



**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	21/08/2019		Time in	09:15	Out	16:00
What parts of the permit were assessed	Activity A5 & Groundwater Monitoring					
Assessment	Audit	EPR Activity:	Installation	X	Waste Op	Water Discharge
Recipient's name/position	HSE&P Manager					
Officer's name	EA Officers		Date issued	29/08/2019		

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

<b>Number of breaches recorded</b>	0	<b>Total compliance score</b> (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.

The purpose of this audit was to assess compliance with permit Activity A5 (injection of hydraulic fracturing fluid) and assess groundwater monitoring and data quality checks of groundwater data.

No non-compliances were recorded.

### Activity A5

The "*Hydraulic Fracturing Programme*" document is in place and forms part of the Operator's Environmental Management System and has been updated for Well 2. It includes the permit limits for volume injected and pump rate. All relevant contractors are included on the distribution list and are required to follow the procedure. The document also includes references to other work instructions relevant to operations on site, including the Instruction 060 - "*Compliance for pumping*".

Instruction 060 had also been updated following permit variation V005 and was confirmed to form part of the Operator's management system.

### Hydraulic Fracturing Fluid Composition

The method used to make up the fracturing fluid was discussed with the operator. During the hydraulic fracturing of Well 2 so far, only the friction reducer (B528) and hydrochloric acid have been used. No gelling agents or gluteraldehyde have been used to date.

Very little flowback has been produced so far and therefore none has been re-used in hydraulic fracturing. A record of the concentration of polyacrylamide in the fracturing fluid is kept and a spreadsheet used to calculate the concentration of polyacrylamide should any flowback be reused. To date all concentrations of polyacrylamide were ~0.02%, well below the 1% described in the Waste Management Plan accepted through the permit variation V005.

One sample of hydraulic fracturing fluid had been taken at the time of the audit in line with the permit requirement for weekly monitoring. The chain of custody and laboratory sample receipt documents were checked and all determinands were seen to have been requested for analysis. The sample results were not yet available for inspection, but will be reported to us on a quarterly basis as required by the permit.

### Discharge Volume and Rate

The flow meters for measuring the discharge rate of the hydraulic fracturing fluid had been verified by an MCERTS auditor (see CAR UP3431VF/0338356).

Pump charts and records of volumes, rates and pressures were checked for each stage 1-5 to date. All volumes and rates were confirmed to be below permitted limits and the total flow rate (coil tube plus slurry rate) was being recorded.

Whilst on site, EA officers observed the injection tests in to sleeve 6 and the start of the fracturing. All rates and volumes were confirmed to be within the permitted limits during these observations.

### Groundwater Sampling

Weekly groundwater sampling had commenced prior to hydraulic fracturing in line with Table 3.5 of the Environmental Permit.

Groundwater sampling of borehole 4A (BH4A) undertaken by the Operator's contractor was observed during the


audit. The process of purging the well and monitoring for pH, conductivity, dissolved oxygen and temperature was observed and samples were not taken until these parameters had stabilised. Sampling was undertaken suitably and in line with expectations. Samples were to be sent to the laboratory by courier the same day.

**Groundwater Data Review / Quality Assurance**

Following on from the findings set out in CAR form UP3431VF/0337394 checks on groundwater data handling and quality assurance were undertaken.

A recent monthly environmental monitoring review report was viewed on site which covers a review of all data collected flagging any anomalies or issues. Any outliers in groundwater data are highlighted for investigation and management review. Investigations include looking at laboratory or contractor sample integrity and environmental causes. The Operator's "Environmental Monitoring and Reporting Procedure" had been updated in June 2019. A new section had been added to include procedures for procuring monitoring equipment and support and the procedure includes a process for notifying the Environment Agency should any issues arise.

Measures have been put in place to ensure that the data is quality checked by a suitably qualified and experienced person. Training documents are also being rolled out to operational staff to improve understanding.

 Environment Agency	<b>EPR Compliance Assessment Report</b>	Report ID: UP3431VF/0340221	
<b>This form will report compliance with your permit as determined by an Environment Agency officer</b>			
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Operator/ Permit	Cuadrilla Bowland Limited	Date	21/08/2019

<b>Section 3- Enforcement Response</b>		<b>Only one of the boxes below should be ticked</b>	
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.			

<b>Section 4- Action(s)</b>			
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 <b>major</b> environmental effect	60
C2	A non-compliance which could have a <b>significant</b> environmental effect	31
C3	A non-compliance which could have a <b>minor</b> environmental effect	4
C4	A non-compliance which has <b>no</b> 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](mailto: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.