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DETERMINATION REPORT

OJSC NIZHNEVARTOVSKOYE OIL AND GAS PRODUCING ENTERPRISE

DETERMINATION OF THE GATHERING OF ASSOCIATED PETROLEUM GAS AT KHOKHRYAKOVSKOYE FIELD

REPORT NO. RUSSIA-DET/0267/2012

REVISION NO. 02

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Determination Protocol on JI project

Gathering of associated petroleum gas at Khokhryakovskoye field

Date of first issue:	Organizational unit:
04/04/2012	Bureau Veritas Certification Holding SAS
Client:	Client ref.:
TNK-BP	Mr. Andrias Mesporov

Summary:

Bureau Veritas Certification has made the determination of the "Gathering of associated petroleum gas at Khokhryakovskoye field" project of company OJSC "Nizhnevartovskoye Oil and Gas Producing Enterprise " (TNK-BP affiliate), 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 determination scope is defined as an independent and objective review of the project design document, the project's baseline study, monitoring plan and other relevant documents, and consisted of the following three phases: i) desk review of the project design and the baseline and monitoring plan; ii) follow-up interviews with project stakeholders; iii) resolution of outstanding issues and the issuance of the final determination report and opinion. The overall determination, from Contract Review to Determination Report & Opinion, was conducted using Bureau Veritas Certification internal procedures.

The first output of the determination process is a list of Corrective Actions, Clarification, and Further Actions Requests, presented in Appendix A. Taking into account this output, the project proponent revised its project design document.

In summary, it is Bureau Veritas Certification's opinion that the project applies the appropriate baseline and monitoring methodology and meets the relevant UNFCCC requirements for the JI and the relevant host country criteria.

Report No.:	Subject Group:
RUSSIA-det/0267/2012	JI

Project title:

"Gathering of associated petroleum gas at Khokhryakovskoye field"

Work carried out by:

Vladimir Lukin– Lead verifier
Alexey Kulakov - Specialist

Work reviewed by:

Leonid Yaskin – Internal Technical Reviewer

Work approved by:

Leonid Yaskin – Country Operational Manager

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Abbreviations

AIE	Accredited Independent Entity
APG	Associated Petroleum Gas
BVC	Bureau Veritas Certification
CAR	Corrective Action Request
CL	Clarification Request
CO2	Carbon Dioxide
CS	Compressor Station
DDR	Draft Determination Report
DR	Document Review
EIA	Environmental Impact Assessment
ERU	Emission Reduction Unit
GHG	Greenhouse House Gas(es)
IPCC	Intergovernmental Panel on Climate Change
IRR	Internal Rate of Return
JI	Joint Implementation
JISC	Joint Implementation Supervisory Committee
NCSF	National Carbon Sequestration Foundation
NG	Natural gas
NGO	Non Governmental Organization
NNP	Nizhnevartovskoye Oil and Gas Producing Enterprise
NPV	Net Present Value
PDD	Project Design Document
PP	Project Participant
RF	Russian Federation
tCO2e	Tonnes CO2 equivalent
UNFCCC	United Nations Framework Convention for Climate Change

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1 INTRODUCTION

TNK-BP management has commissioned Bureau Veritas Certification to determine JI project "Gathering of associated petroleum gas at Khokhryakovskoye field" (hereafter called "the project") implemented by its affiliate OJSC Nizhnevartovskoye Oil and Gas Producing Enterprise (hereafter called "NNP") in Khanty-Mansiysk Autonomous District, Russian Federation.

This report summarizes the findings of the determination 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

The determination is an independent third party assessment of the project design. In particular, the project's baseline, the monitoring plan (MP), and the project's compliance with relevant UNFCCC and host country criteria are determined in order to confirm that the project design, as documented, is sound and reasonable, and meets the stated requirements and identified criteria. Determination is a requirement for all JI projects and is seen as necessary to provide assurance to stakeholders of the quality of the project and its intended generation of emissions reductions units (ERUs).

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 determination 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 determination is not meant to provide any consulting towards the Client. However, stated requests for clarifications and/or corrective actions may provide input for improvement of the project design.

1.3 Determination team

The determination team consists of the following personnel:

Vladimir Lukin
Bureau Veritas Certification Climate Change Lead Verifier

Alexey Kulakov –
Bureau Veritas Certification Technical Specialist

This determination report was reviewed by:

Dr. Leonid Yaskin
Bureau Veritas Certification, Internal reviewer

2 METHODOLOGY

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

In order to ensure transparency, a determination 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 determination and the results from determining the identified criteria. The determination protocol serves the following purposes:

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

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

2.1 Review of Documents

The Project Design Document (PDD) submitted by the project developer NCSF and additional background documents related to the project design and baseline, i.e. country Law, Guidelines for users of the joint implementation project design document form Guidance on criteria for baseline setting and monitoring, Kyoto Protocol, to be checked by an Accredited Independent Entity were reviewed.

To address Bureau Veritas Certification corrective action and clarification requests, NCSF revised the original PDD Version 1.0 dated 21/12/2011 and following a set of revisions resubmitted it as Version 02 dd. 20/03/2012 and Version 03 dd. 31/03/2012.

The first deliverable of the document review was the Determination Protocol Revision 01 dated 29/02/2012 which contained 16 CARs, 25 CLs and 1 FAR.

The determination findings presented in this Determination Report Revision 01 and its Appendix A relate to the project as described in the PDD Version 01 (submitted for determination) through version 03 (final) dated 31/03/2012.

2.2 Follow-up Interviews

On 13-15/03/2012 the AIE Lead Verifier Vladimir Lukin performed site visit and held onsite interviews with the project developer NCSF, the project participant representatives "TNK-BP management" and OJSC "Nizhnevartovskoye Oil and Gas Producing Enterprise" to confirm the information resented in the PDD and to clarify some issues identified in course of the documents review. The list of the persons interviewed is provided in References. The main topics of the interviews are summarized in Table 1.

Table 1 Interview topics

Interviewed organization	Interview topics
Project participant TNK-BP Management and OJSC NNP	➢ Project history and Implementation schedule ➢ Technical details of the proposed project ➢ Baseline scenario ➢ Project activity ➢ Input data for investment analysis ➢ Monitoring authority and responsibility ➢ QC & QA procedures of monitoring ➢ Environmental permissions ➢ Environmental Impact Assessment
CONSULTANT NCSF	➢ Theoretical description of baseline scenario ➢ Investment barrier and common practice ➢ Additionality ➢ Monitoring plan ➢ Emission reduction calculation
Stakeholders	➢ N/A

2.3 Resolution of Clarification and Corrective Action Requests

The objective of this phase of the determination is to raise requests for corrective actions and clarification and any other outstanding issues that needed to be clarified for Bureau Veritas Certification positive conclusion on the project design.

If Bureau Veritas Certification, in assessing the PDD and supporting documents, identifies issues that need to be corrected, clarified or improved with regard to JI project 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 in the published PDD that is not in accordance with the (technical) process used for the project or relevant JI project requirement or that shows any other logical flaw;
(b) Clarification request (CL), requesting the project participants to provide additional information for Bureau Veritas Certification to assess compliance with the JI project requirement in question;
(c) Forward action request (FAR), informing the project participants of an issue, relating to project implementation but not project design, that needs to be reviewed during the first verification of the project.

Bureau Veritas Certification should 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 determination.

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

3 PROJECT DESCRIPTION (quoted from PDD v.03)

Khohryakovskaya group of fields is located in Nizhnevartovskiy region of Khanty-Mansiyskiy Autonomous Okrug (Area) and includes: Khokhryakovskoye, Permyakovskoye, Koshilskoye and Kolik-Yoganskoye fields.
At the present time fields are being developed and exploited by JSC «Nizhnevartovskoye Oil and Gas Producing Enterprise» (further NNP), a division of TNK-BP, situated in Moscow.

The situation before the project
During the oil preparation at oil central collection point (CCP) of Khokhryakovskoye field the associated petroleum gas (APG) is released from crude oil, transported from mentioned fields of Khokhryakovskaya group. Before the project realization APG had been burnt in flares of KhHokhryakovskoye CCP, as the Company had no economic incentive to efficiently utilize it.

Project purpose
The project aims at the useful utilization of associated petroleum gas (APG), which otherwise would have been burnt at CCP flares of

Khokhryakovskoye field and, therefore, at reducing greenhouse gas emissions. The NNP Company expects that the sale of emission reduction units (ERU) under the Joint Implementation mechanism of the Kyoto Protocol will improve economic efficiency of the project.

Project description

With a significant APG resource, company NNP takes action to increase its useful utilization level. To this end project provides construction of a compressor station (CS). CS is geographically located at Khokhryakovskoye field, but its projected capacity is designed for the transportation of gas from the whole Kokhryakovskaya group of fields. During the project implementation the compressor equipment from the out-of-use gas lift compressor station CS-3 at Samotlor field was dismantled and installed at Khohryakovskoye field; and a 3 km gas pipeline with diameter of 325 mm to the main gas pipeline of AK «SIBUR» was constructed.

This new gas pipeline and CS provide the transportation of APG under high pressure to gas processing plants (GPPs): Beloozerniy and Nizhnevartovskiy, which are located outside the project boundary. At GPPs APG is processed with the yield of a dry gas and gas liquids (GLs). Further on, at GPPs output the dry gas is supplied under high pressure to the main gas pipeline JSC «Gazprom» «Parabel-Kuzbass» for delivery to consumers.

Thus, collecting, compressing and supplying APG to the gas pipeline will prevent APG flaring and allow, thus, to reduce greenhouse gas emissions, including CO2 (carbon dioxide) and CH4 (methane).

The gas pipeline constructed under the project and transporting APG to the infield pipeline network of «Sibur» is equipped with cranes and switching nodes of gas flows. Electricity for pipeline control valves is not consumed. Compressors at CS are activated by electric drives, which use electricity from the external grid. Compressors provide required pressure for APG transportation through gas pipelines up to GPPs.

Project history:

- 01 February, 2004 – Consideration of economic viability of various options of APG utilization including local power generation, injection and CS construction. The NPV of all options were negative.
- 16 February, 2004 - NNP Company made a decision to use JI mechanism of Kyoto Protocol for APG utilization from Khokhryakovskoye oil field through gathering and transportation of APG to GPPs.

- June, 2005 – Construction works started
- 23.10.2006 - Cost estimate documentation for the project was approved.

On 31.10.2007 the project became operational.

Baseline scenario

Under the baseline scenario utilized under the project APG at the CPPs of Kokhryakovskoye field would have been flared that would lead to considerable emissions of GHG gases including CO2 и CH4 (as a result of incomplete flare combustion). Continuation of flaring under this scenario is determined by the lack of sufficient incentives for APG utilization project, which is confirmed by the following facts:

- At the time of decision-making sectoral policies and legislation did not provide real mechanisms for efficient APG utilization;
- Considerable capital expenditures for establishing APG utilization infrastructure and low APG costs and hence,
- Lack of investment attractiveness of these project types.

Emission reductions

As a result of the project activity the APG that otherwise would be flared will be efficiently utilized: more than 1 bln. m3 of APG will be utilized in 2008-2012. That will result in a considerable amount of GHG emission reductions.

4 DETERMINATION CONCLUSIONS

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

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

The Corrective Action Requests (CAR) and Clarification Requests (CL) are stated, where applicable, in the following sections and are further documented in the Determination Protocol in Appendix A. The determination of the Project resulted in 16 CARs 25 CLs and 1 FAR.

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

Outstanding issues related to Project Description, PP's response and the AIE conclusion are summarized in Appendix A (refer to CARs 01-04 and CLs 01-09).

The issued requests concern:

- PP was requested to demonstrate that project will not lead to decrease in the APG delivery to Nizhnevartovsky and Beloozerniy GPPs (CAR 01);
- PP was requested to demonstrate that there is no project related extension of APG uptake capacity at GPPs, which in its turn, could claim JI status, to ensure the absence of double counted ER (CAR 02);
- Justification of incompleteness of Sec. A.3 (CAR 03);
- Justification of information gaps in the project technology description (CAR 04);
- Clarification regarding inconsistencies in project description (CL 01-02);
- Clarification regarding the project history events (CL 03);
- PP was requested to provide documentary evidence to support the project history description (CL 04);
- Clarification of the project location (CL 05);
- Clarification of inconsistent description of volume to be utilized under the project (CL 06);
- Clarification of the statements of legal basis for environmental fees establishing (CL 07-08);
- Clarification of reference to the national JI procedure (CL 09).

4.1 Project approvals by Parties involved (19-20)

The project has no approvals by the Parties involved, therefore CAR 05 remains pending.

A Party involved other than the Host Party will be identified afterwards.

4.2 Authorization of project participants by Parties involved (21)

The participation of OJSC “Nizhnevartovskoye Oil and Gas Producing Enterprise ” listed as project participant in the PDD is not authorized by the Host Party because the project approval by the Host Party was not received.

The authorization will be provided with the issuance of the project approval.

4.3 Baseline setting (22-26)

The PDD explicitly indicates that using a methodology for baseline setting and monitoring developed in accordance with appendix B of the JI guidelines (hereinafter referred to as JI specific approach) was the selected approach for identifying the baseline.

JI specific approach

The PDD provides a detailed theoretical description in a complete and transparent manner, as well as justification, that the baseline is established:

a) By identification of plausible future scenarios and selecting the most plausible one. In this regard Five APG handling alternatives and two seam pressure maintenance alternatives were select and then the most plausible combination was identified as the baseline scenario. APG management alternatives are the following:

   Alternative scenario A1: Continuation of common practice for utilization of APG, i.e. the combustion of the extracted APG in the flare at CCP of the Khokhryakovskoye oilfield;

   Alternative Scenario A2: The project itself (without being registered as a JI activity) that is efficient utilization of APG, i.e. construction of CS and a new gas pipeline for compression and further gas supply to gas main pipeline.

   Based on alternatives analysis with taking into account the key factors the conclusion is made that Alternative represents the most plausible baseline scenario.

b) By taking into account key factors that affect a baseline, such as

- sectoral reform policies and legislation,
- economic situation in oil&gas sector in terms of APG utilization,
- availability of capital (including investment analysis),
- APG prices.

c) Basically in a transparent manner with regard to the choice of the JI specific approach, assumptions, parameters, data sources and key factors. The key information and data used to establish the baseline are provided in the required tabular forms.

d) Taking into account of uncertainties and using conservative assumptions. Key assumptions applied for the baseline emission calculation as fixed parameters were applied conservatively.

e) In such a way that ERUs cannot be earned for decreases in activity levels outside the project or due to force majeure. It was explicitly demonstrated that the proposed project activity will not lead to decrease in the level of APG utilization from another oilfields supplying the APG to the GPPs.

f) By drawing of the list of standard variables contained in appendix B to Guidance on criteria for baseline and monitoring.

Outstanding issues related to Baseline setting (22-26), PP's response and the AIE conclusion are summarized in Appendix A (refer to CARs 06 – 10, CLs 10-13).

The issues requests concern:

- Justification of the option selected to establish baseline according to "Guidance on criteria for baseline setting and monitoring" v.3.0 (CAR 06);
- Justification of transparency in description of the Key Baseline parameters (CAR 07);
- Justification of transparency in the Baseline theoretical description (CAR 08);
- Justification regarding conservativeness of the value of Emission factor due to natural gas combustion in gas turbines (CAR 09);
- Gaps and inconsistencies Compliance check of soot combustion condition according to the NII Atmosphere's methodology (CAR 10);
- Clarification of the Reference to the legal environmental payment regulations given in the theoretical description of the baseline (CL 10);
- Clarification of the reason of rejection of other options such as power generation, processing and injection (CL 11);
- Clarification of the situation that would occur without the project activity in the downstream APG handling (CL 12);
- Clarification of formula (10) given in the baseline theoretical description (CL 13).

4.4 Additionality (27-31)

JI specific approach

The approach prescribed in paragraph 44 (a) of Annex 1 to the "Guidance on criteria for baseline setting and monitoring" Version 03 - Provision of traceable and transparent information showing that the baseline was identified on the basis of conservative assumptions, that the project scenario is not part of the identified baseline scenario and that the project will lead to reductions of anthropogenic emissions by sources or enhancements of net anthropogenic removals by sinks of GHGs; - was selected to demonstrate that the reductions of greenhouse gas emissions from sources achieved due to the project implementation are additional to those that would have otherwise.

Within the framework of the selected approach the project additionality was proved using the project alternatives analysis, the investment analysis and the common practice analysis.

The Benchmark analysis was chosen as the appropriate method to demonstrate that the project is not economically feasible without JI revenues. The investment analysis was based on calculation of NPV for the Project, taking into account investment costs, operation costs, amortization and other parameters referring to expenses (project expenditures), as well as project associated revenues from water injection savings and avoided environmental fees.

Discount rate was selected to be equal to 12% that is corresponds to the internal company's discount rate determined by the internal financial viability assessment procedure and confirmed through the onsite interview with PP. Other input values such as capital and operation expenditures, APG cost and environmental fees were positively determined on the basis of reliable evidence.

The calculations of the basic variant supplemented by the sensitivity analysis showed that NPV<0. The variation range of 10% was selected as usually used by TNK-BP and prescribed by the investment analysis procedure hence the project is not economically attractive for NNP.

Outstanding issues related to Additionality (327-31), PP's response and the AIE conclusion are summarized in Appendix A (refer to CAR 11 and CLs 14-15).
The issued CARs and CLs concern:

- Justification of the information provided to support the common practice analysis (CAR 11);
- Request to use the actual version of the Guidance on Criteria for Baseline Setting and Monitoring (CL 14);
- Clarification of the gaps and inconsistencies in the investment analysis (CL 15);

4.5 Project boundary (32-33)

JI specific approach

The project boundary defined in the PDD encompasses all anthropogenic emissions by sources of GHGs that are (i) under the control of the project participants, (ii) reasonably attributable to the project, and (iii) significant.

Project boundary is defined on the basis of case-by-case assessment of different emission sources. The identified GHGs emissions and their sources are as follows:
(a) CO2 and CH4 emissions due to APG flaring in the baseline scenario; (b) CO2 emissions due to combustion of fossil fuels at the grid connected power plants to supply the electricity consumed by the project; (c) CH4 emissions due to methane leaks from AG compression and transportation to the GPP. It was explicitly demonstrated that N2O emissions (for the project activity) are negligible and hence excluded from consideration.

Outstanding issue related to Project Boundary (32-33), PP's response and the AIE conclusion are summarized in Appendix A (refer to CL 16).

- PP was requested to clarify if there are any emergency power generating capacities which are fueled with fossil fuel (CL 16).

4.6 Crediting period (34)

Starting date of the project is defined in PDD as 01/06/2005 being the date when the construction and installation works started at CS.

Expected operational lifetime of the project is 14 years that was confirmed through the interview held with the technical specialists and the review of technical specification held on site. The length of crediting period is defined as 5 years (60 months) from 01/01/2008 – 31/12/2012. The starting date of crediting period falls on the date when the first emission reductions were generated by the project.

Outstanding issue related to Crediting period (34), PP's response and the AIE conclusion are summarized in Appendix A (refer to CLs 17 and 18).

- PP was requested to clarify the selection of starting date and provide the documentarily evidence (CL 17);
- Clarification was issued to request the evidence to support the operation lifetime (CL 18).

4.7 Monitoring plan (35-39)

JI specific approach

The PDD, in its monitoring plan section, explicitly indicates that JI specific approach was selected.

The monitoring plan specifies the indicators, constants and variables that are reliable (i.e. provide consistent and accurate values), valid (i.e. be clearly connected with the effect to be measured), and that provide a

transparent picture of the emission reductions to be monitored such those listed in the PDD, Sections D.1.1.1 and D.1.1.3.

The monitoring plan provides, in tabular form, a complete compilation of the data that need to be collected for its application, including data that are measured but not including data that are calculated with equations.

The monitoring plan describes the relevant factors that will be monitored:
- Volume of associated petroleum gas pumped by the compressor station to the GPP;
- Electricity consumption by the compressor station in the year;
- Volumetric fraction of hydrocarbons in associated petroleum gas pumped by the compressor station;
- Baseline efficiency of APG flaring (on the basis of the soot combustion criterion compliance test).

- all decisive factors for the control and reporting of project performance: quality control (QC) and quality assurance (QA) procedures; emergency procedures; the operational and management structure that will be applied in implementing the monitoring plan.

Constants used are the default values of the parameters as follows:
- Global Warming Potential of methane
- Emission factor for electric power plant of the ESD Ural
- IPCC factor for gas transmission operations
- IPCC factor for gas processing operations
- Density of methane CH4 under standard conditions
- Density of CO2 under standard conditions
- Number of moles of carbon in APG components
- Yield of dry gas from APG processing at GPP
- Maximal specific electricity consumption factor during APG processing at GPP
- Maximal loss factor during processing of APG at GPP
- net calorific value of the natural gas
- Specific electricity consumption to gas compressing&processing at oil&gas treatment plant of Sibur
- loss factor of natural gas during its recovery and production presented in the annual environmental report of JSC Gazprom

The defaults values originate from recognized sources as indicated above and are presented in a transparent manner. The overhaul verification of sources is provided in the table 3 (local checklist) to this report.

Where applicable the monitoring plan applies the standard variables contained in appendix B of "Guidance on criteria for baseline setting and monitoring" developed by the JISC.

The monitoring plan explicitly and clearly distinguishes:
- data and parameters that are not monitored throughout the crediting period, but are determined only once (and thus remain fixed throughout the crediting period), and that are available already at the stage of determination such as the default data used;
- data and parameters that are monitored throughout the crediting period, such as those presented in Section D.1.1.1 for the project and Section D.1.1.3 for the baseline.

The monitoring plan describes the methods employed for data monitoring (including its frequency) and recording.

The monitoring plan elaborates all algorithms and formulae used for the estimation/calculation of baseline emissions and project emissions, as appropriate, such as Formulae in Section D.1.1.2 - for the project emissions, in Section D.1.1.3 - for leakage, and in Section D.1.1.4 - for the baseline emissions.

The monitoring plan follows the standard routines applied by TNK-BP's affiliates and is in line with the national standards usually applied in the oil and gas sector.

The monitoring plan clearly describes the operational and management structure regarding the monitoring activities. The responsibility for the JI project implementation is assigned according the national guidance and internal procedures applied by TNK-BP for the Monitoring routines. On the whole, the monitoring report reflects good monitoring practices appropriate to the project type.

The monitoring plan indicates that the data monitored and required for verification are to be kept for two years after the last transfer of ERUs for the project.

Outstanding issues related to Monitoring plan (35-39), PP's response and the AIE conclusion are summarized in Appendix A (refer to CARs 12-13, CLs 19-24 and FAR 01).

The issued requests concern:
- Request to identify the Monitoring data storage time in the PDD (CAR 12);
- Request to identify the Emergency Monitoring procedure that will be followed if any data sources are not available (CAR 13);

- Clarification of the several inconsistencies and gaps in the description of monitoring (CL 19);
- Clarification of the parameters to be collected from the external source Sibur's GPPs (CL 20);
- Request for certificates for the meters and the methods applied for the monitoring (CL 21);
- Request for the monitoring standards and internal procedures to be used in course of the monitoring (CL 22);
- Clarification with regard to periodicity of the calibration of meters employed in the monitoring (CL 23);
- Request to specify the personal responsibility for the Monitoring functions (CL 24);

As the calibration records for the Monitoring equipment employed were not available for the whole monitoring period they are to be provided and checked at the stage of verification (FAR 01).

4.8 Leakage (40-41)

JI specific approach

The leakage effect was considered in the project to be estimated as the net change of anthropogenic GHG emissions attributable to the proposed project activity and occur outside the project boundary.

In the PDD the leakage effect was calculated as difference between total anthropogenic emissions outside the boundary that will be avoided due to the project – baseline leakage and the emissions attributable to the project activity – project leakage.

The "baseline leakage" includes two components:

1/ the emissions due to equivalent amount of natural gas recovery at the gas fields, calculated on the basis of national enfironmental statistic published by OJSC Gasprom, and
2/ emissions from the NG transportation calculated as CO2 emissions from the combustion of natural gas at the typical gas turbines used for the transportation of the volume of natural gas equivalent to the APG.

The NG equivalent of the APG utilized is conservatively estimated on the basis of APG delivery and minimal dry gas yield factor for the period from 2008 to 2011.

The "project leakage" includes the following sources:
1/ emissions associated with the electricity consumption by GPP, and
2/ fugitive leaks determined as the processing losses from the APG processing at GPP.

The project leakage was estimated conservatively on the basis of APG delivery to the GPP, maximum specific electricity consumption by GPP and maximum specific fugitive losses at GPP (external data provided by Sibur's gas processing facilities for the period from 2008 to 2011)

No outstanding issues related to Leakage (40-41) were raised.

4.9 Estimation of emission reductions or enhancements of net removals (42-47)

JI specific approach

The PDD indicates assessment of emissions in the baseline and project scenario as the approach chosen to estimate the emission reductions of the project.

The PDD provides the ex ante estimates of:
(a) Emissions for the project scenario (within the project boundary), which are 210 771 tCO2e;
(b) Emissions for the baseline scenario (within the project boundary), which are 3 573 988 tCO2e;
(c) Leakage (outside the project boundary), which are 258 216
(d) Emission reductions (based on (a), (b) above), which are 2,333,572 tCO2e.

The formulae used for calculating the estimates are referred in the PDD, Sections D.1.1.2, D.1.1.4, D.1.2.2, and D.1.4.

The PDD Section E includes an illustrative ex ante emissions calculation.

For calculating the estimates referred to above, key factors defined in the monitoring plain influencing the project and baseline emissions were taken into account, as appropriate. The estimation referred to above is based on conservative assumptions and the most plausible scenario in a transparent manner. The estimates referred to above are consistent throughout the PDD.

Outstanding issue related to 4.9 Estimation of emission reductions or enhancements of net removals (42-47), PP's response and the AIE conclusion are summarized in Appendix A (refer to CAR 14)

The issued CAR14 concerns incompleteness of PDD in sec. E.5.
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4.10 Environmental impacts (48)

The PDD provides explicit description demonstrating that there are no environmental impacts attributable to the project are expected to be beyond the legally established norms. The project will not lead to increase in emission rate of air pollutants due to shift from APG flaring to compression.

The description of Environmental impacts was verified against EIA made as the part of the project feasibility study and officially approved by State Expertise conclusion.

Outstanding issues related to Environmental impacts (48), PP's response and the AIE conclusion are summarized in Appendix A (refer to CAR 15 and CL 25).

The issued requests concern

- Incompleteness of environmental impact description in the first version of PDD (CAR 15)
- Request PP to provide the EIA and its positive approval (CL 25).

4.11 Stakeholder consultation (49)

This type of project is not liable to arrangement of stakeholders' consultation in form of public hearing. Stakeholder comments were invited and collected in form of official conclusions issued by the local authorities and through the publications in the local medias.

Outstanding issues related to Stakeholders' consultation (48), PP's response and the AIE conclusion are summarized in Appendix A (refer to CAR 16).

The issued CAR 16 concerns incorrect interpretation of legal requirements related to the stakeholder process given in initial version of PDD.

4.12 Determination regarding small scale projects (50-57)

Not applicable.

4.13 Determination regarding land use, land-use change and forestry (LULUCF) projects (58-64)

Not applicable.

4.14 Determination regarding programmes of activities (65-73)

Not applicable.

5 SUMMARY AND REPORT OF HOW DUE ACCOUNT WAS TAKEN OF COMMENTS RECEIVED PURSUANT TO PARAGRAPH 32 OF THE JI GUIDELINES

No comments, pursuant to paragraph 32 of the JI Guidelines, were received.

6 DETERMINATION OPINION

Bureau Veritas Certification has performed a determination of the "Gathering of associated petroleum gas at Khokhryakovskoye field" project. The determination 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 determination consisted of the following three phases: i) a desk review of the project design and the baseline and monitoring plan; ii) follow-up interviews with project stakeholders; iii) the resolution of outstanding issues and the issuance of the final determination report and opinion.

Project participant used the JI specific approach for the demonstration of additionality. In line with this approach, the PDD provides investment analysis and common practice analysis to determine that the project activity itself is not the baseline scenario.

Emission reductions attributable to the project are hence additional to any that would occur in the absence of the project activity. Given that the project is implemented and maintained as designed, the project is likely to achieve the estimated amount of emission reductions.

The review of the project design documentation and the subsequent follow-up interviews have provided Bureau Veritas Certification with sufficient evidence to determine the fulfilment of stated criteria.

The determination revealed two pending issues related to the current determination stage of the project: the issue of the written approval of the project and the authorization of the project participant by the host Party. If the written approval and the authorization by the host Party are awarded, it is our opinion that the project as described in the Project Design Document, Version 03 dated 31/03/2012 meets all the relevant UNFCCC requirements for the determination stage and the relevant host Party criteria.

The determination is based on the information made available to us and the engagement conditions detailed in this report.

7 REFERENCES

Category 1 Documents:
Documents provided by PP that relate directly to the GHG components of the project.

/1/ PDD "Gathering of associated petroleum gas at Khokhryakovskoye field"
a/ Version 01 dd. 21/12/2011
b/ Version 02 dd. 20/03/2012
c/ Version 03 dd. 31/03/2012

/2/ ER Calculation Excel spreadsheet
a/ Version 01 dd. 21/12/2011
b/ Version 02 dd. 20/03/2012
c/ Version 03 dd. 31/03/2012

/3/ Investment Analysis Excel spreadsheet

Category 2 Documents:
Background documents related to the design and/or methodologies employed in the design or other reference documents.

/4/ Guidelines for the implementation of Article 6 of the Kyoto Protocol
http://unfccc.int/resource/docs/2005/cmp1/eng/08a02.pdf#page=2

/5/ Guidance on criteria for baseline setting and monitoring Version 03
http://ji.unfccc.int/Ref/Documents/Baseline_setting_and_monitoring.pdf

/6/ "Guidelines for Calculation of Air Pollutant Emissions from APG Flaring" developed by the Scientific Research Institute for Atmospheric Air Protection in Saint-Petersburg (approved by the Order of the National Environmental Protection Committee of the Russian Federation dd. 08.04.98 №199)

/7/ http://www1.eere.energy.gov/manufacturing/tech_deployment/pdfs/10097517.pdf (Attachment C)
http://electrono.ru/elektricheskie-mashiny/energeticheskie-sootnosheniya
http://electricalschool.info/main/osnovy/51-kakie-pasportnye-dannye-ukazyvajutsja.html

/8/ Letter #02/04-0588 dd. 21/03/2012 from LLC Yugragaspererabotka.

/9/ Technical specification for 3 compressors TAKAT 50.05.5M4YKhL1 manufactured Aug.'2006, Oct. 2006 and Sep. 2006
File: CAR04/Компрессора2.pdf

/10/ Flare Head Technical specification
Dm. -500 mm
Flare rate $0.733*10^6$-$2.035*10^6$ m^3/day
Operational lifetime 10 years

File: CAR04/Оголовок факела.pdf

CAR04/Оголовок факела 2.pdf

/11/ Technical specification for asynchronous electric engine VAO2-560-400-2DU2 driving compressors.

File: CAR04/Паспорта, двигатель, копрессора.pdf

http://www.roel-etk.ru/cgi/mcgi/mot_cat.cgi?producer=8&series=%C2%C0%CE#311

Capacity, kW	Frequency, rpm	Voltage, V	power frequency, Hz	Efficiency, %
400	3000	10000	50, 60	92.33

/12/ Manufacturers specification for electrical equipment

TABL manufactured in 1994

Capacity, kW	Frequency, rpm	Voltage, V	Amperage, A	Power coefficient
10000	1500	10000	659	0.9

File: CAR04/Электродвигатель.pdf

/13/ Technical specification for the valves ЗКЛПЭ2ХЛ DN 50 16 MPa

File: CAR04/Электродвигатель2.pdf

/14/ Gas Chromatograph readings for 2008-2011

Excel spreadsheet: #14 Хромотограф КС-Хохряковская REVISION.xls

/15/ Gas balances (monthly) for 2008-2011

/16/ "Assessment of the Grid Emission Factor Calculation Model for Russia" *http://www.ebrd.com/downloads/sector/eecc/Baseline_Study_Russia.pdf (page 5.3, table 5.2);*

http://www.ebrd.com/downloads/sector/eecc/Validation_report_Russia.pdf

/17/ IPCC 2006 volume 2.

/18/ Information note provided by Chief engineer by «Югразпереработка» SEC and SFC by GPPs

/19/ AIIS KUE power consumption readings (verified on site)

/20/ Gazprom's annual environmental reports 2008-2010

/21/ http://www.indpg.ru/nefteservis/2008/04/20007.html

/22/ Regime log books for the Khokhryakovsky CS

/23/ JI Determination Report The utilization of associated petroleum gas of the Yarayner oilfield of JSC "Gazpromneft-Noyabrskneftegaz" REPORT NO. RUSSIA-DET/0211/2011 dd. 12/12/2011

/24/ Expert conclusion for the project "construction of the compressor station Khokhryakovskaya for APG transportation with lead in pipelines" dd. 10/04/2007

Persons interviewed:
List persons interviewed during the determination or persons that contributed with other information that are not included in the documents listed above.

/1/ Mr. Fomin A.A. - Deputy Head of Gas Projects in NNP

/2/ Mrs. Afanas'eva O.Y. - Chief Specialist in Metrology Dept. in NNP

/3/ Mr. Sleptsov V.M. - Deputy Head of TsPPN UPN1 (oil treatment division) in NNP

/4/ Mr. Utkin A.A - Chief Technologist in CS in NNP

/5/ Mr. Mesropov Andrias The Head of Dept. of Normative Support, Regulation and Tariffs Establishing in TNK-BP

/6/ Mr. Marat Latypov – The Head of the Project Development Dept. in NCSF

/7/ Mr. Nikolay Trofimov – Expert of the Project Development Department in NCSF;

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DETERMINATION PROTOCOL

Table 1

Check list for determination, according JOINT IMPLEMENTATION DETERMINATION AND VERIFICATION MANUAL (Version 01)

Section A Paragraph or DVM Paragraph	Check Item	Initial finding	Draft Concl.	Final Concl.
Guidelines for JI PDD Form Users Section A General description of the project				
A.1. Title of the project				
A.1	Is the title of the project presented? Is the sectoral scope to which project pertains presented? Is the current version number of the document presented? Is the date when the document was completed presented?	The title of the project is: "Gathering of associated petroleum gas at Khokhryakovskoye field". The sectoral scope is: 10 Fugitive emissions from fuels (solid, oil and gas). The version: 1.0 21/12/2011		OK
A.2 Description of the project				
A.2	Is the purpose of the project included with a concise, summarizing explanation (max. 1-2 pages) of the: a) Situation existing prior to the starting date of	The project aims at the useful utilization of associated petroleum gas (APG), which otherwise would have been burnt at CCP flares of Khokhryakovskoye field and, therefore, at reducing greenhouse gas emissions. The NNP Company expects that the sale of emission	CL 01 CL 02 CL 03	OK OK OK

Section A Paragraph or DVM Paragraph	Check Item	Initial finding	Draft Concl.	Final Concl.
	the project; b) Baseline scenario; and c) Project scenario (expected outcome, including a technical description). Is the history of the project (incl. its JI component) briefly summarized?	reduction units (ERU) under the Joint Implementation mechanism of the Kyoto Protocol will improve economic efficiency of the project. Before the project realization APG had been burnt in flares of Hohryakovskoye CCP, as the Company had no economic incentive to efficiently utilize it. Baseline scenario is suggested to be the continuation of the situation had been taking place prior the project start: Under the baseline scenario all extracted APG at the CPPs of Kokhryakovskoye field would have been flared that would lead to considerable emissions of GHG gases including CO2 и CH4 (as a result of incomplete flare combustion). Continuation of flaring under this scenario is determined by the lack of sufficient incentives for APG utilization project, which is confirmed by the following facts: • At the time of decision-making sectoral policies and legislation did not provide real mechanisms for efficient APG utilization; • Considerable capital expenditures for establishing APG utilization infrastructure and low APG costs and hence, • Lack of investment attractiveness of these project types. **CL 01** A.2. states that all APG would be flared. It is not a business-as-usual. A part of APG is utilized for own needs – oil heating furnaces, boiler houses etc. Please clarify if this is not a case. Also	CL 04 CAR 01 CAR 02	OK OK OK

Section A Paragraph or DVM Paragraph	Check Item	Initial finding	Draft Concl.	Final Concl.
		please clarify if which type of APG (high or low pressure) is intended for utilization **CL 02** Sections A.2 - A.4.1.4 – A.4.2 contain significant useless copy&pastes e.g. *"Khokhryakovskoye field – the field is opened in 1972 and put into development in 1985. All reservoirs are combined into one object of development. In administrative terms the field is located in Nizhnevartovskiy region of Khanty-Mansiyskiy Autonomous district of Tyumenskaya area 165 km to the north-east from city of Nizhnevartovsk."* Please, delete the superfluous text. **CL 03** The description of project history is inconsistent: The economic viability was presented in 2004 whereas cost estimation was approved in 2006 (after the construction work began). **CAR 01** According sec. A.2. APG will be directed to Nizhnevartovsky and Beloozerniy GPPs. Please demonstrate that GPPs have enough free capacities to accept the APG and the proposed project does not lead to restriction of APG from other sites delivered to GPPs. The same is true with regard to the downstream hydrocarbon processing at the Chemical Processing plant. The project shall not restrict an activity outside the project boundary. **CAR 02** please, demonstrate, that there have not been any extension of APG uptake capacity at GPPs, or, such activity has not claim JI status, otherwise ER would be double counted.		

Section A Paragraph or DVM Paragraph	Check Item	Initial finding	Draft Concl.	Final Concl.
		CL 04 Please, provide all documentary evidence to confirm the project history milestones: • **February 2004** - presentation with estimates of the economic viability of the project on APG utilization at Khohryakovskaya group of fields. • **16.06.2006** - Cost estimate documentation for the project • **Quarter 3th, 2005** – Construction works started • **31.10.2007** - Launching the project into operation		
A.3 Project participants				
A.3	Are project participants and Party(ies) involved in the project listed? Is contact information provided in Annex 1 of the PDD?	**CAR 03** Sec. A.3 left empty.	CAR 03	OK
A.4 Technical description of the project				
A.4.1	Location of the project	Refer to A.4.1.1-A.4.1.4.		OK
A.4.1.1	Host Party(ies)	The Russian Federation.		OK
A.4.1.2	Region/State/Province etc.	Nizhnevartovskiy district, Khanty-Mansiyskiy Autonomous Okrug (KhMAO) Tyumen oblast,		OK
A.4.1.3	City/Town/Community etc.	The city of Nizhnevartovsk		OK
A.4.1.4	Detail of the physical location, including information allowing the unique identification of the project. (This section should not exceed one page)	**CL 05** Sec. A 4.1.4. does not allow unique identification the location of each project site.	CL 05	OK
A.4.2. Technologies to be employed, or measures, operations or actions to be implemented by the project				

Section A Paragraph or DVM Paragraph	Check Item	Initial finding	Draft Concl.	Final Concl.
A.4.2	Are the technology(ies) to be employed, or measures, operations or actions to be implemented by the project, including all relevant technical data and the implementation schedule described?	Section A.4.2 PDD provides description of technology and measures to be implemented to achieve the emission reduction. **CAR 04** The Project technology is not described explicitly. Sec. A4.2 lacks of the following information. • Detailed Technical specification of compressors, including specification of gears and auxiliary equipment • Technical specification of the valving equipment (to support the statement that electricity is not consumed for pipeline control valves). • Technical specification of the flares that will discontinued under the project. • The information requested under CARs 01 and 02. All information is to be supported with reliable evidence, e.g. Project feasibility study, on which basis it can be verified positively.	CAR 04	OK
A.4.3. Brief explanation of how the anthropogenic emissions of greenhouse gases by sources are to be reduced by the proposed JI project, including why the emission reductions would not occur in the absence of the proposed project, taking into account national and/or sectoral policies and circumstances				
A.4.3	Is it explained briefly how anthropogenic GHG emission reductions are to be achieved? (This section should not exceed one page.)	The following emission reduction sources are determined in sec.A.4.3: • Reduction of CO2 emission due to useful utilization of the significant volume of APG. • Reduction of CH4 emission from incomplete combustion of APG. **CL 06** while the full utilization of total APG volume is declared in sec.	CL 06 CL 07 CL 08	OK OK OK

Section A Paragraph or DVM Paragraph	Check Item	Initial finding	Draft Concl.	Final Concl.
		A.2 and A.4.2 sec. A.4.3 stays "significant volume" of APG is to be utilized. Please secure consistency. **CL 07** Please clarify what does the following statement mean: "*...the waste of the natural resource has to be compensated with environmental payments in the various budgets and with provision of polluting substances in surface layer of air below the maximum allowable concentration level*" The control of natural resources use and environmental fees are usually segregated between different state entities and occur irrespectively each other. Is there any legal or official basis for such conclusion? It might be a good invention but hardly practicable! **CL 08** Sec. A.4.3 is not focused at the measures to be implemented to achieve ER but rather at the quite generic description of economic peculiarities around APG utilization. Footnote 2 cannot be considered reliable as it was stipulated there, that there had been no unequivocal estimates of total volume of APG flaring and recovery. Situation has changed significantly since 2009 when APG price was liberalized and the national goal to achieve 95% APG utilization was officially adopted. Please, secure objectiveness in the description.		
A.4.3.1. Estimated amount of emission reductions over the crediting period				
A.4.3.1	Is the length of the crediting period Indicated? Are estimates of total as well as annual and average annual emission reductions in tonnes of	The length of the crediting period is determined as 5 years in sec. A.4.3.1. Total as well as annual and average annual emission reductions in		OK

Section A Paragraph or DVM Paragraph	Check Item	Initial finding	Draft Concl.	Final Concl.
	CO2 equivalent provided?	tonnes of CO2 equivalent are provided.		
A.5. Project approval by the Parties involved				
A.5	Are written project approvals by the Parties involved attached?	**CAR 05.** The project has no approvals by the Parties involved. The project approval by the Host Party will be provided after the determination statement is issued by the AIE. **CL 09** Wrong reference: sec. A.5 refers to Governmental Resolution 740 dd.15/09/2011. Must be #780.	CAR 05 CL 09	Pending OK
19	Have the DFPs of all Parties listed as "Parties involved" in the PDD provided written project approvals?	No, pending a response to CAR 05.	Pending	Pending
19	Does the PDD identify at least the host Party as a "Party involved"?	Pending a response to CAR 03	Pending	OK
19	Has the DFP of the host Party issued a written project approval?	No, pending a response to CAR 05.	Pending	Pending
20	Are all the written project approvals by Parties involved unconditional?	No, approvals from parties involved will be requested after the Host party approval will be issued. Pending a response to CAR 05.	Pending	Pending
Authorization of project participants by Parties involved				
21	Is each of the legal entities listed as project participants in the PDD authorized by a Party involved, which is also listed in the PDD, through: - A written project approval by a Party involved, explicitly indicating the name of the legal entity? or	Project participants are not identified Pending a response to CAR 03 and CAR 05.	Pending	Pending

Section A Paragraph or DVM Paragraph	Check Item	Initial finding	Draft Concl.	Final Concl.
	- Any other form of project participant authorization in writing, explicitly indicating the name of the legal entity?			
Baseline setting				
	Does the PDD explicitly indicate which of the following approaches is used for identifying the baseline? - JI specific approach - Approved CDM methodology approach	**CAR 06** PDD does not explicitly indicate which option is selected to establish baseline. If JI specific approach according to paragraph 9 (a) of the "Guidance on criteria for baseline setting and monitoring" v.3.0 is used for the baseline setting, it should be explicitly stated in the PDD.	CAR 06	OK
JI specific approach only				
23	Does the PDD provide a detailed theoretical description in a complete and transparent manner?	PDD sec. B.1 provides theoretical description of the approach applied to calculate baseline emissions. **CL 10 Reference is wrong:** *1/ Page 10. "...The envi. payment norms set by Russian Government's Decree № 344 dd 12/06/2003 and by partially revised Decree № 410 dd. 01/07/2005..."* In fact there is singular governmental decree № 344 dd. 12/06/2003 establishing the fees. This enactment has been revised twice so far. Decry #410 was the adoption of the first of such revisions made in 2005. The latest revision was made on 08.01.2009 Resolution N 7. Incorrect calculation in table B.1-3. 2/ according to Gov. Res. 7 dd. 08.01.2009 the enhanced coefficient (4.5) shall be applied to the fee for the methane emissions from combustion of the APG volume, which is equal to difference between total APG and target indicator (considering 95% utilization rate) Remainder 5% shall be paid with normal fee.	CAR 07 CL 10 CL 11 CL 12	OK OK OK OK

Section A Paragraph or DVM Paragraph	Check Item	Initial finding	Draft Concl.	Final Concl.
		CL 11 Argumentation of the rejection of other options such as power generation, processing and injection is indistinct and insufficient. It can be concluded that the APG injection is technically possible as it has been practiced at the nearby Samotlor oilfield. **CL 12** Please, consider the APG supply to GPPs and the further processing of GLs at Tobol Oil Chemical Works of SIBUR. What would be there in the baseline scenario? The calculation of methane emission from APG flaring was made on the basis of "Guidelines for Calculation of Air Pollutant Emission from APG Flaring" developed by the Scientific Research Institute for Atmospheric Air Protection in Saint-Petersburg (approved by the Order of the National Environmental Protection Committee of the Russian Federation dd. 08.04.98 №199) /06/. Two baseline emission sources are identified as attributable to the project: • methane emissions resulting from soot combustion of APG in flare devices; • CO_2 emissions from the fossil fuel combustion in course of the power generation at grid connected power plants to generate the electricity equal to that would be substituted by the project;		

Section A Paragraph or DVM Paragraph	Check Item	Initial finding	Draft Concl.	Final Concl.
23	Does the PDD provide justification that the baseline is established: (a) By listing and describing plausible future scenarios on the basis of conservative assumptions and selecting the most plausible one? (b) Taking into account relevant national and/or sectoral policies and circumstance? - Are key factors that affect a baseline taken into account? (c) In a transparent manner with regard to the choice of approaches, assumptions, methodologies, parameters, date sources and key factors? (d) Taking into account of uncertainties and using conservative assumptions? (e) In such a way that ERUs cannot be earned for decreases in activity levels outside the project or due to force majeure? (f) By drawing on the list of standard variables contained in appendix B to "Guidance on criteria for baseline setting and monitoring", as appropriate?	The baseline was selected by listing of plausible alternatives. The baseline is set by alternative analysis Two alternatives were considered: • Alternative scenario 1. Continuation of common practice for utilization of APG, i.e. the combustion of the extracted APG in the flare at CCP of the Khokhryakovskoye oilfield. • Alternative scenario 2. The project itself (without being registered as a JI activity) that is efficient utilization of APG, i.e. construction of CS and a new gas pipeline for compression and further gas supply to gas main pipeline. Relevant national policies, trends and rules are taken into account as described in sec. B.1. Following key factor are taken into account. • State policies and legislation in the oil and gas sector. • Economic situation in Russian oil and gas sector and projected demand. • Technical aspects of APG utilization • Availability of capital • APG prices **CAR 07** Key Baseline parameters description lack of transparency: 1/ SEC is not applicable for the baseline but rather for the leakage,	CAR 07 CAR 08 CAR 09	OK OK OK

Section A Paragraph or DVM Paragraph	Check Item	Initial finding	Draft Concl.	Final Concl.
		Other fixed parameters for the leakage estimation (NG's composition, NG's NCV, CO2 emission factor for gas turbines, gas turbines driven compressors efficiency, methane losses under the NG recovery, APG and NG pressure in the inlet and outlet of compressors etc.) are not included in the tables in sec. B.1. Please, secure a consistency either all parameters are to be included into B.1(preferable) or none of them but those directly pertain to baseline estimation. 2/ The relevant calculations and the raw data (technical specification for each flare and the APG volumes that would be supplied to each flare under the baseline) shall be provided to confirm soot combustion conditions for each flare inside the project boundary; The simplified statement that this parameter is taken from the NII Atmosphere's Methodology is not appropriate. 3/APG volume for 2012 must be forecasted (not measured). Please identify how the value was obtained; 4/Please provide raw data to confirm all assumptions in the baseline emission calculation; 5/ Justification of the choice of data "... necessary for the baseline calculation..." is inappropriate. Somewhere such cells are left empty. 6/ Emission factor for methane due to incomplete combustion is not transparent. This is transient calculation parameter neither fixed nor to be monitored. Why it was included? 7/ Please use the standard variables from Appendix B to Guidance for BL setting and Monitoring v.3.0 e.g. for Methane content (w_{CO2}), CO2 content, VOC content, APG production (P_{APG}) and other parameters. 8/ the term efficiency of NG/APG combustion is applied misleadingly. The fraction of hydrocarbons converted into CO2 during combustion		

Section A Paragraph or DVM Paragraph	Check Item	Initial finding	Draft Concl.	Final Concl.
		process would rather to be entitled as oxidation factor (OXID) to avoid any mix with the efficiency of energy turnover processes. **CAR 08 Baseline theoretical description lacks of transparency:** 1/ formulae 1, 2, and 3 are not transparent; Both ∑av and ∑cp – are unknown terms, inappropriate for the mathematical equations. If averaging is applied, it should be presented in form of $\sum(a_i)/i$, where i is properly identified number of samples, objects i.e. annual average methane concentration $=\sum(w_i)/i$, where w_i is monthly concentration and i – number of months (for annual average i = 12). 2/ the period (monthly, annual) shall be determined for the $\mathbf{FC_{APG\_PJ}}$ **3/** Monthly values of BE should be determined and then summated otherwise effect of monthly variation in APG volume is omitted. 4/ The estimation of leakage from the project activity is missing in sec. B.1. 5/ Formula (8) does not consider electric gear efficiency which may vary from 0.75 to 0.95 referring to available information /07/. If efficiency is assumed to be 1.0 please state it properly and justify. **CAR 09** Calculation of Emission factor due to natural gas combustion in gas turbines is not traceable and reproducible in calculation sheet. The value of emission factor from natural gas burning in gas turbine (**2.106 tCO2/1000 m^3**) is not conservative and inapplicable. When this value is divided by standard NCV of NG (7600 kcal/m3) and converted to the tCO2/TJ (conversion factor $4.2*10^{-6}$TJ/Mcal) the result will be **65.9** tCO2/TJ that is much higher than default value of **56.1** tCO2/TJ. Revision of calculation is to be made. Conservative value must be **1.791** tCO2/1000 m^3		

Section A Paragraph or DVM Paragraph	Check Item	Initial finding	Draft Concl.	Final Concl.
24	If selected elements or combinations of approved CDM methodologies or methodological tools for baseline setting are used, are the selected elements or combinations together with the elements supplementary developed by the project participants in line with 23 above?	N/A		
25	If a multi-project emission factor is used, does the PDD provide appropriate justification?	No multi-project emission factors are applied for the baseline. **CL 13** Formula (10) is not self-evident and should be explained at least with proper reference. **CAR 10 Compliance check of soot combustion condition according to the NII Athmosphere's methodology:** 1/Brief but explicit implication of soot combustion coefficient and its condition should be included into the PDD along with the results of calculation, otherwise PDD is not transparent. 2/ velocity of sonic diffusion in APG (Uзв), (which is to be calculated as per Annex «Г»), is not considered or is assumed to be 1 in the final operation in the calculation sheet. 3/Velocity of combustion products discharge and velocity of sonic diffusion ratio must be less than 0.2 to ensure soot combustion. The opposite is misleadingly stated in the excel. 3/ Pending supporting documentation for all input values used in the soot combustion condition compliance check i.e. technical specification of flare, APG composition, APG value.	CL 13 CAR 10	OK OK
Approved CDM methodology approach only_Paragraphs 26(a) – 26(d)_Not applicable				
Additionality				
JI specific approach only				

Section A Paragraph or DVM Paragraph	Check Item	Initial finding	Draft Concl.	Final Concl.
28	Does the PDD indicate which of the following approaches for demonstrating additionality is used? (a) Provision of traceable and transparent information showing the baseline was identified on the basis of conservative assumptions, that the project scenario is not part of the identified baseline scenario and that the project will lead to emission reductions or enhancements of removals; (b) Provision of traceable and transparent information that an AIE has already positively determined that a comparable project (to be) implemented under comparable circumstances has additionality; (c) Application of the most recent version of the "Tool for the demonstration and assessment of additionality. (allowing for a two-month grace period) or any other method for proving additionality approved by the CDM Executive Board".	PDD explicitly indicates that the additionality of the project is demonstrated by following a JI-specific approach. Approach (a) in paragraph 2 of the Annex I to the "Guidance on Criteria for Baseline Setting and Monitoring (Version 3)" has been selected. **CL 14** Please refer to the up-to-date version of Guidance (03).	CL 14	OK
29 (a)	Does the PDD provide a justification of the applicability of the approach with a clear and transparent description?	It is justified in the PDD that the approach chosen for additionality proof was selected in accordance with requirement 2(a) of Annex 1 of JI Guidance on criteria for baseline setting and monitoring, version 02. Pending CL 14 response.	Pending	OK

Section A Paragraph or DVM Paragraph	Check Item	Initial finding	Draft Concl.	Final Concl.
29 (b)	Are additionality proofs provided?	The additionality is substantiated by using an investment analysis. **CL 15 Gaps in the investment analysis** 1/ The investments are presented in roubles, whereas the NPV is given in dollars. Please justify. 2/ please justify haw the variation range 10% is selected. 3/ please provide all input values supporting evidence. 4/ Please substantiate the operation lifetime duration of 20 y. 5/ Please consider the residual value of non-depreciated assets for the end of investment time horizon as cash inflow for the last year. 6/ Please consider the environmental fees.	CL 15	OK
29 (c)	Is the additionality demonstrated appropriately as a result?	**CAR 11** The data on APG recovery in 2009 (31 bln m3) seem doubtful and not actual. Footnote 9 referred to at page 24 provides different official estimations of total APG recovery from 32 to 61 bln m3 for the similar period. The evidence provided are not deemed sufficient to demonstrate general decrease in APG utilization in Russia. Nothing is said about APG prices liberalization, which has been perhaps the most important governmental action to facilitate APG utilization. Please clarify if there have been any activities similar to the project not claiming JI status.	CAR 11	OK
30	If the approach 28 (c) is chosen, are all	N/A		

Section A Paragraph or DVM Paragraph	Check Item	Initial finding	Draft Concl.	Final Concl.
	explanations, descriptions and analyses made in accordance with the selected tool or method?			
Approved CDM methodology approach only_ Paragraphs 31(a) – 31(e)_Not applicable				
Project boundary (applicable except for JI LULUCF projects				
JI specific approach only				
32 (a)	Does the project boundary defined in the PDD encompass all anthropogenic emissions by sources of GHGs that are: (i) Under the control of the project participants? (ii) Reasonably attributable to the project? (iii) Significant?	Project boundary includes two emission sources that found significant: - Electricity consumption for APG processing and transportation - Methane emissions due to APG compressing - Methane emissions due to APG transportation to CS to the Sibur gas pipeline **CL 16** Please clarify and substantiate with relevant docs if there are any back-up fossil fuel based electricity generating facilities.	CL 16	OK
32 (b)	Is the project boundary defined on the basis of a case-by-case assessment with regard to the criteria referred to in 32 (a) above?	Project boundary is defined on the basis of case-by-case analysis (not always quantitative) of emission sources.		OK
32 (c)	Are the delineation of the project boundary and the gases and sources included appropriately described and justified in the PDD by using a figure or flow chart as appropriate?	Pending a response to CL 16.	Pending	OK
32 (d)	Are all gases and sources included explicitly stated, and the exclusions of any sources related to the baseline or the project are appropriately justified?	Pending a response to CL 16.	Pending	OK

Section A Paragraph or DVM Paragraph	Check Item	Initial finding	Draft Concl.	Final Concl.
Approved CDM methodology approach only_ Paragraph 33_Not applicable				
Crediting period				
34 (a)	Does the PDD state the starting date of the project as the date on which the implementation or construction or real action of the project will begin or began?	Starting date is indicated as 01/09/2005 **CL 17** Please, clarify what happened on 01/09/2005 and how this date was selected as starting date. Pls, provide the evidance.	CL 17	OK
34 (a)	Is the starting date after the beginning of 2000?	The project started after 2000 y.		OK
34 (b)	Does the PDD state the expected operational lifetime of the project in years and months?	Operational lifetime is defined as 13 years or 156 months. **CL 18** please clarify the operation life and provide the docs.	CL 18	
34 (c)	Does the PDD state the length of the crediting period in years and months?	The length of crediting period is defined as 5 years / 60 months. Starting from January 1, 2008.		OK
34 (c)	Is the starting date of the crediting period on or after the date of the first emission reductions or enhancements of net removals generated by the project?	Pending a response to CL 17.	pending	
34 (d)	Does the PDD state that the crediting period for issuance of ERUs starts only after the beginning of 2008 and does not extend beyond the operational lifetime of the project?	yes		OK
34 (d)	If the crediting period extends beyond 2012, does the PDD state that the extension is subject to the host Party approval? Are the estimates of emission reductions or enhancements of net removals presented separately for those until 2012 and those after 2012?	N/A		
Monitoring plan				

Section A Paragraph or DVM Paragraph	Check Item	Initial finding	Draft Concl.	Final Concl.
35	Does the PDD explicitly indicate which of the following approaches is used? - JI specific approach; - Approved CDM methodology approach.	It is explicitly indicated that a JI specific approach based on Paragraph 9 (a) of the "Guidance on criteria for baseline setting and monitoring" is chosen.		OK
JI specific approach only				
36 (a)	Does the monitoring plan describe: - All relevant factors and key characteristics that will be monitored? - The period in which they will be monitored? - All decisive factors for the control and reporting of project performance?	The monitoring plan describes the factors and parameters affecting both the project and the baseline emissions. Project performance can be assessed on the basis of the parameters of APG delivery. **CL 19 The Monitoring plan gaps:** 1/fixed parameters are not identified, 2/applied values are missing for the key fixed parameters (pls, ensure all fixed values are provided in the PDD, otherwise description is not transparent) for details pls see my comments in the PDD inserted, 3/Specific electricity consumption by Khohryakovskaya CS is indicated neither as fixed nor as to be monitored parameter; 4/ Annual electricity consumption by BCS 5/ The application of the "underburning factor" (0.965) should be properly and explicitly justified with explanation of compliance to the "soot combustion" criterion. 6/ volume fraction of methane is missing in table D 1.3	CL 19	OK
36 (b)	Does the monitoring plan specify the indicators, constants and variables used that are reliable, valid and provide transparent picture of the emission reductions or enhancements of net removals to be monitored?	Pending a response to CL 19	Pending	OK
36 (b)	If default values are used:	Default values are presented in sec. D.1.1.2 and D.1.1.4	Pending	OK

Section A Paragraph or DVM Paragraph	Check Item	Initial finding	Draft Concl.	Final Concl.
	- Are accuracy and reasonableness carefully balanced in their selection? - Do the default values originate from recognized sources? - Are the default values supported by statistical analyses providing reasonable confidence levels? - Are the default values presented in a transparent manner?	**Pending a response to CL 19**		
36 (b) (i)	For those values that are to be provided by the project participants, does the monitoring plan clearly indicate how the values are to be selected and justified?	**CL 20** Please justify the selection of monitoring parameters needs to be provided by Sibur source and the procedure of accomplish of the technical reports: • Specific electric power consumption for APG processing at GPP • Gas loss factor for processing operations at GPP • Yield of dry gas from APG processing at GPP	CL 20	OK
36 (b) (ii)	For other values, - Does the monitoring plan clearly indicate the precise references from which these values are taken? - Is the conservativeness of the values provided justified?	Pending responses to the issues raised to the baseline calculation approach CARs 08-10	Pending	OK
36 (b) (iii)	For all data sources, does the monitoring plan specify the procedures to be followed if expected data are unavailable?	**CAR 12** The emergency procedure should be elaborated to ensure the presence of double registration of key monitoring parameters e.g.: • accountant records for diesel purchase • most conservative value among historical data,	CAR12	OK

Section A Paragraph or DVM Paragraph	Check Item	Initial finding	Draft Concl.	Final Concl.
		• State statistical observation forms (1-TEK neft') etc. The Gas Accountancy Rules issued by Ministry of Fuel and Energy on 15/11/1996 may be used as reference to the monitoring emergency procedure.		
36 (b) (iv)	Are International System Unit (SI units) used?	International System Units (SI units) are used.		OK
36 (b) (v)	Does the monitoring plan note any parameters, coefficients, variables, etc. that are used to calculate baseline emissions or net removals but are obtained through monitoring?	Pending a responses to CL 19 - 20	Pending	OK
36 (b) (v)	Is the use of parameters, coefficients, variables, etc. consistent between the baseline and monitoring plan?	Pending a responses to CL 19 - 20	Pending	OK
36 (c)	Does the monitoring plan draw on the list of standard variables contained in appendix B of "Guidance on criteria for baseline setting and monitoring"?	Pending a response to CAR 07	Pending	OK
36 (d)	Does the monitoring plan explicitly and clearly distinguish: (i) Data and parameters that are not monitored throughout the crediting period, but are determined only once (and thus remain fixed throughout the crediting period), and that are available already at the stage of determination? (ii) Data and parameters that are not monitored throughout the crediting period, but are determined only once (and thus remain fixed throughout the crediting period), but that are not already available at the stage of determination?	Pending a responses to CL 19 – 20 SEC, The dry APG yield etc., should be presented as that pertaining category (ii) or (iii)	Pending	OK

Section A Paragraph or DVM Paragraph	Check Item	Initial finding	Draft Concl.	Final Concl.
	(iii) Data and parameters that are monitored throughout the crediting period?			
36 (e)	Does the monitoring plan describe the methods employed for data monitoring (including its frequency) and recording?	The methods used and data collection frequency and recording are identified in the monitoring plan tables D 1.1.1 and D.1.1.3.		OK
36 (f)	Does the monitoring plan elaborate all algorithms and formulae used for the estimation/calculation of baseline emissions/removals and project emissions/ removals or direct monitoring of emission reductions from the project, leakage, as appropriate?	Pending a response to CARs 07-10 and CLs 19-20	Pending	OK
36 (f) (i)	Is the underlying rationale for the algorithms/formulae explained?	The rationale of formulae is explained and theoretical description of the approach to baseline estimation is presented in sec. B.1. and D. Pending a response to CAR 07-10	Pending	OK
36 (f) (ii)	Are consistent variables, equation formats, subscripts etc. used?	Yes		OK
36 (f) (iii)	Are all equations numbered?	Yes.		OK
36 (f) (iv)	Are all variables, with units indicated defined?	Pending a response to CLs 19-20	Pending	OK
36 (f) (v)	Is the conservativeness of the algorithms/procedures justified?	Pending a response to CAR 07-10	Pending	OK
36 (f) (v)	To the extent possible, are methods to quantitatively account for uncertainty in key parameters included?	The level of uncertainty is to be checked through the review of certificates for meters.	CL 21	OK

Section A Paragraph or DVM Paragraph	Check Item	Initial finding	Draft Concl.	Final Concl.
		CL 21 Please, provide the evidence (methodologies, equipment's certificates) to support the reported level of uncertainty (low) for all parameters.		
36 (f) (vi)	Is consistency between the elaboration of the baseline scenario and the procedure for calculating the emissions or net removals of the baseline ensured?	The elaboration on the baseline scenario is consistent to the method of the baseline emission calculating in the spreadsheet.		OK
36 (f) (vii)	Are any parts of the algorithms or formulae that are not self-evident explained?	Pending a response to CAR 07-10	Pending	OK
36 (f) (vii)	Is it justified that the procedure is consistent with standard technical procedures in the relevant sector?	**CL 22** Please provide the evidence to confirm the Monitoring plan is based on standard monitoring routines (relevant national standards) and the involved personnel are trained appropriately (training records).	CL 22	OK
36 (f) (vii)	Are references provided as necessary?	Pending a response to CARs 07-10 CLs 19-20	Pending	OK
36 (f) (vii)	Are implicit and explicit key assumptions explained in a transparent manner?	Pending a response to CARs 07-10 CLs 19-20	Pending	OK
36 (f) (vii)	Is it clearly stated which assumptions and procedures have significant uncertainty associated with them, and how such uncertainty is to be addressed?	N/A		
36 (f) (vii)	Is the uncertainty of key parameters described and, where possible, is an uncertainty range at 95% confidence level for key parameters for the calculation of emission reductions or enhancements of net removals provided?	The uncertainty is assessed in Table D.2 Pending a response to CL 21	Pending	OK
36 (g)	Does the monitoring plan identify a national or	Pending a response to CL 12	Pending	OK

Section A Paragraph or DVM Paragraph	Check Item	Initial finding	Draft Concl.	Final Concl.
	international monitoring standard if such standard has to be and/or is applied to certain aspects of the project? Does the monitoring plan provide a reference as to where a detailed description of the standard can be found?			
36 (h)	Does the monitoring plan document statistical techniques, if used for monitoring, and that they are used in a conservative manner?	N/A		
36 (i)	Does the monitoring plan present the quality assurance and control procedures for the monitoring process, including, as appropriate, information on calibration and on how records on data and/or method validity and accuracy are kept and made available upon request?	QC/QA procedures are specified in PDD Section D.2. **CL 23** Please identify the periodicity of calibration and respective authority for each parameter. Otherwise QA/QC procedures are unverifiable. The verifier's opinion is that the QC/QA procedures have not been elaborated.	CL 23	OK
36 (j)	Does the monitoring plan clearly identify the responsibilities and the authority regarding the monitoring activities?	**CL 24** Please, specify if there is a specific GHG monitoring procedure implemented at the Company or any internal orders/agreements establishing authority/responsibility for the monitoring functions: • Primarily data collection, • Logging, • Averaging, • Reporting, • Checking, • Calculating, As well as supplemental functions e.g. • Monitoring equipment timely calibration and maintenance; • Database safety and protection from any unauthorized	CL 24	OK

Section A Paragraph or DVM Paragraph	Check Item	Initial finding	Draft Concl.	Final Concl.
		access.		
36 (k)	Does the monitoring plan, on the whole, reflect good monitoring practices appropriate to the project type? If it is a JI LULUCF project, is the good practice guidance developed by IPCC applied?	Pending a response to CLs 22- 24, CAR 17.	Pending	OK
36 (l)	Does the monitoring plan provide, in tabular form, a complete compilation of the data that need to be collected for its application, including data that are measured or sampled and data that are collected from other sources but not including data that are calculated with equations?	Ref. to tables D.1.1.1, and D.1.1.3		OK
36 (m)	Does the monitoring plan indicate that the data monitored and required for verification are to be kept for two years after the last transfer of ERUs for the project?	**CAR 13** Please identify the data storage time	CAR 13	OK
37	If selected elements or combinations of approved CDM methodologies or methodological tools are used for establishing the monitoring plan, are the selected elements or combination, together with elements supplementary developed by the project participants in line with 36 above?	N/A		
Approved CDM methodology approach only_Paragraphs 38(a) – 38(d)_Not applicable				
Applicable to both JI specific approach and approved CDM methodology approach_Paragraph 39_Not applicable				

Section A Paragraph or DVM Paragraph	Check Item	Initial finding	Draft Concl.	Final Concl.
Leakage				
JI specific approach only				
40 (a)	Does the PDD appropriately describe an assessment of the potential leakage of the project and appropriately explain which sources of leakage are to be calculated and which can be neglected?	Pending a response to CAR 07-10	Pending	OK
40 (b)	Does the PDD provide a procedure for an ex ante estimate of leakage?	N/A		
Approved CDM methodology approach only_Paragraph 41_Not applicable				
Estimation of emission reductions or enhancements of net removals				
42	Does the PDD indicate which of the following approaches it chooses? (a) Assessment of emissions or net removals in the baseline scenario and in the project scenario (b) Direct assessment of emission reductions	Segregated assessment of baseline emissions and project emissions (Option 1) is chosen.		OK
43	If the approach (a) in 42 is chosen, does the PDD provide ex ante estimates of: (a) Emissions or net removals for the project scenario (within the project boundary)? (b) Leakage, as applicable? (c) Emissions or net removals for the baseline scenario (within the pr oject boundary)? (d) Emission reductions or enhancements of net removals adjusted by leakage?	PDD provides ex ante estimates of: Emissions for the project scenario; Emissions for the baseline scenario; Leakage effect; Emission reductions.		OK
44	If the approach (b) in 42 is chosen, does the PDD provide ex ante estimates of:	N/A		OK

Section A Paragraph or DVM Paragraph	Check Item	Initial finding	Draft Concl.	Final Concl.
	(a) Emission reductions or enhancements of net removals (within the project boundary)? (b) Leakage, as applicable? (c) Emission reductions or enhancements of net removals adjusted by leakage?			
45	For both approaches in 42 (a) Are the estimates in 43 or 44 given: (i) On a periodic basis? (ii) At least from the beginning until the end of the crediting period? (iii) On a source-by-source/sink-by-sink basis? (iv) For each GHG? (v) In tones of CO2 equivalent, using global warming potentials defined by decision 2/CP.3 or as subsequently revised in accordance with Article 5 of the Kyoto Protocol? (b) Are the formula used for calculating the estimates in 43 or 44 consistent throughout the PDD? (c) For calculating estimates in 43 or 44, are key factors influencing the baseline emissions or removals and the activity level of the project and the emissions or net removals as well as risks associated with the project taken into account, as appropriate? (d) Are data sources used for calculating the estimates in 43 or 44 clearly identified, reliable	ER estimates are given on the periodic basis, from the beginning till the end of the crediting period, in tones of CO2 equivalent. The formulae used in PDD are consistent. Key factors influencing the baseline emissions and the activity level of the project and the emissions as well as risks associated with the project are taken into account. Default values for emission factors are taken from 2006 IPCC and other sources. The annual average of estimated emission reductions calculated by dividing the total estimated emission reductions over the crediting period by the total months of the crediting period and multiplying by twelve. Pending a response to CARs 07-10. **CAR 14 Please provide the emission reduction in section E.5**	CAR 14 Pending	OK OK

Section A Paragraph or DVM Paragraph	Check Item	Initial finding	Draft Concl.	Final Concl.
	and transparent? (e) Are emission factors (including default emission factors) if used for calculating the estimates in 43 or 44 selected by carefully balancing accuracy and reasonableness, and appropriately justified of the choice? (f) Is the estimation in 43 or 44 based on conservative assumptions and the most plausible scenarios in a transparent manner? (g) Are the estimates in 43 or 44 consistent throughout the PDD? (h) Is the annual average of estimated emission reductions or enhancements of net removals calculated by dividing the total estimated emission reductions or enhancements of net removals over the crediting period by the total months of the crediting period and multiplying by twelve?			
46	If the calculation of the baseline emissions or net removals is to be performed ex post, does the PDD include an illustrative ex ante emissions or net removals calculation?	Illustrative ex-ante estimation of baseline emissions is made in the excel spreadsheet.		OK
Approved CDM methodology approach only_Paragraphs 47(a) – 47(b)_Not applicable				
Environmental impacts				
48 (a)	Does the PDD list and attach documentation on the analysis of the environmental impacts of the project, including transboundary impacts, in accordance with procedures as determined by	**CL 25** Please provide the EIA and its approval	CL 25	OK

Section A Paragraph or DVM Paragraph	Check Item	Initial finding	Draft Concl.	Final Concl.
	the host Party?			
48 (b)	If the analysis in 48 (a) indicates that the environmental impacts are considered significant by the project participants or the host Party, does the PDD provide conclusion and all references to supporting documentation of an environmental impact assessment undertaken in accordance with the procedures as required by the host Party?	Pending a response to CL 25 **CAR 15** Environmental impact description is missing in sec. F.2.	CAR 15	OK
Stakeholder consultation				
49	If stakeholder consultation was undertaken in accordance with the procedure as required by the host Party, does the PDD provide: (a) A list of stakeholders from whom comments on the projects have been received, if any? (b) The nature of the comments? (c) A description on whether and how the comments have been addressed?	**CAR 16** No consultations with stakeholders on the project are required – is a false statement. Russian Federal Law 7-FZ "On Environmental Protection" cl. 13 para 2 requires stakeholders' comments to be considered in decision making process to start any activity potentially causing adverse environmental effect. Information on the proposed project activity was made publicly available through the public medias. Comments were invited through the web. Open public hearing may be optional.	CAR 16	OK
Determination regarding small-scale projects (additional elements for assessment)_Paragraphs 50 - 57_Not applicable				
Determination regarding land use, land-use change and forestry projects _Paragraphs 58 – 64(d)_Not applicable				
Determination regarding programmes of activities_Paragraphs 66 – 73_Not applicable				

Table 2 Resolution of Corrective Action Requests and Requests for Information

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 1	Summary of project participant response	Determination team conclusion
CAR 01 According sec. A.2. APG will be directed to Nizhnevartovsky and Beloozerniy GPPs. Please demonstrate that GPPs have enough free capacities to accept the APG and the proposed project does not lead to restriction of APG from other sites delivered to GPPs. The same is true with regard to the downstream hydrocarbon processing at the Chemical Processing plant. The project shall not restrict an activity outside the project boundary.	A.2	Response 1 from 20/03/2012: Based on information from Chief Engineer of Yugragazpererabotka the share of APG delivered from Khokhryakovskaya CS made on average 2% of total annual APG deliveries in Belozerniy and Nizhnevartovsk GPPs in 2009-2011. Besides there were no new processing capacities introduced in that period. Therefore the APG delivery from Khokhryakovskaya CS was not lead to restriction of APG deliveries from other sites. The written confirmation is provided. Please see the folder CAR 1.	Conclusion on the response 1. Confirmed through the review of /08/. Total APG supplied from the Khokhryakovsky oilfield in 2009-2011 is about 2%. The amount was not significant in total balance of APG processed at GPPs. Hence does not require any additional capacity or restriction of any other supplies. OK
CAR 02 please, demonstrate, that there have not been any extension of APG uptake capacity at GPPs, or, such activity has not claim JI status, otherwise ER would be double counted.	A.2	Response 1 from 20/03/2012: APG from Khokhryakovskaya CS was accepted at GPPs due to the fact that there were free processing capacities. Any further extension of APG uptake capacity that was implemented addresses additional APG volumes that were delivered from other fields. Besides, no APG extension has been registered as a JI project activity so far.	Conclusion on the response 1. OK it was explicitly demonstrated that APG uptake capacity was enough to receive the APG from Khokhryakovsky oilfield without extension (see CAR 01). The extension of GPP has not claimed JI status.
CAR 03 Sec. A.3 left empty	A.3	Response 1 from 20/03/2012:	Conclusion on the response 1.

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 1	Summary of project participant response	Determination team conclusion
		Included, please see new version of PDD, version 02.	Closed on the basis of PDD v.2 review /01b/. The project participant from the Host Party is JSC NNP (JSC "Nizhnevartovskoe neftegazodobivayushee predpriyatie"). OK
CAR 04 The Project technology is not described explicitly. Sec. A.4.2 lacks of the following information. • Detailed Technical specification of compressors, including specification of gears and auxiliary equipment • Technical specification of the valving equipment (to support the statement that electricity is not consumed for pipeline control valves). • Technical specification of the flares that will discontinued under the project. • The information requested under CARs 01 and 02. All information is to be supported with reliable evidence, e.g. Project feasibility study, on which basis it can be verified positively.	A.4.2	Response 1 from 20/03/2012: Detailed technical specifications on compressors and the flares are in folder CAR04. Technical specification on the valving equipment is not needed, because there is no need to take into account consumption of electricity for managing valves separately and total consumption of electric power at the CS is measured by two electricity meters SET-04	Conclusion on the response 1. Information has been provided in the docs /09/-/13/

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 1	Summary of project participant response	Determination team conclusion
CAR 05. The project has no approvals by the Parties involved.	A.5	Response 1 from 20/03/2012: According to the national JI procedure, the project will be approved after, inter alia, the issuance of a positive determination opinion.	Conclusion on the response 1. Left open.
CAR 06 PDD does not explicitly indicate which option is selected to establish baseline. If JI specific approach according to paragraph 9 (a) of the "Guidance on criteria for baseline setting and monitoring" v.3.0 is used for the baseline setting, it should be explicitly stated in the PDD.	22	Response 1 from 20/03/2012 Corrected, please see see section B.1 in new version of PDD, version 02.	Conclusion on the response 1. OK Closed on the basis of the review of PDD v. 02.
CAR 07 Key Baseline parameters description lacks of transparency: 1/ SEC is not applicable for the baseline but rather for the leakage, Other fixed parameters for the leakage estimation (NG's composition, NG's NCV, CO2 emission factor for gas turbines, gas turbines driven compressors efficiency, methane losses under the NG recovery, APG and NG pressure in the inlet and outlet of compressors etc.) are not included in the tables in sec. B.1. Please, secure a consistency either all parameters are to be included into B.1 (preferable) or none of them but those directly pertaining to the baseline estimation. 2/ The relevant calculations and the raw data (technical specification for each flare and the APG volumes that would be supplied to each flare under the baseline) shall be provided to confirm soot combustion conditions for each flare inside the project boundary;	23	Response 1 from 20/03/2012 1/ Deleted, please see Sec B.1. in new version of PDD, version 02 2/Please see response to CAR04 3/ Corrected, please see SEC B.1. in new version of PDD, version 02 4/ Please see folder CAR07. 5/ Corrected, please see SEC B.1. in new version of PDD, version 02 6/ Corrected, please see SEC B.1. in new version of PDD, version 02 7/Please see response to CAR06 8/Corrected, please see new version of PDD. Version 02	Conclusion on the response 1. 1/OK 2/There would be two flares in the baseline. It was demonstrated that the low pressure gas conservatively comprising about 5% would also have been flared in soot combustion mode. OK 3/ corrected in PDD v.2 /01b/ OK 4/ i/ Data on gas composition (Gas chromatograph readings) have been provided in form of excel sheet /14/

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 1	Summary of project participant response	Determination team conclusion
The simplified statement that this parameter is taken from the NII Atmosphere's Methodology is not appropriate. 3/APG volume for 2012 must be forecasted (not measured). Please identify how the value was obtained; 4/Please provide raw data to confirm all assumptions in the baseline emission calculation; 5/ Justification of the choice of data "... necessary for the baseline calculation..." is inappropriate. Somewhere such cells are left empty. 6/ Emission factor for methane due to incomplete combustion is not transparent. This is transient calculation parameter neither fixed nor to be monitored. Why it was included? 7/ Please use the standard variables from Appendix B to Guidance for BL setting and Monitoring v.3.0 e.g. for Methane content (w_{CO2}), CO2 content, VOC content, APG production (P_{APG}) and other parameters. 8/ the term efficiency of NG/APG combustion is applied misleadingly. The fraction of hydrocarbons converted into CO2 during combustion process would rather to be entitled as oxidation factor (OXID) to avoid any mix with the efficiency of energy turnover processes.		Response 2 from 31/03/2012 4/ Corrected, please see p.11 in new version of PDD, version 03. 7/ Corrected, please see Sec.B1, D in new version of PDD, version 03.	OK ii/Data on the gas volume supplied to the GPPs is confirmed through the review of gas balances /15/. iii/ Power consumption by Khokhryakovskaya CS is supported by the copy of energy metering system AIIS KUE verified on site /19/. iv/ Grid Emission Factor is taken from /16/ OK v/ Specific electricity consumption value is conservatively taken as the highest value from 2008-2011 provided by YuGP /18/ vi/ Average pressure for the APG at the inlet of CS- 3.2 atm Average pressure at the outlet – 30 atm. vii/the Average energy consumption to gas compressing&processing at oil&gas treatment plant of Sibur with standard efficiently has been verified during the determination similar JI project "The utilization of associated petroleum gas of the Yarayner oilfield of JSC "Gazpromneft-

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 1	Summary of project participant response	Determination team conclusion
			Noyabrskneftegaz" /23/ 5/OK 6/deleted OK 7/OK. 8/OK
CAR 08 Baseline theoretical description lacks of transparency: 1/ formulae 1, 2, and 3 are not transparent; Both ∑av and ∑cp – are unknown terms, inappropriate for the mathematical equations. If averaging is applied, it should be presented in form of $\sum(a_i)/i$, where i is properly identified number of samples, objects i.e. annual average methane concentration $=\sum(w_i)/i$, where w_i is monthly concentration and i – number of months (for annual average i = 12). 2/ the period (monthly, annual) shall be determined for the FC_{APG_PJ} **3/** Monthly values of BE should be determined and then summated otherwise effect of monthly variation in APG volume is omitted. 4/ The estimation of leakage from the project activity is missing in sec. B.1. 5/ Formula (8) does not consider electric gear efficiency which may vary from 0.75 to 0.95 referring to available information /07/. If efficiency is assumed to be 1.0 please state it properly and justify.	23	Response 1 from 20/03/2012 1/2/3/Corrected please see new version of PDD, version 02 4/ description of leakages is removed from B1. 5/Efficiency is taking into account by specific consumption of natural gas. Response 2 from 31/03/2012 1/ Corrected, please see Sec B.1 and Sec D. in new version of PDD, version 03. 3/Please see including in any comments for key parameters in Sec B.1 in new version PDD, version 03.	Conclusion on the response 1. 1/ Please apply my comments in sec. B1 and make up sec. D accordingly. 2/annual values are used for calculation in fact 3/OK 4/ OK 5/accepted as real efficiency of electric gear is insignificantly less than 100%. Conclusion on the response 2. Closed upon the review of PDD v. 03.
CAR 09 Calculation of Emission factor due to natural	23	Response 1 from 20/03/2012	Conclusion on the response 1.

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 1	Summary of project participant response	Determination team conclusion
gas combustion in gas turbines is not traceable and reproducible in calculation sheet. The value of emission factor from natural gas burning in gas turbine (**2.106 tCO2/1000 m^3**) is not conservative and inapplicable. When this value is divided by standard NCV of NG (7600 kcal/m3) and converted to the tCO2/TJ (conversion factor 4.2*10^{-6}TJ/Mcal) the result will be **65.9** tCO2/TJ that is much higher than default value of **56.1** tCO2/TJ. Revision of calculation is to be made. Conservative value must be **1.791** tCO2/1000 m^3		Corrected, please see new version of PDD, version 02 and excel file.	Closed upon the review of PDD v.2 and excel sheet model OK
CAR 10 Compliance check of soot combustion condition according to the NII Athmosphere's methodology: 1/Brief but explicit implication of soot combustion coefficient and its condition should be included into the PDD along with the results of calculation, otherwise PDD is not transparent. 2/ velocity of sonic diffusion in APG (Uзв), (which is to be calculated as per Annex «Г»), is not considered or is assumed to be 1 in the final operation in the calculation sheet. 3/Velocity of combustion products discharge and velocity of sonic diffusion ratio must be less than 0.2 to ensure soot combustion. The opposite is misleadingly stated in the excel. 3/ Pending supporting documentation for all input values used in the soot combustion condition	25	Response 1 from 20/03/2012 1/ Implication is included, please see page 28 in new version of PDD, version 02. 2/3/Corrected. Please see excel file. 4/Please see response to CAR04.	Conclusion on the response 1. 1/Found at page 19-20. OK 2/3/ OK closed upon the review of revised excel model. 4/ closed upon the review of documents provided. (see table 3 local check list for detail)

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 1	Summary of project participant response	Determination team conclusion
compliance check i.e. technical specification of flare, APG composition, APG value.			
CAR 11 The data on APG recovery in 2009 (31 bln m3) seem doubtful and not actual. Footnote 9 referred to at page 24 provides different official estimations of total APG recovery from 32 to 61 bln m3 for the similar period. The evidence provided are not deemed sufficient to demonstrate general decrease in APG utilization in Russia. Nothing is said about APG prices liberalization, which has been perhaps the most important governmental action to facilitate APG utilization. Please clarify if there have been any activities similar to the project not claiming JI status.	29 (c)	Response 1 from 20/03/2012 Corrected, please see new version of PDD, version 02. Response 2 from 31/03/2012 Corrected, please see page 13 in new version of PDD, version 03.	Conclusion on the response 1. Corrected and closed upon the review of PDD v.3.
CAR 12 The emergency procedure should be elaborated to ensure the presence of double registration of key monitoring parameters e.g.: • accountant records for diesel purchase • most conservative value among historical data, • State statistical observation forms (1-TEK neft') etc. The Gas Accountancy Rules issued by Ministry of Fuel and Energy on 15/11/1996 may be used as reference to the monitoring emergency procedure.	36 (b) (iii)	Response 1 from 20/03/2012 There are no diesel power generating sources at Khokhryakovskaya CS. According to Instructions on operation of measuring units there are two APG flow lines at the outlet of CS (working Line 1 and back-up Line 2). In the case when Line 1 is under repair, then AGP volume is supplied from Khokhryakov CS to GGP through Line 2.	Conclusion on the response 1. Sec.D shall be updated. open
CAR 13 Please identify the data storage time	36 (m)	Response 1 from 20/03/2012 All relevant data for monitoring will be stored during two years after the last transfer of	Conclusion on the response 1. OK closed upon the review of PDD v.

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 1	Summary of project participant response	Determination team conclusion
		ERUs under this Project. This obligation is introduced in Sec. D3	2.0
CAR 14 Please provide the emission reduction in section E.5	45	Response 1 from 20/03/2012 Provided, please see new version of PDD, version 02. Response 2 from 31/03/2012 Corrected in accordance with the calculation, please see new version of PDD, version 03.	Conclusion on the response 1. Different values are provided in PDD and excel model PDD / EXCEL 695 652 / 700,122 623 962 / 612,252 579 079 / 570,874 542 264 / 535,760 698 821 / 685,993 Please check and ensure consistency in Emission Reduction. Conclusion on the response 2. Closed upon the review of PDD v.3.
CAR 15 Environmental impact description is missing in sec. F.2.	48 (b)	Response 1 from 20/03/2012 Information on the subject is included, please see F.2 of new version of PDD, version 02. Response 2 from21/03/2012 Description added in Sec F.2., please see	Conclusion on the response 1. Description should be added. Conclusion on the response 2. Addressed appropriately in PDD v.3

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 1	Summary of project participant response	Determination team conclusion
		new version of PDD, version 03.	closed
CAR 16 No consultations with stakeholders on the project are required – is a false statement. Russian Federal Law 7-FZ "On Environmental Protection" cl. 13 para 2 requires stakeholders' comments to be considered in decision making process to start any activity potentially causing adverse environmental effect. Information on the proposed project activity was made publicly available through the public medias. Comments were invited through the web. Open public hearing may be optional.	49	Response 1 from 20/03/2012: The project was gone through examination with a main stakeholder, Rostechnadzor of KhMAO-Yugra, which is a Russian governmental organization to control implementation of activities in all industrial and energy sectors in the Russian Federation. After examination the project was awarded with the positive conclusion. This text was introduced in section G of the PDD, v.2.	Conclusion on the response 1. OK.
CL 01 A.2. states that all APG would be flared. It is not a business-as-usual. A part of APG is utilized for own needs – oil heating furnaces, boiler houses etc. Please clarify if this is not a case. Also please clarify if which type of APG (high or low pressure) is intended for utilization.	A.2	Response 1 from 20/03/2012 Not all APG would be flared, but only part of that, which is to be utilized under the project. Appropriate correction was made in A2, please see new version of PDD, version 02.	Conclusion on the response 1. OK
CL 02 Sections A.2 - A.4.1.4 – A.4.2 contain significant useless copy&pastes e.g. *"Khokhryakovskoye field – the field is opened in 1972 and put into development in 1985. All reservoirs are combined into one object of development. In administrative terms the field is located in Nizhnevartovskiy region of Khanty-Mansiyskiy*	A.2	Response 1 from 20/03/2012 Corrected, please see new version of PDD, version 02.	Conclusion on the response 1. OK

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 1	Summary of project participant response	Determination team conclusion
Autonomous district of Tyumenskaya area 165 km to the north-east from city of Nizhnevartovsk." Please, delete the superfluous text.			
CL 03 The description of project history is inconsistent: The economic viability was presented in 2004 whereas cost estimation was approved in 2006 (after the construction work began).	A.2	Response 1 from 20/03/2012: The zero cycle of construction works (excavation) began on a base of preliminary cost estimation in June of 2005. Further on, in February of 2006 the compressor units were purchased. The final complete cost estimation documentation was approved on 23.10.2006. The schedule of the project implementation is provided in Acceptance Act dd 31/10/2007. A copy of this Act was provided to the auditor during site-visit.	Conclusion on the response 1. Clarified on site closed
CL 04 Please, provide all documentary evidence to confirm the project history milestones: • **February 2004** - presentation with estimates of the economic viability of the project on APG utilization at Khohryakovskaya group of fields. • **16.06.2006** - Cost estimate documentation for the project • **Quarter 3th, 2005** – Construction works started **31.10.2007** - Launching the project into operation	A.2	Response 1 from 20/03/2012 The economic viability of the project was considered on 1 February, 2004 that is evidenced by the Financial Memorandum. On 16 February, 2004 the NNP Company made a decision to use JI mechanism of Kyoto Protocol for APG utilization from Khokhryakovskoye oil field. The dates of construction works and of approval cost estimation documentation in the PDD were corrected: **June, 2005 –** Construction works started **23.10.2006** - Cost estimate documentation for the project was approved. On 31.10.2007 the project became	Conclusion on the response 1. Acceptance certificate was checked on site. Clarified on site OK

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 1	Summary of project participant response	Determination team conclusion
		operational. All relevant documentation to support these figures is provided in the file CL 04 Appropriate corrections were made in Section A of the new version of PDD, version 02.	
CL 05 Sec. A 4.1.4. does not allow unique identification the location of each project site.	A.4.1.4	Response 1 from 20/03/2012 Corrected, please see Sec. A 4.1.4. of new version of PDD, version 02.	Conclusion on the response 1. OK
CL 06 while the full utilization of total APG volume is declared in sec. A.2 and A.4.2 sec. A.4.3 stays "significant volume" of APG is to be utilized. Please secure consistency.	A.4.3	Response 1 from 20/03/2012 Corrected, please see new version of PDD, version 02.	Conclusion on the response 1. OK
CL 07 Please clarify what does the following statement mean: "*...the waste of the natural resource has to be compensated with environmental payments in the various budgets and with provision of polluting substances in surface layer of air below the maximum allowable concentration level*" The control of natural resources use and environmental fees are usually segregated between different state entities and occur irrespectively each other. Is there any legal or official basis for such conclusion? It might be a good invention but hardly practicable!	A.4.3	Response 1 from 20/03/2012 Corrected on: "At the same time, the negative of impact on the environment has to be compensated with environmental payments in the various budgets and with provision of polluting substances in surface layer of air below MAC-level." Please see page 12 in new version of PDD, version 02.	Conclusion on the response 1. OK
CL 08 Sec. A.4.3 is not focused at the measures to be	A.4.3	Response 1 from 20/03/2012 Information on project measures is added and	Conclusion on the response 1. OK

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 1	Summary of project participant response	Determination team conclusion
implemented to achieve ER but rather at the quite generic description of economic peculiarities around APG utilization. Footnote 2 cannot be considered reliable as it was stipulated there, that there had been no unequivocal estimates of total volume of APG flaring and recovery. Situation has changed significantly since 2009 when APG price was liberalized and the national goal to achieve 95% APG utilization was officially adopted. Please, secure objectiveness in the description.		Footnote 2 was deleted. Please see Sec. A.4.3. in the new version of PDD, version 02.	
CL 09 Wrong reference: sec. A.5 refers to Governmental Resolution 740 dd.15/09/2011. Must be #780.	A.5	Response 1 from 20/03/2012 Corrected, please see new version of PDD, version 02.	Conclusion on the response 1. OK
CL 10 Reference is wrong: *1/ Page 10. "...The envi. payment norms set by Russian Government's Decree № 344 dd 12/06/2003 and by partially revised Decree № 410 dd. 01/07/2005..."* In fact there is singular governmental decree № 344 dd. 12/06/2003 establishing the fees. This enactment has been revised twice so far. Decry #410 was the adoption of the first of such revisions made in 2005. The latest revision was made on 08.01.2009 Resolution N 7. Incorrect calculation in table B.1-3. 2/ according to Gov. Res. 7 dd. 08.01.2009 the enhanced coefficient (4.5) shall be applied to the fee for the methane emissions from combustion of the APG volume, which is equal to difference between	23	Response 1 from 20/03/2012 Corrected on: Under environmental legislation an enterprise is required to calculate the quantities of polluting emissions including methane, carbon oxide, nitrogen oxides etc. and to make quarterly environmental payments according to norms set by Russian Government's Decree № 344 dd. 12/06/2003 and revised by Decree № 410 dd. 01/07/2005. The latest revision was made on 08.01.2009 with accepting Resolution N 7 that provides for increased penalties for APG flaring below the target indicator of 95% utilization rate.	Conclusion on the response 1. OK

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 1	Summary of project participant response	Determination team conclusion
total APG and target indicator (considering 95% utilization rate) Remainder 5% shall be paid with normal fee.		According to the Resolution the enhanced coefficient (4.5) shall be applied to the fee for the methane emissions from combustion of the APG volume, which is equal to difference between total APG and target indicator (considering 95% utilization rate) Remainder 5% shall be paid with normal fee. In below table the estimation of environmental payments to be made by NNP Company for APG flaring from 2012 on according Resolution # 7 is made. Appropriate correction was made in Sec. B1. Please see PDD, v.2	
CL 11 Argumentation of the rejection of other options such as power generation, processing and injection is indistinct and insufficient. It can be concluded that the APG injection is technically possible as it has been practiced at the nearby Samotlor oilfield.	23	Response 1 from 20/03/2012 Backed with information reference from NNP (On alternative options of APG utilization at Khokhryakovskoye oilfield) the further explanation on why the other alternative options are not considered in analysis is provided: "Analysis does not consider other options related to APG utilization such as on-site power generation, processing of APG at the Khohryakovskoye oilfield and the injection of APG for reservoir pressure maintenance. The realization of these options is impossible by the following reasons:	Conclusion on the response 1. Discussed on side Closed upon the review of investment memorandum of TNK BP

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 1	Summary of project participant response	Determination team conclusion
		1. APG use for power generation at on-site gas turbine&piston power plants. The power transmission lines belong to Tumenenergo, a regional monopolistic power transmission and distribution company. This circumstance makes it impossible for NNP Company to deliver the surplus electricity to third-party consumers to repay investments . Therefore this option is economically unviable. 2. Processing of APG at the Khohryakovskoye oilfield. Project economics is negative due to huge capital expenditures on gas processing facilities and problems with the logistics as a nearest railway station is located in 200 km. 3. Injection of APG for reservoir pressure maintenance. Conditions of well stock and geology of the oilfield (poor permeability of reservoirs) do not allow injecting APG in reservoirs. Besides all these options along with construction of CS at Khokhryakov oilfield were considered in Financial Memorandum dd. 01 February, 2004. The NPV of all options was negative. The least negative value had CS construction option. Therefore these options rejected from further analysis. "	

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 1	Summary of project participant response	Determination team conclusion
		Appropriate correction was made in B1 section of PDD, v.2. The information reference contained in the folder CL11.	
CL 12 Please, consider the APG supply to GPPs and the further processing of GLs at Tobol Oil Chemical Works of SIBUR. What would be there in the baseline scenario?	23	Response 1 from 20/03/2012: Nizhnevartovsk GPP was founded in 1974, Belozrniy GPP in 1979. Tobol OCWs was put into operation in late 80s. Therefore, an uptake capacity of down-stream processing Tobol Oil Chemical Works (the biggest oil chemical enterprise in Western Siberia) were designed taking into account GLs delivery from Belozerniy and Nizhnevartovsk GPPs without limitation and replacing GLs from other GPPs.	Conclusion on the response 1. Discussed on site closed
CL 13 Formula (10) is not self-evident and should be explained at least with proper reference.	25	Response 1 from 20/03/2012: Icom = ((P2 apg/P1 apg)^((1,31-1)/1,31))-1) / ((P2_ng/P1_ng)^((1,31-1)/1,31))-1) Icom is a correlation coefficient, which represents a ratio of a work to compress (i.e. increasing pressure from P1 to P2) APG at CS of Khokhryakovskoye oilfield for transportation to Sibur gas pipeline a work to compress natural gas at a complex gas processing unit (CGPU) of Gazprom to	Conclusion on the response 1. OK

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 1	Summary of project participant response	Determination team conclusion
		transport natural gas to the main gas pipeline. Where P2 apg – is the pressure at the outlet of CS, equal to 50 ata; P1apg – is the pressure at the inlet of CS, equals to 3 ata; P2 p - pressure at the inlet of a natural gas pipeline, 75 ata (standard value of pressure during gas transmission in JSC Gazprom) P1 ng – medium pressure of natural gas in gas wells fields of Bolshoy Urengoy (50 ata in 2008)	
CL 14 Please refer to the up-to-date version of Guidance (03).	28	Response 1 from 20/03/2012 Corrected, please see new version of PDD, version 02.	Conclusion on the response 1. OK
CL 15 Gaps in the investment analysis 1/ The investments are presented in roubles, whereas the NPV is given in dollars. Please justify. 2/ please justify haw the variation range 10% is selected. 3/ please provide all input values supporting evidence. 4/ Please substantiate the operation lifetime duration of 20 y. 5/ Please consider the residual value of non-depreciated assets for the end of investment time	29 (b)	Response 1 from 20/03/2012 1/Corrected, now all in dollars, please see new version of PDD, version 02. 2/ +/- 10% variation is a practice adopted at TNK-BP for assessing sensitivity 3/ Input values were provided to the auditor during site visit. 4/ Please see response to CL18 5/ As far as by 2014 the cost of equipment will	Conclusion on the response 1. 1/OK 2/ confirmed through the interview with TNK-BP representatives 3/ closed upon the review of investment memorandum 4/OK 5/ confirmed through the interview with TNK-BP representatives 6/ OK closed upon the review of calculation model.

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 1	Summary of project participant response	Determination team conclusion
horizon as cash inflow for the last year. 6/ Please consider the environmental fees.		be fully depreciated, the residual value of non-depreciated assets for the end of investment time horizon will be equal to zero. 6/ Considered. The calculation model is provided in the folder CL15.	
CL 16 Please clarify and substantiate with relevant docs if there are any back-up fossil fuel based electricity generating facilities.	32 (a)	Response 1 from 20/03/2012 There are no any back-up fossil fuel based electricity generating facilities at Khokhryakovskoye oilfield.	Conclusion on the response 1. Closed upon the sitevisit results OK
CL 17 Please, clarify what happened on 01/09/2005 and how this date was selected as starting date. Pls, provide the evidance.	34 (a)	Response 1 from 20/03/2012: According to Acceptance Act of CS at Khokhryakovskoye oilfield dd. 31/10/2007 the construction works began in June, 2005. Therefore we took the 1st of June of 2005 as the date of the project start Act was provided to the auditor during site visit.	Conclusion on the response 1. OK
CL 18 please clarify the operation life and provide the docs.	34 (b)	Response 1 from 20/03/2012: Operation lifetime was set based on a 20-year lifespan of compressor equipment. As this equipment was manufactured in 1994, the lifespan ends in 2014. After 2014 it is planned to implement the technical maintenance and repair to prolong operation for the next three years until 2017.	Conclusion on the response 1. OK closed upon the results of site visit

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 1	Summary of project participant response	Determination team conclusion
		Please see compressor's certificate in file "Электродвигатель.pdf" in folder CAR04.	
CL 19 The Monitoring plan gaps: 1/fixed parameters are not identified, 2/applied values are missing for the key fixed parameters (pls, ensure all fixed values are provided in the PDD, otherwise description is not transparent) for details pls see my comments in the PDD inserted, 3/Specific electricity consumption by Khohryakovskaya CS is indicated neither as fixed nor as to be monitored parameter; 4/ Annual electricity consumption by BCS 5/ The application of the "underburning factor" (0.965) should be properly and explicitly justified with explanation of compliance to the "soot combustion" criterion. 6/ volume fraction of methane is missing in table D 1.3	36 (a)	Response 1 from 20/03/2012 1/2/Corrected, please see please see Tables D.1.1.1 , D.1.1.3 and D.1.3.1 in new version of PDD, version 02. 3/Specific electricity consumption is not used, because we are used common electricity consumption for the calculation. 4/ Annual electricity consumption is not monitored separately, but it is monitored in the common electricity consumption. 5/please see excel file. 6/ now volume fraction of methane is added.	Conclusion on the response 1. 1/OK 2/following fixed parameter are to be included in the table D.1.3.1.: E_{tr} – IPCC factor for gas transmission operations (emission value is presented in 2006 IPCC Guidelines For National Greenhouse Gas Inventories, volume 2, chapter 4, table 4.2.5.); E_p – IPCC factor for processing operations (emission value is presented in 2006 IPCC Guidelines For National Greenhouse Gas Inventories, volume 2, chapter 4, table 4.2.5.); NCV NG Composition of natural gas (formula 13) SEC **1,31 –** adiabata methane (CH4) P2 apg – is the pressure at the outlet of CS, equal to 30 ata; P1apg – is the pressure at the inlet of CS, equals to 3.2 ata;

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 1	Summary of project participant response	Determination team conclusion
			P_2 ng - pressure at the inlet of a gas pipeline, 75 ata (standard value of pressure during gas transmission in JSC Gazprom) **P_1 ng –** medium pressure of natural gas in gas wells fields of Bolshoy Urengoy (58 ata)* • The demand side values of grid emission factor are to be used in the PDD as it is done in the excel model (pg 37) • Figure D1.1. misleadingly indicates the separate power line to the BCS. • Points M4-M6 are to be removed from the figure D.1.1. • Tumenenergo grid shall be included into the project boundary • Formula (1) sec. D is inadequate. Methane content should not be considered. • Black firing test (soot

* http://www.indpg.ru/nefteservis/2008/04/20007.html,

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 1	Summary of project participant response	Determination team conclusion
			combustion criterion compliance test): Please use consistent variables • North Danilovsk oil field stack diameter 0.7- is irrelevant • Please, apply correct values for inlet and outlet pressure at CS and for outlet of natural gas wells at Bolshoy Urengoy 3/ 4/ Excluded as irrelevant 5/ Justified through provision of transparent calculation supporting soot combustion mode at flares. 6/OK Conclusion on the response 2. Addressed appropriately in PDD v.3.
CL 20 Please justify the selection of monitoring parameters needs to be provided by Sibur source and the procedure of accomplish of the technical reports: • Specific electric power consumption for APG processing at GPP • Gas loss factor for processing operations at GPP • Yield of dry gas from APG processing at GPP	36 (b) (i)	Response 1 from 20/03/2012 The information from Yugragazpererabotka GPP on specific electric power consumption for APG processing at GPP, gas loss factor for processing operations at GPP, yield of dry gas from APG processing at GPP was provided to the auditor during site visit.	Conclusion on the response 1. The parameters was selected conservatively from the data officially provided by Sibur (see local checklist for details) OK

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 1	Summary of project participant response	Determination team conclusion
CL 21 Please, provide the evidence (methodologies, equipment's certificates) to support the reported level of uncertainty (low) for all parameters.	36 (f) (v)	Response 1 from 20/03/2012: Please see copies of certificates in the folder CL 21.	Conclusion on the response 1. OK
CL 22 Please provide the evidence to confirm the Monitoring plan is based on standard monitoring routines (relevant national standards) and the involved personnel are trained appropriately (training records).	36 (f) (vii)	Response 1 from 20/03/2012 The Monitoring plan is based on the national standard GOST R "State system for ensuring the uniformity of measurements. System for measuring of quantity and parameters of free oil gas. General metrological and technical requirements" and corporate automated program "Gas quality measurement system" (СИКГ – система измерения качества газа) and "System of collection and processing of information" (Устройство сбора и обработки информации –УСОИ-3) Response 2 from 31/03/2012 References included in Sec D.3.? please see new version of PDD, version 03.	Conclusion on the response 1. Confirmed through the site visit. Please include this references into the PDD Conclusion on the response 2. Addressed appropriately in PDD v. 3. closed
CL 23 Please identify the periodicity of calibration and respective authority for each parameter. Otherwise QA/QC procedures are unverifiable. The verifier's opinion is that the QC/QA procedures have not been elaborated.	36 (i)	Response 1 from 20/03/2012 Corrected, please see Section D.2. in new version of PDD, version 02. new version of PDD, version 02.	Conclusion on the response 1. FAR 01 calibration records are to be checked for all equipment at the stage of initial and first verification.
CL 24 Please, specify if there is a specific GHG monitoring procedure implemented at the Company or	36 (j)	Response 1 from 20/03/2012: Please see the Scheme D 3 in new version of	Conclusion on the response 1. Monitoring functions were

Draft report clarifications and corrective action requests by validation team	Ref. to checklist question in table 1	Summary of project participant response	Determination team conclusion
any internal orders/agreements establishing authority/responsibility for the monitoring functions: • Primarily data collection, • Logging, • Averaging, • Reporting, • Checking, • Calculating, As well as supplemental functions e.g. • Monitoring equipment timely calibration and maintenance; Database safety and protection from any unauthorized access.		PDD, version 02	transparently described at the scheme D.3. Closed upon the updated PDD review.
CL 25 Please provide the EIA and its approval	48 (a)	Response 1 from 20/03/2012 That information was provided to the auditor during site visit.	Conclusion on the response 1. OK closed
FAR 01 calibration records are to be checked for all equipment at the stage of initial and first verification.			

Dr. Vladimir Lukin - Lead Verifier
Dr. Alexey Kulakov -Specialist

Table 3.

Local check list for the parameters used for the ex-ante ER estimation.

Parameter to be checked/ values	Ref. No	Source	Determination conclusion
Gas composition for 2008-2011:	/14/	Gas chromatograph readings	CAR 07 closed OK
Flare head diameter m: 0.5	/10/	Flare certificate dd. 21.04.1998.	OK
APG volume 2008 ths. m3: 243659	/15/	Gas balances and forecast (for 2012)	OK
APG volume 2009 ths. m3: 219041			OK
APG volume 2010 ths. m3: 198284			OK
APG volume 2011 ths. m3: 190789			OK
APG volume 2012 ths. m3: 246686			OK
CO2 grid emission factor tCO2/MWh	/16/	Power Grid Emission Factor for Russia Baseline study	CAR 07 Closed
Specific Electricity consumption, kW/1000m3 (Beloozerny GPP, 2010): 265.6	/18/	Information note provided by Chief engineer by «Югрогазпереработка»	OK Highest value was taken conservatively

	2008	2009	2010	2011
CH4	63.32%	63.23%	59.21%	59.18%
C2H6	7.79%	7.54%	13.85%	14.37%
C3H8	17.27%	17.34%	17.20%	16.06%
C4H10	7.56%	8.29%	6.80%	6.58%
C5H12	0.58%	0.80%	0.37%	0.40%
C6H14	0.00%	0.10%	0.00%	0.00%
N2	1.91%	1.34%	1.19%	2.01%
CO2	1.55%	1.30%	1.34%	1.34%

Parameter to be checked/ values		Ref. No	Source	Determination conclusion
Methane density	0.668			Different Methane density is used for "soot combustion" condition compliance test - 0.716 Corrected in the final version. OK
Processing losses, % Beloozerny GPP 2009	1.18	/18/	Information note provided by Chief engineer by «Югразпереработка»	OK Highest value was taken conservatively
Выход сухого газа, % Белоозерный 2008	86.0	/18/	Information note provided by Chief engineer by «Югразпереработка»	OK Lowest value was taken conservatively
Methane losses from NG recovery and transportation by Gazprom's annual environmental reports 2008	0.00070	/20/	Gazprom's environmental reports	OK
Methane losses from NG recovery and transportation by Gazprom's annual environmental reports 2009	0.00052	/20/	Gazprom's environmental reports	OK
Methane losses from NG recovery and transportation by Gazprom's annual environmental reports 2010-2012	0.00029	/20/	Gazprom's environmental reports	OK
CO2 emission factor from gas burning in gas turbine in treatment plants of Gazprom gas fields tCO2/1000 m3	1.791		7600 Mcal/1000 m3 – Standard NCV of natural gas $4.2*10^{-6}$TJ/Mcal - conversion factor 56.1 tCO2/TJ – CO2 emission factor of NG (IPCC 2006) $7.6*4.2*56.1*10^{-3}=1.791$	OK

Parameter to be checked/ values		Ref. No	Source	Determination conclusion
Average energy consumption to gas compressing&processing at oil&gas treatment plant of Sibur with standart efficiently	475.2	/23/	JI Determination Report The utilization of associated petroleum gas of the Yarayner oilfield of JSC "Gazpromneft-Noyabrskneftegaz" REPORT NO. RUSSIA-DET/0211/2011 dd. 12/12/2011	OK
Average pressure from the 1st stage of separation at the BCS of Khokhryakovsky oilfield, atm.	3.2	/22/	Operation logbooks	OK
Average pressure at the CS outflow	30	/22/	Operation logbooks	OK 30 atm is to be used
Average value at the Gas wells outflow 2008 29.05 2009 18.35 2010 92.3 2011 58.15 2012 54.05	50.38	/21/	http://www.indpg.ru/nefteservis/2008/04/20007.html	OK Average value was taken
Power consumption by CS total 2008	48653.0	/19/	AIIS KUE logbook quotation	OK
Power consumption by CS total 2009	44502.0	/19/	AIIS KUE logbook quotation	OK
Power consumption by CS total 2010	43534.0	/19/	AIIS KUE logbook quotation	OK
Power consumption by CS total 2011	45823.3	/19/	AIIS KUE logbook quotation	OK