



DETERMINATION REPORT

CARBON MARKETING AND TRADING LTD

DETERMINATION OF THE
«Waste Heap Dismantling in Sverdlovsk district of Luhansk Region of Ukraine with the Aim of Reducing Greenhouse Gases Emissions into the Atmosphere»

REPORT No. UKRAINE-DET/0551/2012
REVISION No. 02
BUREAU VERITAS CERTIFICATION



DETERMINATION REPORT

Date of first issue: 12/07/2012	Organizational unit: Bureau Veritas Certification Holding SAS
Client: CARBON MARKETING AND TRADING LTD	Client ref.: Mr Tahir Musayev

Summary:
Bureau Veritas Certification has made the determination of the «Waste Heap Dismantling in Sverdlovsk district of Luhansk Region of Ukraine with the Aim of Reducing Greenhouse Gases Emissions into the Atmosphere» project of Small Private Commercial Production Company "SLAVUTICH" located near village Fedorivka Sverdlovsk district, Luhansk Region, Ukraine, 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 Clarification and Corrective Action Requests (CL and CAR), 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 correctly applies Guidance on criteria for baseline setting and monitoring and meets the relevant UNFCCC requirements for the JI and the relevant host country criteria.

Report No.: UKRAINE-det/0551/2012	Subject Group: JI
Project title: «Waste Heap Dismantling in Sverdlovsk district of Luhansk Region of Ukraine with the Aim of Reducing Greenhouse Gases Emissions into the Atmosphere»	
Work carried out by: Svitlana Gariyenchuk - Team Leader, Lead Verifier Sergii Verteletskyi – Team member, Verifier Dmytro Balyn – Technical Specialist	
Work reviewed by: Ivan Sokolov - Internal Technical Reviewer Vladimir Lukin – Technical Specialist	
Work approved by: Ivan Sokolov – Operational Manager	
Date of this revision: 16/07/2012	Rev. No.: 02
Number of pages: 56	

Indexing terms

No distribution without permission from the Client or responsible organizational unit

Limited distribution

Unrestricted distribution





Table of Contents		Page
1	INTRODUCTION	3
1.1	Objective	3
1.2	Scope	3
1.3	Determination team	3
2	METHODOLOGY	4
2.1	Review of Documents	4
2.2	Follow-up Interviews	5
2.3	Resolution of Clarification and Corrective Action Requests	6
3	PROJECT DESCRIPTION	6
4	DETERMINATION CONCLUSIONS	7
4.1	Project approvals by Parties involved (19-20)	7
4.2	Authorization of project participants by Parties involved (21)	7
4.3	Baseline setting (22-26)	7
4.4	Additionality (27-31)	9
4.5	Project boundary (32-33)	11
4.6	Crediting period (34)	12
4.7	Monitoring plan (35-39)	12
4.8	Leakage (40-41)	20
4.9	Estimation of emission reductions or enhancements of net removals (42-47)	21
4.10	Environmental impacts (48)	23
4.11	Stakeholder consultation (49)	24
4.12	Determination regarding small scale projects (50-57)	24
4.13	Determination regarding land use, land-use change and forestry (LULUCF) projects (58-64)	24
4.14	Determination regarding programmes of activities (65-73)	20
5	SUMMARY AND REPORT OF HOW DUE ACCOUNT WAS TAKEN OF COMMENTS RECEIVED PURSUANT TO PARAGRAPH 32 OF THE JI GUIDELINES	21
6	DETERMINATION OPINION	21
7	REFERENCES	23
	APPENDIX A: DETERMINATION PROTOCOL	25



1 INTRODUCTION

CARBON MARKETING AND TRADING LTD has commissioned Bureau Veritas Certification to determine its JI project «Waste Heap Dismantling in Sverdlovsk district of Luhansk Region of Ukraine with the Aim of Reducing Greenhouse Gases Emissions into the Atmosphere» (hereafter called “the project”) located near village Fedorivka Sverdlovsk district, Luhansk Region, Ukraine.

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 serves as project design verification and is a requirement of all projects. 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 emission reduction 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:

Svitlana Gariyenchyk



DETERMINATION REPORT



Bureau Veritas Certification Team Leader, Climate Change Verifier

Sergii Verteletskyi

Bureau Veritas Certification Climate Change Verifier

Dmytro Balyn

Bureau Veritas Certification Climate Change Verifier, Technical Specialist

This determination report was reviewed by:

Ivan Sokolov
Bureau Veritas Certification, Internal Reviewer

Vladimir Lukin
Technical Specialist

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 CARBON MARKETING AND TRADING LTD and additional background documents related to the project design and baseline, i.e. country


DETERMINATION REPORT

Law, Guidelines for users of the joint implementation project design document form, Approved CDM methodology and/or Guidance on criteria for baseline setting and monitoring, Kyoto Protocol, Clarifications on Determination Requirements to be Checked by an Accredited Independent Entity were reviewed.

To address Bureau Veritas Certification corrective action and clarification requests, CARBON MARKETING AND TRADING LTD revised the PDD and resubmitted it on 10/07/2012.

The determination findings presented in this report relate to the project as described in the PDD version(s) 02.

2.2 Follow-up Interviews

On 04/07/2012 Bureau Veritas Certification performed on-site interviews with project stakeholders to confirm selected information and to resolve issues identified in the document review. Representatives of CARBON MARKETING AND TRADING LTD and Small Private Commercial Production Company "SLAVUTICH" were interviewed (see References). The main topics of the interviews are summarized in Table 1.

Table 1 Interview topics

Interviewed organization	Interview topics
Small Private Commercial Production Company "SLAVUTICH"	Project history, Project approach, Project boundary, Implementation schedule, Organizational structure, Responsibilities and authorities, Training of personnel, Quality management procedures and technology, Rehabilitation/Implementation of equipment (records), Metering equipment control, Metering record keeping system, database, Technical documentation, Monitoring plan and procedures, Permits and licenses,
Consultant: CARBON MARKETING AND TRADING LTD	Baseline methodology, Monitoring plan, Additionality proofs, Calculation of emission reduction



2.3 Resolution of Clarification and Corrective Action Requests

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

If the determination team, in assessing the PDD and supporting documents, identifies issues that need to be corrected, clarified or improved with regard to JI project requirements, it will 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 the determination team 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.

The determination team will make an objective assessment as to whether the actions taken by the project participants, if any, satisfactorily resolve the issues raised, if any, and should conclude its findings of the determination.

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

3 PROJECT DESCRIPTION

This Project is aimed at coal extraction from the mine's waste heaps of the Sverdlovsk Districts of Luhansk Region of Ukraine. These waste heaps have been accumulated some time before the start of the project activity from the mining waste of underground mines. Project activity will prevent greenhouse gas emissions into the atmosphere during combustion of the heaps and will contribute an additional amount of coal, without the need for mining.

The Project activities include installation of the equipment for coal extraction and beneficiation near the processing waste heaps and applying special machinery that will perform



DETERMINATION REPORT

preparation, loading and transportation of the rock from the waste heaps to the beneficiation factory. After purifying of the matter, the extracted coal will be sold for heat and power generation and the remaining bare rock will be utilized for land engineering and road building.

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 Clarification and Corrective Action Requests 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 12 Corrective Action Requests and 04 Clarification Requests.

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

4.1 Project approvals by Parties involved (19-20)

The project has been officially presented for endorsement to the Ukrainian authorities. State Environmental Investments Agency of Ukraine has issued a Letter of Endorsement for the project #1847/23/7 dated 16/07/2012.

According to the national Ukrainian procedure, the LoAs by Ukraine is expected after the project determination, see CAR05

4.2 Authorization of project participants by Parties involved (21)

The participation for each of the legal entities listed as project participants in the PDD is authorized by a Party involved, which is also listed in the PDD (refer to section 4.1).

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.

Jl specific approach

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

DETERMINATION REPORT

- (a) By listing and describing the following plausible future scenarios on the basis of conservative assumptions and selecting the most plausible one:

Scenario 1. Continuation of existing situation

The situation before the project was installed, without beneficiation plant and waste heap dismantling. In the current situation waste heaps are not utilized. Coal contained in the waste heaps is not a subject of extraction and; as a result, spontaneous self-heating and subsequent burning of waste heaps leading to uncontrolled GHG emissions is very common. Coal is produced by underground mines that causes fugitive emissions of methane as well as the formation of new waste heaps.

Scenario 2. Direct energy production from the heat energy of burning waste heap

Some burning heaps are used to produce energy by direct insertion of heat exchangers into the waste heap. This captures a certain amount of heat energy for direct use or conversion into electricity. Coal for industrial use is not extracted from the waste heaps under this scenario. Coal is produced by underground mines of the region and used for energy production or other purposes. Mining activities result in fugitive gas release, and the formation of more waste-heaps.

Scenario 3. Production of construction materials from waste heap matter

Waste heaps are being processed in order to produce construction materials (bricks, panels, etc.). Coal in the waste heap matter is burnt during the agglomeration process. Coal is produced by underground mines of the region and used for energy production or other purposes. Mining activities, result in fugitive gas release, and the formation of more waste-heaps.

Scenario 4. Systematic monitoring of waste heaps condition, regular fire prevention and application of extinguishing measures

Waste heaps are systematically monitored and their thermal condition is observed. Regular fire prevention measures are taken. Coal is not extracted from the waste heaps, but is produced by underground mines and used for energy production or other purposes. Mining activities, result in fugitive gas release, and the formation of more waste-heaps.



Scenario 5. Coal extraction from waste heaps without JI incentives

Although this scenario is similar to the project activity only the project itself does not benefit from the possible development as a joint implementation project. In this scenario waste heaps are processed in order to extract coal and use it in the energy sector. Less coal is produced by underground mines of the region.

Taking into account relevant national and/or sectoral policies and circumstances, such as sectoral reform initiatives, local fuel availability, power sector expansion plans, and the economic situation in the project sector. In this context, the following key factors that affect a baseline are taken into account:

- a. Describe any sectoral reform policies and legislation;
- b. Describe any economic situation/growth and socio-demographic factors in the relevant sector as well as resulting predicted demand. Suppressed and/or increasing demand that will be met by the project can be considered in the baseline as appropriate (e.g. by assuming that the same level of service as in the project scenario would be offered in the baseline scenario);
- c. Describe any availability of capital (including investment barriers);
- d. Describe local availability of technologies/techniques, skills and know-how and availability of best available technologies/techniques in the future;
- e. Describe any fuel prices and availability;
- f. Describe any national and/or sub national expansion plans for the energy sector, as appropriate;
- g. Describe any national and/or sub national forestry or agricultural policies, as appropriate.

4.4 Additionality (27-31)

JI specific approach

The most recent version of the “Tool for the demonstration and assessment of additionality” approved by the CDM Executive Board was used. All explanations, descriptions and analyses are made in accordance with the selected tool or method.

The PDD provides a justification of the applicability of the approach with a clear and transparent description, as per item 4.3 above.

Additionality proofs are provided in sections below:

Scenario 1. Continuation of existing situation

This scenario does not anticipate any activities and therefore does not face any barriers.



DETERMINATION REPORT

Scenario 2. Direct energy production from the heat energy of burning waste heap

Technological barrier: This scenario is based on highly experimental technology, which has not been implemented even in a pilot project. It is also not suitable for all waste heaps as the project owner will have to balance the energy resource availability (i.e. waste heap location) and the location of the energy user. On-site generation of electricity addresses also requires additional interconnection engineering. In general this technology has yet to prove its viability. In addition it does not allow controlling and management of emitted gases.

Investment barrier: Investment into unproven technology result in a high risk. In Ukraine, which ranked as a high risk country, investment into such kind of energy projects is unlikely to attract investors. The pioneering character of the project may require the development programs and governmental incentives and the cost of the produced energy is likely to be much higher than alternatives.

Scenario 3. Production of construction materials from waste heap matter

Technological barrier: This scenario is based on known technology, which, however, is not currently available in Ukraine and there is no evidence that such projects will be implemented in the near future. It is also not suitable for all types of waste heaps as the content of waste heap has to be predictable in order for project owner to be able to produce quality materials. High content of sulphur and moisture can reduce the suitability of the waste heap for processing. A large scale and detailed exploration of the waste heap has to be performed prior to the start the project.

Scenario 4. Systematic monitoring of waste heaps condition and regular fire prevention and extinguishing measures

Technological barrier: Among the well-known methods to assess the scale of the problem and choose the best direction of fire suppression are: drilling, application of an inert material, injection of inhibitors, compaction, pumping of water, timely reclamation, and recycling. The major drawbacks of these technologies include: difficulties with determination of exact location of self-heating and burning points; lack of special techniques and equipment (e.g. bulldozers and excavators); additional burden on the environment (emissions, dust, smoke); waste heap is not in working condition at the site of work; the lack of guarantees for quick elimination of fire; complication of working conditions; insufficient water can act as one of the factors intensifying the combustion, etc.



Investment barrier: This scenario does not represent any revenues but anticipates additional costs for waste heap owners. Monitoring of the waste heap status is not carried out systematically and actions are left to the discretion of the individual owners, such as mines or regional coal mining associations. However, coal mines in Ukraine suffer from limited funding resulting in safety problems (due to complicated mining conditions) and financial constraints, with miners' salaries often being delayed by few months. From a commercial view point the fines that are usually levied by the authorities are considerably lower than the costs of all the measures outlined by this scenario.

Scenario 5. Coal extraction from waste heaps without JI incentives

Investment barrier: This scenario is financially unattractive and faces barriers. Please refer to section B.2 of the PDD for details.

In conclusion, the baseline scenario is the continuation of the status quo, which is the continuation of the situation before the project was installed, without beneficiation plant and waste heap dismantling

Additionality is demonstrated appropriately as a result of the analysis using the approach chosen.

4.5 Project boundary (32-33)

The project boundary defined in the PDD, which is which in accordance with the specific approach is delineated by the physical site of the entire technological complex, encompasses all anthropogenic emissions by sources of greenhouse gases (GHGs) that are:

- (i) Under the control of the project participants :
 - a) Carbon dioxide emissions from the use of fuel to run part of the project equipment (motor cars),
 - b) Carbon dioxide emissions associated with the electricity consumption by the project equipment
- (ii) Reasonably attributable to the project ;and
- (iii) Significant, i.e., as a rule of thumb, would by each source account on average per year over the crediting period for more than 1 per cent of the annual average anthropogenic emissions by sources of GHGs, or exceed an amount of 2,000 tonnes of CO₂ equivalent, whichever is lower.



DETERMINATION REPORT

The delineation of the project boundary and the gases and sources included are appropriately described and justified in the PDD

4.6 Crediting period (34)

The PDD states 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, and the starting date is 15/11/2007, which is after the beginning of 2000.

The PDD states the expected operational lifetime of the project in years and months, which is 15 years or 180 months.

The PDD states the length of the crediting period in years and months, which is 15 years or 180 months, and its starting date as 01/01/2008, which is on the date the first emission reductions are generated by the project.

The PDD states that the crediting period for the issuance of ERUs starts only after the beginning of 2008 and does not extend beyond the operational lifetime of the project.

The PDD states that the extension of its crediting period beyond 2012 is subject to the host Party approval, and the estimates of emission reductions or enhancements of net removals are presented separately for those until 2012 and those after 2012 in all relevant sections of the PDD.

4.7 Monitoring plan (35-39)

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

The monitoring plan describes all relevant factors and key characteristics that will be monitored, and the period in which they will be monitored, in particular also all decisive factors for the control and reporting of project performance, such as :

1. Additional electricity consumed in the relevant period as a result of the implementation of the project activity

This parameter is registered by a specialized electricity meters. The meters are situated next to the current transformers on the site of the project activity. These meters register all electric energy consumed by the project activity as they are located on the only electrical input available on site. Readings are used in the commercial dealings with the energy supply company. Monthly bills for electricity are available. Regular cross-checks with the energy supply company are performed. Monthly and annual reports are based on the monthly bills.



DETERMINATION REPORT

2. Amount of diesel fuel that has been used for the project activity in the relevant period.

For the metering of this parameter the commercial data of the company are used. Receipts and other accounting data are used in order to confirm the amount of fuel consumed. All fuel consumption is taken into account and is attributed to the project activity. If the data in the commercial documents mentioned are provided in litres rather than in tonnes the data in litres are converted into tonnes using the density of 0,85 kg/l. Regular cross-checks with the suppliers are carried out. The monthly and annual reports are based on these data.

3. Amount of coal that has been extracted from the waste heaps and combusted for energy use in the project activity in the relevant period which is equal to the amount of coal that has been mined in the baseline scenario and combusted for energy use.**3.1. Amount of fraction.**

For the metering of this parameter the commercial data of the company are used. Receipts and acceptance certificates from the customers are used in order to confirm the amount of coal restored. Only shipped coal is taken into account and is attributed to the project activity. Weighting of the coal is done on site by the special automobile scales. Regular cross-checks with the customers are performed. The monthly and annual reports are based on these shipment data.

3.2. Ash content and moisture of fraction.

Ash content and moisture fraction is defined accredited for technical competence and independence of the laboratory in accordance with regulations (GOST 11022-95 "Mineral solid fuel. Methods of determination the ash content" , GOST 11014-2001 "Brown coal, hard coal and oil shale. Accelerated methods for determining the moisture" and GOST 27314-91 «Mineral solid fuel. Methods of determination the moisture content»). Analysis of ash content and moisture fraction is done in the laboratory. Ash content and moisture of coal fraction measured regularly with registration annually certificates.

Thus, there is the collection and archiving of all data required for evaluation or measurement anthropogenic emissions of greenhouse gases within the project crediting period and baseline emissions.

The monitoring plan has properly given a list of standard variables that are contained in Annex B to the "Guidance on criteria for baseline setting and monitoring" developed by the JISC, including: baseline emissions (BE_y , $BE_{xx,y}$), project emissions (PE_y , $PE_{xx,y}$), electricity consumption (EC_y), CO_2 emission factor ($EF_{CO_2,xx}$, $EF_{CH_4,xx}$, $EF_{CO_2,ELEC,y}$), leakages in period - LE_y , $LE_{xx,y}$, global warming potential - GWP_{xx} , density - ρ_x , net calorific value - NCV_{xx} , fuel quantity combusted - FC_{xx} , oxidation factor for fuel combustion $OXID_{xx}$, carbon content of fuel k_{xx}^C .



 DETERMINATION REPORT

The monitoring plan explicitly and clearly distinguishes:

- (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, such as:

Data / Parameter	Data unit	Description	Data Source	Value 2008	Value 2009
GWPC _{H4}	tCO ₂ e/t CH ₄	Global Warming Potential of Methane	IPCC Second Assessment Report	21	
ρ _{CH4}	t/m ³	Methane density	Standard (temperature 20°C and 1 ATM)	0.00067	
NCV _{coal}	GJ/t	Net Calorific Value of coal	National Inventory Report of Ukraine 1990-2010	21.50	21.80
NCV _{diesel}	GJ/t	Net Calorific Value of diesel fuel	National Inventory Report of Ukraine 1990-2010	42.20	42.40
OXID _{coal}	ratio	Carbon Oxidation factor of coal	National Inventory Report of Ukraine 1990-2010	0.963	0.963
OXID _{diesel}	ratio	Carbon Oxidation factor of diesel fuel	National Inventory Report of Ukraine 1990-2008	0.99	0.99
k _{Coal}	tC/TJ	Carbon content of coal	National Inventory Report of Ukraine 1990-2010	25.95	25.97
k _{diesel}	tC/TJ	Carbon content of diesel fuel	National Inventory Report of Ukraine 1990-2010	20.20	20.20
EF _{grid, y}	kgCO ₂ /kWh	Relevant emission factor for the electricity from the grid in the period y	For the years 2008-2011 – NEIA Orders No.43 dated 28.03.2011, No.62 dated 15.04.2011, No.63 dated 15.04.2011, No.75 dated 12.05.2011	For 1st class 2008-1.082 2009-1.096 2010-1.093 2011-1.090	For 2nd class 2008-1.219 2009-1.237 2010-1.225 2011-1.227
NE _{Coal, y}	MWh/t	Average electricity consumption per ton of coal, produced in Ukraine in the	Fuel and energy resources of Ukraine, Statistical Yearbook, State Statistics Committee of Ukraine, Kiev 2009-2011	0.0878	0.0905



 DETERMINATION REPORT

year y

ACoal	%	The average ash content of coal produced in Ukraine	Guide of quality, volume of coal production and enrichment products in 2008-2010, Ministry of Coal Industry of Ukraine, State Committee of Ukraine	2008 - 38.60 2009 - 39.20 2010 - 39.70 2011 - 39.80
WCoal	%	The average moisture of coal produced in Ukraine	Guide of quality, volume of coal production and enrichment products in 2008-2010, Ministry of Coal Industry of Ukraine, State Committee of Ukraine	2008 - 8.60 2009 - 8.20 2010 - 8.30 2011 - 8.30
EFCH ₄ , CM	m ³ /t	Average rate for fugitive methane emissions from coal mining	National Inventory Report of Ukraine 1990-2010	25.67

(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:

Data / Parameter	Data unit	Description	Data Source	Value 2010	Value 2011	Value 2012
NCVcoal	GJ/t	Net Calorific Value of coal	National Inventory Report of Ukraine	21.60	21.60	21.60
NCVdiesel	GJ/t	Net Calorific Value of diesel fuel	National Inventory Report of Ukraine	42.40	42.40	42.40
OXIDcoal	ratio	Carbon Oxidation factor of coal	National Inventory Report of Ukraine	0.962	0.962	0.962



DETERMINATION REPORT

OXIDdiesel	ratio	Carbon Oxidation factor of diesel fuel	National Inventory Report of Ukraine	0.99	0.99	0.99
kCcoal	tC/TJ	Carbon content of coal	National Inventory Report of Ukraine	25.99	25.99	25.99
kCdiesel	tC/TJ	Carbon content of diesel fuel	National Inventory Report of Ukraine	20.20	20.20	20.20
EF grid, y	kgCO ₂ /kWh	Relevant emission factor for the electricity from the grid in the period y	For the years 2008-2011 – NEIA Orders No.43 dated 28.03.2011, No.62 dated 15.04.2011, No.63 dated 15.04.2011, No.75 dated 12.05.2011			For 1st class 1.090 For 2nd class 1.227
NECoal,y	MWh/t	Average electricity consumption per ton of coal, produced in Ukraine in the year y	Fuel and energy resources of Ukraine, Statistical Yearbook, State Statistics Committee of Ukraine, Kiev	0.0926	0.0842	0.0842
EFCH ₄ , CM	m ³ /t	Average rate for fugitive methane emissions from coal mining	National Inventory Report of Ukraine	25.67		
pWHB	ratio	Correction factor for the uncertainty of the waste heaps burning process	Scientific research was verified and confirmed by accredited independent entities	For Luhansk Region - 0.78 For Donetsk Region - 0.83		

- (iii) Data and parameters that are monitored throughout the crediting period, such as:

$EC_{PJ,y}$	Additional electricity consumed in year y as a result of the implementation of the project activity
$FC_{PJ,Diesel,y}$	Amount of diesel fuel that has been used for the project activity in period y
FCBE, Coal, y	Amount of coal that has been mined in the baseline scenario and combusted for energy use, equivalent to the amount of coal extracted from the waste heaps in the project activity in period y. Calculated by the equation 3 or 4.
FRCcoal,y	Amount of sorted fraction, which is extracted from the waste heaps because of the project activity in a period y

The monitoring plan elaborates all algorithms and formulae used for the estimation/calculation of baseline emissions/removals and project



 DETERMINATION REPORT

emissions/removals or direct monitoring of emission reductions from the project, leakage, as appropriate.

Emissions in the baseline scenario are calculated as follows:

$$BE_y = BE_{WHB,y} \quad (\text{Equation 1})$$

where:

BE_y - baseline emissions in period y (tCO₂e),

$BE_{WHB,y}$ - baseline emissions due to burning of the waste heaps in period y (tCO₂),

$BE_{EL,y}$ -baseline emissions due to consumption of electricity from a grid at coal mine in a period y , (tCO₂).

$BE_{WHBC,y}$ -baseline emissions due to burning of waste heap, created as a result of coal mining during the period y , (tCO₂).

Baseline Emissions due to burning of the waste heaps, in turn, are calculated as:

$$BE_{WHB,y} = FC_{BE,Coal,y} / 1000 * \rho_{WHB} * NCV_{Coal} * OXID_{Coal} * k^C_{Coal} * 44/12 \quad (\text{Equation 2})$$

where:

$FC_{BE,Coal,y}$ - amount of coal that has been mined in the baseline scenario and combusted for energy use, equivalent to the amount of coal extracted from the waste heaps in the project activity in period y , t.

ρ_{WHB} - correction factor for the uncertainty of the waste heap burning process. This factor is defined on the basis of the survey of all the waste heaps in the area that provides a ratio of waste heaps that are or have been burning at any point in time to all existing waste heaps.

NCV_{Coal} – net calorific value of coal, GJ/t.

$OXID_{Coal}$ – carbon oxidation factor of coal, ratio.

k^C_{Coal} - carbon content of coal, tC/TJ.

$44/12$ - ration between molecular mass of CO₂ and C. Reflect oxidation of C to CO₂.

$$FC_{BE,Coal,y} = FR_{Coal,y} * (1 - A_{Rock,y} / 100 - W_{Rock,y} / 100) / (1 - A_{Coal,y} / 100 - W_{Coal,y} / 100) \quad (\text{Equation 3})$$

Where:

$FR_{Coal,y}$ -amount of sorted fraction, which is extracted from the waste heaps because of the project in a period y , that came to blending with further combustion in thermal power plants, t;

$A_{Rock,y}$ -the average ash content of sorted fractions, which is extracted from waste heap in period y , %;

$W_{Rock,y}$ -the average moisture of sorted fractions, which is extracted from waste heap in period y , %;

A_{Coal} -the average ash content of coal, mined in Ukraine, %;


DETERMINATION REPORT

W_{Coal} - the average moisture of coal, mined in Ukraine, %;
100 - conversion factor from percent to fraction, ratio.

If the average ash content and the average moisture of sorted fraction, which are extracted from the waste heap in the period y , are not available for the developer, or are irregular with a high level of uncertainty (table D.2 of PDD), they are taken equal to the relevant national indicators, and

$$FC_{BE,Coal,y} = FR_{Coal,y} \quad (\text{Equation 4})$$

Emissions from the project activity are calculated as follows:

$$PE_y = PE_{EL,y} + PE_{Diesel,y} \quad (\text{Equation 5})$$

where

PE_y - project emissions due to project activity in the period y (tCO₂e),
 $PE_{EL,y}$ - project emissions due to consumption of electricity from the grid by the project activity in the period y (tCO₂e),
 $PE_{Diesel,y}$ - project emissions due to consumption of diesel fuel by the project activity in the period y (tCO₂e).

These, in turn, are calculated as:

$$PE_{EL,y} = EC_{PJ,y} * PE_{grid,y} \quad (\text{Equation 6})$$

where:

$EC_{PJ,y}$ - additional electricity consumed in period y as a result of the implementation of the project activity, MWh,
 $PE_{grid,y}$ - relevant emission factor for the electricity from the grid in the period y , kgCO₂/kWh (tCO₂/MWh).

$$PE_{Diesel,y} = FC_{PJ,Diesel,y} / 1000 * NCV_{Diesel} * OXID_{Diesel} * k_{Diesel}^C * 44/12 \quad (\text{Equation 7})$$

where:

$FC_{PJ,Diesel,y}$ - amount of diesel fuel that has been used for the project activity in the period y , t.

NCV_{Diesel} - net calorific value of diesel fuel, GJ/t;

$OXID_{Diesel}$ - carbon oxidation factor of diesel fuel, ratio;

k_{Diesel}^C - carbon content of diesel fuel, t C/TJ;

$44/12$ - ratio between molecular mass of CO₂ and C. Reflect oxidation of C to CO₂.

Leakages in the period y are calculated as follows:

$$LE_y = LE_{CH_4,y} + LE_{EL,y} \quad (\text{Equation 8})$$



 DETERMINATION REPORT

Leakages due to fugitive emissions of methane in the mining activities in the period y (tCO₂e).

$$LE_{CH_4,y} = -FC_{BE,Coal,y} * EF_{CH_4,CM} * \rho_{CH_4} * GWP_{CH_4} \quad (\text{Equation 9})$$

where:

$FC_{BE,Coal,y}$ - amount of coal that has been mined in the baseline scenario and combusted for energy use, equivalent to the amount of coal extracted from the waste heaps in the project activity in period y, t.

$EF_{CH_4,CM}$ - average rate for fugitive methane emissions from coal mining, m³/t;

ρ_{CH_4} - methane density, t/m³;

GWP_{CH_4} - Global Warming Potential of Methane, tCO₂e/tCH₄.

Leakages due to electricity consumption at coal mines in a period y, calculated by the equation:

$$LE_{EL,y} = -FC_{BE,Coal,y} * N_{Coal,y}^E * EF_{grid,y} \quad (\text{Equation 10})$$

The emission reductions are calculated as follows:

$$ER_y = BE_y - LE_y - PE_y \quad (\text{Equation 11})$$

where:

ER_y - emissions reductions of the JI project in period y (tCO₂e)

LE_y - leakages in period y

(tCO₂e);

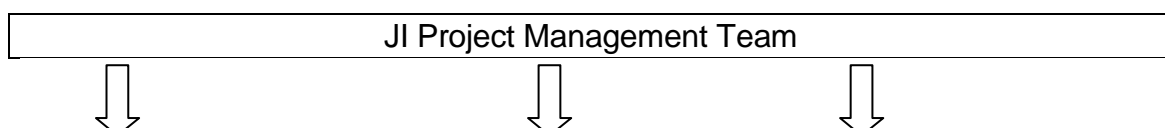
BE_y - baseline emission in period y (tCO₂e);

PE_y - project emission in period y (tCO₂e);

The monitoring plan presents the quality assurance and control procedures for the monitoring process such as calibration of measuring equipment and internal procedures of the company. This includes, as appropriate, information on calibration and on how records on data and/or method validity and accuracy are kept and made available on request.

The monitoring plan clearly identifies the responsibilities and the authority regarding the monitoring activities:

The operational and management structure (as shown in below the figure) and the responsibilities of the principals are as follows. Ultimate responsibility for the project rests with the JI Project Manager.





The JI Project Manager is responsible for:

- Checking and signing off all project operational-relate dactivities
- Appointing and liaising with the accredited independent entity(AIE)
Identifying an audit team leader to be appointed by the Chief Engineer or a delegated authority
 - Appointing a JI technical team to undertake the operational activities
 - Organizing training and refresher courses
 - Preparing and supervising a Health and Safety Plan for the JI technical team
 - Supervising the work of the JI technical team
 - Crosschecking reported volumes and sales receipts

On the whole, the monitoring plan reflects good monitoring practices appropriate to the project type.

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 or sampled and data that are collected from other sources (e.g. official statistics, expert judgment, proprietary data, IPCC, commercial and scientific literature etc.) but not including data that are calculated with equations.

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.

4.8 Leakage (40-41)

The PDD appropriately describes an assessment of the potential leakage of the project and appropriately explains which sources of leakage are to be calculated, and which can be neglected:

Leakages	Fugitive methane due to coal mining in the mines	CH4	Included	These leak sare taking place in the baseline scenario associated with the uncontrolled leakage of methane in the mine
	Consumption of electricity due to mining	CO2	Included	Leakages due to baseline activity
	Use of other types of energy resources due to mining	CO2	Excluded	These leakages are not significant,and also for reasons of conservatism, they are excluded from consideration.



This project will result in a net change in fugitive methane emissions due to the mining activities. Source of the leakage is the fugitive methane emissions due to coal mining and electricity consumption due to coal mining. As coal in the baseline scenario is only coming from mines it causes fugitive emissions of methane. These are calculated as standard country specific emission factor applied to the amount of coal that is extracted from the waste heaps in the project scenario (which is the same as the amount of coal that would have been mined in the baseline scenario). For the further information on data and information that will be collected in order to monitor leakage effects of the project refer to section D.1.3.1 of the PDD version 2.0.

Electricity consumption and related greenhouse gas emissions due to dismantling of waste heap to be taken into account in calculating the project emissions. Carbon dioxide emissions due to electricity consumption in the coal mine way in an amount, equivalent to the design of coal - a leakage, that can be taken into account at base of the State Statistics Committee data, concerning unit costs of electricity at coal mines in Ukraine in the relevant year.

Leakages due to consumption of other types of energy in coal mines are insignificant compared to the emissions due to electricity consumption, so in connection with this, and for reasons of conservatism, take them equal to zero.

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

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

The PDD provides estimates of:

(a) Emissions in the project scenario (within the project boundary), which are:

- 5989 tonnes of CO₂eq in 2008-2012;
- 19520 tonnes of CO₂eq in 2013-2022.

(b) Leakage, which is:

- - 1234497 tonnes of CO₂eq in 2008-2012;
- -3838440 tonnes of CO₂eq in 2013-2022.



DETERMINATION REPORT

(c) Emissions in the baseline scenario (within the project boundary), which are:

- 4079169 tonnes of CO₂eq in 2008-2012;
- 12763770 tonnes of CO₂eq in 2013-2022.

(d) Emission reductions adjusted by leakage (based on (a)-(c) above), which are:

- 5307677 tonnes of CO₂eq in 2008-2012;
- 16582690 tonnes of CO₂eq in 2013-2022.

The estimates referred to above are given:

- (a) On an annual basis;
- (b) From 01/01/2008 to 31/12/2022, covering the whole crediting period;
- (c) Based on primary sources;
- (d) For each GHG gas, such as CO₂;
- (e) In tonnes of CO₂ equivalent, using global warming potentials defined by decision 2/CP.3 or amended in accordance with Article 5 of the Kyoto Protocol.

Formulae for calculating the above estimations are given in section 4.7. All formulae are in the correct sequence and compliance across the PDD.

For calculating the estimates referred to above, key factors, e.g. energy prices and availability, market development influencing the baseline emissions and the activity level of the project and the emissions as well as risks associated with the project were taken into account, as appropriate.

Data sources used for calculating the estimates referred to above, such as feasibility studies, production forecasts, actual historical monitored data are clearly identified, reliable and transparent.

Emission factors, such as emission factor for electricity consumption, emission factor for diesel fuel and coal, were selected by carefully balancing accuracy and reasonableness, and appropriately justified of the choice.



DETERMINATION REPORT

The estimation referred to above is based on conservative assumptions and the most plausible scenarios in a transparent manner.

The estimates referred to above are consistent throughout the PDD.

The average annual emission reduction estimations over the crediting period are calculated by dividing the total estimated emission reductions over the crediting period by the total number of months of the crediting period, and multiplying by twelve.

Detailed algorithms of calculations and their results are described in section D, E and supporting documents to the PDD.

4.10 Environmental impacts (48)

Sections F.1. and F.2. of the PDD provide information about the documentation that contains the analysis of environmental impacts caused by the project, including the transboundary impact, in accordance with procedures defined by the Host Party.

The PDD provides conclusion and all references to supporting documentation of an environmental impact assessment undertaken in accordance with the procedures as required by the host Party.

A more detailed environmental impact is described below:

On the territory of industrial site and adjacent areas the topsoil was exposed to repeated contamination and destruction. In this regard, its natural structure is broken and there is no productivity. Most of the land is occupied by coal mining waste resulting in that the soil processes are absent. Soil from excavation will be used for cover access road. To ensure proper sanitary conditions at the site of designed buildings the greening (planting grass, trees) of the territory is being planned.

During the exploitation of the designed object the following main waste will be generated: coal (rock) enrichment waste. Waste coal (rock) will be temporarily stored on the premises in specially equipped areas and then forwarded to specialized enterprises with the aim to be used for road construction.

After a waste heap is processed, the land underneath is remediated and returned to the economic use. Technological process is environmentally sound and does not require any use of hazardous materials.

Impacts on flora and fauna are insignificant. The design documentation demands re-cultivation of the landscape. Grass and



DETERMINATION REPORT

trees will be planted on the re-cultivated areas in order to prevent flora and fauna degradation. No rare or endangered species will be impacted. Project activity is not located in the vicinity of national parks or protected areas.

Noise impact is limited. Main source of noise will be located at the minimum required distance from residential areas, mobile noise sources (automobile transport) will be in compliance with local standards.

Impact on air is the main environmental impact of the project activity. Dust emissions due to the erosion and project activity such as loading and offloading operations of input rock and processed coal will be limited. Also emissions from transport will be present during the project operation stage. The impact will not exceed maximum allowable concentration at the edge of the sanitary zone.

Beside the positive effect on the global climate protection, no transboundary impacts occur.

4.11 Stakeholder consultation (49)

Since the project activities do not imply any negative environmental impact and negative social effect, special public discussions were not necessary.

The project has been introduced to the Ukrainian Government and local authorities with a PIN. The authorities analyzed the project and the Letter of Endorsement has been issued by the State Environmental Investment Agency of Ukraine.

All comments relating to the project implementation were positive. No negative comments were received.

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) (write "Not applicable" in this session if the project is programme of activities)

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 «Waste Heap Dismantling in Sverdlovsk district of Luhansk Region of Ukraine with the Aim of Reducing Greenhouse Gases Emissions into the Atmosphere» Project in Ukraine. 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.

The additionality of the project has been assessed through provision of traceable and transparent information showing that the same approach for additionality demonstration has already been taken in cases for which determination is deemed final and which can be regarded as comparable, as suggested in item “b)” of Paragraph 44 of “Guidance on criteria for baseline setting and monitoring” version 03. The PDD identifies a comparable project, demonstrates that the identified project is a comparable project (to be) implemented under comparable circumstances, and provides justification, that determination for a comparable project is relevant for the project at hand.

Emission reductions that occur due to the project are therefore additional to those that would have occurred without the project activity. On condition of the introduction and implementation of the project according to the design decision, the project is likely to reach 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 fulfillment of stated criteria. In our opinion, the project correctly applies and meets the relevant UNFCCC requirements for the JI and the relevant host country criteria.



DETERMINATION REPORT

The determination revealed one pending issue related to the current determination stage of the project: the written approval of the project by the host Country (Ukraine) wasn't obtained. If the written approval by the host Country is provided, it is our opinion that the project as described in the Project Design Document, version 2.0 dated 10/07/2012 meets all the relevant UNFCCC requirements for the determination stage and the relevant host Country criteria as well as expectations of the stakeholders.

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 CARBON MARKETING AND TRADING LTD that relate directly to the GHG components of the project.

- /1/ Project Design Document «Waste Heap Dismantling in Sverdlovsk district of Luhansk Region of Ukraine with the Aim of Reducing Greenhouse Gases Emissions into the Atmosphere» version 1.0 dated 06/06/2012
- /2/ Emission Reductions Calculation version 1.0 excel file dated 06/06/2012
- /3/ Project Design Document «Waste Heap Dismantling in Sverdlovsk district of Luhansk Region of Ukraine with the Aim of Reducing Greenhouse Gases Emissions into the Atmosphere» version 2.0 dated 10/07/2012
- /4/ Emission Reductions Calculation version 2.0 excel file dated 10/07/2012
- /5/ Letter of Endorsement #1847/23/7 dated 16/07/2012 issued by the State environmental Investment Agency of Ukraine
- /6/ National Inventory Report of Ukraine 1999-2010

Category 2 Documents:

Background documents related to the design and/or methodologies employed in the design or other reference documents.

- /1/ Photo – Power transformer
- /2/ Photo – Transformer room
- /3/ Photo - Transformer unit
- /4/ Photo – Electric meter type LZQJ-XC
- /5/ Photo – Measuring equipment unit
- /6/ Photo – Primary voltage terminal
- /7/ Photo – Electricity meter type LZQJ-XC, serial # 44009
- /8/ Photo – Electricity meter type LZQJ-XC, serial # 3311986
- /9/ Photo – Electricity meter type LZQJ-XC, serial # 3311986
- /10/ Order # 14 П dated 03/07/2012 on creation of special group for JI project realisation
- /11/ Certificate # UA-M1-/2-2073-2006 dated 22/11/2005 on strane gaige scale
- /12/ Acceptance certificate # 4500_74571 dated 15/09/2009
- /13/ Acceptance certificate # 4500_70298 dated 01/12/2010
- /14/ Agreement # 20/12 dated 20/12/2007 on scaling service
- /15/ Agreement dated 15/03/2010 on scaling service
- /16/ Laboratory attestation certificate dated 22/08/2011
- /17/ Certificate # UA-M1-/2-3073-2009 dated 08/10/2009 on strane gaige scale
- /18/ Certificate # UA-M1-/1-758-2009 dated 08/10/2009 on strane gaige scale
- /19/ Passport on tensometric scale type 60BA1П



DETERMINATION REPORT

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/ V. Kumonok – director of Small Private Commercial Production Company “SLAVUTICH”
- /2/ V. Holodnik – Head of production department
- /3/ V. Kornuhov – chief engineer of Small Private Commercial Production Company “SLAVUTICH”
- /4/ Tahir Musayev - representative of the project Developer CARBON MARKETING AND TRADING LTD
- /5/ Valentina Bubenok - representative of the project Developer CARBON MARKETING AND TRADING LTD.

APPENDIX A: DETERMINATION PROTOCOL

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

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
General description of the project				
Title of the project				
-	Is the title of the project presented?	Yes, the title of the project is provided	OK	OK
-	Is the sectoral scope to which the project pertains presented?	Sectoral scopes: 8 Mining/mineral product	OK	OK
-	Is the current version number of the document presented?	Yes, the current version is 1.0	OK	OK
-	Is the date when the document was completed presented?	The document was completed 06/06/2012	OK	OK
Description of the project				
-	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; b) Baseline scenario; and c) Project scenario (expected outcome, including a technical description)?	a) Coal- beds in Donetsk basin are interleaved with rock and are usually found every 20-40 m. Mining activities in such conditions result in vast amounts of matter being extracted and brought to the surface. Coal is separated from rock and this non-coal matter forms huge waste heaps of tailings found almost everywhere in Donbas b) Baseline scenario is the continuation of the	OK	OK



DETERMINATION REPORT

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		<p>current situation, which is the continuation of the situation before the project was installed, without beneficiation plant and waste heap dismantling.</p> <p>c) The project activity will prevent greenhouse gas emissions into the atmosphere during combustion of the heaps and will contribute an additional amount of coal, without the need for mining. The Project includes the installation of coal extraction units and the grading of the extracted coal. Extracted coal is then sold for heat and power production.</p>		
-	Is the history of the project (incl. its JI component) briefly summarized?	Yes, the history of the project is briefly summarized	OK	OK
Project participants				
-	Are project participants and Party(ies) involved in the project listed?	Parties involved: Ukraine (host party), The Netherlands	OK	OK
-	Is the data of the project participants presented in tabular format?	Yes, the data of the project participants is presented in tabular form	OK	OK
-	Is contact information provided in Annex 1 of the PDD?	Yes, the contact information is provided in Annex 1 of the PDD	OK	OK
-	Is it indicated, if it is the case, if the Party involved is a host Party?	Yes, Ukraine is the host party	OK	OK
Technical description of the project				



DETERMINATION REPORT

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
Location of the project				
-	Host Party(ies)	Ukraine	OK	OK
-	Region/State/Province etc.	Luhansk region	OK	OK
-	City/Town/Community etc.	Sverdlovsk town	OK	OK
-	Detail of the physical location, including information allowing the unique identification of the project. (This section should not exceed one page)	The geographic coordinates of the site are: 48°6' 26.13" N, 39°32' 15.53" E	OK	OK
Technologies to be employed, or measures, operations or actions to be implemented by the project				
-	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?	<p>Yes, technologies to be implemented are described.</p> <p style="text-align: center;">CAR01</p> <p>Please add implementation schedule in section A.4.2.</p> <p style="text-align: center;">CL01</p> <p>Please explain why the following equipment is not included in beneficiation complex: conveyor SR-70, conveyor belt LK 650, dewatering roar GIL-32.</p> <p style="text-align: center;">CAR02</p> <p>Please correct units through the section A.4.2, i.e. measurement units of the equipment characteristics.</p> <p style="text-align: center;">CL02</p> <p>Please clarify for which purposes the trenches are being used.</p> <p style="text-align: center;">CAR03</p>	<p>CAR01</p> <p>CL01</p> <p>CAR02</p> <p>CL02</p> <p>CAR03</p> <p>CAR04</p>	OK



DETERMINATION REPORT

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		<p>Please provide passport on jigging machine MO1 10U with elevator.</p> <p style="text-align: center;">CAR04</p> <p>Please note that new waste heaps and new beneficiation complexes that can be put into operation would definitely lead to changes of project boundaries, but not some description to the monitoring reports. For detail information refer to PROCEDURES REGARDING CHANGES DURING PROJECT IMPLEMENTATION (Version 01). Hence realization of actions mentioned in the end of section A.4.2. will result in redetermination of the project.</p>		
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				
-	Is it stated how anthropogenic GHG emission reductions are to be achieved? (This section should not exceed one page)	Emission reductions due to the implementation of this project will come from three major sources: 1. Removing the source of green-house gas emissions from the burning / slow burning waste heap by the extraction of non-combusted coal contained in a waste heap; 2. Negative leakage through reduced fugitive emissions of methane due to the replacement of	OK	OK



DETERMINATION REPORT

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
		coal that would have been mined, by the coal extracted from the heap under the project activity. 3. Reduce electricity consumption at waste heap dismantling in comparison with energy consumption at coal mining.		
-	Is it provided the estimation of emission reductions over the crediting period?	Yes, the estimation of the emission reduction is provided over the crediting period	OK	OK
-	Is it provided the estimated annual reduction for the chosen credit period in tCO ₂ e?	Yes, the estimated annual reduction for the chosen credit period is provided in tCO ₂ e	OK	OK
-	Are the data from questions above presented in tabular format?	Yes, the data from questions above is presented in tabular format	OK	OK
Estimated amount of emission reductions over the crediting period				
-	Is the length of the crediting period Indicated?	Yes, the length of crediting period is provided in section A.4.3.1.	OK	OK
-	Are estimates of total as well as annual and average annual emission reductions in tonnes of CO ₂ equivalent provided?	Yes, estimates of total as well as annual and average annual emission reductions are provided in tonnes of CO ₂ equivalent.	OK	OK
Project approvals by Parties				
19	Have the DFPs of all Parties listed as "Parties involved" in the PDD provided written project approvals?	CAR05 Please provide LoA	CAR05	Pending
19	Does the PDD identify at least the host Party as a "Party involved"?	The Host Party (Ukraine) is a Party involved.	OK	OK



DETERMINATION REPORT

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
19	Has the DFP of the host Party issued a written project approval?	See section 19	Pending	Pending
20	Are all the written project approvals by Parties involved unconditional?	This issue will be clarified after the determination process will be finished and written approvals from parties involved will be obtained.	OK	OK
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 – Any other form of project participant authorization in writing, explicitly indicating the name of the legal entity?	After finishing of project determination report, the PDD with supporting documents and Determination Report will be presented to State Environmental Investment Agency of Ukraine for receiving the Letter of Approval that will authorize project participants.	OK	OK
Baseline setting				
22	Does the PDD explicitly indicate which of the following approaches is used for identifying the baseline? – JI specific approach – Approved CDM methodology approach	PDD explicitly indicates that JI specific approach is used for identifying the baseline	OK	OK
JI specific approach only				
23	Does the PDD provide a detailed	Yes, the PDD provides a detailed theoretical	OK	OK



DETERMINATION REPORT

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	theoretical description in a complete and transparent manner?	description in a complex and transparent manner.		
23	<p>Does the PDD provide justification that the baseline is established:</p> <p>(a) By listing and describing plausible future scenarios on the basis of conservative assumptions and selecting the most plausible one?</p> <p>(b) Taking into account relevant national and/or sectoral policies and circumstance?</p> <p>– Are key factors that affect a baseline taken into account?</p> <p>(c) In a transparent manner with regard to the choice of approaches, assumptions, methodologies, parameters, data sources and key factors?</p> <p>(d) Taking into account of uncertainties and using conservative assumptions?</p> <p>(e) In such a way that ERUs cannot be earned for decreases in activity levels outside the project or due to force majeure?</p> <p>(f) By drawing on the list of standard variables contained in appendix B to</p>	<p>Yes, the PDD provides justification that the baseline is established:</p> <p>a)By listing and describing plausible future scenarios on the basis of conservative assumptions and selecting the most plausible one</p> <p>b)Taking into account relevant national and/or sectoral policies and circumstance</p> <p>c)In a transparent manner with regard to the choice of approaches, assumptions, methodologies, parameters, data sources and key factors</p> <p>d)Taking into account of uncertainties and using conservative assumptions</p> <p>e)In such a way that ERUs cannot be earned for decreases in activity levels outside the project or due to force majeure</p> <p>f) By drawing on the list of standard variables contained in appendix B to “Guidance on criteria for baseline setting and monitoring”, as appropriate</p> <p>For details see section B.1.</p>	OK	OK



BUREAU
VERITAS

DETERMINATION REPORT

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	“Guidance on criteria for baseline setting and monitoring”, as appropriate?			
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?	As indicated in the PDD no CDM methodologies or methodological tools are used for baseline choice, justification and settings, because among the methodologies approved by the CDM Executive Board there is none fully matching the proposed JI project	OK	OK
25	If a multi-project emission factor is used, does the PDD provide appropriate justification?	Multi-project emission factor is not used for this project.		
Approved CDM methodology approach only_Paragraphs 26(a) – 26(d)_Not applicable				
Additionality				
JI specific approach only				
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 most recent version of the “Tool for the demonstration and assessment of additionality” (allowing for a two-month grace period) was used in PDD.	OK	OK



DETERMINATION REPORT

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	<p>the project will lead to emission reductions or enhancements of removals;</p> <p>(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;</p> <p>(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”.</p>			
29 (a)	Does the PDD provide a justification of the applicability of the approach with a clear and transparent description?	Yes, the PDD provides a justification of the applicability of the approach with a clear and transparent description.	OK	OK
29 (b)	Are additionality proofs provided?	Yes, the additionality proofs are provided. See section B.1. for details.	OK	OK
29 (c)	Is the additionality demonstrated appropriately as a result?	Yes, the additionality demonstrated appropriately as a result. The “Tool for the demonstration and assessment of additionality” was used.	OK	OK
30	If the approach 28 (c) is chosen, are all	Yes, all explanations, descriptions and analyses	OK	OK



DETERMINATION REPORT

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	explanations, descriptions and analyses made in accordance with the selected tool or method?	are made in accordance with the selected tool.		
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?	The PDD project boundary defined in the PDD encompasses all anthropogenic emissions by sources of GHGs that are: - Gas emissions from the burning / slow burning waste heap by the extraction of non-combusted coal contained in a waste heap; - Negative leakage through reduced fugitive emissions of methane due to the replacement of coal that would have been mined, by the coal extracted from the heap under the project activity - Reduce electricity consumption at waste heap dismantling in comparison with energy consumption at coal mining	OK	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?	The project boundary is defined on the basis of a case-by-case assessment with regard to the criteria referred to in 32(a) above	OK	OK
32 (c)	Are the delineation of the project boundary and the gases and sources included appropriately described and	CAR06 Please update explanation below figure 6 in the readable manner.	CAR06	OK



DETERMINATION REPORT

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	justified in the PDD by using a figure or flow chart as appropriate?			
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?	Yes, all gases and sources included are explicitly stated, and the exclusions of any sources related to the baseline or the project are appropriately justified	OK	OK
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 day of the project is 15/11/2007. This date is the date of commissioning of the main equipment. CAR07 Please provide commissioning act that justifies this date.	CAR07	OK
34 (a)	Is the starting date after the beginning of 2000?	Yes, the starting date is after the beginning of 2000.	OK	OK
34 (b)	Does the PDD state the expected operational lifetime of the project in years and months?	The lifetime of the project is estimated to last until the end of 2022. The operational lifetime of the project will be 15 years or 180 months. CL03 Please clarify what kind of data was used for estimation of the operational lifetime of the project.	CL03	
34 (c)	Does the PDD state the length of the crediting period in years and months?	Yes, length of the first crediting period: 5 years or 60 months.	OK	OK



DETERMINATION REPORT

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
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?	The starting date of the crediting period is 01/01/2008 – the date when the first ERUs were generated by the project.	OK	OK
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?	The PDD states 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.	OK	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?	Yes, the crediting period extends beyond 2012 and the PDD states that the extension is subject to the host Party approval. The estimates of emission reductions presented separately for those until 2012 and those after 2012.	OK	OK
Monitoring plan				
35	Does the PDD explicitly indicate which of the following approaches is used? – JI specific approach – Approved CDM methodology approach	The PDD explicitly indicates that JI specific approach is used.	OK	OK
JI specific approach only				
36 (a)	Does the monitoring plan describe:	Yes, the monitoring plan describes all relevant	OK	OK



DETERMINATION REPORT

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	<ul style="list-style-type: none"> - 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? 	factors and key characteristics that will be monitored, period in which they will be monitored. For details see table 7 in section D.1. of the PDD.		
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?	<p>Yes, the monitoring plan specifies the indicators, constants and variables used that are reliable, valid and provides transparent picture of the emission reductions to be monitored.</p> <p style="text-align: center;">CAR08</p> <p>Please add appropriate value of parameters taken from NIR 1990-2010 of Ukraine for 2010. Add those values through all section D.1. where it is needed, correct column of data source to National Inventory report of Ukraine 1990-2010.</p> <p style="text-align: center;">CAR09</p> <p>Please correct data source as per CAR above in Annex 2 BASELINE INFORMATION.</p>	CAR08 CAR09	OK
36 (b)	<p>If default values are used:</p> <ul style="list-style-type: none"> - 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 	<p>Yes, the default values are used:</p> <ul style="list-style-type: none"> - Accurately and reasonably; - Values originate from recognized source; - The default values are supported by statistical analyses providing reasonable confidence levels; - The default values are presented in a 	CL04	OK



BUREAU
VERITAS

DETERMINATION REPORT

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	reasonable confidence levels? – Are the default values presented in a transparent manner?	transparent manner. CL04 Please clarify why the project is referred to the second class of electricity consumption.		
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?	Yes, some values and parameters are determined only once (thus remain fixed through the crediting period), other data and parameters are monitored through the crediting period.	OK	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?	Yes, it is clearly stated from which source these values are taken. Moreover, the conservativeness of the values is provided	OK	OK
36 (b) (iii)	For all data sources, does the monitoring plan specify the procedures to be followed if expected data are unavailable?	CAR10 Please add the description of the procedure to be followed if expected data are unavailable.	CAR10	OK
36 (b) (iv)	Are International System Unit (SI units) used?	Yes, the International System Unit (SI units) are used.	OK	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?	The monitoring plan doesn't note any parameters that are required for baseline calculations but obtained through monitoring.	OK	OK



DETERMINATION REPORT

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
36 (b) (v)	Is the use of parameters, coefficients, variables, etc. consistent between the baseline and monitoring plan?	Yes, the use of parameters, coefficients, variables, etc. is consistent between the baseline and monitoring plan.	OK	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"?	The monitoring plan draws on the list of standard variables contained in appendix B of "Guidance on criteria for baseline setting and monitoring".	OK	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? (iii) Data and parameters that are monitored throughout the crediting period?	The monitoring plan explicitly and clearly distinguishes: 1. Data and parameters that are not monitored throughout the crediting period, but are determined only once (and thus remain fixed throughout the crediting period); 2. 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; 3. Data and parameters that are monitored throughout the crediting period; For details see table 7 in section D.1. of the PDD.	OK	OK
36 (e)	Does the monitoring plan describe the	Yes, the monitoring plan describes the methods	OK	OK



DETERMINATION REPORT

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	methods employed for data monitoring (including its frequency) and recording?	employed for data monitoring (including its frequency) and recording.		
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?	Yes, the monitoring plan elaborates all algorithms and formulae used for the calculation of baseline emissions and project emissions, leakages, as appropriate.	OK	OK
36 (f) (i)	Is the underlying rationale for the algorithms/formulae explained?	The underlying rationale for the formulae is explained.	OK	OK
36 (f) (ii)	Are consistent variables, equation formats, subscripts etc. used?	Variables, equation formats subscripts are used in consistent way.	OK	OK
36 (f) (iii)	Are all equations numbered?	All equations are numbered.	OK	OK
36 (f) (iv)	Are all variables, with units indicated defined?	All variables with units indicated are defined.	OK	OK
36 (f) (v)	Is the conservativeness of the algorithms/procedures justified?	The conservativeness of the algorithms is justified.	OK	OK
36 (f) (v)	To the extent possible, are methods to quantitatively account for uncertainty in key parameters included?	Yes, the level of uncertainty of parameters is provided in table D.2 of the section D.1.5.	OK	OK
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?	There is consistency between the elaboration of the baseline scenario and the procedure for calculating the emissions of the baseline scenario.	OK	OK



DETERMINATION REPORT

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
36 (f) (vii)	Are any parts of the algorithms or formulae that are not self-evident explained?	All the parts of used formulae are explained.	OK	OK
36 (f) (vii)	Is it justified that the procedure is consistent with standard technical procedures in the relevant sector?	Yes, that procedure is consistent with standard technical procedure of waste heaps dismantling in Ukraine.	OK	OK
36 (f) (vii)	Are references provided as necessary?	Yes, the references are provided as necessary.	OK	OK
36 (f) (vii)	Are implicit and explicit key assumptions explained in a transparent manner?	Implicit and explicit key assumptions are explained in a transparent manner.	OK	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?	In the project design document there is no information about significant uncertainty level of assumptions and procedures.	OK	OK
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 of key parameters is described and, where possible, an uncertainty range at 95% confidence level for key parameters for the calculation of emission reductions is provided	OK	OK
36 (g)	Does the monitoring plan identify a national or international monitoring standard if such standard has to be and/or is applied to certain aspects of	Monitoring plan does not identify a national or international monitoring standard	OK	OK



DETERMINATION REPORT

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	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?	Not applicable for given JI project.	OK	OK
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?	Yes, the comprehensive data are provided in table D.2. of the PDD. CAR11 It is stated in table D.2. that company uses data of laboratory. Please provide the copy of contract on laboratory services.	CAR11	OK
36 (j)	Does the monitoring plan clearly identify the responsibilities and the authority regarding the monitoring activities?	Yes, the monitoring plan clearly identifies the responsibilities and the authority regarding the monitoring activities.	OK	OK
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	Yes, there are a lot of projects that are similar to this particular project.	OK	OK



DETERMINATION REPORT

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	practice guidance developed by IPCC applied?			
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?	Presented in the PDD monitoring plan provides 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. Data connected with baseline scenario and emission reduction calculation are stated in tabular format in section D of the PDD.	OK	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?	CAR12 Please indicate in the section D that the data monitored and required for ERUs calculation will be kept during two years after the last ERUs transfer with reference on relevant order of company.	CAR12	
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?	No selected elements or combinations of approved CDM methodologies were used for monitoring plan establishing.	OK	OK
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				



DETERMINATION REPORT

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
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?	The PDD appropriately describes an assessment of the potential leakage of the project and appropriately explains which sources of leakage are to be calculated, and which can be neglected. Source of the leakage is the fugitive methane emissions due to coal mining. Please, refer to section B.3 of the PDD for detailed information	OK	OK
40 (b)	Does the PDD provide a procedure for an ex ante estimate of leakage?	The PDD indicates that assessment of emission reductions in baseline scenario and in the project scenario was chosen.	OK	OK
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	The PDD indicates that assessment of emission reductions in baseline scenario and in the project scenario was chosen	OK	OK
43	If the approach (a) in 42 is chosen, does the PDD provide ex ante estimates of:	PDD provides ex ante estimates of: (a) Emissions for the project scenario (within the project boundary)	OK	OK



DETERMINATION REPORT

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	(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 project boundary)? (d) Emission reductions or enhancements of net removals adjusted by leakage?	(b) Leakage (c) Emissions for the baseline scenario (within the project boundary) (d) Emission reductions adjusted by leakage		
44	If the approach (b) in 42 is chosen, does the PDD provide ex ante estimates of: (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?	Not applicable	OK	OK
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-	The baseline emissions and project emissions are given on a periodic basis from the beginning to the end of the crediting period for each year. Baseline and project emissions are carried out for CO ₂ as GHG gas. Formulae used for calculating the estimates that	OK	OK



DETERMINATION REPORT

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	<p>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 and transparent? (e) Are emission factors (including default emission factors) if used for calculating the estimates in 43 or 44</p>	<p>are indicated in section D and section E are consistent throughout the PDD and calculation Excel spreadsheets. As there was already mentioned above, data sources used for calculating the estimates are clearly identified. Among key factors influencing the baseline emissions or the activity level of the project as well as risks associated with the project the Carbon Emission Factor for electricity is taken into account. The emission factor of Ukrainian grid used for calculation the estimates in the JI project is selected with appropriate accuracy. Choice of emission factor is justified in the project design documents. Conservative assumptions are taken into account while estimating emission reduction. Tables with calculation results of CO₂ emission reductions are provided in the PDD. As a fact, estimated total value of CO₂ emission reductions for the first crediting period is 5307677 tonnes CO₂ equivalent; moreover, estimated total value of CO₂ emission reductions for the period 2013-2022 is 16582690 tonnes CO₂ equivalent.</p>		



BUREAU
VERITAS

DETERMINATION REPORT

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	<p>selected by carefully balancing accuracy and reasonableness, and appropriately justified of the choice?</p> <p>(f) Is the estimation in 43 or 44 based on conservative assumptions and the most plausible scenarios in a transparent manner?</p> <p>(g) Are the estimates in 43 or 44 consistent throughout the PDD?</p> <p>(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?</p>			
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?	The calculations of the baseline emissions and project emissions are to be performed ex post. Also, ex ante calculation of emissions is provided in the PDD. All estimated values are presented in section E of the PDD and Excel spreadsheets.	OK	OK
Approved CDM methodology approach only Paragraphs 47(a) – 47(b)_Not applicable				
Environmental impacts				
48 (a)	Does the PDD list and attach	The proposed project in general has a positive	OK	OK



DETERMINATION REPORT

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	documentation on the analysis of the environmental impacts of the project, including transboundary impacts, in accordance with procedures as determined by the host Party?	impact on environment so it is not subject to special ecological examination. See section F.1 for details		
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?	See section 48(b).	OK	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 Host Party doesn't require stakeholders' consultation process for the JI project. No stakeholders' comments connected with JI project were obtained. Also, stakeholders' comments will be collected during the determination procedure.	OK	OK


**BUREAU
VERITAS**

DETERMINATION REPORT

DVM Paragraph	Check Item	Initial finding	Draft Conclusion	Final Conclusion
	the comments have been addressed?			
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 and Clarification Requests

Draft report clarifications and corrective action requests by determination team	Ref. to checklist question in table 1	Summary of project participant response	Determination team conclusion
CAR01 Please add implementation schedule in section A.4.2	-	Implementation schedule is add in section A.4.2 PDD	The issue is closed
CL01 Please explain why the following equipment is not included in beneficiation complex: conveyor SR-70, conveyor belt LK 650, dewatering roar GIL-32	-	The mentioned equipment is included in beneficiation complex. Information is corrected in PDD.	The issue is closed
CAR02 Please correct units through the section A.4.2, i.e. measurement units of the equipment characteristics	-	Corrected.	The issue is closed



DETERMINATION REPORT

CL02 Please clarify for which purposes the trenches are being used.	-	Purposes for which the trenches are being used are added.	The issue is closed
CAR03 Please provide passport on jiggling machine MO1 10U with elevator	-	Passport is provided.	The issue is closed
CAR04 Please note that new waste heaps and new beneficiation complexes that can be put into operation would definitely lead to changes of project boundaries, but not some description to the monitoring reports. For detail information refer to PROCEDURES REGARDING CHANGES DURING PROJECT IMPLEMENTATION (Version 01). Hence realization of actions mentioned in the end of section A.4.2. will result in redetermination of the project	-	Thank you, we will take the note.	The issue is closed
CAR05 Please provide LoA	19	LoA of the host party will be provided after determination report presented to SEIA..	The issue is pending
CAR06 Please update explanation below figure 6 in the readable manner	32(c)	Explanation below figure 6 is renovated.	The issue is closed
CAR07 Please provide commissioning act that justifies this date.	34(a)	Commissioning act is provided.	The issue is closed



DETERMINATION REPORT

<p style="text-align: center;">CL03</p> <p>Please clarify what kind of data was used for estimation of the operational lifetime of the project.</p>	34(b)	<p>The nominal lifetime of beneficiation plant is 25 years. The real average lifetime of the equipment is estimated to be up to 30 – 40 years. Thus the expected operational lifetime of the project may be about 30 years.</p> <p>Expecting that the end of the 2nd commitment period will be 31/12/2012, data 31/12/2012 was used for estimation</p>	The issue is closed
<p style="text-align: center;">CAR08</p> <p>Please add appropriate value of parameters taken from NIR 1990-20010 of Ukraine for 2010. Add those values through all section D.1. where it is needed, correct column of data source to National Inventory report of Ukraine 1990-2010</p>	34(b)	<p>Appropriate value of parameters taken from NIR 1990-2010 of Ukraine for 2010 was corrected.</p>	The issue is closed
<p style="text-align: center;">CAR09</p> <p>Please correct data source as per CAR above in Annex 2 BASELINE INFORMATION</p>	34(b)	Corrected.	The issue is closed



DETERMINATION REPORT

<p>CL04 Please clarify why the project is referred to the second class of electricity consumption.</p>	36(b)	2 nd class of electricity consumption was chosen according to the Procedure for determining the classes of consumers, approved by the National Electricity Regulatory Commission of Ukraine from August 13, 1998 № 1052 that contract with indication class of electric energy consumers between Vesta-Dnipro and electric energy supply company.	The issue is closed
<p>CAR10 Please add the description of the procedure to be followed if expected data are unavailable</p>	36 (b) (iii)	The description of the procedure to be followed if expected data are unavailable is provided in section D.1.	The issue is closed
<p>CAR11 It is stated in table D.2. that company uses data of laboratory. Please provide the copy of contract on laboratory services</p>	36 (i)	The copy of contract on laboratory services is provided.	The issue is closed
<p>CAR12 Please indicate in the section D that the data monitored and required for ERUs calculation will be kept during two years after the last ERUs transfer with reference on relevant order of company</p>	36(m)	The data monitored and required for ERUs calculation will be kept during two years after the last ERUs transfer in accordance with special order #14P dated 03/07/2012 Slavutich Ltd. Order is given to determinator.	The issue is closed