Bureau Veritas Certification Holding SAS

BUREAU VERITAS

BUREAU VERITAS
CERTIFICATION
Reviewed
Init
Date: 04. 03. 2013

VERIFICATION REPORT

OJSC "NK-ROSNEFT"

VERIFICATION OF THE

ASSOCIATED GAS RECOVERY PROJECT FOR THE KOMSOMOLSKOYE OIL FIELD

MONITORING PERIOD #2: 1 MARCH 2012 – 31 DECEMBER 2012

REPORT NO: RUSSIA-VER/0232/2013

REVISION 01

BUREAU VERITAS CERTIFICATION

Date of first issue: 04/03/2013	Organizational unit: Bureau Veritas Certification Holding SAS
Client: World Bank Carbon Finance Unit	Client ref.: Javier Coloma

Summary:

Bureau Veritas Certification has made the 2nd periodic verification of the "Associated Gas Recovery Project for the Komsomolskoye Oil Field" JI project of OJSC NK-Rosneft" located in Gubkinskiy city, Yamal-Nenets Autonomous Okrug, Russian Federation, on the basis of UNFCCC criteria for the JI, as well as criteria given to provide for consistent project operations, monitoring and reporting. UNFCCC criteria refer to Article 6 of the Kyoto Protocol, the JI rules and modalities and the subsequent decisions by the JI Supervisory Committee as well as the host country criteria.

The verification scope is defined as a periodic independent review and ex post determination by the Accredited Entity of the monitored reductions in GHG emissions during defined verification period, and consisted of the following three phases: i) desk review of the project design and the baseline and monitoring plan; ii) follow-up on site interviews with project stakeholders; iii) resolution of outstanding issues and the issuance of the final verification report and opinion. The overall verification, from Contract Review to Verification Report & Opinion, was conducted using Bureau Veritas Certification internal procedures.

The first output of the verification process is a list of Requests for Corrective Action and Clarifications presented in Appendix A.

In summary, Bureau Veritas Certification confirms that the project is implemented as per determined changes. Installed equipment being essential for generating emission reduction runs reliably and is calibrated appropriately. The monitoring system is in place and the project is generating GHG emission reductions. The GHG emission reduction is calculated without material misstatements, and the ERUs issued totalize 695,167 tCO2e for the 2-d monitoring period from 1 March 2012 to 31 December 2012.

Our opinion relates to the project's GHG emissions and resulting GHG emission reductions reported and related to the approved project baseline and monitoring, and its associated documents.

Report No.: Russia-ver/0232/2013	Subject Group: JI	
Project title: "Associated Gas Recovery Project for the Komsomolskoye Oil Field"		
Work carried out by: Leonid Yaskin – Lead Verifier		
Work reviewed by: Vladimir Lukin – Internal Reviewer		
Work approved by: Leonid Yaskin – Operational Manager		
Date of this revision: 04/03/2013	Rev. No.: 01	Number of pages: 25

☒ No distribution without permission from the Client or responsible organizational unit

☐ Limited distribution

☐ Unrestricted distribution

Table of Contents *Page*

1 INTRODUCTION

The World Bank (hereafter referenced 'WB') has commissioned Bureau Veritas Certification to verify, on behalf of OJSC "NK-Rosneft", the emissions reductions of its JI project "Associated Gas Recovery Project for the Komsomolskoye Oil Field" (hereafter referenced 'the project'). The operator of the project is "RN-Purneftegaz" LLC.

This report summarizes the findings of the 2nd periodic verification of the project, performed on the basis of UNFCCC criteria, as well as criteria given to provide for consistent project operations, monitoring and reporting.

1.1 Objective

Verification is the periodic independent review and ex post determination by the Accredited Independent Entity of the monitored reductions in GHG emissions during defined verification period.

The objective of verification can be divided in Initial Verification and Periodic Verification.

UNFCCC criteria refer to Article 6 of the Kyoto Protocol, the JI rules and modalities and the subsequent decisions by the JI Supervisory Committee, as well as the host country criteria.

1.2 Scope

The verification scope is defined as an independent and objective review of the project design document, the project's baseline study and monitoring plan and other relevant documents. The information in these documents is reviewed against Kyoto Protocol requirements, UNFCCC rules and associated interpretations.

The verification is not meant to provide any consulting towards the Client. However, stated requests for clarifications, corrective and/or forward actions may provide input for improvement of the project monitoring towards reductions in the GHG emissions.

1.3 Verification Team

The verification team consists of the following personnel:
Dr Leonid Yaskin
Bureau Veritas Certification Team Leader, Climate Change Lead Verifier

This verification report was reviewed by:
Dr Vladimir Lukin
Bureau Veritas Certification, Internal Technical Reviewer

2 METHODOLOGY

The overall verification, from Contract Review to Verification Report & Opinion, was conducted using Bureau Veritas Certification internal procedures.

In order to ensure transparency, a verification protocol was customized for the project, according to the version 01 of the Joint Implementation Determination and Verification Manual, issued by the Joint Implementation Supervisory Committee at its 19 meeting on 04/12/2009. The protocol shows, in a transparent manner, criteria (requirements), means of verification and the results from verifying the identified criteria. The verification protocol serves the following purposes:

- It organizes, details and clarifies the requirements a JI project is expected to meet;
- It ensures a transparent verification process where the verifier will document how a particular requirement has been verified and the result of the verification.

The completed verification protocol is enclosed in Appendix A to this report.

2.1 Review of Documents

The Monitoring Report (MR) submitted by WB and additional background documents related to the project design and baseline, i.e. country Law, Project Design Document (PDD), Guidance on criteria for baseline setting and monitoring, Host party criteria, Kyoto Protocol, DVM Clarifications on Verification Requirements to be checked by an Accredited Independent Entity were reviewed.

The verification findings presented in this report relate to the Monitoring Report versions dated 15/02/2013 (initial) and 26/02/2013 (final) and the project as described in the determined PDD.

2.2 Follow-up Interviews

On 2627 February 2013 Bureau Veritas Certification performed on-site interviews with project stakeholders to confirm selected information and to resolve issues identified in the document review. Representatives of the project operator RN-Purneftegaz were interviewed (see References). The main topics of the interviews are summarized in Table 1.

Table 1 Interview topics

Interviewed organization	Interview topics
RN-Purneftegaz	➢ Commissioning ➢ Approval of Monitoring Report ➢ Data collection and processing ➢ Status of measuring equipment ➢ Data logs (samples) ➢ QC and QA procedures ➢ Management structure of monitoring ➢ Revisions of Monitoring plan ➢ Use of calculation tool ➢ Emission calculations ➢ Monitoring Report ➢ Interviews with personnel ➢ Familiarization with project equipment in situ

2.3 Resolution of Clarification, Corrective and Forward Action Requests

The objective of this phase of the verification is to raise the requests for corrective actions and clarification and any other outstanding issues that needed to be clarified for Bureau Veritas Certification positive conclusion on the GHG emission reduction calculation.

If the Verification Team, in assessing the monitoring report and supporting documents, identifies issues that need to be corrected, clarified or improved with regard to the monitoring requirements, it should raise these issues and inform the project participants of these issues in the form of:

(a) Corrective action request (CAR), requesting the project participants to correct a mistake that is not in accordance with the monitoring plan;

(b) Clarification request (CL), requesting the project participants to provide additional information for the Verification Team to assess compliance with the monitoring plan;

(c) Forward action request (FAR), informing the project participants of an issue, relating to the monitoring that needs to be reviewed during the next verification period.

The Verification Team will make an objective assessment as to whether the actions taken by the project participants, if any, satisfactorily

resolve the issues raised, if any, and should conclude its findings of the verification.

To guarantee the transparency of the verification process, the concerns raised are documented in more detail in the verification protocol in Appendix A.

3 VERIFICATION CONCLUSIONS

In the following sections, the conclusions of the verification are stated.

The findings from the desk review of the original monitoring documents and the findings from interviews during the follow up visit are described in the Verification Protocol in Appendix A.

The Clarification and Corrective Action Requests are stated, where applicable, in the following sections and are further documented in the Verification Protocol in Appendix A. The verification of the Project resulted in 1 Corrective Action Request and 5 Clarification Requests.

The number between brackets at the end of each section corresponds to the DVM paragraph.

3.1 Remaining issues and FARs from previous verifications

Not applicable since there are no remaining issues and FARs from the first verification.

3.2 Project approval by Parties involved (90-91)

Monitoring Report (thereafter referenced 'MR') refers to the Letters of Approvals (LoA) that have been issued by the designated focal points of the Parties involved:

- Ministry of Economic Development of the Russian Federation (Order No 326 dated 23/07/2010);
- Danish Energy Agency of the Kingdom of Denmark (LoA No 1602/1102-0063 dated 12 November 2010).

These approvals were provided to AIE which does not question their authenticity.

There were no outstanding issues recorded related to Project approval by Parties involved (90-91).

3.3 Project implementation (92-93)

The implementation status of the project is as described in Appendix A paragraph 92 what was confirmed by the AIE during the site visit. .

The project has been implemented in accordance with PDD which was positively determined by the AIE (Det Norske Veritas) though did not acquire the status "deemed final" in terms of JI Guidelines paragraph 35 since the final determination report was not published on the UNFCC JI website as Track 2 project. However, the project is published at the JI web-site as a Track 1 project and has the ITL number RU1000230 http://ji.unfccc.int/JIITLProject/DB/7V4PNON834FT7CVEMAC58K0Z68NSLC/details.

The project is implemented at the Komsomolskoye oil field operated by a subsidiary company of the OJSC "NK-Rosneft" – "RN-Purneftegas". The purpose of the project is to recover, treat and market the produced low-pressure associated petroleum gases (APG), thereby reducing flaring of APG at the oil field and emissions of GHG to the atmosphere.

The JI project activity comprises installation and/or operation of a number of facilities, including an APG booster compressor station (BCS) after the existing preliminary water removal unit (PWRU), that enable recovery, compression and treatment (dehydration) of the APG and production and transportation of (i) dry gas through a new pipeline for sale into Gazprom and (ii) a small fraction of C3+ (hereafter denoted LPG) to the PWRU's oil treatment unit to be added to the oil products from the Komsomolskoye field.

The MR provides basic information about the project facilities, plants and systems.

The starting date of the monitoring period is defined as 01 December 2011. According to the PDD, the project was expected to be fully operational in the first quarter 2010. This deviation from the PDD is caused by: (i) the delay in start of construction of the project; and (ii) lower APG production volumes (as compared to the 2008 projections used for the ex ante estimates in the PDD). (MR Section E.5 page 45).

The project was commissioned on 28/11/2010 as confirmed by the Permission for Going into Operation included in the MR as Annex 1.

Data in the excel folder indicate that the project operated stable and permanently generated emission reductions.

It is indicated in the MR Section B.1 that "During the monitoring period 1,276,192.478 thousand m3 of raw gas were supplied to BCS from PWRU. The amount of dry supplied to Gazprom has been of 1,114,630.411 thousand m3 of dry gas and the amount of produced LPG has been of 45,213.479 tons".

Outstanding issue related to Project Implementation (92-93), PP's response and the AIE conclusion are summarized in Appendix A Table 2 (please refer to CL 01).

The issued CL requests to provide evidence that dry gas was supplied to Gasprom in the reported amounts.

3.4 Compliance of the monitoring plan with the monitoring methodology (94-98)

The Monitoring System is in place and operational. Monitoring of GHG emission reductions occurred in accordance with the determined Monitoring Plan with reservations stated in 99 (a).

For calculating the emission reductions, the key factors and parameters influencing the baseline and project emissions were taken into account such as considered in the PDD sectoral reform policies and legislation, economic situation in oil & gas sector in terms of APG utilization, project-specific investment barrier (including investment ananlysis), APG price as well as the key data collected under monitoring as follows:

1) Volume of dry gas supplied to Gazprom (measured);
2) Volume of dry gas consumption for internal needs (measured);
3) Volume of APG flared at the HP flare (measured);
4) Volume of APG flared at the LP flare (measured);
5) Amount of LPG produced at BCS (measured);
6) Amount of diesel fuel consumption (measured)
7) Quantity of electricity consumption by the project from Tyumen regional electric grid (measured);
8) Average carbon content in APG at the inlet to BCS (calculated by measured composition of APG);
9) Average carbon content in dry gas delivered to Gazprom (calculated by measured composition of dry gas);
10) Density of APG and dry gas at normal conditions.

The data sources used for calculating emission reductions are clearly identified, reliable and transparent. They are listed and classified in the MR Section D and the inserts of the excel folder.

Relevant data sources include:

- Measurements of parameters indicated in 95 (a) above;
- Assumptions made in the PDD as to the volume of APG provided to Gubkinsky GPP under the baseline and the volume of APG used to operate the BCS under the baseline;
- AM0009 version 02.1 information about gas leaks from the project equipment components.

In accordance with the PDD, the emission factors are taken:

(i) APG emission factor – from calculations based on average carbon content;

(ii) Emission factor of regional electric grid (1,3 tCO2/MWh what is conservative) and average technical transmission and distribution losses in the grid (20% what is conservative) - from “Tool to calculate project emissions from electricity consumption” (version 01);

(iii) CH4 leaks emissions from gas recovery, processing and transportation equipment - from AM0009 version 02.1;

(iv) Diesel oil emission factor - from IPCC 2006.

Calculations of emission reductions were implemented on the insert MR02 of the excel folder. The results are summarised in the MR Section E.

Assumptions for grid emission factor and electricity transmission losses (refer to (ii) in 95 (c)) are conservative since they overstate the project emissions.

Another conservative assumption concerns the baseline emissions. It relates to the estimation of APG volume at BCS inlet VA,y (refer to MR Section B.2 issue 6). Due to technical problems, this parameter is not measured but calculated by the approximate Formula (16) which restores the value of VA,y by adding measured amounts of dry gas (to Gasprom and for own needs) , LPG, and flared APG. This Formula does not take into account gas leaks defined by Formulae (5) and (6) on pages 39 and 41 respectively. Hence, the value VA,y is understated what is conservative when using in calculation of total baseline emissions by Formula (11) on page 34.

Outstanding issues related to Compliance to the monitoring plan with the monitoring methodology (94-98), PP’s response and the AIE conclusion are summarized in Appendix A Table 2 (please refer to CAR 01, CL 02).

The issued requests concern:

- The error in the MR: values of parameters for August-December 2012 in the MR table on page 36 differ from the values on the excel sheet (CAR 01).
- Clarification if the baseline condition of APG supply to GGPP in amount of 950 MNm3 conservatively applies to the year 2012 (CL 02).

3.5 Revision of monitoring plan (99-100)

The MR Section B.2 identifies and justifies the intended revisions of the original monitoring plan as follows (AIE's interpretation):
1) Commercial metering station GMU-40 at the end of connecting pipeline to Gazprom is used for metering the amount of dry gas in the point B, as well as for measuring the electricity and diesel fuel consumption.
2) The organisation structure, the information flows and the monitoring procedures were further elaborated and improved. Refer to the MR Section C.
3) Assumption for estimation of APG volume at BCS inlet VA,y as indicated in 95 (d)) above is introduced.

An appropriate justification of the monitoring plan revisions was provided in the MR for the 1st monitoring period and was just summarised in the present MR Section B2.

The above revisions (1) and (2) do not affect accuracy or applicability of information collected. The use of assumption (3) enables to estimate a conservative value of emission baseline emissions in the absence of measured data of APG volume at BCS inlet thereby ensuring better applicability of available measured data on amounts of dry gas (supplied to Gasprom and consumed for own needs), LPG and flared APG.

The AIE confirms the MR assertion that the above revisions do not influence on the final result and are applied to improve applicability of the information collected, in line with paragraphs 30 (b) and 41 of "Guidance on criteria for baseline setting and monitoring" (Version 03).

There were no outstanding issues recorded related to Revision of monitoring plan (99-100).

3.6 Data management (101)

The data and their sources, provided in monitoring report, are clearly identified, reliable and transparent. The evidence and records used for the monitoring are maintained in a traceable manner.

The implementation of data collection procedures is basically in accordance with the determined monitoring plan and is realized with the help of "Associated Gas Recovery Project for the Komsomolskoye Oil Field. Monitoring Manual" introduced by the Order # 2761 dated 30/10/2012 (Version 02), Directive "About implementation of monitoring procedures" dated 28/10/2011, and staff training (refer to MR page 11). The above documents are at possession of the AIE. The MR Section C

provides comprehensive information about the improved organisation structure, the information flows and the monitoring procedures.

RN Purneftegaz has relevant plans, procedures, schedules and responsibilities for calibration of monitoring equipment. Measuring devices have records of calibration and they are periodically exposed to due maintenance procedures. Data of the last calibration are included in the MR Section D.2. Passports of all measuring devises were made available to the AIE and checked in situ. The function of the monitoring equipment (flow meters, chromatograph, electrical meters, voltage and current measuring transformers) including their calibration status is in order. Information about the organisations which performed calibration of the measuring equipment and their accreditation status was provided to the AIE and caused no concern.

Automatic electronic recording of primary data on gas volumes was demonstrated to the AIE at Gas Treatment and Compression Workshop #2 where BCS is installed.

Evidence and records of monitoring gas volumes, gas composition, and electricity consumption are maintained in a traceable manner which was demonstrated to the AIE during the site visit.

Primary and consolidated data for the monitoring period are recorded in the excel Monitoring Model which was provided to the AIE. The folder includes measured data on parameters (1) – (10) indicated in 95 (a) above.

Tabular forms in the MR Section D.2 provide information about the QA and QC procedures as well as about metering equipment as on type, range of measurement, calibration frequency, last calibration date, and accuracy class.

QA and QC procedures include (quoted by the MR Section D):

(i) Control of frequency of data reporting vis-à-vis the minimum frequency required by the PDD (monthly);
(ii) Control of completeness of data records;
(iii) Control of variances in records for the same stream beyond those expected as normal variances (to avoid substantial non-conformities and deviations);
(iv) Cross-checking and spot-checks where appropriate.

Outstanding issues related to Data management (101), PP's response and the AIE conclusion are summarized in Appendix A Table 2 (please refer to CL 03 CL 05).

The issued requests concern:

- Provision of the version 02 of the Monitoring Manual (CL 03).
- Demonstration of compliance between the primary data and data recorded in the excel folder inserts RF2, RF3, RF4, RF10, RF13, RF14, RE5 (CL 04).
- Provision of the evidence that the calibration status of gas meters and chromatographs covers the monitoring period (CL 05).

3.7 VERIFICATION REGARDING PROGRAMMES OF ACTIVITIES (102-110) – Not applicable

4 VERIFICATION OPINION

Bureau Veritas Certification has performed the 2nd periodic verification of the project "Associated Gas Recovery Project for the Komsomolskoye Oil Field". The verification was performed on the basis of UNFCCC criteria and host country criteria and also on the criteria given to provide for consistent project operations, monitoring and reporting.

The verification consisted of the following three phases: i) desk review of the project design and the baseline and monitoring plan; ii) follow-up on-site interviews with project stakeholders; iii) resolution of outstanding issues and the issuance of the final verification report and opinion.

The management of NK-Rosneft and RN-Purneftegaz are responsible for the preparation of the GHG emissions data and the reported GHG emissions reductions of the project on the basis set out within the revised project Monitoring Plan. The development and maintenance of records and reporting procedures in accordance with that plan, including the calculation and determination of GHG emission reductions from the project, is the responsibility of the management of the project.

Bureau Veritas Certification verified the Project Monitoring Report dated 26/02/2013 for the reporting period as indicated below. Bureau Veritas Certification confirms that the project is implemented as per determined changes. Installed equipment being essential for generating emission reduction runs reliably and is calibrated appropriately. The monitoring system is in place and the project is generating GHG emission reductions.

Bureau Veritas Certification can confirm that the GHG emission reduction is accurately calculated and is free of material errors, omissions, or misstatements. Our opinion relates to the project's GHG emissions and resulting GHG emissions reductions reported and

related to the approved project baseline and monitoring, and its associated documents. Based on the information we have seen and evaluated, we confirm, with a reasonable level of assurance, the following statement:

Reporting period: From 01/03/2012 to 31/12/2012

Baseline emissions	: 1,010,590.720 tCO2 equivalents.
Project emissions	: 315,423.445 tCO2 equivalents.
Emission Reductions	: 695,167.275 tCO2 equivalents.

5 REFERENCES

Category 1 Documents:

Documents provided by World Bank that relate directly to the GHG components of the project.

/1/ JI Monitoring Report "Associated Gas Recovery Project for the Komsomolskoye Oil Field"
Version dated 15/02/2013
Version dated 26/02/2013

/2/ Excel model for calculation of ER. Integral part of the Monitoring Report.

/3/ PDD "Associated Gas Recovery Project for the Komsomolskoye Oil Field", Version 2, dated 25/07/2008.

/4/ DNV Determination Report No 2008-0729 on JI project "Associated Gas Recovery Project for the Komsomolskoye Oil Field" dated 27/08/2008.

/5/ The Letter of Approval issued by Ministry of Economic Development of the Russian Federation (Order No 326 dated 23/07/2010);

/6/ The Letter of Approval issued by Danish Energy Agency of the Kingdom of Denmark (LoA No 1602/1102-0063 dated 12 November 2010).

Category 2 Documents:

Background documents related to the design and/or methodologies employed in the design or other reference documents obtained in the course of 1st verification

/1/ Protocol №1 from 11.07.11 on conducting of the training on monitoring procedures in the framework of the JI project "Associated Gas Recovery Project at the Komsomolskoye Oil Field";

/2/ Order No 2761 dated 30/10/2012 On approval and implementation of the Standard of "RN-Purneftegaz" "Associated Gas Recovery Project at the Komsomolskoye Oil Field Project. Monitoring manual" №П1-01.05 С-0036 ЮЛ-094 version 2.00 and assignment of responsible personnel.

/3/ Standard of "RN-Purneftegaz" «Associated Gas Recovery Project at the Komsomolskoye Oil Field Project. Monitoring manual" №П1-01.05 С-0036 ЮЛ-094 version 2.00;

/4/ Passports of quality of raw gas at BCS inlet and of dry gas supplied to Gazprom for the period 03.2012 – 12.2012;

/5/ Certificate of calibration of chromatographs;

/6/ Certificate of accreditation of the laboratory;

/7/ Certificate of calibration of gas measuring devices at measurement points GMU-4, GMU-7 and CMU-40;

/8/ Certificate of calibration of mass flowmeters at LPG tanks (point BLPG);

/9/ Documents confirming accreditation of the organizations that had conducted calibration of the measurement devices:
– FGU Tyumen Centre for Standardization and Metrology;
– Emerson Process Management Flow B.V.;
– FGUP VNIIM after Mendeleev»;
– FGU Mendeleev Centre for Standardization and Metrology;

/10/ Training protocol #2 on monitoring procedures in the framework of the JI project “Associated Gas Recovery Project at the Komsomolskoye Oil Field”;

/11/ Certificates of calibration of level sensors installed at LPG tanks 1, 2.

.

Persons interviewed:

List of persons interviewed during the verification or persons that contributed with other information that is not included in the documents listed above.

/1/ Aidar Gabdulkhakov - RN-Purneftegaz, Head of Oil, Gas and Condensate Treatment and Handling Division

/2/ Sergey Kislyakov - RN-Purneftegaz Deputy Head of Industrial and Labour Safety and Environment Protection Division

/3/ Mikhail Strugatsky - RN-Purneftegaz Chief Metrologist

/4/ Yulia Kiryanova - RN-Purneftegaz, Senior Specialist of Environmental Protection Unit,

/5/ Alexander Syromolot - RN-Purneftegaz, Head of Gas Treatment and Compression Workshop (GTCW) #2

APPENDIX A: COMPANY PROJECT VERIFICATION PROTOCOL

Table 1
Check list for verification, according to the JI DETERMINATION AND VERIFICATION MANUAL (DVM) Version 01

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
Project approvals by Parties involved				
90	Has the DFPs of at least one Party involved, other than the host Party, issued a written project approval when submitting the first verification report to the secretariat for publication in accordance with paragraph 38 of the JI guidelines, at the latest?	Under verification is the second Monitoring Report dated 15/02/2013 (thereafter denoted MR) which covers the monitoring period 01/03/2012 – 31/12/2012. The first Monitoring Report was issued for the period 01/12/2011 – 29/02/2012. It was not submitted to the secretariat for publication in accordance with paragraph 38 of the JI guidelines because the project follows track 1 controlled by the Host Party. The current Russian Government Resolution # 780 of 15 September 2011 "On measures to implement article 6 of the Kyoto Protocol to the UN Framework Convention on Climate Change" does not require publishing the monitoring report (and verification report) somewhere.		OK
91	Are all the written project approvals by Parties involved unconditional?	Yes, all the written project approvals by Parties involved are unconditional. Letter od Approval (LoA) by the Host Party and another Party involved other than the Host party were received and made available to the AIE: - Hot Party (Russia): LoA issued by Ministry of Economic Development of the Russian Federation, Order No 326 dated 23/07/2010; - Another Party (Denmark): LoA issued by Danish Energy Agency File No 1602/1101-0063 dated 12/11/2010.		OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		Both LoA are in possession of the AIE which does not question their authenticity.		
Project implementation				
92	Has the project been implemented in accordance with the PDD regarding which the determination has been deemed final and is so listed on the UNFCCC JI website?	The project has been implemented in accordance with PDD which was positively determined by the AIE (Det Norske Veritas) though did not acquire the status "deemed final" in terms of JI Guidelines paragraph 35 since the final determination report was not published on the UNFCC JI website. (i) The project activity is described in Section A.1 as follows: (ii) "The project is implemented at the Komsomolskoye oil field operated by a subsidiary company of the OJSC "NK-Rosneft" – "RN-Purneftegas". The purpose of the project is to recover, treat and market the produced low-pressure associated petroleum gases (APG), thereby reducing flaring of APG at the oil field and emissions of GHG to the atmosphere. (iii) The JI project activity comprises installation and/or operation of a number of facilities, including an APG booster compressor station (BCS) after the existing preliminary water removal unit (PWRU), that enable recovery, compression and treatment (dehydration) of the APG and production and transportation of (i) dry gas through a new pipeline for sale into Gazprom and (ii) a small fraction of C3+ (hereafter denoted LPG) to the PWRU's oil treatment unit to be added to the oil products from the Komsomolskoye field" (end of quotation). (iv) The MR provides basic information about the project facilities, plants and systems. (v) The starting date of the monitoring period is defined as 01 December 2011. According to the PDD, the project was expected to be fully operational in the first quarter 2010. This deviation from the PDD is caused by the delay in start of construction of the project and		OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		lower APG production volumes as compared with the PDD (Section E.5 page 45). (vi) The project was commissioned on 28/11/2010 as confirmed by the Permission for Going into Operation included in the MR as Annex 1.		
93	What is the status of operation of the project during the monitoring period?	Data in the excel folder indicate that the project operated stable and permanently generated emission reductions. It is indicated in the MR Section B.1 that "during the monitoring period 1,273,851.160 thousand м3 of raw gas were supplied to BCS from PWRU. The amount of dry gas supplied to Gazprom has been 1,114,630.411 thousand м3 and the amount of produced LPG has been 43,416.102 tons. **CL 01.** Please provide evidence (possibly during the site visit) that dry gas and LPG were supplied to customers in the reported amounts.	CL 01 Pending the site visit	OK OK
Compliance with monitoring plan				
94	Did the monitoring occur in accordance with the monitoring plan included in the PDD regarding which the determination has been deemed final and is so listed on the UNFCCC JI website?	Determination is not deemed final in JI terms since neither the final PDD nor the determination report were published on the UNFCCC JI website. The Monitoring System is in place and operational. Monitoring of GHG emission reductions occurred in accordance with the determined Monitoring Plan with reservations stated in 99 (a).		OK
95 (a)	For calculating the emission reductions or enhancements of net removals, were key factors, e.g. those listed in 23 (b) (i)-(vii) DVM, influencing the baseline emissions or net removals and the activity level of the project	For calculating the emission reductions, the key factors and parameters influencing the baseline and project emissions were taken into account such as considered in the PDD sectoral reform policies and legislation, economic situation in oil & gas sector in terms of APG utilization, availability of capital (including economic barrier), APG		OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	and the emissions or removals as well as risks associated with the project taken into account, as appropriate?	price as well as the key data collected under monitoring as follows: 1) Volume of dry gas supplied to Gazprom (measured); 2) Volume of dry gas consumption for internal needs (measured); 3) Volume of APG flared at the HP flare (measured); 4) Volume of APG flared at the LP flare (measured); 5) Amount of LPG produced at BCS (measured); 6) Amount of diesel fuel consumption (measured) 7) Quantity of electricity consumption by the project from Tyumen regional electric grid (measured); 8) Average carbon content in APG at the inlet to BCS (calculated by measured composition of APG); 9) Average carbon content in dry gas delivered to Gazprom (calculated by measured composition of dry gas); 10) Density of APG and dry gas at normal conditions.		
95 (b)	Are data sources used for calculating emission reductions or enhancements of net removals clearly identified, reliable and transparent?	The data sources used for calculating emission reductions are clearly identified, reliable and transparent. They are listed and classified in the MR Section D and the inserts of the excel folder. Relevant data sources include: - Measurements of parameters indicated in 95 (a) above; - Assumptions made in the PDD as to the volume of APG provided to Gubkinsky GPP under the baseline and the volume of APG used to operate the BCS under the baseline; - AM0009 version 02.1 information about gas leaks from the project equipment components.		OK
95 (c)	Are emission factors, including default emission factors, if used for calculating the emission reductions or enhancements of net removals, selected by carefully balancing accuracy and reasonableness, and appropriately justified of	In accordance with the PDD, the emission factors are taken: (i) APG emission factor – from calculations based on average carbon content; (ii) Emission factor of regional electric grid (1,3 tCO2/MWh what is conservative) and average technical transmission and distribution		OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	the choice?	losses in the grid (20% what is conservative) – from "Tool to calculate project emissions from electricity consumption" (version 01); (iii) CH4 leaks emissions from gas recovery, processing and transportation equipment – from AM0009 version 02.1; (iv) Diesel oil emission factor – from IPCC 2006.		
95 (d)	Is the calculation of emission reductions or enhancements of net removals based on conservative assumptions and the most plausible scenarios in a transparent manner?	Calculations of emission reductions were implemented on the insert MR02 of the excel folder. The results are summarised in the MR Section E. Assumptions for grid emission factor and electricity transmission losses (refer to (ii) in 95 (c)) are conservative since they overstate the project emissions. Another conservative assumption concerns the baseline emissions. It relates to the estimation of APG volume at BCS inlet $V_{A,y}$ (refer to MR Section B.2 issue 6). Due to technical problems, this parameter is not measured but calculated by the approximate Formula (16) which restores the value of $V_{A,y}$ by adding measured amounts of dry gas (to Gasprom and for own needs) , LPG, and flared APG. This Formula does not take into account gas leaks defined by Formulae (5) and (6) on pages 39 and 41 respectively. Hence, the value $V_{A,y}$ is understated what is conservative when using in calculation of total baseline emissions by Formula (11) on page 34. **CAR 01**. Values of parameters for August-December 2012 in the MR table on page 36 differ from the values on the excel sheet. Please provide consistency. **CL 02.** Please clarify if the baseline condition of APG supply to GGPP in amount of 950 MNm3 conservatively applies to the year 2012.	CAR 01 CL 02	OK OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
Applicable to JI SSC projects only_Paragraph 96_Not applicable				
Applicable to bundled JI SSC projects only_Paragraphs 97(a) – 98_Not applicable				
Revision of monitoring plan				
Applicable only if monitoring plan is revised by project participant				
99 (a)	Did the project participants provide an appropriate justification for the proposed revision?	The MR Section B.2 identifies and justifies the intended revisions of the original monitoring plan as follows (AIE's interpretation): 1) Commercial metering station GMU-40 at the end of connecting pipeline to Gazprom is used for metering the amount of dry gas in the point B, as well as for measuring the electricity and diesel fuel consumption. 2) The organisation structure, the information flows and the monitoring procedures were further elaborated and improved. Refer to the MR Section C. 3) Assumption for estimation of APG volume at BCS inlet $V_{A,y}$ as indicated in 95 (d)) above is introduced. An appropriate justification of the monitoring plan revisions is provided in the MR Section B.2.		OK
99 (b)	Does the proposed revision improve the accuracy and/or applicability of information collected compared to the original monitoring plan without changing conformity with the relevant rules and regulations for the establishment of monitoring plans?	The above revisions (1) and (2) do not affect accuracy or applicability of information collected. The use of assumption (3) enables to estimate a conservative value of emission baseline emissions in the absence of measured data of APG volume at BCS inlet thereby ensuring better applicability of available measured data on amounts of dry gas (supplied to Gasprom and consumed for own needs), LPG and flared APG.. Conclusion is pending a response to CL 02.	Pending	OK
Data management				
101 (a)	Is the implementation of data collection	The implementation of data collection procedures is basically in	CL 03	OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	procedures in accordance with the monitoring plan, including the quality control and quality assurance procedures?	accordance with the determined monitoring plan and is realized with the help of "Associated Gas Recovery Project for the Komsomolskoye Oil Field. Monitoring Manual" introduced by the Order # 2761 dated 30/10/2012 (Version 02), Directive "About implementation of monitoring procedures" dated 28/10/2011, and staff training (refer to MR page 11). Primary and consolidated data for the monitoring period are recorded in the excel Monitoring Model which was provided to the AIE. The folder includes measured data on parameters (1) – (10) indicated in 95 (a) above. Tabular forms in the MR Section D.2 provide information about the QA and QC procedures as well as about metering equipment as on type, range of measurement, calibration frequency, last calibration date, and accuracy class. QA and QC procedures include (quoted by the MR Section D): (i) Control of frequency of data reporting vis-à-vis the minimum frequency required by the PDD (monthly); (ii) Control of completeness of data records; (iii) Control of variances in records for the same stream beyond those expected as normal variances (to avoid substantial non-conformities and deviations); (iv) Cross-checking and spot-checks where appropriate. **CL 03.** Please provide (possibly during the site visit) the version 02 of the Monitoring Manual. **CL 04.** Please demonstrate (possibly during the site visit) compliance	CL 04 Pending the site visit	OK OK

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		between the primary data and data recorded in the excel folder (concerns parameters in inserts RF2, RF3, RF4, RF10, RF13, RF14, RE5).		
101 (b)	Is the function of the monitoring equipment, including its calibration status, is in order?	**CL 05.** Please provide (possibly during the site visit) evidence that the calibration status of gas meters and chromatographs covers the monitoring period. Information about the organisations which performed calibration of the measuring equipment and their accreditation status was provided to the AIE and causes no concern.	CL 05 Pending the site visit	OK
101 (c)	Are the evidence and records used for the monitoring maintained in a traceable manner?	Evidence and records of monitoring gas volumes, gas composition, and electricity consumption are maintained in a traceable manner which was demonstrated to the AIE during the site visit.	Pending the site visit	OK
101 (d)	Is the data collection and management system for the project in accordance with the monitoring plan?	The MD Section C provides comprehensive information about the improved organisation structure, the information flows and the monitoring procedures.		OK
Verification regarding programs of activities (additional elements for assessment)_Paragraphs 102 – 105_Not applicable				
Applicable to sample-based approach only_Paragraphs 106 – 110_Not applicable				

Table 2 Resolution of Requests for Corrective Actions (CAR), Clarification (CL) and Forward Action (FAR)

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 1	Summary of project participant response	Verification team conclusion
CAR 01. Values of parameters for August-December 2012 in the MR table on page 36 differ from the values on the excel sheet. Please provide consistency.	95 (d)	The corrected MR has been provided to the IAE	CAR is closed based on due correction made to the MR.
CL 01. Please provide evidence (possibly during the site visit) that dry gas and LPG were supplied to customers in the reported amounts.	93	Documents for Gasprom have been provided to the IAE	CL is closed based on the provision of DG selling/purchasing acts. LPG is not directly supplied to customers.
CL 02. Please clarify if the baseline condition of APG supply to GGPP in amount of 950 MNm3 conservatively applies to the year 2012.	95 (d)	Documents have been provided to the IAE with clarification.	CL is closed based on the provision of due documented evidence.
CL 03. Please provide (possibly during the site visit) Version 02 of the Monitoring Manual.	101 (a)	The Monitoring Manual Version 2 has been provided to the IAE	CL is closed based on the provision and perusal of the requested document.
CL 04. Please demonstrate (possibly during the site visit) compliance between the primary data and data recorded in the excel folder (concerns parameters in inserts RF2, RF3, RF4, RF10, RF13, RF14, RE5).	101 (a)	Documents have been provided to the IAE	CL is closed based on the comparison of the provided primary data and the numbers in the excel file.
CL 05. Please provide (possibly during	101 (b)	Calibration certificates have been provided to the IAE	CL is closed based on the

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 1	Summary of project participant response	Verification team conclusion
the site visit) evidence that the calibration status of gas meters and chromatographs covers the monitoring period.			in-situ check of the identification numbers of the measuring equipment and comparison of information in the calibration certificates with data in the MR.