



**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	24/10/2018		Time in	09:45	Out	17:45
What parts of the permit were assessed	Operating Techniques - Environment Management & Monitoring Plan Audit					
Assessment	Audit	EPR Activity:	Installation	X	Waste Op	Water Discharge
Recipient's name/position	HSE&P Manager					
Officer's name	EA Officers		Date issued	24/12/2018		

**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 Condition	Compliance	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	A
	3. Site drainage engineering (clean & foul)	N
	4. Containment of stored materials	N
	5. Plant and equipment	N
<b>c) General management</b>	1. Staff competency/ training	N
	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	N
	3. Surface water	N
	4. Sewer	N
	5. Waste	N
<b>f) Amenity</b>	1. Odour	N
	2. Noise	N
	3. Dust/fibres/particulates & litter	N
	4. Pests, birds & scavengers	N
	5. Deposits on road	N
<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	A
<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
------------------------------------	---	---	---

**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.

An audit was undertaken on 24 October 2018 at the operator's Preston New Road site to assess compliance with the ambient air monitoring programme being carried out following commencement of hydraulic fracturing operations but prior to flaring operations. This is the first of three audits planned to assess compliance against the Environmental Management & Monitoring Plan.

No non-compliance with permit conditions were identified during this audit.

The waste management plan (version 8, June 2017) initially set out the sampling provisions for ambient air monitoring. This has been supplemented by the Environmental Management and Monitoring Plan (EMMP version 5.1 May 2018) that was produced as a requirement of the EPR permit pre-operational condition PO2.

Scheduling and planning of the monitoring is set out in the EMMP, monitoring is undertaken by passive methods (methane grab sample, VOC diffusion tubes, BTEX diffusion tubes, NO<sub>2</sub> diffusion tubes, hydrogen sulphide diffusion tubes, particulate PM<sub>10</sub> gravimetric, nuisance (dust) at set frequencies and by continuous methods (methane, VOC, nitrogen dioxide, hydrogen sulphide, PM<sub>10</sub>). The targeted continuous monitoring of methane is currently being undertaken on the south west boundary of the site (site C in the EMMP). We were notified by the operator prior to this deployment in accordance with the EMMP. The site will undertake six rounds of targeted methane monitoring that will be scheduled to coincide with hydraulic fracturing, well flowback and well testing.

We started the audit with a site walk over to inspect the ambient air monitoring instruments including the targeted methane monitoring. The EMMP states that targeted monitoring will be carried out for a period up to 72 hours, however this monitor had been in place for longer due to improved battery capability. The sample inlet was at 3m height and the data is pushed every 15 minutes over the mobile phone network for comparison against the internal threshold values and external notification thresholds. The contractor discussed the maintenance checks that are typically carried out on the instrument (filter check, connections and check for damage or blockages to lines).

We inspected the passive sampling location next to the access road to the south west of the site. It held diffusion tubes, a Frisbee nuisance dust deposition gauge and an adhesive strip directional dust gauge. These samples are collected monthly by the contractor and analysed in their labs. There is no continuous data from this monitoring station.

We inspected the continuous monitoring station on a platform immediately outside the north east boundary of the site. We observed continuous monitors for methane, particulate PM<sub>10</sub>, total volatile organic compounds TVOC, nitrogen oxides NO<sub>x</sub> and a weather station measuring wind speed and direction. These units were powered by mains electricity and push data every 15 minutes to the database where they are assessed against the internal threshold values and external notification thresholds.

In the site office we inspected the operator's management of the monitoring programme including

provisions for periodic and continuous monitoring and quality assurance.

We viewed the graphed data on a screen in the site office for the continuous monitoring of methane, NO<sub>x</sub>, PM<sub>10</sub>, TVOC, wind speed and direction. Each graph had the internal threshold value and external notification threshold as per the EMMP plotted as a line. The methane data was recorded as 1-minute averages in the first week of hydraulic fracturing and as 10 minute averages subsequently. A fortnightly report will be published on the operator's web portal that will include time-series charts and a statistics table. All continuous monitoring data is held indefinitely on the contractor's server. Data produced by the continuous monitors is checked 7 days a week by the contractor, but there is no record of these checks apart from values higher than the notification thresholds.

Action: A record of the findings and action taken in relation to the daily checks on the monitoring data is required. The roles and responsibilities for undertaking this check should be clearly stated. The operator is to provide details of these roles and responsibilities by Friday 11 January.

Values higher than the external notification threshold have been recorded on four occasions. Compliance has been met with the notification requirements in the EMMP. Methane concentration higher than the notification threshold in the EMMP was recorded for 15 minutes at 10:40 on 19 October 2018. This has been reported on a separate CAR form (CAR form dated 19 October 2018). Particulate PM<sub>10</sub> levels were recorded on three occasions on 18 October 2018 (466ug/m<sup>3</sup> at 04:30, 512ug/m<sup>3</sup> at 06:15 and 1096ug/m<sup>3</sup> at 06:45 on 18 October 2018) above the notification threshold. The levels of particulates were only measured over a very short period of time, an average PM<sub>10</sub> concentration is measured over 24hrs. The concentration of PM<sub>10</sub> did not exceed the daily AQS limit of 50ug/m<sup>3</sup>. The cause of these levels have been investigated by the operator, at the time the wind direction suggests the source did not come from on-site operations. Wind speed and direction data was checked during the inspection and concurred with the operator's findings that an off site cause is the most likely reason for the records in PM<sub>10</sub> concentrations. The operator is required to notify and investigate levels above thresholds set in their Environmental Management & Monitoring Plan.

The measurement methods and standards for monitoring are detailed in the EMMP. The PM<sub>10</sub> monitor has MCERTS certification. There are no continuous ambient methane analysers on the market that have MCERTS accreditation. The laboratory analysis of the passive monitoring is UKAS accredited. Both the continuous and passive monitors are maintained on a monthly basis by the contractor and the continuous monitors are calibrated annually by the contractor. The programme of maintenance is provided in the contractor's method statement. Calibration records were checked for the particulate monitor, methane and nitrogen oxide analysers, all units were within calibration dates. The site's Environmental Advisor accompanies the contractor when carrying out maintenance.

UKAS accreditation is required for parameters measured using passive diffusion tubes, details of accreditation was not provided at the time of the audit. A further request for the UKAS accredited test methods was made during a site inspection on the 13 November. Following this request further information was provided on the 18 December, however this did not include the requested accreditation details. Due to the length of time since the audit began a decision has been taken to issue this CAR form and request that the accreditation details are supplied.

ACTION: The operator is to check UKAS accreditation for all measured parameters and provide details to the EA by Friday 11 January.

At the time of this audit there has been no downtime for the continuous monitors and the contractors are contracted to respond to breakdowns within 24hrs.


The continuous analysers are not designed to accept zero/span verification checks using check gases. The checks undertaken on the analysers follow the manufacturer's recommendations and

consist of checking filters, connections, blockages, and pumps. The data produced is visually checked for step changes, but there are no control charts as no zero/span checks are undertaken.

**ACTION:** Operator to provide training records for staff undertaking maintenance of the continuous monitors. The operator is to provide details by Friday 11 January.

There is no planned schedule for the operator to undertake audits of contractor monitoring.

**RECOMMENDATION:** Operator to schedule internal audits of contractors.

 Environment Agency	<b>EPR Compliance Assessment Report</b>	Report ID: UP3431VF/0317470	
<b>This form will report compliance with your permit as determined by an Environment Agency officer</b>			
Site	Preston New Road Exploration Site EPR/AB3101MW	Permit	UP3431VF
Operator/ Permit	Cuadrilla Bowland Limited	Date	24/10/2018

<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.