



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	14/08/2019		Time in	09:00	Out	14:00
What parts of the permit were assessed	HFP Microseismic Monitoring Assurance					
Assessment	Audit	EPR Activity:	Installation	X	Waste Op	Water Discharge
Recipient's name/position	Planning, Permitting and Environmental Manager					
Officer's name	EA Officers		Date issued	28/08/2019		

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

		Condition(s) breached
a) Permitted activities	1. Specified by permit	N
b) Infrastructure	1. Engineering for prevention & control of pollution	N
	2. Closure & decommissioning	A
	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	A
	2. Records of activity, site diary, journal & events	A
	3. Maintenance records	N
	4. Reporting & notification	A
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 audit was the first of two audits following the replacement of the downhole microseismic monitoring array (see CAR Form UP3431VF/0339638 for findings of second audit). No non-compliances of the permit were recorded during the audit.

We were informed by the operator of issues with the downhole monitoring array on 7 August and subsequently their plans for replacing the monitoring array with a like-for-like system and the further testing required for orientation of these replacement monitors. The reason for the failure was not fully known and the removed monitoring equipment will be assessed further to identify the root cause.

Replacement monitoring equipment was installed by the operator of the same specification as the previous kit, and therefore aligns with the requirements in the approved Hydraulic Fracture Plan (HFP). Tests were performed to establish the downhole orientation of the monitoring array. The calibration of the velocity model remains valid from the previous calibration shots (see CAR Form UP3431VF/0338892) and therefore no further work was required for this.

The audit was carried out to ensure that the monitoring array was functioning and that sufficient orientation tests had been carried out in accordance with procedures and in line with the HFP. A report detailing these tests was received on the day of the inspection (14 August).

A discussion held with the microseismic monitoring service provider confirmed that a surface energy source was used to orientate the monitoring array. Good P wave signals were received from the surface energy source but S wave signals were less clear. P wave signals are sufficient to ensure the geophones are positioned correctly to receive signals from multiple directions. P&S wave signals are needed to update the velocity model, however this had already been carried out on 3 August using a downhole energy source and therefore did not need to be repeated.

The HFP states that a downhole energy source will be used to check the monitoring array. This was attempted using a 'sparker' downhole energy source but this failed to produce enough energy to be detected by all of the downhole sensors. The HFP also allows for the calibration of the monitors to be conducted in accordance with the contractors procedures. In accordance with the contractor's procedure a surface energy source (1 tonne weight drop) was used up to 750m away from the well pad at multiple locations around the perimeter with multiple tests performed at each location. The procedures and record of the test was reviewed during the audit and were satisfactory.



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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.