

# VERIFICATION REPORT CEP CARBON EMISSIONS PARTNERS S.A.

## VERIFICATION OF THE JI PROJECT

## REDUCTION OF GREENHOUSE GAS EMISSIONS BY APPLICATION OF NO-TILL TECHNOLOGY AT LLC «KOZIIVSKE» FARMLANDS

Second periodic

for the period 01/01/2010 - 31/12/2011

REPORT NO. UKRAINE-VER/0870/2012/1

REVISION No. 02

**BUREAU VERITAS CERTIFICATION** 



## **VERIFICATION REPORT**

| Date of first issue: 27/12/2012 | Organizational unit: Bureau Veritas Certification Holding SAS |   |
|---------------------------------|---|---|
| Client:                         | Client ref.:  | ٦ |
| CEP CARBON EMISSIONS            | Fabian Knodel   |   |

Summary:

Bureau Veritas Certification has made the Second periodic verification for the period from January 1, 2010 to December 31, 2011 of the "Reduction of greenhouse gas emissions by application of No-till technology at LLC "Koziivske" farmlands" project of CEP CARBON EMISSIONS PARTNERS S.A., located in Krasnokutskyi district of Kharkiv region, Ukraine, and applying JI specific approach, 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 (but for the crediting period) refer to Article 6 of the Kyoto Protocol, the JI rules and modalities and the subsequent decisions by the JI Supervisory Committee, as well as the host country criteria.

The verification scope is defined as a periodic independent review and ex post determination by the Accredited Entity of the monitored reductions in GHG emissions during defined verification period, and consisted of the following three phases: i) desk review of the monitoring report against 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 verification report and opinion. The overall verification, from Contract Review to Verification Report & Opinion, was conducted using Bureau Veritas Certification internal procedures.

The first output of the verification process is a list of Clarification, Corrective Actions Requests, Forward Actions Requests (CR, CAR and FAR), presented in Appendix A.

In summary, Bureau Veritas Certification confirms that the project is implemented as planned and described in approved project design documents. Installed equipment that is essential for generating emission reduction runs reliably and is calibrated appropriately. The monitoring system is in place and the project is generating GHG emission reductions. The GHG emission reduction is calculated without material errors and the ERUs issued totalize 2 624 051 tonnes of CO2 equivalent for the monitoring period from 01/01/2010 to 31/12/2011.

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

| Report No.:   | Subjec          | t Group:            | 7    |   |
|---|-----------------|---------------------|------|---|
| UKRAINE-ver/0870/20   | 12/1 JI         |                     |      |   |
| Project title: Reduction of gre application of I "Koziivske" farml                        | No-till techr   |                     |      |   |
| Work carried out by: Viacheslav Yeriomir Change Lead Verifie Olena Manziuk - Ter Verifier | r               |                     |      |   |
| Work reviewed by:<br>Ivan Sokolov - Inter<br>Kateryna Zinevych -                          |                 | // // //            | on 🛛 | No distribution without permission from the Client or responsible organizational unit |
| Work approved by:<br>Ivan Sokolov – Ope   |                 | olding SAS<br>ger   |      | Limited distribution  |
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## 1 INTRODUCTION

CEP CARBON EMISSIONS PARTNERS S.A. has commissioned Bureau Veritas Certification to verify the emissions reductions of its JI project "Reduction of greenhouse gas emissions by application of No-till technology at LLC "Koziivske" farmlands" (hereafter called "the project") located in Krasnokutskyi district of Kharkiv region, Ukraine.

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

The verification covers the period from January 1, 2010 to December 31, 2011.

## 1.1 Objective

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

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

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

## 1.2 Scope

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

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

## 1.3 Verification Team

The verification team consists of the following personnel:

Oleg Skoblyk

Bureau Veritas Certification, Team Leader, Climate Change Lead Verifier

Volodymyr Kulish

Bureau Veritas Certification, Team Member, Climate Change Verifier

This verification report was reviewed by:



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Ivan Sokolov

Bureau Veritas Certification, Internal Technical Reviewer

## 2 METHODOLOGY

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

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

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

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

## 2.1 Review of Documents

The Monitoring Report (MR) submitted by CEP CARBON EMISSIONS PARTNERS S.A. and additional background documents related to the project design and baseline, i.e. country Law, Project Design Document (PDD), Approved CDM methodology, Determination Report of the project issued by Bureau Veritas Certification Holding SAS No. UKRAINE-det/0611/2012 as of 25/10/2012, Guidance on criteria for baseline setting and monitoring, Host party criteria, the Kyoto Protocol, Clarifications on Verification Requirements to be Checked by an Accredited Independent Entity were reviewed.

The verification findings presented in this report relate to the Monitoring Report for the period from 01/01/2010 to 31/12/2011 version 01 of December 18, 2012 version 02 of January 12, 2014 and version 03 of February 04, 2014 and the project as described in the determined PDD.

## 2.2 Follow-up Interviews

On 19/06/2014 Bureau Veritas Certification verification team conducted a visit to the project site (LLC «Koziivske») and performed (on-site) interviews with project stakeholders to confirm selected information and to resolve issues identified in the document review. Representatives of CEP CARBON EMISSIONS PARTNERS S.A. and LLC «Koziivske» were interviewed (see References). The main topics of the interviews are summarized in Table 1.

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|------------|-------------------------|
|------------|-------------------------|



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Table 1 Interview topics

| Interviewed o                           | rganization        | Interview topics   |
|---|--------------------|--|
| LLC «Koziivske                          | »»                 | <ul> <li>Organizational structure</li> <li>Responsibilities and authorities</li> <li>Personnel training</li> <li>Quality control procedures and technology</li> <li>Equipment use (records)</li> <li>Metering equipment control</li> <li>Metering record keeping system, database</li> </ul> |
| Consultant:<br>CEP<br>EMISSIONS<br>S.A. | CARBON<br>PARTNERS | <ul> <li>Baseline methodology</li> <li>Monitoring plan</li> <li>Monitoring report</li> <li>Deviations from the PDD</li> </ul>  |

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

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

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

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

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

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

## 3 VERIFICATION CONCLUSIONS

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

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



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The Clarification, Corrective and Forward Action Requests are stated, where applicable, in the following sections and are further documented in the Verification Protocol in Appendix A. The verification of the Project resulted in 7 Corrective Action Requests and 2 Clarification Requests.

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

## 3.1 Remaining issues and FARs from previous verifications

CAR 13 (lack of written approval from the Host party) that was raised at the determination stage was closed based on the provision of the Letter of Approval to Bureau Veritas Certification SAS.

## 3.2 Project approval by Parties involved (90-91)

The project was approved by the host Party (Ukraine) - the Letter of Approval No. 3712/23/7 dated 03/12/2012 issued by State Environmental Investment Agency of Ukraine. The project was also approved by the party – participant (Estonia) - Letter of Approval No. 12-1/10256-2dated 18/12/2012 issued by the Ministry of Environmental Protection of Estonia.

The abovementioned written approvals are unconditional.

The identified areas of concern as to the project approval by Parties involved, project participants responses and Bureau Veritas Certification's conclusions are described in Appendix A to this report (refer to CAR 01, CAR 02).

## 3.3 Project implementation (92-93)

The purpose of the Joint Implementation (JI) Project is to reduce anthropogenic greenhouse gas (GHG) emissions resulting from agricultural activities by changing the agricultural land management system, namely replacement of traditional soil tillage in agriculture with No-till technology.

In 2006, the Farm started to grow crops applying No-till technology (also referred to as "direct sowing technology"). This technology differs from the traditional technology because it provides for fewer technological procedures, which prevents the topsoil from a major disturbance, and it also differs with the way to utilize plant residues. The number of technological procedures of plant growing and harvesting is almost the same in the two technologies. The main difference is that the traditional technology provides for the processes of fertilizer application, land ploughing, cultivation, furrowing and seeding (multiple passage of the machinery in the field) direct sowing provides for simultaneous fertilizer application and sowing (single passage of the machinery).

In the absence of the Joint Implementation (JI) project LLC «Koziivske» would have used the traditional system of soil cultivation. This system involves tillage that provides for turning over of topsoil to create homogeneous and mellow seedbed. The basic operation causing CO<sub>2</sub> emissions is ploughing during which crop residues are buried in the soil and weeds are removed.



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The project provides for greenhouse gas (GHG) emission reductions due to:

reduction of carbon dioxide emissions from farmland achieved by reducing (almost zero) topsoil disturbance by tillage in the course of technological procedures of soil cultivation for crop growing.

The project implies the change in crops growing technology. This includes the following measures:

- change of soil cultivation and sowing technology;
- change of plant residue management;
- equipping the machine-tractor fleet with high-efficiency machinery to meet the No-till technology requirements.

The starting date of the crediting period is the date when the first emission reductions are expected to be generated, namely March 8, 2007.

The end date of the crediting period is the end date of the commitment period according to the Emission Reductions Purchase Agreement under which the project owner shall transfer to the buyer verified greenhouse gases emission reductions resulting from the project, which is 01/01/2013-31/12/2020.

Project implementation status, including the project milestones, in the reporting period of 01/01/2010 – 31/12/2011 is provided in Table 2 below.

**Table 2 Project implementation status** 

| Year | Area, ha  |
|------|-----------|
| 2010 | 10 966,00 |
| 2011 | 10 966,00 |

In the current monitoring period, the following equipment was commissioned:

- seed drills for direct seeding;
- special tractors;
- herbicide sprayers:
- seed and fertilizer drill systems;
- combine harvesters and other machinery required by the technology.

If a malfunction is detected, the technician informs the master of LLC "Koziivske". If the malfunction cannot be repaired immediately (absence of the required spare part, engine breakdown, etc.), a commission shall be created. The commission includes technical department representatives, chief engineer and lead engineers. Depending on the type of malfunction, a Damage or Emergency Report is drawn up to be submitted to the management of LLC "Koziivske"; repair of the equipment is conducted.

The resulting emission reductions from the project do not exceed the amount of emissions that would be in the absence of the project because the project does not provide for any emissions.

The project was in operation throughout the monitoring period - from 01/01/2010 to 31/12/2011.



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The identified areas of concern as to the project implementation, project participants responses and Bureau Veritas Certification's conclusions are described in Appendix A to this report (refer to CAR 03, CAR 04).

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

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.

For calculating the emission reductions, key factors, such as humus content in the soil of field *«i»* cultivated using traditional tillage in period *«y»*, soil density at field cultivated using traditional tillage prior to the project, depth of soil layer disturbance at field *«i»* when conventional tillage is applied, area of field *«i»* cultivated using No-till technology, humus content in the soil of field *«i»* cultivated using No-till technology in period *«y»*, experience in implementing activities provided by the project, current practice that exists in this field in Ukraine, financial costs and background and legislation, 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 emission reductions such as protocols soil quality measurements, registry of Farm's fields, information from the company and IPCC information are clearly identified, reliable and transparent.

Factors, including organic carbon to humus conversion coefficient and conservatism factor that takes account of possible emissions in the project scenario in the process of creation of anti-fire furrows and minimal topsoil disturbance in No-till technology, are selected by carefully balancing accuracy and reasonableness, and appropriately justified of the choice.

The calculation of emission reductions is based on conservative assumptions and the most plausible scenarios in a transparent manner.

The monitoring periods per component of the project are clearly specified in the monitoring report and do not overlap with those for which verifications were already deemed final in the past.

The identified areas of concern as to the compliance of the monitoring plan with the monitoring methodology, project participants responses and Bureau Veritas Certification's conclusions are described in Appendix A to this report (refer to CAR 05, CL 01).

## 3.5 Revision of monitoring plan (99-100)

Not applicable.



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## 3.6 Data management (101)

The data and their sources, provided in monitoring report, are clearly identified, reliable and transparent.

The implementation of data collection procedures is in accordance with the monitoring plan provided in the PDD, including the quality control and quality assurance procedures.

The function of the monitoring equipment, including its calibration status, is in order.

Metering devices used for project monitoring are subject to state calibration. Calibration and verification of all devices necessary for humus content measurement are conducted annually by Ukrainian State Centre for Standardization and Certification.

If necessary, John Deere specialists may be involved in adjustment of GreenStar2 system.

LLC "Koziivske" employees are subject to periodic testing for requirements:

- of data collection in accordance with the monitoring report (data collection in accordance with monitoring coincides with the customary data collection practice);
- of labour protection;
- of safety rules.

Every quarter, project developer CEP Carbon Emissions Partners S.A. conducts internal audit at LLC "Koziivske".

The plan of internal audit at LLC "Koziivske" includes the following activities:

- 1. verification of areas of fields where No-till technology is implemented;
- 2. verification of humus content measurements:
- 3. verification of verification frequencies for humus metering devices;
- 4. verification of calibration frequencies for humus metering devices;

To implement the project the operational structure was created; it includes LLC "Koziivske" agrotechnicians and engineers (responsible for accounting of area treated with No-till technology), National Research Centre "Farming Institute of the National Academy of Agrarian Sciences of Ukraine" (responsible for provision of agrochemical data for project monitoring), LLC "Koziivske" chief agrotechnician (recording and reporting data in the table), and LLC "Koziivske" manager (data processing and archiving). The data subject to monitoring and required for the determination and further verification are archived and stored in paper and electronic form at LLC "Koziivske" for two years after the transfer of emission reduction units generated by the project.

The structure of monitoring data collection is as follows:



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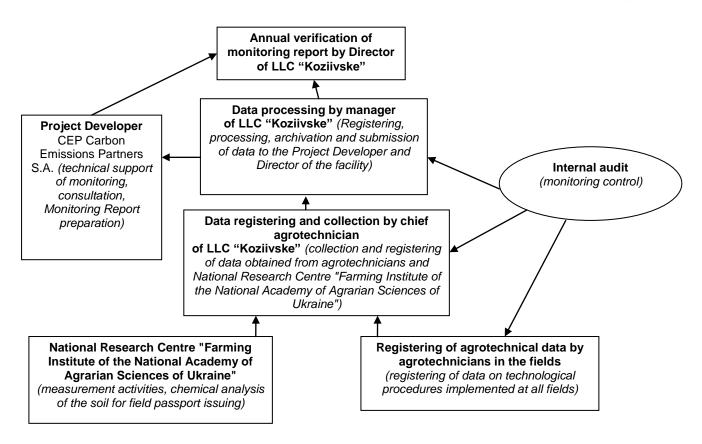


Figure 1 Operational structure and data collection scheme for the project monitoring

All necessary data concerning GHG emission reduction monitoring is archived in paper and/or electronic form and kept till the end of the crediting period and for two years after the latest transaction with emission reduction units.

The Monitoring Report version 03 provides sufficient information on duties assigned, responsibility and authorities concerning implementation and undertaking of monitoring procedures, including data management. The verification team confirms the efficiency of the existing management and operational systems and considers them appropriate for reliable project monitoring.

The identified areas of concern as to the data management, project participants responses and Bureau Veritas Certification's conclusions are described in Appendix A to this report (refer to CAR 06, CAR 07, CL 02).

## **3.7 Verification regarding programmes of activities (102-110)** Not applicable.



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## 4 VERIFICATION OPINION

Bureau Veritas Certification has performed the Second periodic verification for the period from January 1, 2010 to December 31, 2011 of the "Reduction of greenhouse gas emissions by application of No-till technology at LLC «Koziivske» farmlands" project in Ukraine, which applies JI specific approach. The verification was performed on the basis of UNFCCC criteria and host country criteria and also on the criteria given to provide for consistent project operations, monitoring and reporting.

The verification consisted of the following three phases: i) desk review of the monitoring report against 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 verification report and opinion.

LLC «Koziivske» management is responsible for the preparation of data which serve as the basis for estimation of GHG emission reductions. CEP Carbon Emissions Partners S.A provides LLC «Koziivske» with consultative support in the issues relating to organization of data collection and is responsible for developing the monitoring report based on the Project Monitoring Plan included in the final PDD version 02.

Bureau Veritas Certification verified the Project Monitoring Report version 03 for the reporting period from 01/01/2010 to 31/12/2011 as indicated below. Bureau Veritas Certification confirms that the project is implemented as per approved PDD version. Installed equipment being essential for generating emission reduction runs reliably and is calibrated appropriately. The monitoring system is in place and the project is generating GHG emission reductions.

Emission reductions achieved by the project for the period from 01/01/2010 to 31/12/2011 differ from the amount predicted for the same period in the determined PDD.

The difference is explained by the fact that at the time of the PDD development it was impossible to obtain accurate data necessary for the calculation of GHG emission reductions for the current period. In the process of the PDD development project area of LLC "Koziiivske" land for growing crops was not taken into account fully, due to the lack of comprehensive data on the land area of LLC "Koziiivske" as of the time of PDD writing. The values of humus content in the soil also changed. The cause of this is the fact that at the time of PDD (version 02) writing it was not possible to process a large amount of information that hadn't been provided to the company - PDD developer in full. NSC "Institute of Agriculture of NAAS of Ukraine", a third party was involved to determine the humus content in the soil for the current monitoring period. It provided the company-developer with a research report "The scientific rationale for the dynamics of humus in the soil of climatic zones for tillage and no-till technologies". According to a scientific report, the final data on characteristics of humus content in the soil of LLC "Koziiivske" lands was determined. This made it possible to determine the final data for the calculation of baseline emissions of greenhouse gases and reduction respectively. According to LLC "Koziivske" data depths of soil destruction by tillage were also



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specified. For calculating the GHG emission reductions for the current monitoring period all the necessary information was provided. This provided an opportunity to determine accurate amount of emissions in the baseline and project scenarios.

Bureau Veritas Certification can confirm that the GHG emission reduction is calculated without material misstatements. Our opinion relates to the project's GHG emissions and resulting GHG emissions reductions reported and related to the approved project baseline and monitoring, and its associated documents. Based on the information we have seen and evaluated, we confirm the following statement:

Reporting period: From 01/01/2010 to 31/12/2011

In the period from 01/01/2010 to 31/12/2011

Baseline emissions : 1 157 139 tonnes of CO2 equivalent.
Project emissions : 0 tonnes of CO2 equivalent.
Emission Reductions : 1 157 139 tonnes of CO2 equivalent.

In the period from 01/01/2009 to 31/12/2009

Baseline emissions : 1 466 912 tonnes of CO2 equivalent.
Project emissions : 0 tonnes of CO2 equivalent.
Emission Reductions : 1 466 912 tonnes of CO2 equivalent.

Total in the period from 01/01/2010 to 31/12/2011

Baseline emissions : 2 624 051 tonnes of CO2 equivalent.
Project emissions : 0 tonnes of CO2 equivalent.
Emission Reductions : 2 624 051 tonnes of CO2 equivalent.



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## 5 REFERENCES

## **Category 1 Documents:**

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

|       | Project Design Document of the JI project "Reduction of greenhouse gas                   |
|-------|--|
| /1/   | emissions by application of No-till technology at LLC «Koziivske» farmlands",            |
|       | version 02 dated 21/09/2012  |
|       | Monitoring Report of the JI project "Reduction of greenhouse gas emissions by            |
| /2/   | application of No-till technology at LLC «Koziivske» farmlands" for the period           |
|       | from 01/01/2010 to 31/12/2011 version 01 dated 18/12/2012                                |
| 10.1  | Monitoring Report of the JI project "Reduction of greenhouse gas emissions by            |
| /3/   | application of No-till technology at LLC «Koziivske» farmlands" for the period           |
|       | from 01/01/2010 to 31/12/2011 version 02 dated 12/01/2014                                |
| ,,,   | Monitoring Report of the JI project "Reduction of greenhouse gas emissions by            |
| /4/   | application of No-till technology at LLC «Koziivske» farmlands" for the period           |
|       | from 01/01/2010 to 31/12/2011 version 03 dated 04/02/2014                                |
| /5/   | Annex 1. Parameters of the Monitoring Plan   |
| /6/   | Annex 2. Calculation of CO <sub>2</sub> emission reductions by implementation of No-till |
|       | technology at LLC "Koziivske"  |
|       | Determination Report of the project "Reduction of greenhouse gas emissions               |
| /7/   | by application of No-till technology at LLC «Koziivske» farmlands" No.                   |
| , , , | UKRAINE-det/0611/2012 as of 25/10/2012 issued by Bureau Veritas                          |
|       | Certification  |
| /8/   | Letter of Approval issued by State Environmental Investment Agency of                    |
|       | Ukraine No. 3712/23/7 dated 03/12/2012   |
| /9/   | Letter of Approval No. 12-1/10256-2 issued by the Ministry of Environmental              |
| , 0,  | Protection of Estonia dated 18/12/2012   |

## **Category 2 Documents:**

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

| Financial leasing agreement on agricultural machinery       |
|---|
| No.2919L11/00-LD dated 22/07/2011                           |
| Financial leasing agreement on agricultural machinery       |
| No.LC4746-03/11 dated 28/03/2011                            |
| Financial leasing agreement on agricultural machinery       |
| No.LC4747-03/11 dated 28/03/2011                            |
| Agricultural machinery sale-purchase agreement No. 17/08/10 |
| dated 31/08/2010  |
| Certificate of machinery registration No. 10048XA (NEW      |
| HOLLAND T8050 wheel tractor)                                |
| Certificate of machinery registration No. 10047XA (NEW      |
|   |



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|      | HOLLAND T8050 wheel tractor)   |
|------|--|
| /7/  | Certificate of machinery registration No. 06260AX (Challanger MT865B tractor)  |
| /8/  | Certificate of machinery registration No. 06259AX (Challanger MT865B tractor)  |
| /9/  | Lease agreement on transport facility No. 0804 dated 08/03/2007 (Challenger MT865B tractor, Bourgault 8810-54/6350 seed drill)                                 |
| /10/ | Trasport facility delivery and acceptance certificate No. 08-04/2007 dated 08/03/2007 to Agreement No.0804   |
| /11/ | Register of lease agreements between individuals and LLC «Koziivske» as of 01/07/2012  |
| /12/ | Certificate of indicators of working depth during plowing of soil before the seeding of crops No. 2/01 as 10/01/2013   |
| /13/ | Certificate of the quantitative characteristics by crops processing No-till technology for farmlands of LLC «Koziivske» No. 3/01 as 10/01/2013                 |
| /14/ | Research report "The scientific rationale for the dynamics of humus in the soil of climatic zones for tillage and no-till technologies" No. 2201 as 22/01/2013 |

## Persons interviewed:

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

|     | Name                                 | Organization    | Position  |
|-----|--------------------------------------|-----------------|---|
| /1/ | Naidenko<br>Oleksandr<br>Viktorovych | LLC «Koziivske» | Director  |
| /2/ | Torianyk Oleh<br>Mykolaiovych        | LLC «Koziivske» | Chief accountant                                      |
| /3/ | Kuriavskyi Serhii<br>Arsentiiovych   | LLC «Koziivske» | Chief agronomist                                      |
| /4/ | Viunyk Serhii<br>Viktorovych         | LLC «Koziivske» | Chief engineer  |
| /5/ | Naumenko Iryna<br>Valentynivna       | LLC «CEP»       | Consultant of CEP<br>CARBON EMISSIONS<br>PARTNERS S.A |



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## APPENDIX A: PROJECT VERIFICATION PROTOCOL

## **BUREAU VERITAS CERTIFICATION HOLDING SAS**

## **VERIFICATION PROTOCOL**

Table 1. Check list for verification, according to the JOINT IMPLEMENTATION DETERMINATION AND VERIFICATION MANUAL (Version 01)

| DVM<br>Paragraph | Check Item  | Initial finding   | Draft<br>Conclusion | Final<br>Conclusion |
|------------------|---|---|---------------------|---------------------|
| Project appr     | ovals by Parties involved   |   |                     |                     |
| 90               | Has the DFPs of at least one Party involved, other than the host Party, issued a written project approval when submitting the first verification report to the secretariat for publication in accordance with paragraph 38 of the JI guidelines, at the latest?  Are all the written project approvals by | Letters of Approval were provided to the verification team.  CAR 01. The date and number of the determination report is incorrect.  CAR 02. The name of authority which issued the LOA from Estonia is incorect.  | CAR 01<br>CAR 02    | OK<br>OK            |
|                  | Parties involved unconditional?   | involved are unconditional.   | OK                  | OK                  |
| Project imple    | Has the project been implemented in accordance with the PDD regarding which the determination has been deemed final and is so listed on the UNFCCC JI website?  | The purpose of the Joint Implementation (JI) Project is to reduce anthropogenic greenhouse gas (GHG) emissions resulting from agricultural activities by changing the agricultural land management system, namely replacement of traditional soil tillage in agriculture with No-till technology. | CAR 03              | OK                  |



| DVM<br>Paragraph | Check Item  | Initial finding   | Draft<br>Conclusion | Final<br>Conclusion |
|------------------|---|---|---------------------|---------------------|
|                  |   | The project implies the change in crops growing technology. This includes the following measures:  - change of soil cultivation and sowing technology;  - change of plant residue management;  - equipping the machine-tractor fleet with higherfliciency machinery to meet the No-till technology requirements.  CAR 03. Specify the version of PDD in Section A.6. of MR. |                     |                     |
| 93               | What is the status of operation of the project during the monitoring period?  | The project was in operation throughout the monitoring period - from 01/01/2010 to 31/12/2011.  CAR 04. Indicate in Table 1 of the MR the total amount of base, project emissions of GHG and its reductions.  | CAR 04              | OK                  |
| Compliance       | with monitoring plan  |   |                     |                     |
| 94               | Did the monitoring occur in accordance with the monitoring plan included in the PDD regarding which the determination has been deemed final and is so listed on the UNFCCC JI website?  | There are not any changes in or deviations from the registered monitoring plan.   | OK                  | OK                  |
| 95 (a)           | For calculating the emission reductions or enhancements of net removals, were key factors, e.g. those listed in 23 (b) (i)-(vii) of the DVM, influencing the baseline emissions or net removals and the activity level of the project and the | For calculating the emission reductions, key factors, such as humus content in the soil of field «i» cultivated using traditional tillage in period «y», soil density at field cultivated using traditional tillage prior to the project, depth of soil layer disturbance at field «i» when conventional tillage is applied, area of field                                  | CAR 05              | ОК                  |



| DVM<br>Paragraph | Check Item   | Initial finding   | Draft<br>Conclusion | Final<br>Conclusion |
|------------------|--|---|---------------------|---------------------|
|                  | emissions or removals as well as risks associated with the project taken into account, as appropriate?   | «i» cultivated using No-till technology, humus content in the soil of field «i» cultivated using No-till technology in period «y», experience in implementing activities provided by the project, current practice that exists in this field in Ukraine, financial costs and background and legislation, 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.  CAR 05. The description of some parameters doesn't comply with the description provided in the determined PDD. |                     |                     |
| 95 (b)           | Are data sources used for calculating emission reductions or enhancements of net removals clearly identified, reliable and transparent?  | Data sources used for calculating emission reductions are clearly identified, reliable and transparent.  CL 01. Please, provide to verification team documentation of the analyzes soil humus.  | CL 01               | OK                  |
| 95 (c)           | Are emission factors, including default emission factors, if used for calculating the emission reductions or enhancements of net removals, selected by carefully balancing accuracy and reasonableness, and appropriately justified of the choice? | Emission factors, including default emission factors were not used for calculating the emission reductions. This is explained by the chosen specific approach and the formulae stated in the MR.  | OK                  | OK                  |
| 95 (d)           | Is the calculation of emission reductions or enhancements of net removals based on conservative assumptions and the most plausible scenarios in a  | Calculation of emission reductions is based on conservative assumptions and the most plausible scenarios in a transparent manner.   | OK                  | OK                  |



| DVM<br>Paragraph | Check Item  | Initial finding | Draft<br>Conclusion | Final<br>Conclusion |
|------------------|---|-----------------|---------------------|---------------------|
|                  | transparent manner?   |                 |                     |                     |
| Applicable to    | o JI SSC projects only  |                 |                     |                     |
| 96               | Is the relevant threshold to be classified as JI SSC 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 SSC project or the bundle for the monitoring period determined? | Not applicable  | Not<br>applicable   | Not<br>applicable   |
| Applicable to    | o bundled JI SSC projects only  |                 |                     |                     |
| 97 (a)           | Has the composition of the bundle not changed from that is stated in F-JI-SSCBUNDLE?  | Not applicable  | Not<br>applicable   | Not<br>applicable   |
| 97 (b)           | If the determination was conducted on<br>the basis of an overall monitoring plan,<br>have the project participants submitted<br>a common monitoring report?   | Not applicable  | Not<br>applicable   | Not<br>applicable   |
| 98               | If the monitoring is based on a monitoring plan that provides for overlapping monitoring periods, are the monitoring periods per component of the project clearly specified in the monitoring report?  Do the monitoring periods not overlap with those for which verifications were                      | Not applicable  | Not<br>applicable   | Not<br>applicable   |



| DVM Paragraph Check Item |   | Initial finding   | Draft<br>Conclusion | Final<br>Conclusion |
|--------------------------|---|---|---------------------|---------------------|
|                          | already deemed final in the past?   |   |                     |                     |
|                          | monitoring plan   |   |                     |                     |
| Applicable of            | only if monitoring plan is revised by proje   | ect participant   |                     |                     |
| 99 (a)                   | Did the project participants provide an appropriate justification for the proposed revision?  | Not applicable.   | Not<br>applicable   | Not<br>applicable   |
| 99 (b)                   | Does the proposed revision improve the accuracy and/or applicability of information collected compared to the original monitoring plan without changing conformity with the relevant rules and regulations for the establishment of monitoring plans? | Not applicable  | Not<br>applicable   | Not<br>applicable   |
| Data manag               | ement   |   |                     |                     |
| 101 (a)                  | Is the implementation of data collection procedures in accordance with the monitoring plan, including the quality control and quality assurance procedures?   | The implementation of data collection procedures, including the quality control and quality assurance procedures, is in accordance with the monitoring plan.  | ОК                  | ОК                  |
| 101 (b)                  | Is the function of the monitoring equipment, including its calibration status, is in order?   | The function of the monitoring equipment, including its calibration status, is in order. <b>CL 02</b> . Please, provide the verification team with the documents relating to equipment implementation. <b>CAR 06.</b> Monitoring period is incorrect in Section B.4. of MR. | CL 02<br>CAR 06     | OK<br>OK            |
| 101 (c)                  | Are the evidence and records used for the monitoring maintained in a traceable manner?  | The evidence and records used for the monitoring are maintained in a traceable manner.  CAR 07. Please, provide information relating to   | CAR 07              | OK                  |



| DVM<br>Paragraph      | Check Item   | Initial finding  | Draft<br>Conclusion | Final<br>Conclusion |
|-----------------------|--|--|---------------------|---------------------|
| Ū.                    |  | storage of data necessary for the monitoring.  |                     |                     |
| 101 (d)               | Is the data collection and management system for the project in accordance with the monitoring plan?   | The data collection and management system for the project is in accordance with the monitoring plan. The verification team confirms the effectiveness of the existing management and operating systems and considers them suitable for reliable monitoring of the project. | OK                  | OK                  |
| Verification <b>i</b> | regarding programs of activities (additio  | nal elements for assessment)   |                     |                     |
| 102                   | Is any JPA that has not been added to the JI PoA not verified?   | Not applicable   | Not<br>applicable   | Not<br>applicable   |
| 103                   | Is the verification based on the monitoring reports of all JPAs to be verified?  | Not applicable   | Not applicable      | Not applicable      |
| 103                   | Does the verification ensure the accuracy and conservativeness of the emission reductions or enhancements of removals generated by each JPA? | Not applicable   | Not<br>applicable   | Not<br>applicable   |
| 104                   | Does the monitoring period not overlap with previous monitoring periods?   | Not applicable   | Not applicable      | Not applicable      |
| 105                   | If the AIE learns of an erroneously included JPA, has the AIE informed the JISC of its findings in writing?                                  | Not applicable   | Not<br>applicable   | Not applicable      |



| DVM<br>Paragraph | Check Item  | Initial finding | Draft<br>Conclusion | Final<br>Conclusion |
|------------------|---|-----------------|---------------------|---------------------|
| 106              | Does the sampling plan prepared by the AIE:  (a) Describe its sample selection, taking into account that:  (i) For each verification that uses a  | Not applicable  | Not<br>applicable   | Not<br>applicable   |
|                  | sample-based approach, the sample selection shall be sufficiently representative of the JPAs in the JI PoA such extrapolation to all JPAs identified for that verification is reasonable, taking into account differences among the characteristics |                 |                     |                     |
|                  | of JPAs, such as:  - The types of JPAs;  - The complexity of the applicable technologies and/or measures used;  - The geographical location of each JPA;  - The amounts of expected emission  |                 |                     |                     |
|                  | reductions of the JPAs being verified;  - The number of JPAs for which emission reductions are being verified;  - The length of monitoring periods of the JPAs being verified; and  - The samples selected for prior verifications, if any?         |                 |                     |                     |



| DVM<br>Paragraph | Check Item  | Initial finding | Draft<br>Conclusion | Final<br>Conclusion |
|------------------|---|-----------------|---------------------|---------------------|
| 107              | Is the sampling plan ready for publication through the secretariat along with the verification report and supporting documentation?   | Not applicable  | Not<br>applicable   | Not<br>applicable   |
| 108              | Has the AIE made site inspections of at least the square root of the number of total JPAs, rounded to the upper whole number? If the AIE makes no site inspections or fewer site inspections than the square root of the number of total JPAs, rounded to the upper whole number, then does the AIE provide a reasonable explanation and justification? | Not applicable  | Not<br>applicable   | Not<br>applicable   |
| 109              | Is the sampling plan available for submission to the secretariat for the JISC's ex ante assessment? (Optional)  | Not applicable  | Not<br>applicable   | Not applicable      |
| 110              | If the AIE learns of a fraudulently included JPA, a fraudulently monitored JPA or an inflated number of emission reductions claimed in a JI PoA, has the AIE informed the JISC of the fraud in writing?   | Not applicable  | Not<br>applicable   | Not<br>applicable   |



VERIFICATION REPORT

## Table 2. Resolution of Corrective Action and Clarification Requests

| Draft report clarifications and corrective action requests by verification team                                      | Ref. to<br>checklist<br>question in<br>table 1 | Summary of project participant response  | Verification team conclusion                            |
|--|--|--|---|
| <b>CAR 01</b> . The date and number of the determination report is incorrect.  | 90   | JI Project "Reduction of greenhouse gas emissions by application of No-till technology at LLC "Koziivske" farmlands" was determinated by the Bureau Veritas Certification, determination report No. UKRAINE-DET/0611/2012 from 25/10/2012. |   |
| <b>CAR 02</b> . The name of authority which issued the LOA from Estonia is incorect.                                 | 90   | Letter of Approval issued by the Ministry of Environmental Protection of Estonia.  | The issue is closed as necessary corrections were made. |
| <b>CAR 03</b> . Specify the version of PDD in Section A.6. of MR.  | 92   | Project implementation is performed in accordance with the Project plan provided in PDD Version 02 that underwent determination.   | The issue is closed as necessary data was provided.     |
| <b>CAR 04</b> . Indicate in Table 1 of the MR the total amount of base, project emissions of GHG and its reductions. | 93   | Necessary information is provided in Table 1 of MR version 03.   | The issue is closed as necessary data was provided.     |



| <b>CAR 05.</b> The description of some parameters doesn't comply with the description provided in the determined PDD. | 95 (a)  | The parameters were checked. Relevant corrections were made.  | The issue is closed as necessary corrections were made. |
|---|---------|---|---|
| CAR 06. Monitoring period is incorrect in Section B.4. of MR.   | 101 (b) | In the course of 4 years and 11 months no extraordinary situations have occurred at PrSC "Rise-Maksymko" (from 1 January 2010 up to and including 31 December 2011).  | The issue is closed as necessary corrections were made. |
| CAR 07. Please, provide information relating to storage of data necessary for the monitoring.                         | 101 (c) | The data subject to monitoring and required for the determination and further verification are archived and stored in paper and electronic form at LLC "Koziivske" for two years after the transfer of emission reduction units generated by the project. | The information was provided, the issue is closed.      |
| <b>CL 01</b> . Please, provide to verification team documentation of the analyzes soil humus.                         | 95 (b)  | Relevant documents were provided to the verification team.  | Relevant documents were verified. The issue is closed.  |
| <b>CL 02</b> . Please, provide the verification team with the documents relating to equipment implementation.         | 101 (b) | Relevant documents were provided to the verification team.  | Relevant documents were verified. The issue is closed.  |