NA = Not Applicable, O = Ongoing non-compliance – not scored

Number of breaches recorded	0	Total compliance score (see section 5 for scoring scheme)	0
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If the Total No Breaches is greater than zero, then please see Section 3 for details of our proposed enforcement response

Section 2 – Compliance Assessment Report Detail

This section contains a report of our findings and will usually include information on:

- the part(s) of the permit that were assessed (e.g. maintenance, training, combustion plant, etc)
- where the type of assessment was 'Data Review' details of the report/results triggering the assessment
- any non-compliances identified
- any non-compliances with directly applicable legislation
- details of any multiple non-compliances
- information on the compliance score accrued inc. details of suspended or consolidated scores.
- details of advice given
- any other areas of concern
- all actions requested
- any examples of good practice.
- a reference to photos taken

This report should be clear, comprehensive, unambiguous and normally completed within 14 days of an assessment.

This is the third visit assessing the pre-hydraulic fracturing site set-up for Well 1z. All activities assessed were compliant with the requirements of the Environmental Permit.

During this inspection reference was made to CAR Form UP3431VF/0309861 which covers the installation and calibration of the downhole geophone array that forms our approval of the Hydraulic Fracture Plan for Well 1z. These requirements were as follows:

- Geophone location and calibration – we will expect assurance of calibration methods when a Contractor has been instructed by Cuadrilla. (we shall conduct a site inspection at the time of the testing using the downhole source.)
- Source & geophone array testing – we are expecting to see the results, showing a definite recording from the furthest available fracture stage position at which the test source can be physically emplaced and fired.
- Noise monitoring, at the time of geophone installation, together with a review of the magnitude sensitivity of the array vs range, in the ambient noise conditions, based on the use of the test source of known energy input.

These three requirements have been covered during inspections on 8th October and 12th October.

Calibration and Quality Check of Installed Downhole Geophones

Test shots had been fired in the early hours of 12 October 2018 at four locations spread 400m apart along Well 1z with the aim of testing the operation of the installed geophones. The geophones had been shown to be operating as expected with a good signal to noise ratio.

Microseismic Monitoring

The display screens in the visitor display room were viewed. These screens show pump rates, pressures, stage, distances, fracturing fluid make up and micro seismic activity. The locations of Wells 1z and 2, the test shots and the geophones were shown on the screens.

During the inspection, Cuadrilla's contracted seismologist was contacted to discuss the interpretation of the geophone test shot data. This data is being used to update the velocity profile of the model.

The fracturing programme was discussed for the following week. Planned injections will be for 200 m³ (water and friction reducer, known as slickwater), 300 m³ (water, friction reducer and 50 tonne sand, known as proppant) and 400 m³ injection (all additives). There will be a 15 m³ mini frac test (slickwater) on Monday morning, 15 October. This frac will be used to monitor reservoir pressure. A full frac of 200 m³ of slickwater will be conducted on Tuesday.

Fracturing Fluid Flow


Cuadrilla submitted a letter dated 10 October 2018 to the Environment Agency regarding the fracturing fluid flow meter. The proposals included in the letter were accepted by the Environment Agency on 11 October 2018 in line with permit condition 3.5.4.

Acceptance of the proposal provided by Cuadrilla is subject to the requirements outlined in our letter dated 11 October 2018 and set out below:

- Cuadrilla and their fracturing contractor will follow the operational procedure for the monitoring of flow rates and take action on an alarm set at the maximum flow rate of 90l/s or equivalent unit setting

(bbls/s, bbls/min). Recorded flow rates will be subject to inspection.

- Cuadrilla and their fracturing contractor will undertake a verification exercise prior to the fracturing programme for well 2. We also advise Cuadrilla to have their flow monitoring arrangements independently assessed by an MCERTS Inspector.

 Environment Agency	EPR Compliance Assessment Report	Report ID: UP3431VF/0316831	
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Operator/ Permit	Cuadrilla Bowland Limited	Date	12/10/2018

Section 3- Enforcement Response		Only one of the boxes below should be ticked	
You must take immediate action to rectify any non-compliance and prevent repetition. Non-compliance with your permit conditions constitutes an offence and can result in criminal prosecutions and/or suspension or revocation of a permit. Please read the detailed assessment in Section 2 and the steps you need to take in Section 4 below.			
Other than the provision of advice and guidance, at present we do not intend to take further enforcement action in respect of the non-compliance identified above. This does not preclude us from taking enforcement action if further relevant information comes to light or advice isn't followed.			
In respect of the above non-compliance you have been issued with a warning. At present we do not intend to take further enforcement action. This does not preclude us from taking additional enforcement action if further relevant information comes to light or offences continue.			
We will now consider what enforcement action is appropriate and notify you, referencing this form.			

Section 4- Action(s)			
Where non-compliance has been detected and an enforcement response has been selected above, this section summarises the steps you need to take to return to compliance and also provides timescales for this to be done.			
Criteria Ref.	CCS Category	Action Required / Advised	Due Date
See Section 1 above			

Section 5 - Compliance notes for the Operator

To ensure you correct actual or potential non-compliance we may

- advise on corrective actions verbally or in writing
- require you to take specific actions in writing
- issue a notice
- require you to review your procedures or management system
- change some of the conditions of your permit
- decide to undertake a full review of your permit

Any breach of a permit condition is an offence and we may take legal action against you.

● We will normally provide advice and guidance to assist you to come back into compliance either after an offence is committed or where we consider that an offence is likely to be committed. This is without prejudice to any other enforcement response that we consider may be required.

● Enforcement action can include the issue of a formal caution, prosecution, the service of a notice and or suspension or revocation of the permit.

● A civil sanction Enforcement Undertaking (EU) offer may also be available to you as an alternative enforcement response for this/these offence(s).

See our Enforcement and Civil Sanctions guidance for further information

This report does not relieve the site operator of the responsibility to

- ensure you comply with the conditions of the permit at all times and prevent pollution of the environment
- ensure you comply with other legislative provisions which may apply.

Non-compliance scores and categories

CCS category	Description	Score
C1	A non-compliance which could have a major environmental effect	60
C2	A non-compliance which could have a significant environmental effect	31
C3	A non-compliance which could have a minor environmental effect	4
C4	A non-compliance which has no potential environmental effect	0.1

Operational Risk Appraisal (Opra) - Compliance assessment findings may affect your Opra score and/or your charges. This score influences the resource we use to assess permit compliance.

Section 6 – General Information

Data protection notice

The information on this form will be processed by the Environment Agency to fulfill its regulatory and monitoring functions and to maintain the relevant public register(s). The Environment Agency may also use and/or disclose it in connection with:

- offering/providing you with its literature/services relating to environmental matters
- consulting with the public, public bodies and other organisations (e.g. Health and Safety Executive, local authorities) on environmental issues
- carrying out statistical analysis, research and development on environmental issues
- providing public register information to enquirers
- investigating possible breaches of environmental law and taking any resulting action
- preventing breaches of environmental law
- assessing customer service satisfaction and improving its service
- Freedom of Information Act/Environmental Information Regulations request.

The Environment Agency may pass it on to its agents/representatives to do these things on its behalf. You should ensure that any persons named on this form are informed of the contents of this data protection notice.

Disclosure of information

The Environment Agency will provide a copy of this report to the public register(s). However, if you consider that any information contained in this report should not be released to the public register(s) on the grounds of commercial confidentiality, you must write to your local area office within 28 days of receipt of this form indicating which information it concerns and why it should not be released, giving your reasons in full.

Customer charter

What can I do if I disagree with this compliance assessment report?

If you are unable to resolve the issue with your site officer, you should firstly discuss the matter with the officer's line managers. If you wish to raise your dispute further through our official Complaints and Commendations procedure, phone our general enquiry number 03708 506 506 (Mon to Fri 08.00–18.00) and ask for the Customer Contact team or send an email to enquiries@environment-agency.gov.uk. If you are still dissatisfied, you can make a complaint to the Ombudsman. For advice on how to complain to the [Parliamentary and Health Service Ombudsman](#) phone their helpline on 0345 015 4033.