

TÜV Rheinland Group

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# **VERIFICATION REPORT**

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## **Verification of the Joint Implementation Project**

**“Dismantling of waste heap # 2 at mine # 22  
“LISOVA””**

ITL Project ID: UA1000329

Initial and first periodic verification:  
23/10/2009 – 29/02/2012

Report #TRU047JI – VR1  
Revision #02

**Customer: SIA “Vidzeme Eko”**

## VERIFICATION REPORT

<u>Date of first issue:</u> 14/05/2012	<u>Project No.:</u> TRU147JI ITL Project ID: UA1000329
<u>Executor:</u> TÜV Rheinland Group	<u>Organizational unit:</u> TÜV Rheinland Ukraine Ltd.
<u>Customer:</u> SIA “Vidzeme Eko”	<u>Client ref.:</u> Gennadiy Ivanenko

Summary:

TÜV Rheinland Group/TÜV Rheinland Ukraine has performed the initial and first periodic verification of emission reductions generated by the JI project “Dismantling of waste heap #2 at mine #22 “Lisova”” (ITL Project ID UA1000329) for the period from 23/10/2009 till 29/02/2012.

The purpose of verification is to assess the reductions in anthropogenic emissions by sources or enhancements of anthropogenic removals by sinks generated by a JI project and reported by the project participants through the monitoring report in accordance with paragraph 37 of the JI guidelines.

In our opinion, the emission reductions reported through the monitoring report, version 2.0 dated 21/05/2012 are fairly stated and are accurate and free of material errors, omissions, or misstatements.

During the monitoring period the project has been implemented in accordance with the project design document version 2.0 dated 03/05/2012.

The emission reductions were calculated correctly on the basis of the approved monitoring plan contained in the project design document version 2.0 dated 03/05/2012.

TÜV Rheinland Group/TÜV Rheinland Ukraine is able to verify that the emission reductions generated by the JI project “Dismantling of waste heap #2 at mine #22 “Lisova”” during the period from 23/10/2009 till 29/02/2012 amount to 1 141 813 tonnes of CO<sub>2</sub> equivalent.

<u>Report No.:</u> TRU047JI – VR1	<u>Subject Group:</u> JI	
<u>Project title:</u> Dismantling of waste heap # 2 at mine # 22 “Lisova”		
<u>Work carried out by:</u> Mr. Dmitry Rakovich – Team Leader, Climate Change Verifier Ms. Ganna Zadnipriana - Climate Change Verifier		
<u>Work verified by:</u> Ms. Iryna Nikolaieva - Internal technical reviewer, Climate Change Verifier		
<u>Verification Report approved by:</u> Prof., dr. Valery Yakubovsky – Technical Competence Center Director		
<u>Date of this revision:</u> 21/05/2012	<u>Revision No.:</u> 02	<u>Number of pages:</u> 35



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## Abbreviations

CO <sub>2</sub>	Carbon Dioxide
CH <sub>4</sub>	Methane
N <sub>2</sub> O	Nitrogen Oxide
AIE	Accredited Independent Entity
BE	Baseline Emission
CAR	Corrective Action Request
FAR	Forward Action Request
CDM	Clean Development Mechanism
CL	Clarification Request
DR	Document Review
EIA	Environmental Impact Assessment
ERU	Emission Reduction Unit
FAR	Forward Action Request
GHG	Greenhouse Gas
I	Interview
JI	Joint Implementation
JISC	Joint Implementation Supervisory Committee
LoA	Letter of Approval
LoE	Letter of Endorsement
MoV	Means of Verification
MP	Monitoring Plan
OSV	On Site Visit
PDD	Project Design Document
PE	Project Emissions
SD	Supporting documentation
STHS	Stakeholder Survey
t	tonne
UNFCCC	United Nations Framework Convention on Climate Change

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## 1. VERIFICATION OPINION

TÜV Rheinland Group/TÜV Rheinland Ukraine has performed the initial and first periodic verification of the emission reductions generated by the JI project “Dismantling of waste heap # 2 at mine # 22 “Lisova”” (ITL Project ID UA1000329) for the period from 23/10/2009 till 29/02/2012.

The project participants are responsible for the collection of data in accordance with the monitoring plan and the reporting of emission reductions generated by the project.

It is responsibility of TÜV Rheinland Group/TÜV Rheinland Ukraine to express an independent verification opinion - conclusion on the verified amount of emission reductions generated by the project and reported by the project participants through the monitoring report, version 2.0 dated 21/05/2012.

TÜV Rheinland Group/TÜV Rheinland Ukraine has assessed the monitoring report on the basis of the monitoring plan contained in the registered project design document version 2.0 dated 03/05/2012 and the monitoring report version 2.0 dated 21/05/2012.

The verification included the assessment of:

- project implementation in accordance with the project design document (PDD);
- compliance with the monitoring plan;
- calculation of emission reductions and expression of a conclusion with a reasonable level of assurance about whether the reported emission reductions data are accurate and free of material errors, omissions, or misstatements;
- quality and management of data and verification that reported emission reductions data is sufficiently supported by evidence.

TÜV Rheinland Group/TÜV Rheinland Ukraine verification approach draws on an understanding of the risks associated with reporting of GHG emission data and the controls in place to mitigate these. TÜV Rheinland Group/TÜV Rheinland Ukraine planned and performed the verification by obtaining evidence information and explanations that TÜV Rheinland Group/TÜV Rheinland Ukraine considers necessary to give reasonable assurance that reported emission reductions are fairly stated, accurate and free of material errors, omissions, or misstatements.

In TÜV Rheinland’s Group/TÜV Rheinland’s Ukraine opinion the emission reductions generated by the JI project “Dismantling of waste heap # 2 at mine # 22 “Lisova”” (ITL Project ID UA1000329) for the period from 23/10/2009 till 29/02/2012 are fairly stated, accurate and free of material errors, omissions, or misstatements in the monitoring report, version 2.0 dated 21/05/2012.

The GHG emission reductions were calculated correctly on the basis of the registered project design document version 2.0 dated 03/05/2012.

TÜV Rheinland Group/TÜV Rheinland Ukraine is able to verify that the emission reductions generated by the JI project “Dismantling of waste heap #2 at mine #22 “Lisova”” (ITL Project ID UA1000329) for the period from 23/10/2009 till 29/02/2012 amount 1 141 813 tonnes of CO<sub>2</sub> equivalent.

## 2. INTRODUCTION

SIA “Vidzeme EKO” has commissioned TÜV Rheinland Group/TÜV Rheinland Ukraine to carry out the verification of the JI project “Dismantling of waste heap # 2 at mine # 22 “Lisova”” (hereinafter “project”) for the period from 23/10/2009 till 29/02/2012. This report contains the findings from the verification and conclusion on the verified amount of emission reductions (verification opinion).

### 2.1 Objective

The verification is the periodic independent review and *ex post* verification by an Accreditation Independent Entity (AIE) of the monitored reductions in GHG emissions that have occurred as a result of a Joint Implementation (JI) project activity during a defined verification period.

The purpose of the verification is to assess the reductions in anthropogenic emissions by sources or enhancements of anthropogenic removals by sinks generated by a JI project and reported by the project participants through the monitoring report in accordance with paragraph 37 of the JI guidelines. The objective of this verification was to verify emission reductions generated by the JI project “Dismantling of waste heap #2 at mine #22 “Lisova”” for the period from 23/10/2009 till 29/02/2012.

TÜV Rheinland Group/TÜV Rheinland Ukraine is an Accredited Independent Entity by the Joint Implementation Supervisory Committee.

### 2.2 Scope

The scope of this verification is the assessment of:

- project implementation in accordance with the project design document (PDD);
- compliance with the monitoring plan, including the revision of the monitoring plan;
- calculation of emission reductions and expression of a conclusion with a reasonable level of assurance about whether the reported emission reduction data are accurate and free of material errors, omissions, or misstatements;
- quality and management of data and verification that reported emission reduction data is sufficiently supported by evidence.

The verification is not meant to provide any consulting towards the Client.

However, stated requests for clarifications and/or corrective actions, forward action requests may provide input for corrective actions in order to provide for more accurate future monitoring and reporting.

### 2.3 JI Project Description

The brief information regarding the project activity is provided in table 1.

**Table 1 - JI project brief information**

<b>Project Parties involved:</b>	1. Ukraine (host Party). 2. Republic of Latvia
<b>Title of the project:</b>	Dismantling of waste heap # 2 at mine # 22 “Lisova”
<b>Type of JI activity:</b>	Large-scale
<b>ITL Project ID:</b>	UA1000329
<b>Baseline and monitoring methodology:</b>	JI specific approach
<b>Project entity participant:</b>	SIA “Vidzeme Eko”
<b>Other project participants:</b>	LLC «Trading House «Metalprom»
<b>Location of the project:</b>	Ukraine, Donetsk region, Torez district, Urban village Pelagyivka
<b>Crediting period of the project:</b>	23/10/2009 – 31/12/2012
<b>Period verified in this report:</b>	23/10/2009 – 29/02/2012
<b>Period verified in previous verification report:</b>	N/A

Proposed project provides a complete dismantling of the dump at mine # 22 “LISOVA”, followed by reclamation of land by restoring the fertile layer. During dismantling of dump the rock mass of dump will be fully utilized, and the received coal will replace coal, which must be produced by mine way. As the result of project, the opportunity of self - ignition of heap will be eliminated.

During dismantling of dump it will be dismantling of the rock mass by special technics, loading into trucks, and transportation to the beneficiation factory LLC "PC" Donetsk coal fuel" for further enrichment, in which the coal concentrate will be obtained. This product is further directed to boiler houses for burning as fuel. Thus, rock mass of dump will be fully utilized, and the received coal will replace coal, which must be produced by mine way. As the result of project, the opportunity of self-ignition of heap will be eliminated. An important component of the project is its second phase - complex reclamation of area by restoring its fertile layer and the full restoration of natural ecological community.

The proposed project is aimed at reducing anthropogenic emissions created by:

- Eliminate sources of greenhouse gases associated with burning waste heaps, by extracting coal from the rock dumps;
- Reduce uncontrolled emissions of methane due to replacement of coal that would have been extract mine way;
- Reduce electricity consumption at waste heap dismantling in comparison with electricity consumption at coal mine.

The project has been registered as Track 1 JI project with the PDD version 2.0 dated 03/05/2012. The documentation on the project including the PDD, approval by the host Party, Determination report is available at:

<http://ji.unfccc.int/JIITLProject/DB/YOG1RHBX2UD6R5ZG9QTB84MT26WITY/details>

### 3. METHODOLOGY

The verification process has been carried out using internal procedures of TÜV Rheinland Group/TÜV Rheinland Ukraine. In order to ensure transparency, a Verification protocol (Annex A to Verification report) was customized for the project, according to the Annex to “Joint Implementation Determination and Verification Manual”, version 01. The Verification protocol shows, in a transparent manner, criteria (requirements) and results of verification.

The verification consists of the following three phases:

- I) a desk review of the monitoring report including analysis of the compliance of the monitoring plan with the monitoring methodology;
- II) follow-up interviews with project stakeholders including on site visit;
- III) the resolution of outstanding issues and the issuance of the final verification report and opinion.

The following subsections outline each step in more detail.

#### 3.1 Desk review

Project participants provided TÜV Rheinland Group/TÜV Rheinland Ukraine all the necessary documents for document review. The monitoring report version 1.0 dated 07/04/2012 was assessed as part of the verification. In addition, the project’s Project Design Document version 2.0 dated 03/05/2012 and project’s Determination Report No. #TRU047JI – DR dated 03/05/2012 were also reviewed. Supporting documents, such as, sales invoice, contract with beneficiation factory, quality certificate of coal, passports of measuring equipment etc. were available during on site visit.

The information and formulae provided in the monitoring report was compared with PDD and stated data sources.

To address TÜV Rheinland Group/TÜV Rheinland Ukraine corrective action and clarification requests, project participants revised the monitoring report and resubmitted it as version 2.0 dated 21/05/2012.

The verification findings presented in this report relate to the monitoring report version 2.0 dated 21/05/2012 and project as described in the PDD version 2.0 dated 03/05/2012.



The following tables outline the documentation reviewed during the verification. Documents provided by LLC «Trading House «Metalprom» and SIA “Vidzeme Eko” that relate directly to the components of the project are indicated in table 2. Background documents related to the monitoring and/or methodologies employed in the monitoring or other reference documents are provided in table 3.

**Table 2 - Category 1 Documents**

No.	Title of the document
/1/	PDD “Dismantling of waste heap # 2 at mine # 22 “Lisova””, version 2.0 dated 03/05/2012 .
/2/	Determination report of the project “Dismantling of waste heap # 2 at mine # 22 “Lisova”” version 02 dated 06/04/2012
/3/	Monitoring report, version 1.0 dated 26/04/2012.
/4/	Monitoring report, version 2.0 dated 21/05/2012.
/5/	Emission reduction calculation spreadsheet (Calculation1MR_xlsx).
/6/	Emission reduction calculation spreadsheet (Calculation2MR_xlsx).
/7/	“Joint implementation determination and verification manual”, version 01, JISC.
/8/	“Guidance on Criteria for Baseline Setting and Monitoring”, version 03, JISC.
/9/	National Inventory Report of Ukraine 1990 – 2009
/10/	Letter of Approval from SEIA of Ukraine #1221/23/7 from 10/05/2012
/11/	Letter of approval from Republic of Latvia #12.2-02/7838/7753 from 11/05/2012

**Table 3 - Category 2 Documents**

No	Name of document
/1/	Delivery and Acceptance act from 23/10/2009 between LLC "GP "Ecobezpeka" and LLC "Trading House "Metalprom"
/2/	Contract # 2009-10-196 from 23/10/2009 between LLC "GP " Ecobezpeka " and LLC "Trading House "Metalprom"
/3/	Contract # 2009-10-201 from 23/10/2009 between PE "Stroymechanizatsiya" and LLC "Trading House "Metalprom"
/4/	Supply Agreement from 10/11/2009 between LLC "Trading House "Metalprom" and LLC "PROMEKORESURS"
/5/	Contract of service providing # 183-14/10/2009 from 26/10/2009 weighing between PE "Stroymechanizatsiya" and LLC " Trading House "Metalprom"
/6/	Passport of the waste heap at mine #22 "Lisova" n / c "Torezantratsyt."

/7/	Contract # 24/10/09P 24/10/2009 between LLC " Trading House "Metalprom" and "PC "Donetsk coal fuel"
/8/	Certificate of metrological attestation №259 of 21.07.2011, the scales of automobile electronic tenzometric VTA-60 № 070900966
/9/	Certificate of metrological attestation №288 of 08.08.2010, the scales of automobile electronic tenzometric VTA-60 № 070900966
/10/	Certificate of metrological attestation №321 of 04.08.2009, the scales of automobile electronic tenzometric VTA-60 № 070900966
/11/	Delivery and Acceptance act of rock mass from 30/11/2009 to Contract number 24/10/09П from 10/24/2009 on 68435.065 tons
/12/	Delivery and Acceptance act of coal from 30.11.2009 to the Contract number 24/10/09П from 24/10/2009 on 22813.075 tons
/13/	The balance of processing raw materials to the contract number 24/10/09П from 24/10/2009 for November 2009
/14/	Delivery and Acceptance act of rock mass from 31.12.2009 to Contract number 24/10/09П from 10/24/2009 on 72 105.125 tons
/15/	Delivery and Acceptance act of coal from 31.12.2009 to the Contract number 24/10/09П from 24/10/2009 on 27 146.245 tons
/16/	The balance of processing raw materials to the contract number 24/10/09П from 24/10/2009 for December 2009
/17/	Delivery and Acceptance act of rock mass from 01/01/2010 – 31/12/2010 to Contract number 24/10/09П from 10/24/2009 on 610 543.185 tons
/18/	Delivery and Acceptance act of coal from 01/01/2010 – 31/12/2010 to the Contract number 24/10/09П from 24/10/2009 on 194 608.93 tons
/19/	The balance of processing raw materials to the contract number 24/10/09П from 24/10/2009 from January to December 2010
/20/	Delivery and Acceptance act of rock mass from 01/01/2011 – 31/12/2011 to Contract number 24/10/09П from 10/24/2009 on 674 850.35 tons
/21/	Delivery and Acceptance act of coal from 01/01/2011 – 31/12/2011 to the Contract number 24/10/09П from 24/10/2009 on 226 750 tons
/22/	The balance of processing raw materials to the contract number 24/10/09П from 24/10/2009 from January to December 2011
/23/	Delivery and Acceptance act of rock mass from 31.01.2012 to Contract number 24/10/09П from 10/24/2009 on 93 222.125 tons
/24/	Delivery and Acceptance act of coal from 31.01.2011 to the Contract number 24/10/09П from 24/10/2009 on 34 721.135 tons
/25/	The balance of processing raw materials to the contract number 24/10/09П from 24/10/2009 for January 2012
/26/	Delivery and Acceptance act of rock mass from 29.02.2012 to

	Contract number 24/10/09П from 10/24/2009 on 91 015.015 tons
/27/	Delivery and Acceptance act of coal from 29.02.2012 to the Contract number 24/10/09П from 24/10/2009 on 30 489.305 tons
/28/	The balance of processing raw materials to the contract number 24/10/09П from 24/10/2009 for February 2012
/29/	Delivery and Acceptance act of performed work (#150, 153) for November – December 2009
/30/	Calculation of the cost to the act of performed work (#150, 153) for November – December 2009
/31/	Delivery and Acceptance act of performed work (#25, 39, 54, 65, 79, 82, 96, 112, 135. 145, 159, 171) for January – December 2010
/32/	Calculation of the cost to the act of performed work (#25, 39, 54, 65, 79, 82, 96, 112, 135. 145, 159, 171) for January – December 2010
/33/	Delivery and Acceptance act of performed work (#21, 39, 42, 54, 68, 75, 84, 112, 123, 148, 173, 184) for January – December 2011
/34/	Calculation of the cost to the act of performed work (#21, 39, 42, 54, 68, 75, 84, 112, 123, 148, 173, 184) for January – December 2011
/35/	Delivery and Acceptance act of performed work (#21, 35) for January – February 2012
/36/	Calculation of the cost to the act of performed work (#21, 35) for January – February 2012

### 3.2 Interviews with project stakeholders

TÜV Rheinland Group/TÜV Rheinland Ukraine performed interviews with project stakeholders to confirm selected information and to resolve issues identified in the document review. Interviewed representatives of LLC « Trading House «Metalprom», PE "Stroymechanizatsiya", LLC "PC "Donetsk coal fuel" and SIA “Vidzeme Eko” are summarized in Table 4. The main topics of the interviews are summarized in Table 5.

**Table 4 - Persons interviewed**

No.	Name	Position	Organization
/1/	Gennadiy V. Ivanenko	Project developer	SIA “Vidzeme Eko”
/2/	Sergiy P. Tymofiiv	Consultant	SIA “Vidzeme Eko”
/3/	Yuriy M. Stach	Consultant	SIA “Vidzeme Eko”
/4/	Gazyzov Roman V.	Director	LLC "Trading House "Metalprom"

No.	Name	Position	Organization
/5/	Melnikov Mikhail Y.	Chief engineer	LLC "Trading House "Metalprom"
/6/	Potapova Julia V.	Economist	LLC "Trading House "Metalprom"
/7/	Hrechuh Vladislav E.	Chief mechanic	PE" Stroymehanizatsiya"
/8/	Horoshkevych Anton G	Weigher	PE "Stroymehanizatsiya"
/9/	Chegen Oleg N.	Chief engineer	LLC "PC "Donetsk coal fuel"

**Table 5 - Interview topics**

No.	Date	Interviewed organization	Interview topics
/1/	10/05/2012	SIA “Vidzeme Eko”	<ul style="list-style-type: none"> <li>· Baseline methodology</li> <li>· Reporting and calculation of emission reductions</li> <li>· QA/QC of the project</li> <li>· Project management</li> <li>· Monitoring plan</li> <li>· Revision of the monitoring plan</li> <li>· Monitoring report</li> <li>· Deviations from PDD</li> </ul>
/2/	10/05/2012	LLC « Trading House «Metalprom»	<ul style="list-style-type: none"> <li>· Organizational structure</li> <li>· Responsibilities and authorities</li> <li>· Monitoring equipment</li> <li>· Quality management procedures and technology</li> <li>· Roles and responsibilities for data collection and processing</li> <li>· Installation of equipment</li> <li>· Data logging, archiving, and reporting</li> <li>· Metering equipment control</li> <li>· Metering record keeping system, database</li> <li>· Training of personnel</li> <li>· Internal audits and check-ups</li> </ul>
/3/	10/05/2012	LLC "Trading House "Metalprom"	<ul style="list-style-type: none"> <li>· Monitoring equipment</li> <li>· Quality management procedures and technology</li> <li>· Roles and responsibilities for data collection and processing</li> <li>· Data logging, archiving, and reporting</li> </ul>
/4/	10/05/2012	PE	<ul style="list-style-type: none"> <li>· Technical equipment</li> </ul>

No.	Date	Interviewed organization	Interview topics
		"Stroymechanizatsiya"	<ul style="list-style-type: none"> <li>· Monitoring plan</li> <li>· Training of personnel</li> <li>· Organizational structure</li> </ul>

### 3.3 Resolution of Clarification, Corrective and Forward Action Requests

Where TÜV Rheinland Group/TÜV Rheinland Ukraine, in assessing the monitoring report and supporting documents, identifies issues that need to be corrected, clarified or improved with regard to the monitoring requirements, it should raise these issues and inform the project participants of these issues in the form of:

- Corrective action request (CAR), requesting the project participants to correct a mistake that is not in accordance with the monitoring plan;
- Clarification request (CL), requesting the project participants to provide additional information for the AIE to assess compliance with the monitoring plan;
- Forward action request (FAR), informing the project participants of an issue, relating to the monitoring that needs to be reviewed during the next verification period.

The verification of the project resulted in 11 Corrective action requests and 6 Clarification requests. There was 1 unresolved Forward action request from determination of the project.

TÜV Rheinland Group/TÜV Rheinland Ukraine made an objective assessment as to whether the actions taken by the project participants and presented in the Table 2 (Annex A to Verification report) satisfactorily resolve the raised issues and concluded its findings of the verification.

### 3.4 Internal Technical Review

The verification report including the verification findings underwent a technical review before requesting the publication according to paragraph 37 of the JI guidelines. The technical review was performed by an internal technical reviewer qualified in accordance with TÜV Rheinland Group/TÜV Rheinland Ukraine qualification scheme for JI project determination and verification.

### 3.5 Verification team

The verification team consists of the following personnel indicated in Table 6 below.

**Table 6 - Verification team**

Role	Name	Country	Type of work					
			Desk Review	Site Visit	Reporting	Supervision	Technical Review	Expert Input
Team Leader/Climate Change Verifier	Dmitry Rakovich	Ukraine	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>
Climate Change Verifier	Ganna Zadnipriana	Ukraine	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>
Technical Reviewer	Iryna Nikolaieva	Ukraine					<input checked="" type="checkbox"/>	
Technical Competence Center Director	Valery Yakubovsky	Ukraine				<input checked="" type="checkbox"/>		

#### 4. VERIFICATION FINDINGS

This section summarizes the findings from the verification of the emission reductions generated by the JI project “Dismantling of waste heap # 2 at mine # 22 “Lisova”” (ITL: UA1000329) for the period from 23/10/2009 till 29/02/2012.

##### 4.1 Project approval by Parties involved

In accordance with paragraphs 90 - 91 of the DVM the assessment of this area focuses on whether at least one written project approval by a Party involved in the JI project, other than the host Party(ies), has been issued by the DFP of that Party. It also should be assessed whether the written project approvals are unconditional.

A written project approval by Ukraine (host Party) is available:  
 Letter of Approval by the State Environmental Investment Agency of Ukraine ref. #1221/23/7 issued on 10/05/2012

Written project approval by a Party involved in JI project, other than the host Party was obtained – Letter of Approval from Republic of Latvia #12.2-02/7838/7753 from 11/05/2012.

Written project approvals are available at:

<http://ji.unfccc.int/JIITLProject/DB/YOG1RHBX2UD6R5ZG9QTB84MT26WITY/details>

The written project approvals mentioned above are unconditional.

Identified problem areas for project approval, project participants’ responses and conclusions of TÜV Rheinland Group/TÜV Rheinland Ukraine are described in Annex A to the Verification Report (refer to FAR 01 from Determination report).

## 4.2 Project implementation

In accordance with paragraphs 92 - 93 of the DVM the assessment of this area focuses on whether the project has been implemented in accordance with the PDD regarding which the determination has been deemed final and is so listed on the UNFCCC JI website. The status of operation of the project during the monitoring period also should be assessed.

The project has been implemented in accordance with the PDD version 2.0 dated 03/05/2012 regarding which the determination has been deemed final.

This JI project is registered as Track 1 project. The description of this project is available in section 2.3. of this Verification report.

17 of July 2008 – date of equipment start-up (this date is the start of crediting period);

Project was initiated in 23 of October 2009.

The beginning of waste heap dismantling is 23 of October 2009 (start of preparatory work).

The emission reductions generated by the JI project reported for the period from 23/10/2009 till 29/02/2012 amount to 1 141 813 tCO<sub>2</sub>e.

The verification team of TÜV Rheinland Group/TÜV Rheinland Ukraine can confirm, through the on-site visit that all physical features of the proposed JI project activity including data collecting and storage systems have been implemented, the project is completely operational and has been implemented as described in the registered PDD version 2.0 dated 03/05/2012 .

Identified problem areas for project implementation, project participants' answers and conclusions of TÜV Rheinland Group/TÜV Rheinland Ukraine are described in Annex A to the Verification Report (See Table 1 and Table 2 of this report).

## 4.3 Compliance with monitoring plan

In accordance with paragraphs 94 - 98 of the DVM the assessment of this area focuses on whether the monitoring occurred in accordance with the monitoring plan included in the PDD regarding which the determination has been deemed final and is so listed on the UNFCCC JI website.

The monitoring of the JI project occurred in accordance with the monitoring plan contained in the registered PDD, version 2.0 dated 03/05/2012.

For calculating the emission reductions key factors influencing the baseline emissions as well as risks associated with the project were taken into account, as appropriate. For more detailed information, please, refer to the determined and registered PDD, version 2.0 dated 03/05/2012.

All data sources used for calculating emission reductions are indicated in tables of the Monitoring Report, version 2.0 dated 21/05/2012.

The emission factor used to calculate emission reductions are selected in accordance with the registered PDD version 2.0 dated 03/05/2012. The choice of this emission factor is appropriately justified in the PDD version 2.0 dated 03/05/2012 and in general accuracy and reasonableness are carefully balanced.

The calculation of emission reductions is done based on conservative assumptions and the most plausible scenarios in a transparent manner. The calculation of the baseline emissions is based on the JI specific approach in accordance with the registered PDD version 2.0 dated 03/05/2012.

The calculation of emission reductions is done by subtracting the project emissions from the baseline emissions with additional negative leakage. The detailed calculation of GHG emission reductions for chosen monitoring period (23/10/2009 – 29/02/2012) is provided in supporting documentation.

Identified problem areas for compliance with monitoring plan, project participants' answers and conclusions of TÜV Rheinland Group/TÜV Rheinland Ukraine are described in Annex A to the Verification Report (See Table 1 and Table 2 of this report).

#### **4.4 Revision of monitoring plan**

If the project participants submitted to the AIE a revised monitoring plan, in accordance with paragraphs 99 - 100 of the DVM the assessment of this area focuses on whether the correct and complete justification for the proposed revision is provided, and whether the proposed revision improves the accuracy and/or applicability of information collected compared to the original monitoring plan without changing conformity with the relevant rules and regulations for the establishment of monitoring plans.

There was no revision to the monitoring plan. The monitoring of the JI project occurred in accordance with the monitoring plan contained in the registered PDD, version 2.0 dated 03/05/2012.

Identified problem areas for revision of monitoring plan, project participants' answers and conclusions of TÜV Rheinland Group/TÜV Rheinland Ukraine are described in Annex A to the Verification Report (See Table 1 and Table 2 of this report).

#### **4.5 Data Management**

In accordance with paragraph 101 of the DVM the assessment of this area focuses on the quality of the information using standard auditing techniques provided in the monitoring report by assessing whether the data and their sources are clearly identified, reliable and transparent.



Data collection procedure is carried out in accordance with the monitoring plan, including the quality control and quality assurance procedures and has been checked by the verification team on site visit. The monitoring plan is presented in section D of the registered PDD version 2.0 dated 03/05/2012. The data and their sources, provided in monitoring report, are clearly identified, reliable and transparent.

The evidence and records used for the monitoring are maintained in a traceable manner. Verification team got an access to all necessary data on monitoring system and emission reductions and received necessary evidence on site visit.

The data collection and management system for the project is in accordance with the monitoring plan as described in the registered PDD version 2.0 dated 03/05/2012.

Identified problem areas for data management, project participants’ answers and conclusions of TÜV Rheinland Group/TÜV Rheinland Ukraine are described in Annex A to the Verification Report (See Table 1 and Table 2 of this report).

#### **4.6 Assessment of data and calculation of greenhouse gas emission reductions**

The verification team of TÜV Rheinland Group/TÜV Rheinland Ukraine verified that all parameters are used correctly in the calculations, all results are verifiable and transparent, all assumptions are described and based on verifiable evidence and calculations are done in accordance with the pre-defined formulae from registered PDD version 2.0 dated 03/05/2012 .

According to the Monitoring Report, version 2.0 dated 03/05/2012 and GHG emission reductions calculation spreadsheet in Excel format the emissions for the project scenario, emissions for the baseline scenario and emission reductions for chosen monitoring period (23/10/2009 – 31/12/2012) are provided in table 7 below.

**Table 7 - Results for Emission Reductions for Monitoring Period**

<b>Monitoring Period:</b>	23/10/2009 – 29/02/2012
Emissions for the project scenario:	24 401 tCO <sub>2</sub> e
Leakage:	-252 603 tCO <sub>2</sub> e
Emissions for the baseline scenario:	913 611 tCO <sub>2</sub> e
Emission reductions:	1 141 813 tCO <sub>2</sub> e

#### **4.7 Remaining issues, CARs, FARs from previous determination/verification**

There was one pending issue remained from determination of the project:

**FAR 01.** *The Project hasn` t obtained Letters of Approval from the parties involved.*

During verification project participant has provided to AIE Letter of Approval from Host country (Ukraine) #1221/23/7 issued on 10 of May 2012 and from the foreign country (Republic of Latvia) #12.2-02/7838/7753 issued on 11 of May 2012.

The Forward Action Request (FAR 01) from determination has been closed.

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## VERIFICATION REPORT

**ANNEX A - VERIFICATION PROTOCOL**

Table 1 - Requirements Checklist

CHECKLIST QUESTION	DVM paragraph	Draft Conclusion	Action requested to project participants	Final Conclusion
<b>1. Project approvals by Parties Involved</b>				
1. 1. Has the DFPs of at least one Party involved, other than the host Party, issued a written project approval when submitting the first verification report to the secretariat for publication in accordance with paragraph 38 of the JI guidelines, at the latest?	90	The project has been approved by the DFPs of the Parties Involved and documentation is available:  1) Letter of Approval by Republic of Latvia #12.2-02/7838/7753 issued on 11 of May 2012  2) Letter of Approval by the Ukraine ref. #1221/23/7 issued on 10 of May 2012	-	<b>Issue is closed.</b>
1. 2. Are all the written project approvals by Parties involved unconditional?	91	All the written project approvals by Parties involved are unconditional. LLC “Trading House “Metalprom”” and SIA “Vidzeme Eko” legal entities authorized by the designated focal points of the Parties Involved to participate in the JI project.	-	OK
<b>2. Project implementation</b>				

## VERIFICATION REPORT

CHECKLIST QUESTION	DVM paragraph	Draft Conclusion	Action requested to project participants	Final Conclusion
2.1. Has the project been implemented in accordance with the PDD regarding which the determination has been deemed final and is so listed on the UNFCCC JI website?	92	The project has been implemented in accordance with the registered PDD version 2.0 dated 03/05/2012. This JI project is registered as Track 1 project and information is available (See Section 2.3 of this report).	-	OK
2.2. What is the status of operation of the project during the monitoring period?	93	<p>During the monitoring period that covers time period between the 23/10/2009 till 29/02/2012 the project operated as it was planned.</p> <p>Dismantling of the waste heap start on 23 of October 2009 in accordance with the registered PDD. The verification team has verified during the site visit that the complex of measures to processing of waste heap mass has been implemented as it described in PDD, beneficiation plant is working and evidence exists that project has operated during the whole monitoring period.</p>	<p><b>CL 01.</b> Explain why in the waste heap's passport noted that in 1975, waste heap was "burning".</p> <p><b>CAR 01.</b> Please correct the value of reducing greenhouse gas emissions from the PDD (page 5) according to the latest version 2.0 of the PDD 03.05.2012. Please explain the</p>	OK

## VERIFICATION REPORT

CHECKLIST QUESTION	DVM paragraph	Draft Conclusion	Action requested to project participants	Final Conclusion
			difference.	
<b>3. Compliance with monitoring plan</b>				
3.1. Did the monitoring occur in accordance with the monitoring plan included in the PDD regarding which the determination has been deemed final?	94	Yes. The monitoring occurred in accordance with the monitoring plan included in the determined PDD, available on the UNFCCC JI website: <a href="http://ji.unfccc.int/JIITLProject/DB/YOG1RHBX2UD6R5ZG9QTB84MT26WITY/details">http://ji.unfccc.int/JIITLProject/DB/YOG1RHBX2UD6R5ZG9QTB84MT26WITY/details</a> >	-	OK
3.2. For calculating the emission reductions or enhancements of net removals, were key factors, e.g. those listed in 23 (b) (i)-(vii) of DVM, influencing the baseline emissions or net removals and the activity level of the project and the emissions or removals as well as risks associated with the project taken into account, as appropriate?	95 (a)	For calculating the emission reductions key factors those who listed in 23 (b) (i)-(vii) above, influencing the baseline emissions as well as risks associated with the project were taken into account, as appropriate.  For more detailed information, please, refer to Section B.2. of the determined and registered PDD version 2.0.	-	OK
3.3. Are data sources used for calculating	95 (b)	All data sources used for calculating	<b>CAR 02.</b> Please	OK

## VERIFICATION REPORT

CHECKLIST QUESTION	DVM paragraph	Draft Conclusion	Action requested to project participants	Final Conclusion
emission reductions or enhancements of net removals clearly identified, reliable and transparent?		emission reductions are clearly identified, reliable and transparent.	<p>provide the calculation of electricity consumption for beneficiation plant, signed by a responsible person.</p> <p><b>CAR 03.</b> Please provide more detailed what expenses of diesel fuel included in the monitoring of project emissions.</p> <p><b>CL 02.</b> Explain are data from the automobile weight compare with the value in the factory acts involved for calculation of the average power consumption per ton of coal.</p>	

## VERIFICATION REPORT

CHECKLIST QUESTION	DVM paragraph	Draft Conclusion	Action requested to project participants	Final Conclusion
3.4. Are emission factors, including default emission factors, if used for calculating the emission reductions or enhancements of net removals, selected by carefully balancing accuracy and reasonableness, and appropriately justified of the choice?	95 (c)	The emission reductions calculated with using emission factor witch selected in accordance with the registered PDD ver. 2.0. and generally accuracy and reasonableness are carefully balanced.	<p><b>CL 03.</b> Explain whether the theoretical calculation of electricity consumption correspond to the actual consumption of electricity by the factory for the whole monitoring period.</p> <p><b>CL 04.</b> Explain how ash content, humidity and power consumption are taking into account in the acts for the whole volume of output per month.</p> <p><b>CL 05.</b> Explain to which class of electricity consumption</p>	OK

## VERIFICATION REPORT

CHECKLIST QUESTION	DVM paragraph	Draft Conclusion	Action requested to project participants	Final Conclusion
			consumers beneficiation plant is?  <b>CAR 04.</b> Please provide a certificate of coal quality obtained after enrichment moldboard mass of waste heap.	
3.5. Is the calculation of emission reductions or enhancements of net removals calculated based on conservative assumptions and the most plausible scenarios in a transparent manner?	95 (d)	<p>The calculation of emission reductions is done based on conservative assumptions and the most plausible scenarios in a transparent manner. Project emissions are presented as the sum of the emissions values by components of the coal extracting process. Project emissions are represented as diesel fuel consumption for cars.</p> <p>The calculation of the baseline emissions is based on the JI specific approach in accordance with the registered PDD and rests on the</p>	<p><b>CL 06.</b> Please explain what conservative assumptions were made in establishing the ratio of electricity consumption by beneficiation plant.</p> <p><b>CAR 05.</b> Please correct the formulas in Table. 9.</p>	OK



## VERIFICATION REPORT

CHECKLIST QUESTION	DVM paragraph	Draft Conclusion	Action requested to project participants	Final Conclusion
		correction factor for uncertainty of the waste heaps burning process. Coal level extracted from waste heap is assumed equal in both project and baseline scenario with a glance of humidity and ash content.		
<b>4. Applicable to JI projects only</b>				
4.1. Is the relevant threshold to be classified as JI project not exceeded during the monitoring period on an annual average basis?  If the threshold is exceeded, is the maximum emission reduction level estimated in the PDD for the JI project or the bundle for the monitoring period determined?	96	N/A	-	OK
<b>5. Revision of monitoring plan</b> <i>Applicable only if monitoring plan is revised by project participants</i>				
5.1. Did the project participants provide an appropriate justification for the proposed revision?	99 (a)	N/A	-	OK
5.2. Does the proposed revision improve the	99 (b)	N/A	-	OK

## VERIFICATION REPORT

CHECKLIST QUESTION	DVM paragraph	Draft Conclusion	Action requested to project participants	Final Conclusion
accuracy and/or applicability of information collected compared to the original monitoring plan without changing conformity with the relevant rules and regulations for the establishment of monitoring plans?				
<b>6. Data management</b>				
4.1. Is the implementation of data collection procedures in accordance with the monitoring plan, including the quality control and quality assurance procedures?	101 (a)	Data collection procedure is carried out in accordance with the monitoring plan, including the quality control and quality assurance procedures and has been checked by the verification team on-site. The monitoring plan is presented in the section D of the registered PDD ver.2.0. The verification team confirms effectiveness of existing management and operational systems and found them eligible for reliable project monitoring.	<b>CAR 06.</b> Please provide information about monitoring and archiving for date of power consumption in a beneficiation plant in tabular form.	OK
4.2. Is the function of the monitoring equipment, including its calibration status, is in order?	101 (b)	The monitoring equipment employed by the project has functioned in accordance with the monitoring plan and in general is in order. The verification team has verified that the	<b>CAR 07.</b> Please correct the name of the automobile scales (VTA) in the	OK

## VERIFICATION REPORT

CHECKLIST QUESTION	DVM paragraph	Draft Conclusion	Action requested to project participants	Final Conclusion
		reported metering devices are in fact installed and operational. The metering devices have appropriate documentation, such as passports and calibration certificates.	monitoring report. <b>CAR 08.</b> Please include into the list of third-party company SE "Standard" as involved in project activities.	
4.3. Are the evidence and records used for the monitoring maintained in a traceable manner?	101 (c)	The evidence and records used for the monitoring are maintained in a traceable manner. Verification team has got access to all necessary data on monitoring system and emission reductions and received necessary evidence on site. However, necessary data storage and archiving procedure for diesel parameter has not been defined in the monitoring plan and has not been presented in the PDD.  CAR	<b>CAR 09.</b> Provide supporting documents to AIE confirming monitoring data on diesel fuel, and acts on mobile weighing scales.	OK
4.4. Is the data collection and management system for the project in accordance with the	101 (d)	The data collection and management system for the project is in accordance with the monitoring plan as described	<b>CAR 10.</b> Correct title of Section B on page 6 of the	OK

## VERIFICATION REPORT

CHECKLIST QUESTION	DVM paragraph	Draft Conclusion	Action requested to project participants	Final Conclusion
monitoring plan?		<p>in the registered PDD section D.3. Roles and responsibilities of the technical staff in the framework of the monitoring are described in the monitoring report. The general monitoring management is implemented by the Director of the company LLC “Trading House “Metalprom”” through the supervision and coordination of the activities of his subordinates, such as the Chief Production Officer, Laboratorial Manager and Accountant. The responsibilities and authorities are described for each individual in job descriptions as required statutorily.</p>	<p>Monitoring Report.  <b>CAR 11.</b> Please correct fonts and intervals throughout the monitoring report.</p>	

## VERIFICATION REPORT

**Table 2 - Resolution of CARs, CLs and FARs**

No.	Type of request	Observation	Ref. to checklist question in table 1	Summary of project owner response	Verification team conclusion
1.	<b>FAR 01.</b>	The Project hasn't obtained Letters of Approval from the parties involved	90	During verification project participant has provided to AIE Letter of Approval from Host country (Ukraine) #1221/23/7 issued on 10 May 2012 and from the foreign country (Republic of Latvia) #12.2-02/7838/7753 issued on 11 May 2012.	<b>Issue is closed.</b> All letters from parties involved excepted and unconditional.
2.	<b>CAR 01.</b>	Please correct the value of reducing greenhouse gas emissions from the PDD (page 5) according to the latest version 2.0 of the PDD 03.05.2012. Please explain the difference.	93	The value of reducing greenhouse gas emissions from the PDD (page 5) according to the latest version 2.0 from 03.05.2012 PDD is corrected. The difference in values of emissions caused by use of value of carbon content in coal by the National Inventory Report of Ukraine 1990- 2010 years in the Table P2.41. under the item 1.A.1.a - «Production	<b>Issue is closed.</b>

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				of electricity and heat" that is equal to 25.99 TC / TJ instead of the value of the item 1.A.1.c - "Production of solid fuels and other energy industries " that is equal to 25.3, which according to explaining on page 93 of Report concerned the use of coal for production of other fuels and do not meet the project activity.	
3.	<b>CAR 02.</b>	Please provide the calculation of electricity consumption for beneficiation plant, signed by a responsible person.	95 (b)	Provided the calculation of energy consumption per tone of the finished product, signed by the chief engineer of beneficiation factory.	<b>Issue is closed.</b>
4.	<b>CAR 03.</b>	Please provide more detailed what expenses of diesel fuel included in the monitoring of project emissions.	95 (b)	In the monitoring of project emissions it included diesel fuel costs due to working of mining equipment on the dismantling dump, the cost of diesel fuel when transporting rocks at beneficiation factory and the transport of end product to Buyer - Donetsk enterprise JSC "Oblpalyvo".	<b>Issue is closed.</b>

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5.	<b>CAR 04.</b>	Please provide a certificate of coal quality obtained after enrichment moldboard mass of waste heap.	95 (c)	Quality certificates are provided to beneficiation plant by laboratory due to contract during a month and are owns of factory. On the basis of these certificates the factory provides for the customer monthly balance of processing raw materials with a full list of all parameters of concentrate obtained, it take full responsibility for the listed data.	<b>Issue is closed.</b>
6.	<b>CAR 05.</b>	Please correct the formulas in Table. 9.	95 (d)	Formulas in Table 9 are corrected.	<b>Issue is closed.</b>
7.	<b>CAR 06.</b>	Please provide information about monitoring and archiving for date of power consumption in a beneficiation plant in tabular form.	101 (a)	Enrichment plant is outside of the jurisdiction of LLC "Trade House" Metalprom". In this case the JI projects mechanism consider the cost of electricity at coal beneficiation as leakages, that are calculated on conservative assumptions, and are not subject to monitoring.	<b>Issue is closed.</b>
8.	<b>CAR 07.</b>	Please correct the name of the	101 (b)	The name of the automobile	<b>Issue is closed.</b>

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		automobile scales (VTA) in the monitoring report.		scales (VTA) in the monitoring report is corrected.	
9.	<b>CAR 08.</b>	Please include into the list of third-party company SE "Standard" as involved in project activities.	101 (b)	Firm SC "Standard", as engaged in project activities, added to the list of third parties.	<b>Issue is closed.</b>
10.	<b>CAR 09.</b>	Provide supporting documents to AIE confirming monitoring data on diesel fuel, and acts on mobile weighing scales.	101 (c)	Provided monthly acts of work performed by the contractor with the calculation of the cost of work performed, including specifying the cost of diesel fuel as well as acts of monthly weighing at truck scales.	<b>Issue is closed.</b>
11.	<b>CAR 10.</b>	Correct title of Section B on page 6 of the Monitoring Report.	101 (d)	Section title fixed: «Key monitoring activities»	<b>Issue is closed.</b>
12.	<b>CAR 11.</b>	Please correct fonts and intervals throughout the monitoring report.	101 (d)	Fonts and intervals throughout the Monitoring report are corrected.	<b>Issue is closed.</b>
13.	<b>CL 01.</b>	Explain why in the waste heap's passport noted that in 1975, waste heap was "burning".	93	A small center of fire, which appeared in 1975, was extinguished. Further fire was not happening, but the heap belongs to a class of dumps, prone to spontaneous	<b>Issue is closed.</b>



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				combustion.	
14.	<b>CL 02.</b>	Explain are data from the automobile weight compare with the value in the factory acts involved for calculation of the average power consumption per ton of coal.	95 (b)	These data coincide. In calculating the weighted average energy consumption by acts of acceptance of work resulting value is 14.94 kWh/ t. In the calculation of emissions adopted value of 15.0 kWh / t.	<b>Issue is closed.</b>
15.	<b>CL 03.</b>	Explain whether the theoretical calculation of electricity consumption correspond to the actual consumption of electricity by the factory for the whole monitoring period.	95 (c)	The theoretical calculation corresponds to the actual consumption of electricity for the entire factory monitoring period. This is demonstrated in acts of acceptance of the works.	<b>Issue is closed.</b>
16.	<b>CL 04.</b>	Explain how ash content, humidity and power consumption are taking into account in the acts for the whole volume of output per month.	95 (c)	Ash content, humidity, and power consumption were taken into account, as a weighted average. Ash and moisture are not involved in calculating of emissions. Coal grade A, which is obtained due to beneficiation contract, by ISO 4083-2002 has a lower calorific value, which is not lower than 21.72 GJ / t This	<b>Issue is closed.</b>

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				value is higher than the value 21.6 GJ / t, which is displayed in the National Inventory Report 1990-2010. But, for reasons of conservatism, the project adopted value lower calorific value from the Report.	
17.	<b>CL 05.</b>	Explain to which class of electricity consumption consumers beneficiation plant is?	95 (c)	Benefication Plant Ltd. "PC" Donetsk coal fuel "refers to second-class consumers with monthly consumption less than 150 million kW-hr. As an example, electricity consumption in the beneficiation of coal for the project activity: Specific energy consumption - 15 kWh/t with Capacity - 200t/h. When working in three shifts per month will be consumed <b>15H200H24H30</b> = 2.16 million kWh of electricity, which is much less than required for transfer into the category of a 1 class of consumers.	<b>Issue is closed.</b>
18.	<b>CL 06.</b>	Please explain what conservative assumptions were made in establishing	95 (d)	When determining the cost of electricity consumption at	<b>Issue is closed.</b>

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		the ratio of electricity consumption by beneficiation plant.		beneficiation plant, there is calculated the electricity consumption due to maximum theoretically possible for this process work of equipment. In some cases, depending on the quality of rock, the needs of all park equipment (conveyors, centrifuges) was absent.	
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